DISCOVER HITEMA® CUSTOMIZED APPLICATIONS

choose your customized configuration






ENR/ENRF SERIES
1,6kW ÷ 440kW

CSE SERIES
30kW ÷ 377kW

CFT SERIES
7,9kW ÷ 410kW

ENR-IR SERIES
8kW ÷ 200kW

ENRC SERIES
7,4kW ÷ 375kW

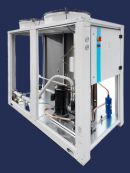
HNR SERIES
14kW ÷ 95kW
15kW ÷ 104kW

UNTIL 400KW









ENW SERIES
3,8kW ÷ 424kW

CFTW SERIES
50kW ÷ 371kW

HFTW SERIES
100kW ÷ 400kW
80kW ÷ 370kW

SBS-HP SERIES
61,2kW - 81,4kW - 105,8kW

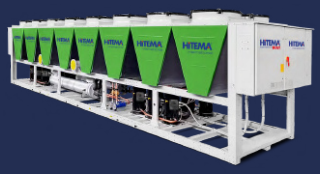
HFT SERIES
16kW ÷ 345kW

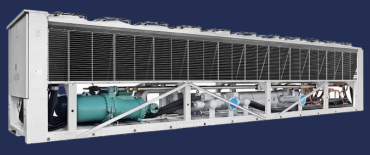
CFTC SERIES
50kW ÷ 370kW

MTC SERIES
8kW ÷ 430kW

CUSTOMIZED FOR YOU

with more than 100 OPTIONS available it is easy to customized your Chillers





SBS/SBSF SERIES
SBSF-OPT SERIES
94kW ÷ 1288kW

SBS-MC SERIES
95kW ÷ 180kW

NOVA/NOVAF SERIES
266kW ÷ 2136kW

DTS/DTSF SERIES NEW
ISV-ISVF SERIES
266kW ÷ 2136kW

EWB SERIES
291kW ÷ 2240kW

UNTIL 3000KW






CWB SERIES
291kW ÷ 2240kW

HBS SERIES
211kW - 750kW

TFW SERIES
250kW ÷ 3000kW

TFV/TFVF SERIES
250kW ÷ 1215kW

PRP/HPRP SERIES
130kW ÷ 520kW
55kW ÷ 330kW

HYD SERIES
400L ÷ 5000L

AVAILABLE TOOLS: price list - configurator - selection software

Sommario

PROCESS COOLING APPLICATION

R410A / R32 / R454B / R513A
Rotary / Scroll compressors
Coaxial / Shell & Tube evaporator / Plate
Inbuilt water storage tank & single pump P3

ENR - ENRF - CSE - LGX series
From 1,6 kW up to 440 kW

Technical Data Tables

SERIES: ENR-ENRF-CSE	DATE: 19.05.2022	
CODE: GPLSPC20	UPDATE: GPLSPC19	
CHECKED BY	M. Burba	

HITEMA INTERNATIONAL SRL
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Managing Director:
Maurizio Burba
burbam@hitema.it

ENR SERIES

Air-Cooled liquid Chillers
AC axial fans
IP54 protection rating
Suitable for OUTDOOR installation

SERIES: ENR-ENRF-CSE	DATE: 20.02.2020	
CODE: GPLSPC20	UPDATE: GPLSPC19	
CHECKED BY		M. Burba

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ENR

TABLE 1/4

Air-cooled liquid chillers ENR series, rotary / scroll compressors, R410A / R32 / R454B refrigerant, brazed plate / coaxial / shell and tube evaporator, condenser coil with copper tubes and aluminium fins, AC axial fans. IP54 protection rating, chillers suitable for outdoor installation. Inbuilt water storage tank and single pump P3 as standard. 60Hz version as option.

Type of available evaporators:
CX = HITEMA coaxial evaporator, convoluted tube in tube exchanger installed inside the water storage tank
ST = shell and tube evaporator, with high thickness copper tubes (0,41mm)
B-ES = stainless steel brazed plate evaporator

Type of available expansion elements
CP = Capillary tube
VTS = Thermostatic expansion valve
ETS = Electronic expansion valve (available as option)

TECHNICAL DATA

PERFORMANCES		Model	001	002	003	004	005	006	008	010
NOMINAL COOLING CAPACITY	W 12°C/7°C @ 35°C (1)	kW	1,6	2,1	3,9	4,7	5,6	6,3	7,9	9,3
TOTAL NOMINAL ABSORBED POWER		kW	1,1	1,4	1,8	2,1	2,4	2,8	3,8	4,6
EER		kW/kW	2,81	2,59	3,21	3,16	3,08	2,87	2,77	2,55
SEPR (HT) (3)		-	5,01	5,07	5,05	5,03	5,03	5,04	5,05	5,00
NOMINAL WATER FLOW		m3/h	0,3	0,4	0,7	0,8	1,0	1,1	1,4	1,6
MECHANICAL MODE PRESSURE DROPS (4) (5) (6)		kPa	20	22	20	23	23	37	26	25
FRIGORIFIC SECTION										
COMPRESSORS / REFRIGERATING CIRCUITS / PARTITION STEP		nr.	1/1/1	1/1/1	1/1/1	1/1/1	1/1/1	1/1/1	1/1/1	1/1/1
KIND OF COMPRESSOR		-	ROTARY	ROTARY	ROTARY	ROTARY	ROTARY	ROTARY	SCROLL	SCROLL
KIND OF EVAPORATOR		-	B-ES	B-ES	B-ES	B-ES	B-ES	B-ES	CX	CX
KIND OF EXPANSION ELEMENT		-	CP	CP	CP	CP	CP	CP	VTS	VTS
HYDRAULIC SECTION										
WATER FLOW RANGE (6)		m3/h	0,25÷2,0	0,30÷2,0	0,60÷2,2	0,60÷2,2	0,80÷2,2	0,80÷2,2	1,20÷3,0	1,40÷3,0
MAXIMUM PUMP ABSORBED POWER (WP OR OPTION DP)	P3 (2)	kW	0,56	0,56	0,56	0,56	0,56	0,56	0,98	0,98
MAXIMUM PUMP ABSORBED CURRENT (WP OR OPTION DP)		A	3,46	3,46	3,46	3,46	3,46	3,46	1,78	1,78
MAXIMUM PUMP ABSORBED POWER (OPTION PH OR DPH)	P5 (2)	kW	NA	NA	0,74	0,74	0,74	0,74	1,10	1,10
MAXIMUM PUMP ABSORBED CURRENT (OPTION PH OR DPH)		A	NA	NA	3,22	3,22	3,22	3,22	2,17	2,17
HYDRAULIC CONNECTIONS (THREADED / FLANGED)		BSP / DN	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1"	1"
TANK VOLUME (5) (8)		dm^3	10	10	25	25	25	25	50	50
EXPANSION VESSEL VOLUME (OPTION XV) (9)		liters	NA	NA	NA	NA	NA	NA	5	5
FAN SECTION (AXIAL)										
FANS		nr.	1	1	1	1	1	1	1	1
FAN SPEED REGULATION		-	ON/OFF	ON/OFF	ON/OFF	ON/OFF	ON/OFF	ON/OFF	ON/OFF	ON/OFF
MAXIMUM FANS ABSORBED POWER	AC	kW	0,07	0,11	0,10	0,10	0,10	0,10	0,25	0,25
MAXIMUM FANS ABSORBED CURRENT		A	0,40	0,80	0,50	0,50	0,50	0,50	1,10	1,10
TOTAL AIR FLOW		m3/h	700	650	1800	1800	1580	1580	4100	4100
TOTAL ELECTRIC DATA										
ELECTRICAL FEED		V/ph/Hz	230/1/50	230/1/50	230/1/50	230/1/50	230/1/50	230/1/50	400/3/50/N	400/3/50/N
MAXIMUM ABSORBED CURRENT (F.L.A) (6)		A	6,1	7,5	10,8	12,4	14,4	16,7	10,2	10,5
MAXIMUM PEAK CURRENT (L.R.A) (6)		A	16,0	21,0	27,5	39,5	46,5	57,5	50,0	50,0
MAXIMUM PEAK CURRENT WITH SOFT START (OPTION SF) (L.R.A) (6)		A	NA	NA	NA	NA	NA	NA	NA	NA
NOISE DATA										
SOUND PRESSURE FOR STANDARD CONFIGURATION (6) (7)		dB(A)	50,0	50,0	50,3	51,6	53,0	54,7	51,4	51,4
SOUND PRESSURE FOR LOW NOISE CONFIGURATION (OPTION LNJ) (6) (7)		dB(A)	NA	NA	NA	NA	NA	NA	NA	NA
DIMENSIONS AND WEIGHT										
LENGTH		mm	445	445	600	600	600	600	820	820
WIDTH		mm	440	440	725	725	725	725	615	615
HEIGHT		mm	806	806	1060	1060	1060	1060	1415	1415
WEIGHT EMPTY FOR STANDARD CONFIGURATION (5) (6)		kg	55	55	90	95	95	100	160	165
WEIGHT OPERATIVE FOR STANDARD CONFIGURATION (5) (6)		kg	65	65	115	120	120	125	210	215

The manufacturer reserves the right to modify specifications without notice.

Last update: 22/07/2021
Revision: 04-2021

Data referred to:

(1) Data referred to inlet/outlet water temperature = +12/+7 °C, ambient temperature = +35°C, fluid = Water

(2) Available pressure can be calculated from Hitema Online Selection Software

(3) SEPR: data comply with the European Regulation (EU) 2016/2281, referring to high temperature process chillers in the configuration with brazed plate or shell and tube evaporator (coaxial evaporator excluded) and without pump. Any added option that modify cooling capacity or absorbed power of the chiller will not be considered in the SEPR value

(4) Pressure drops taken in account: evaporator, valves, piping

(5) Data referred to standard chiller configuration as indicated in frigorific section, with different evaporator this data can change

(6) Data referred to standard chiller configuration WP (single pump P3) and AC fans

(7) Sound pressure level referred to measures according to normative ISO3744, pressure level at distance of 10 m, referred to free field on reflecting surface

(8) To avoid excessive start/stop of the compressors a minimum water volume for the entire plant must be guarantee, the tank supplied by Hitema can be not enough

(9) The expansion vessel volume is calculated considering 40°C of deltaT between water temperature with chiller stopped and chiller active, 1/2bar of hydraulic circuit pre-charge and considering only the water volume of the unit

* For the configuration DPH (double pump P5) the chiller width will be 1305mm

** For the configurations DP or DPH (double pump P3 or double pump P5) the chiller width will be 1305mm

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ENR

TABLE 2/4

Air-cooled liquid chillers ENR series, rotary / scroll compressors, R410A / R32 / R454B refrigerant, brazed plate / coaxial / shell and tube evaporator, condenser coil with copper tubes and aluminium fins, AC axial fans. IP54 protection rating, chillers suitable for outdoor installation. Inbuilt water storage tank and single pump P3 as standard. 60Hz version as option.

Type of available evaporators:
CX = HITEMA coaxial evaporator, convoluted tube in tube exchanger installed inside the water storage tank
ST = shell and tube evaporator, with high thickness copper tubes (0,41mm)
B-ES = stainless steel brazed plate evaporator

Type of available expansion elements
CP = Capillary tube
VTS = Thermostatic expansion valve
ETS = Electronic expansion valve (available as option)

TECHNICAL DATA

PERFORMANCES		Model	012	016	018	022	025	030	038	045
NOMINAL COOLING CAPACITY	W 12°C/7°C @ 35°C (1)	kW	12,2	13,5	18,0	22,0	25,0	31,0	37,0	45,0
TOTAL NOMINAL ABSORBED POWER		kW	5,4	6,7	7,5	8,8	9,9	11,1	15,3	16,0
EER		kW/kW	2,78	2,37	2,78	2,93	2,90	3,15	2,82	3,25
SEPR (HT) (3)		-	5,03	5,05	5,00	5,02	5,00	5,05	5,03	5,07
NOMINAL WATER FLOW		m3/h	2,1	2,3	3,1	3,8	4,3	5,3	6,4	7,7
MECHANICAL MODE PRESSURE DROPS (4) (5) (6)		kPa	27	28	28	31	42	34	34	39
FRIGORIFIC SECTION										
COMPRESSORS / REFRIGERATING CIRCUITS / PARTITION STEP		nr.	1/1/1	1/1/1	1/1/1	1/1/1	1/1/1	1/1/1	1/1/1	1/1/1
KIND OF COMPRESSOR		-	SCROLL	SCROLL	SCROLL	SCROLL	SCROLL	SCROLL	SCROLL	SCROLL
KIND OF EVAPORATOR		-	CX	CX	CX	CX	CX	CX	CX	CX
KIND OF EXPANSION ELEMENT		-	VTS	VTS	VTS	VTS	VTS	VTS	VTS	VTS
HYDRAULIC SECTION										
WATER FLOW RANGE (6)		m3/h	1,20÷2,9	1,20÷2,9	2,5÷5,0	3,0÷6,0	3,0÷6,0	4,0÷6,0	5,0÷12,0	6,0÷12,0
MAXIMUM PUMP ABSORBED POWER (WP OR OPTION DP)	P3 (2)	kW	0,98	0,98	0,98	1,28	1,28	1,28	2,20	2,20
MAXIMUM PUMP ABSORBED CURRENT (WP OR OPTION DP)		A	1,78	1,78	1,78	2,37	2,37	2,37	4,24	4,24
MAXIMUM PUMP ABSORBED POWER (OPTION PH OR DPH)	P5 (2)	kW	1,10	1,10	1,47	1,47	1,47	1,47	2,94	2,94
MAXIMUM PUMP ABSORBED CURRENT (OPTION PH OR DPH)		A	2,17	2,17	2,86	2,86	2,86	2,32	5,83	5,83
HYDRAULIC CONNECTIONS (THREADED / FLANGED)		BSP / DN	1"	1"	1"	1"	1"	1 1/2"	1 1/2"	1 1/2"
TANK VOLUME (5) (8)		dm^3	50	50	110	110	110	270	270	270
EXPANSION VESSEL VOLUME (OPTION XV) (9)		liters	5	5	8	8	8	8	8	8
FAN SECTION (AXIAL)										
FANS		nr.	1	1	1	1	1	2	2	2
FAN SPEED REGULATION		-	ON/OFF	ON/OFF	ON/OFF	ON/OFF	ON/OFF	ON/OFF	ON/OFF	ON/OFF
MAXIMUM FANS ABSORBED POWER	AC	kW	0,49	0,49	0,68	0,81	0,81	1,44	1,62	1,44
MAXIMUM FANS ABSORBED CURRENT		A	2,40	2,40	3,00	1,50	1,50	2,82	3,08	2,82
TOTAL AIR FLOW		m3/h	4750	4750	6500	6800	6800	16000	16400	15000
TOTAL ELECTRIC DATA										
ELECTRICAL FEED		V/ph/Hz	400/3/50/N	400/3/50/N	400/3/50/N	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50
MAXIMUM ABSORBED CURRENT (F.L.A) (6)		A	13,3	13,9	18,8	19,8	21,1	25,3	31,8	37,1
MAXIMUM PEAK CURRENT (L.R.A) (6)		A	71,0	71,0	75,0	104,0	127,4	141,4	144,2	178,2
MAXIMUM PEAK CURRENT WITH SOFT START (OPTION SF) (L.R.A) (6)		A	NA	NA	NA	NA	NA	NA	NA	NA
NOISE DATA										
SOUND PRESSURE FOR STANDARD CONFIGURATION (6) (7)		dB(A)	52,2	52,2	53,3	55,8	55,4	55,3	57,5	55,8
SOUND PRESSURE FOR LOW NOISE CONFIGURATION (OPTION LNJ) (6) (7)		dB(A)	NA	NA	NA	NA	NA	54,3	57,2	54,5
DIMENSIONS AND WEIGHT										
LENGTH		mm	820	820	1010	1010	1010	1610	1610	1610
WIDTH		mm	615	615	720	720	720	860	860	860
HEIGHT		mm	1415	1415	1585	1585	1585	1550	1550	1550
WEIGHT EMPTY FOR STANDARD CONFIGURATION (5) (6)		kg	170	175	210	250	250	375	390	410
WEIGHT OPERATIVE FOR STANDARD CONFIGURATION (5) (6)		kg	220	225	340	380	380	675	690	710

Last update: 22/07/2021
Revision: 04-2021

Data referred to:

(1) Data referred to inlet/outlet water temperature = +12/+7 °C, ambient temperature = +35°C, fluid = Water

(2) Available pressure can be calculated from Hitema Online Selection Software

(3) SEPR: data comply with the European Regulation (EU) 2016/2281, referring to high temperature process chillers in the configuration with brazed plate or shell and tube evaporator (coaxial evaporator excluded) and without pump. Any added option that modify cooling capacity or absorbed power of the chiller will not be considered in the SEPR value

(4) Pressure drops taken in account: evaporator, valves, piping

(5) Data referred to standard chiller configuration as indicated in frigorific section, with different evaporator this data can change

(6) Data referred to standard chiller configuration WP (single pump P3) and AC fans

(7) Sound pressure level referred to measures according to normative ISO3744, pressure level at distance of 10 m, referred to free field on reflecting surface

(8) To avoid excessive start/stop of the compressors a minimum water volume for the entire plant must be guarantee, the tank supplied by Hitema can be not enough

(9) The expansion vessel volume is calculated considering 40°C of deltaT between water temperature with chiller stopped and chiller active, 1/2bar of hydraulic circuit pre-charge and considering only the water volume of the unit

* For the configuration DPH (double pump P5) the chiller width will be 1305mm

** For the configurations DP or DPH (double pump P3 or double pump P5) the chiller width will be 1305mm

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ENR

TABLE 3/4

Air-cooled liquid chillers ENR series, rotary / scroll compressors, R410A / R32 / R454B refrigerant, brazed plate / coaxial / shell and tube evaporator, condenser coil with copper tubes and aluminium fins, AC axial fans. IP54 protection rating, chillers suitable for outdoor installation. Inbuilt water storage tank and single pump P3 as standard. 60Hz version as option.

Type of available evaporators:
CX = HITEMA coaxial evaporator, convoluted tube in tube exchanger installed inside the water storage tank
ST = shell and tube evaporator, with high thickness copper tubes (0,41mm)
B-ES = stainless steel brazed plate evaporator

Type of available expansion elements
CP = Capillary tube
VTS = Thermostatic expansion valve
ETS = Electronic expansion valve (available as option)

TECHNICAL DATA

PERFORMANCES		Model	055	061	075	090	100	130	160	185
NOMINAL COOLING CAPACITY	W 12°C/7°C @ 35°C (1)	kW	55,0	63,0	72,0	88,0	100,0	115,0	150,0	170,0
TOTAL NOMINAL ABSORBED POWER		kW	21,1	22,6	28,8	31,6	35,5	44,0	56,0	62,8
EER		kW/kW	2,91	3,14	2,74	3,03	3,03	2,92	2,92	2,92
SEPR (HT) (3)		-	5,03	5,04	5,05	5,03	5,06	5,07	5,02	5,00
NOMINAL WATER FLOW		m3/h	9,4	10,8	12,4	15,1	17,2	19,8	25,8	29,2
MECHANICAL MODE PRESSURE DROPS (4) (5) (6)		kPa	51	25	20	28	39	54	54	55
FRIGORIFIC SECTION										
COMPRESSORS / REFRIGERATING CIRCUITS / PARTITION STEP		nr.	1/1/1	2/1/2	2/1/2	2/1/2	2/1/2	4/2/4	4/2/4	4/2/4
KIND OF COMPRESSOR		-	SCROLL	SCROLL	SCROLL	SCROLL	SCROLL	SCROLL	SCROLL	SCROLL
KIND OF EVAPORATOR		-	CX	CX	CX	CX	CX	ST	ST	ST
KIND OF EXPANSION ELEMENT		-	VTS	VTS	VTS	VTS	VTS	VTS	VTS	VTS
HYDRAULIC SECTION										
WATER FLOW RANGE (6)		m3/h	6÷12	8÷18	10÷20	10÷20	10÷20	14÷27	15÷31	18÷35
MAXIMUM PUMP ABSORBED POWER (WP OR OPTION DP)	P3 (2)	kW	2,20	2,53	2,53	2,53	2,53	4,56	4,56	4,56
MAXIMUM PUMP ABSORBED CURRENT (WP OR OPTION DP)		A	4,24	4,56	4,56	4,56	4,56	7,75	7,75	7,75
MAXIMUM PUMP ABSORBED POWER (OPTION PH OR DPH)	P5 (2)	kW	2,94	6,12	6,12	6,12	6,12	10,20	10,20	10,20
MAXIMUM PUMP ABSORBED CURRENT (OPTION PH OR DPH)		A	5,83	10,40	10,40	10,40	10,40	17,40	17,40	17,40
HYDRAULIC CONNECTIONS (THREADED / FLANGED)		BSP / DN	1 1/2"	2"	2"	2"	2"	DN65	DN65	DN65
TANK VOLUME (5) (8)		dm^3	270	410	410	410	410	390	390	390
EXPANSION VESSEL VOLUME (OPTION XV) (9)		liters	8	12	12	12	12	19	19	19
FAN SECTION (AXIAL)										
FANS		nr.	2	2	2	2	2	2	3	3
FAN SPEED REGULATION		-	ON/OFF	ON/OFF	ON/OFF	ON/OFF	ON/OFF	ON/OFF	ON/OFF	ON/OFF
MAXIMUM FANS ABSORBED POWER	AC	kW	1,62	3,88	3,88	3,88	3,88	3,88	5,82	5,82
MAXIMUM FANS ABSORBED CURRENT		A	3,08	7,80	7,80	7,80	7,80	7,80	11,70	11,70
TOTAL AIR FLOW		m3/h	15600	25000	36000	34000	32000	40000	57000	54000
TOTAL ELECTRIC DATA										
ELECTRICAL FEED		V/ph/Hz	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50
MAXIMUM ABSORBED CURRENT (F.L.A) (6)		A	43,8	52,6	61,4	72,4	78,8	96,1	117,5	139,5
MAXIMUM PEAK CURRENT (L.R.A) (6)		A	229,2	171,5	176,9	216,4	267,4	214,9	233,0	283,5
MAXIMUM PEAK CURRENT WITH SOFT START (OPTION SF) (L.R.A) (6)		A	NA	143,7	148,9	181,6	222,4	187,1	205,0	248,7
NOISE DATA										
SOUND PRESSURE FOR STANDARD CONFIGURATION (6) (7)		dB(A)	58,8	58,9	59,3	59,5	60,3	59,2	61,1	61,4
SOUND PRESSURE FOR LOW NOISE CONFIGURATION (OPTION LNJ) (6) (7)		dB(A)	57,6	58,7	58,9	58,9	59,2	58,8	60,5	60,6
DIMENSIONS AND WEIGHT										
LENGTH		mm	1610	2220	2220	2220	2220	3355	3355	3355
WIDTH		mm	860	1100	1100	1100	1100	1105*	1105*	1105*
HEIGHT		mm	1550	2120	2120	2120	2120	2205	2205	2205
WEIGHT EMPTY FOR STANDARD CONFIGURATION (5) (6)		kg	500	740	770	785	890	1190	1260	1320
WEIGHT OPERATIVE FOR STANDARD CONFIGURATION (5) (6)		kg	800	1160	1190	1205	1310	1610	1695	1760

The manufacturer reserves the right to modify specifications without notice.

Last update: 22/07/2021
Revision: 04-2021

Data referred to:

(1) Data referred to inlet/outlet water temperature = +12/+7 °C, ambient temperature = +35°C, fluid = Water

(2) Available pressure can be calculated from Hitema Online Selection Software

(3) SEPR: data comply with the European Regulation (EU) 2016/2281, referring to high temperature process chillers in the configuration with brazed plate or shell and tube evaporator (coaxial evaporator excluded) and without pump. Any added option that modify cooling capacity or absorbed power of the chiller will not be considered in the SEPR value

(4) Pressure drops taken in account: evaporator, valves, piping

(5) Data referred to standard chiller configuration as indicated in frigorific section, with different evaporator this data can change

(6) Data referred to standard chiller configuration WP (single pump P3) and AC fans

(7) Sound pressure level referred to measures according to normative ISO3744, pressure level at distance of 10 m, referred to free field on reflecting surface

(8) To avoid excessive start/stop of the compressors a minimum water volume for the entire plant must be guarantee, the tank supplied by Hitema can be not enough

(9) The expansion vessel volume is calculated considering 40°C of deltaT between water temperature with chiller stopped and chiller active, 1/2bar of hydraulic circuit pre-charge and considering only the water volume of the unit

* For the configuration DPH (double pump P5) the chiller width will be 1305mm

** For the configurations DP or DPH (double pump P3 or double pump P5) the chiller width will be 1305mm

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TABLE 4/4

Air-cooled liquid chillers ENR series, rotary / scroll compressors, R410A / R32 / R454B refrigerant, brazed plate / coaxial / shell and tube evaporator, condenser coil with copper tubes and aluminium fins, AC axial fans. IP54 protection rating, chillers suitable for outdoor installation. Inbuilt water storage tank and single pump P3 as standard. 60Hz version as option.

Type of available evaporators:
CX = HITEMA coaxial evaporator, convoluted tube in tube exchanger installed inside the water storage tank
ST = shell and tube evaporator, with high thickness copper tubes (0,41mm)
B-ES = stainless steel brazed plate evaporator

Type of available expansion elements
CP = Capillary tube
VTS = Thermostatic expansion valve
ETS = Electronic expansion valve (available as option)

TECHNICAL DATA

PERFORMANCES		Model	200	230	280	340	370	430	
NOMINAL COOLING CAPACITY	W 12°C/7°C @ 35°C (1)	kW	204,3	227,0	277,0	319,0	365,0	410,0	
TOTAL NOMINAL ABSORBED POWER		kW	71,3	84,8	103,2	115,8	129,8	146,8	
EER		kW/kW	3,24	2,97	2,92	2,97	3,05	3,00	
SEPR (HT) (3)		-	5,00	5,02	5,03	5,07	5,07	5,51	
NOMINAL WATER FLOW		m3/h	35,1	39,0	47,6	54,8	62,7	70,4	
MECHANICAL MODE PRESSURE DROPS (4) (5) (6)		kPa	38	56	56	48	55	61	
FRIGORIFIC SECTION									
COMPRESSORS / REFRIGERATING CIRCUITS / PARTITION STEP		nr.	4/2/4	4/2/4	4/2/4	4/2/4	4/2/4	4/2/4	
KIND OF COMPRESSOR		-	SCROLL	SCROLL	SCROLL	SCROLL	SCROLL	SCROLL	
KIND OF EVAPORATOR		-	ST	ST	ST	ST	ST	ST	
KIND OF EXPANSION ELEMENT		-	VTS	VTS	VTS	VTS	VTS	VTS	
HYDRAULIC SECTION									
WATER FLOW RANGE (6)		m3/h	25÷46	25÷46	31÷58	38÷70	45÷80	52÷100	
MAXIMUM PUMP ABSORBED POWER (WP OR OPTION DP)	P3 (2)	kW	8,30	8,30	8,30	8,30	10,20	10,20	
MAXIMUM PUMP ABSORBED CURRENT (WP OR OPTION DP)		A	14,10	14,10	14,10	14,10	17,40	17,40	
MAXIMUM PUMP ABSORBED POWER (OPTION PH OR DPH)	P5 (2)	kW	16,22	16,22	16,22	16,22	16,22	19,94	
MAXIMUM PUMP ABSORBED CURRENT (OPTION PH OR DPH)		A	26,60	26,60	26,60	26,60	26,60	32,70	
HYDRAULIC CONNECTIONS (THREADED / FLANGED)		BSP / DN	DN80	DN80	DN100	DN100	DN100	DN125	
TANK VOLUME (5) (8)		dm^3	390	500	500	500	500	500	
EXPANSION VESSEL VOLUME (OPTION XV) (9)		liters	19	19	19	19	19	19	
FAN SECTION (AXIAL)									
FANS		nr.	4	5	5	5	6	6	
FAN SPEED REGULATION		-	CUT PHASE	CUT PHASE	CUT PHASE	CUT PHASE	CUT PHASE	CUT PHASE	
MAXIMUM FANS ABSORBED POWER	AC	kW	7,76	9,70	9,70	9,70	11,64	11,64	
MAXIMUM FANS ABSORBED CURRENT		A	15,60	19,50	19,50	19,50	23,40	23,40	
TOTAL AIR FLOW		m3/h	68800	91000	90000	85000	102000	96000	
TOTAL ELECTRIC DATA									
ELECTRICAL FEED		V/ph/Hz	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	
MAXIMUM ABSORBED CURRENT (F.L.A) (6)		A	162,6	179,4	212,0	241,4	278,0	307,0	
MAXIMUM PEAK CURRENT (L.R.A) (6)		A	351,1	367,9	439,4	492,1	528,7	641,2	
MAXIMUM PEAK CURRENT WITH SOFT START (OPTION SF) (L.R.A) (6)		A	306,1	322,9	385,0	430,1	466,7	559,6	
NOISE DATA									
SOUND PRESSURE FOR STANDARD CONFIGURATION (6) (7)		dB(A)	63,1	64,3	65,7	65,7	66,1	67,5	
SOUND PRESSURE FOR LOW NOISE CONFIGURATION (OPTION LNJ) (6) (7)		dB(A)	62,0	63,1	63,7	63,7	64,4	65,1	
DIMENSIONS AND WEIGHT									
LENGTH		mm	4355	5350	5350	5350	6350	6350	
WIDTH		mm	1105**	1105	1105	1105	1105	1105	
HEIGHT		mm	2205	2205	2205	2205	2205	2205	
WEIGHT EMPTY FOR STANDARD CONFIGURATION (5) (6)		kg	1815	2105	2240	2415	2745	2810	
WEIGHT OPERATIVE FOR STANDARD CONFIGURATION (5) (6)		kg	2275	2660	2800	2995	3345	3420	

Last update: 22/07/2021
Revision: 04-2021

Data referred to:

(1) Data referred to inlet/outlet water temperature = +12/+7 °C, ambient temperature = +35°C, fluid = Water

(2) Available pressure can be calculated from Hitema Online Selection Software

(3) SEPR: data comply with the European Regulation (EU) 2016/2281, referring to high temperature process chillers in the configuration with brazed plate or shell and tube evaporator (coaxial evaporator excluded) and without pump. Any added option that modify cooling capacity or absorbed power of the chiller will not be considered in the SEPR value

(4) Pressure drops taken in account: evaporator, valves, piping

(5) Data referred to standard chiller configuration as indicated in frigorific section, with different evaporator this data can change

(6) Data referred to standard chiller configuration WP (single pump P3) and AC fans

(7) Sound pressure level referred to measures according to normative ISO3744, pressure level at distance of 10 m, referred to free field on reflecting surface

(8) To avoid excessive start/stop of the compressors a minimum water volume for the entire plant must be guarantee, the tank supplied by Hitema can be not enough

(9) The expansion vessel volume is calculated considering 40°C of deltaT between water temperature with chiller stopped and chiller active, 1/2bar of hydraulic circuit pre-charge and considering only the water volume of the unit

* For the configuration DPH (double pump P5) the chiller width will be 1305mm

** For the configurations DP or DPH (double pump P3 or double pump P5) the chiller width will be 1305mm

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TABLE 1/2

Air-cooled liquid chillers ENR series, scroll compressors, R513A refrigerant, brazed plate / shell and tube evaporator, condenser coil with copper tubes and aluminium fins, AC axial fans. IP54 protection rating, chillers suitable for outdoor installation. Inbuilt water storage tank and single pump P3 as standard. 60Hz version as option.

Type of available evaporators:
B-ES = stainless steel brazed plate evaporator

Type of available expansion elements
VTS = Thermostatic expansion valve
ETS = Electronic expansion valve (available as option)

TECHNICAL DATA

PERFORMANCES		Model	010	016	022	030	045	061	075	090
NOMINAL COOLING CAPACITY	W 12°C/7°C @ 35°C (1)	kW	6,5	10,0	13,5	18,7	28,0	37,0	46,0	55,0
TOTAL NOMINAL ABSORBED POWER		kW	3,0	4,8	5,9	8,2	11,0	17,3	20,5	23,3
EER		kW/kW	2,67	2,64	2,75	2,72	2,89	2,46	2,51	2,65
SEPR (HT) (3)		-	5,00	5,05	5,02	5,05	5,07	5,04	5,05	5,03
NOMINAL WATER FLOW		m3/h	1,1	1,7	2,3	3,2	4,8	6,4	7,9	9,4
MECHANICAL MODE PRESSURE DROPS (4) (5) (6)		kPa	29	31	27	20	21	25	20	25
FRIGORIFIC SECTION										
COMPRESSORS / REFRIGERATING CIRCUITS / PARTITION STEP		nr.	1/1/1	1/1/1	1/1/1	1/1/1	1/1/1	2/1/2	2/1/2	2/1/2
KIND OF COMPRESSOR		-	SCROLL	SCROLL	SCROLL	SCROLL	SCROLL	SCROLL	SCROLL	SCROLL
KIND OF EVAPORATOR		-	B-ES	B-ES	B-ES	B-ES	B-ES	B-ES	B-ES	B-ES
KIND OF EXPANSION ELEMENT		-	VTS	VTS	VTS	VTS	VTS	VTS	VTS	VTS
HYDRAULIC SECTION										
WATER FLOW RANGE (6)		m3/h	0,80÷2,2	1,20÷2,9	2,5÷5,0	3,0÷6,0	4,0÷6,0	6÷12	6÷12	8÷18
MAXIMUM PUMP ABSORBED POWER (WP OR OPTION DP)	P3 (2)	kW	0,56	0,98	0,98	1,28	1,28	2,20	2,20	2,53
MAXIMUM PUMP ABSORBED CURRENT (WP OR OPTION DP)		A	3,46	1,78	1,78	2,37	2,37	4,24	4,24	4,56
MAXIMUM PUMP ABSORBED POWER (OPTION PH OR DPH)	P5 (2)	kW	0,74	1,10	1,10	1,47	1,47	2,94	2,94	6,12
MAXIMUM PUMP ABSORBED CURRENT (OPTION PH OR DPH)		A	3,22	2,17	2,17	2,32	2,32	5,83	5,83	10,40
HYDRAULIC CONNECTIONS (THREADED / FLANGED)		BSP / DN	1/2"	1"	1"	1 1/2"	1 1/2"	1 1/2"	1 1/2"	2"
TANK VOLUME (5) (8)		dm^3	50	50	110	270	270	410	410	410
EXPANSION VESSEL VOLUME (OPTION XV) (9)		liters	5	5	8	8	8	12	12	12
FAN SECTION (AXIAL)										
FANS		nr.	1	1	1	2	2	2	2	2
FAN SPEED REGULATION		-	ON/OFF	ON/OFF	ON/OFF	ON/OFF	ON/OFF	ON/OFF	ON/OFF	ON/OFF
MAXIMUM FANS ABSORBED POWER	AC	kW	0,25	0,49	0,81	1,44	1,44	3,88	3,88	3,88
MAXIMUM FANS ABSORBED CURRENT		A	1,10	2,40	1,50	2,82	2,82	7,80	7,80	7,80
TOTAL AIR FLOW		m3/h	4100	4750	6800	16000	15000	25000	36000	34000
TOTAL ELECTRIC DATA										
ELECTRICAL FEED		V/ph/Hz	400/3/50/N	400/3/50/N	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50
MAXIMUM ABSORBED CURRENT (F.L.A) (6)		A	11,1	15,3	14,5	24,5	37,1	50,7	64,5	76,1
MAXIMUM PEAK CURRENT (L.R.A) (6)		A	53,5	75,8	103,8	120,4	176,4	141,6	170,5	210,4
MAXIMUM PEAK CURRENT WITH SOFT START (OPTION SF) (L.R.A) (6)		A	NA	NA	NA	99,6	144,4	125,8	150,3	183,4
NOISE DATA										
SOUND PRESSURE FOR STANDARD CONFIGURATION (6) (7)		dB(A)	48,0	48,8	50,5	54,8	57,1	59,1	59,9	60,9
SOUND PRESSURE FOR LOW NOISE CONFIGURATION (OPTION LNJ) (6) (7)		dB(A)	NA	NA	NA	54,3	55,3	58,8	59,1	59,5
DIMENSIONS AND WEIGHT										
LENGTH		mm	820	820	1010	1610	1610	2220	2220	2220
WIDTH		mm	615	615	720	860	860	1100	1100	1100
HEIGHT		mm	1415	1415	1585	1550	1550	2120	2120	2120
WEIGHT EMPTY FOR STANDARD CONFIGURATION (5) (6)		kg	165	175	250	375	410	740	770	785
WEIGHT OPERATIVE FOR STANDARD CONFIGURATION (5) (6)		kg	215	225	380	675	710	1160	1190	1205

The manufacturer reserves the right to modify specifications without notice.

Last update: 22/07/2021
Revision: 04-2021

Data referred to:

(1) Data referred to inlet/outlet water temperature = +12/+7 °C, ambient temperature = +35°C, fluid = Water

(2) Available pressure can be calculated from Hitema Online Selection Software

(3) SEPR: data comply with the European Regulation (EU) 2016/2281, referring to high temperature process chillers in the configuration with brazed plate or shell and tube evaporator (coaxial evaporator excluded) and without pump. Any added option that modify cooling capacity or absorbed power of the chiller will not be considered in the SEPR value

(4) Pressure drops taken in account: evaporator, valves, piping

(5) Data referred to standard chiller configuration as indicated in frigorific section, with different evaporator this data can change

(6) Data referred to standard chiller configuration WP (single pump P3) and AC fans

(7) Sound pressure level referred to measures according to normative ISO3744, pressure level at distance of 10 m, referred to free field on reflecting surface

(8) To avoid excessive start/stop of the compressors a minimum water volume for the entire plant must be guarantee, the tank supplied by Hitema can be not enough

(9) The expansion vessel volume is calculated considering 40°C of deltaT between water temperature with chiller stopped and chiller active, 1/2bar of hydraulic circuit pre-charge and considering only the water volume of the unit

* For the configuration DPH (double pump P5) the chiller width will be 1305mm

** For the configurations DP or DPH (double pump P3 or double pump P5) the chiller width will be 1305mm

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TABLE 2/2

Air-cooled liquid chillers ENR series, scroll compressors, R513A refrigerant, brazed plate / shell and tube evaporator, condenser coil with copper tubes and aluminium fins, AC axial fans. IP54 protection rating, chillers suitable for outdoor installation. Inbuilt water storage tank and single pump P3 as standard. 60Hz version as option.

Type of available evaporators:
B-ES = stainless steel brazed plate evaporator

Type of available expansion elements
VTS = Thermostatic expansion valve
ETS = Electronic expansion valve (available as option)

TECHNICAL DATA

PERFORMANCES		Model	130	160	185
NOMINAL COOLING CAPACITY	W 12°C/7°C @ 35°C (1)	kW	72,0	90,0	110,0
TOTAL NOMINAL ABSORBED POWER		kW	29,4	40,2	44,8
EER		kW/kW	2,68	2,53	2,73
SEPR (HT) (3)		-	5,07	5,02	5,00
NOMINAL WATER FLOW		m3/h	12,4	15,5	18,9
MECHANICAL MODE PRESSURE DROPS (4) (5) (6)		kPa	25	20	25
FRIGORIFIC SECTION					
COMPRESSORS / REFRIGERATING CIRCUITS / PARTITION STEP		nr.	4/2/4	4/2/4	4/2/4
KIND OF COMPRESSOR		-	SCROLL	SCROLL	SCROLL
KIND OF EVAPORATOR		-	B-ES	B-ES	B-ES
KIND OF EXPANSION ELEMENT		-	VTS	VTS	VTS
HYDRAULIC SECTION					
WATER FLOW RANGE (6)		m3/h	8÷18	14÷31	18÷35
MAXIMUM PUMP ABSORBED POWER (WP OR OPTION DP)	P3 (2)	kW	2,53	4,56	4,56
MAXIMUM PUMP ABSORBED CURRENT (WP OR OPTION DP)	P3 (2)	A	4,56	7,75	7,75
MAXIMUM PUMP ABSORBED POWER (OPTION PH OR DPH)	P5 (2)	kW	6,12	10,20	10,20
MAXIMUM PUMP ABSORBED CURRENT (OPTION PH OR DPH)	P5 (2)	A	10,40	17,40	17,40
HYDRAULIC CONNECTIONS (THREADED / FLANGED)		BSP / DN	2"	DN65	DN65
TANK VOLUME (5) (8)		dm^3	390	390	390
EXPANSION VESSEL VOLUME (OPTION XV) (9)		liters	19	19	19
FAN SECTION (AXIAL)					
FANS		nr.	2	3	3
FAN SPEED REGULATION		-	ON/OFF	ON/OFF	ON/OFF
MAXIMUM FANS ABSORBED POWER	AC	kW	3,88	5,82	5,82
MAXIMUM FANS ABSORBED CURRENT	AC	A	7,80	11,70	11,70
TOTAL AIR FLOW	AC	m3/h	40000	57000	54000
TOTAL ELECTRIC DATA					
ELECTRICAL FEED		V/ph/Hz	400/3/50	400/3/50	400/3/50
MAXIMUM ABSORBED CURRENT (F.L.A) (6)		A	89,7	124,3	147,0
MAXIMUM PEAK CURRENT (L.R.A) (6)		A	188,4	238,1	289,1
MAXIMUM PEAK CURRENT WITH SOFT START (OPTION SF) (L.R.A) (6)		A	164,8	210,1	254,3
NOISE DATA					
SOUND PRESSURE FOR STANDARD CONFIGURATION (6) (7)		dB(A)	59,5	61,9	63,1
SOUND PRESSURE FOR LOW NOISE CONFIGURATION (OPTION LNJ) (6) (7)		dB(A)	58,9	60,8	61,4
DIMENSIONS AND WEIGHT					
LENGTH		mm	3355	3355	3355
WIDTH		mm	1105*	1105*	1105*
HEIGHT		mm	2205	2205	2205
WEIGHT EMPTY FOR STANDARD CONFIGURATION (5) (6)		kg	1190	1260	1320
WEIGHT OPERATIVE FOR STANDARD CONFIGURATION (5) (6)		kg	1610	1695	1760

Last update: 22/07/2021
Revision: 04-2021

Data referred to:

(1) Data referred to inlet/outlet water temperature = +12/+7 °C, ambient temperature = +35°C, fluid = Water

(2) Available pressure can be calculated from Hitema Online Selection Software

(3) SEPR: data comply with the European Regulation (EU) 2016/2281, referring to high temperature process chillers in the configuration with brazed plate or shell and tube evaporator (coaxial evaporator excluded) and without pump. Any added option that modify cooling capacity or absorbed power of the chiller will not be considered in the SEPR value

(4) Pressure drops taken in account: evaporator, valves, piping

(5) Data referred to standard chiller configuration as indicated in frigorific section, with different evaporator this data can change

(6) Data referred to standard chiller configuration WP (single pump P3) and AC fans

(7) Sound pressure level referred to measures according to normative ISO3744, pressure level at distance of 10 m, referred to free field on reflecting surface

(8) To avoid excessive start/stop of the compressors a minimum water volume for the entire plant must be guarantee, the tank supplied by Hitema can be not enough

(9) The expansion vessel volume is calculated considering 40°C of deltaT between water temperature with chiller stopped and chiller active, 1/2bar of hydraulic circuit pre-charge and considering only the water volume of the unit

* For the configuration DPH (double pump P5) the chiller width will be 1305mm

** For the configurations DP or DPH (double pump P3 or double pump P5) the chiller width will be 1305mm

ENRF SERIES

Free-Cooling liquid Chillers
AC axial fans with RV
IP54 protection rating
Suitable for OUTDOOR installation

SERIES: ENR-ENRF-CSE	DATE: 20.02.2020	
CODE: GPLSPC20	UPDATE: GPLSPC19	M. Burba
CHECKED BY		

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TABLE 1/3

Free-cooling liquid chillers ENRF series, scroll compressors, R410A / R32 / R454B refrigerant, coaxial / shell and tube evaporator, thermostatic expansion valve, condenser and free-cooling coil with copper tubes and aluminium finned fins, AC axial fans regulated with cut phase fan speed regulator. Electrical feed 400V/3ph/50Hz (60Hz version as option). IP54 protection rating, chillers suitable for outdoor installation.
Inbuilt water storage tank and single pump P3 as standard.

Type of available evaporators:
CX = HITEMA coaxial evaporator, convoluted tube in tube exchanger installed inside the water storage tank
ST = shell and tube evaporator, with high thickness copper tubes (0,41mm)
B-ES = stainless steel brazed plate evaporator

Type of available expansion elements
VTS = Thermostatic expansion valve
ETS = Electronic expansion valve (available as option)

TECHNICAL DATA

PERFORMANCES		Model	010	012	016	022	030	038	045	055
NOMINAL COOLING CAPACITY	W 12°C/7°C @ 35°C (1)	kW	9,5	12,0	14,4	23,4	29,8	38,6	45,2	57,7
TOTAL NOMINAL ABSORBED POWER		kW	4,9	6,1	7,6	9,7	11,3	16,5	18,4	22,2
EER		kW/kW	2,41	2,33	2,19	2,77	2,97	2,70	2,80	2,89
SEPR (HT) (4)		-	5,01	5,05	5,04	5,07	5,03	5,07	5,05	5,04
AIR TEMPERATURE FOR 100% FREE COOLING CAPACITY		°C	-0,3	-2,2	-3,6	0,7	0,1	2,0	1,0	0,5
NOMINAL WATER FLOW		m3/h	1,6	2,1	2,5	4,0	5,1	6,6	7,8	9,9
MECHANICAL MODE PRESSURE DROPS (5) (7) (8)		kPa	27	28	35	49	47	56	58	60
FREE COOLING MODE PRESSURE DROPS (6) (7) (8)		kPa	47	57	76	75	76	74	82	107
NOMINAL COOLING CAPACITY	30%EG 15°C/10°C @ 30°C (2)	kW	10,6	13,3	16,0	26,0	33,1	42,9	50,2	64,1
TOTAL NOMINAL ABSORBED POWER		kW	4,7	5,8	7,1	9,2	10,7	15,7	17,4	20,9
EER		kW/kW	2,87	2,77	2,61	3,28	3,53	3,18	3,30	3,43
AIR TEMPERATURE FOR 100% FREE COOLING CAPACITY		°C	1,0	-1,3	-3,1	1,8	1,0	3,5	2,1	1,5
NOMINAL WATER FLOW		m3/h	2,0	2,5	3,0	4,9	6,3	8,1	9,5	12,1
MECHANICAL MODE PRESSURE DROPS (5) (7) (8)		kPa	45	46	58	82	78	93	96	99
FREE COOLING MODE PRESSURE DROPS (6) (7) (8)		kPa	78	94	126	124	126	123	136	177
FRIGORIFIC SECTION										
COMPRESSORS / REFRIGERATING CIRCUITS / PARTITION STEP		nr.	1/1/1	1/1/1	1/1/1	1/1/1	1/1/1	1/1/1	1/1/1	1/1/1
KIND OF EVAPORATOR		-	CX	CX	CX	CX	CX	CX	CX	CX
HYDRAULIC SECTION										
WATER FLOW RANGE (8)		m3/h	1,2÷2,9	1,2÷2,9	1,2÷2,9	3,5÷8,0	4,0÷8,0	5,5÷12,0	6,0÷12,0	6,0÷12,0
MAXIMUM PUMP ABSORBED POWER (WP OR OPTION DP)	P3 (3)	kW	0,98	0,98	0,98	1,28	1,28	2,20	2,20	2,20
MAXIMUM PUMP ABSORBED CURRENT (WP OR OPTION DP)		A	1,78	1,78	1,78	2,37	2,37	4,24	4,24	4,24
MAXIMUM PUMP ABSORBED POWER (OPTION PH OR DPH)	P5 (3)	kW	2,17	1,10	1,10	1,47	2,94	2,94	2,94	2,94
MAXIMUM PUMP ABSORBED CURRENT (OPTION PH OR DPH)		A	2,17	2,17	2,17	2,86	5,83	5,83	5,83	5,83
HYDRAULIC CONNECTIONS (THREADED / FLANGED)		BSP / DN	3/4"	3/4"	3/4"	1 1/2"	1 1/2"	1 1/2"	1 1/2"	1 1/2"
TANK VOLUME (7) (10)		dm^3	50	50	50	270	270	270	270	270
EXPANSION VESSEL VOLUME (OPTION XV) (11)		liters	5	5	5	12	12	12	12	12
FAN SECTION (AXIAL)										
FANS		nr.	1	1	1	2	2	2	2	2
MAXIMUM FANS ABSORBED POWER	AC	kW	0,72	0,72	0,81	1,62	1,62	3,88	3,88	3,88
MAXIMUM FANS ABSORBED CURRENT		A	1,41	1,41	1,54	3,08	3,08	7,80	7,80	7,80
TOTAL AIR FLOW		m3/h	6115	6115	6800	13800	13000	30000	30000	28000
TOTAL ELECTRIC DATA										
MAXIMUM ABSORBED CURRENT (F.L.A) (8)		A	11,1	12,9	15,2	21,4	25,6	36,5	42,0	48,5
MAXIMUM PEAK CURRENT (L.R.A) (8)		A	49,8	64,8	67,8	104,4	141,4	144,2	178,2	229,2
MAXIMUM PEAK CURRENT WITH SOFT START (OPTION SF) (L.R.A) (8)		A	NA	NA	NA	NA	NA	116,2	143,4	184,2
NOISE DATA										
SOUND PRESSURE FOR STANDARD CONFIGURATION (8) (9)		dB(A)	49,7	49,7	53,2	56,6	56,5	58,5	58,6	59,6
SOUND PRESSURE FOR LOW NOISE CONFIGURTION (OPTION LNJ) (8) (9)		dB(A)	NA	NA	NA	56,4	56,3	58,3	58,3	58,6
DIMENSIONS AND WEIGHT										
LENGTH		mm	1360	1360	1360	1610	1610	2220	2220	2220
WIDTH		mm	720	720	720	860	860	1100	1100	1100
HEIGHT		mm	1585	1585	1585	1550	1550	2120	2120	2120
WEIGHT EMPTY FOR STANDARD CONFIGURATION (7) (8)		kg	260	265	275	460	470	635	650	740
WEIGHT OPERATIVE FOR STANDARD CONFIGURATION (7) (8)		kg	315	320	330	745	755	930	950	1035

The manufacturer reserves the right to modify specifications without notice.

Last update: 22/07/2021
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Data referred to:
(1) Data referred to inlet/outlet water temperature = +12/+7 °C, ambient temperature = +35°C, fluid = Water
(2) Data referred to inlet/outlet water temperature = +15/+10 °C, ambient temperature = +30°C, fluid = 70% Water + 30% Ethylene Glycol
(3) Available pressure can be calculated from Hitema Online Selection Software
(4) SEPR: data comply with the European Regulation (EU) 2016/2281, referring to high temperature process chillers in the configuration with brazed plate or shell and tube evaporator (coaxial evaporator excluded) and without pump. Any added option that modify cooling capacity or absorbed power of the chiller will not be considered in the SEPR value
(5) Pressure drops taken in account: evaporator, valves, piping ; (6) Pressure drops taken in account: evaporator, valves, piping, free-cooling coil
(7) Data referred to standard chiller configuration as indicated in frigorific section, with different evaporator this data can change
(8) Data referred to standard chiller configuration WP (single pump P3) and AC fans
(9) Sound pressure level referred to measures according to normative ISO3744, pressure level at distance of 10 m, referred to free field on reflecting surface
(10) To avoid excessive start/stop of the compressors a minimum water volume for the entire plant must be guarantee, the tank supplied by Hitema can be not enough
(11) The expansion vessel volume is calculated considering 40°C of deltaT between water temperature with chiller stopped and chiller active, 1/2bar of hydraulic circuit pre-charge and considering only the water volume of the unit
* For the configurations NT.NP (no tank, no pump), NT.WP (no tank, single pump P3), and NT.PH (no tank, single pump P5) the chiller width will be 1105mm

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TABLE 2/3

Free-cooling liquid chillers ENRF series, scroll compressors, R410A / R32 / R454B refrigerant, coaxial / shell and tube evaporator, thermostatic expansion valve, condenser and free-cooling coil with copper tubes and aluminium finned fins, AC axial fans regulated with cut phase fan speed regulator. Electrical feed 400V/3ph/50Hz (60Hz version as option). IP54 protection rating, chillers suitable for outdoor installation.
Inbuilt water storage tank and single pump P3 as standard.

Type of available evaporators:
CX = HITEMA coaxial evaporator, convoluted tube in tube exchanger installed inside the water storage tank
ST = shell and tube evaporator, with high thickness copper tubes (0,41mm)
B-ES = stainless steel brazed plate evaporator

Type of available expansion elements
CP = Capillary tube
VTS = Thermostatic expansion valve
ETS = Electronic expansion valve (available as option)

TECHNICAL DATA

PERFORMANCES		Model	061	075	090	100	130	160	185	200
NOMINAL COOLING CAPACITY	W 12°C/7°C @ 35°C (1)	kW	61,8	74,7	87,4	101,7	118,0	150,0	174,0	200,0
TOTAL NOMINAL ABSORBED POWER		kW	24,1	28,7	34,3	37,3	47,6	59,1	67,3	77,5
EER		kW/kW	2,99	2,95	2,84	3,01	2,84	2,83	2,85	2,97
SEPR (HT) (4)		-	5,06	5,02	5,07	5,03	5,03	5,06	5,03	5,05
AIR TEMPERATURE FOR 100% FREE COOLING CAPACITY		°C	1,7	1,7	2,0	1,5	1,5	1,2	1,5	0,7
NOMINAL WATER FLOW		m3/h	10,6	12,8	15,0	17,5	20,3	25,8	29,9	34,4
MECHANICAL MODE PRESSURE DROPS (5) (7) (8)		kPa	33	26	42	58	66	78	88	64
FREE COOLING MODE PRESSURE DROPS (6) (7) (8)		kPa	58	60	85	112	121	120	128	102
NOMINAL COOLING CAPACITY	30%EG 15°C/10°C @ 30°C (2)	kW	67,2	83,9	97,0	112,9	131,0	166,5	193,1	222,0
TOTAL NOMINAL ABSORBED POWER		kW	22,1	27,0	32,3	35,0	44,9	55,6	63,1	72,9
EER		kW/kW	3,61	3,52	3,37	3,57	3,38	3,35	3,40	3,54
AIR TEMPERATURE FOR 100% FREE COOLING CAPACITY		°C	4,1	3,1	3,5	2,8	2,8	2,4	2,8	1,8
NOMINAL WATER FLOW		m3/h	12,7	15,9	18,4	21,4	24,8	31,5	36,6	42,1
MECHANICAL MODE PRESSURE DROPS (5) (7) (8)		kPa	52	44	69	96	109	129	145	106
FREE COOLING MODE PRESSURE DROPS (6) (7) (8)		kPa	92	102	140	185	200	199	212	169
FRIGORIFIC SECTION										
COMPRESSORS / REFRIGERATING CIRCUITS / PARTITION STEP		nr.	2/1/2	2/1/2	2/1/2	2/1/2	4/2/4	4/2/4	4/2/4	4/2/4
KIND OF EVAPORATOR		-	CX	CX	CX	CX	ST	ST	ST	ST
HYDRAULIC SECTION										
WATER FLOW RANGE (8)		m3/h	8,6÷19	10÷22	10÷22	12÷23	14÷27	18÷31	26÷35	26÷46
MAXIMUM PUMP ABSORBED POWER (WP OR OPTION DP)	P3 (3)	kW	3,46	3,46	3,46	3,46	6,12	6,12	6,12	10,25
MAXIMUM PUMP ABSORBED CURRENT (WP OR OPTION DP)		A	6,33	6,33	6,33	6,33	10,40	10,40	10,40	17,40
MAXIMUM PUMP ABSORBED POWER (OPTION PH OR DPH)	P5 (3)	kW	6,12	8,30	8,30	8,30	12,04	12,04	12,04	19,94
MAXIMUM PUMP ABSORBED CURRENT (OPTION PH OR DPH)		A	10,40	14,10	14,10	14,10	20,20	20,20	20,20	32,70
HYDRAULIC CONNECTIONS (THREADED / FLANGED)		BSP / DN	2"	2"	2"	2"	DN65	DN65	DN65	DN80
TANK VOLUME (7) (10)		dm^3	410	410	410	410	390	500	500	500
EXPANSION VESSEL VOLUME (OPTION XV) (11)		liters	19	19	19	19	19	19	19	40
FAN SECTION (AXIAL)										
FANS		nr.	2	2	3	3	4	5	5	5
MAXIMUM FANS ABSORBED POWER	AC	kW	3,88	3,88	5,82	5,82	7,76	9,70	9,70	9,70
MAXIMUM FANS ABSORBED CURRENT		A	7,80	7,80	11,70	11,70	15,60	19,50	19,50	19,50
TOTAL AIR FLOW		m3/h	36000	36000	49500	54000	66000	72000	71000	80000
TOTAL ELECTRIC DATA										
MAXIMUM ABSORBED CURRENT (F.L.A) (8)		A	54,4	63,1	78,0	84,5	106,5	127,9	149,9	169,8
MAXIMUM PEAK CURRENT (L.R.A) (8)		A	173,3	178,6	222,0	273,0	225,4	243,4	293,9	358,3
MAXIMUM PEAK CURRENT WITH SOFT START (OPTION SF) (L.R.A) (8)		A	145,5	150,6	187,2	228,0	197,6	215,4	259,1	313,3
NOISE DATA										
SOUND PRESSURE FOR STANDARD CONFIGURATION (8) (9)		dB(A)	58,9	59,3	60,8	61,4	61,7	62,9	63,0	63,7
SOUND PRESSURE FOR LOW NOISE CONFIGURTION (OPTION LNJ) (8) (9)		dB(A)	58,7	58,9	60,4	60,6	61,5	62,5	62,5	62,8
DIMENSIONS AND WEIGHT										
LENGTH		mm	3355	3355	3355	4355	4355	5350	5350	6350
WIDTH		mm	1105	1105	1105	1105	1105	1105	1105	1305*
HEIGHT		mm	2205	2205	2205	2205	2205	2205	2205	2180
WEIGHT EMPTY FOR STANDARD CONFIGURATION (7) (8)		kg	1120	1150	1180	1480	1675	1910	2000	2465
WEIGHT OPERATIVE FOR STANDARD CONFIGURATION (7) (8)		kg	1590	1620	1650	1970	2180	2515	2670	3130

The manufacturer reserves the right to modify specifications without notice.

Last update: 22/07/2021
Revision: 03-2021

Data referred to:
(1) Data referred to inlet/outlet water temperature = +12/+7 °C, ambient temperature = +35°C, fluid = Water
(2) Data referred to inlet/outlet water temperature = +15/+10 °C, ambient temperature = +30°C, fluid = 70% Water + 30% Ethylene Glycol
(3) Available pressure can be calculated from Hitema Online Selection Software
(4) SEPR: data comply with the European Regulation (EU) 2016/2281, referring to high temperature process chillers in the configuration with brazed plate or shell and tube evaporator (coaxial evaporator excluded) and without pump. Any added option that modify cooling capacity or absorbed power of the chiller will not be considered in the SEPR value
(5) Pressure drops taken in account: evaporator, valves, piping ; (6) Pressure drops taken in account: evaporator, valves, piping, free-cooling coil
(7) Data referred to standard chiller configuration as indicated in frigorific section, with different evaporator this data can change
(8) Data referred to standard chiller configuration WP (single pump P3) and AC fans
(9) Sound pressure level referred to measures according to normative ISO3744, pressure level at distance of 10 m, referred to free field on reflecting surface
(10) To avoid excessive start/stop of the compressors a minimum water volume for the entire plant must be guarantee, the tank supplied by Hitema can be not enough
(11) The expansion vessel volume is calculated considering 40°C of deltaT between water temperature with chiller stopped and chiller active, 1/2bar of hydraulic circuit pre-charge and considering only the water volume of the unit
* For the configurations NT.NP (no tank, no pump), NT.WP (no tank, single pump P3), and NT.PH (no tank, single pump P5) the chiller width will be 1105mm

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TABLE 3/3

Free-cooling liquid chillers ENRF series, scroll compressors, R410A / R32 / R454B refrigerant, coaxial / shell and tube evaporator, thermostatic expansion valve, condenser and free-cooling coil with copper tubes and aluminium finned fins, AC axial fans regulated with cut phase fan speed regulator. Electrical feed 400V/3ph/50Hz (60Hz version as option). IP54 protection rating, chillers suitable for outdoor installation.
Inbuilt water storage tank and single pump P3 as standard.

Type of available evaporators:
CX = HITEMA coaxial evaporator, convoluted tube in tube exchanger installed inside the water storage tank
ST = shell and tube evaporator, with high thickness copper tubes (0,41mm)
B-ES = stainless steel brazed plate evaporator

Type of available expansion elements
CP = Capillary tube
VTS = Thermostatic expansion valve
ETS = Electronic expansion valve (available as option)

TECHNICAL DATA

PERFORMANCES		Model	230	280	340	370	
NOMINAL COOLING CAPACITY	W 12°C/7°C @ 35°C (1)	kW	226,0	276,0	325,0	355,0	
TOTAL NOMINAL ABSORBED POWER		kW	86,7	107,1	117,3	133,9	
EER		kW/kW	2,96	2,85	3,04	2,87	
SEPR (HT) (4)		-	5,00	5,06	5,01	5,01	
AIR TEMPERATURE FOR 100% FREE COOLING CAPACITY		°C	0,5	-1,2	-7,0	-8,2	
NOMINAL WATER FLOW		m3/h	38,8	47,4	55,8	61,0	
MECHANICAL MODE PRESSURE DROPS (5) (7) (8)		kPa	53	60	68	77	
FREE COOLING MODE PRESSURE DROPS (6) (7) (8)		kPa	98	120	117	122	
NOMINAL COOLING CAPACITY	30%EG 15°C/10°C @ 30°C (2)	kW	250,9	306,4	360,8	394,1	
TOTAL NOMINAL ABSORBED POWER		kW	81,5	100,3	109,7	124,9	
EER		kW/kW	3,52	3,41	3,63	3,44	
AIR TEMPERATURE FOR 100% FREE COOLING CAPACITY		°C	1,5	-0,7	-8,3	-9,9	
NOMINAL WATER FLOW		m3/h	47,5	58,0	68,3	74,6	
MECHANICAL MODE PRESSURE DROPS (5) (7) (8)		kPa	79	90	102	116	
FREE COOLING MODE PRESSURE DROPS (6) (7) (8)		kPa	147	180	175	183	
FRIGORIFIC SECTION							
COMPRESSORS / REFRIGERATING CIRCUITS / PARTITION STEP		nr.	4/2/4	4/2/4	4/2/4	4/2/4	
KIND OF EVAPORATOR		-	ST	ST	ST	ST	
HYDRAULIC SECTION							
WATER FLOW RANGE (8)		m3/h	26÷46	31÷58	38÷72	42÷80	
MAXIMUM PUMP ABSORBED POWER (WP OR OPTION DP)	P3 (3)	kW	10,25	10,25	10,25	10,25	
MAXIMUM PUMP ABSORBED CURRENT (WP OR OPTION DP)		A	17,40	17,40	17,40	17,40	
MAXIMUM PUMP ABSORBED POWER (OPTION PH OR DPH)	P5 (3)	kW	19,94	19,94	19,94	19,94	
MAXIMUM PUMP ABSORBED CURRENT (OPTION PH OR DPH)		A	32,70	32,70	32,70	32,70	
HYDRAULIC CONNECTIONS (THREADED / FLANGED)		BSP / DN	DN80	DN100	DN100	DN100	
TANK VOLUME (7) (10)		dm^3	500	500	500	500	
EXPANSION VESSEL VOLUME (OPTION XV) (11)		liters	40	40	40	40	
FAN SECTION (AXIAL)							
FANS		nr.	6	6	6	6	
MAXIMUM FANS ABSORBED POWER	AC	kW	11,64	11,64	11,64	11,64	
MAXIMUM FANS ABSORBED CURRENT		A	23,40	23,40	23,40	23,40	
TOTAL AIR FLOW		m3/h	84000	84000	84000	84000	
TOTAL ELECTRIC DATA							
MAXIMUM ABSORBED CURRENT (F.L.A) (8)		A	186,6	219,2	248,6	278,0	
MAXIMUM PEAK CURRENT (L.R.A) (8)		A	375,1	446,6	499,3	528,7	
MAXIMUM PEAK CURRENT WITH SOFT START (OPTION SF) (L.R.A) (8)		A	330,1	392,2	437,3	466,7	
NOISE DATA							
SOUND PRESSURE FOR STANDARD CONFIGURATION (8) (9)		dB(A)	64,8	66,1	66,1	66,1	
SOUND PRESSURE FOR LOW NOISE CONFIGURTION (OPTION LNJ) (8) (9)		dB(A)	63,6	64,4	64,4	64,4	
DIMENSIONS AND WEIGHT							
LENGTH		mm	6350	6350	6350	6350	
WIDTH		mm	1305*	1305*	1305*	1305*	
HEIGHT		mm	2180	2180	2180	2180	
WEIGHT EMPTY FOR STANDARD CONFIGURATION (7) (8)		kg	2695	2820	2920	2980	
WEIGHT OPERATIVE FOR STANDARD CONFIGURATION (7) (8)		kg	3365	3510	3625	3700	

The manufacturer reserves the right to modify specifications without notice.

Last update: 22/07/2021
Revision: 03-2021

Data referred to:
(1) Data referred to inlet/outlet water temperature = +12/+7 °C, ambient temperature = +35°C, fluid = Water
(2) Data referred to inlet/outlet water temperature = +15/+10 °C, ambient temperature = +30°C, fluid = 70% Water + 30% Ethylene Glycol
(3) Available pressure can be calculated from Hitema Online Selection Software
(4) SEPR: data comply with the European Regulation (EU) 2016/2281, referring to high temperature process chillers in the configuration with brazed plate or shell and tube evaporator (coaxial evaporator excluded) and without pump. Any added option that modify cooling capacity or absorbed power of the chiller will not be considered in the SEPR value
(5) Pressure drops taken in account: evaporator, valves, piping ; (6) Pressure drops taken in account: evaporator, valves, piping, free-cooling coil
(7) Data referred to standard chiller configuration as indicated in frigorific section, with different evaporator this data can change
(8) Data referred to standard chiller configuration WP (single pump P3) and AC fans
(9) Sound pressure level referred to measures according to normative ISO3744, pressure level at distance of 10 m, referred to free field on reflecting surface
(10) To avoid excessive start/stop of the compressors a minimum water volume for the entire plant must be guarantee, the tank supplied by Hitema can be not enough
(11) The expansion vessel volume is calculated considering 40°C of deltaT between water temperature with chiller stopped and chiller active, 1/2bar of hydraulic circuit pre-charge and considering only the water volume of the unit
* For the configurations NT.NP (no tank, no pump), NT.WP (no tank, single pump P3), and NT.PH (no tank, single pump P5) the chiller width will be 1105mm

CSE SERIES

Air-Cooling liquid Chillers
Centrifugal fans
IP44 protection rating
Suitable for INDOOR installation

SERIES: ENR-ENRF-CSE	DATE: 20.02.2020	
CODE: GPLSPC20	UPDATE: GPLSPC19	
CHECKED BY		M. Burba

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CSE

TABLE 1/2

Air-cooled liquid chillers CSE series, scroll compressors, R410A / R32 / R454B refrigerant, coaxial / shell and tube evaporator, condenser coil with copper tubes and aluminium finned fins, centrifugal fans with available air static pressure of 200Pa. Electrical feed 400V/3ph/50Hz. IP44 protection rating, chillers suitable for INDOOR installation. Inbuilt water storage tank and single pump P3 as standard.

Type of available evaporators:
CX = HITEMA coaxial evaporator, convoluted tube in tube exchanger (outer tube in carbon steel or stainless steel, inner tubes in copper) installed inside the water storage tank
ST = shell and tube evaporator, with high thickness copper tubes (0,41mm)
B-ES = stainless steel brazed plate evaporator

TECHNICAL DATA

PERFORMANCES		**Model**	**030**	**038**	**045**	**061**	**075**	**100**	**130**	**160**
NOMINAL COOLING CAPACITY	W 12°C/7°C @ 32°C (1)	kW	28,8	37,7	43,0	63,0	71,3	98,4	116,3	146,1
TOTAL NOMINAL ABSORBED POWER		kW	12,5	15,3	17,9	22,2	29,1	38,9	48,3	58,9
EER		kW/kW	2,58	2,87	2,73	3,21	2,68	2,70	2,66	2,69
SEPR (HT) (3)		-	4,59	5,11	5,07	5,21	4,80	4,86	4,75	4,78
NOMINAL WATER FLOW		m3/h	5,0	6,5	7,4	10,8	12,2	16,9	20,0	25,1
MECHANICAL MODE PRESSURE DROPS (4)		kPa	32	38	39	23	21	41	60	55
FRIGORIFIC SECTION										
COMPRESSORS / REFRIGERATING CIRCUITS / PARTITION STEP		nr.	1/1/1	1/1/1	1/1/1	2/1/2	2/1/2	2/1/2	4/2/4	4/2/4
KIND OF EVAPORATOR		-	CX	CX	CX	CX	CX	CX	ST	ST
HYDRAULIC SECTION										
WATER FLOW RANGE (6)		m3/h	4,0÷6,0	5,0÷12,0	6,0÷12,0	8,0÷18,0	10,0÷20,0	10,0÷20,0	14,0÷27,0	15,4÷31,0
MAXIMUM PUMP ABSORBED POWER (WP OR OPTION DP)	P3 (2)	kW	1,28	2,20	2,20	2,53	2,53	2,53	4,56	4,56
MAXIMUM PUMP ABSORBED CURRENT (WP OR OPTION DP)		A	2,37	4,24	4,24	4,56	4,56	4,56	7,75	7,75
MAXIMUM PUMP ABSORBED POWER (OPTION PH OR DPH)	P5 (2)	kW	1,47	2,94	2,94	6,12	6,12	6,12	10,20	10,20
MAXIMUM PUMP ABSORBED CURRENT (OPTION PH OR DPH)		A	2,32	5,83	5,83	10,40	10,40	10,40	17,40	17,40
HYDRAULIC CONNECTIONS (THREADED / FLANGED)		BSP / DN	1 1/2"	1 1/2"	1 1/2"	2"	2"	2"	DN65	DN65
TANK VOLUME (5)		dm^3	270	270	270	410	410	410	390	390
EXPANSION VESSEL NUMBER x VOLUME (OPTION XV)		liters	12	12	12	19	19	19	19	19
FAN SECTION (CENTRIFUGAL)										
FANS		nr.	2	2	2	3	3	2	3	3
FAN SPEED REGULATION		-	ON/OFF	ON/OFF	ON/OFF	ON/OFF	ON/OFF	ON/OFF	INVERTER	INVERTER
MAXIMUM FANS ABSORBED POWER		kW	2,20	2,20	2,20	3,30	3,30	6,00	9,00	9,00
MAXIMUM FANS ABSORBED CURRENT		A	9,80	9,80	9,80	14,70	14,70	24,80	37,20	37,20
TOTAL AIR FLOW		m3/h	13000	13000	13000	19500	19500	30000	45000	45000
TOTAL ELECTRIC DATA										
MAXIMUM ABSORBED CURRENT (F.L.A) (6)		A	32,3	38,5	44,0	59,5	68,3	95,8	125,5	143,0
MAXIMUM PEAK CURRENT (L.R.A) (6)		A	141,4	144,2	178,2	178,4	183,8	284,4	244,3	258,5
MAXIMUM PEAK CURRENT WITH SOFT START (OPTION SF) (L.R.A) (6)		A	NA	NA	NA	150,6	155,8	239,4	216,5	230,5
NOISE DATA										
SOUND PRESSURE FOR STANDARD CONFIGURATION (6) (7)		dB(A)	54,0	55,0	55,2	55,8	56,4	60,9	62,7	63,1
SOUND PRESSURE FOR LOW NOISE CONFIGURTION (OPTION LNJ) (6) (7)		dB(A)	53,7	54,4	54,5	55,4	55,5	60,0	62,6	62,7
DIMENSIONS AND WEIGHT										
LENGTH		mm	1610	1610	1610	2220	2220	2220	3355	3355
WIDTH		mm	860	860	860	1100	1100	1100	1305	1305
HEIGHT		mm	1860	1860	1860	1900	1900	2350	2350	2350
WEIGHT EMPTY FOR STANDARD CONFIGURATION (5) (6)		kg	445	465	495	770	800	990	1315	1365
WEIGHT OPERATIVE FOR STANDARD CONFIGURATION (5) (6)		kg	720	740	770	1190	1220	1410	1740	1800

The manufacturer reserves the right to modify specifications without notice.

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Revision: 02-2021

Data referred to:
(1) Data referred to inlet/outlet water temperature = +12/+7 °C, ambient temperature = +32°C, fluid = Water
(2) Available pressure can be calculated from Hitema Online Selection Software
(3) SEPR: data comply with the European Regulation (EU) 2016/2281, referring to high temperature process chillers
(4) Pressure drops taken in account: evaporator, valves, piping
(5) Data referred to standard chiller configuration as indicated in frigorific section, with different evaporator this data can change
(6) Data referred to standard chiller configuration WP (single pump P3)
(7) Sound pressure level referred to measures according to normative ISO3744, pressure level at distance of 10 m, referred to free field on reflecting surface

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CSE

TABLE 2/2

Air-cooled liquid chillers CSE series, scroll compressors, R410A / R32 / R454B refrigerant, coaxial / shell and tube evaporator, condenser coil with copper tubes and aluminium finned fins, centrifugal fans with available air static pressure of 200Pa. Electrical feed 400V/3ph/50Hz. IP44 protection rating, chillers suitable for INDOOR installation. Inbuilt water storage tank and single pump P3 as standard.

Type of available evaporators:
CX = HITEMA coaxial evaporator, convoluted tube in tube exchanger (outer tube in carbon steel or stainless steel, inner tubes in copper) installed inside the water storage tank
ST = shell and tube evaporator, with high thickness copper tubes (0,41mm)
B-ES = stainless steel brazed plate evaporator

TECHNICAL DATA

PERFORMANCES		**Model**	**185**	**230**	**280**	**340**	**370**
NOMINAL COOLING CAPACITY	W 12°C/7°C @ 32°C (1)	kW	174,0	228,3	278,8	324,4	362,5
TOTAL NOMINAL ABSORBED POWER		kW	65,1	86,7	109,4	123,5	140,8
EER		kW/kW	2,87	2,91	2,76	2,82	2,78
SEPR (HT) (3)		-	5,15	5,25	4,95	5,06	5,02
NOMINAL WATER FLOW		m3/h	29,9	39,2	47,9	55,7	62,3
MECHANICAL MODE PRESSURE DROPS (4)		kPa	62	61	62	53	58
FRIGORIFIC SECTION							
COMPRESSORS / REFRIGERATING CIRCUITS / PARTITION STEP		nr.	4/2/4	4/2/4	4/2/4	4/2/4	4/2/4
KIND OF EVAPORATOR		-	ST	ST	ST	ST	ST
HYDRAULIC SECTION							
WATER FLOW RANGE (6)		m3/h	21,0÷40,0	25,0÷46,0	31,0÷58,0	38,0÷70,0	45,0÷80,0
MAXIMUM PUMP ABSORBED POWER (WP OR OPTION DP)	P3 (2)	kW	4,56	8,30	8,30	8,30	10,20
MAXIMUM PUMP ABSORBED CURRENT (WP OR OPTION DP)		A	7,75	14,10	14,10	14,10	17,40
MAXIMUM PUMP ABSORBED POWER (OPTION PH OR DPH)	P5 (2)	kW	10,20	16,22	16,22	16,22	16,22
MAXIMUM PUMP ABSORBED CURRENT (OPTION PH OR DPH)		A	17,40	26,60	26,60	26,60	26,60
HYDRAULIC CONNECTIONS (THREADED / FLANGED)		BSP / DN	DN65	DN80	DN100	DN100	DN100
TANK VOLUME (5)		dm^3	390	500	500	500	500
EXPANSION VESSEL NUMBER x VOLUME (OPTION XV)		liters	19	19	19	19	19
FAN SECTION (CENTRIFUGAL)							
FANS		nr.	3	4	5	6	6
FAN SPEED REGULATION		-	INVERTER	INVERTER	INVERTER	INVERTER	INVERTER
MAXIMUM FANS ABSORBED POWER		kW	9,00	12,00	15,00	18,00	18,00
MAXIMUM FANS ABSORBED CURRENT		A	37,20	49,60	62,00	74,40	74,40
TOTAL AIR FLOW		m3/h	45000	60000	75000	90000	90000
TOTAL ELECTRIC DATA							
MAXIMUM ABSORBED CURRENT (F.L.A) (6)		A	165,0	209,5	254,5	296,3	329,0
MAXIMUM PEAK CURRENT (L.R.A) (6)		A	309,0	398,0	481,9	547,0	579,7
MAXIMUM PEAK CURRENT WITH SOFT START (OPTION SF) (L.R.A) (6)		A	274,2	353,0	427,5	485,0	517,7
NOISE DATA							
SOUND PRESSURE FOR STANDARD CONFIGURATION (6) (7)		dB(A)	63,2	65,0	66,4	66,8	66,8
SOUND PRESSURE FOR LOW NOISE CONFIGURTION (OPTION LNJ) (6) (7)		dB(A)	62,8	64,0	64,7	65,3	65,4
DIMENSIONS AND WEIGHT							
LENGTH		mm	4355	5350	5350	6350	6350
WIDTH		mm	1305	1305	1305	1305	1305
HEIGHT		mm	2350	2350	2350	2350	2350
WEIGHT EMPTY FOR STANDARD CONFIGURATION (5) (6)		kg	1730	2245	2395	2725	2910
WEIGHT OPERATIVE FOR STANDARD CONFIGURATION (5) (6)		kg	2170	2800	2955	3305	3510

Last update: 22/07/2021
Revision: 02-2021

Data referred to:
(1) Data referred to inlet/outlet water temperature = +12/+7 °C, ambient temperature = +32°C, fluid = Water
(2) Available pressure can be calculated from Hitema Online Selection Software
(3) SEPR: data comply with the European Regulation (EU) 2016/2281, referring to high temperature process chillers
(4) Pressure drops taken in account: evaporator, valves, piping
(5) Data referred to standard chiller configuration as indicated in frigorific section, with different evaporator this data can change
(6) Data referred to standard chiller configuration WP (single pump P3)
(7) Sound pressure level referred to measures according to normative ISO3744, pressure level at distance of 10 m, referred to free field on reflecting surface

ENR-IR SERIES

Air-Cooled liquid Chillers, liquid injection scroll compressor
AC axial fans
IP54 protection rating
Suitable for OUTDOOR installation, ice-rink application

SERIES: ENR-ENRF-CSE	DATE: 20.02.2020	
CODE: GPLSPC20	UPDATE: GPLSPC19	M. Burba
CHECKED BY		

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ENR-IR

TABLE 1/2

Air-cooled liquid chillers ENR-IR series for ice-rink application, liquid injection scroll compressors, R449A refrigerant, brazed plate evaporator, condenser coil with copper tubes and aluminium fins, AC axial fans. IP54 protection rating, chillers suitable for outdoor installation. Inbuilt water storage tank and single pump P3 as standard.

Type of available evaporators:
B-ES = stainless steel brazed plate evaporator

Type of available expansion elements
ETS = Electronic expansion valve (available as option)

TECHNICAL DATA

PERFORMANCES		Model	008	016	022	025	030	038	045	061
NOMINAL COOLING CAPACITY	EG35% -10°C/-15°C @ 15°C (1)	kW	4,6	8,4	11,1	15,0	18,0	22,0	25,0	36,0
TOTAL NOMINAL ABSORBED POWER		kW	2,6	4,4	5,4	6,8	9,1	9,9	11,4	18,8
EER		kW/kW	2,24	2,46	2,53	2,73	2,31	2,55	2,48	2,17
SEPR (HT) (3)		-	5,05	5,05	5,02	5,00	5,05	5,03	5,07	5,04
NOMINAL WATER FLOW		m3/h	0,8	1,4	1,9	2,6	3,1	3,8	4,3	6,2
MECHANICAL MODE PRESSURE DROPS (4) (5) (6)		kPa	30	43	37	35	34	25	31	28
FRIGORIFIC SECTION										
COMPRESSORS / REFRIGERATING CIRCUITS / PARTITION STEP		nr.	1/1/1	1/1/1	1/1/1	1/1/1	1/1/1	1/1/1	1/1/1	2/2/2
KIND OF COMPRESSOR		-	SCROLL INJECTION	SCROLL INJECTION	SCROLL INJECTION	SCROLL INJECTION	SCROLL INJECTION	SCROLL INJECTION	SCROLL INJECTION	SCROLL INJECTION
KIND OF EVAPORATOR		-	B-ES	B-ES	B-ES	B-ES	B-ES	B-ES	B-ES	B-ES
KIND OF EXPANSION ELEMENT		-	ETS	ETS	ETS	ETS	ETS	ETS	ETS	ETS
HYDRAULIC SECTION										
WATER FLOW RANGE (6)		m3/h	0,6÷2,2	1,2÷2,9	1,2÷2,9	1,2÷2,9	3,0÷6,0	3,0÷6,0	3,0÷6,0	6,0÷12,0
MAXIMUM PUMP ABSORBED POWER (WP OR OPTION DP)	P3 (2)	kW	0,56	0,98	0,98	1,28	1,28	1,28	1,28	2,20
MAXIMUM PUMP ABSORBED CURRENT (WP OR OPTION DP)	P3 (2)	A	3,46	1,78	1,78	2,37	2,37	2,37	2,37	4,24
MAXIMUM PUMP ABSORBED POWER (OPTION PH OR DPH)	P5 (2)	kW	0,74	1,10	1,10	1,47	1,47	1,47	1,47	2,94
MAXIMUM PUMP ABSORBED CURRENT (OPTION PH OR DPH)	P5 (2)	A	3,22	2,17	2,17	2,86	2,32	2,32	2,32	5,83
HYDRAULIC CONNECTIONS (THREADED / FLANGED)		BSP / DN	1/2"	1"	1"	1"	1 1/2"	1 1/2"	1 1/2"	1 1/2"
TANK VOLUME (5) (8)		dm^3	50	50	110	110	270	270	270	410
EXPANSION VESSEL VOLUME (OPTION XV) (9)		liters	5	5	8	8	8	8	8	12
FAN SECTION (AXIAL)										
FANS		nr.	1	1	1	1	2	2	2	2
FAN SPEED REGULATION		-	ON/OFF	ON/OFF	ON/OFF	ON/OFF	ON/OFF	ON/OFF	ON/OFF	ON/OFF
MAXIMUM FANS ABSORBED POWER	AC	kW	0,25	0,49	0,81	0,81	1,44	1,62	1,44	3,88
MAXIMUM FANS ABSORBED CURRENT	AC	A	1,10	2,40	1,50	1,50	2,82	3,08	2,82	7,80
TOTAL AIR FLOW	AC	m3/h	4200	4750	7500	6800	15600	16400	14800	24800
TOTAL ELECTRIC DATA										
ELECTRICAL FEED		V/ph/Hz	400/3/50/N	400/3/50/N	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50
MAXIMUM ABSORBED CURRENT (F.L.A) (6)		A	10,2	13,9	19,8	21,7	24,4	27,9	30,2	50,4
MAXIMUM PEAK CURRENT (L.R.A) (6)		A	50,0	71,0	104,0	102,4	120,4	141,4	170,4	149,2
MAXIMUM PEAK CURRENT WITH SOFT START (OPTION SF) (L.R.A) (6)		A	NA	NA	NA	NA	99,6	116,7	139,6	125,6
NOISE DATA										
SOUND PRESSURE FOR STANDARD CONFIGURATION (6) (7)		dB(A)	51,4	52,2	56,0	56,3	55,3	59,1	55,8	60,2
SOUND PRESSURE FOR LOW NOISE CONFIGURATION (OPTION LNJ) (6) (7)		dB(A)	NA	NA	NA	NA	54,9	57,8	55,9	59,2
DIMENSIONS AND WEIGHT										
LENGTH		mm	820	820	1010	1010	1610	1610	1610	2220
WIDTH		mm	615	615	720	720	860	860	860	1100
HEIGHT		mm	1415	1415	1585	1585	1550	1550	1550	2120
WEIGHT EMPTY FOR STANDARD CONFIGURATION (5) (6)		kg	160	175	250	250	375	390	410	740
WEIGHT OPERATIVE FOR STANDARD CONFIGURATION (5) (6)		kg	210	225	380	380	675	690	710	1160

Last update: 07/10/2021
Revision: 04-2021

Data referred to:

(1) Data referred to inlet/outlet water temperature = -10/-15 °C, ambient temperature = +15°C, fluid = EG35%

(2) Available pressure can be calculated from Hitema Online Selection Software

(3) SEPR: data comply with the European Regulation (EU) 2016/2281, referring to high temperature process chillers in the configuration with brazed plate or shell and tube evaporator (coaxial evaporator excluded) and without pump. Any added option that modify cooling capacity or absorbed power of the chiller will not be considered in the SEPR value

(4) Pressure drops taken in account: evaporator, valves, piping

(5) Data referred to standard chiller configuration as indicated in frigorific section, with different evaporator this data can change

(6) Data referred to standard chiller configuration WP (single pump P3) and AC fans

(7) Sound pressure level referred to measures according to normative ISO3744, pressure level at distance of 10 m, referred to free field on reflecting surface

(8) To avoid excessive start/stop of the compressors a minimum water volume for the entire plant must be guarantee, the tank supplied by Hitema can be not enough

(9) The expansion vessel volume is calculated considering 40°C of deltaT between water temperature with chiller stopped and chiller active, 1/2bar of hydraulic circuit pre-charge and considering only the water volume of the unit

* For the configuration DPH (double pump P5) the chiller width will be 1305mm

** For the configurations DP or DPH (double pump P3 or double pump P5) the chiller width will be 1305mm

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ENR-IR

TABLE 2/2

Air-cooled liquid chillers ENR-IR series for ice-rink application, liquid injection scroll compressors, R449A refrigerant, brazed plate evaporator, condenser coil with copper tubes and aluminium fins, AC axial fans. IP54 protection rating, chillers suitable for outdoor installation. Inbuilt water storage tank and single pump P3 as standard.

Type of available evaporators:
B-ES = stainless steel brazed plate evaporator

Type of available expansion elements
ETS = Electronic expansion valve (available as option)

TECHNICAL DATA

PERFORMANCES		Model	075	090	130	160	185	200
NOMINAL COOLING CAPACITY	EG35% -10°C/-15°C @ 15°C (1)	kW	44,0	49,0	59,0	70,0	88,0	97,0
TOTAL NOMINAL ABSORBED POWER		kW	20,3	23,7	25,0	33,8	36,0	45,5
EER		kW/kW	2,44	2,28	2,62	2,24	2,63	2,26
SEPR (HT) (3)		-	5,05	5,03	5,07	5,02	5,00	5,00
NOMINAL WATER FLOW		m3/h	7,6	8,4	10,1	12,0	15,1	16,7
MECHANICAL MODE PRESSURE DROPS (4) (5) (6)		kPa	25	29	35	30	25	30
FRIGORIFIC SECTION								
COMPRESSORS / REFRIGERATING CIRCUITS / PARTITION STEP		nr.	2/2/2	2/2/2	4/2/4	4/2/4	4/2/4	4/2/4
KIND OF COMPRESSOR		-	SCROLL INJECTION	SCROLL INJECTION	SCROLL INJECTION	SCROLL INJECTION	SCROLL INJECTION	SCROLL INJECTION
KIND OF EVAPORATOR		-	B-ES	B-ES	B-ES	B-ES	B-ES	B-ES
KIND OF EXPANSION ELEMENT		-	ETS	ETS	ETS	ETS	ETS	ETS
HYDRAULIC SECTION								
WATER FLOW RANGE (6)		m3/h	6,0÷12,0	6,0÷12,0	8,0÷18,0	8,0÷18,0	10,0÷20,0	10,0÷20,0
MAXIMUM PUMP ABSORBED POWER (WP OR OPTION DP)	P3 (2)	kW	2,20	2,20	2,53	2,53	2,53	2,53
MAXIMUM PUMP ABSORBED CURRENT (WP OR OPTION DP)	P3 (2)	A	4,24	4,24	4,56	4,56	4,56	4,56
MAXIMUM PUMP ABSORBED POWER (OPTION PH OR DPH)	P5 (2)	kW	2,94	2,94	6,12	6,12	6,12	6,12
MAXIMUM PUMP ABSORBED CURRENT (OPTION PH OR DPH)	P5 (2)	A	5,83	5,83	10,40	10,40	10,40	10,40
HYDRAULIC CONNECTIONS (THREADED / FLANGED)		BSP / DN	1 1/2"	2"	2"	2"	2"	2"
TANK VOLUME (5) (8)		dm^3	410	410	390	390	390	390
EXPANSION VESSEL VOLUME (OPTION XV) (9)		liters	12	12	19	19	19	19
FAN SECTION (AXIAL)								
FANS		nr.	2	2	2	3	3	4
FAN SPEED REGULATION		-	ON/OFF	ON/OFF	ON/OFF	ON/OFF	ON/OFF	CUT PHASE
MAXIMUM FANS ABSORBED POWER	AC	kW	3,88	3,88	3,88	5,82	5,82	7,76
MAXIMUM FANS ABSORBED CURRENT	AC	A	7,80	7,80	7,80	11,70	11,70	15,60
TOTAL AIR FLOW	AC	m3/h	36000	34000	40000	57000	54000	68800
TOTAL ELECTRIC DATA								
ELECTRICAL FEED		V/ph/Hz	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50
MAXIMUM ABSORBED CURRENT (F.L.A) (6)		A	57,0	62,0	83,8	93,0	106,2	120,0
MAXIMUM PEAK CURRENT (L.R.A) (6)		A	173,5	205,0	166,0	191,8	222,7	263,0
MAXIMUM PEAK CURRENT WITH SOFT START (OPTION SF) (L.R.A) (6)		A	145,7	171,4	146,0	168,2	194,9	229,4
NOISE DATA								
SOUND PRESSURE FOR STANDARD CONFIGURATION (6) (7)		dB(A)	61,4	61,8	60,9	62,3	63,6	64,7
SOUND PRESSURE FOR LOW NOISE CONFIGURATION (OPTION LNJ) (6) (7)		dB(A)	59,7	59,9	59,5	61,0	61,6	62,7
DIMENSIONS AND WEIGHT								
LENGTH		mm	2220	2220	3355	3355	3355	4355
WIDTH		mm	1100	1100	1105*	1105*	1105*	1105**
HEIGHT		mm	2120	2120	2205	2205	2205	2205
WEIGHT EMPTY FOR STANDARD CONFIGURATION (5) (6)		kg	770	785	1190	1260	1320	1815
WEIGHT OPERATIVE FOR STANDARD CONFIGURATION (5) (6)		kg	1190	1205	1610	1695	1760	2275

Last update: 07/10/2021
Revision: 04-2021

Data referred to:

(1) Data referred to inlet/outlet water temperature = -10/-15 °C, ambient temperature = +15°C, fluid = EG35%

(2) Available pressure can be calculated from Hitema Online Selection Software

(3) SEPR: data comply with the European Regulation (EU) 2016/2281, referring to high temperature process chillers in the configuration with brazed plate or shell and tube evaporator (coaxial evaporator excluded) and without pump. Any added option that modify cooling capacity or absorbed power of the chiller will not be considered in the SEPR value

(4) Pressure drops taken in account: evaporator, valves, piping

(5) Data referred to standard chiller configuration as indicated in frigorific section, with different evaporator this data can change

(6) Data referred to standard chiller configuration WP (single pump P3) and AC fans

(7) Sound pressure level referred to measures according to normative ISO3744, pressure level at distance of 10 m, referred to free field on reflecting surface

(8) To avoid excessive start/stop of the compressors a minimum water volume for the entire plant must be guarantee, the tank supplied by Hitema can be not enough

(9) The expansion vessel volume is calculated considering 40°C of deltaT between water temperature with chiller stopped and chiller active, 1/2bar of hydraulic circuit pre-charge and considering only the water volume of the unit

* For the configuration DPH (double pump P5) the chiller width will be 1305mm

** For the configurations DP or DPH (double pump P3 or double pump P5) the chiller width will be 1305mm

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ENR-IR

TABLE 1/2

Air-cooled liquid chillers ENR-IR series for ice-rink application, liquid injection scroll compressors, R449A refrigerant, brazed plate evaporator, condenser coil with copper tubes and aluminium fins, AC axial fans. IP54 protection rating, chillers suitable for outdoor installation. Inbuilt water storage tank and single pump P3 as standard.

Type of available evaporators:
B-ES = stainless steel brazed plate evaporator

Type of available expansion elements
ETS = Electronic expansion valve (available as option)

TECHNICAL DATA

PERFORMANCES		Model	008	016	022	025	030	038	045	061
NOMINAL COOLING CAPACITY	EG50% -20°C/-25°C @ 15°C (1)	kW	2,4	4,7	6,2	8,2	10,0	12,2	13,3	19,5
TOTAL NOMINAL ABSORBED POWER		kW	1,8	3,0	3,8	4,8	6,3	7,5	8,2	13,6
EER		kW/kW	2,03	1,94	2,19	2,35	2,00	1,98	1,93	1,72
SEPR (HT) (3)		-	5,05	5,05	5,02	5,00	5,05	5,03	5,07	5,04
NOMINAL WATER FLOW		m3/h	0,5	1,0	1,3	1,8	2,1	2,6	2,8	4,1
MECHANICAL MODE PRESSURE DROPS (4) (5) (6)		kPa	27	37	33	47	40	35	29	40
FRIGORIFIC SECTION										
COMPRESSORS / REFRIGERATING CIRCUITS / PARTITION STEP		nr.	1/1/1	1/1/1	1/1/1	1/1/1	1/1/1	1/1/1	1/1/1	2/2/2
KIND OF COMPRESSOR		-	SCROLL INJECTION	SCROLL INJECTION	SCROLL INJECTION	SCROLL INJECTION	SCROLL INJECTION	SCROLL INJECTION	SCROLL INJECTION	SCROLL INJECTION
KIND OF EVAPORATOR		-	B-ES	B-ES	B-ES	B-ES	B-ES	B-ES	B-ES	B-ES
KIND OF EXPANSION ELEMENT		-	ETS	ETS	ETS	ETS	ETS	ETS	ETS	ETS
HYDRAULIC SECTION										
WATER FLOW RANGE (6)		m3/h	0,4÷2,0	0,6÷2,9	0,8÷2,8	1,2÷2,9	1,2÷2,9	1,2÷2,9	2,5÷5,0	4,0÷6,0
MAXIMUM PUMP ABSORBED POWER (WP OR OPTION DP)	P3 (2)	kW	0,56	0,56	0,98	1,28	1,28	1,28	1,28	2,20
MAXIMUM PUMP ABSORBED CURRENT (WP OR OPTION DP)	P3 (2)	A	3,46	3,46	1,78	2,37	2,37	2,37	2,37	4,24
MAXIMUM PUMP ABSORBED POWER (OPTION PH OR DPH)	P5 (2)	kW	0,74	0,74	1,10	1,47	1,47	1,47	1,47	2,94
MAXIMUM PUMP ABSORBED CURRENT (OPTION PH OR DPH)	P5 (2)	A	3,22	3,22	2,17	2,86	2,32	2,32	2,32	5,83
HYDRAULIC CONNECTIONS (THREADED / FLANGED)		BSP / DN	1/2"	1/2"	1"	1"	1"	1"	1"	1 1/2"
TANK VOLUME (5) (8)		dm^3	50	50	110	110	270	270	270	410
EXPANSION VESSEL VOLUME (OPTION XV) (9)		liters	5	5	8	8	8	8	8	12
FAN SECTION (AXIAL)										
FANS		nr.	1	1	1	1	2	2	2	2
FAN SPEED REGULATION		-	ON/OFF	ON/OFF	ON/OFF	ON/OFF	ON/OFF	ON/OFF	ON/OFF	ON/OFF
MAXIMUM FANS ABSORBED POWER	AC	kW	0,25	0,49	0,81	0,81	1,44	1,62	1,44	3,88
MAXIMUM FANS ABSORBED CURRENT	AC	A	1,10	2,40	1,50	1,50	2,82	3,08	2,82	7,80
TOTAL AIR FLOW	AC	m3/h	4200	4750	7500	6800	15600	16400	14800	24800
TOTAL ELECTRIC DATA										
ELECTRICAL FEED		V/ph/Hz	400/3/50/N	400/3/50/N	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50
MAXIMUM ABSORBED CURRENT (F.L.A) (6)		A	10,2	13,9	19,8	21,7	24,4	27,9	30,2	50,4
MAXIMUM PEAK CURRENT (L.R.A) (6)		A	50,0	71,0	104,0	102,4	120,4	141,4	170,4	149,2
MAXIMUM PEAK CURRENT WITH SOFT START (OPTION SF) (L.R.A) (6)		A	NA	NA	NA	NA	99,6	116,7	139,6	125,6
NOISE DATA										
SOUND PRESSURE FOR STANDARD CONFIGURATION (6) (7)		dB(A)	51,4	52,2	56,5	56,3	55,3	59,1	55,8	60,2
SOUND PRESSURE FOR LOW NOISE CONFIGURATION (OPTION LNJ) (6) (7)		dB(A)	NA	NA	NA	NA	54,9	57,8	55,9	59,2
DIMENSIONS AND WEIGHT										
LENGTH		mm	820	820	1010	1010	1610	1610	1610	2220
WIDTH		mm	615	615	720	720	860	860	860	1100
HEIGHT		mm	1415	1415	1585	1585	1550	1550	1550	2120
WEIGHT EMPTY FOR STANDARD CONFIGURATION (5) (6)		kg	160	175	250	250	375	390	410	740
WEIGHT OPERATIVE FOR STANDARD CONFIGURATION (5) (6)		kg	210	225	380	380	675	690	710	1160

Last update: 07/10/2021
Revision: 04-2021

Data referred to:

(1) Data referred to inlet/outlet water temperature = -20/-25 °C, ambient temperature = +15°C, fluid = EG50%

(2) Available pressure can be calculated from Hitema Online Selection Software

(3) SEPR: data comply with the European Regulation (EU) 2016/2281, referring to high temperature process chillers in the configuration with brazed plate or shell and tube evaporator (coaxial evaporator excluded) and without pump. Any added option that modify cooling capacity or absorbed power of the chiller will not be considered in the SEPR value

(4) Pressure drops taken in account: evaporator, valves, piping

(5) Data referred to standard chiller configuration as indicated in frigorific section, with different evaporator this data can change

(6) Data referred to standard chiller configuration WP (single pump P3) and AC fans

(7) Sound pressure level referred to measures according to normative ISO3744, pressure level at distance of 10 m, referred to free field on reflecting surface

(8) To avoid excessive start/stop of the compressors a minimum water volume for the entire plant must be guarantee, the tank supplied by Hitema can be not enough

(9) The expansion vessel volume is calculated considering 40°C of deltaT between water temperature with chiller stopped and chiller active, 1/2bar of hydraulic circuit pre-charge and considering only the water volume of the unit

* For the configuration DPH (double pump P5) the chiller width will be 1305mm

** For the configurations DP or DPH (double pump P3 or double pump P5) the chiller width will be 1305mm

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ENR-IR

TABLE 2/2

Air-cooled liquid chillers ENR-IR series for ice-rink application, liquid injection scroll compressors, R449A refrigerant, brazed plate evaporator, condenser coil with copper tubes and aluminium fins, AC axial fans. IP54 protection rating, chillers suitable for outdoor installation. Inbuilt water storage tank and single pump P3 as standard.

Type of available evaporators:
B-ES = stainless steel brazed plate evaporator

Type of available expansion elements
ETS = Electronic expansion valve (available as option)

TECHNICAL DATA

PERFORMANCES		Model	075	090	130	160	185	200
NOMINAL COOLING CAPACITY	EG50% -20°C/-25°C @ 15°C (1)	kW	24,4	26,5	32,6	39,1	48,8	53,0
TOTAL NOMINAL ABSORBED POWER		kW	15,5	17,3	19,6	25,2	29,1	34,6
EER		kW/kW	1,83	1,75	1,91	1,73	1,83	1,65
SEPR (HT) (3)		-	5,05	5,03	5,07	5,02	5,00	5,00
NOMINAL WATER FLOW		m3/h	5,2	5,7	6,9	8,3	10,3	11,2
MECHANICAL MODE PRESSURE DROPS (4) (5) (6)		kPa	25	29	35	32	28	27
FRIGORIFIC SECTION								
COMPRESSORS / REFRIGERATING CIRCUITS / PARTITION STEP		nr.	2/2/2	2/2/2	4/2/4	4/2/4	4/2/4	4/2/4
KIND OF COMPRESSOR		-	SCROLL INJECTION	SCROLL INJECTION	SCROLL INJECTION	SCROLL INJECTION	SCROLL INJECTION	SCROLL INJECTION
KIND OF EVAPORATOR		-	B-ES	B-ES	B-ES	B-ES	B-ES	B-ES
KIND OF EXPANSION ELEMENT		-	ETS	ETS	ETS	ETS	ETS	ETS
HYDRAULIC SECTION								
WATER FLOW RANGE (6)		m3/h	5,0÷11,0	5,0÷11,0	6,0÷12,0	6,0÷12,0	8,0÷18,0	8,0÷18,0
MAXIMUM PUMP ABSORBED POWER (WP OR OPTION DP)	P3 (2)	kW	2,20	2,20	2,53	2,53	2,53	2,53
MAXIMUM PUMP ABSORBED CURRENT (WP OR OPTION DP)	P3 (2)	A	4,24	4,24	4,56	4,56	4,56	4,56
MAXIMUM PUMP ABSORBED POWER (OPTION PH OR DPH)	P5 (2)	kW	2,94	2,94	6,12	6,12	6,12	6,12
MAXIMUM PUMP ABSORBED CURRENT (OPTION PH OR DPH)	P5 (2)	A	5,83	5,83	10,40	10,40	10,40	10,40
HYDRAULIC CONNECTIONS (THREADED / FLANGED)		BSP / DN	1 1/2"	1 1/2"	1 1/2"	1 1/2"	2"	2"
TANK VOLUME (5) (8)		dm^3	410	410	390	390	390	390
EXPANSION VESSEL VOLUME (OPTION XV) (9)		liters	12	12	19	19	19	19
FAN SECTION (AXIAL)								
FANS		nr.	2	2	2	3	3	4
FAN SPEED REGULATION		-	ON/OFF	ON/OFF	ON/OFF	ON/OFF	ON/OFF	CUT PHASE
MAXIMUM FANS ABSORBED POWER	AC	kW	3,88	3,88	3,88	5,82	5,82	7,76
MAXIMUM FANS ABSORBED CURRENT	AC	A	7,80	7,80	7,80	11,70	11,70	15,60
TOTAL AIR FLOW	AC	m3/h	36000	34000	40000	57000	54000	68800
TOTAL ELECTRIC DATA								
ELECTRICAL FEED		V/ph/Hz	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50
MAXIMUM ABSORBED CURRENT (F.L.A) (6)		A	57,0	62,0	83,8	93,0	106,2	120,0
MAXIMUM PEAK CURRENT (L.R.A) (6)		A	173,5	205,0	166,0	191,8	222,7	263,0
MAXIMUM PEAK CURRENT WITH SOFT START (OPTION SF) (L.R.A) (6)		A	145,7	171,4	146,0	168,2	194,9	229,4
NOISE DATA								
SOUND PRESSURE FOR STANDARD CONFIGURATION (6) (7)		dB(A)	61,4	61,8	60,9	62,3	63,6	64,7
SOUND PRESSURE FOR LOW NOISE CONFIGURATION (OPTION LNJ) (6) (7)		dB(A)	59,7	59,9	59,5	61,0	61,6	62,7
DIMENSIONS AND WEIGHT								
LENGTH		mm	2220	2220	3355	3355	3355	4355
WIDTH		mm	1100	1100	1105*	1105*	1105*	1105**
HEIGHT		mm	2120	2120	2205	2205	2205	2205
WEIGHT EMPTY FOR STANDARD CONFIGURATION (5) (6)		kg	770	785	1190	1260	1320	1815
WEIGHT OPERATIVE FOR STANDARD CONFIGURATION (5) (6)		kg	1190	1205	1610	1695	1760	2275

Last update: 07/10/2021
Revision: 04-2021

Data referred to:

(1) Data referred to inlet/outlet water temperature = -20/-25 °C, ambient temperature = +15°C, fluid = EG50%

(2) Available pressure can be calculated from Hitema Online Selection Software

(3) SEPR: data comply with the European Regulation (EU) 2016/2281, referring to high temperature process chillers in the configuration with brazed plate or shell and tube evaporator (coaxial evaporator excluded) and without pump. Any added option that modify cooling capacity or absorbed power of the chiller will not be considered in the SEPR value

(4) Pressure drops taken in account: evaporator, valves, piping

(5) Data referred to standard chiller configuration as indicated in frigorific section, with different evaporator this data can change

(6) Data referred to standard chiller configuration WP (single pump P3) and AC fans

(7) Sound pressure level referred to measures according to normative ISO3744, pressure level at distance of 10 m, referred to free field on reflecting surface

(8) To avoid excessive start/stop of the compressors a minimum water volume for the entire plant must be guarantee, the tank supplied by Hitema can be not enough

(9) The expansion vessel volume is calculated considering 40°C of deltaT between water temperature with chiller stopped and chiller active, 1/2bar of hydraulic circuit pre-charge and considering only the water volume of the unit

* For the configuration DPH (double pump P5) the chiller width will be 1305mm

** For the configurations DP or DPH (double pump P3 or double pump P5) the chiller width will be 1305mm

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CHILLER

AIR CONDITIONING APPLICATION

R410A / R32 / R454B
Scroll compressors
Plate evaporator
No tank & no pump

CFT series
From 8 kW up to 410 kW

Technical Data Tables

SERIES: ENR-ENRF-CSE	DATE: 19.05.2022	
CODE: GPLSPC20	UPDATE: GPLSPC19	
CHECKED BY	M. Burba	

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CFT SERIES

Air-Cooled liquid Chillers
AC axial fans
IP54 protection rating
Suitable for OUTDOOR installation

SERIES: CFT	DATE: 29/09/2021
CODE: TTD-CFT-00	UPDATE: -
CHECKED BY	M. Burba

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CFT

TABLE 1/3

Air-cooled liquid chillers CFT series for air conditioning application, scroll compressors, R410A / R32 / R454B refrigerant, brazed plate, condenser coil with copper tubes and aluminum fins, AC axial fans. IP54 protection rating, chillers suitable for outdoor installation. Pump and tank available as an optional.

Type of available evaporators:
B-ES = stainless steel brazed plate evaporator

TECHNICAL DATA

PERFORMANCES		Model	008	010	012	016	018	022	025	030
NOMINAL COOLING CAPACITY	W 12°C/7°C @ 35°C (1)	kW	7,9	9,3	12,2	13,5	18,0	22,0	25,0	31,0
TOTAL NOMINAL ABSORBED POWER		kW	2,9	3,7	4,4	5,7	6,5	7,5	8,6	9,8
EER		kW/kW	2,77	2,55	2,78	2,37	2,78	2,93	2,90	3,15
SEPR (HT) (3)		-	4,64	4,59	4,75	4,79	5,01	5,23	5,18	5,51
NOMINAL WATER FLOW		m3/h	1,4	1,6	2,1	2,3	3,1	3,8	4,3	5,3
MECHANICAL MODE PRESSURE DROPS (4)		kPa	42	54	42	50	45	66	42	70
FRIGORIFIC SECTION										
COMPRESSORS / REFRIGERATING CIRCUITS / PARTITION STEP		nr.	1/1/1	1/1/1	1/1/1	1/1/1	1/1/1	1/1/1	1/1/1	1/1/1
KIND OF COMPRESSOR		-	SCROLL	SCROLL	SCROLL	SCROLL	SCROLL	SCROLL	SCROLL	SCROLL
KIND OF EVAPORATOR		-	B-ES	B-ES	B-ES	B-ES	B-ES	B-ES	B-ES	B-ES
HYDRAULIC SECTION										
WATER FLOW RANGE (6)		m3/h	1,2÷2,4	1,2÷3,0	1,2÷3,0	1,2÷3,0	2,3÷5,0	3,0÷6,0	3,0÷6,0	3,5÷6,0
MAXIMUM PUMP ABSORBED POWER (WP OR OPTION DP)	P3 (2)	kW	0,88	0,98	0,98	0,98	0,98	1,28	1,28	1,28
MAXIMUM PUMP ABSORBED CURRENT (WP OR OPTION DP)		A	1,65	1,78	1,78	1,78	1,78	2,37	2,37	2,37
MAXIMUM PUMP ABSORBED POWER (OPTION PH OR DPH)	P5 (2)	kW	1,10	1,10	1,10	1,10	1,47	1,47	1,47	1,47
MAXIMUM PUMP ABSORBED CURRENT (OPTION PH OR DPH)		A	2,17	2,17	2,17	2,17	2,86	2,86	2,86	2,86
HYDRAULIC CONNECTIONS (THREADED / FLANGED)		BSP / DN	1"	1"	1"	1"	1"	1"	1"	1 1/2"
TANK VOLUME (5)		dm^3	50	50	50	50	110	110	110	200
EXPANSION VESSEL NUMBER x VOLUME (OPTION XV)		liters	5	5	5	5	8	8	8	12
FAN SECTION (AXIAL)										
FANS		nr.	1	1	1	1	1	1	1	2
FAN SPEED REGULATION		-	ON/OFF	ON/OFF	ON/OFF	ON/OFF	ON/OFF	ON/OFF	ON/OFF	ON/OFF
MAXIMUM FANS ABSORBED POWER	AC	kW	0,25	0,25	0,49	0,49	0,68	0,81	0,81	1,44
MAXIMUM FANS ABSORBED CURRENT		A	1,10	1,10	2,40	2,40	3,00	1,50	1,50	2,82
TOTAL AIR FLOW		m3/h	4100	4100	4750	4750	6500	7400	6800	16000
TOTAL ELECTRIC DATA										
ELECTRICAL FEED		V/ph/Hz	400/3/50/N	400/3/50/N	400/3/50/N	400/3/50/N	400/3/50/N	400/3/50	400/3/50	400/3/50
MAXIMUM ABSORBED CURRENT (F.L.A) (6)		A	8,4	8,7	11,6	12,2	17,0	17,4	21,1	23,0
MAXIMUM PEAK CURRENT (L.R.A) (6)		A	48,0	48,0	69,0	69,0	73,0	102,0	127,4	139,0
MAXIMUM PEAK CURRENT WITH SOFT START (OPTION SF) (L.R.A) (6)		A	NA	NA	NA	NA	NA	NA	102,4	111,2
NOISE DATA										
SOUND PRESSURE FOR STANDARD CONFIGURATION (6) (7)		dB(A)	50,0	50,0	50,0	50,0	51,3	54,3	55,4	53,1
SOUND PRESSURE FOR LOW NOISE CONFIGURATION (OPTION LNJ) (6) (7)		dB(A)	NA	NA	NA	NA	NA	NA	NA	52,2
DIMENSIONS AND WEIGHT										
LENGTH		mm	820	820	820	820	1010	1010	1010	1610
WIDTH		mm	615	615	615	615	720	720	720	860
HEIGHT		mm	1415	1415	1415	1415	1585	1585	1585	1550
WEIGHT EMPTY FOR STANDARD CONFIGURATION (5) (6)		kg	135	135	140	140	165	205	250	275
WEIGHT OPERATIVE FOR STANDARD CONFIGURATION (5) (6)		kg	135	135	140	140	165	205	380	280

Last update: 22/07/2021
Revision: 00-2020

Data referred to:
(1) Data referred to inlet/outlet water temperature = +12/+7 °C, ambient temperature = +35°C, fluid = Water
(2) Available pressure can be calculated from Hitema Online Selection Software
(3) SEPR: data comply with the European Regulation (EU) 2016/2281, referring to high temperature process chillers
(4) Pressure drops taken in account: evaporator, valves, piping
(5) Data referred to standard chiller configuration as indicated in frigorific section, with different evaporator this data can change
(6) Data referred to standard chiller configuration NP (no pump) and AC fans
(7) Sound pressure level referred to measures according to normative ISO3744, pressure level at distance of 10 m, referred to free field on reflecting surface

* For the configuration DPH (double pump P5) the chiller width will be 1305mm
** For the configurations DP or DPH (double pump P3 or double pump P5) the chiller width will be 1305mm

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CFT

TABLE 2/3

Air-cooled liquid chillers CFT series for air conditioning application, scroll compressors, R410A / R32 / R454B refrigerant, brazed plate, condenser coil with copper tubes and aluminum fins, AC axial fans. IP54 protection rating, chillers suitable for outdoor installation. Pump and tank available as an optional.

Type of available evaporators:
B-ES = stainless steel brazed plate evaporator

TECHNICAL DATA

PERFORMANCES		Model	038	045	055	061	075	090	100	130
NOMINAL COOLING CAPACITY	W 12°C/7°C @ 35°C (1)	kW	37,0	45,0	55,0	64,0	72,0	88,0	100,0	115,0
TOTAL NOMINAL ABSORBED POWER		kW	13,1	13,8	18,9	20,3	26,3	29,1	33,0	39,4
EER		kW/kW	2,82	3,25	2,91	3,16	2,74	3,03	3,03	2,92
SEPR (HT) (3)		-	5,05	5,17	5,23	5,40	5,77	5,16	5,61	5,02
NOMINAL WATER FLOW		m3/h	6,4	7,7	9,5	11,0	12,4	15,1	17,2	19,8
MECHANICAL MODE PRESSURE DROPS (4)		kPa	50	46	55	66	53	51	48	59
FRIGORIFIC SECTION										
COMPRESSORS / REFRIGERATING CIRCUITS / PARTITION STEP		nr.	1/1/1	1/1/1	1/1/1	2/1/2	2/1/2	2/1/2	2/1/2	4/2/4
KIND OF COMPRESSOR		-	SCROLL	SCROLL	SCROLL	SCROLL	SCROLL	SCROLL	SCROLL	SCROLL
KIND OF EVAPORATOR		-	B-ES	B-ES	B-ES	B-ES	B-ES	B-ES	B-ES	B-ES
HYDRAULIC SECTION										
WATER FLOW RANGE (6)		m3/h	6,0÷12,0	6,0÷12,0	6,0÷12,0	8,0÷17,0	8,0÷17,0	8,0÷17,0	8,0÷21,0	14,0÷34,0
MAXIMUM PUMP ABSORBED POWER (WP OR OPTION DP)	P3 (2)	kW	2,20	2,20	2,20	2,53	2,53	2,53	2,53	4,56
MAXIMUM PUMP ABSORBED CURRENT (WP OR OPTION DP)		A	4,24	4,24	4,24	4,56	4,56	4,56	4,56	7,75
MAXIMUM PUMP ABSORBED POWER (OPTION PH OR DPH)	P5 (2)	kW	2,94	2,94	2,94	6,12	6,12	6,12	6,12	10,20
MAXIMUM PUMP ABSORBED CURRENT (OPTION PH OR DPH)		A	5,83	5,83	5,83	10,40	10,40	10,40	10,40	17,40
HYDRAULIC CONNECTIONS (THREADED / FLANGED)		BSP / DN	1 1/2"	1 1/2"	1 1/2"	2"	2"	2"	2"	DN65
TANK VOLUME (5)		dm^3	200	200	200	390	390	390	390	390
EXPANSION VESSEL NUMBER x VOLUME (OPTION XV)		liters	12	12	12	19	19	19	19	19
FAN SECTION (AXIAL)										
FANS		nr.	2	2	2	2	2	2	2	2
FAN SPEED REGULATION		-	ON/OFF	ON/OFF	ON/OFF	ON/OFF	ON/OFF	ON/OFF	ON/OFF	ON/OFF
MAXIMUM FANS ABSORBED POWER	AC	kW	1,62	1,44	1,62	3,88	3,88	3,88	3,88	3,88
MAXIMUM FANS ABSORBED CURRENT		A	3,08	2,82	3,08	7,80	7,80	7,80	7,80	7,80
TOTAL AIR FLOW		m3/h	16400	15000	15600	25000	36000	34000	32000	40000
TOTAL ELECTRIC DATA										
ELECTRICAL FEED		V/ph/Hz	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50
MAXIMUM ABSORBED CURRENT (F.L.A) (6)		A	27,6	32,8	39,5	48,1	56,8	67,8	74,2	88,3
MAXIMUM PEAK CURRENT (L.R.A) (6)		A	140,0	174,0	225,0	166,9	172,3	211,8	262,8	207,2
MAXIMUM PEAK CURRENT WITH SOFT START (OPTION SF) (L.R.A) (6)		A	112,0	139,2	180,0	139,1	144,3	177,0	217,8	179,4
NOISE DATA										
SOUND PRESSURE FOR STANDARD CONFIGURATION (6) (7)		dB(A)	57,1	54,3	58,6	58,8	59,3	59,5	60,3	59,2
SOUND PRESSURE FOR LOW NOISE CONFIGURATION (OPTION LNJ) (6) (7)		dB(A)	56,2	52,6	56,8	58,1	58,3	58,3	58,7	58,2
DIMENSIONS AND WEIGHT										
LENGTH		mm	1610	1610	1610	2220	2220	2220	2220	3355
WIDTH		mm	860	860	860	1100	1100	1100	1100	1105
HEIGHT		mm	1550	1550	1540	2120	2120	2120	2120	2205
WEIGHT EMPTY FOR STANDARD CONFIGURATION (5) (6)		kg	280	295	375	530	565	585	670	1000
WEIGHT OPERATIVE FOR STANDARD CONFIGURATION (5) (6)		kg	285	300	380	545	580	600	685	1025

Last update: 22/07/2021
Revision: 00-2020

Data referred to:
(1) Data referred to inlet/outlet water temperature = +12/+7 °C, ambient temperature = +35°C, fluid = Water
(2) Available pressure can be calculated from Hitema Online Selection Software
(3) SEPR: data comply with the European Regulation (EU) 2016/2281, referring to high temperature process chillers
(4) Pressure drops taken in account: evaporator, valves, piping
(5) Data referred to standard chiller configuration as indicated in frigorific section, with different evaporator this data can change
(6) Data referred to standard chiller configuration NP (no pump) and AC fans
(7) Sound pressure level referred to measures according to normative ISO3744, pressure level at distance of 10 m, referred to free field on reflecting surface

* For the configuration DPH (double pump P5) the chiller width will be 1305mm
** For the configurations DP or DPH (double pump P3 or double pump P5) the chiller width will be 1305mm

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CFT

TABLE 3/3

Air-cooled liquid chillers CFT series for air conditioning application, scroll compressors, R410A / R32 / R454B refrigerant, brazed plate, condenser coil with copper tubes and aluminum fins, AC axial fans. IP54 protection rating, chillers suitable for outdoor installation. Pump and tank available as an optional.

Type of available evaporators:
B-ES = stainless steel brazed plate evaporator

TECHNICAL DATA

PERFORMANCES		Model	160	185	200	230	280	340	370	430
NOMINAL COOLING CAPACITY	W 12°C/7°C @ 35°C (1)	kW	150,0	170,0	204,3	227,0	277,0	319,0	365,0	410,0
TOTAL NOMINAL ABSORBED POWER		kW	51,4	58,2	63,0	76,5	94,9	107,5	119,6	136,6
EER		kW/kW	2,92	2,92	3,24	2,97	2,92	2,97	3,05	3,00
SEPR (HT) (3)		-	5,02	5,10	5,22	5,76	5,14	5,08	5,15	5,01
NOMINAL WATER FLOW		m3/h	25,8	29,2	35,1	39,0	47,6	54,9	62,8	70,5
MECHANICAL MODE PRESSURE DROPS (4)		kPa	58	48	39	43	51	53	55	54
FRIGORIFIC SECTION										
COMPRESSORS / REFRIGERATING CIRCUITS / PARTITION STEP		nr.	4/2/4	4/2/4	4/2/4	4/2/4	4/2/4	4/2/4	4/2/4	4/2/4
KIND OF COMPRESSOR		-	SCROLL	SCROLL	SCROLL	SCROLL	SCROLL	SCROLL	SCROLL	SCROLL
KIND OF EVAPORATOR		-	B-ES	B-ES	B-ES	B-ES	B-ES	B-ES	B-ES	B-ES
HYDRAULIC SECTION										
WATER FLOW RANGE (6)		m3/h	14,0÷34,0	14,0÷34,0	22,0÷47,0	22,0÷47,0	25,0÷60,0	30,0÷70,0	35,0÷80,0	35,0÷87,0
MAXIMUM PUMP ABSORBED POWER (WP OR OPTION DP)	P3 (2)	kW	4,56	4,56	8,30	8,30	8,30	8,30	10,20	10,20
MAXIMUM PUMP ABSORBED CURRENT (WP OR OPTION DP)		A	7,75	7,75	14,10	14,10	14,10	14,10	17,40	17,40
MAXIMUM PUMP ABSORBED POWER (OPTION PH OR DPH)	P5 (2)	kW	10,20	10,20	16,22	16,22	16,22	16,22	16,22	19,94
MAXIMUM PUMP ABSORBED CURRENT (OPTION PH OR DPH)		A	17,40	17,40	26,60	26,60	26,60	26,60	26,60	32,70
HYDRAULIC CONNECTIONS (THREADED / FLANGED)		BSP / DN	DN65	DN65	DN80	DN80	DN100	DN100	DN100	DN125
TANK VOLUME (5)		dm^3	390	390	390	500	500	500	500	500
EXPANSION VESSEL NUMBER x VOLUME (OPTION XV)		liters	19	19	19	19	19	19	19	19
FAN SECTION (AXIAL)										
FANS		nr.	3	3	4	5	5	5	6	6
FAN SPEED REGULATION		-	ON/OFF	ON/OFF	ON/OFF	ON/OFF	ON/OFF	ON/OFF	ON/OFF	ON/OFF
MAXIMUM FANS ABSORBED POWER	AC	kW	5,82	5,82	7,76	9,70	9,70	9,70	11,64	11,64
MAXIMUM FANS ABSORBED CURRENT		A	11,70	11,70	15,60	19,50	19,50	19,50	23,40	23,40
TOTAL AIR FLOW		m3/h	57000	54000	68800	91000	90000	85000	102000	96000
TOTAL ELECTRIC DATA										
ELECTRICAL FEED		V/ph/Hz	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50
MAXIMUM ABSORBED CURRENT (F.L.A) (6)		A	109,7	131,7	148,5	165,3	197,9	227,3	260,6	289,6
MAXIMUM PEAK CURRENT (L.R.A) (6)		A	225,2	275,7	337,0	353,8	425,3	478,0	511,3	623,8
MAXIMUM PEAK CURRENT WITH SOFT START (OPTION SF) (L.R.A) (6)		A	197,2	240,9	292,0	308,8	370,9	416,0	449,3	542,2
NOISE DATA										
SOUND PRESSURE FOR STANDARD CONFIGURATION (6) (7)		dB(A)	61,3	61,5	63,3	64,6	66,0	66,0	66,4	67,8
SOUND PRESSURE FOR LOW NOISE CONFIGURATION (OPTION LNJ) (6) (7)		dB(A)	60,1	60,2	61,7	62,8	63,5	63,5	64,0	64,8
DIMENSIONS AND WEIGHT										
LENGTH		mm	3355	3355	4355	5350	5350	5350	6350	6350
WIDTH		mm	1105	1105*	1105*	1105	1105	1105	1105	1105
HEIGHT		mm	2205	2205	2205	2205	2205	2205	2205	2205
WEIGHT EMPTY FOR STANDARD CONFIGURATION (5) (6)		kg	1050	1100	1690	1915	2070	2150	2410	2565
WEIGHT OPERATIVE FOR STANDARD CONFIGURATION (5) (6)		kg	1080	1135	1710	1950	2110	2195	2455	2615

Last update: 22/07/2021
Revision: 00-2020

Data referred to:
(1) Data referred to inlet/outlet water temperature = +12/+7 °C, ambient temperature = +35°C, fluid = Water
(2) Available pressure can be calculated from Hitema Online Selection Software
(3) SEPR: data comply with the European Regulation (EU) 2016/2281, referring to high temperature process chillers
(4) Pressure drops taken in account: evaporator, valves, piping
(5) Data referred to standard chiller configuration as indicated in frigorific section, with different evaporator this data can change
(6) Data referred to standard chiller configuration NP (no pump) and AC fans
(7) Sound pressure level referred to measures according to normative ISO3744, pressure level at distance of 10 m, referred to free field on reflecting surface

* For the configuration DPH (double pump P5) the chiller width will be 1305mm
** For the configurations DP or DPH (double pump P3 or double pump P5) the chiller width will be 1305mm

CONDENSING UNIT

R410A / R32 / R454B
Scroll compressors
No evaporator, no tank & no pump

MTC series
From 7,7 kW up to 375,6 kW

Technical Data Tables

SERIES: MTC	DATE: 19.05.2022
CODE: GPLSPC20	UPDATE: GPLSPC19
CHECKED BY	M. Burba

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MTC SERIES

Moto-Condensing unit
AC axial fans
IP54 protection rating
Suitable for OUTDOOR installation

SERIES: MTC	DATE: 07/10/2021
CODE: TTD-MTC-01	UPDATE: -
CHECKED BY	M. Burba

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MTC
TABLE 1/3

Condensing unit MTC series, scroll compressors, R410A / R32 / R454B refrigerant, condenser coil with copper tubes and aluminium fins, AC axial fans. IP54 protection rating, chillers suitable for outdoor installation. 60Hz version as option.

Type of included options:
FLT = DEHYDRATING FILTER FOR LIQUID LINE
LIQ = LIQUID INDICATOR / SIGHT GLASS FOR LIQUID LINE
OIS = OIL SEPARATOR
RLQ = LIQUID RECEIVER

Type of remote evaporator: Hydraulic circuit customer side
Air handling unit circuit customer side

TECHNICAL DATA

PERFORMANCES		Model	008	012	016	018	022	025	030	038
NOMINAL COOLING CAPACITY	Tevap +5°C @35°C (1)	kW	7,7	11,5	12,3	15,5	19,1	22,7	27,2	32,4
TOTAL NOMINAL ABSORBED POWER	Tevap +5°C @35°C (1)	kW	3,6	5,0	5,2	6,1	7,7	8,6	9,9	13,1
EER	Tevap +5°C @35°C (1)	kW/kW	2,13	2,31	2,36	2,52	2,47	2,65	2,74	2,47
FRIGORIFIC SECTION										
COMPRESSORS / REFRIGERATING CIRCUITS / PARTITION STEP		nr.	1/1/1	1/1/1	1/1/1	1/1/1	1/1/1	1/1/1	1/1/1	1/1/1
KIND OF COMPRESSOR		-	SCROLL	SCROLL	SCROLL	SCROLL	SCROLL	SCROLL	SCROLL	SCROLL
KIND OF EXPANSION ELEMENT		-	VTS	VTS	VTS	VTS	VTS	VTS	VTS	VTS
FAN SECTION (AXIAL)										
FANS		nr.	1	1	1	1	1	1	2	2
FAN SPEED REGULATION		-	ON/OFF	ON/OFF	ON/OFF	ON/OFF	ON/OFF	ON/OFF	ON/OFF	ON/OFF
MAXIMUM FANS ABSORBED POWER	AC	kW	0,25	0,49	0,49	0,68	0,81	0,81	1,44	1,62
MAXIMUM FANS ABSORBED CURRENT	AC	A	1,10	2,40	2,40	3,00	1,50	1,50	2,82	3,08
TOTAL AIR FLOW	AC	m3/h	4200	4750	4750	6500	6800	6800	16000	16400
TOTAL ELECTRIC DATA										
ELECTRICAL FEED		V/ph/Hz	400/3/50/N	400/3/50/N	400/3/50/N	400/3/50/N	400/3/50	400/3/50	400/3/50	400/3/50
MAXIMUM ABSORBED CURRENT (F.L.A) (2)		A	10,2	13,3	13,9	18,8	19,8	18,7	22,0	27,6
MAXIMUM PEAK CURRENT (L.R.A) (2)		A	50,0	71,0	71,0	75,0	104,0	125,0	118,0	140,0
MAXIMUM PEAK CURRENT WITH SOFT START (OPTION SF) (L.R.A) (2)		A	NA	NA	NA	NA	NA	NA	NA	NA
NOISE DATA										
SOUND PRESSURE FOR STANDARD CONFIGURATION (2) (3)		dB(A)	51,4	52,2	52,2	53,3	54,5	54,0	53,0	56,6
SOUND PRESSURE FOR LOW NOISE CONFIGURATION (OPTION LNJ) (2) (3)		dB(A)	NA	NA	NA	NA	NA	NA	52,3	56,2
DIMENSIONS AND WEIGHT										
LENGTH		mm	820	820	820	1010	1010	1010	1610	1610
WIDTH		mm	615	615	615	720	720	720	860	860
HEIGHT		mm	1415	1415	1415	1585	1585	1585	1550	1550
WEIGHT EMPTY FOR STANDARD CONFIGURATION		kg	135	135	140	165	205	230	275	280

The manufacturer reserves the right to modify specifications without notice.

Revision:

Last update: 27/01/2021
Revision: 01-2021

Data referred to:

(1) Data referred to Evaporating temperature = +5 °C, ambient temperature = +35°C, fluid = Water

(2) Data referred to standard chiller configuration and AC fans

(3) Sound pressure level referred to measures according to normative ISO3744, pressure level at distance of 10 m, referred to free field on reflecting surface

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MTC
TABLE 2/3

Condensing unit MTC series, scroll compressors, R410A / R32 / R454B refrigerant, condenser coil with copper tubes and aluminium fins, AC axial fans. IP54 protection rating, chillers suitable for outdoor installation. 60Hz version as option.

Type of included options:
FLT = DEHYDRATING FILTER FOR LIQUID LINE
LIQ = LIQUID INDICATOR / SIGHT GLASS FOR LIQUID LINE
OIS = OIL SEPARATOR
RLQ = LIQUID RECEIVER

Type of remote evaporator: Hydraulic circuit customer side
Air handling unit circuit customer side

TECHNICAL DATA

PERFORMANCES		Model	045	055	061	070	075	090	100	130
NOMINAL COOLING CAPACITY	Tevap + 5°C @ 35°C (1)	kW	40,5	49,7	53,0	61,0	66,0	80,2	91,0	102,0
TOTAL NOMINAL ABSORBED POWER		kW	14,0	19,3	20,1	23,4	26,7	29,5	33,2	40,9
EER		kW/kW	2,88	2,57	2,63	2,61	2,47	2,72	2,74	2,50
FRIGORIFIC SECTION										
COMPRESSORS / REFRIGERATING CIRCUITS / PARTITION STEP		nr.	1/1/1	1/1/1	2/1/2	2/1/2	2/1/2	2/1/2	2/1/2	4/2/4
KIND OF COMPRESSOR		-	SCROLL	SCROLL	SCROLL	SCROLL	SCROLL	SCROLL	SCROLL	SCROLL
KIND OF EXPANSION ELEMENT		-	VTS	VTS	VTS	VTS	VTS	VTS	VTS	VTS
FAN SECTION (AXIAL)										
FANS		nr.	2	2	2	2	2	2	2	2
FAN SPEED REGULATION		-	ON/OFF	ON/OFF	ON/OFF	ON/OFF	ON/OFF	ON/OFF	ON/OFF	ON/OFF
MAXIMUM FANS ABSORBED POWER	AC	kW	1,44	1,62	2,50	3,88	3,88	3,88	3,88	3,88
MAXIMUM FANS ABSORBED CURRENT		A	2,82	3,08	4,96	7,80	7,80	7,80	7,80	7,80
TOTAL AIR FLOW		m3/h	15000	15600	25000	36000	36000	34000	32000	40000
TOTAL ELECTRIC DATA										
ELECTRICAL FEED		V/ph/Hz	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50
MAXIMUM ABSORBED CURRENT (F.L.A) (2)		A	32,8	39,5	43,4	51,5	56,8	67,8	74,2	84,7
MAXIMUM PEAK CURRENT (L.R.A) (2)		A	174,0	225,0	137,2	159,2	164,5	204,0	255,0	175,7
MAXIMUM PEAK CURRENT WITH SOFT START (OPTION SF) (L.R.A) (2)		A	NA	NA	118,6	139,0	144,3	177,0	217,8	159,9
NOISE DATA										
SOUND PRESSURE FOR STANDARD CONFIGURATION (2) (3)		dB(A)	53,8	58,1	56,8	58,7	58,8	59,0	59,8	59,0
SOUND PRESSURE FOR LOW NOISE CONFIGURATION (OPTION LNJ) (2) (3)		dB(A)	52,6	56,8	56,3	58,2	58,3	58,3	58,7	58,3
DIMENSIONS AND WEIGHT										
LENGTH		mm	1610	1610	2220	2220	2220	2220	2220	3355
WIDTH		mm	860	860	1100	1100	1100	1100	1100	1105*
HEIGHT		mm	1550	1550	2120	2120	2120	2120	2120	2205
WEIGHT EMPTY FOR STANDARD CONFIGURATION		kg	340	390	510	540	545	560	650	820

Last update: 27/01/2021
Revision: 01-2021

Data referred to:

(1) Data referred to Evaporating temperature = +5 °C, ambient temperature = +35°C, fluid = Water

(2) Data referred to standard chiller configuration and AC fans

(3) Sound pressure level referred to measures according to normative ISO3744, pressure level at distance of 10 m, referred to free field on reflecting surface

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MTC
TABLE 3/3

Condensing unit MTC series, scroll compressors, R410A / R32 / R454B refrigerant, condenser coil with copper tubes and aluminium fins, AC axial fans. IP54 protection rating, chillers suitable for outdoor installation. 60Hz version as option.

Type of included options:
FLT = DEHYDRATING FILTER FOR LIQUID LINE
LIQ = LIQUID INDICATOR / SIGHT GLASS FOR LIQUID LINE
OIS = OIL SEPARATOR
RLQ = LIQUID RECEIVER

Type of remote evaporator: Hydraulic circuit customer side
Air handling unit circuit customer side

TECHNICAL DATA

PERFORMANCES		Model	160	185	200	230	280	340	370	430
NOMINAL COOLING CAPACITY	Tevap +5°C @ 35°C (1)	kW	127,2	154,8	190,0	211,2	254,4	290,4	331,6	375,6
TOTAL NOMINAL ABSORBED POWER		kW	53,4	59,2	62,8	72,3	96,1	108,7	121,6	138,8
EER		kW/kW	2,38	2,61	3,03	2,92	2,65	2,67	2,73	2,71
FRIGORIFIC SECTION										
COMPRESSORS / REFRIGERATING CIRCUITS / PARTITION STEP		nr.	4/2/4	4/2/4	4/2/4	4/2/4	4/2/4	4/2/4	4/2/4	4/2/4
KIND OF COMPRESSOR		-	SCROLL	SCROLL	SCROLL	SCROLL	SCROLL	SCROLL	SCROLL	SCROLL
KIND OF EXPANSION ELEMENT		-	VTS	VTS	VTS	VTS	VTS	VTS	VTS	VTS
FAN SECTION (AXIAL)										
FANS		nr.	3	3	4	5	5	5	6	6
FAN SPEED REGULATION		-	ON/OFF	ON/OFF	CUT PHASE	CUT PHASE	CUT PHASE	CUT PHASE	CUT PHASE	CUT PHASE
MAXIMUM FANS ABSORBED POWER	AC	kW	5,82	5,82	7,76	9,70	9,70	9,70	11,64	11,64
MAXIMUM FANS ABSORBED CURRENT		A	11,70	11,70	15,60	19,50	19,50	19,50	23,40	23,40
TOTAL AIR FLOW		m3/h	57000	54000	68800	91000	90000	85000	102000	96000
TOTAL ELECTRIC DATA										
ELECTRICAL FEED		V/ph/Hz	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50
MAXIMUM ABSORBED CURRENT (F.L.A) (2)		A	109,7	131,7	148,5	165,3	197,9	227,3	260,6	289,6
MAXIMUM PEAK CURRENT (L.R.A) (2)		A	213,5	264,0	321,4	334,3	405,8	458,5	487,9	600,4
MAXIMUM PEAK CURRENT WITH SOFT START (OPTION SF) (L.R.A) (2)		A	197,2	240,9	292,0	308,8	370,9	416,0	449,3	542,2
NOISE DATA										
SOUND PRESSURE FOR STANDARD CONFIGURATION (2) (3)		dB(A)	60,8	61,0	62,8	64,1	65,5	65,5	65,9	67,3
SOUND PRESSURE FOR LOW NOISE CONFIGURATION (OPTION LNJ) (2) (3)		dB(A)	60,1	60,2	61,7	62,8	63,5	63,5	64,0	64,8
DIMENSIONS AND WEIGHT										
LENGTH		mm	3355	3355	4355	5350	5350	5350	6350	6350
WIDTH		mm	1105*	1105*	1105**	1105	1105	1105	1105	1105
HEIGHT		mm	2205	2205	2205	2205	2205	2205	2205	2205
WEIGHT EMPTY FOR STANDARD CONFIGURATION		kg	955	995	1455	1750	1870	2010	2270	2315

Last update: 27/01/2021
Revision: 01-2021

Data referred to:

(1) Data referred to Evaporating temperature = +5 °C, ambient temperature = +35°C, fluid = Water

(2) Data referred to standard chiller configuration and AC fans

(3) Sound pressure level referred to measures according to normative ISO3744, pressure level at distance of 10 m, referred to free field on reflecting surface

CONDENSERLESS

R410A / R32 / R454B / R134A / R513A / R1234ZE
Screw / Scroll compressors
Coaxial / Shell & Tube evaporator / Plate
Inbuilt water storage tank & single pump P3

ENRC - CFTC - CWB series
From 7,4 kW up to 1953 kW

Technical Data Tables

SERIES: ENRC-CFTC-CWC	DATE: 19.05.2022
CODE: GPLSPC20	UPDATE: GPLSPC19
CHECKED BY	M. Burba

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ENRC SERIES

Condenserless liquid Chillers
Closed cabinet
IP54 protection rating
Suitable for OUTDOOR installation

SERIES: ENR-ENRF-CSE	DATE: 20.02.2020	
CODE: GPLSPC20	UPDATE: GPLSPC19	
CHECKED BY		M. Burba

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ENRC

TABLE 1/3

Condenserless liquid chillers ENRC series, scroll compressors, R410A / R32 / R454B refrigerant, coaxial / shell and tube evaporator, closed cabinet. IP54 protection rating, chillers suitable for outdoor installation. Inbuilt water storage tank and single pump P3 as standard. Standar configuration doesn't include 0-10V signal or power supply for the fans of remote condenser (remote condenser not supply by Hitema). Supplied with 5 bar nitrogen charge.

Type of available evaporators:

CX = HITEMA coaxial evaporator, convoluted tube in tube exchanger (outer tube in carbon steel or stainless steel, inner tubes in copper) installed inside the water storage tank

ST = shell and tube evaporator, with high thickness copper tubes (0,41mm)

B-ES = stainless steel brazed plate evaporator

TECHNICAL DATA

PERFORMANCES		**Model**	**008**	**010**	**012**	**016**	**018**	**022**	**025**	**030**
NOMINAL COOLING CAPACITY	W 12°C/7°C @ TC=50°C (1)	kW	7,4	8,4	11,1	12,1	16,6	17,4	21,9	25,2
TOTAL NOMINAL ABSORBED POWER		kW	4,1	4,3	5,3	5,3	7,1	7,5	8,6	9,5
EER		kW/kW	2,31	2,55	2,58	2,81	2,72	2,79	2,98	3,06
NOMINAL WATER FLOW		m3/h	1,3	1,4	1,9	2,1	2,9	3,0	3,8	4,3
MECHANICAL MODE PRESSURE DROPS (3)		kPa	21	21	21	16	22	17	33	24
FRIGORIFIC SECTION										
COMPRESSORS / REFRIGERATING CIRCUITS / PARTITION STEP		nr.	1/1/1	1/1/1	1/1/1	1/1/1	1/1/1	1/1/1	1/1/1	1/1/1
KIND OF EVAPORATOR		-	CX	CX	CX	CX	CX	CX	CX	CX
HYDRAULIC SECTION										
WATER FLOW RANGE (5)		m3/h	1,2÷2,4	1,4÷3,0	1,2÷2,9	1,2÷2,9	2,5÷5,0	3,0÷6,0	3,0÷6,0	4,0÷6,0
MAXIMUM PUMP ABSORBED POWER (WP OR OPTION DP)	P3 (2)	kW	0,88	0,98	0,98	0,98	0,98	1,28	1,28	1,28
MAXIMUM PUMP ABSORBED CURRENT (WP OR OPTION DP)	P3 (2)	A	1,65	1,78	1,78	1,78	1,78	2,37	2,37	2,37
MAXIMUM PUMP ABSORBED POWER (OPTION PH OR DPH)	P5 (2)	kW	1,10	1,10	1,10	1,10	1,47	1,47	1,47	1,47
MAXIMUM PUMP ABSORBED CURRENT (OPTION PH OR DPH)	P5 (2)	A	2,17	2,17	2,17	2,17	2,86	2,86	2,86	2,32
HYDRAULIC CONNECTIONS (THREADED / FLANGED)		BSP / DN	1"	1"	1"	1"	1"	1"	1"	1 1/2"
TANK VOLUME (4)		dm^3	50	50	50	50	110	110	110	270
EXPANSION VESSEL NUMBER x VOLUME (OPTION XV)		liters	5	5	5	5	8	8	8	12
TOTAL ELECTRIC DATA										
ELECTRICAL FEED		V/ph/Hz	400/3/50/N	400/3/50/N	400/3/50/N	400/3/50/N	400/3/50/N	400/3/50	400/3/50	400/3/50
MAXIMUM ABSORBED CURRENT (F.L.A) (5)		A	9,0	9,4	11,0	11,6	15,8	17,6	19,6	22,5
MAXIMUM PEAK CURRENT (L.R.A) (5)		A	48,0	48,0	69,0	69,0	73,0	125,0	127,4	141,4
MAXIMUM PEAK CURRENT WITH SOFT START (OPTION SF) (L.R.A) (5)		A	NA	NA	NA	NA	NA	NA	NA	NA
NOISE DATA										
SOUND PRESSURE FOR STANDARD CONFIGURATION (5) (6)		dB(A)	51,4	51,4	52,2	52,2	53,3	51,0	51,8	51,0
SOUND PRESSURE FOR LOW NOISE CONFIGURTION (OPTION LNJ) (5) (6)		dB(A)	NA	NA	NA	NA	NA	NA	NA	50,3
DIMENSIONS AND WEIGHT										
LENGTH		mm	820	820	820	820	1010	1010	1010	1610
WIDTH		mm	615	615	615	615	720	720	720	860
HEIGHT		mm	1360	1360	1360	1360	1580	1420	1585	1380
WEIGHT EMPTY FOR STANDARD CONFIGURATION (4) (5) (7)		kg	175	180	185	190	230	247	250	374
WEIGHT OPERATIVE FOR STANDARD CONFIGURATION (4) (5) (7)		kg	225	230	235	240	360	376	379	673

Last update: 27/07/2020
Revision: 01-2021

Data referred to:

(1) Data referred to inlet/outlet water temperature = +12/+7 °C, condensing temperature = +50°C, condenser subcooling temperature = +5°C, fluid = Water

(2) Available pressure can be calculated from Hitema Online Selection Software

(3) Pressure drops taken in account: evaporator, valves, piping

(4) Data referred to standard chiller configuration as indicated in frigorific section, with different evaporator this data can change

(5) Data referred to standard chiller configuration WP (single pump P3)

(6) Sound pressure level referred to measures according to normative ISO3744, pressure level at distance of 10 m, referred to free field on reflecting surface

(7) Weight will be confirmed in case of order

* For the configuration DPH (double pump P5) the chiller width will be 1305mm

** For the configurations DP or DPH (double pump P3 or double pump P5) the chiller width will be 1305mm

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TABLE 2/3

Condenserless liquid chillers ENRC series, scroll compressors, R410A / R32 / R454B refrigerant, coaxial / shell and tube evaporator, closed cabinet. IP54 protection rating, chillers suitable for outdoor installation. Inbuilt water storage tank and single pump P3 as standard. Standar configuration doesn't include 0-10V signal or power supply for the fans of remote condenser (remote condenser not supply by Hitema). Supplied with 5 bar nitrogen charge.

Type of available evaporators:

CX = HITEMA coaxial evaporator, convoluted tube in tube exchanger (outer tube in carbon steel or stainless steel, inner tubes in copper) installed inside the water storage tank

ST = shell and tube evaporator, with high thickness copper tubes (0,41mm)

B-ES = stainless steel brazed plate evaporator

TECHNICAL DATA

PERFORMANCES		Model	038	045	055	061	075	090	100	130
NOMINAL COOLING CAPACITY	W 12°C/7°C @ TC=50°C (1)	kW	32,0	37,8	48,7	53,0	64,1	75,5	86,5	104,6
TOTAL NOMINAL ABSORBED POWER		kW	12,6	14,4	18,0	18,8	23,4	26,9	30,5	37,5
EER		kW/kW	3,08	3,10	3,08	3,27	3,07	3,09	3,09	3,18
NOMINAL WATER FLOW		m3/h	5,5	6,5	8,4	9,1	11,0	13,0	14,9	18,0
MECHANICAL MODE PRESSURE DROPS (3)		kPa	34	39	51	23	20	28	39	54
FRIGORIFIC SECTION										
COMPRESSORS / REFRIGERATING CIRCUITS / PARTITION STEP		nr.	1/1/1	1/1/1	1/1/1	2/1/2	2/1/2	2/1/2	2/1/2	4/2/4
KIND OF EVAPORATOR		-	CX	CX	CX	CX	CX	CX	CX	ST
HYDRAULIC SECTION										
WATER FLOW RANGE (5)		m3/h	5,0÷12,0	6,0÷12,0	6,0÷12,0	8,0÷18,0	10,0÷20,0	10,0÷20,0	10,0÷20,0	14,0÷27,0
MAXIMUM PUMP ABSORBED POWER (WP OR OPTION DP)	P3 (2)	kW	2,20	2,20	2,20	2,53	2,53	2,53	2,53	4,56
MAXIMUM PUMP ABSORBED CURRENT (WP OR OPTION DP)		A	4,24	4,24	4,24	4,56	4,56	4,56	4,56	7,75
MAXIMUM PUMP ABSORBED POWER (OPTION PH OR DPH)	P5 (2)	kW	2,94	2,94	2,94	6,12	6,12	6,12	6,12	10,20
MAXIMUM PUMP ABSORBED CURRENT (OPTION PH OR DPH)		A	5,83	5,83	5,83	10,40	10,40	10,40	10,40	17,40
HYDRAULIC CONNECTIONS (THREADED / FLANGED)		BSP / DN	1 1/2"	1 1/2"	1 1/2"	2"	2"	2"	2"	DN65
TANK VOLUME (4)		dm^3	270	270	270	410	410	410	410	390
EXPANSION VESSEL NUMBER x VOLUME (OPTION XV)		liters	12	12	12	19	19	19	19	19
TOTAL ELECTRIC DATA										
ELECTRICAL FEED		V/ph/Hz	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50
MAXIMUM ABSORBED CURRENT (F.L.A) (5)		A	28,7	34,2	40,7	44,8	53,6	64,6	71,0	88,3
MAXIMUM PEAK CURRENT (L.R.A) (5)		A	144,2	178,2	229,2	163,7	169,1	208,6	259,6	207,1
MAXIMUM PEAK CURRENT WITH SOFT START (OPTION SF) (L.R.A) (5)		A	NA	NA	NA	135,9	141,1	173,8	214,6	179,3
NOISE DATA										
SOUND PRESSURE FOR STANDARD CONFIGURATION (5) (6)		dB(A)	52,1	52,5	55,5	51,8	53,5	54,1	56,3	53,0
SOUND PRESSURE FOR LOW NOISE CONFIGURTION (OPTION LNJ) (5) (6)		dB(A)	50,8	51,0	52,5	50,6	51,5	51,8	53,1	51,2
DIMENSIONS AND WEIGHT										
LENGTH		mm	1610	1610	1610	2220	2220	2220	2220	3355
WIDTH		mm	860	860	860	1100	1100	1100	1100	1105*
HEIGHT		mm	1380	1380	1380	1900	1900	1900	1900	1985
WEIGHT EMPTY FOR STANDARD CONFIGURATION (4) (5) (7)		kg	384	397	417	780	797	806	864	1473
WEIGHT OPERATIVE FOR STANDARD CONFIGURATION (4) (5) (7)		kg	683	696	716	1198	1215	1224	1281	1889

Last update: 27/07/2020
Revision: 01-2021

Data referred to:

(1) Data referred to inlet/outlet water temperature = +12/+7 °C, condensing temperature = +50°C, condenser subcooling temperature = +5°C, fluid = Water

(2) Available pressure can be calculated from Hitema Online Selection Software

(3) Pressure drops taken in account: evaporator, valves, piping

(4) Data referred to standard chiller configuration as indicated in frigorific section, with different evaporator this data can change

(5) Data referred to standard chiller configuration WP (single pump P3)

(6) Sound pressure level referred to measures according to normative ISO3744, pressure level at distance of 10 m, referred to free field on reflecting surface

(7) Weight will be confirmed in case of order

* For the configuration DPH (double pump P5) the chiller width will be 1305mm

** For the configurations DP or DPH (double pump P3 or double pump P5) the chiller width will be 1305mm

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TABLE 3/3

Condenserless liquid chillers ENRC series, scroll compressors, R410A / R32 / R454B refrigerant, coaxial / shell and tube evaporator, closed cabinet. IP54 protection rating, chillers suitable for outdoor installation. Inbuilt water storage tank and single pump P3 as standard. Standar configuration doesn't include 0-10V signal or power supply for the fans of remote condenser (remote condenser not supply by Hitema). Supplied with 5 bar nitrogen charge.

Type of available evaporators:

CX = HITEMA coaxial evaporator, convoluted tube in tube exchanger (outer tube in carbon steel or stainless steel, inner tubes in copper) installed inside the water storage tank

ST = shell and tube evaporator, with high thickness copper tubes (0,41mm)

B-ES = stainless steel brazed plate evaporator

TECHNICAL DATA

PERFORMANCES		Model	160	185	200	230	280	340	370	430
NOMINAL COOLING CAPACITY	W 12°C/7°C @ TC=50°C (1)	kW	132,7	156,4	172,3	202,2	254,1	292,0	329,8	375,6
TOTAL NOMINAL ABSORBED POWER		kW	46,4	53,4	64,3	71,5	88,2	99,7	113,1	126,3
EER		kW/kW	3,17	3,21	3,08	3,20	3,18	3,19	3,21	3,23
NOMINAL WATER FLOW		m3/h	22,8	26,9	29,6	34,7	43,6	50,1	56,7	64,5
MECHANICAL MODE PRESSURE DROPS (3)		kPa	54	55	48	56	56	48	55	61
FRIGORIFIC SECTION										
COMPRESSORS / REFRIGERATING CIRCUITS / PARTITION STEP		nr.	4/2/4	4/2/4	4/2/4	4/2/4	4/2/4	4/2/4	4/2/4	4/2/4
KIND OF EVAPORATOR		-	ST	ST	ST	ST	ST	ST	ST	ST
HYDRAULIC SECTION										
WATER FLOW RANGE (5)		m3/h	15,4÷30,8	17,5÷35,0	25,0÷46,0	25,0÷46,0	31,0÷58,0	38,0÷70,0	45,0÷80,0	52,0÷100,0
MAXIMUM PUMP ABSORBED POWER (WP OR OPTION DP)	P3 (2)	kW	4,56	4,56	8,30	8,30	8,30	8,30	10,20	10,20
MAXIMUM PUMP ABSORBED CURRENT (WP OR OPTION DP)		A	7,75	7,75	14,10	14,10	14,10	14,10	17,40	17,40
MAXIMUM PUMP ABSORBED POWER (OPTION PH OR DPH)	P5 (2)	kW	10,20	10,20	16,22	16,22	16,22	16,22	16,22	19,94
MAXIMUM PUMP ABSORBED CURRENT (OPTION PH OR DPH)		A	17,40	17,40	26,60	26,60	26,60	26,60	26,60	32,70
HYDRAULIC CONNECTIONS (THREADED / FLANGED)		BSP / DN	DN65	DN65	DN80	DN80	DN100	DN100	DN100	DN125
TANK VOLUME (4)		dm^3	390	390	390	500	500	500	500	500
EXPANSION VESSEL NUMBER x VOLUME (OPTION XV)		liters	19	19	19	19	19	19	19	19
TOTAL ELECTRIC DATA										
ELECTRICAL FEED		V/ph/Hz	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50
MAXIMUM ABSORBED CURRENT (F.L.A) (5)		A	105,8	127,8	147,0	159,9	192,5	221,9	254,6	283,6
MAXIMUM PEAK CURRENT (L.R.A) (5)		A	221,3	271,8	335,5	348,4	419,9	472,6	505,3	617,8
MAXIMUM PEAK CURRENT WITH SOFT START (OPTION SF) (L.R.A) (5)		A	193,3	237,0	290,5	303,4	365,5	410,6	443,3	536,2
NOISE DATA										
SOUND PRESSURE FOR STANDARD CONFIGURATION (5) (6)		dB(A)	55,5	56,2	59,0	60,5	63,3	63,3	63,4	65,7
SOUND PRESSURE FOR LOW NOISE CONFIGURTION (OPTION LNJ) (5) (6)		dB(A)	52,5	53,0	55,3	56,5	58,8	58,8	59,2	61,2
DIMENSIONS AND WEIGHT										
LENGTH		mm	3355	3355	4355	4355	4355	4355	5350	5350
WIDTH		mm	1105*	1105*	1105**	1105**	1105**	1105**	1105	1105
HEIGHT		mm	1985	1985	1985	1985	1985	1985	1985	1985
WEIGHT EMPTY FOR STANDARD CONFIGURATION (4) (5) (7)		kg	1513	1535	1730	1860	1940	2030	2360	2440
WEIGHT OPERATIVE FOR STANDARD CONFIGURATION (4) (5) (7)		kg	1944	1970	2182	2407	2491	2600	2955	3060

The manufacturer reserves the right to modify specifications without notice.

Last update: 27/07/2020
Revision: 01-2021

Data referred to:

(1) Data referred to inlet/outlet water temperature = +12/+7 °C, condensing temperature = +50°C, condenser subcooling temperature = +5°C, fluid = Water

(2) Available pressure can be calculated from Hitema Online Selection Software

(3) Pressure drops taken in account: evaporator, valves, piping

(4) Data referred to standard chiller configuration as indicated in frigorific section, with different evaporator this data can change

(5) Data referred to standard chiller configuration WP (single pump P3)

(6) Sound pressure level referred to measures according to normative ISO3744, pressure level at distance of 10 m, referred to free field on reflecting surface

(7) Weight will be confirmed in case of order

* For the configuration DPH (double pump P5) the chiller width will be 1305mm

** For the configurations DP or DPH (double pump P3 or double pump P5) the chiller width will be 1305mm

CFTC SERIES

Condenserless liquid Chillers
Open cabinet with compact footprint
IP54 protection rating
Suitable for INDOOR installation

SERIES: CFTC	DATE: 29/09/2021
CODE: TTD-CFTC-00	UPDATE: -
CHECKED BY	M. Burba

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CFTC

TABLE 1/1

Condenserless liquid chillers CFTC series, scroll compressors, R410A / R32 / R454B refrigerant, brazed plate evaporator, thermostatic expansion valve, oil separators, open cabinet and compact design to fit in narrow spaces.
Electrical feed 400V/3ph/50Hz (60Hz version as option), IP54 protection rating, chillers suitable for indoor / outdoor installation.
Standar configuration doesn't include 0-10V signal or power supply for the fans of remote condenser (remote condenser not supply by Hitema).
Supplied with 5 bar nitrogen charge.

Special features of CFTC series:
B-ES = stainless steel brazed plate evaporator
Compact deisgn and open cabinet
Possibility to control the remote condenser fans (remote conder data must be provided)

Type of available expansion elements
VTS = Thermostatic expansion valve
ETS = Electronic expansion valve (available as option)

TECHNICAL DATA

PERFORMANCES		Model	061	075	090	100	130	160	185	200
NOMINAL COOLING CAPACITY	W 12°C/7°C @ 50°C (1)	kW	53,0	65,8	77,4	86,5	100,2	125,8	163,0	180,4
TOTAL NOMINAL ABSORBED POWER		kW	16,3	20,9	24,4	28,0	30,5	38,7	51,0	55,6
EER		kW/kW	3,24	3,15	3,17	3,09	3,29	3,25	3,20	3,24
NOMINAL WATER FLOW		m3/h	9,1	11,3	13,3	14,9	17,2	21,6	28,0	31,0
MECHANICAL MODE PRESSURE DROPS (2)		kPa	52	50	45	43	57	47	50	47
FRIGORIFIC SECTION										
COMPRESSORS / REFRIGERATING CIRCUITS / PARTITION STEP		nr.	2/1/2	2/1/2	2/1/2	2/1/2	2/1/2	2/1/2	2/1/2	4/2/4
HYDRAULIC SECTION (3)										
WATER FLOW RANGE		m3/h	8÷17	8÷17	8÷17	10÷22	15÷27	15÷32	15÷38	20÷53
HYDRAULIC CONNECTIONS (THREADED / FLANGED)		BSP / DN	2"	2"	2"	2"	DN65	DN65	DN65	DN80
TOTAL ELECTRIC DATA										
MAXIMUM ABSORBED CURRENT (F.L.A)		A	40,3	49,0	60,0	65,2	70,4	87,7	118,6	130,4
MAXIMUM PEAK CURRENT (L.R.A)		A	159,1	164,5	204,0	270,8	276,0	331,4	369,3	336,0
MAXIMUM PEAK CURRENT WITH SOFT START (OPTION SF) (L.R.A)		A	131,3	136,5	169,2	222,6	227,8	273,9	307,3	287,8
NOISE DATA (4)										
SOUND PRESSURE FOR STANDARD CONFIGURATION		dB(A)	47,0	51,0	52,0	56,0	58,0	58,0	60,0	59,0
SOUND PRESSURE FOR LOW NOISE CONFIGURATION (OPTION LNJ)		dB(A)	42,0	46,0	47,0	51,0	53,0	53,0	55,0	54,0
DIMENSIONS AND WEIGHT										
LENGTH		mm	1250	1250	1250	1750	1750	1750	1750	3000
WIDTH		mm	750	750	750	800	800	800	800	800
HEIGHT		mm	1700	1700	1700	1900	1900	1900	1900	2000
WEIGHT EMPTY FOR STANDARD CONFIGURATION (5)		kg	375	395	420	750	800	860	930	1100
WEIGHT OPERATIVE FOR STANDARD CONFIGURATION (5)		kg	390	415	440	790	850	920	1000	1180

TECHNICAL DATA

PERFORMANCES		Model	230	280	340	370	430
NOMINAL COOLING CAPACITY	W 12°C/7°C @ 50°C (1)	kW	200,4	251,6	288,8	326,0	371,0
TOTAL NOMINAL ABSORBED POWER		kW	61,0	77,4	90,9	102,0	115,6
EER		kW/kW	3,29	3,25	3,18	3,20	3,21
NOMINAL WATER FLOW		m3/h	34,5	43,3	49,7	56,1	63,8
MECHANICAL MODE PRESSURE DROPS (2)		kPa	57	47	49	50	50
FRIGORIFIC SECTION							
COMPRESSORS / REFRIGERATING CIRCUITS / PARTITION STEP		nr.	4/2/4	4/2/4	4/2/4	4/2/4	4/2/4
HYDRAULIC SECTION (3)							
WATER FLOW RANGE		m3/h	20÷53	20÷53	35÷85	35÷85	35÷85
HYDRAULIC CONNECTIONS (THREADED / FLANGED)		BSP / DN	DN80	DN80	DN100	DN100	DN100
TOTAL ELECTRIC DATA							
MAXIMUM ABSORBED CURRENT (F.L.A)		A	140,8	175,5	207,8	237,2	266,2
MAXIMUM PEAK CURRENT (L.R.A)		A	346,4	419,1	458,5	487,9	600,4
MAXIMUM PEAK CURRENT WITH SOFT START (OPTION SF) (L.R.A)		A	298,2	361,6	396,5	425,9	518,8
NOISE DATA (4)							
SOUND PRESSURE FOR STANDARD CONFIGURATION		dB(A)	61,0	61,0	63,0	63,0	65,5
SOUND PRESSURE FOR LOW NOISE CONFIGURATION (OPTION LNJ)		dB(A)	56,0	56,0	58,0	58,0	60,5
DIMENSIONS AND WEIGHT							
LENGTH		mm	3000	3000	3500	3500	3500
WIDTH		mm	800	800	900	900	900
HEIGHT		mm	2000	2000	2300	2300	2300
WEIGHT EMPTY FOR STANDARD CONFIGURATION (5)		kg	1120	1150	1320	1490	1660
WEIGHT OPERATIVE FOR STANDARD CONFIGURATION (5)		kg	1210	1250	1350	1500	1680

Last update: 30/07/2021
Revision: 02-2021

Data referred to:
(1) Data referred to inlet/outlet water temperature = +12/+7 °C, condensing temperature = +50°C, condenser subcooling temperature = +5°C, fluid = Water
(2) Pressure drops taken in account: evaporator, valves, piping
(3) You can match an hydromodule with this chiller: go to select it at https://www.hitema.com/standard-products/hydro-module
(4) Sound pressure level referred to measures according to normative ISO3744, pressure level at distance of 10 m, referred to free field on reflecting surface
(5) Weight will be confirmed in case of order

CWB SERIES

Condenserless liquid Chillers
Open cabinet with compact footprint
IP54 protection rating
Suitable for INDOOR installation

SERIES: CWB	DATE: 30/09/2021	
CODE: TTD-CWB-00	UPDATE:-	
CHECKED BY		M. Burba

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CWB

TABLE 1/2

Condenserless liquid chillers CWB series, scew compressors, R134a / R513A refrigerant (R1234ze on request), 1 shell and tube evaporator, electronic expansion valves, 50-75-100% partition steps per compressor, oil separators, open cabinet and compact design to fit in narrow spaces. Electrical feed 400V/3ph/50Hz (60Hz version as option), IP54 protection rating, chillers suitable for indoor / outdoor installation. Standar configuration doesn't include 0-10V signal or power supply for the fans of remote condenser (remote condenser not supply by Hitema). Supplied with 5 bar nitrogen charge.

Types of available condensing temperature control system:
NF = No one condensing temperature control system (standard)
FS = 0-10V signal for the fans of remote condenser from chiller
RV(FS,FP) = Electronic fan speed control (cut phase), 0-10V signal and power supply of fans from chiller

Type of compressors starting method:
PW = Part-Winding
Y-D = Star-Delta

TECHNICAL DATA

PERFORMANCES		Model	1_300	1_350	1_400	1_460	1_570	1_630	1_720	1_770
NOMINAL COOLING CAPACITY	W 12°C/7°C @ 50°C (1)	kW	266,0	303,0	359,0	419,0	484,0	550,0	592,0	648,0
TOTAL NOMINAL ABSORBED POWER		kW	78,0	88,8	103,9	116,2	135,2	152,8	173,9	186,8
EER		kW/kW	3,41	3,41	3,46	3,61	3,58	3,60	3,40	3,47
NOMINAL WATER FLOW, EVAPORATOR SIDE (TOTAL)		m3/h	45,6	52,0	61,6	71,9	83,0	94,3	101,5	111,1
MECHANICAL MODE PRESSURE DROPS, EVAPORATOR SIDE (2)		kPa	56,9	61,9	50,9	51,9	56,9	58,9	42,9	40,9
FRIGORIFIC SECTION										
COMPRESSORS / REFRIGERATING CIRCUITS		nr.	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1
COMPRESSORS STARTING METHOD		-	PW	PW	Y-D	Y-D	Y-D	Y-D	Y-D	Y-D
HYDRAULIC SECTION (3)										
WATER FLOW RANGE, EVAPORATOR SIDE (TOTAL)		m3/h	32÷58	36÷73	43÷86	63÷112	73÷116	85÷142	85÷142	97÷173
HYDRAULIC CONNECTIONS, EVAPORATOR SIDE (VICTAULIC)		DN	100	100	100	125	125	150	150	150
TOTAL ELECTRIC DATA										
MAXIMUM ABSORBED CURRENT (F.L.A)		A	196,0	214,0	280,0	310,0	320,0	360,0	413,0	477,0
MAXIMUM PEAK CURRENT (L.R.A) (6)		A	943,0	1023,0	1364,0	1442,0	1853,0	2029,0	2520,0	2870,0
MAXIMUM PEAK CURRENT WITH SOFT START (OPTION SF) (L.R.A) (6)		A	754,4	818,4	1091,2	1153,6	1482,4	1623,2	2016,0	2296,0
NOISE DATA (4)										
SOUND PRESSURE FOR STANDARD CONFIGURATION		dB(A)	64,1	64,5	65,4	65,7	66,6	67,5	68,3	68,9
SOUND PRESSURE FOR LOW NOISE CONFIGURATION (OPTION LNJ)		dB(A)	59,1	59,5	60,4	60,7	61,6	62,5	63,3	63,9
DIMENSIONS AND WEIGHT										
LENGTH		mm	4200	4200	5200	5200	5200	5200	5200	5200
WIDTH		mm	1300	1300	1500	1500	1700	1700	1900	1900
HEIGHT		mm	1500	1500	1600	1600	1700	1700	1900	1900
WEIGHT EMPTY FOR STANDARD CONFIGURATION (5)		kg	1750	1820	2195	2230	2575	2630	2735	2775
WEIGHT OPERATIVE FOR STANDARD CONFIGURATION (5)		kg	1850	1920	2355	2390	2755	2810	3015	3025

TECHNICAL DATA

PERFORMANCES		Model	2_300	2_350	2_400	2_460	2_570	2_630	2_720	2_860
NOMINAL COOLING CAPACITY	W 12°C/7°C @ 50°C (1)	kW	247,0	290,4	339,0	386,0	482,0	532,0	606,0	718,0
TOTAL NOMINAL ABSORBED POWER		kW	71,2	88,0	99,8	113,6	138,8	156,0	177,6	207,8
EER		kW/kW	3,47	3,30	3,40	3,40	3,47	3,41	3,41	3,46
NOMINAL WATER FLOW, EVAPORATOR SIDE (TOTAL)		m3/h	42,4	49,8	58,1	66,2	82,7	91,2	103,9	123,1
MECHANICAL MODE PRESSURE DROPS, EVAPORATOR SIDE (2)		kPa	49,9	53,9	60,9	50,9	54,9	51,9	44,9	55,9
FRIGORIFIC SECTION										
COMPRESSORS / REFRIGERATING CIRCUITS		nr.	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2
COMPRESSORS STARTING METHOD		-	PW	PW	PW	PW	PW	PW	PW	Y-D
HYDRAULIC SECTION (3)										
WATER FLOW RANGE, EVAPORATOR SIDE (TOTAL)		m3/h	32÷59	39÷78	45÷91	52÷103	58÷116	71÷142	81÷162	96÷192
HYDRAULIC CONNECTIONS, EVAPORATOR SIDE (VICTAULIC)		DN	100	100	100	125	125	150	150	150
TOTAL ELECTRIC DATA										
MAXIMUM ABSORBED CURRENT (F.L.A)		A	216,0	248,0	288,0	324,0	364,0	392,0	428,0	560,0
MAXIMUM PEAK CURRENT (L.R.A) (6)		A	616,0	609,0	729,0	848,0	983,0	1139,0	1237,0	1644,0
MAXIMUM PEAK CURRENT WITH SOFT START (OPTION SF) (L.R.A) (6)		A	514,4	512,0	612,0	710,8	822,8	950,4	1032,4	1371,2
NOISE DATA (4)										
SOUND PRESSURE FOR STANDARD CONFIGURATION		dB(A)	63,7	62,7	62,9	62,6	68,4	67,1	67,5	68,4
SOUND PRESSURE FOR LOW NOISE CONFIGURATION (OPTION LNJ)		dB(A)	58,7	57,7	57,9	57,6	63,4	62,1	62,5	63,4
DIMENSIONS AND WEIGHT										
LENGTH		mm	5000	5000	5000	5000	5000	5000	5000	5000
WIDTH		mm	1700	1700	1700	1800	1800	1800	1900	1900
HEIGHT		mm	2050	2050	2100	2100	2200	2200	2200	2350
WEIGHT EMPTY FOR STANDARD CONFIGURATION (5)		kg	1660	1830	1925	1955	2925	2970	3060	4340
WEIGHT OPERATIVE FOR STANDARD CONFIGURATION (5)		kg	1790	1960	2055	2145	3155	3200	3360	4600

Last update: 15/03/2021
Revision: 00-2021

Data referred to:

(1) Data referred to inlet/outlet water temperatures = +12/+7 °C, condensing temperature = +50°C, condenser subcooling temperature = +5°C, fluid = Water

(2) Pressure drops taken in account: evaporator, valves, piping

(3) You can match an hydromodule with this chiller: go to select it at https://www.hitema.com/standard-products/hydro-module

(4) Sound pressure level referred to measures according to normative ISO3744, pressure level at distance of 10 m, referred to free field on reflecting surface

(5) Weight will be confirmed in case of order

(6) Data referred to standard compressors starting method, with different starting method this data will change

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CWB

TABLE 2/2

Condenserless liquid chillers CWB series, scew compressors, R134a / R513A refrigerant (R1234ze on request), 1 shell and tube evaporator, electronic expansion valves, 50-75-100% partition steps per compressor, oil separators, open cabinet and compact design to fit in narrow spaces. Electrical feed 400V/3ph/50Hz (60Hz version as option), IP54 protection rating, chillers suitable for indoor / outdoor installation. Standar configuration doesn't include 0-10V signal or power supply for the fans of remote condenser (remote condenser not supply by Hitema). Supplied with 5 bar nitrogen charge.

Types of available condensing temperature control system:
NF = No one condensing temperature control system (standard)
FS = 0-10V signal for the fans of remote condenser from chiller
RV(FS,FP) = Electronic fan speed control (cut phase), 0-10V signal and power supply of fans from chiller

Type of compressors starting method:
PW = Part-Winding
Y-D = Star-Delta

TECHNICAL DATA

PERFORMANCES		Model	2_990	2_1140	2_1290	2_1400	2_1500
NOMINAL COOLING CAPACITY	W 12°C/7°C @ 50°C (1)	kW	838,0	968,0	1100,0	1184,0	1296,0
TOTAL NOMINAL ABSORBED POWER		kW	232,4	270,4	305,6	347,8	373,6
EER		kW/kW	3,61	3,58	3,60	3,40	3,47
NOMINAL WATER FLOW, EVAPORATOR SIDE (TOTAL)		m3/h	143,7	166,0	188,6	203,0	222,2
MECHANICAL MODE PRESSURE DROPS, EVAPORATOR SIDE (2)		kPa	56,9	73,9	58,9	63,9	68,9
FRIGORIFIC SECTION							
COMPRESSORS / REFRIGERATING CIRCUITS		nr.	2/2	2/2	2/2	2/2	2/2
COMPRESSORS STARTING METHOD		-	Y-D	Y-D	Y-D	Y-D	Y-D
HYDRAULIC SECTION (3)							
WATER FLOW RANGE, EVAPORATOR SIDE (TOTAL)		m3/h	120÷224	129÷258	142÷264	142÷285	173÷311
HYDRAULIC CONNECTIONS, EVAPORATOR SIDE (VICTAULIC)		DN	200	200	200	200	200
TOTAL ELECTRIC DATA							
MAXIMUM ABSORBED CURRENT (F.L.A)		A	620,0	640,0	720,0	826,0	954,0
MAXIMUM PEAK CURRENT (L.R.A) (6)		A	1752,0	2173,0	2389,0	2933,0	3347,0
MAXIMUM PEAK CURRENT WITH SOFT START (OPTION SF) (L.R.A) (6)		A	1463,6	1802,4	1983,2	2429,0	2773,0
NOISE DATA (4)							
SOUND PRESSURE FOR STANDARD CONFIGURATION		dB(A)	68,7	69,6	70,5	71,3	71,9
SOUND PRESSURE FOR LOW NOISE CONFIGURATION (OPTION LNJ)		dB(A)	63,7	64,6	65,5	66,3	66,9
DIMENSIONS AND WEIGHT							
LENGTH		mm	5000	5950	5950	5950	5950
WIDTH		mm	2210	2210	2210	2210	2210
HEIGHT		mm	2350	2450	2450	2450	2450
WEIGHT EMPTY FOR STANDARD CONFIGURATION (5)		kg	4415	4630	4660	4810	4960
WEIGHT OPERATIVE FOR STANDARD CONFIGURATION (5)		kg	4765	4990	5230	5430	5630

TECHNICAL DATA

PERFORMANCES		Model	3_1690	3_1900	3_2050	3_2200
NOMINAL COOLING CAPACITY	W 12°C/7°C @ 50°C (1)	kW	1422,0	1623,0	1782,0	1953,0
TOTAL NOMINAL ABSORBED POWER		kW	404,4	457,5	522,0	560,7
EER		kW/kW	3,52	3,55	3,41	3,48
NOMINAL WATER FLOW, EVAPORATOR SIDE (TOTAL)		m3/h	243,8	278,3	305,6	334,9
MECHANICAL MODE PRESSURE DROPS, EVAPORATOR SIDE (2)		kPa	69,9	69,9	71,9	79,9
FRIGORIFIC SECTION						
COMPRESSORS / REFRIGERATING CIRCUITS		nr.	3/3	3/3	3/3	3/3
COMPRESSORS STARTING METHOD		-	Y-D	Y-D	Y-D	Y-D
HYDRAULIC SECTION (3)						
WATER FLOW RANGE, EVAPORATOR SIDE (TOTAL)		m3/h	214÷380	217÷390	238÷476	261÷521
HYDRAULIC CONNECTIONS, EVAPORATOR SIDE (VICTAULIC)		DN	250	250	250	250
TOTAL ELECTRIC DATA						
MAXIMUM ABSORBED CURRENT (F.L.A)		A	960,0	1080,0	1239,0	1431,0
MAXIMUM PEAK CURRENT (L.R.A) (6)		A	2493,0	2749,0	3346,0	3824,0
MAXIMUM PEAK CURRENT WITH SOFT START (OPTION SF) (L.R.A) (6)		A	2122,4	2343,2	2842,0	3250,0
NOISE DATA (4)						
SOUND PRESSURE FOR STANDARD CONFIGURATION		dB(A)	71,4	72,3	73,1	73,7
SOUND PRESSURE FOR LOW NOISE CONFIGURATION (OPTION LNJ)		dB(A)	66,4	67,3	68,1	68,7
DIMENSIONS AND WEIGHT						
LENGTH		mm	5950	5950	5950	5950
WIDTH		mm	2210	2210	2210	2210
HEIGHT		mm	2450	2450	2450	2450
WEIGHT EMPTY FOR STANDARD CONFIGURATION (5)		kg	7340	7640	7740	7910
WEIGHT OPERATIVE FOR STANDARD CONFIGURATION (5)		kg	7890	8365	8610	8860

Last update: 15/03/2021
Revision: 00-2021

Data referred to:

(1) Data referred to inlet/outlet water temperatures = +12/+7 °C, condensing temperature = +50°C, condenser subcooling temperature = +5°C, fluid = Water

(2) Pressure drops taken in account: evaporator, valves, piping

(3) You can match an hydromodule with this chiller: go to select it at https://www.hitema.com/standard-products/hydro-module

(4) Sound pressure level referred to measures according to normative ISO3744, pressure level at distance of 10 m, referred to free field on reflecting surface

(5) Weight will be confirmed in case of order

(6) Data referred to standard compressors starting method, with different starting method this data will change

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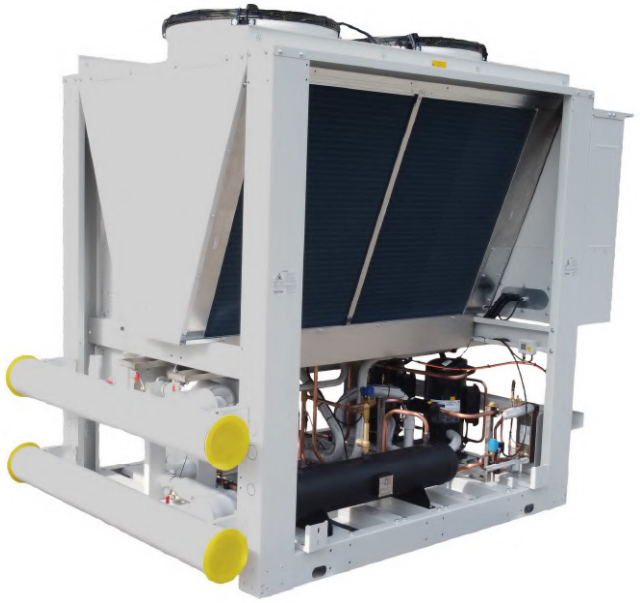
CHILLER

REVERSABLE HEAT PUMPS

R410A / R32 / R454B
Scroll compressors
Coaxial / Shell & Tube evaporator / Plate

HBS - HFT - HNR - SBS-HP series
From 16,4 kW up to 753 kW



Technical Data Tables

SERIES: HBS-HFT-HN-SBS-HP	DATE: 20.05.2022
CODE: GPLSPC20	UPDATE: GPLSPC19
CHECKED BY	M. Burba

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HBS SERIES

Reversible Heat-Pumps
EC axial fans
IP54 protection rating
Suitable for OUTDOOR installation

SERIES: HBS	DATE: 29/09/2021
CODE: TTD-HBS-00	UPDATE: -
CHECKED BY	M. Burba

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TABLE 1/2

Reversible heat-pumps HBS series, scroll compressors, R410A / R32 / R454B refrigerant, brazed-plate evaporator/condenser, condenser/evaporator coil with copper tubes and aluminium fins with hydrophilic coating, EC axial fans, electronic expansion valve. IP54 protection rating, heat-pump suitable for outdoor installation. Minimum working ambient temperature admitted = -10°C

Type of available condensers:
B-ES = stainless steel brazed plate condenser

❄ HEATING

TECHNICAL DATA

PERFORMANCES		Model	190	240	290	330	380	430	470	530
NOMINAL HEATING CAPACITY	W 40°C/45°C @ 7°C (1)	kW	199,7	242,0	319,8	355,6	389,2	465,9	487,7	565,9
TOTAL NOMINAL ABSORBED POWER		kW	56,2	70,4	90,8	101,8	112,8	134,3	145,3	164,6
COP		kW/kW	3,56	3,44	3,52	3,49	3,45	3,47	3,36	3,44
NOMINAL WATER FLOW		m3/h	34,3	41,6	54,9	61,1	66,8	80,0	83,8	97,2
MECHANICAL MODE PRESSURE DROPS (4)		kPa	60	73	60	58	57	62	59	56
FRIGORIFIC SECTION										
COMPRESSORS / REFRIGERATING CIRCUITS / PARTITION STEP		nr.	4/2/4	4/2/4	4/2/4	4/2/4	4/2/4	6/2/4	6/2/4	9/3/4
HYDRAULIC SECTION										
WATER FLOW RANGE (6)		m3/h	15÷35	22÷47	40÷75	45÷80	45÷85	60÷90	65÷90	70÷130
MAXIMUM PUMP ABSORBED POWER (OPTION WP OR DP)	P3 (2)	kW	8,30	8,30	8,30	8,30	10,20	10,20	10,20	16,22
MAXIMUM PUMP ABSORBED CURRENT (OPTION WP OR DP)	P3 (2)	A	14,10	14,10	14,10	14,10	17,40	17,40	17,40	26,60
MAXIMUM PUMP ABSORBED POWER (OPTION PH OR DPH)	P5 (2)	kW	16,22	16,22	16,22	16,22	24,85	24,85	24,85	24,85
MAXIMUM PUMP ABSORBED CURRENT (OPTION PH OR DPH)	P5 (2)	A	26,60	26,60	26,60	26,60	42,40	42,40	42,40	42,40
HYDRAULIC CONNECTIONS (THREADED / FLANGED)		BSP / DN	DN65	DN65	DN100	DN100	DN100	DN125	DN125	DN125
TANK VOLUME		dm^3	300	300	300	300	380	380	380	500
EXPANSION VESSEL NUMBER x VOLUME (OPTION XV)		liters	19	19	19	19	19	19	19	19
FAN SECTION (AXIAL)										
FANS		nr.	4	4	6	6	6	8	8	12
MAXIMUM FANS ABSORBED POWER	EC	kW	7,76	7,76	11,64	11,64	11,64	15,52	15,52	23,28
MAXIMUM FANS ABSORBED CURRENT	EC	A	15,60	15,60	23,40	23,40	23,40	31,20	31,20	46,80
TOTAL AIR FLOW	EC	m3/h	76300	76300	114450	114450	114450	152600	152600	228900
TOTAL ELECTRIC DATA										
ELECTRICAL FEED		V/ph/Hz	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50
MAXIMUM ABSORBED CURRENT (F.L.A) (6)		A	135,6	152,5	198,9	231,2	260,6	294,4	328,2	354,9
MAXIMUM PEAK CURRENT (L.R.A) (6)		A	279,6	359,1	442,5	481,9	511,3	538,1	578,9	561,4
MAXIMUM PEAK CURRENT WITH SOFT START (OPTION SF) (L.R.A) (6)		A	244,8	310,9	385,0	419,9	449,3	480,6	516,9	513,3
NOISE DATA										
SOUND PRESSURE FOR STANDARD CONFIGURATION (6) (7)		dB(A)	59,8	62,8	63,5	64,7	64,7	65,0	66,3	66,8
SOUND PRESSURE FOR LOW NOISE OPTION (LNJ) (6) (7)		dB(A)	58,7	60,1	61,3	62,0	62,0	62,7	63,5	64,5
DIMENSIONS AND WEIGHT										
LENGTH		mm	2910	2910	4210	4210	4210	5900	5900	8890
WIDTH		mm	2210	2210	2210	2210	2210	2210	2210	2210
HEIGHT		mm	2500	2500	2500	2500	2500	2500	2500	2500
WEIGHT EMPTY FOR STANDARD CONFIGURATION (6)		kg	2000	2350	2800	2850	3000	3900	4050	5900
WEIGHT OPERATIVE FOR STANDARD CONFIGURATION (6)		kg	2050	2420	2900	2950	3100	4000	4180	6220

Last update: 05/01/2021
Revision: 00-2020

Data referred to:
(1) Data referred to inlet/outlet water temperature = +40/+45 °C, ambient temperature = +7°C, fluid = Water
(2) Available pressure can be calculated from Hitema Online Selection Software
(3) SCOP data comply with the EN14825:2013, referring to medium temperature climate zone
(4) Pressure drops taken in account: evaporator, valves, piping
(5) Water flow is different from heating mode, assuming that an inverter pump will be used
(6) Data referred to standard chiller configuration NP (no pump) and EC fans
(7) Sound pressure level referred to measures according to normative ISO3744, pressure level at distance of 10 m, referred to free field on reflecting surface

* For the configuration DPH (double pump P5) the chiller width will be 1305mm
** For the configurations DP or DPH (double pump P3 or double pump P5) the chiller width will be 1305mm

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HBS
TABLE 2/2

Reversible heat-pumps HBS series, scroll compressors, R410A / R32 / R454B refrigerant, brazed-plate evaporator/condenser, condenser/evaporator coil with copper tubes and aluminium fins with hydrophilic coating, EC axial fans, electronic expansion valve.
IP54 protection rating, heat-pump suitable for outdoor installation. Minimum working ambient temperature admitted = -10°C

Type of available condensers:
B-ES = stainless steel brazed plate condenser

❄ HEATING

TECHNICAL DATA

PERFORMANCES		Model	570	610	720
NOMINAL HEATING CAPACITY	W 40°C/45°C @ 7°C (1)	kW	606,7	671,0	753,3
TOTAL NOMINAL ABSORBED POWER		kW	175,1	194,0	212,9
COP		kW/kW	3,47	3,46	3,54
NOMINAL WATER FLOW		m3/h	104,2	115,3	129,4
MECHANICAL MODE PRESSURE DROPS (4)		kPa	50	55	59
FRIGORIFIC SECTION					
COMPRESSORS / REFRIGERATING CIRCUITS / PARTITION STEP		nr.	6/3/4	6/3/4	6/3/4
HYDRAULIC SECTION					
WATER FLOW RANGE (6)		m3/h	75÷130	85÷130	90÷140
MAXIMUM PUMP ABSORBED POWER (OPTION WP OR DP)	P3 (2)	kW	16,22	16,22	16,22
MAXIMUM PUMP ABSORBED CURRENT (OPTION WP OR DP)		A	26,60	26,60	26,60
MAXIMUM PUMP ABSORBED POWER (OPTION PH OR DPH)	P5 (2)	kW	31,88	31,88	39,09
MAXIMUM PUMP ABSORBED CURRENT (OPTION PH OR DPH)		A	53,50	53,50	65,60
HYDRAULIC CONNECTIONS (THREADED / FLANGED)		BSP / DN	DN150	DN150	DN150
TANK VOLUME		dm^3	500	500	500
EXPANSION VESSEL NUMBER x VOLUME (OPTION XV)		liters	19	19	38
FAN SECTION (AXIAL)					
FANS		nr.	12	12	12
MAXIMUM FANS ABSORBED POWER	EC	kW	23,28	23,28	23,28
MAXIMUM FANS ABSORBED CURRENT		A	46,80	46,80	46,80
TOTAL AIR FLOW		m3/h	228900	228900	228900
TOTAL ELECTRIC DATA					
ELECTRICAL FEED		V/ph/Hz	400/3/50	400/3/50	400/3/50
MAXIMUM ABSORBED CURRENT (F.L.A) (6)		A	402,5	446,0	489,5
MAXIMUM PEAK CURRENT (L.R.A) (6)		A	653,3	780,3	823,8
MAXIMUM PEAK CURRENT WITH SOFT START (OPTION SF) (L.R.A) (6)		A	591,3	698,7	742,2
NOISE DATA					
SOUND PRESSURE FOR STANDARD CONFIGURATION (6) (7)		dB(A)	66,9	68,6	69,8
SOUND PRESSURE FOR LOW NOISE OPTION (LNJ) (6) (7)		dB(A)	64,6	65,5	66,3
DIMENSIONS AND WEIGHT					
LENGTH		mm	8890	8890	8890
WIDTH		mm	2210	2210	2210
HEIGHT		mm	2500	2500	2500
WEIGHT EMPTY FOR STANDARD CONFIGURATION (6)		kg	6000	6200	6300
WEIGHT OPERATIVE FOR STANDARD CONFIGURATION (6)		kg	6400	6670	6780

Last update: 27/07/2020
Revision: 00-2020

Data referred to:
(1) Data referred to inlet/outlet water temperature = +40/+45 °C, ambient temperature = +7°C, fluid = Water
(2) Available pressure can be calculated from Hitema Online Selection Software
(3) SCOP data comply with the EN14825:2013, referring to medium temperature climate zone
(4) Pressure drops taken in account: evaporator, valves, piping
(5) Water flow is different from heating mode, assuming that an inverter pump will be used
(6) Data referred to standard chiller configuration NP (no pump) and EC fans
(7) Sound pressure level referred to measures according to normative ISO3744, pressure level at distance of 10 m, referred to free field on reflecting surface

* For the configuration DPH (double pump P5) the chiller width will be 1305mm
** For the configurations DP or DPH (double pump P3 or double pump P5) the chiller width will be 1305mm

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HBS

TABLE 1/2

Reversible heat-pumps HBS series, scroll compressors, R410A / R32 / R454B refrigerant, brazed-plate evaporator/condenser, condenser/evaporator coil with copper tubes and aluminium fins with hydrophilic coating, EC axial fans, electronic expansion valve.
IP54 protection rating, heat-pump suitable for outdoor installation. Minimum working ambient temperature admitted = -10°C

Type of available evaporators:
B-ES = stainless steel brazed plate evaporator

❄ COOLING

TECHNICAL DATA

PERFORMANCES		Model	190	240	290	330	380	430	470	530
NOMINAL COOLING CAPACITY	W 12°C/7°C @ 35°C (1)	kW	183,1	230,0	298,1	332,1	366,2	436,8	473,1	545,4
TOTAL NOMINAL ABSORBED POWER		kW	54,2	71,0	88,2	102,5	116,8	134,0	147,5	155,1
EER		kW/kW	3,38	3,24	3,38	3,24	3,13	3,26	3,21	3,52
NOMINAL WATER FLOW (5)		m3/h	31,4	39,5	51,2	57,0	62,9	75,0	81,3	93,7
MECHANICAL MODE PRESSURE DROPS (4)		kPa	56	67	58	58	56	61	58	56
FRIGORIFIC SECTION										
COMPRESSORS / REFRIGERATING CIRCUITS / PARTITION STEP		nr.	4/2/4	4/2/4	4/2/4	4/2/4	4/2/4	6/2/4	6/2/4	9/3/4
HYDRAULIC SECTION										
WATER FLOW RANGE (6)		m3/h	15÷35	22÷47	40÷75	45÷80	45÷85	60÷90	65÷90	70÷130
MAXIMUM PUMP ABSORBED POWER (WP OR OPTION DP)	P3 (2)	kW	8,30	8,30	8,30	8,30	10,20	10,20	10,20	16,22
MAXIMUM PUMP ABSORBED CURRENT (WP OR OPTION DP)		A	14,10	14,10	14,10	14,10	17,40	17,40	17,40	26,60
MAXIMUM PUMP ABSORBED POWER (OPTION PH OR DPH)	P5 (2)	kW	16,22	16,22	16,22	16,22	24,85	24,85	24,85	24,85
MAXIMUM PUMP ABSORBED CURRENT (OPTION PH OR DPH)		A	26,60	26,60	26,60	26,60	42,40	42,40	42,40	42,40
HYDRAULIC CONNECTIONS (THREADED / FLANGED)		BSP / DN	DN65	DN65	DN100	DN100	DN100	DN125	DN125	DN125
TANK VOLUME		dm^3	300	300	300	300	380	380	380	500
EXPANSION VESSEL NUMBER x VOLUME (OPTION XV)		liters	19	19	19	19	19	19	19	19
FAN SECTION (AXIAL)										
FANS		nr.	4	4	6	6	6	8	8	12
MAXIMUM FANS ABSORBED POWER	EC	kW	7,76	7,76	11,64	11,64	11,64	15,52	15,52	23,28
MAXIMUM FANS ABSORBED CURRENT		A	15,60	15,60	23,40	23,40	23,40	31,20	31,20	46,80
TOTAL AIR FLOW		m3/h	76300	76300	114450	114450	114450	152600	152600	228900
TOTAL ELECTRIC DATA										
ELECTRICAL FEED		V/ph/Hz	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50
MAXIMUM ABSORBED CURRENT (F.L.A) (6)		A	135,6	152,5	198,9	231,2	260,6	294,4	328,2	354,9
MAXIMUM PEAK CURRENT (L.R.A) (6)		A	279,6	359,1	442,5	481,9	511,3	538,1	578,9	561,4
MAXIMUM PEAK CURRENT WITH SOFT START (OPTION SF) (L.R.A) (6)		A	244,8	310,9	385,0	419,9	449,3	480,6	516,9	513,3
NOISE DATA										
SOUND PRESSURE FOR STANDARD CONFIGURATION (6) (7)		dB(A)	59,8	62,8	63,5	64,7	64,7	65,0	66,3	66,8
SOUND PRESSURE FOR LOW NOISE OPTION (LNJ) (6) (7)		dB(A)	58,7	60,1	61,3	62,0	62,0	62,7	63,5	64,5
DIMENSIONS AND WEIGHT										
LENGTH		mm	2910	2910	4210	4210	4210	5900	5900	8890
WIDTH		mm	2210	2210	2210	2210	2210	2210	2210	2210
HEIGHT		mm	2500	2500	2500	2500	2500	2500	2500	2500
WEIGHT EMPTY FOR STANDARD CONFIGURATION (6)		kg	2000	2350	2800	2850	3000	3900	4050	5900
WEIGHT OPERATIVE FOR STANDARD CONFIGURATION (6)		kg	2050	2420	2900	2950	3100	4000	4180	6220

Last update: 05/01/2021
Revision: 00-2020

Data referred to:
(1) Data referred to inlet/outlet water temperature = +12/+7 °C, ambient temperature = +35°C, fluid = Water
(2) Available pressure can be calculated from Hitema Online Selection Software
(3) SEPR: data comply with the European Regulation (EU) 2016/2281, referring to high temperature process chillers
(4) Pressure drops taken in account: evaporator, valves, piping
(5) Water flow is different from heating mode, assuming that an inverter pump will be used
(6) Data referred to standard chiller configuration NP (no pump) and EC fans
(7) Sound pressure level referred to measures according to normative ISO3744, pressure level at distance of 10 m, referred to free field on reflecting surface

* For the configuration DPH (double pump P5) the chiller width will be 1305mm
** For the configurations DP or DPH (double pump P3 or double pump P5) the chiller width will be 1305mm

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HBS

TABLE 2/2

Reversible heat-pumps HBS series, scroll compressors, R410A / R32 / R454B refrigerant, brazed-plate evaporator/condenser, condenser/evaporator coil with copper tubes and aluminium fins with hydrophilic coating, EC axial fans, electronic expansion valve.
IP54 protection rating, heat-pump suitable for outdoor installation. Minimum working ambient temperature admitted = -10°C

Type of available evaporators:
B-ES = stainless steel brazed plate evaporator

❄ COOLING

TECHNICAL DATA

PERFORMANCES		Model	570	610	720
NOMINAL COOLING CAPACITY	W 12°C/7°C @ 35°C (1)	kW	583,7	651,0	714,2
TOTAL NOMINAL ABSORBED POWER		kW	168,5	192,8	218,9
EER		kW/kW	3,46	3,38	3,26
NOMINAL WATER FLOW (5)		m3/h	100,3	111,8	122,7
MECHANICAL MODE PRESSURE DROPS (4)		kPa	50	56	60
FRIGORIFIC SECTION					
COMPRESSORS / REFRIGERATING CIRCUITS / PARTITION STEP		nr.	6/3/4	6/3/4	6/3/4
HYDRAULIC SECTION					
WATER FLOW RANGE (6)		m3/h	75÷130	85÷130	90÷140
MAXIMUM PUMP ABSORBED POWER (WP OR OPTION DP)	P3 (2)	kW	16,22	16,22	16,22
MAXIMUM PUMP ABSORBED CURRENT (WP OR OPTION DP)	P3 (2)	A	26,60	26,60	26,60
MAXIMUM PUMP ABSORBED POWER (OPTION PH OR DPH)	P5 (2)	kW	31,88	31,88	39,09
MAXIMUM PUMP ABSORBED CURRENT (OPTION PH OR DPH)	P5 (2)	A	53,50	53,50	65,60
HYDRAULIC CONNECTIONS (THREADED / FLANGED)		BSP / DN	DN150	DN150	DN150
TANK VOLUME		dm^3	500	500	500
EXPANSION VESSEL NUMBER x VOLUME (OPTION XV)		liters	19	19	38
FAN SECTION (AXIAL)					
FANS		nr.	12	12	12
MAXIMUM FANS ABSORBED POWER	EC	kW	23,28	23,28	23,28
MAXIMUM FANS ABSORBED CURRENT	EC	A	46,80	46,80	46,80
TOTAL AIR FLOW	EC	m3/h	228900	228900	228900
TOTAL ELECTRIC DATA					
ELECTRICAL FEED		V/ph/Hz	400/3/50	400/3/50	400/3/50
MAXIMUM ABSORBED CURRENT (F.L.A) (6)		A	402,5	446,0	489,5
MAXIMUM PEAK CURRENT (L.R.A) (6)		A	653,3	780,3	823,8
MAXIMUM PEAK CURRENT WITH SOFT START (OPTION SF) (L.R.A) (6)		A	591,3	698,7	742,2
NOISE DATA					
SOUND PRESSURE FOR STANDARD CONFIGURATION (6) (7)		dB(A)	66,9	68,6	69,8
SOUND PRESSURE FOR LOW NOISE OPTION (LNJ) (6) (7)		dB(A)	64,6	65,5	66,3
DIMENSIONS AND WEIGHT					
LENGTH		mm	8890	8890	8890
WIDTH		mm	2210	2210	2210
HEIGHT		mm	2500	2500	2500
WEIGHT EMPTY FOR STANDARD CONFIGURATION (6)		kg	6000	6200	6300
WEIGHT OPERATIVE FOR STANDARD CONFIGURATION (6)		kg	6400	6670	6780

Last update: 05/01/2021
Revision: 00-2020

Data referred to:
(1) Data referred to inlet/outlet water temperature = +12/+7 °C, ambient temperature = +35°C, fluid = Water
(2) Available pressure can be calculated from Hitema Online Selection Software
(3) SEPR: data comply with the European Regulation (EU) 2016/2281, referring to high temperature process chillers
(4) Pressure drops taken in account: evaporator, valves, piping
(5) Water flow is different from heating mode, assuming that an inverter pump will be used
(6) Data referred to standard chiller configuration NP (no pump) and EC fans
(7) Sound pressure level referred to measures according to normative ISO3744, pressure level at distance of 10 m, referred to free field on reflecting surface

* For the configuration DPH (double pump P5) the chiller width will be 1305mm
** For the configurations DP or DPH (double pump P3 or double pump P5) the chiller width will be 1305mm

HFT SERIES

Reversible Heat-Pumps
AC axial fans with RV
IP54 protection rating
Suitable for OUTDOOR installation

SERIES: HFT	DATE: 29/09/2021
CODE: TTD-HFT-00	UPDATE: -
CHECKED BY	M. Burba

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HFT

TABLE 1/6

Reversible heat-pumps HFT series, scroll compressors, R410A / R32 / R454B refrigerant, brazed-plate evaporator/condenser, condenser/evaporator coil with copper tubes and aluminium fins with hydrophilic coating, AC axial fans controlled by cut-phase speed regulator, electronic expansion valve. IP54 protection rating, heat-pump suitable for outdoor installation. Minimum working ambient temperature admitted = -5°C

Type of available condensers:
B-ES = stainless steel brazed plate condenser

❄ HEATING

TECHNICAL DATA

PERFORMANCES		Model	016	018	022	025	030	038	045	055
NOMINAL HEATING CAPACITY	W 40°C/45°C @ 7°C (1)	kW	16,4	18,5	25,3	28,2	31,9	40,7	48,0	59,6
TOTAL NOMINAL ABSORBED POWER		kW	4,9	5,5	7,2	8,0	9,6	11,6	13,4	16,7
COP		kW/kW	3,33	3,38	3,51	3,50	3,34	3,50	3,58	3,57
SCOP (3)		-	2,77	2,80	2,92	2,90	3,05	3,26	3,62	3,61
NOMINAL WATER FLOW		m3/h	2,8	3,2	4,4	4,8	5,5	7,0	8,2	10,2
MECHANICAL MODE PRESSURE DROPS (4)		kPa	73	50	48	59	75	54	46	59
FRIGORIFIC SECTION										
COMPRESSORS / REFRIGERATING CIRCUITS / PARTITION STEP		nr.	1/1/1	1/1/1	1/1/1	1/1/1	1/1/1	1/1/1	1/1/1	1/1/1
HYDRAULIC SECTION										
WATER FLOW RANGE (6)		m3/h	1,8÷4,2	2,5÷5	3÷6	3÷6	3,5÷6	6÷12	6÷12	6÷12
MAXIMUM PUMP ABSORBED POWER (OPTION WP OR DP)	P3 (2)	kW	0,98	0,98	1,28	1,28	1,28	2,20	2,20	2,20
MAXIMUM PUMP ABSORBED CURRENT (OPTION WP OR DP)		A	1,78	1,78	2,37	2,37	2,37	4,24	4,24	4,24
MAXIMUM PUMP ABSORBED POWER (OPTION PH OR DPH)	P5 (2)	kW	1,47	1,47	1,47	1,47	1,47	2,94	2,94	2,94
MAXIMUM PUMP ABSORBED CURRENT (OPTION PH OR DPH)		A	2,86	2,86	2,86	2,86	2,32	5,83	5,83	5,83
HYDRAULIC CONNECTIONS (THREADED / FLANGED)		BSP / DN	1"	1"	1"	1"	1 1/2"	1 1/2"	1 1/2"	1 1/2"
TANK VOLUME		dm^3	110	110	200	200	200	200	200	200
EXPANSION VESSEL NUMBER x VOLUME (OPTION XV)		liters	8	8	12	12	12	12	12	12
FAN SECTION (AXIAL)										
FANS		nr.	1	1	2	2	2	2	2	2
MAXIMUM FANS ABSORBED POWER	AC	kW	0,68	0,68	1,44	1,44	1,44	1,62	1,44	1,62
MAXIMUM FANS ABSORBED CURRENT		A	3,00	3,00	2,82	2,82	2,82	3,08	2,82	3,08
TOTAL AIR FLOW		m3/h	7298	6579	15298	15298	15298	16200	14267	15000
TOTAL ELECTRIC DATA										
ELECTRICAL FEED		V/ph/Hz	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50
MAXIMUM ABSORBED CURRENT (F.L.A) (6)		A	13,1	15,1	17,2	19,4	23,0	27,6	32,8	41,3
MAXIMUM PEAK CURRENT (L.R.A) (6)		A	67,0	78,0	97,8	113,8	141,8	143,1	176,8	243,9
MAXIMUM PEAK CURRENT WITH SOFT START (OPTION SF) (L.R.A) (6)		A	NA	NA	NA	NA	NA	NA	NA	NA
NOISE DATA										
SOUND PRESSURE FOR STANDARD CONFIGURATION (6) (7)		dB(A)	49,4	49,2	52,8	53,1	52,8	52,8	54,0	56,5
SOUND PRESSURE FOR LOW NOISE OPTION (LNJ) (6) (7)		dB(A)	NA	NA	NA	NA	52,4	51,6	52,9	53,5
DIMENSIONS AND WEIGHT										
LENGTH		mm	1005	1005	1610	1610	1610	1610	1610	1610
WIDTH		mm	855	855	860	860	860	860	860	860
HEIGHT		mm	1540	1540	1550	1550	1550	1550	1550	1550
WEIGHT EMPTY FOR STANDARD CONFIGURATION (6)		kg	165	190	235	260	305	315	330	405
WEIGHT OPERATIVE FOR STANDARD CONFIGURATION (6)		kg	185	210	255	280	325	335	350	425

Last update: 27/07/2020
Revision: 00-2020

Data referred to:
(1) Data referred to inlet/outlet water temperature = +40/+45 °C, ambient temperature = +7°C, fluid = Water
(2) Available pressure can be calculated from Hitema Online Selection Software
(3) SCOP data comply with the EN14825:2013, referring to medium temperature climate zone
(4) Pressure drops taken in account: evaporator, valves, piping
(5) Water flow is different from heating mode, assuming that an inverter pump will be used
(6) Data referred to standard chiller configuration NP (no pump) and AC fans
(7) Sound pressure level referred to measures according to normative ISO3744, pressure level at distance of 10 m, referred to free field on reflecting surface

* For the configuration DPH (double pump P5) the chiller width will be 1305mm
** For the configurations DP or DPH (double pump P3 or double pump P5) the chiller width will be 1305mm

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HFT

TABLE 2/6

Reversible heat-pumps HFT series, scroll compressors, R410A / R32 / R454B refrigerant, brazed-plate evaporator/condenser, condenser/evaporator coil with copper tubes and aluminium fins with hydrophilic coating, AC axial fans controlled by cut-phase speed regulator, electronic expansion valve. IP54 protection rating, heat-pump suitable for outdoor installation. Minimum working ambient temperature admitted = -5°C

Type of available condensers:
B-ES = stainless steel brazed plate condenser

❄ HEATING

TECHNICAL DATA

PERFORMANCES		Model	061	075	090	100	130	160	185	200
NOMINAL HEATING CAPACITY	W 40°C/45°C @ 7°C (1)	kW	67,4	81,4	96,0	106,2	127,5	162,8	191,9	218,7
TOTAL NOMINAL ABSORBED POWER		kW	19,9	24,0	27,6	30,8	36,3	46,3	53,4	61,5
COP		kW/kW	3,39	3,39	3,48	3,45	3,51	3,52	3,59	3,55
SCOP (3)		-	3,61	3,42	3,49	3,66	3,73	3,54	3,61	3,77
NOMINAL WATER FLOW		m3/h	11,6	14,0	16,5	18,2	21,9	28,0	33,0	37,6
MECHANICAL MODE PRESSURE DROPS (4)		kPa	67	62	55	57	67	62	55	60
FRIGORIFIC SECTION										
COMPRESSORS / REFRIGERATING CIRCUITS / PARTITION STEP		nr.	2/1/2	2/1/2	2/1/2	2/1/2	4/2/4	4/2/4	4/2/4	4/2/4
HYDRAULIC SECTION										
WATER FLOW RANGE (6)		m3/h	8÷17	8÷17	8÷17	8÷21	14÷34	14÷34	14÷34	22÷47
MAXIMUM PUMP ABSORBED POWER (OPTION WP OR DP)	P3 (2)	kW	2,53	2,53	2,53	2,53	4,56	4,56	4,56	8,30
MAXIMUM PUMP ABSORBED CURRENT (OPTION WP OR DP)		A	4,56	4,56	4,56	4,56	7,75	7,75	7,75	14,10
MAXIMUM PUMP ABSORBED POWER (OPTION PH OR DPH)	P5 (2)	kW	6,12	6,12	6,12	6,12	10,20	10,20	10,20	16,22
MAXIMUM PUMP ABSORBED CURRENT (OPTION PH OR DPH)		A	10,40	10,40	10,40	10,40	17,40	17,40	17,40	26,60
HYDRAULIC CONNECTIONS (THREADED / FLANGED)		BSP / DN	2"	2"	2"	2"	DN65	DN65	DN65	DN80
TANK VOLUME		dm^3	390	390	390	390	390	390	390	390
EXPANSION VESSEL NUMBER x VOLUME (OPTION XV)		liters	19	19	19	19	19	19	19	19
FAN SECTION (AXIAL)										
FANS		nr.	2	2	2	2	2	3	3	4
MAXIMUM FANS ABSORBED POWER	AC	kW	3,88	3,88	3,88	3,88	3,88	5,82	5,82	7,76
MAXIMUM FANS ABSORBED CURRENT		A	7,80	7,80	7,80	7,80	7,80	11,70	11,70	15,60
TOTAL AIR FLOW		m3/h	24541	36858	34534	32211	39956	56835	53738	67520
TOTAL ELECTRIC DATA										
ELECTRICAL FEED		V/ph/Hz	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50
MAXIMUM ABSORBED CURRENT (F.L.A) (6)		A	48,1	56,8	67,8	76,0	88,3	109,7	131,7	152,0
MAXIMUM PEAK CURRENT (L.R.A) (6)		A	166,9	172,3	211,8	278,6	207,2	225,2	275,7	354,6
MAXIMUM PEAK CURRENT WITH SOFT START (OPTION SF) (L.R.A) (6)		A	139,1	144,3	177,0	230,4	179,4	197,2	240,9	306,4
NOISE DATA										
SOUND PRESSURE FOR STANDARD CONFIGURATION (6) (7)		dB(A)	54,9	55,8	56,2	58,2	55,5	58,1	58,5	61,2
SOUND PRESSURE FOR LOW NOISE OPTION (LNJ) (6) (7)		dB(A)	54,4	54,7	54,9	55,8	54,6	56,7	56,9	58,8
DIMENSIONS AND WEIGHT										
LENGTH		mm	2210	2210	2210	2210	3355	3355	3355	4355
WIDTH		mm	1100	1100	1100	1100	1105*	1105*	1105*	1105**
HEIGHT		mm	2120	2120	2120	2120	2205	2205	2205	2205
WEIGHT EMPTY FOR STANDARD CONFIGURATION (6)		kg	560	595	620	700	1060	1110	1160	1750
WEIGHT OPERATIVE FOR STANDARD CONFIGURATION (6)		kg	580	615	640	720	1100	1130	1180	1770

Last update: 27/07/2020
Revision: 00-2020

Data referred to:
(1) Data referred to inlet/outlet water temperature = +40/+45 °C, ambient temperature = +7°C, fluid = Water
(2) Available pressure can be calculated from Hitema Online Selection Software
(3) SCOP data comply with the EN14825:2013, referring to medium temperature climate zone
(4) Pressure drops taken in account: evaporator, valves, piping
(5) Water flow is different from heating mode, assuming that an inverter pump will be used
(6) Data referred to standard chiller configuration NP (no pump) and AC fans
(7) Sound pressure level referred to measures according to normative ISO3744, pressure level at distance of 10 m, referred to free field on reflecting surface
0

* For the configuration DPH (double pump P5) the chiller width will be 1305mm
** For the configurations DP or DPH (double pump P3 or double pump P5) the chiller width will be 1305mm

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HFT

TABLE 3/6

Reversible heat-pumps HFT series, scroll compressors, R410A / R32 / R454B refrigerant, brazed-plate evaporator/condenser, condenser/evaporator coil with copper tubes and aluminium fins with hydrophilic coating, AC axial fans controlled by cut-phase speed regulator, electronic expansion valve. IP54 protection rating, heat-pump suitable for outdoor installation. Minimum working ambient temperature admitted = -5°C

Type of available condensers:
B-ES = stainless steel brazed plate condenser

❄ HEATING

TECHNICAL DATA

PERFORMANCES		Model	230	280	340
NOMINAL HEATING CAPACITY	W 40°C/45°C @ 7°C (1)	kW	245,5	301,6	345,4
TOTAL NOMINAL ABSORBED POWER		kW	69,3	86,0	98,6
COP		kW/kW	3,54	3,51	3,50
SCOP (3)		-	3,77	3,73	3,52
NOMINAL WATER FLOW		m3/h	42,2	51,8	59,3
MECHANICAL MODE PRESSURE DROPS (4)		kPa	53	54	56
FRIGORIFIC SECTION					
COMPRESSORS / REFRIGERATING CIRCUITS / PARTITION STEP		nr.	4/2/4	4/2/4	4/2/4
HYDRAULIC SECTION					
WATER FLOW RANGE (6)		m3/h	22÷47	25÷60	30÷70
MAXIMUM PUMP ABSORBED POWER (OPTION WP OR DP)	P3 (2)	kW	8,30	8,30	8,30
MAXIMUM PUMP ABSORBED CURRENT (OPTION WP OR DP)	P3 (2)	A	14,10	14,10	14,10
MAXIMUM PUMP ABSORBED POWER (OPTION PH OR DPH)	P5 (2)	kW	16,22	16,22	16,22
MAXIMUM PUMP ABSORBED CURRENT (OPTION PH OR DPH)	P5 (2)	A	26,60	26,60	26,60
HYDRAULIC CONNECTIONS (THREADED / FLANGED)		BSP / DN	DN80	DN100	DN100
TANK VOLUME		dm^3	500	500	500
EXPANSION VESSEL NUMBER x VOLUME (OPTION XV)		liters	19	19	19
FAN SECTION (AXIAL)					
FANS		nr.	5	5	5
MAXIMUM FANS ABSORBED POWER	AC	kW	9,70	9,70	9,70
MAXIMUM FANS ABSORBED CURRENT	AC	A	19,50	19,50	19,50
TOTAL AIR FLOW	AC	m3/h	90854	89564	85045
TOTAL ELECTRIC DATA					
ELECTRICAL FEED		V/ph/Hz	400/3/50	400/3/50	400/3/50
MAXIMUM ABSORBED CURRENT (F.L.A) (6)		A	172,3	195,0	227,3
MAXIMUM PEAK CURRENT (L.R.A) (6)		A	374,9	438,6	478,0
MAXIMUM PEAK CURRENT WITH SOFT START (OPTION SF) (L.R.A) (6)		A	326,7	381,1	416,0
NOISE DATA					
SOUND PRESSURE FOR STANDARD CONFIGURATION (6) (7)		dB(A)	62,8	62,8	64,2
SOUND PRESSURE FOR LOW NOISE OPTION (LNJ) (6) (7)		dB(A)	60,2	60,2	61,1
DIMENSIONS AND WEIGHT					
LENGTH		mm	5350	5350	5350
WIDTH		mm	1105	1105	1105
HEIGHT		mm	2205	2205	2205
WEIGHT EMPTY FOR STANDARD CONFIGURATION (6)		kg	1975	2130	2210
WEIGHT OPERATIVE FOR STANDARD CONFIGURATION (6)		kg	1995	2150	2230

Last update: 27/07/2020
Revision: 00-2020

Data referred to:
(1) Data referred to inlet/outlet water temperature = +40/+45 °C, ambient temperature = +7°C, fluid = Water
(2) Available pressure can be calculated from Hitema Online Selection Software
(3) SCOP data comply with the EN14825:2013, referring to medium temperature climate zone
(4) Pressure drops taken in account: evaporator, valves, piping
(5) Water flow is different from heating mode, assuming that an inverter pump will be used
(6) Data referred to standard chiller configuration NP (no pump) and AC fans
(7) Sound pressure level referred to measures according to normative ISO3744, pressure level at distance of 10 m, referred to free field on reflecting surface
0

* For the configuration DPH (double pump P5) the chiller width will be 1305mm
** For the configurations DP or DPH (double pump P3 or double pump P5) the chiller width will be 1305mm

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HFT

TABLE 4/6

Reversible heat-pumps HFT series, scroll compressors, R410A / R32 / R454B refrigerant, brazed-plate evaporator/condenser, condenser/evaporator coil with copper tubes and aluminium fins with hydrophilic coating, AC axial fans controlled by cut-phase speed regulator, electronic expansion valve. IP54 protection rating, heat-pump suitable for outdoor installation. Minimum working ambient temperature admitted = -5°C

Type of available evaporators:
B-ES = stainless steel brazed plate evaporator

❄ COOLING

TECHNICAL DATA

PERFORMANCES		**Model**	**016**	**018**	**022**	**025**	**030**	**038**	**045**	**055**
NOMINAL COOLING CAPACITY	W 12°C/7°C @ 35°C (1)	kW	15,3	17,8	23,7	26,4	29,2	37,8	44,5	55,0
TOTAL NOMINAL ABSORBED POWER		kW	4,8	5,7	7,2	8,2	9,7	11,7	13,5	17,8
EER		kW/kW	3,20	3,10	3,29	3,23	3,02	3,22	3,30	3,10
SEPR (HT) (3)		-	5,84	5,51	5,80	5,74	5,69	5,70	5,90	5,72
NOMINAL WATER FLOW (5)		m3/h	2,6	3,1	4,1	4,5	5,0	6,5	7,6	9,4
MECHANICAL MODE PRESSURE DROPS (4)		kPa	71	48	46	56	68	54	46	56
FRIGORIFIC SECTION										
COMPRESSORS / REFRIGERATING CIRCUITS / PARTITION STEP		nr.	1/1/1	1/1/1	1/1/1	1/1/1	1/1/1	1/1/1	1/1/1	1/1/1
HYDRAULIC SECTION										
WATER FLOW RANGE (6)		m3/h	1,8÷4,2	2,5÷5	3÷6	3÷6	3,5÷6	6÷12	6÷12	6÷12
MAXIMUM PUMP ABSORBED POWER (WP OR OPTION DP)	P3 (2)	kW	0,98	0,98	1,28	1,28	1,28	2,20	2,20	2,20
MAXIMUM PUMP ABSORBED CURRENT (WP OR OPTION DP)		A	1,78	1,78	2,37	2,37	2,37	4,24	4,24	4,24
MAXIMUM PUMP ABSORBED POWER (OPTION PH OR DPH)	P5 (2)	kW	1,47	1,47	1,47	1,47	1,47	2,94	2,94	2,94
MAXIMUM PUMP ABSORBED CURRENT (OPTION PH OR DPH)		A	2,86	2,86	2,86	2,86	2,32	5,83	5,83	5,83
HYDRAULIC CONNECTIONS (THREADED / FLANGED)		BSP / DN	1"	1"	1"	1"	1 1/2"	1 1/2"	1 1/2"	1 1/2"
TANK VOLUME		dm^3	110	110	200	200	200	200	200	200
EXPANSION VESSEL NUMBER x VOLUME (OPTION XV)		liters	8	8	12	12	12	12	12	12
FAN SECTION (AXIAL)										
FANS		nr.	1	1	2	2	2	2	2	2
MAXIMUM FANS ABSORBED POWER	AC	kW	0,68	0,68	1,44	1,44	1,44	1,62	1,44	1,62
MAXIMUM FANS ABSORBED CURRENT		A	3,00	3,00	2,82	2,82	2,82	3,08	2,82	3,08
TOTAL AIR FLOW		m3/h	7298	6579	15298	15298	15298	16200	14267	15000
TOTAL ELECTRIC DATA										
ELECTRICAL FEED		V/ph/Hz	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50
MAXIMUM ABSORBED CURRENT (F.L.A) (6)		A	13,1	15,1	17,2	19,4	23,0	27,6	32,8	41,3
MAXIMUM PEAK CURRENT (L.R.A) (6)		A	67,0	78,0	97,8	113,8	141,8	143,1	176,8	243,9
MAXIMUM PEAK CURRENT WITH SOFT START (OPTION SF) (L.R.A) (6)		A	NA	NA	NA	NA	NA	NA	NA	NA
NOISE DATA										
SOUND PRESSURE FOR STANDARD CONFIGURATION (6) (7)		dB(A)	49,4	49,2	52,8	53,1	52,8	52,8	54,0	56,5
SOUND PRESSURE FOR LOW NOISE OPTION (LNJ) (6) (7)		dB(A)	NA	NA	NA	NA	52,4	51,6	52,9	53,5
DIMENSIONS AND WEIGHT										
LENGTH		mm	1005	1005	1610	1610	1610	1610	1610	1610
WIDTH		mm	855	855	860	860	860	860	860	860
HEIGHT		mm	1540	1540	1550	1550	1550	1550	1550	1550
WEIGHT EMPTY FOR STANDARD CONFIGURATION (6)		kg	165	190	235	260	305	315	330	405
WEIGHT OPERATIVE FOR STANDARD CONFIGURATION (6)		kg	185	210	255	280	325	335	350	425

Last update: 28/07/2020
Revision: 00-2020

Data referred to:
(1) Data referred to inlet/outlet water temperature = +12/+7 °C, ambient temperature = +35°C, fluid = Water
(2) Available pressure can be calculated from Hitema Online Selection Software
(3) SEPR: data comply with the European Regulation (EU) 2016/2281, referring to high temperature process chillers
(4) Pressure drops taken in account: evaporator, valves, piping
(5) Water flow is different from heating mode, assuming that an inverter pump will be used
(6) Data referred to standard chiller configuration NP (no pump) and AC fans
(7) Sound pressure level referred to measures according to normative ISO3744, pressure level at distance of 10 m, referred to free field on reflecting surface

* For the configuration DPH (double pump P5) the chiller width will be 1305mm
** For the configurations DP or DPH (double pump P3 or double pump P5) the chiller width will be 1305mm

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TABLE 5/6

Reversible heat-pumps HFT series, scroll compressors, R410A / R32 / R454B refrigerant, brazed-plate evaporator/condenser, condenser/evaporator coil with copper tubes and aluminium fins with hydrophilic coating, AC axial fans controlled by cut-phase speed regulator, electronic expansion valve. IP54 protection rating, heat-pump suitable for outdoor installation. Minimum working ambient temperature admitted = -5°C

Type of available evaporators:
B-ES = stainless steel brazed plate evaporator

❄ COOLING

TECHNICAL DATA

PERFORMANCES		**Model**	**061**	**075**	**090**	**100**	**130**	**160**	**185**	**200**
NOMINAL COOLING CAPACITY	W 12°C/7°C @ 35°C (1)	kW	62,7	75,7	89,0	100,6	116,8	151,3	178,0	207,5
TOTAL NOMINAL ABSORBED POWER		kW	19,7	24,2	27,8	31,5	36,0	46,7	53,8	60,5
EER		kW/kW	3,17	3,13	3,20	3,19	3,24	3,24	3,31	3,43
SEPR (HT) (3)		-	5,73	5,71	5,69	5,97	6,16	5,89	6,07	6,21
NOMINAL WATER FLOW (5)		m3/h	10,8	13,0	15,3	17,3	20,1	26,0	30,6	35,6
MECHANICAL MODE PRESSURE DROPS (4)		kPa	65	60	53	52	63	60	53	55
FRIGORIFIC SECTION										
COMPRESSORS / REFRIGERATING CIRCUITS / PARTITION STEP		nr.	2/1/2	2/1/2	2/1/2	2/1/2	4/2/4	4/2/4	4/2/4	4/2/4
HYDRAULIC SECTION										
WATER FLOW RANGE (6)		m3/h	8÷17	8÷17	8÷17	8÷21	14÷34	14÷34	14÷34	22÷47
MAXIMUM PUMP ABSORBED POWER (WP OR OPTION DP)	P3 (2)	kW	2,53	2,53	2,53	2,53	4,56	4,56	4,56	8,30
MAXIMUM PUMP ABSORBED CURRENT (WP OR OPTION DP)		A	4,56	4,56	4,56	4,56	7,75	7,75	7,75	14,10
MAXIMUM PUMP ABSORBED POWER (OPTION PH OR DPH)	P5 (2)	kW	6,12	6,12	6,12	6,12	10,20	10,20	10,20	16,22
MAXIMUM PUMP ABSORBED CURRENT (OPTION PH OR DPH)		A	10,40	10,40	10,40	10,40	17,40	17,40	17,40	26,60
HYDRAULIC CONNECTIONS (THREADED / FLANGED)		BSP / DN	2"	2"	2"	2"	DN65	DN65	DN65	DN80
TANK VOLUME		dm^3	390	390	390	390	390	390	390	390
EXPANSION VESSEL NUMBER x VOLUME (OPTION XV)		liters	19	19	19	19	19	19	19	19
FAN SECTION (AXIAL)										
FANS		nr.	2	2	2	2	2	3	3	4
MAXIMUM FANS ABSORBED POWER	AC	kW	3,88	3,88	3,88	3,88	3,88	5,82	5,82	7,76
MAXIMUM FANS ABSORBED CURRENT		A	7,80	7,80	7,80	7,80	7,80	11,70	11,70	15,60
TOTAL AIR FLOW		m3/h	24541	36858	34534	32211	39956	56835	53738	67520
TOTAL ELECTRIC DATA										
ELECTRICAL FEED		V/ph/Hz	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50
MAXIMUM ABSORBED CURRENT (F.L.A) (6)		A	48,1	56,8	67,8	76,0	88,3	109,7	131,7	152,0
MAXIMUM PEAK CURRENT (L.R.A) (6)		A	166,9	172,3	211,8	278,6	207,2	225,2	275,7	354,6
MAXIMUM PEAK CURRENT WITH SOFT START (OPTION SF) (L.R.A) (6)		A	139,1	144,3	177,0	230,4	179,4	197,2	240,9	306,4
NOISE DATA										
SOUND PRESSURE FOR STANDARD CONFIGURATION (6) (7)		dB(A)	54,2	55,3	56,2	58,2	55,5	58,1	58,5	61,2
SOUND PRESSURE FOR LOW NOISE OPTION (LNJ) (6) (7)		dB(A)	53,6	54,1	54,9	55,8	54,6	56,7	56,9	58,8
DIMENSIONS AND WEIGHT										
LENGTH		mm	2210	2210	2210	2210	3355	3355	3355	4355
WIDTH		mm	1100	1100	1100	1100	1105*	1105*	1105*	1105**
HEIGHT		mm	2120	2120	2120	2120	2205	2205	2205	2205
WEIGHT EMPTY FOR STANDARD CONFIGURATION (6)		kg	560	595	620	700	1060	1110	1160	1750
WEIGHT OPERATIVE FOR STANDARD CONFIGURATION (6)		kg	580	615	640	720	1100	1130	1180	1770

Last update: 28/07/2020
Revision: 00-2020

Data referred to:
(1) Data referred to inlet/outlet water temperature = +12/+7 °C, ambient temperature = +35°C, fluid = Water
(2) Available pressure can be calculated from Hitema Online Selection Software
(3) SEPR: data comply with the European Regulation (EU) 2016/2281, referring to high temperature process chillers
(4) Pressure drops taken in account: evaporator, valves, piping
(5) Water flow is different from heating mode, assuming that an inverter pump will be used
(6) Data referred to standard chiller configuration NP (no pump) and AC fans
(7) Sound pressure level referred to measures according to normative ISO3744, pressure level at distance of 10 m, referred to free field on reflecting surface

* For the configuration DPH (double pump P5) the chiller width will be 1305mm
** For the configurations DP or DPH (double pump P3 or double pump P5) the chiller width will be 1305mm

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TABLE 6/6

Reversible heat-pumps HFT series, scroll compressors, R410A / R32 / R454B refrigerant, brazed-plate evaporator/condenser, condenser/evaporator coil with copper tubes and aluminium fins with hydrophilic coating, AC axial fans controlled by cut-phase speed regulator, electronic expansion valve. IP54 protection rating, heat-pump suitable for outdoor installation. Minimum working ambient temperature admitted = -5°C

Type of available evaporators:
B-ES = stainless steel brazed plate evaporator

❄ COOLING

TECHNICAL DATA

PERFORMANCES		Model	230	280	340
NOMINAL COOLING CAPACITY	W 12°C/7°C @ 35°C (1)	kW	242,4	289,3	326,8
TOTAL NOMINAL ABSORBED POWER		kW	67,9	85,8	101,3
EER		kW/kW	3,57	3,37	3,23
SEPR (HT) (3)		-	6,47	6,17	5,90
NOMINAL WATER FLOW (5)		m3/h	41,6	49,7	56,1
MECHANICAL MODE PRESSURE DROPS (4)		kPa	52	56	57
FRIGORIFIC SECTION					
COMPRESSORS / REFRIGERATING CIRCUITS / PARTITION STEP		nr.	4/2/4	4/2/4	4/2/4
HYDRAULIC SECTION					
WATER FLOW RANGE (6)		m3/h	22÷47	25÷60	30÷70
MAXIMUM PUMP ABSORBED POWER (WP OR OPTION DP)	P3 (2)	kW	8,30	8,30	8,30
MAXIMUM PUMP ABSORBED CURRENT (WP OR OPTION DP)		A	14,10	14,10	14,10
MAXIMUM PUMP ABSORBED POWER (OPTION PH OR DPH)	P5 (2)	kW	16,22	16,22	16,22
MAXIMUM PUMP ABSORBED CURRENT (OPTION PH OR DPH)		A	26,60	26,60	26,60
HYDRAULIC CONNECTIONS (THREADED / FLANGED)		BSP / DN	DN80	DN100	DN100
TANK VOLUME		dm^3	500	500	500
EXPANSION VESSEL NUMBER x VOLUME (OPTION XV)		liters	19	19	19
FAN SECTION (AXIAL)					
FANS		nr.	5	5	5
MAXIMUM FANS ABSORBED POWER	AC	kW	9,70	9,70	9,70
MAXIMUM FANS ABSORBED CURRENT		A	19,50	19,50	19,50
TOTAL AIR FLOW		m3/h	90854	89564	85045
TOTAL ELECTRIC DATA					
ELECTRICAL FEED		V/ph/Hz	400/3/50	400/3/50	400/3/50
MAXIMUM ABSORBED CURRENT (F.L.A) (6)		A	172,3	195,0	227,3
MAXIMUM PEAK CURRENT (L.R.A) (6)		A	374,9	438,6	478,0
MAXIMUM PEAK CURRENT WITH SOFT START (OPTION SF) (L.R.A) (6)		A	326,7	381,1	416,0
NOISE DATA					
SOUND PRESSURE FOR STANDARD CONFIGURATION (6) (7)		dB(A)	62,8	62,8	64,2
SOUND PRESSURE FOR LOW NOISE OPTION (LNJ) (6) (7)		dB(A)	60,2	60,2	61,1
DIMENSIONS AND WEIGHT					
LENGTH		mm	5350	5350	5350
WIDTH		mm	1105	1105	1105
HEIGHT		mm	2205	2205	2205
WEIGHT EMPTY FOR STANDARD CONFIGURATION (6)		kg	1975	2130	2210
WEIGHT OPERATIVE FOR STANDARD CONFIGURATION (6)		kg	1995	2150	2230

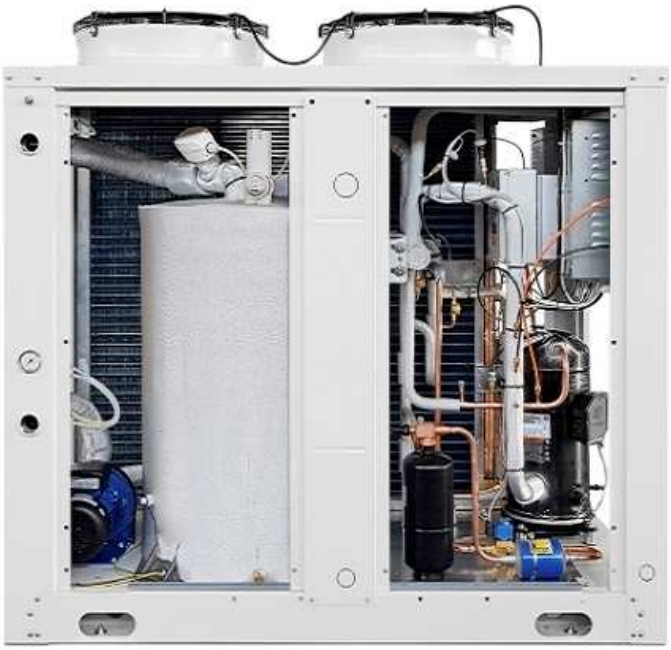
Last update: 28/07/2020
Revision: 00-2020

Data referred to:
(1) Data referred to inlet/outlet water temperature = +12/+7 °C, ambient temperature = +35°C, fluid = Water
(2) Available pressure can be calculated from Hitema Online Selection Software
(3) SEPR: data comply with the European Regulation (EU) 2016/2281, referring to high temperature process chillers
(4) Pressure drops taken in account: evaporator, valves, piping
(5) Water flow is different from heating mode, assuming that an inverter pump will be used
(6) Data referred to standard chiller configuration NP (no pump) and AC fans
(7) Sound pressure level referred to measures according to normative ISO3744, pressure level at distance of 10 m, referred to free field on reflecting surface

* For the configuration DPH (double pump P5) the chiller width will be 1305mm
** For the configurations DP or DPH (double pump P3 or double pump P5) the chiller width will be 1305mm

HNR SERIES

Reversible Heat Pumps
AC axial fans with RV
IP54 protection rating
Suitable for OUTDOOR installation



SERIES: ENR-ENRF-CSE	DATE: 20.02.2020	
CODE: GPLSPC20	UPDATE: GPLSPC19	M. Burba
CHECKED BY		

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TABLE 1/4

Reversible heat-pumps HNR series, scroll compressors, R410A / R32 / R454B refrigerant, coaxial evaporator/condenser, condenser/evaporator coil with copper tubes and aluminium fins with hydrophilic coating, AC axial fans controlled by cut-phase speed regulator, electronic expansion valve. IP54 protection rating, heat-pump suitable for outdoor installation. Inbuilt water storage tank and single pump P3 as standard. Minimum working ambient temperature admitted = -5°C

Special features of HNR series:

CX = HITEMA coaxial evaporator, convoluted tube in tube exchanger (outer tube in carbon steel or stainless steel, inner tubes in copper) installed inside the water storage tank, guarantee high operaton reliability

❄ HEATING

TECHNICAL DATA

PERFORMANCES		Model	016	018	022	025	030	038	045	055
NOMINAL HEATING CAPACITY	W 40°C/45°C @ 7°C (1)	kW	16,4	18,5	25,3	28,2	31,2	38,1	46,4	57,7
TOTAL NOMINAL ABSORBED POWER		kW	5,9	6,4	8,5	9,3	11,5	14,5	16,4	19,9
COP		kW/kW	2,78	2,88	2,98	3,02	2,72	2,63	2,83	2,90
SCOP (3)		-	2,02	2,09	2,17	2,20	2,49	2,45	2,86	2,93
NOMINAL WATER FLOW		m3/h	2,8	3,2	4,4	4,8	5,4	6,6	8,0	9,9
MECHANICAL MODE PRESSURE DROPS (4)		kPa	41	53	42	52	34	51	39	51
FRIGORIFIC SECTION										
COMPRESSORS / REFRIGERATING CIRCUITS / PARTITION STEP		nr.	1/1/1	1/1/1	1/1/1	1/1/1	1/1/1	1/1/1	1/1/1	1/1/1
HYDRAULIC SECTION										
WATER FLOW RANGE (6)		m3/h	1,2÷2,9	2,5÷5	3÷6	3÷6	4÷6	5÷12	6÷12	6÷12
MAXIMUM PUMP ABSORBED POWER (WP OR OPTION DP)	P3 (2)	kW	0,98	0,98	1,28	1,28	1,28	2,20	2,20	2,20
MAXIMUM PUMP ABSORBED CURRENT (WP OR OPTION DP)		A	1,78	1,78	2,37	2,37	2,37	4,24	4,24	4,24
MAXIMUM PUMP ABSORBED POWER (OPTION PH OR DPH)	P5 (2)	kW	1,10	1,47	1,47	1,47	1,47	2,94	2,94	2,94
MAXIMUM PUMP ABSORBED CURRENT (OPTION PH OR DPH)		A	2,17	2,86	2,86	2,86	2,32	5,83	5,83	5,83
HYDRAULIC CONNECTIONS (THREADED / FLANGED)		BSP / DN	1"	1"	1"	1"	1 1/2"	1 1/2"	1 1/2"	1 1/2"
TANK VOLUME		dm^3	50	110	110	110	270	270	270	270
EXPANSION VESSEL NUMBER x VOLUME (OPTION XV)		liters	5	8	8	8	12	12	12	12
FAN SECTION (AXIAL)										
FANS		nr.	1	1	2	2	2	2	2	2
MAXIMUM FANS ABSORBED POWER	AC	kW	0,68	0,68	1,44	1,44	1,44	1,62	1,44	1,62
MAXIMUM FANS ABSORBED CURRENT		A	3,00	3,00	2,82	2,82	2,82	3,08	2,82	3,08
TOTAL AIR FLOW		m3/h	7649	7649	15298	15298	15298	16200	14267	15000
TOTAL ELECTRIC DATA										
ELECTRICAL FEED		V/ph/Hz	400/3/50/N	400/3/50/N	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50
MAXIMUM ABSORBED CURRENT (F.L.A) (6)		A	14,9	16,8	19,5	21,8	25,3	31,8	37,1	45,5
MAXIMUM PEAK CURRENT (L.R.A) (6)		A	68,8	79,8	100,2	116,2	144,2	147,3	181,1	248,1
MAXIMUM PEAK CURRENT WITH SOFT START (OPTION SF) (L.R.A) (6)		A	NA	NA	NA	NA	NA	NA	NA	NA
NOISE DATA										
SOUND PRESSURE FOR STANDARD CONFIGURATION (6) (7)		dB(A)	49,7	49,5	53,0	53,5	53,3	53,2	54,3	56,6
SOUND PRESSURE FOR LOW NOISE OPTION (LNJ) (6) (7)		dB(A)	NA	NA	NA	NA	52,9	52,2	53,3	53,9
DIMENSIONS AND WEIGHT										
LENGTH		mm	1005	1005	1610	1610	1610	1610	1610	1610
WIDTH		mm	855	855	860	860	860	860	860	860
HEIGHT		mm	1540	1540	1550	1550	1550	1550	1550	1550
WEIGHT EMPTY FOR STANDARD CONFIGURATION (6)		kg	190	230	270	270	400	425	437	523
WEIGHT OPERATIVE FOR STANDARD CONFIGURATION (6)		kg	240	360	399	399	699	724	736	822

Last update: 16/07/2020
Revision: 00-2020

Data referred to:

(1) Data referred to inlet/outlet water temperature = +40/+45 °C, ambient temperature = +7°C, fluid = Water

(2) Available pressure can be calculated from Hitema Online Selection Software

(3) SCOP data comply with the EN14825:2013, referring to medium temperature climate zone

(4) Pressure drops taken in account: evaporator, valves, piping

(5) Water flow is different from heating mode, assuming that an inverter pump will be used

(6) Data referred to standard chiller configuration WP (single pump P3) and AC fans

(7) Sound pressure level referred to measures according to normative ISO3744, pressure level at distance of 10 m, referred to free field on reflecting surface

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TABLE 2/4

Reversible heat-pumps HNR series, scroll compressors, R410A / R32 / R454B refrigerant, coaxial evaporator/condenser, condenser/evaporator coil with copper tubes and aluminium fins with hydrophilic coating, AC axial fans controlled by cut-phase speed regulator, electronic expansion valve. IP54 protection rating, heat-pump suitable for outdoor installation. Inbuilt water storage tank and single pump P3 as standard. Minimum working ambient temperature admitted = -5°C

Special features of HNR series:

CX = HITEMA coaxial evaporator, convoluted tube in tube exchanger (outer tube in carbon steel or stainless steel, inner tubes in copper) installed inside the water storage tank, guarantee high operaton reliability

❄ HEATING

TECHNICAL DATA

PERFORMANCES		Model	061	075	090	100
NOMINAL HEATING CAPACITY	W 40°C/45°C @ 7°C (1)	kW	65,1	77,4	91,3	104,2
TOTAL NOMINAL ABSORBED POWER		kW	23,7	27,8	31,6	35,2
COP		kW/kW	2,75	2,78	2,89	2,96
SCOP (3)		-	#RIF!	2,80	2,90	3,14
NOMINAL WATER FLOW		m3/h	11,2	13,3	15,7	17,9
MECHANICAL MODE PRESSURE DROPS (4)		kPa	23	20	28	39
FRIGORIFIC SECTION						
COMPRESSORS / REFRIGERATING CIRCUITS / PARTITION STEP		nr.	2/1/2	2/1/2	2/1/2	2/1/2
HYDRAULIC SECTION						
WATER FLOW RANGE (6)		m3/h	8÷18	10÷20	10÷20	10÷20
MAXIMUM PUMP ABSORBED POWER (WP OR OPTION DP)	P3 (2)	kW	2,53	2,53	2,53	2,53
MAXIMUM PUMP ABSORBED CURRENT (WP OR OPTION DP)		A	4,56	4,56	4,56	4,56
MAXIMUM PUMP ABSORBED POWER (OPTION PH OR DPH)	P5 (2)	kW	6,12	6,12	6,12	6,12
MAXIMUM PUMP ABSORBED CURRENT (OPTION PH OR DPH)		A	10,40	10,40	10,40	10,40
HYDRAULIC CONNECTIONS (THREADED / FLANGED)		BSP / DN	2"	2"	2"	2"
TANK VOLUME		dm^3	410	410	410	410
EXPANSION VESSEL NUMBER x VOLUME (OPTION XV)		liters	19	19	19	19
FAN SECTION (AXIAL)						
FANS		nr.	2	2	2	2
MAXIMUM FANS ABSORBED POWER	AC	kW	3,88	3,88	3,88	3,88
MAXIMUM FANS ABSORBED CURRENT		A	7,80	7,80	7,80	7,80
TOTAL AIR FLOW		m3/h	33096	36858	34534	32211
TOTAL ELECTRIC DATA						
ELECTRICAL FEED		V/ph/Hz	400/3/50	400/3/50	400/3/50	400/3/50
MAXIMUM ABSORBED CURRENT (F.L.A) (6)		A	52,6	61,4	72,4	80,6
MAXIMUM PEAK CURRENT (L.R.A) (6)		A	171,5	176,9	216,4	283,2
MAXIMUM PEAK CURRENT WITH SOFT START (OPTION SF) (L.R.A) (6)		A	143,7	148,9	181,6	235,0
NOISE DATA						
SOUND PRESSURE FOR STANDARD CONFIGURATION (6) (7)		dB(A)	54,5	55,6	56,4	58,3
SOUND PRESSURE FOR LOW NOISE OPTION (LNJ) (6) (7)		dB(A)	54,0	54,4	55,2	56,1
DIMENSIONS AND WEIGHT						
LENGTH		mm	2220	2220	2220	2220
WIDTH		mm	1100	1100	1100	1100
HEIGHT		mm	2120	2120	2120	2120
WEIGHT EMPTY FOR STANDARD CONFIGURATION (6)		kg	780	820	850	943
WEIGHT OPERATIVE FOR STANDARD CONFIGURATION (6)		kg	1198	1238	1268	1360

Last update: 16/07/2020
Revision: 00-2020

Data referred to:

(1) Data referred to inlet/outlet water temperature = +40/+45 °C, ambient temperature = +7°C, fluid = Water

(2) Available pressure can be calculated from Hitema Online Selection Software

(3) SCOP data comply with the EN14825:2013, referring to medium temperature climate zone

(4) Pressure drops taken in account: evaporator, valves, piping

(5) Water flow is different from heating mode, assuming that an inverter pump will be used

(6) Data referred to standard chiller configuration WP (single pump P3) and AC fans

(7) Sound pressure level referred to measures according to normative ISO3744, pressure level at distance of 10 m, referred to free field on reflecting surface

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TABLE 3/4

Reversible heat-pumps HNR series, scroll compressors, R410A / R32 / R454B refrigerant, coaxial evaporator/condenser, condenser/evaporator coil with copper tubes and aluminium fins with hydrophilic coating, AC axial fans controlled by cut-phase speed regulator, electronic expansion valve. IP54 protection rating, heat-pump suitable for outdoor installation. Inbuilt water storage tank and single pump P3 as standard. Minimum working ambient temperature admitted = -5°C

Special features of HNR series:

CX = HITEMA coaxial evaporator, convoluted tube in tube exchanger (outer tube in carbon steel or stainless steel, inner tubes in copper) installed inside the water storage tank, guarantee high operaton reliability

❄ COOLING

TECHNICAL DATA

PERFORMANCES		Model	016	018	022	025	030	038	045	055
NOMINAL COOLING CAPACITY	W 12°C/7°C @ 35°C (1)	kW	14,7	17,2	23,0	25,6	28,2	34,2	42,7	53,0
TOTAL NOMINAL ABSORBED POWER		kW	5,7	6,7	8,5	9,4	11,0	14,8	15,8	20,0
EER		kW/kW	2,56	2,59	2,72	2,73	2,57	2,30	2,70	2,66
SEPR (HT) (3)		-	4,17	3,78	3,86	3,98	4,30	3,84	4,48	4,47
NOMINAL WATER FLOW (5)		m3/h	2,7	3,2	4,0	4,6	5,5	6,7	8,2	10,2
MECHANICAL MODE PRESSURE DROPS (4)		kPa	38	30	35	48	38	42	45	57
FRIGORIFIC SECTION										
COMPRESSORS / REFRIGERATING CIRCUITS / PARTITION STEP		nr.	1/1/1	1/1/1	1/1/1	1/1/1	1/1/1	1/1/1	1/1/1	1/1/1
HYDRAULIC SECTION										
WATER FLOW RANGE (6)		m3/h	1,2÷2,9	2,5÷5	3÷6	3÷6	4÷6	5÷12	6÷12	6÷12
MAXIMUM PUMP ABSORBED POWER (WP OR OPTION DP)	P3 (2)	kW	0,98	0,98	1,28	1,28	1,28	2,20	2,20	2,20
MAXIMUM PUMP ABSORBED CURRENT (WP OR OPTION DP)		A	1,78	1,78	2,37	2,37	2,37	4,24	4,24	4,24
MAXIMUM PUMP ABSORBED POWER (OPTION PH OR DPH)	P5 (2)	kW	1,10	1,47	1,47	1,47	1,47	2,94	2,94	2,94
MAXIMUM PUMP ABSORBED CURRENT (OPTION PH OR DPH)		A	2,17	2,86	2,86	2,86	2,32	5,83	5,83	5,83
HYDRAULIC CONNECTIONS (THREADED / FLANGED)		BSP / DN	1"	1"	1"	1"	1 1/2"	1 1/2"	1 1/2"	1 1/2"
TANK VOLUME (5)		dm^3	50	110	110	110	270	270	270	270
EXPANSION VESSEL NUMBER x VOLUME (OPTION XV)		liters	5	8	8	8	12	12	12	12
FAN SECTION (AXIAL)										
FANS		nr.	1	1	2	2	2	2	2	2
MAXIMUM FANS ABSORBED POWER	AC	kW	0,68	0,68	1,44	1,44	1,44	1,62	1,44	1,62
MAXIMUM FANS ABSORBED CURRENT		A	3,00	3,00	2,82	2,82	2,82	3,08	2,82	3,08
TOTAL AIR FLOW		m3/h	7298	7298	15298	15298	15298	16200	14267	15000
TOTAL ELECTRIC DATA										
ELECTRICAL FEED		V/ph/Hz	400/3/50/N	400/3/50/N	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50
MAXIMUM ABSORBED CURRENT (F.L.A) (6)		A	14,9	16,8	19,5	21,8	25,3	31,8	37,1	45,5
MAXIMUM PEAK CURRENT (L.R.A) (6)		A	68,8	79,8	100,2	116,2	144,2	147,3	181,1	248,1
MAXIMUM PEAK CURRENT WITH SOFT START (OPTION SF) (L.R.A) (6)		A	NA	NA	NA	NA	NA	NA	NA	NA
NOISE DATA										
SOUND PRESSURE FOR STANDARD CONFIGURATION (6) (7)		dB(A)	49,7	49,5	53,0	53,5	53,3	53,2	54,3	56,6
SOUND PRESSURE FOR LOW NOISE OPTION (LNJ) (6) (7)		dB(A)	NA	NA	NA	NA	52,9	52,2	53,3	53,9
DIMENSIONS AND WEIGHT										
LENGTH		mm	1005	1005	1610	1610	1610	1610	1610	1610
WIDTH		mm	855	855	860	860	860	860	860	860
HEIGHT		mm	1540	1540	1550	1550	1550	1550	1550	1550
WEIGHT EMPTY FOR STANDARD CONFIGURATION (6)		kg	190	230	270	270	400	425	437	523
WEIGHT OPERATIVE FOR STANDARD CONFIGURATION (6)		kg	240	360	399	399	699	724	736	822

Last update: 16/07/2020
Revision: 00-2020

Data referred to:

(1) Data referred to inlet/outlet water temperature = +12/+7 °C, ambient temperature = +35°C, fluid = Water

(2) Available pressure can be calculated from Hitema Online Selection Software

(3) SEPR: data comply with the European Regulation (EU) 2016/2281, referring to high temperature process chillers

(4) Pressure drops taken in account: evaporator, valves, piping

(5) Water flow is different from heating mode, assuming that an inverter pump will be used

(6) Data referred to standard chiller configuration WP (single pump P3) and AC fans

(7) Sound pressure level referred to measures according to normative ISO3744, pressure level at distance of 10 m, referred to free field on reflecting surface

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HNR

TABLE 4/4

Reversible heat-pumps HNR series, scroll compressors, R410A / R32 / R454B refrigerant, coaxial evaporator/condenser, condenser/evaporator coil with copper tubes and aluminium fins with hydrophilic coating, AC axial fans controlled by cut-phase speed regulator, electronic expansion valve. IP54 protection rating, heat-pump suitable for outdoor installation. Inbuilt water storage tank and single pump P3 as standard. Minimum working ambient temperature admitted = -5°C

Special features of HNR series:

CX = HITEMA coaxial evaporator, convoluted tube in tube exchanger (outer tube in carbon steel or stainless steel, inner tubes in copper) installed inside the water storage tank, guarantee high operaton reliability

❄ COOLING

TECHNICAL DATA

PERFORMANCES		Model	061	075	090	100
NOMINAL COOLING CAPACITY	W 12°C/7°C @ 35°C (1)	kW	62,2	69,9	83,3	95,6
TOTAL NOMINAL ABSORBED POWER		kW	21,7	27,8	31,3	34,7
EER		kW/kW	2,87	2,51	2,66	2,76
SEPR (HT) (3)		-	4,03	4,49	4,44	4,68
NOMINAL WATER FLOW (5)		m3/h	10,7	13,7	16,1	18,4
MECHANICAL MODE PRESSURE DROPS (4)		kPa	25	30	35	46
FRIGORIFIC SECTION						
COMPRESSORS / REFRIGERATING CIRCUITS / PARTITION STEP		nr.	2/1/2	2/1/2	2/1/2	2/1/2
HYDRAULIC SECTION						
WATER FLOW RANGE (6)		m3/h	8÷18	10÷20	10÷20	10÷20
MAXIMUM PUMP ABSORBED POWER (WP OR OPTION DP)	P3 (2)	kW	2,53	2,53	2,53	2,53
MAXIMUM PUMP ABSORBED CURRENT (WP OR OPTION DP)		A	4,56	4,56	4,56	4,56
MAXIMUM PUMP ABSORBED POWER (OPTION PH OR DPH)	P5 (2)	kW	6,12	6,12	6,12	6,12
MAXIMUM PUMP ABSORBED CURRENT (OPTION PH OR DPH)		A	10,40	10,40	10,40	10,40
HYDRAULIC CONNECTIONS (THREADED / FLANGED)		BSP / DN	2"	2"	2"	2"
TANK VOLUME (5)		dm^3	410	410	410	410
EXPANSION VESSEL NUMBER x VOLUME (OPTION XV)		liters	19	19	19	19
FAN SECTION (AXIAL)						
FANS		nr.	2	2	2	2
MAXIMUM FANS ABSORBED POWER	AC	kW	3,88	3,88	3,88	3,88
MAXIMUM FANS ABSORBED CURRENT		A	7,80	7,80	7,80	7,80
TOTAL AIR FLOW		m3/h	24541	36858	34534	32211
TOTAL ELECTRIC DATA						
ELECTRICAL FEED		V/ph/Hz	400/3/50	400/3/50	400/3/50	400/3/50
MAXIMUM ABSORBED CURRENT (F.L.A) (6)		A	52,6	61,4	72,4	80,6
MAXIMUM PEAK CURRENT (L.R.A) (6)		A	171,5	176,9	216,4	283,2
MAXIMUM PEAK CURRENT WITH SOFT START (OPTION SF) (L.R.A) (6)		A	143,7	148,9	181,6	235,0
NOISE DATA						
SOUND PRESSURE FOR STANDARD CONFIGURATION (6) (7)		dB(A)	54,5	55,6	56,4	58,3
SOUND PRESSURE FOR LOW NOISE OPTION (LNJ) (6) (7)		dB(A)	54,0	54,4	55,2	56,1
DIMENSIONS AND WEIGHT						
LENGTH		mm	2220	2220	2220	2220
WIDTH		mm	1100	1100	1100	1100
HEIGHT		mm	2120	2120	2120	2120
WEIGHT EMPTY FOR STANDARD CONFIGURATION (6)		kg	780	820	850	943
WEIGHT OPERATIVE FOR STANDARD CONFIGURATION (6)		kg	1198	1238	1268	1360

Last update: 16/07/2020
Revision: 00-2020

Data referred to:

(1) Data referred to inlet/outlet water temperature = +12/+7 °C, ambient temperature = +35°C, fluid = Water

(2) Available pressure can be calculated from Hitema Online Selection Software

(3) SEPR: data comply with the European Regulation (EU) 2016/2281, referring to high temperature process chillers

(4) Pressure drops taken in account: evaporator, valves, piping

(5) Water flow is different from heating mode, assuming that an inverter pump will be used

(6) Data referred to standard chiller configuration WP (single pump P3) and AC fans

(7) Sound pressure level referred to measures according to normative ISO3744, pressure level at distance of 10 m, referred to free field on reflecting surface

SBS-HP SERIES

Modular reversible Heat-Pumps
EC axial fans
IP54 protection rating
Suitable for OUTDOOR installation
Minimum working temperature heating mode -20°C

SERIES: SBS-HP	DATE: 29/09/2021	
CODE: TTD-SBS-HP-00	UPDATE: -	
CHECKED BY		M. Burba

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SBS-HP

TABLE 1/2

Modular reversable heat-pumps SBS-HP series suitable to work down to -20°C ambient temperature, scroll compressors with liquid injection, 1 refrigrant circuit, brazed plate condenser, evaporator coils with copper tubes and aluminium fins (fins space 3,2÷5 mm to reduce ice formation source), brazed plate economizer, refrigerant R410A and electronic expansion valve, EC axial fans.
Electrical feed 400V/3ph/50Hz (460V/60Hz version as option), IP54 protection rating, chillers suitable for outdoor installation.
You can connect up to 8 modules in parallel with a single power supply point into a master control pannel installed onboard of the first module.

Special features of SBS-HP series:
scroll compressors with liquid injection
brazed plate economizer
evaporator fin space 3,2÷5 mm

HEATING

TECHNICAL DATA

PERFORMANCES		**Model**	**050**	**075**	**100**
NOMINAL HEATING CAPACITY	W 40°C/45°C @ 7°C (1)	kW	61,7	79,5	98,8
TOTAL NOMINAL ABSORBED POWER		kW	19,9	25,9	32,1
COP		kW/kW	3,09	3,07	3,08
SCOP (2)		-	2,60	2,56	2,61
NOMINAL WATER FLOW		m3/h	10,6	13,7	17,0
SINGLE MODULE PRESSURE DROPS (4)		kPa	41,3	54,0	54,2
MULTIPLE MODULES PRESSURE DROPS (5)		kPa	58,2	78,7	89,4
NOMINAL HEATING CAPACITY	W 30°C/35°C @ -15°C (11)	kW	38,5	49,9	62,1
TOTAL NOMINAL ABSORBED POWER		kW	15,4	19,9	24,7
COP		kW/kW	2,50	2,50	2,51
NOMINAL WATER FLOW		m3/h	7,34	8,56	10,64
SINGLE MODULE PRESSURE DROPS (4)		kPa	19,9	21,0	21,3
MULTIPLE MODULES PRESSURE DROPS (5)		kPa	27,9	30,9	35,1
FRIGORIFIC SECTION					
COMPRESSORS / REFRIGERATING CIRCUITS / PARTITION STEP		nr.	2/1/2	2/1/2	2/1/2
HYDRAULIC SECTION (3)					
WATER FLOW RANGE		m3/h	7÷16	7÷16	8,5÷21
HYDRAULIC CONNECTIONS FOR SINGLE MODULE (FLANGED)		DN	50	50	50
HEADERS CONNECTIONS SIZE (VICTAULIC) (9)		DN	150	150	150
FAN SECTION (AXIAL)					
FANS		nr.	2	2	2
MAXIMUM FANS ABSORBED POWER	AC	kW	3,68	3,68	3,68
MAXIMUM FANS ABSORBED CURRENT		A	7,66	7,66	7,66
TOTAL AIR FLOW		m3/h	38150	38150	38150
MAXIMUM FANS ABSORBED POWER	EC	kW	5,12	5,12	5,12
MAXIMUM FANS ABSORBED CURRENT		A	7,80	7,80	7,80
TOTAL AIR FLOW		m3/h	40280	40280	40280
TOTAL ELECTRIC DATA (6)					
MAXIMUM ABSORBED CURRENT (F.L.A)		A	45,1	67,2	77,8
MAXIMUM PEAK CURRENT (L.R.A)		A	142,5	209,5	208,8
MAXIMUM PEAK CURRENT WITH SOFT START (OPTION SF) (L.R.A)		A	118,9	174,7	175,2
NOISE DATA (6) (7)					
SOUND PRESSURE FOR STANDARD CONFIGURATION		dB(A)	58,1	58,3	58,3
SOUND PRESSURE FOR LOW NOISE OPTION (LNJ)		dB(A)	57,2	57,3	57,3
SOUND PRESSURE FOR SUPER LOW NOISE OPTION (SLN)		dB(A)	54,6	54,8	54,8
DIMENSIONS AND WEIGHT					
SINGLE MODULE LENGTH (12)		mm	1610	1610	1610
SINGLE MODULE WIDTH		mm	2590	2590	2590
MULTIPLE MODULES WIDTH		mm	2870	2870	2870
HEIGHT		mm	2500	2500	2500
WEIGHT EMPTY FOR STANDARD CONFIGURATION (6) (8)		kg	1270	1280	1300
WEIGHT OPERATIVE FOR STANDARD CONFIGURATION (6) (8)		kg	1310	1325	1350

Last update: 28/07/2021
Revision: 01-2021

Data referred to:
(1) Data referred to inlet/outlet water temperature = +40/+45 °C, ambient temperature = +7°C, fluid = Water
(2) SCOP data comply with the EN14825:2013, referring to medium temperature climate zone
(3) Pump and tank can be supplied in a separate hydro-module (HITEMA HYD series)
(4) Pressure drops taken in account: evaporator, valves, piping
(5) Pressure drops taken in account: evaporator, automatic isolation valves, circuit setter balancing valve, one way valve, piping
(6) Data referred to standard heat-pump configuration NP (no pump) and EC fans
(7) Sound pressure level referred to measures according to normative ISO3744, pressure level at distance of 10 m, referred to free field on reflecting surface
(8) Weight referred to SINGLE MODULE version. For multiple module configuration, weight to be confirmed in case of order
(9) Headers connection size is valid for a maximum flow rate of 191 m^3/h in multi-module configuration. Dimensions will increase for greater flow rate.
(10) Water flow is different from heating mode, assuming that an inverter pump will be used
(11) Data referred to inlet/outlet water temperature = +30/+35°C, ambient temperature = -15°C, fluid = Water
(12) Multiple modules length must be increase of 52mm each module, this length increasing correspond to minimum distance between two consecutive modules

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CHILLER

WATER COOLED CHILLERS

R410A / R32 / R454B / R134A / R513A / R1234ze
Screw / Scroll / Rotary compressors
Coaxial / Shell & Tube evaporator / Plate
Inbuilt water storage tank & single pump P3

ENW - EWB - CFTW series
From 4,2 kW up to 2200 kW

Technical Data Tables

SERIES: ENW-EWB-CFTW	DATE: 19.05.2022	
CODE: GPLSPC20	UPDATE: GPLSPC19	
CHECKED BY		M. Burba

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ENW

Water-cooled liquid Chillers
Close cabinet
IP54 protection rating
Suitable for OUTDOOR & INDOOR installation

SERIES: ENW	DATE: 29/09/2021	
CODE: TTD-ENW-00	UPDATE: -	
CHECKED BY		M. Burba

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ENW

TABLE 1/4

Watercooled liquid chillers ENW series, rotary / scroll compressors, R410A / R32 / R454B refrigerant, coaxial / shell and tube evaporator (brazed plate evaporator as option), brazed plate / shell and tube condenser/s, closed cabinet. IP54 protection rating, chillers suitable for outdoor installation. 60Hz version as option. Condenser/s 2 ways valve/s, inbuilt water storage tank and single pump P3 as standard.

Types of available condensing temperature control system:
No one condensing temperature control system
PCC2 = 2 ways valve/s on water side, regulated by condensing pressure (standard)
PCC3 = 3 ways valve/s on water side, regulated by condensing pressure

Type of available expansion elements:
CP = Capillary tube
VTS = Thermostatic expansion valve
ETS = Electronic expansion valve (available as option)

TECHNICAL DATA

PERFORMANCES		Model	003	004	005	006	008	010	012	016
NOMINAL COOLING CAPACITY	W 12°C/7°C EVAPORATOR SIDE W 30/35°C CONDENSER SIDE (1)	kW	4,2	5,1	6,0	6,9	9,1	10,3	13,7	15,0
NOMINAL HEATING CAPACITY (4)		kW	5,1	6,2	7,4	8,6	11,6	12,9	17,0	18,4
TOTAL NOMINAL ABSORBED POWER		kW	1,5	1,7	2,0	2,3	3,4	3,6	4,3	4,4
EER		kW/kW	4,63	4,48	4,31	3,98	3,55	3,95	4,11	4,44
SEPR (HT) (10)		-	7,00	7,02	7,07	7,06	7,05	7,01	7,03	7,00
NOMINAL WATER FLOW, EVAPORATOR SIDE (TOTAL)		m3/h	0,7	0,9	1,0	1,2	1,6	1,8	2,3	2,6
NOMINAL WATER FLOW, CONDENSER SIDE (EACH)		m3/h	0,9	1,1	1,3	1,5	2,0	2,2	2,9	3,2
MECHANICAL MODE PRESSURE DROPS, EVAPORATOR SIDE (3)(6)		kPa	23,3	26,8	26,8	43,2	32,0	30,6	33,8	35,1
MECHANICAL MODE PRESSURE DROPS, CONDENSER SIDE (3)(5)		kPa	25,5	33,9	44,0	54,7	50,1	62,0	64,8	75,2
NOMINAL COOLING CAPACITY	W 12°C/7°C EVAPORATOR SIDE W 40/45°C CONDENSER SIDE	kW	3,7	4,5	5,3	6,1	8,0	9,1	12,1	13,3
NOMINAL HEATING CAPACITY (4)		kW	4,8	5,9	7,0	8,2	11,1	12,3	16,2	17,4
TOTAL NOMINAL ABSORBED POWER		kW	1,7	2,0	2,3	2,7	4,0	4,2	5,1	5,1
EER		kW/kW	3,35	3,24	3,12	2,88	2,57	2,85	2,97	3,21
NOMINAL WATER FLOW, EVAPORATOR SIDE (TOTAL)		m3/h	0,6	0,8	0,9	1,0	1,4	1,6	2,1	2,3
NOMINAL WATER FLOW, CONDENSER SIDE (EACH)		m3/h	0,8	1,0	1,2	1,4	1,9	2,1	2,8	3,0
MECHANICAL MODE PRESSURE DROPS, EVAPORATOR SIDE (3)(6)		kPa	18,3	21,1	21,1	33,9	25,2	24,1	26,6	27,6
MECHANICAL MODE PRESSURE DROPS, CONDENSER SIDE (3)(5)		kPa	22,7	30,3	39,5	49,6	46,0	56,2	58,5	67,3
FRIGORIFIC SECTION										
COMPRESSORS / REFRIGERATING CIRCUITS / PARTITION STEP		nr.	1/1/1	1/1/1	1/1/1	1/1/1	1/1/1	1/1/1	1/1/1	1/1/1
KIND OF COMPRESSOR		-	ROTARY	ROTARY	ROTARY	ROTARY	SCROLL	SCROLL	SCROLL	SCROLL
KIND OF EVAPORATOR		-	B-ES	B-ES	B-ES	B-ES	CX	CX	CX	CX
KIND OF CONDENSER		-	B-ES	B-ES	B-ES	B-ES	B-ES	B-ES	B-ES	B-ES
KIND OF EXPANSION ELEMENT		-	CP	CP	CP	CP	VTS	VTS	VTS	VTS
HYDRAULIC SECTION										
EVAPORATORS / CONDENSERS		nr.	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1
WATER FLOW RANGE, EVAPORATOR SIDE (TOTAL) (6)		m3/h	0,1÷0,2	0,1÷0,2	0,1÷0,2	0,1÷0,2	0,1÷0,3	0,1÷0,3	0,1÷0,3	0,1÷0,3
WATER FLOW RANGE, CONDENSER SIDE (EACH)		m3/h	0,1÷0,4	0,1÷0,4	0,1÷0,4	0,1÷0,4	0,2÷0,6	0,2÷0,6	0,2÷0,6	0,2÷0,6
MAXIMUM PUMP ABSORBED POWER (WP OR OPTION DP)	P3 (3)	kW	0,56	0,56	0,56	0,56	0,88	0,98	0,98	0,98
MAXIMUM PUMP ABSORBED CURRENT (WP OR OPTION DP)		A	3,46	3,46	3,46	3,46	1,65	1,78	1,78	1,78
MAXIMUM PUMP ABSORBED POWER (OPTION PH OR DPH)	P5 (3)	kW	0,74	0,74	0,74	0,74	1,10	1,10	1,10	1,10
MAXIMUM PUMP ABSORBED CURRENT (OPTION PH OR DPH)		A	3,22	3,22	3,22	3,22	2,17	2,17	2,17	2,17
HYDRAULIC CONNECTIONS, EVAPORATOR SIDE (THREADED / FLANGED)		BSP / DN	1/2"	1/2"	1/2"	1/2"	1"	1"	1"	1"
HYDRAULIC CONNECTIONS, CONDENSER SIDE (THREADED / FLANGED)		BSP / DN	3/4"	3/4"	3/4"	3/4"	1"	1"	1"	1"
TANK VOLUME (6) (8)		dm^3	25	25	25	25	50	50	50	50
EXPANSION VESSEL VOLUME (OPTION XV) (9)		liters	NA	NA	NA	NA	5	5	5	5
TOTAL ELECTRIC DATA (6)										
ELECTRICAL FEED		V/ph/Hz	230/1/50	230/1/50	230/1/50	230/1/50	400/3/50/N	400/3/50/N	400/3/50/N	400/3/50/N
MAXIMUM ABSORBED CURRENT (F.L.A)		A	10,3	11,9	13,9	16,2	9,4	9,6	11,3	11,6
MAXIMUM PEAK CURRENT (L.R.A)		A	27,5	39,5	46,5	57,5	49,7	49,8	64,8	64,8
MAXIMUM PEAK CURRENT WITH SOFT START (OPTION SF) (L.R.A)		A	NA	NA	NA	NA	NA	NA	NA	NA
NOISE DATA (6) (7)										
SOUND PRESSURE FOR STANDARD CONFIGURATION		dB(A)	48,2	50,1	52,1	54,1	42,0	42,0	42,0	43,0
SOUND PRESSURE FOR LOW NOISE CONFIGURATION (OPTION LNJ)		dB(A)	NA	NA	NA	NA	NA	NA	NA	NA
DIMENSIONS AND WEIGHT										
LENGTH		mm	600	600	600	600	820	820	820	820
WIDTH		mm	725	725	725	725	615	615	615	615
HEIGHT		mm	950	950	950	950	1240	1240	1240	1240
WEIGHT EMPTY FOR STANDARD CONFIGURATION (5) (6)		kg	85	90	90	95	150	150	165	165
WEIGHT OPERATIVE FOR STANDARD CONFIGURATION (5) (6)		kg	110	115	115	120	200	200	210	210

Last update: 02/03/2021
Revision: 01-2021

Data referred to:

(1) Data referred to inlet/outlet water temperatures: evaporator side = +12/+7 °C (fluid = Water), condenser side = +30/35°C (fluid = Water)
(2) Data referred to inlet/outlet water temperatures: evaporator side = +12/+7 °C (fluid = Water), condenser side = +40/45°C (fluid = Water)
(3) Pressure drops taken in account: heat exchanger, valves, piping. Pump at the evaporator side, head pressure can be calculated from Hitema Online Selection Software
(4) Water cooled chillers can be used as not reversible heat pumps, this kind of application must be indicated in the order
(5) Data referred to standard chiller configuration (PCC2), with different condensing temperature control system this data will change
(6) Data referred to standard chiller configuration, evaporator as indicated in frigorific section and single pump P3 (WP), with different evaporator this data can change
(7) Sound pressure level referred to measures according to normative ISO3744, pressure level at distance of 10 m, referred to free field on reflecting surface
(8) To avoid excessive start/stop of the compressors a minimum water volume for the entire plant must be guarantee, the tank supplied by Hitema can be not enough
(9) The expansion vessel volume is calculated considering 40°C of deltaT between water temperature with chiller stopped and chiller active, 1/2bar of hydraulic circuit pre-charge and considering only the water volume of the unit
(10) SEPR: data comply with the European Regulation (EU) 2016/2281, referring to high temperature process chillers in the configuration with brazed plate or shell and tube evaporator (coaxial evaporator excluded) and without pump. Any added option that modify cooling capacity or absorbed power of the chiller will not be considered in the SEPR value

* For the configuration DPH (double pump P5) the chiller width will be 1305mm
** For the configurations DP or DPH (double pump P3 or double pump P5) the chiller width will be 1305mm

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ENW

TABLE 2/4

Watercooled liquid chillers ENW series, rotary / scroll compressors, R410A / R32 / R454B refrigerant, coaxial / shell and tube evaporator (brazed plate evaporator as option), brazed plate / shell and tube condenser/s, closed cabinet. IP54 protection rating, chillers suitable for outdoor installation. 60Hz version as option. Condenser/s 2 ways valve/s, inbuilt water storage tank and single pump P3 as standard.

Types of available condensing temperature control system:
No one condensing temperature control system
PCC2 = 2 ways valve/s on water side, regulated by condensing pressure (standard)
PCC3 = 3 ways valve/s on water side, regulated by condensing pressure

Type of available expansion elements:
CP = Capillary tube
VTS = Thermostatic expansion valve
ETS = Electronic expansion valve (available as option)

TECHNICAL DATA

PERFORMANCES		Model	018	022	025	030	038	045	055	061
NOMINAL COOLING CAPACITY	W 12°C/7°C EVAPORATOR SIDE W 30/35°C CONDENSER SIDE (1)	kW	20,5	23,9	27,0	31,0	40,1	46,8	60,2	62,5
NOMINAL HEATING CAPACITY (4)		kW	25,3	29,2	32,6	37,7	48,4	56,7	72,9	75,8
TOTAL NOMINAL ABSORBED POWER		kW	5,7	6,5	6,9	8,0	10,5	12,1	14,9	15,8
EER		kW/kW	4,31	4,54	4,80	4,60	4,80	4,75	4,75	4,70
SEPR (HT) (10)		-	7,03	7,00	7,04	7,03	7,07	7,02	7,06	7,01
NOMINAL WATER FLOW, EVAPORATOR SIDE (TOTAL)		m3/h	3,5	4,1	4,6	5,3	6,9	8,0	10,3	10,7
NOMINAL WATER FLOW, CONDENSER SIDE (EACH)		m3/h	4,3	5,0	5,6	6,5	8,3	9,7	12,5	13,0
MECHANICAL MODE PRESSURE DROPS, EVAPORATOR SIDE (3)(6)		kPa	36,1	39,6	50,5	41,5	41,7	40,5	60,3	45,3
MECHANICAL MODE PRESSURE DROPS, CONDENSER SIDE (3)(5)		kPa	56,5	74,4	48,2	64,0	58,8	68,7	75,9	52,1
NOMINAL COOLING CAPACITY	W 12°C/7°C EVAPORATOR SIDE W 40/45°C CONDENSER SIDE	kW	18,2	21,1	23,9	27,4	35,4	41,4	53,2	55,2
NOMINAL HEATING CAPACITY (4)		kW	24,0	27,6	30,8	35,6	45,6	53,4	68,7	71,5
TOTAL NOMINAL ABSORBED POWER		kW	6,8	7,7	8,2	9,5	12,4	14,3	17,7	18,8
EER		kW/kW	3,11	3,28	3,47	3,33	3,47	3,43	3,43	3,40
NOMINAL WATER FLOW, EVAPORATOR SIDE (TOTAL)		m3/h	3,1	3,6	4,1	4,7	6,1	7,1	9,2	9,5
NOMINAL WATER FLOW, CONDENSER SIDE (EACH)		m3/h	4,1	4,7	5,3	6,1	7,8	9,2	11,8	12,3
MECHANICAL MODE PRESSURE DROPS, EVAPORATOR SIDE (3)(6)		kPa	28,4	31,1	39,7	32,6	32,8	31,8	47,4	35,6
MECHANICAL MODE PRESSURE DROPS, CONDENSER SIDE (3)(5)		kPa	50,7	66,4	42,8	57,1	52,2	61,1	67,5	46,4
FRIGORIFIC SECTION										
COMPRESSORS / REFRIGERATING CIRCUITS / PARTITION STEP		nr.	1/1/1	1/1/1	1/1/1	1/1/1	1/1/1	1/1/1	1/1/1	2/1/2
KIND OF COMPRESSOR		-	SCROLL	SCROLL	SCROLL	SCROLL	SCROLL	SCROLL	SCROLL	SCROLL
KIND OF EVAPORATOR		-	CX	CX	CX	CX	CX	CX	CX	CX
KIND OF CONDENSER		-	B-ES	B-ES	B-ES	B-ES	B-ES	B-ES	B-ES	ST
KIND OF EXPANSION ELEMENT		-	VTS	VTS	VTS	VTS	VTS	VTS	VTS	VTS
HYDRAULIC SECTION										
EVAPORATORS / CONDENSERS		nr.	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1
WATER FLOW RANGE, EVAPORATOR SIDE (TOTAL) (6)		m3/h	0,3÷0,5	0,3÷0,6	0,3÷0,6	0,4÷0,6	0,5÷1,2	0,6÷1,2	0,6÷1,2	0,8÷1,8
WATER FLOW RANGE, CONDENSER SIDE (EACH)		m3/h	0,2÷0,6	0,2÷0,6	0,4÷1,4	0,4÷1,4	0,4÷1,4	0,4÷1,4	0,8÷2,2	0,8÷1,7
MAXIMUM PUMP ABSORBED POWER (WP OR OPTION DP)	P3 (3)	kW	0,98	1,28	1,28	1,28	2,20	2,20	2,20	2,53
MAXIMUM PUMP ABSORBED CURRENT (WP OR OPTION DP)		A	1,78	2,37	2,37	2,37	4,24	4,24	4,24	4,56
MAXIMUM PUMP ABSORBED POWER (OPTION PH OR DPH)	P5 (3)	kW	1,47	1,47	1,47	1,47	2,94	2,94	2,94	6,12
MAXIMUM PUMP ABSORBED CURRENT (OPTION PH OR DPH)		A	2,86	2,86	2,86	2,32	5,83	5,83	5,83	10,40
HYDRAULIC CONNECTIONS, EVAPORATOR SIDE (THREADED / FLANGED)		BSP / DN	1"	1"	1"	1 1/2"	1 1/2"	1 1/2"	1 1/2"	2"
HYDRAULIC CONNECTIONS, CONDENSER SIDE (THREADED / FLANGED)		BSP / DN	1"	1"	1 1/2"	1 1/2"	1 1/2"	1 1/2"	2"	2"
TANK VOLUME (6) (8)		dm^3	110	110	110	270	270	270	270	410
EXPANSION VESSEL VOLUME (OPTION XV) (9)		liters	8	8	8	8	8	8	8	12
TOTAL ELECTRIC DATA (6)										
ELECTRICAL FEED		V/ph/Hz	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50
MAXIMUM ABSORBED CURRENT (F.L.A)		A	15,9	18,3	19,0	21,6	28,7	34,2	40,7	43,0
MAXIMUM PEAK CURRENT (L.R.A)		A	74,8	98,4	113,4	120,4	144,2	178,2	229,2	141,8
MAXIMUM PEAK CURRENT WITH SOFT START (OPTION SF) (L.R.A)		A	NA	NA	NA	NA	NA	NA	NA	118,2
NOISE DATA (6) (7)										
SOUND PRESSURE FOR STANDARD CONFIGURATION		dB(A)	43,0	51,0	51,5	51,5	52,1	52,5	55,5	52,5
SOUND PRESSURE FOR LOW NOISE CONFIGURATION (OPTION LNJ)		dB(A)	NA	NA	NA	50,5	50,8	51,0	52,5	51,0
DIMENSIONS AND WEIGHT										
LENGTH		mm	1010	1010	1010	1610	1610	1610	1610	2220
WIDTH		mm	720	720	720	860	860	860	860	1100
HEIGHT		mm	1420	1420	1420	1380	1380	1380	1380	1855
WEIGHT EMPTY FOR STANDARD CONFIGURATION (5) (6)		kg	260	275	290	340	360	365	450	700
WEIGHT OPERATIVE FOR STANDARD CONFIGURATION (5) (6)		kg	390	405	415	610	630	635	720	1120

Last update: 02/03/2021
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Data referred to:

(1) Data referred to inlet/outlet water temperatures: evaporator side = +12/+7 °C (fluid = Water), condenser side = +30/35°C (fluid = Water)
(2) Data referred to inlet/outlet water temperatures: evaporator side = +12/+7 °C (fluid = Water), condenser side = +40/45°C (fluid = Water)
(3) Pressure drops taken in account: heat exchanger, valves, piping. Pump at the evaporator side, head pressure can be calculated from Hitema Online Selection Software
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(6) Data referred to standard chiller configuration, evaporator as indicated in frigorific section and single pump P3 (WP), with different evaporator this data can change
(7) Sound pressure level referred to measures according to normative ISO3744, pressure level at distance of 10 m, referred to free field on reflecting surface
(8) To avoid excessive start/stop of the compressors a minimum water volume for the entire plant must be guarantee, the tank supplied by Hitema can be not enough
(9) The expansion vessel volume is calculated considering 40°C of deltaT between water temperature with chiller stopped and chiller active, 1/2bar of hydraulic circuit pre-charge and considering only the water volume of the unit
(10) SEPR: data comply with the European Regulation (EU) 2016/2281, referring to high temperature process chillers in the configuration with brazed plate or shell and tube evaporator (coaxial evaporator excluded) and without pump. Any added option that modify cooling capacity or absorbed power of the chiller will not be considered in the SEPR value

* For the configuration DPH (double pump P5) the chiller width will be 1305mm
** For the configurations DP or DPH (double pump P3 or double pump P5) the chiller width will be 1305mm

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TABLE 3/4

Watercooled liquid chillers ENW series, rotary / scroll compressors, R410A / R32 / R454B refrigerant, coaxial / shell and tube evaporator (brazed plate evaporator as option), brazed plate / shell and tube condenser/s, closed cabinet. IP54 protection rating, chillers suitable for outdoor installation. 60Hz version as option. Condenser/s 2 ways valve/s, inbuilt water storage tank and single pump P3 as standard.

Types of available condensing temperature control system:
No one condensing temperature control system
PCC2 = 2 ways valve/s on water side, regulated by condensing pressure (standard)
PCC3 = 3 ways valve/s on water side, regulated by condensing pressure

Type of available expansion elements:
CP = Capillary tube
VTS = Thermostatic expansion valve
ETS = Electronic expansion valve (available as option)

TECHNICAL DATA

PERFORMANCES		Model	070	075	090	100	130	160	185	200
NOMINAL COOLING CAPACITY	W 12°C/7°C EVAPORATOR SIDE W 30/35°C CONDENSER SIDE (1)	kW	70,4	78,9	92,8	106,7	124,0	157,8	185,7	213,3
NOMINAL HEATING CAPACITY (4)		kW	85,7	95,9	112,7	129,3	150,9	191,8	225,4	258,6
TOTAL NOMINAL ABSORBED POWER		kW	17,8	19,5	22,4	25,2	31,5	38,6	44,3	53,5
EER		kW/kW	4,62	4,64	4,67	4,71	4,60	4,64	4,67	4,71
SEPR (HT) (10)		-	7,03	7,02	7,06	7,07	7,00	7,07	7,05	7,07
NOMINAL WATER FLOW, EVAPORATOR SIDE (TOTAL)		m3/h	12,1	13,5	15,9	18,3	21,3	27,1	31,8	36,6
NOMINAL WATER FLOW, CONDENSER SIDE (EACH)		m3/h	14,7	16,4	19,3	22,2	12,9	16,4	19,3	22,2
MECHANICAL MODE PRESSURE DROPS, EVAPORATOR SIDE (3)(6)		kPa	22,1	46,9	46,1	43,2	47,4	59,4	65,4	52,1
MECHANICAL MODE PRESSURE DROPS, CONDENSER SIDE (3)(5)		kPa	55,1	68,9	63,8	51,6	45,8	57,4	59,9	56,8
NOMINAL COOLING CAPACITY	W 12°C/7°C EVAPORATOR SIDE W 40/45°C CONDENSER SIDE	kW	62,3	69,7	82,1	94,3	109,6	139,5	164,1	188,5
NOMINAL HEATING CAPACITY (4)		kW	80,9	90,5	106,4	121,9	142,5	181,1	212,7	243,8
TOTAL NOMINAL ABSORBED POWER		kW	21,2	23,3	26,8	30,2	37,5	46,2	53,2	63,6
EER		kW/kW	3,34	3,35	3,38	3,41	3,33	3,35	3,38	3,41
NOMINAL WATER FLOW, EVAPORATOR SIDE (TOTAL)		m3/h	10,7	12,0	14,1	16,2	18,8	24,0	28,2	32,4
NOMINAL WATER FLOW, CONDENSER SIDE (EACH)		m3/h	13,9	15,5	18,2	20,9	12,2	15,5	18,2	20,9
MECHANICAL MODE PRESSURE DROPS, EVAPORATOR SIDE (3)(6)		kPa	17,3	36,8	36,3	34,0	37,3	46,7	51,4	41,0
MECHANICAL MODE PRESSURE DROPS, CONDENSER SIDE (3)(5)		kPa	49,1	61,4	56,8	45,9	40,8	51,1	53,3	50,6
FRIGORIFIC SECTION										
COMPRESSORS / REFRIGERATING CIRCUITS / PARTITION STEP		nr.	2/1/2	2/1/2	2/1/2	2/1/2	4/2/4	4/2/4	4/2/4	4/2/4
KIND OF COMPRESSOR		-	SCROLL	SCROLL	SCROLL	SCROLL	SCROLL	SCROLL	SCROLL	SCROLL
KIND OF EVAPORATOR		-	CX	CX	CX	CX	ST	ST	ST	ST
KIND OF CONDENSER		-	ST	ST	ST	ST	ST	ST	ST	ST
KIND OF EXPANSION ELEMENT		-	VTS	VTS	VTS	VTS	VTS	VTS	VTS	VTS
HYDRAULIC SECTION										
EVAPORATORS / CONDENSERS		nr.	1/1	1/1	1/1	1/1	1/2	1/2	1/2	1/2
WATER FLOW RANGE, EVAPORATOR SIDE (TOTAL) (6)		m3/h	1,0÷2,0	1,0÷2,0	1,0÷2,0	1,0÷2,0	1,4÷2,7	1,5÷3,1	1,8÷3,5	2,5÷4,6
WATER FLOW RANGE, CONDENSER SIDE (EACH)		m3/h	0,8÷1,7	0,8÷1,7	1,0÷2,2	1,0÷2,2	0,8÷1,7	0,8÷2,0	1,0÷2,2	1,4÷2,4
MAXIMUM PUMP ABSORBED POWER (WP OR OPTION DP)	P3 (3)	kW	2,53	2,53	2,53	2,53	4,56	4,56	4,56	8,30
MAXIMUM PUMP ABSORBED CURRENT (WP OR OPTION DP)		A	4,56	4,56	4,56	4,56	7,75	7,75	7,75	14,10
MAXIMUM PUMP ABSORBED POWER (OPTION PH OR DPH)	P5 (3)	kW	6,12	6,12	6,12	6,12	10,20	10,20	10,20	16,22
MAXIMUM PUMP ABSORBED CURRENT (OPTION PH OR DPH)		A	10,40	10,40	10,40	10,40	17,40	17,40	17,40	26,60
HYDRAULIC CONNECTIONS, EVAPORATOR SIDE (THREADED / FLANGED)		BSP / DN	2"	2"	2"	2"	65	65	65	80
HYDRAULIC CONNECTIONS, CONDENSER SIDE (THREADED / FLANGED)		BSP / DN	2"	2"	2"	2"	2 x 2"	2 x 2"	2 x 2"	2 x DN65
TANK VOLUME (6) (8)		dm^3	410	410	410	410	390	390	390	390
EXPANSION VESSEL VOLUME (OPTION XV) (9)		liters	12	12	12	12	19	19	19	19
TOTAL ELECTRIC DATA (6)										
ELECTRICAL FEED		V/ph/Hz	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50
MAXIMUM ABSORBED CURRENT (F.L.A)		A	48,3	53,6	64,6	71,0	84,6	105,8	127,8	147,0
MAXIMUM PEAK CURRENT (L.R.A)		A	163,8	169,1	208,6	259,6	183,4	221,3	271,8	335,5
MAXIMUM PEAK CURRENT WITH SOFT START (OPTION SF) (L.R.A)		A	135,8	141,1	173,8	214,6	159,8	193,3	237,0	290,5
NOISE DATA (6) (7)										
SOUND PRESSURE FOR STANDARD CONFIGURATION		dB(A)	53,1	53,5	54,1	56,3	54,1	55,5	56,2	59,0
SOUND PRESSURE FOR LOW NOISE CONFIGURATION (OPTION LNJ)		dB(A)	51,2	51,5	51,8	53,1	51,8	52,5	53,0	55,3
DIMENSIONS AND WEIGHT										
LENGTH		mm	2220	2220	2220	2220	3355	3355	3355	4355
WIDTH		mm	1100	1100	1100	1100	1105*	1105*	1105*	1105**
HEIGHT		mm	1855	1855	1855	1855	1985	1985	1985	1985
WEIGHT EMPTY FOR STANDARD CONFIGURATION (5) (6)		kg	725	740	750	860	1180	1375	1420	1825
WEIGHT OPERATIVE FOR STANDARD CONFIGURATION (5) (6)		kg	1145	1160	1170	1270	1620	1830	1885	2310

The manufacturer reserves the right to modify specifications without notice.

Last update: 02/03/2021
Revision: 01-2021

Data referred to:

(1) Data referred to inlet/outlet water temperatures: evaporator side = +12/+7 °C (fluid = Water), condenser side = +30/35°C (fluid = Water)
(2) Data referred to inlet/outlet water temperatures: evaporator side = +12/+7 °C (fluid = Water), condenser side = +40/45°C (fluid = Water)
(3) Pressure drops taken in account: heat exchanger, valves, piping. Pump at the evaporator side, head pressure can be calculated from Hitema Online Selection Software
(4) Water cooled chillers can be used as not reversible heat pumps, this kind of application must be indicated in the order
(5) Data referred to standard chiller configuration (PCC2), with different condensing temperature control system this data will change
(6) Data referred to standard chiller configuration, evaporator as indicated in frigorific section and single pump P3 (WP), with different evaporator this data can change
(7) Sound pressure level referred to measures according to normative ISO3744, pressure level at distance of 10 m, referred to free field on reflecting surface
(8) To avoid excessive start/stop of the compressors a minimum water volume for the entire plant must be guarantee, the tank supplied by Hitema can be not enough
(9) The expansion vessel volume is calculated considering 40°C of deltaT between water temperature with chiller stopped and chiller active, 1/2bar of hydraulic circuit pre-charge and considering only the water volume of the unit
(10) SEPR: data comply with the European Regulation (EU) 2016/2281, referring to high temperature process chillers in the configuration with brazed plate or shell and tube evaporator (coaxial evaporator excluded) and without pump. Any added option that modify cooling capacity or absorbed power of the chiller will not be considered in the SEPR value

* For the configuration DPH (double pump P5) the chiller width will be 1305mm
** For the configurations DP or DPH (double pump P3 or double pump P5) the chiller width will be 1305mm

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TABLE 4/4

Watercooled liquid chillers ENW series, rotary / scroll compressors, R410A / R32 / R454B refrigerant, coaxial / shell and tube evaporator (brazed plate evaporator as option), brazed plate / shell and tube condenser/s, closed cabinet. IP54 protection rating, chillers suitable for outdoor installation. 60Hz version as option. Condenser/s 2 ways valve/s, inbuilt water storage tank and single pump P3 as standard.

Types of available condensing temperature control system:
No one condensing temperature control system
PCC2 = 2 ways valve/s on water side, regulated by condensing pressure (standard)
PCC3 = 3 ways valve/s on water side, regulated by condensing pressure

Type of available expansion elements:
CP = Capillary tube
VTS = Thermostatic expansion valve
ETS = Electronic expansion valve (available as option)

TECHNICAL DATA

PERFORMANCES		Model	230	280	340	370	430
NOMINAL COOLING CAPACITY	W 12°C/7°C EVAPORATOR SIDE W 30/35°C CONDENSER SIDE (1)	kW	240,9	302,2	346,7	391,3	445,8
NOMINAL HEATING CAPACITY (4)		kW	291,7	365,5	420,0	474,4	539,9
TOTAL NOMINAL ABSORBED POWER		kW	59,0	71,6	81,5	93,3	104,3
EER		kW/kW	4,75	4,77	4,74	4,71	4,74
SEPR (HT) (10)		-	7,05	7,00	7,01	7,06	8,06
NOMINAL WATER FLOW, EVAPORATOR SIDE (TOTAL)		m3/h	41,3	51,8	59,5	67,1	76,4
NOMINAL WATER FLOW, CONDENSER SIDE (EACH)		m3/h	25,0	31,3	36,0	40,7	46,3
MECHANICAL MODE PRESSURE DROPS, EVAPORATOR SIDE (3)(6)		kPa	62,9	66,4	56,3	62,8	81,5
MECHANICAL MODE PRESSURE DROPS, CONDENSER SIDE (3)(5)		kPa	52,1	55,2	61,7	52,9	57,9
NOMINAL COOLING CAPACITY	W 12°C/7°C EVAPORATOR SIDE W 40/45°C CONDENSER SIDE	kW	213,0	267,1	306,5	345,8	394,0
NOMINAL HEATING CAPACITY (4)		kW	275,0	344,5	396,0	447,4	509,0
TOTAL NOMINAL ABSORBED POWER		kW	70,3	85,7	97,8	111,8	125,2
EER		kW/kW	3,43	3,45	3,42	3,40	3,43
NOMINAL WATER FLOW, EVAPORATOR SIDE (TOTAL)		m3/h	36,6	45,9	52,7	59,5	67,8
NOMINAL WATER FLOW, CONDENSER SIDE (EACH)		m3/h	23,6	29,5	33,9	38,4	43,6
MECHANICAL MODE PRESSURE DROPS, EVAPORATOR SIDE (3)(6)		kPa	49,4	52,2	44,2	49,3	64,1
MECHANICAL MODE PRESSURE DROPS, CONDENSER SIDE (3)(5)		kPa	46,3	49,1	54,8	47,1	51,5
FRIGORIFIC SECTION							
COMPRESSORS / REFRIGERATING CIRCUITS / PARTITION STEP		nr.	4/2/4	4/2/4	4/2/4	4/2/4	4/2/4
KIND OF COMPRESSOR		-	SCROLL	SCROLL	SCROLL	SCROLL	SCROLL
KIND OF EVAPORATOR		-	ST	ST	ST	ST	ST
KIND OF CONDENSER		-	ST	ST	ST	ST	ST
KIND OF EXPANSION ELEMENT		-	VTS	VTS	VTS	VTS	VTS
HYDRAULIC SECTION							
EVAPORATORS / CONDENSERS		nr.	1/2	1/2	1/2	1/2	1/2
WATER FLOW RANGE, EVAPORATOR SIDE (TOTAL) (6)		m3/h	2,5÷4,6	3,1÷5,8	3,8÷7,0	4,5÷8,0	5,2÷10,0
WATER FLOW RANGE, CONDENSER SIDE (EACH)		m3/h	1,4÷2,8	2,0÷3,7	2,0÷4,0	2,0÷5,2	3,4÷6,0
MAXIMUM PUMP ABSORBED POWER (WP OR OPTION DP)	P3 (3)	kW	8,30	8,30	8,30	10,20	10,20
MAXIMUM PUMP ABSORBED CURRENT (WP OR OPTION DP)		A	14,10	14,10	14,10	17,40	17,40
MAXIMUM PUMP ABSORBED POWER (OPTION PH OR DPH)	P5 (3)	kW	16,22	16,22	16,22	16,22	19,94
MAXIMUM PUMP ABSORBED CURRENT (OPTION PH OR DPH)		A	26,60	26,60	26,60	26,60	32,70
HYDRAULIC CONNECTIONS, EVAPORATOR SIDE (THREADED / FLANGED)		BSP / DN	80	100	100	100	125
HYDRAULIC CONNECTIONS, CONDENSER SIDE (THREADED / FLANGED)		BSP / DN	2 x DN65	2 x DN80	2 x DN80	2 x DN80	2 x DN100
TANK VOLUME (6) (8)		dm^3	500	500	500	500	500
EXPANSION VESSEL VOLUME (OPTION XV) (9)		liters	19	19	19	19	19
TOTAL ELECTRIC DATA (6)							
ELECTRICAL FEED		V/ph/Hz	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50
MAXIMUM ABSORBED CURRENT (F.L.A)		A	159,9	192,5	221,9	254,6	283,6
MAXIMUM PEAK CURRENT (L.R.A)		A	348,4	419,9	472,6	505,3	617,8
MAXIMUM PEAK CURRENT WITH SOFT START (OPTION SF) (L.R.A)		A	303,4	365,5	410,6	443,3	536,2
NOISE DATA (6) (7)							
SOUND PRESSURE FOR STANDARD CONFIGURATION		dB(A)	60,5	63,3	63,3	63,4	65,7
SOUND PRESSURE FOR LOW NOISE CONFIGURATION (OPTION LNJ)		dB(A)	56,5	58,8	58,8	59,2	61,2
DIMENSIONS AND WEIGHT							
LENGTH		mm	5350	5350	5350	6350	6350
WIDTH		mm	1305	1305	1305	1305	1305
HEIGHT		mm	1985	1985	1985	1985	1985
WEIGHT EMPTY FOR STANDARD CONFIGURATION (5) (6)		kg	2190	2400	2530	2865	2945
WEIGHT OPERATIVE FOR STANDARD CONFIGURATION (5) (6)		kg	2775	3000	3150	3510	3605

Last update: 02/03/2021
Revision: 01-2021

Data referred to:

(1) Data referred to inlet/outlet water temperatures: evaporator side = +12/+7 °C (fluid = Water), condenser side = +30/35°C (fluid = Water)
(2) Data referred to inlet/outlet water temperatures: evaporator side = +12/+7 °C (fluid = Water), condenser side = +40/45°C (fluid = Water)
(3) Pressure drops taken in account: heat exchanger, valves, piping. Pump at the evaporator side, head pressure can be calculated from Hitema Online Selection Software
(4) Water cooled chillers can be used as not reversible heat pumps, this kind of application must be indicated in the order
(5) Data referred to standard chiller configuration (PCC2), with different condensing temperature control system this data will change
(6) Data referred to standard chiller configuration, evaporator as indicated in frigorific section and single pump P3 (WP), with different evaporator this data can change
(7) Sound pressure level referred to measures according to normative ISO3744, pressure level at distance of 10 m, referred to free field on reflecting surface
(8) To avoid excessive start/stop of the compressors a minimum water volume for the entire plant must be guarantee, the tank supplied by Hitema can be not enough
(9) The expansion vessel volume is calculated considering 40°C of deltaT between water temperature with chiller stopped and chiller active, 1/2bar of hydraulic circuit pre-charge and considering only the water volume of the unit
(10) SEPR: data comply with the European Regulation (EU) 2016/2281, referring to high temperature process chillers in the configuration with brazed plate or shell and tube evaporator (coaxial evaporator excluded) and without pump. Any added option that modify cooling capacity or absorbed power of the chiller will not be considered in the SEPR value

* For the configuration DPH (double pump P5) the chiller width will be 1305mm
** For the configurations DP or DPH (double pump P3 or double pump P5) the chiller width will be 1305mm

EWB SERIES

Water-cooled liquid Chillers
Open cabinet with compact footprint
IP54 protection rating
Suitable for OUTDOOR installation

SERIES: EWB	DATE: 29/09/2021	M. Burba
CODE: TTD-EWB-00	UPDATE: -	
CHECKED BY		

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TABLE 1/4

Watercooled liquid chillers EWB series, scew compressors, R134a / R513a refrigerant (R1234ze on request), 1 shell and tube evaporator, shell and tube condensers, electronic expansion valves, 50-75-100% partition steps per compressor, open cabinet and compact design to fit in narrow spaces. Electrical feed 400V/3ph/50Hz (60Hz version as option), IP54 protection rating, chillers suitable for indoor / outdoor installation.

Types of available condensing temperature control system:
No one condensing temperature control system (standard)
PCC2 = 2 ways valve/s on water side, regulated by condensing pressure
PCC3 = 3 ways valve/s on water side, regulated by condensing pressure

Type of compressors starting method:
PW = Part-Winding
Y-D = Star-Delta

TECHNICAL DATA

PERFORMANCES		Model	1_300	1_350	1_400	1_460	1_570	1_630	1_720	1_770
NOMINAL COOLING CAPACITY	W 12°C/7°C EVAPORATOR SIDE W 30/35°C CONDENSER SIDE (1)	kW	302,5	344,6	408,2	476,5	550,4	625,5	673,2	736,9
NOMINAL HEATING CAPACITY (4)		kW	367,8	419,0	495,3	573,8	663,7	753,5	818,9	893,4
TOTAL NOMINAL ABSORBED POWER		kW	65,3	74,4	87,0	97,4	113,3	128,0	145,7	156,5
EER		kW/kW	4,63	4,63	4,69	4,89	4,86	4,89	4,62	4,71
COP (4)		kW/kW	5,63	5,63	5,69	5,89	5,86	5,89	5,62	5,71
SEPR (HT) (10)		-	7,03	7,03	8,01	8,02	8,04	8,05	8,02	8,06
NOMINAL WATER FLOW, EVAPORATOR SIDE (TOTAL)		m3/h	51,9	59,1	70,0	81,7	94,4	107,3	115,4	126,4
NOMINAL WATER FLOW, CONDENSER SIDE (EACH)		m3/h	63,1	71,8	84,9	98,4	113,8	129,2	140,4	153,2
MECHANICAL MODE PRESSURE DROPS, EVAPORATOR SIDE (3)		kPa	69,7	80,0	62,0	63,3	50,3	73,6	54,2	51,6
MECHANICAL MODE PRESSURE DROPS, CONDENSER SIDE (5)		kPa	28,6	46,9	29,8	42,5	46,0	54,0	46,9	49,2
NOMINAL COOLING CAPACITY	W 12°C/7°C EVAPORATOR SIDE W 40/45°C CONDENSER SIDE (2)	kW	266,0	303,0	359,0	419,0	484,0	550,0	592,0	648,0
NOMINAL HEATING CAPACITY (4)		kW	344,0	391,8	462,9	535,2	619,2	702,8	765,9	834,8
TOTAL NOMINAL ABSORBED POWER		kW	78,0	88,8	103,9	116,2	135,2	152,8	173,9	186,8
EER		kW/kW	3,41	3,41	3,46	3,61	3,58	3,60	3,40	3,47
COP (4)		kW/kW	4,41	4,41	4,46	4,61	4,58	4,60	4,40	4,47
NOMINAL WATER FLOW, EVAPORATOR SIDE (TOTAL)		m3/h	45,6	52,0	61,6	71,9	83,0	94,3	101,5	111,1
NOMINAL WATER FLOW, CONDENSER SIDE (EACH)		m3/h	59,0	67,2	79,4	91,8	106,2	120,5	131,3	143,2
MECHANICAL MODE PRESSURE DROPS, EVAPORATOR SIDE (3)		kPa	53,9	61,9	47,9	48,9	38,9	56,9	41,9	39,9
MECHANICAL MODE PRESSURE DROPS, CONDENSER SIDE (5)		kPa	25,0	41,0	26,0	37,0	40,0	47,0	41,0	43,0
FRIGORIFIC SECTION										
COMPRESSORS / REFRIGERATING CIRCUITS / CONDENSERS		nr.	1/1/1	1/1/1	1/1/1	1/1/1	1/1/1	1/1/1	1/1/1	1/1/1
COMPRESSORS STARTING METHOD		-	PW	PW	Y-D	Y-D	Y-D	Y-D	Y-D	Y-D
HYDRAULIC SECTION (6)										
WATER FLOW RANGE, EVAPORATOR SIDE (TOTAL)		m3/h	32÷64	36÷73	43÷86	63÷126	73÷140	85÷160	85÷160	97÷195
WATER FLOW RANGE, CONDENSER SIDE (EACH)		m3/h	36÷80	36÷80	50÷120	50÷120	55÷135	75÷145	75÷165	75÷180
HYDRAULIC CONNECTIONS, EVAPORATOR SIDE (VICTAULIC)		DN	100	100	100	125	125	150	150	150
HYDRAULIC CONNECTIONS, CONDENSER SIDE (FLANGED)		DN	100	100	125	125	125	150	150	150
TOTAL ELECTRIC DATA										
MAXIMUM ABSORBED CURRENT (F.L.A)		A	196,0	214,0	280,0	310,0	320,0	360,0	413,0	477,0
MAXIMUM PEAK CURRENT (L.R.A) (9)		A	943,0	1023,0	1364,0	1442,0	1853,0	2029,0	2520,0	2870,0
MAXIMUM PEAK CURRENT WITH SOFT START (OPTION SF) (L.R.A) (9)		A	754,4	818,4	1091,2	1153,6	1482,4	1623,2	2016,0	2296,0
NOISE DATA (7)										
SOUND PRESSURE FOR STANDARD CONFIGURATION		dB(A)	64,1	64,5	65,4	65,7	66,6	67,5	68,3	68,9
SOUND PRESSURE FOR LOW NOISE CONFIGURATION (OPTION LNJ)		dB(A)	59,1	59,5	60,4	60,7	61,6	62,5	63,3	63,9
DIMENSIONS AND WEIGHT										
LENGTH		mm	3500	3500	4150	4150	4600	4600	4600	4600
WIDTH		mm	1400	1400	1600	1600	1900	1900	1900	1900
HEIGHT		mm	2050	2050	2050	2050	2300	2300	2300	2300
WEIGHT EMPTY FOR STANDARD CONFIGURATION (5) (8)		kg	1900	1950	2195	2230	2575	2630	2735	2775
WEIGHT OPERATIVE FOR STANDARD CONFIGURATION (5) (8)		kg	2050	2100	2500	2550	2960	3040	3180	3230

Last update: 11/03/2021
Revision: 01-2021

Data referred to:

(1) Data referred to inlet/outlet water temperatures: evaporator side = +12/+7 °C (fluid = Water), condenser side = +30/35°C (fluid = Water)

(2) Data referred to inlet/outlet water temperatures: evaporator side = +12/+7 °C (fluid = Water), condenser side = +40/45°C (fluid = Water)

(3) Pressure drops taken in account: heat exchanger, valves, piping

(4) Water cooled chillers can be used as not reversible heat pumps, this kind of application must be indicated in the order

(5) Data referred to standard chiller configuration (no one condensing temperature control system), with different condensing temperature control system this data will change

(6) You can match an hydromodule with this chiller: go to select it at https://www.hitema.com/standard-products/hydro-module

(7) Sound pressure level referred to measures according to normative ISO3744, pressure level at distance of 10 m, referred to free field on reflecting surface

(8) Weight will be confirmed in case of order

(9) Data referred to standard compressors starting method, with different starting method this data will change

(10) SEPR: data comply with the European Regulation (EU) 2016/2281, referring to high temperature process chillers in the configuration with brazed plate or shell and tube evaporator and without pump. Any added option that modify cooling capacity or absorbed power of the chiller will not be considered in the SEPR value

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TABLE 2/4

Watercooled liquid chillers EWB series, scew compressors, R134a / R513a refrigerant (R1234ze on request), 1 shell and tube evaporator, shell and tube condensers, electronic expansion valves, 50-75-100% partition steps per compressor, open cabinet and compact design to fit in narrow spaces. Electrical feed 400V/3ph/50Hz (60Hz version as option), IP54 protection rating, chillers suitable for indoor / outdoor installation.

Types of available condensing temperature control system:
No one condensing temperature control system (standard)
PCC2 = 2 ways valve/s on water side, regulated by condensing pressure
PCC3 = 3 ways valve/s on water side, regulated by condensing pressure

Type of compressors starting method:
PW = Part-Winding
Y-D = Star-Delta

TECHNICAL DATA

PERFORMANCES		Model	2_300	2_350	2_400	2_460	2_570	2_630	2_720	2_860
NOMINAL COOLING CAPACITY	W 12°C/7°C EVAPORATOR SIDE W 30/35°C CONDENSER SIDE (1)	kW	280,9	330,2	385,5	439,0	548,1	605,0	689,1	816,5
NOMINAL HEATING CAPACITY (4)		kW	340,5	404,0	469,1	534,1	664,4	735,7	837,9	990,6
TOTAL NOMINAL ABSORBED POWER		kW	59,7	73,7	83,6	95,2	116,3	130,7	148,8	174,1
EER		kW/kW	4,71	4,48	4,61	4,61	4,71	4,63	4,63	4,69
COP (4)		kW/kW	5,71	5,48	5,61	5,61	5,71	5,63	5,63	5,69
SEPR (HT) (10)		-	7,06	7,02	7,01	8,05	8,00	8,04	8,06	8,06
NOMINAL WATER FLOW, EVAPORATOR SIDE (TOTAL)		m3/h	48,2	56,6	66,1	75,3	94,0	103,7	118,2	140,0
NOMINAL WATER FLOW, CONDENSER SIDE (EACH)		m3/h	29,2	34,6	40,2	45,8	57,0	63,1	71,8	84,9
MECHANICAL MODE PRESSURE DROPS, EVAPORATOR SIDE (3)		kPa	65,8	69,7	81,3	68,4	71,0	69,7	56,8	72,3
MECHANICAL MODE PRESSURE DROPS, CONDENSER SIDE (5)		kPa	29,8	37,6	42,3	32,0	28,6	34,3	50,3	29,8
NOMINAL COOLING CAPACITY	W 12°C/7°C EVAPORATOR SIDE W 40/45°C CONDENSER SIDE (2)	kW	247,0	290,4	339,0	386,0	482,0	532,0	606,0	718,0
NOMINAL HEATING CAPACITY (4)		kW	318,2	378,4	438,8	499,6	620,8	688,0	783,6	925,8
TOTAL NOMINAL ABSORBED POWER		kW	71,2	88,0	99,8	113,6	138,8	156,0	177,6	207,8
EER		kW/kW	3,47	3,30	3,40	3,40	3,47	3,41	3,41	3,46
COP (4)		kW/kW	4,47	4,30	4,40	4,40	4,47	4,41	4,41	4,46
NOMINAL WATER FLOW, EVAPORATOR SIDE (TOTAL)		m3/h	42,4	49,8	58,1	66,2	82,7	91,2	103,9	123,1
NOMINAL WATER FLOW, CONDENSER SIDE (EACH)		m3/h	27,3	32,4	37,6	42,8	53,2	59,0	67,2	79,4
MECHANICAL MODE PRESSURE DROPS, EVAPORATOR SIDE (3)		kPa	50,9	53,9	62,9	52,9	54,9	53,9	43,9	55,9
MECHANICAL MODE PRESSURE DROPS, CONDENSER SIDE (5)		kPa	26,0	33,0	37,0	28,0	25,0	30,0	44,0	26,0
FRIGORIFIC SECTION										
COMPRESSORS / REFRIGERATING CIRCUITS / CONDENSERS		nr.	2/2/2	2/2/2	2/2/2	2/2/2	2/2/2	2/2/2	2/2/2	2/2/2
COMPRESSORS STARTING METHOD		-	PW	PW	PW	PW	PW	PW	PW	Y-D
HYDRAULIC SECTION (6)										
WATER FLOW RANGE, EVAPORATOR SIDE (TOTAL)		m3/h	32÷59	39÷78	45÷91	52÷103	58÷116	71÷142	81÷162	96÷192
WATER FLOW RANGE, CONDENSER SIDE (EACH)		m3/h	20÷40	20÷45	20÷50	32÷60	35÷80	35÷80	35÷80	50÷120
HYDRAULIC CONNECTIONS, EVAPORATOR SIDE (VICTAULIC)		DN	100	100	100	125	125	150	150	150
HYDRAULIC CONNECTIONS, CONDENSER SIDE (FLANGED)		DN	2 x 80	2 x 80	2 x 80	2 x 100	2 x 100	2 x 100	2 x 100	2 x 125
TOTAL ELECTRIC DATA										
MAXIMUM ABSORBED CURRENT (F.L.A)		A	216,0	248,0	288,0	324,0	364,0	392,0	428,0	560,0
MAXIMUM PEAK CURRENT (L.R.A) (9)		A	616,0	609,0	729,0	848,0	983,0	1139,0	1237,0	1644,0
MAXIMUM PEAK CURRENT WITH SOFT START (OPTION SF) (L.R.A) (9)		A	514,4	512,0	612,0	710,8	822,8	950,4	1032,4	1371,2
NOISE DATA (7)										
SOUND PRESSURE FOR STANDARD CONFIGURATION		dB(A)	63,7	62,7	62,9	62,6	68,4	67,1	67,5	68,4
SOUND PRESSURE FOR LOW NOISE CONFIGURATION (OPTION LNJ)		dB(A)	58,7	57,7	57,9	57,6	63,4	62,1	62,5	63,4
DIMENSIONS AND WEIGHT										
LENGTH		mm	3900	4200	4450	4450	4700	4700	5000	5200
WIDTH		mm	1600	1600	1700	1700	1700	1700	1700	1850
HEIGHT		mm	2050	2050	2100	2100	2200	2200	2200	2350
WEIGHT EMPTY FOR STANDARD CONFIGURATION (5) (8)		kg	1570	2070	2240	2300	3300	3360	4000	4950
WEIGHT OPERATIVE FOR STANDARD CONFIGURATION (5) (8)		kg	1700	2200	2370	2490	3530	3590	4450	5210

Last update: 11/03/2021
Revision: 01-2021

Data referred to:

(1) Data referred to inlet/outlet water temperatures: evaporator side = +12/+7 °C (fluid = Water), condenser side = +30/35°C (fluid = Water)

(2) Data referred to inlet/outlet water temperatures: evaporator side = +12/+7 °C (fluid = Water), condenser side = +40/45°C (fluid = Water)

(3) Pressure drops taken in account: heat exchanger, valves, piping

(4) Water cooled chillers can be used as not reversible heat pumps, this kind of application must be indicated in the order

(5) Data referred to standard chiller configuration (no one condensing temperature control system), with different condensing temperature control system this data will change

(6) You can match an hydromodule with this chiller: go to select it at https://www.hitema.com/standard-products/hydro-module

(7) Sound pressure level referred to measures according to normative ISO3744, pressure level at distance of 10 m, referred to free field on reflecting surface

(8) Weight will be confirmed in case of order

(9) Data referred to standard compressors starting method, with different starting method this data will change

(10) SEPR: data comply with the European Regulation (EU) 2016/2281, referring to high temperature process chillers in the configuration with brazed plate or shell and tube evaporator and without pump. Any added option that modify cooling capacity or absorbed power of the chiller will not be considered in the SEPR value

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TABLE 3/4

Watercooled liquid chillers EWB series, scew compressors, R134a / R513a refrigerant (R1234ze on request), 1 shell and tube evaporator, shell and tube condensers, electronic expansion valves, 50-75-100% partition steps per compressor, open cabinet and compact design to fit in narrow spaces. Electrical feed 400V/3ph/50Hz (60Hz version as option), IP54 protection rating, chillers suitable for indoor / outdoor installation.

Types of available condensing temperature control system:
No one condensing temperature control system (standard)
PCC2 = 2 ways valve/s on water side, regulated by condensing pressure
PCC3 = 3 ways valve/s on water side, regulated by condensing pressure

Type of compressors starting method:
PW = Part-Winding
Y-D = Star-Delta

TECHNICAL DATA

PERFORMANCES		Model	2_990	2_1140	2_1290	2_1400	2_1500
NOMINAL COOLING CAPACITY	W 12°C/7°C EVAPORATOR SIDE W 30/35°C CONDENSER SIDE (1)	kW	953,0	1100,8	1250,9	1346,4	1473,8
NOMINAL HEATING CAPACITY (4)		kW	1147,7	1327,3	1506,9	1637,8	1786,8
TOTAL NOMINAL ABSORBED POWER		kW	194,7	226,5	256,0	291,4	313,0
EER		kW/kW	4,89	4,86	4,89	4,62	4,71
COP (4)		kW/kW	5,89	5,86	5,89	5,62	5,71
SEPR (HT) (10)		-	8,01	8,04	8,02	8,04	8,05
NOMINAL WATER FLOW, EVAPORATOR SIDE (TOTAL)		m3/h	163,4	188,8	214,5	230,9	252,7
NOMINAL WATER FLOW, CONDENSER SIDE (EACH)		m3/h	98,4	113,8	129,2	140,4	153,2
MECHANICAL MODE PRESSURE DROPS, EVAPORATOR SIDE (3)		kPa	72,3	94,2	72,3	86,5	94,2
MECHANICAL MODE PRESSURE DROPS, CONDENSER SIDE (5)		kPa	25,3	32,2	33,3	30,9	33,2
NOMINAL COOLING CAPACITY	W 12°C/7°C EVAPORATOR SIDE W 40/45°C CONDENSER SIDE (2)	kW	838,0	968,0	1100,0	1184,0	1296,0
NOMINAL HEATING CAPACITY (4)		kW	1070,4	1238,4	1405,6	1531,8	1669,6
TOTAL NOMINAL ABSORBED POWER		kW	232,4	270,4	305,6	347,8	373,6
EER		kW/kW	3,61	3,58	3,60	3,40	3,47
COP (4)		kW/kW	4,61	4,58	4,60	4,40	4,47
NOMINAL WATER FLOW, EVAPORATOR SIDE (TOTAL)		m3/h	143,7	166,0	188,6	203,0	222,2
NOMINAL WATER FLOW, CONDENSER SIDE (EACH)		m3/h	91,8	106,2	120,5	131,3	143,2
MECHANICAL MODE PRESSURE DROPS, EVAPORATOR SIDE (3)		kPa	55,9	72,9	55,9	66,9	72,9
MECHANICAL MODE PRESSURE DROPS, CONDENSER SIDE (5)		kPa	22,0	28,0	29,0	27,0	29,0
FRIGORIFIC SECTION							
COMPRESSORS / REFRIGERATING CIRCUITS / CONDENSERS		nr.	2/2/2	2/2/2	2/2/2	2/2/2	2/2/2
COMPRESSORS STARTING METHOD		-	Y-D	Y-D	Y-D	Y-D	Y-D
HYDRAULIC SECTION (6)							
WATER FLOW RANGE, EVAPORATOR SIDE (TOTAL)		m3/h	120÷224	129÷258	147÷294	142÷285	156÷311
WATER FLOW RANGE, CONDENSER SIDE (EACH)		m3/h	60÷140	70÷155	70÷175	80÷200	90÷200
HYDRAULIC CONNECTIONS, EVAPORATOR SIDE (VICTAULIC)		DN	200	200	200	200	200
HYDRAULIC CONNECTIONS, CONDENSER SIDE (FLANGED)		DN	2 x 125	2 x 150	2 x 150	2 x 150	2 x 150
TOTAL ELECTRIC DATA							
MAXIMUM ABSORBED CURRENT (F.L.A)		A	620,0	640,0	720,0	826,0	954,0
MAXIMUM PEAK CURRENT (L.R.A) (9)		A	1752,0	2173,0	2389,0	2933,0	3347,0
MAXIMUM PEAK CURRENT WITH SOFT START (OPTION SF) (L.R.A) (9)		A	1463,6	1802,4	1983,2	2429,0	2773,0
NOISE DATA (7)							
SOUND PRESSURE FOR STANDARD CONFIGURATION		dB(A)	68,7	69,6	70,5	71,3	71,9
SOUND PRESSURE FOR LOW NOISE CONFIGURATION (OPTION LNJ)		dB(A)	63,7	64,6	65,5	66,3	66,9
DIMENSIONS AND WEIGHT							
LENGTH		mm	5200	5200	5200	5400	5400
WIDTH		mm	1850	2000	2000	2000	2000
HEIGHT		mm	2350	2450	2450	2450	2450
WEIGHT EMPTY FOR STANDARD CONFIGURATION (5) (8)		kg	5060	5400	5480	5700	5870
WEIGHT OPERATIVE FOR STANDARD CONFIGURATION (5) (8)		kg	5410	5760	6050	6320	6540

Last update: 11/03/2021
Revision: 01-2021

Data referred to:

(1) Data referred to inlet/outlet water temperatures: evaporator side = +12/+7 °C (fluid = Water), condenser side = +30/35°C (fluid = Water)

(2) Data referred to inlet/outlet water temperatures: evaporator side = +12/+7 °C (fluid = Water), condenser side = +40/45°C (fluid = Water)

(3) Pressure drops taken in account: heat exchanger, valves, piping

(4) Water cooled chillers can be used as not reversible heat pumps, this kind of application must be indicated in the order

(5) Data referred to standard chiller configuration (no one condensing temperature control system), with different condensing temperature control system this data will change

(6) You can match an hydromodule with this chiller: go to select it at https://www.hitema.com/standard-products/hydro-module

(7) Sound pressure level referred to measures according to normative ISO3744, pressure level at distance of 10 m, referred to free field on reflecting surface

(8) Weight will be confirmed in case of order

(9) Data referred to standard compressors starting method, with different starting method this data will change

(10) SEPR: data comply with the European Regulation (EU) 2016/2281, referring to high temperature process chillers in the configuration with brazed plate or shell and tube evaporator and without pump. Any added option that modify cooling capacity or absorbed power of the chiller will not be considered in the SEPR value

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EWB

TABLE 4/4

Watercooled liquid chillers EWB series, scew compressors, R134a / R513a refrigerant (R1234ze on request), 1 shell and tube evaporator, shell and tube condensers, electronic expansion valves, 50-75-100% partition steps per compressor, open cabinet and compact design to fit in narrow spaces. Electrical feed 400V/3ph/50Hz (60Hz version as option), IP54 protection rating, chillers suitable for indoor / outdoor installation.

Types of available condensing temperature control system:
No one condensing temperature control system (standard)
PCC2 = 2 ways valve/s on water side, regulated by condensing pressure
PCC3 = 3 ways valve/s on water side, regulated by condensing pressure

Type of compressors starting method:
PW = Part-Winding
Y-D = Star-Delta

TECHNICAL DATA

PERFORMANCES		**Model**	**3_1690**	**3_1900**	**3_2050**	**3_2200**
NOMINAL COOLING CAPACITY	W 12°C/7°C EVAPORATOR SIDE W 30/35°C CONDENSER SIDE (1)	kW	1651,2	1876,4	2016,2	2210,7
NOMINAL HEATING CAPACITY (4)		kW	1991,0	2260,4	2453,3	2680,2
TOTAL NOMINAL ABSORBED POWER		kW	339,8	384,0	437,1	469,5
EER		kW/kW	4,86	4,89	4,61	4,71
COP (4)		kW/kW	5,86	5,89	5,61	5,71
SEPR (HT) (10)		-	8,50	8,57	-	-
NOMINAL WATER FLOW, EVAPORATOR SIDE (TOTAL)		m3/h	283,1	321,8	345,7	379,1
NOMINAL WATER FLOW, CONDENSER SIDE (EACH)		m3/h	113,8	129,2	140,2	153,2
MECHANICAL MODE PRESSURE DROPS, EVAPORATOR SIDE (3)		kPa	88,6	86,5	90,8	101,1
MECHANICAL MODE PRESSURE DROPS, CONDENSER SIDE (5)		kPa	32,2	33,3	30,9	33,2
NOMINAL COOLING CAPACITY	W 12°C/7°C EVAPORATOR SIDE W 40/45°C CONDENSER SIDE (2)	kW	1452,0	1650,0	1773,0	1944,0
NOMINAL HEATING CAPACITY (4)		kW	1857,6	2108,4	2294,7	2504,4
TOTAL NOMINAL ABSORBED POWER		kW	405,6	458,4	521,7	560,4
EER		kW/kW	3,58	3,60	3,40	3,47
COP (4)		kW/kW	4,58	4,60	4,40	4,47
NOMINAL WATER FLOW, EVAPORATOR SIDE (TOTAL)		m3/h	249,0	282,9	304,0	333,4
NOMINAL WATER FLOW, CONDENSER SIDE (EACH)		m3/h	106,2	120,5	131,2	143,2
MECHANICAL MODE PRESSURE DROPS, EVAPORATOR SIDE (3)		kPa	68,5	66,9	70,2	78,2
MECHANICAL MODE PRESSURE DROPS, CONDENSER SIDE (5)		kPa	28,0	29,0	27,0	29,0
FRIGORIFIC SECTION						
COMPRESSORS / REFRIGERATING CIRCUITS / CONDENSERS		nr.	3/3/3	3/3/3	3/3/3	3/3/3
COMPRESSORS STARTING METHOD		-	Y-D	Y-D	Y-D	Y-D
HYDRAULIC SECTION (6)						
WATER FLOW RANGE, EVAPORATOR SIDE (TOTAL)		m3/h	214÷427	217÷433	238÷476	261÷521
WATER FLOW RANGE, CONDENSER SIDE (EACH)		m3/h	70÷155	70÷175	80÷200	90÷200
HYDRAULIC CONNECTIONS, EVAPORATOR SIDE (VICTAULIC)		DN	250	250	250	250
HYDRAULIC CONNECTIONS, CONDENSER SIDE (FLANGED)		DN	3 x 150	3 x 150	3 x 150	3 x 150
TOTAL ELECTRIC DATA						
MAXIMUM ABSORBED CURRENT (F.L.A)		A	960,0	1080,0	1239,0	1431,0
MAXIMUM PEAK CURRENT (L.R.A) (9)		A	2493,0	2749,0	3346,0	3824,0
MAXIMUM PEAK CURRENT WITH SOFT START (OPTION SF) (L.R.A) (9)		A	2122,4	2343,2	2842,0	3250,0
NOISE DATA (7)						
SOUND PRESSURE FOR STANDARD CONFIGURATION		dB(A)	71,4	72,3	73,1	73,7
SOUND PRESSURE FOR LOW NOISE CONFIGURATION (OPTION LNJ)		dB(A)	66,4	67,3	68,1	68,7
DIMENSIONS AND WEIGHT						
LENGTH		mm	5950	5950	5950	5950
WIDTH		mm	2210	2210	2210	2210
HEIGHT		mm	2450	2450	2450	2450
WEIGHT EMPTY FOR STANDARD CONFIGURATION (5) (8)		kg	7340	7640	7740	7910
WEIGHT OPERATIVE FOR STANDARD CONFIGURATION (5) (8)		kg	7890	8365	8610	8860

Last update: 11/03/2021
Revision: 01-2021

Data referred to:

(1) Data referred to inlet/outlet water temperatures: evaporator side = +12/+7 °C (fluid = Water), condenser side = +30/35°C (fluid = Water)

(2) Data referred to inlet/outlet water temperatures: evaporator side = +12/+7 °C (fluid = Water), condenser side = +40/45°C (fluid = Water)

(3) Pressure drops taken in account: heat exchanger, valves, piping

(4) Water cooled chillers can be used as not reversible heat pumps, this kind of application must be indicated in the order

(5) Data referred to standard chiller configuration (no one condensing temperature control system), with different condensing temperature control system this data will change

(6) You can match an hydromodule with this chiller: go to select it at https://www.hitema.com/standard-products/hydro-module

(7) Sound pressure level referred to measures according to normative ISO3744, pressure level at distance of 10 m, referred to free field on reflecting surface

(8) Weight will be confirmed in case of order

(9) Data referred to standard compressors starting method, with different starting method this data will change

(10) SEPR: data comply with the European Regulation (EU) 2016/2281, referring to high temperature process chillers in the configuration with brazed plate or shell and tube evaporator and without pump. Any added option that modify cooling capacity or absorbed power of the chiller will not be considered in the SEPR value

CFTW SERIES

Water-cooled liquid Chillers
Open cabinet with compact footprint
IP54 protection rating
Suitable for INDOOR installation

SERIES: CFTW	DATE: 29/09/2021
CODE: TTD-CFTW-00	UPDATE: -
CHECKED BY	M. Burba

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CFTW

TABLE 1/2

Watercooled liquid chillers CFTW series, scroll compressors, R410A / R32 / R454B refrigerant, brazed plate evaporator/s, brazed plate condenser/s, thermostatic expansion valve, open cabinet and compact design to fit in narrow spaces.
Electrical feed 400V/3ph/50Hz (60Hz version as option), IP54 protection rating, chillers suitable for indoor / outdoor installation.

Types of available condensing temperature control system:
No one condensing temperature control system (standard)
PCC2 = 2 ways valve/s on water side, regulated by condensing pressure
PCC3 = 3 ways valve/s on water side, regulated by condensing pressure

Type of available expansion elements:
VTS = Thermostatic expansion valve
ETS = Electronic expansion valve (available as option)

TECHNICAL DATA

PERFORMANCES		Model	061	075	090	100	130	160	185	200
NOMINAL COOLING CAPACITY	W 12°C/7°C EVAPORATOR SIDE W 30/35°C CONDENSER SIDE (1)	kW	57,5	74,4	87,6	97,8	113,4	142,3	184,4	204,1
NOMINAL HEATING CAPACITY (4)		kW	71,0	91,5	107,5	120,8	138,3	174,0	226,1	249,6
TOTAL NOMINAL ABSORBED POWER		kW	13,5	17,1	20,0	22,9	25,0	31,7	41,7	45,5
EER		kW/kW	4,26	4,35	4,39	4,27	4,54	4,50	4,42	4,49
COP (4)		kW/kW	5,26	5,35	5,39	5,27	5,54	5,50	5,42	5,49
SEPR (HT) (9)			7,01	7,03	7,01	7,07	7,06	7,07	7,02	7,03
NOMINAL WATER FLOW, EVAPORATOR SIDE (TOTAL)		m3/h	9,9	12,8	15,0	16,8	19,4	24,4	31,6	35,0
NOMINAL WATER FLOW, CONDENSER SIDE (EACH)		m3/h	12,2	15,7	18,4	20,7	23,7	29,8	38,8	21,4
MECHANICAL MODE PRESSURE DROPS, EVAPORATOR SIDE (3)		kPa	66,5	64,0	57,6	55,0	72,0	60,1	63,0	59,9
MECHANICAL MODE PRESSURE DROPS, CONDENSER SIDE (3) (5)		kPa	47,7	79,2	58,8	77,9	79,5	57,1	59,7	78,3
NOMINAL COOLING CAPACITY	W 12°C/7°C EVAPORATOR SIDE W 40/45°C CONDENSER SIDE (2)	kW	50,8	65,8	77,4	86,5	100,2	125,8	163,0	180,4
NOMINAL HEATING CAPACITY (4)		kW	67,3	86,7	101,8	114,5	130,7	164,5	214,0	236,0
TOTAL NOMINAL ABSORBED POWER		kW	16,5	20,9	24,4	28,0	30,5	38,7	51,0	55,6
EER		kW/kW	3,08	3,15	3,17	3,09	3,29	3,25	3,20	3,24
COP (4)		kW/kW	4,08	4,15	4,17	4,09	4,29	4,25	4,20	4,24
NOMINAL WATER FLOW, EVAPORATOR SIDE (TOTAL)		m3/h	8,7	11,3	13,3	14,9	17,2	21,6	28,0	31,0
NOMINAL WATER FLOW, CONDENSER SIDE (EACH)		m3/h	11,5	14,9	17,5	19,6	22,4	28,2	36,7	20,2
MECHANICAL MODE PRESSURE DROPS, EVAPORATOR SIDE (3)		kPa	52,3	50,3	45,3	43,2	56,6	47,2	49,5	47,1
MECHANICAL MODE PRESSURE DROPS, CONDENSER SIDE (3) (5)		kPa	42,9	71,0	52,7	70,0	71,0	51,0	53,5	70,0
FRIGORIFIC SECTION										
COMPRESSORS / REFRIGERATING CIRCUITS / PARTITION STEP		nr.	2/1/2	2/1/2	2/1/2	2/1/2	2/1/2	2/1/2	2/1/2	4/2/4
HYDRAULIC SECTION (6)										
EVAPORATORS / CONDENSERS		nr.	1/1	1/1	1/1	1/1	1/1	1/1	1/1	2/2
WATER FLOW RANGE, EVAPORATOR SIDE (TOTAL)		m3/h	8÷17	8÷17	8÷17	10÷22	15÷27	15÷32	15÷38	20÷53
WATER FLOW RANGE, CONDENSER SIDE (EACH)		m3/h	8÷17	8÷17	10÷22	10÷22	14÷27	14÷37	20÷42	14÷25
HYDRAULIC CONNECTIONS, EVAPORATOR SIDE (THREADED / FLANGED)		BSP / DN	2"	2"	2"	2"	DN65	DN65	DN65	DN80
HYDRAULIC CONNECTIONS, CONDENSER SIDE (THREADED / FLANGED)		BSP / DN	2"	2"	2"	2"	DN65	DN65	DN80	2 x DN65
TOTAL ELECTRIC DATA										
MAXIMUM ABSORBED CURRENT (F.L.A)		A	40,3	49,0	60,0	65,2	70,4	87,7	118,6	130,4
MAXIMUM PEAK CURRENT (L.R.A)		A	159,1	164,5	204,0	270,8	276,0	331,4	369,3	336,0
MAXIMUM PEAK CURRENT WITH SOFT START (OPTION SF) (L.R.A)		A	131,3	136,5	169,2	222,6	227,8	273,9	307,3	287,8
NOISE DATA (7)										
SOUND PRESSURE FOR STANDARD CONFIGURATION		dB(A)	47,0	51,0	52,0	56,0	58,0	58,0	60,0	59,0
SOUND PRESSURE FOR LOW NOISE CONFIGURATION (OPTION LNJ)		dB(A)	42,0	46,0	47,0	51,0	53,0	53,0	55,0	54,0
DIMENSIONS AND WEIGHT										
LENGTH		mm	1250	1250	1250	1750	1750	1750	1750	3000
WIDTH		mm	750	750	750	800	800	800	800	800
HEIGHT		mm	1700	1700	1700	1900	1900	1900	1900	2000
WEIGHT EMPTY FOR STANDARD CONFIGURATION (5) (8)		kg	375	395	420	750	800	860	930	1100
WEIGHT OPERATIVE FOR STANDARD CONFIGURATION (5) (8)		kg	390	415	440	790	850	920	1000	1180

The manufacturer reserves the right to modify specifications without notice.

Last update: 02/03/2021
Revision: 01-2021

Data referred to:
(1) Data referred to inlet/outlet water temperatures: evaporator side = +12/+7 °C (fluid = Water), condenser side = +30/35°C (fluid = Water)
(2) Data referred to inlet/outlet water temperatures: evaporator side = +12/+7 °C (fluid = Water), condenser side = +40/45°C (fluid = Water)
(3) Pressure drops taken in account: heat exchanger, valves, piping
(4) Water cooled chillers can be used as not reversible heat pumps, this kind of application must be indicated in the order
(5) Data referred to standard chiller configuration (no one condensing temperature control system), with different condensing temperature control system this data will change
(6) You can match an hydromodule with this chiller: go to select it at https://www.hitema.com/standard-products/hydro-module
(7) Sound pressure level referred to measures according to normative ISO3744, pressure level at distance of 10 m, referred to free field on reflecting surface
(8) Weight will be confirmed in case of order
(9) SEPR: data comply with the European Regulation (EU) 2016/2281, referring to high temperature process chillers in the configuration with brazed plate or shell and tube evaporator and without pump. Any added option that modify cooling capacity or absorbed power of the chiller will not be considered in the SEPR value

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CFTW

TABLE 2/2

Watercooled liquid chillers CFTW series, scroll compressors, R410A / R32 / R454B refrigerant, brazed plate evaporator/s, brazed plate condenser/s, thermostatic expansion valve, open cabinet and compact design to fit in narrow spaces.
Electrical feed 400V/3ph/50Hz (60Hz version as option), IP54 protection rating, chillers suitable for indoor / outdoor installation.

Types of available condensing temperature control system:
No one condensing temperature control system (standard)
PCC2 = 2 ways valve/s on water side, regulated by condensing pressure
PCC3 = 3 ways valve/s on water side, regulated by condensing pressure

Type of available expansion elements:
VTS = Thermostatic expansion valve
ETS = Electronic expansion valve (available as option)

TECHNICAL DATA

PERFORMANCES		Model	230	280	340	370	430
NOMINAL COOLING CAPACITY	W 12°C/7°C EVAPORATOR SIDE W 30/35°C CONDENSER SIDE (1)	kW	226,7	284,7	326,8	368,8	419,8
NOMINAL HEATING CAPACITY (4)		kW	276,6	348,0	401,1	452,3	514,3
TOTAL NOMINAL ABSORBED POWER		kW	49,9	63,3	74,4	83,4	94,6
EER		kW/kW	4,54	4,50	4,39	4,42	4,44
COP (4)		kW/kW	5,54	5,50	5,39	5,42	5,44
SEPR (HT) (9)			7,05	7,02	7,06	7,06	8,01
NOMINAL WATER FLOW, EVAPORATOR SIDE (TOTAL)		m3/h	38,9	48,8	56,0	63,2	72,0
NOMINAL WATER FLOW, CONDENSER SIDE (EACH)		m3/h	23,7	29,8	34,4	38,8	44,1
MECHANICAL MODE PRESSURE DROPS, EVAPORATOR SIDE (3)		kPa	72,0	60,1	62,2	63,0	63,0
MECHANICAL MODE PRESSURE DROPS, CONDENSER SIDE (3) (5)		kPa	79,5	58,0	47,8	59,7	62,8
NOMINAL COOLING CAPACITY	W 12°C/7°C EVAPORATOR SIDE W 40/45°C CONDENSER SIDE (2)	kW	200,4	251,6	288,8	326,0	371,0
NOMINAL HEATING CAPACITY (4)		kW	261,4	329,0	379,7	428,0	486,6
TOTAL NOMINAL ABSORBED POWER		kW	61,0	77,4	90,9	102,0	115,6
EER		kW/kW	3,29	3,25	3,18	3,20	3,21
COP (4)		kW/kW	4,29	4,25	4,18	4,20	4,21
NOMINAL WATER FLOW, EVAPORATOR SIDE (TOTAL)		m3/h	34,5	43,3	49,7	56,1	63,8
NOMINAL WATER FLOW, CONDENSER SIDE (EACH)		m3/h	22,4	28,2	32,6	36,7	41,7
MECHANICAL MODE PRESSURE DROPS, EVAPORATOR SIDE (3)		kPa	56,6	47,2	48,9	49,5	49,5
MECHANICAL MODE PRESSURE DROPS, CONDENSER SIDE (3) (5)		kPa	71,0	51,8	42,8	53,5	56,2
FRIGORIFIC SECTION							
COMPRESSORS / REFRIGERATING CIRCUITS / PARTITION STEP		nr.	4/2/4	4/2/4	4/2/4	4/2/4	4/2/4
HYDRAULIC SECTION (6)							
EVAPORATORS / CONDENSERS		nr.	2/2	2/2	2/2	2/2	2/2
WATER FLOW RANGE, EVAPORATOR SIDE (TOTAL)		m3/h	20÷53	20÷53	35÷85	35÷85	35÷85
WATER FLOW RANGE, CONDENSER SIDE (EACH)		m3/h	14÷25	20÷40	20÷42	20÷42	34÷58
HYDRAULIC CONNECTIONS, EVAPORATOR SIDE (THREADED / FLANGED)		BSP / DN	DN80	DN80	DN100	DN100	DN100
HYDRAULIC CONNECTIONS, CONDENSER SIDE (THREADED / FLANGED)		BSP / DN	2 x DN65	2 X DN80	2 X DN80	2 X DN80	2 X DN100
TOTAL ELECTRIC DATA							
MAXIMUM ABSORBED CURRENT (F.L.A)		A	140,8	175,5	207,8	237,2	266,2
MAXIMUM PEAK CURRENT (L.R.A)		A	346,4	419,1	458,5	487,9	600,4
MAXIMUM PEAK CURRENT WITH SOFT START (OPTION SF) (L.R.A)		A	298,2	361,6	396,5	425,9	518,8
NOISE DATA (7)							
SOUND PRESSURE FOR STANDARD CONFIGURATION		dB(A)	61,0	61,0	63,0	63,0	65,5
SOUND PRESSURE FOR LOW NOISE CONFIGURATION (OPTION LNJ)		dB(A)	56,0	56,0	58,0	58,0	60,5
DIMENSIONS AND WEIGHT							
LENGTH		mm	3000	3000	3500	3500	3500
WIDTH		mm	800	800	900	900	900
HEIGHT		mm	2000	2000	2300	2300	2300
WEIGHT EMPTY FOR STANDARD CONFIGURATION (5) (8)		kg	1120	1150	1320	1490	1660
WEIGHT OPERATIVE FOR STANDARD CONFIGURATION (5) (8)		kg	1210	1250	1350	1500	1680

Last update: 02/03/2021
Revision: 01-2021

Data referred to:
(1) Data referred to inlet/outlet water temperatures: evaporator side = +12/+7 °C (fluid = Water), condenser side = +30/35°C (fluid = Water)
(2) Data referred to inlet/outlet water temperatures: evaporator side = +12/+7 °C (fluid = Water), condenser side = +40/45°C (fluid = Water)
(3) Pressure drops taken in account: heat exchanger, valves, piping
(4) Water cooled chillers can be used as not reversible heat pumps, this kind of application must be indicated in the order
(5) Data referred to standard chiller configuration (no one condensing temperature control system), with different condensing temperature control system this data will change
(6) You can match an hydromodule with this chiller: go to select it at https://www.hitema.com/standard-products/hydro-module
(7) Sound pressure level referred to measures according to normative ISO3744, pressure level at distance of 10 m, referred to free field on reflecting surface
(8) Weight will be confirmed in case of order
(9) SEPR: data comply with the European Regulation (EU) 2016/2281, referring to high temperature process chillers in the configuration with brazed plate or shell and tube evaporator and without pump. Any added option that modify cooling capacity or absorbed power of the chiller will not be considered in the SEPR value

HYDROMODULE

Inbuilt water storage tank
No pump / single pump / double pump versions

HYD series
From 400L up to 5000L

Technical Data Tables

SERIES: HYD	DATE: 19.05.2022
CODE: GPLSPC20	UPDATE: GPLSPC19
CHECKED BY	M. Burba

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HYDRO-MODULES

Carbon steel water storage tank
Galvanized and painted carbon steel frame
No pump / single pump / double pump versions
Inbuilt expansion vessel

HYD series
From 400 litres up to 5000 litres

SERIES: HYD	DATE: 04/10/2021
CODE: TTD-HYD-01	UPDATE: -
CHECKED BY	M. Burba

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HYD

TABLE 1/3

Hydro-Module HYD series, water storage tank in carbon steel, open frame if only tank / closed frame in galvanized and painted steel if with single/double pump, expansion vessel, automatic filling valve, automatic air vent. 3bar maximum operating pressure.
ONLY FOR INBUILT PUMP/S VERSION: 400V/3ph/50Hz electrical feed, IP54 protection rating, chillers suitable for outdoor installation.

Type of available configuration for pumps:
WP = Single pump P3 with nominal pressure head 3 barg
DP = Double pump P3 (run and standby, with automatic changeover every 24h or on fault) with nominal pressure head 3 barg
PH = Single pump P5 with nominal pressure head 5 barg
DPH = Double pump P5 (run and standby, with automatic changeover every 24h or on fault) with nominal pressure head 5 barg

TECHNICAL DATA

HYDRO-MODULE FEATURES		**Model**	**400L**	**475L**	**650L**	**800L**	**1100L**	**1750L**	**2250L**	**3000L**	**4000L**	**5000L**
TANK VOLUME		dm^3	400	475	650	800	1100	1750	2250	3000	4000	5000
EXPANSION VESSEL NUMBER x VOLUME (1)		liters	19	19	2x19	2x19	1x60	2x60	2x60	3x60	3x60	4x60
DIMENSIONS AND WEIGHT												
LENGTH		mm	2010	2010	2010	2010	2910	2910	3910	3910	3910	3910
WIDTH		mm	1000	1000	1200	1200	1460	1460	1850	1850	2000	2000
HEIGHT		mm	1450	1450	1520	1520	1650	1650	2010	2010	2180	2180
WEIGHT EMPTY, NO PUMP VERSION (2)	EMP.	kg	253	263	303	313	473	493	765	795	924	954
WEIGHT OPERATIVE, NO PUMP VERSION (2)	OP.	kg	685	775	1030	1170	1683	2423	3195	4075	5244	6354

PUMP FEATURES	**Data**	**Pmax [kW]**	**Imax [A]**	**Lw [dB(A)]**	**Qmin [m^3/h]**	**Qmax [m^3/h]**	**Hmax [kPa]**	**Hmin [kPa]**	**Tmin [°C]**	**Tmax [°C]**	**MEL**
NSCE 32-160-22 (P3) (3)		2,53	4,56	78	7,0	28,0	24,0	16,4			
NSCE 32-160-30 (P3) (3)		3,46	6,33	78	8,0	32,0	29,6	19,7			
NSCE 32-200-55 (P5) (3)		6,12	10,4	78	9,0	31,0	48,5	35,4			
NSCE 32-200-75 (P5) (3)		8,30	14,1	82	10,0	34,0	62,2	46,3			
NSCE 40-160-40 (P3) (3)		4,56	7,75	78	12,0	48,0	27,7	20,4			
NSCE 40-160-55 (P3) (3)		6,12	10,4	78	13,0	55,0	34,7	25,7			
NSCE 40-200-92 (P5) (3)		10,25	17,4	84	16,0	57,0	51,0	33,6			
NSCE 40-200-110 (P5) (3)		12,27	20,6	84	17,0	63,0	57,1	36,0			
NSCE 40-250-110 (P5) (3)		12,04	20,2	84	18,0	48,0	59,5	45,8			
NSCE 50-160-75 (P3) (3)		8,30	14,1	82	22,0	96,0	33,0	15,7			
NSCE 50-160-92 (P3) (3)		10,25	17,4	84	24,0	105,0	38,1	18,5			
NSCE 50-200-150 (P5) (3)		16,22	26,6	82	24,0	94,0	54,2	37,1			
NSCE 50-200-185 (P5) (3)		19,94	32,7	84	26,0	110,0	63,0	43,1			
NSCE 65-160-92 (P3) (3)		10,25	17,4	84	28,0	142,0	29,7	15,6	-20	120	IE3
NSCE 65-160-150 (P3) (3)		16,22	26,6	82	35,0	169,0	41,1	23,3			
NSCE 65-200-185 (P5) (3)		19,94	32,7	84	31,0	154,0	49,8	24,9			
NSCE 65-200-220 (P5) (3)		23,79	40,4	81	33,0	162,0	55,7	28,1			
NSCS 65-250-300 (P5) (3)		31,88	53,5	80	32,0	181,0	66,6	33,2			
NSCE 80-160-150 (P3) (3)		16,22	26,6	82	51,0	240,0	32,9	14,2			
NSCE 80-160-220 (P3) (3)		24,09	40,9	81	60,0	280,0	41,8	18,1			
NSCS 80-200-300 (P5) (3)		31,88	53,5	80	55,0	236,0	52,1	34,5			
NSCS 80-250-370 (P5) (3)		39,09	65,6	79	51,0	225,0	66,0	45,6			
NSCS 100-160-220 (P3) (3)		23,79	40,4	81	45,0	317,0	33,3	15,9			
NSCS 100-160-300 (P3) (3)		32,47	54,5	80	50,0	359,0	43,0	21,5			
NSCS 100-200-370 (P5) (3)		40,40	67,8	79	44,0	356,0	53,2	24,4			
NSCS 100-200-450 (P5) (3)		47,25	77,5	85	47,0	356,0	59,4	24,4			

The manufacturer reserves the right to modify specifications without notice.

Last update: 11/05/2020
Revision: 00-2020

LEGEND:
Pmax = maximum absorbed power
Imax = maximum absorbed current
Lw = sound power level
Qmin = minimum flow rate
Qmax = maximum flow rate
Hmin = minimum head pressure
Hmax = maximum head pressure
Tmin = minimum pumped fluid admitted temperature
Tmax = maximum pumped fluid admitted temperature
MEL = motor efficiency level

Data referred to:
(1) The expansion vessel volume is calculated considering 50°C of deltaT between water temperature with chiller stopped and chiller active, 1/2bar of hydraulic circuit pre-charge and considering only the water volume of the hydromodule tank
(2) Weight to be confirmed in case of order
(3) Mechanical seal material: SiC/SiC/EPDM - Casing material: painted cast iron - Impeller material: stainless steel (models 32, 40, 50) / cast iron (models 65, 80, 100)

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HYD
TABLE 2/3

Hydro-Module HYD series, water storage tank in carbon steel, open frame if only tank / closed frame in galvanized and painted steel if with single/double pump, expansion vessel, automatic filling valve, automatic air vent. 3bar maximum operating pressure.
ONLY FOR INBUILT PUMP/S VERSION: 400V/3ph/50Hz electrical feed, IP54 protection rating, chillers suitable for outdoor installation.

Type of available configuration for pumps:
WP = Single pump P3 with nominal pressure head 3 barg
DP = Double pump P3 (run and standby, with automatic changeover every 24h or on fault) with nominal pressure head 3 barg
PH = Single pump P5 with nominal pressure head 5 barg
DPH = Double pump P5 (run and standby, with automatic changeover every 24h or on fault) with nominal pressure head 5 barg

TECHNICAL DATA

WEIGHT WITH 1 PUMP		Model	400L	475L	650L	800L	1100L	1750L	2250L	3000L	4000L	5000L
PUMP MODEL												
NSCE 32-160-22 (P3) (2)	EMP.	kg	289	299	336	346	495	515	773	803	898	928
	OP.	kg	721	811	1056	1196	1687	2427	3163	4043	5132	6242
NSCE 32-160-30 (P3) (2)	EMP.	kg	292	302	339	349	498	518	776	806	901	931
	OP.	kg	724	814	1059	1199	1690	2430	3166	4046	5135	6245
NSCE 32-200-55 (P5) (2)	EMP.	kg	309	319	356	366	515	535	793	823	918	948
	OP.	kg	741	831	1076	1216	1707	2447	3183	4063	5152	6262
NSCE 32-200-75 (P5) (2)	EMP.	kg	326	336	373	383	532	552	810	840	935	965
	OP.	kg	758	848	1093	1233	1724	2464	3200	4080	5169	6279
NSCE 40-160-40 (P3) (2)	EMP.	kg	300	310	347	357	508	528	787	817	912	942
	OP.	kg	738	828	1074	1214	1708	2448	3187	4067	5157	6267
NSCE 40-160-55 (P3) (2)	EMP.	kg	310	320	357	367	518	538	797	827	922	952
	OP.	kg	748	838	1084	1224	1718	2458	3197	4077	5167	6277
NSCE 40-200-92 (P5) (2)	EMP.	kg	336	346	383	393	544	564	823	853	948	978
	OP.	kg	774	864	1110	1250	1744	2484	3223	4103	5193	6303
NSCE 40-200-110 (P5) (2)	EMP.	kg	340	350	387	397	548	568	827	857	952	982
	OP.	kg	778	868	1114	1254	1748	2488	3227	4107	5197	6307
NSCE 40-250-110 (P5) (2)	EMP.	kg	351	361	398	408	559	579	838	868	963	993
	OP.	kg	789	879	1125	1265	1759	2499	3238	4118	5208	6318
NSCE 50-160-75 (P3) (2)	EMP.	kg			380	390	541	561	820	850	945	975
	OP.	kg			1107	1247	1741	2481	3220	4100	5190	6300
NSCE 50-160-92 (P3) (2)	EMP.	kg			386	396	547	567	826	856	951	981
	OP.	kg			1113	1253	1747	2487	3226	4106	5196	6306
NSCE 50-200-150 (P5) (2)	EMP.	kg			429	439	590	610	869	899	994	1024
	OP.	kg			1156	1296	1790	2530	3269	4149	5239	6349
NSCE 50-200-185 (P5) (2)	EMP.	kg			439	449	600	620	879	909	1004	1034
	OP.	kg			1166	1306	1800	2540	3279	4159	5249	6359
NSCE 65-160-92 (P3) (2)	EMP.	kg					564	584	846	876	972	1002
	OP.	kg					1774	2514	3258	4138	5231	6341
NSCE 65-160-150 (P3) (2)	EMP.	kg					606	626	888	918	1014	1044
	OP.	kg					1816	2556	3300	4180	5273	6383
NSCE 65-200-185 (P5) (2)	EMP.	kg					621	641	903	933	1029	1059
	OP.	kg					1831	2571	3315	4195	5288	6398
NSCE 65-200-220 (P5) (2)	EMP.	kg					630	650	912	942	1038	1068
	OP.	kg					1840	2580	3324	4204	5297	6407
NSCS 65-250-300 (P5) (2)	EMP.	kg					748	768	1030	1060	1156	1186
	OP.	kg					1958	2698	3442	4322	5415	6525
NSCE 80-160-150 (P3) (2)	EMP.	kg							912	942	1040	1070
	OP.	kg							3342	4222	5317	6427
NSCE 80-160-220 (P3) (2)	EMP.	kg							931	961	1059	1089
	OP.	kg							3361	4241	5336	6446
NSCS 80-200-300 (P5) (2)	EMP.	kg							1045	1075	1173	1203
	OP.	kg							3475	4355	5450	6560
NSCS 80-250-370 (P5) (2)	EMP.	kg							1075	1105	1203	1233
	OP.	kg							3505	4385	5480	6590
NSCS 100-160-220 (P3) (2)	EMP.	kg									1125	1155
	OP.	kg									5445	6555
NSCS 100-160-300 (P3) (2)	EMP.	kg									1241	1271
	OP.	kg									5561	6671
NSCS 100-200-370 (P5) (2)	EMP.	kg									1255	1285
	OP.	kg									5575	6685
NSCS 100-200-450 (P5) (2)	EMP.	kg									1393	1423
	OP.	kg									5713	6823

The manufacturer reserves the right to modify specifications without notice.

Last update: 11/05/2020
Revision: 00-2020

Data referred to:
(1) The expansion vessel volume is calculated considering 50°C of deltaT between water temperature with chiller stopped and chiller active, 1/2bar of hydraulic circuit pre-charge and considering only the water volume of the hydromodule tank
(2) Weight to be confirmed in case of order
(3) Mechanical seal material: SiC/SiC/EPDM - Casing material: painted cast iron - Impeller material: stainless steel (models 32, 40, 50) / cast iron (models 65, 80, 100)

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HYD

TABLE 3/3

Hydro-Module HYD series, water storage tank in carbon steel, open frame if only tank / closed frame in galvanized and painted steel if with single/double pump, expansion vessel, automatic filling valve, automatic air vent. 3bar maximum operating pressure.
ONLY FOR INBUILT PUMP/S VERSION: 400V/3ph/50Hz electrical feed, IP54 protection rating, chillers suitable for outdoor installation.

Type of available configuration for pumps:
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DP = Double pump P3 (run and standby, with automatic changeover every 24h or on fault) with nominal pressure head 3 barg
PH = Single pump P5 with nominal pressure head 5 barg
DPH = Double pump P5 (run and standby, with automatic changeover every 24h or on fault) with nominal pressure head 5 barg

TECHNICAL DATA

WEIGHT WITH 2 PUMP		Model	400L	475L	650L	800L	1100L	1750L	2250L	3000L	4000L	5000L
PUMP MODEL												
NSCE 32-160-22 (P3) (2)	EMP.	kg	345	355	391	401	555	575	839	869	963	993
	OP.	kg	785	875	1119	1259	1759	2499	3244	4124	5213	6323
NSCE 32-160-30 (P3) (2)	EMP.	kg	351	361	397	407	561	581	845	875	969	999
	OP.	kg	791	881	1125	1265	1765	2505	3250	4130	5219	6329
NSCE 32-200-55 (P5) (2)	EMP.	kg	385	395	431	441	595	615	879	909	1003	1033
	OP.	kg	825	915	1159	1299	1799	2539	3284	4164	5253	6363
NSCE 32-200-75 (P5) (2)	EMP.	kg	419	429	465	475	629	649	913	943	1037	1067
	OP.	kg	859	949	1193	1333	1833	2573	3318	4198	5287	6397
NSCE 40-160-40 (P3) (2)	EMP.	kg	372	382	418	428	585	605	871	901	996	1026
	OP.	kg	823	913	1158	1298	1805	2545	3298	4178	5267	6377
NSCE 40-160-55 (P3) (2)	EMP.	kg	392	402	438	448	605	625	891	921	1016	1046
	OP.	kg	843	933	1178	1318	1825	2565	3318	4198	5287	6397
NSCE 40-200-92 (P5) (2)	EMP.	kg	444	454	490	500	657	677	943	973	1068	1098
	OP.	kg	895	985	1230	1370	1877	2617	3370	4250	5339	6449
NSCE 40-200-110 (P5) (2)	EMP.	kg	452	462	498	508	665	685	951	981	1076	1106
	OP.	kg	903	993	1238	1378	1885	2625	3378	4258	5347	6457
NSCE 40-250-110 (P5) (2)	EMP.	kg	474	484	520	530	687	707	973	1003	1098	1128
	OP.	kg	925	1015	1260	1400	1907	2647	3400	4280	5369	6479
NSCE 50-160-75 (P3) (2)	EMP.	kg			484	494	651	671	937	967	1062	1092
	OP.	kg			1224	1364	1871	2611	3364	4244	5333	6443
NSCE 50-160-92 (P3) (2)	EMP.	kg			496	506	663	683	949	979	1074	1104
	OP.	kg			1236	1376	1883	2623	3376	4256	5345	6455
NSCE 50-200-150 (P5) (2)	EMP.	kg			582	592	749	769	1035	1065	1160	1190
	OP.	kg			1322	1462	1969	2709	3462	4342	5431	6541
NSCE 50-200-185 (P5) (2)	EMP.	kg			602	612	769	789	1055	1085	1180	1210
	OP.	kg			1342	1482	1989	2729	3482	4362	5451	6561
NSCE 65-160-92 (P3) (2)	EMP.	kg					702	722	994	1024	1119	1149
	OP.	kg					1942	2682	3447	4327	5418	6528
NSCE 65-160-150 (P3) (2)	EMP.	kg					786	806	1078	1108	1203	1233
	OP.	kg					2026	2766	3531	4411	5502	6612
NSCE 65-200-185 (P5) (2)	EMP.	kg					816	836	1108	1138	1233	1263
	OP.	kg					2056	2796	3561	4441	5532	6642
NSCE 65-200-220 (P5) (2)	EMP.	kg					834	854	1126	1156	1251	1281
	OP.	kg					2074	2814	3579	4459	5550	6660
NSCS 65-250-300 (P5) (2)	EMP.	kg					1070	1090	1362	1392	1487	1517
	OP.	kg					2310	3050	3815	4695	5786	6896
NSCE 80-160-150 (P3) (2)	EMP.	kg							1134	1164	1260	1290
	OP.	kg							3624	4504	5596	6706
NSCE 80-160-220 (P3) (2)	EMP.	kg							1172	1202	1298	1328
	OP.	kg							3662	4542	5634	6744
NSCS 80-200-300 (P5) (2)	EMP.	kg							1400	1430	1526	1556
	OP.	kg							3890	4770	5862	6972
NSCS 80-250-370 (P5) (2)	EMP.	kg							1460	1490	1586	1616
	OP.	kg							3950	4830	5922	7032
NSCS 100-160-220 (P3) (2)	EMP.	kg									1444	1474
	OP.	kg									5864	6974
NSCS 100-160-300 (P3) (2)	EMP.	kg									1676	1706
	OP.	kg									6096	7206
NSCS 100-200-370 (P5) (2)	EMP.	kg									1704	1734
	OP.	kg									6124	7234
NSCS 100-200-450 (P5) (2)	EMP.	kg									1980	2010
	OP.	kg									6400	7510

Last update: 11/05/2020
Revision: 00-2020

Data referred to:
(1) The expansion vessel volume is calculated considering 50°C of deltaT between water temperature with chiller stopped and chiller active, 1/2bar of hydraulic circuit pre-charge and considering only the water volume of the hydromodule tank
(2) Weight to be confirmed in case of order
(3) Mechanical seal material: SiC/SiC/EPDM - Casing material: painted cast iron - Impeller material: stainless steel (models 32, 40, 50) / cast iron (models 65, 80, 100)

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CHILLER

MULTI SCROLL

R410A / R32 / R454B
Scroll compressors
Plate / Shell & Tube evaporator
No tank & no pump

SBS - SBSF - SBSF-OPT - SBS-MC series
From 94 kW up to 1287,5 kW

Technical Data Tables

SERIES: ENR-ENRF-CSE	DATE: 19.05.2022
CODE: GPLSPC20	UPDATE: GPLSPC19
CHECKED BY	M. Burba

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SBS SERIES

Air-Cooled liquid Chillers
EC axial fans
IP54 protection rating
Suitable for OUTDOOR installation

SERIES: SBS-SBSF	DATE: 29/09/2021
CODE: TTD-SBS-01	UPDATE:-
CHECKED BY	M. Burba

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SBS

TABLE 1/3

Air-cooled liquid chillers SBS series, scroll compressors, R410A / R32 / R454B refrigerant, brazed plate / shell and tube evaporator, condenser coil with copper tubes and aluminium fins, EC axial fans. Electrical feed 400V/3ph/50Hz (60Hz version as option).
IP54 protection rating, chillers suitable for outdoor installation. Additional modules (2 fans) can be added to improve efficiency (before the order).
Inbuilt water storage tank and single pump P3 as option. Microchannel condenser coils as option.

Type of available evaporators:
ST = shell and tube evaporator, with high thickness copper tubes (0,41mm)
B-ES = stainless steel brazed plate evaporator

Type of available expansion elements:
VTS = Thermostatic expansion valve
ETS = Electronic expansion valve (available as option)

TECHNICAL DATA

PERFORMANCES		Model	095	120	145	160	190	240	290	330
NOMINAL COOLING CAPACITY	W 12°C/7°C @ 35°C (1)	kW	98,4	122,6	144,7	161,2	189,0	236,0	288,9	319,9
TOTAL NOMINAL ABSORBED POWER		kW	25,9	34,1	44,3	52,0	51,4	68,0	88,6	103,6
EER		kW/kW	3,80	3,60	3,27	3,10	3,68	3,47	3,26	3,09
SEPR (HT) (3)		-	5,06	5,05	5,05	5,06	5,04	5,06	5,03	5,00
NOMINAL WATER FLOW		m3/h	16,9	21,1	24,9	27,7	32,5	40,5	49,6	55,0
MECHANICAL MODE PRESSURE DROPS (4) (5) (6)		kPa	50	54	55	54	47	40	41	47
FRIGORIFIC SECTION										
COMPRESSORS / REFRIGERATING CIRCUITS / PARTITION STEP		nr.	2/1/2	2/1/2	2/1/2	2/1/2	4/2/4	4/2/4	4/2/4	4/2/4
KIND OF EXPANSION ELEMENT		-	VTS	VTS	VTS	VTS	VTS	VTS	VTS	VTS
KIND OF EVAPORATOR		-	B-ES	B-ES	B-ES	B-ES	ST	ST	ST	ST
HYDRAULIC SECTION										
WATER FLOW RANGE (6)		m3/h	13,0÷23,0	16,0÷23,0	16,0÷42,0	20,0÷42,0	23,0÷42,0	29,0÷53,0	36,0÷66,0	38,0÷70,0
MAXIMUM PUMP ABSORBED POWER (WP OR OPTION DP)	P3 (2)	kW	3,46	4,56	4,56	4,56	8,30	8,30	8,30	8,30
MAXIMUM PUMP ABSORBED CURRENT (WP OR OPTION DP)		A	6,33	7,75	7,75	7,75	14,10	14,10	14,10	14,10
MAXIMUM PUMP ABSORBED POWER (OPTION PH OR DPH)	P5 (2)	kW	6,12	10,20	10,20	10,20	16,22	16,22	16,22	16,22
MAXIMUM PUMP ABSORBED CURRENT (OPTION PH OR DPH)		A	10,40	17,40	17,40	17,40	26,60	26,60	26,60	26,60
HYDRAULIC CONNECTIONS (FLANGED/VICTAULIC) (8)		DN	DN65	DN65	DN80	DN80	DN80	DN80	DN100	DN100
TANK VOLUME (5) (9)		dm^3	150	150	150	150	300	300	300	300
EXPANSION VESSEL NUMBER x VOLUME (OPTION XV) (10)		liters	1x8	1x8	1x8	1x8	1x19	1x19	1x19	1x19
FAN SECTION (AXIAL)										
FANS		nr.	2	2	2	2	4	4	4	4
MAXIMUM FANS ABSORBED POWER	EC	kW	3,68	3,68	3,68	3,68	7,36	7,36	7,36	7,36
MAXIMUM FANS ABSORBED CURRENT		A	7,66	7,66	7,66	7,66	15,32	15,32	15,32	15,32
TOTAL AIR FLOW		m3/h	41200	41200	41200	41200	82400	82400	82400	82400
TOTAL ELECTRIC DATA										
MAXIMUM ABSORBED CURRENT (F.L.A) (6)		A	67,7	80,5	96,9	111,6	135,3	161,1	193,8	223,1
MAXIMUM PEAK CURRENT (L.R.A) (6)		A	211,7	269,1	324,3	362,3	279,3	349,6	421,2	473,8
MAXIMUM PEAK CURRENT WITH SOFT START (OPTION SF) (L.R.A) (6)		A	176,9	224,1	269,9	300,3	244,5	304,6	366,8	411,8
NOISE DATA										
SOUND PRESSURE FOR STANDARD CONFIGURATION (6) (7)		dB(A)	58,2	60,0	61,8	61,8	61,2	63,0	64,8	64,8
SOUND PRESSURE FOR LOW NOISE OPTION (LNJ) (6) (7)		dB(A)	57,4	58,2	59,1	59,1	60,4	61,2	62,1	62,1
SOUND PRESSURE FOR SUPER LOW NOISE OPTION (SLN) (6) (7)		dB(A)	54,8	56,1	57,5	57,5	57,8	59,1	60,6	60,6
SOUND PRESSURE FOR EXTRA LOW NOISE OPTION (ELN) (6) (7)		dB(A)	54,4	55,2	56,1	56,1	57,4	58,2	59,1	59,1
DIMENSIONS AND WEIGHT										
LENGTH		mm	1610	1610	1610	1610	2910	2910	2910	2910
WIDTH		mm	2210	2210	2210	2210	2210	2210	2210	2210
HEIGHT		mm	2500	2500	2500	2500	2500	2500	2500	2500
WEIGHT EMPTY FOR STANDARD CONFIGURATION (5) (6)		kg	1030	1200	1250	1280	1900	2220	2320	2350
WEIGHT OPERATIVE FOR STANDARD CONFIGURATION (5) (6)		kg	1050	1225	1280	1310	1950	2290	2410	2450

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Data referred to:
(1) Data referred to inlet/outlet water temperature = +12/+7 °C, ambient temperature = +35°C, fluid = Water
(2) Available pressure can be calculated from Hitema Online Selection Software
(3) SEPR: data comply with the European Regulation (EU) 2016/2281, referring to high temperature process chillers in the configuration with brazed plate or shell and tube evaporator and without pump. Any added option that modify cooling capacity or absorbed power of the chiller will not be considered in the SEPR value
(4) Pressure drops taken in account: evaporator, piping
(5) Data referred to standard chiller configuration as indicated in frigorific section, with different evaporator this data can change
(6) Data referred to standard chiller configuration NP (no pump) and EC fans
(7) Sound pressure level referred to measures according to normative ISO3744, pressure level at distance of 10 m, referred to free field on reflecting surface
(8) Flanged connections with one of next options: Pump, Double pump, Tank. Flanged connections standard for models 095÷160
(9) To avoid excessive start/stop of the compressors a minimum water volume for the entire plant must be guarantee, the tank supplied by Hitema can be not enough
(10) The expansion vessel volume is calculated considering 50°C of deltaT between water temperature with chiller stopped and chiller active, 1/2bar of hydraulic circuit pre-charge and considering only the water volume of the unit

** pump P5 includes the soft start (SF) option

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SBS

TABLE 2/3

Air-cooled liquid chillers SBS series, scroll compressors, R410A / R32 / R454B refrigerant, brazed plate / shell and tube evaporator, condenser coil with copper tubes and aluminium fins, EC axial fans. Electrical feed 400V/3ph/50Hz (60Hz version as option).
IP54 protection rating, chillers suitable for outdoor installation. Additional modules (2 fans) can be added to improve efficiency (before the order).
Inbuilt water storage tank and single pump P3 as option. Microchannel condenser coils as option.

Type of available evaporators:
ST = shell and tube evaporator, with high thickness copper tubes (0,41mm)
B-ES = stainless steel brazed plate evaporator

Type of available expansion elements:
VTS = Thermostatic expansion valve
ETS = Electronic expansion valve (available as option)

TECHNICAL DATA

PERFORMANCES		Model	330/F6	380	430	470	470/F8	530	570	610
NOMINAL COOLING CAPACITY	W 12°C/7°C @ 35°C (1)	kW	345,5	387,0	433,3	464,8	490,9	527,4	563,0	603,0
TOTAL NOMINAL ABSORBED POWER		kW	97,8	110,6	132,8	147,4	141,8	154,4	168,3	186,5
EER		kW/kW	3,53	3,50	3,26	3,15	3,46	3,42	3,34	3,23
SEPR (HT) (3)		-	5,04	5,03	5,52	5,54	5,52	5,50	5,57	5,54
NOMINAL WATER FLOW		m3/h	59,3	66,5	74,4	79,9	84,3	90,6	96,7	103,6
MECHANICAL MODE PRESSURE DROPS (4) (5) (6)		kPa	55	57	56	60	67	59	52	56
FRIGORIFIC SECTION										
COMPRESSORS / REFRIGERATING CIRCUITS / PARTITION STEP		nr.	4/2/4	4/2/4	6/2/4	6/2/4	6/2/4	6/2/4	6/2/4	6/2/4
KIND OF EXPANSION ELEMENT		-	VTS	VTS	VTS	ETS	ETS	ETS	ETS	ETS
KIND OF EVAPORATOR		-	ST	ST	ST	ST	ST	ST	ST	ST
HYDRAULIC SECTION										
WATER FLOW RANGE (6)		m3/h	38,0÷70,0	47,0÷87,0	60,0÷110,0	62,0÷120,0	62,0÷120,0	79,0÷145,0	79,0÷145,0	81,0÷150,0
MAXIMUM PUMP ABSORBED POWER (WP OR OPTION DP)	P3 (2)	kW	8,30	10,20	10,20	10,20	10,20	16,22	16,22	16,22
MAXIMUM PUMP ABSORBED CURRENT (WP OR OPTION DP)		A	14,10	17,40	17,40	17,40	17,40	26,60	26,60	26,60
MAXIMUM PUMP ABSORBED POWER (OPTION PH OR DPH)	P5 (2)	kW	16,22	24,85	24,85	24,85	24,85	24,85	31,88	31,88
MAXIMUM PUMP ABSORBED CURRENT (OPTION PH OR DPH)		A	26,60	42,40	42,40	42,40	42,40	42,40	53,50	53,50
HYDRAULIC CONNECTIONS (FLANGED/VICTAULIC) (8)		DN	DN100	DN100	DN125	DN125	DN125	DN150	DN150	DN150
TANK VOLUME (5) (9)		dm^3	300	380	380	380	380	500	500	500
EXPANSION VESSEL NUMBER x VOLUME (OPTION XV) (10)		liters	1x19	1x19	1x19	1x19	1x19	2x19	2x19	2x19
FAN SECTION (AXIAL)										
FANS		nr.	6	6	6	6	8	8	8	8
MAXIMUM FANS ABSORBED POWER	EC	kW	11,04	11,04	11,04	11,04	14,72	14,72	14,72	14,72
MAXIMUM FANS ABSORBED CURRENT		A	22,98	22,98	22,98	22,98	30,64	30,64	30,64	30,64
TOTAL AIR FLOW		m3/h	123600	123600	123600	123600	164800	164800	164800	164800
TOTAL ELECTRIC DATA										
MAXIMUM ABSORBED CURRENT (F.L.A) (6)		A	230,8	260,1	290,6	320,0	327,7	357,0	386,4	415,4
MAXIMUM PEAK CURRENT (L.R.A) (6)		A	481,5	510,9	518,0	570,7	578,4	607,7	637,1	749,6
MAXIMUM PEAK CURRENT WITH SOFT START (OPTION SF) (L.R.A) (6)		A	419,5	448,9	463,6	508,7	516,4	545,7	575,1	668,0
NOISE DATA										
SOUND PRESSURE FOR STANDARD CONFIGURATION (6) (7)		dB(A)	65,5	65,5	66,5	66,5	67,0	67,0	67,0	68,2
SOUND PRESSURE FOR LOW NOISE OPTION (LNJ) (6) (7)		dB(A)	63,3	63,3	63,9	63,9	64,7	64,7	64,7	65,4
SOUND PRESSURE FOR SUPER LOW NOISE OPTION (SLN) (6) (7)		dB(A)	61,4	61,4	62,3	62,3	62,9	62,9	62,9	63,9
SOUND PRESSURE FOR EXTRA LOW NOISE OPTION (ELN) (6) (7)		dB(A)	60,3	60,3	60,9	60,9	61,7	61,7	61,7	62,4
DIMENSIONS AND WEIGHT										
LENGTH		mm	4210	4210	4210	4210	5900	5900	5900	5900
WIDTH		mm	2210	2210	2210	2210	2210	2210	2210	2210
HEIGHT		mm	2500	2500	2500	2500	2500	2500	2500	2500
WEIGHT EMPTY FOR STANDARD CONFIGURATION (5) (6)		kg	2740	2850	3270	3320	3900	3950	4050	4100
WEIGHT OPERATIVE FOR STANDARD CONFIGURATION (5) (6)		kg	2840	2950	3400	3460	4000	4070	4180	4250

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Data referred to:
(1) Data referred to inlet/outlet water temperature = +12/+7 °C, ambient temperature = +35°C, fluid = Water
(2) Available pressure can be calculated from Hitema Online Selection Software
(3) SEPR: data comply with the European Regulation (EU) 2016/2281, referring to high temperature process chillers in the configuration with brazed plate or shell and tube evaporator and without pump. Any added option that modify cooling capacity or absorbed power of the chiller will not be considered in the SEPR value
(4) Pressure drops taken in account: evaporator, piping
(5) Data referred to standard chiller configuration as indicated in frigorific section, with different evaporator this data can change
(6) Data referred to standard chiller configuration NP (no pump) and EC fans
(7) Sound pressure level referred to measures according to normative ISO3744, pressure level at distance of 10 m, referred to free field on reflecting surface
(8) Flanged connections with one of next options: Pump, Double pump, Tank. Flanged connections standard for models 095÷160
(9) To avoid excessive start/stop of the compressors a minimum water volume for the entire plant must be guarantee, the tank supplied by Hitema can be not enough
(10) The expansion vessel volume is calculated considering 50°C of deltaT between water temperature with chiller stopped and chiller active, 1/2bar of hydraulic circuit pre-charge and considering only the water volume of the unit

** pump P5 includes the soft start (SF) option

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SBS

TABLE 3/3

Air-cooled liquid chillers SBS series, scroll compressors, R410A / R32 / R454B refrigerant, brazed plate / shell and tube evaporator, condenser coil with copper tubes and aluminium fins, EC axial fans. Electrical feed 400V/3ph/50Hz (60Hz version as option).
IP54 protection rating, chillers suitable for outdoor installation. Additional modules (2 fans) can be added to improve efficiency (before the order).
Inbuilt water storage tank and single pump P3 as option. Microchannel condenser coils as option.

Type of available evaporators:
ST = shell and tube evaporator, with high thickness copper tubes (0,41mm)
B-ES = stainless steel brazed plate evaporator

Type of available expansion elements:
VTS = Thermostatic expansion valve
ETS = Electronic expansion valve (available as option)

TECHNICAL DATA

PERFORMANCES		Model	610/F10	660	660/F10	720	840	930	1030	1230
NOMINAL COOLING CAPACITY	W 12°C/7°C @ 35°C (1)	kW	629,3	645,6	675,8	717,6	842,3	965,6	1021,7	1287,5
TOTAL NOMINAL ABSORBED POWER		kW	181,6	205,1	198,2	214,0	252,2	305,3	333,6	407,0
EER		kW/kW	3,47	3,15	3,41	3,35	3,34	3,16	3,06	3,16
SEPR (HT) (3)		-	5,51	5,56	5,50	5,57	5,57	5,53	5,50	5,57
NOMINAL WATER FLOW		m3/h	108,1	110,9	116,1	123,3	144,7	165,9	175,5	221,2
MECHANICAL MODE PRESSURE DROPS (4) (5) (6)		kPa	61	59	64	73	74	69	72	84
FRIGORIFIC SECTION										
COMPRESSORS / REFRIGERATING CIRCUITS / PARTITION STEP		nr.	6/2/4	6/2/4	6/2/4	6/2/4	9/3/6	9/3/6	9/3/6	12/4/8
KIND OF EXPANSION ELEMENT		-	ETS	ETS	ETS	ETS	ETS	ETS	ETS	ETS
KIND OF EVAPORATOR		-	ST	ST	ST	ST	ST	ST	ST	ST
HYDRAULIC SECTION										
WATER FLOW RANGE (6)		m3/h	81,0÷150,0	81,0÷150,0	81,0÷150,0	86,0÷161,0	102,0÷180,0	108,0÷200,0	115,0÷215,0	142,0÷251,0
MAXIMUM PUMP ABSORBED POWER (WP OR OPTION DP)	P3 (2)	kW	16,22	16,22	16,22	16,22	23,51	23,51	31,88	31,88
MAXIMUM PUMP ABSORBED CURRENT (WP OR OPTION DP)		A	26,60	26,60	26,60	26,60	39,00	39,00	53,50	53,50
MAXIMUM PUMP ABSORBED POWER (OPTION PH OR DPH)	P5 (2)	kW	31,88	31,88	31,88	39,09	39,09	39,09	47.31**	47.31**
MAXIMUM PUMP ABSORBED CURRENT (OPTION PH OR DPH)		A	53,50	53,50	53,50	65,60	65,60	65,60	77,60	77,60
HYDRAULIC CONNECTIONS (FLANGED/VICTAULIC) (8)		DN	DN150	DN150	DN150	DN150	DN150	DN200	DN200	DN200
TANK VOLUME (5) (9)		dm^3	500	500	500	500	500	500	500	700
EXPANSION VESSEL NUMBER x VOLUME (OPTION XV) (10)		liters	2x19	2x19	2x19	2x19	2x19	2x19	2x19	1x60
FAN SECTION (AXIAL)										
FANS		nr.	10	8	10	10	12	12	12	16
MAXIMUM FANS ABSORBED POWER	EC	kW	18,40	14,72	18,40	18,40	22,08	22,08	22,08	29,44
MAXIMUM FANS ABSORBED CURRENT		A	38,30	30,64	38,30	38,30	45,96	45,96	45,96	61,28
TOTAL AIR FLOW		m3/h	206000	164800	206000	206000	247200	247200	247200	329600
TOTAL ELECTRIC DATA										
MAXIMUM ABSORBED CURRENT (F.L.A) (6)		A	423,0	444,4	452,0	481,0	579,6	666,6	710,1	888,8
MAXIMUM PEAK CURRENT (L.R.A) (6)		A	757,3	778,6	786,3	815,3	830,3	1000,8	1044,3	1223,0
MAXIMUM PEAK CURRENT WITH SOFT START (OPTION SF) (L.R.A) (6)		A	675,7	697,0	704,7	733,7	768,3	919,2	962,7	1141,4
NOISE DATA										
SOUND PRESSURE FOR STANDARD CONFIGURATION (6) (7)		dB(A)	68,5	69,1	69,3	70,0	68,8	70,8	71,6	72,1
SOUND PRESSURE FOR LOW NOISE OPTION (LNJ) (6) (7)		dB(A)	66,0	65,9	66,5	66,9	66,5	67,7	68,2	68,9
SOUND PRESSURE FOR SUPER LOW NOISE OPTION (SLN) (6) (7)		dB(A)	64,3	64,6	65,0	65,6	64,7	66,4	NA	NA
SOUND PRESSURE FOR EXTRA LOW NOISE OPTION (ELN) (6) (7)		dB(A)	63,0	62,9	63,5	63,9	63,5	64,7	NA	NA
DIMENSIONS AND WEIGHT										
LENGTH		mm	7200	5900	7200	7200	8890	8890	8890	11490
WIDTH		mm	2210	2210	2210	2210	2210	2210	2210	2210
HEIGHT		mm	2500	2500	2500	2500	2500	2500	2500	2500
WEIGHT EMPTY FOR STANDARD CONFIGURATION (5) (6)		kg	4750	4170	4820	4900	5900	6050	6200	7600
WEIGHT OPERATIVE FOR STANDARD CONFIGURATION (5) (6)		kg	4820	4330	4950	5070	6220	6450	6670	8100

The manufacturer reserves the right to modify specifications without notice.

Last update: 28/07/2021
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Data referred to:
(1) Data referred to inlet/outlet water temperature = +12/+7 °C, ambient temperature = +35°C, fluid = Water
(2) Available pressure can be calculated from Hitema Online Selection Software
(3) SEPR: data comply with the European Regulation (EU) 2016/2281, referring to high temperature process chillers in the configuration with brazed plate or shell and tube evaporator and without pump. Any added option that modify cooling capacity or absorbed power of the chiller will not be considered in the SEPR value
(4) Pressure drops taken in account: evaporator, piping
(5) Data referred to standard chiller configuration as indicated in frigorific section, with different evaporator this data can change
(6) Data referred to standard chiller configuration NP (no pump) and EC fans
(7) Sound pressure level referred to measures according to normative ISO3744, pressure level at distance of 10 m, referred to free field on reflecting surface
(8) Flanged connections with one of next options: Pump, Double pump, Tank. Flanged connections standard for models 095÷160
(9) To avoid excessive start/stop of the compressors a minimum water volume for the entire plant must be guarantee, the tank supplied by Hitema can be not enough
(10) The expansion vessel volume is calculated considering 50°C of deltaT between water temperature with chiller stopped and chiller active, 1/2bar of hydraulic circuit pre-charge and considering only the water volume of the unit

** pump P5 includes the soft start (SF) option

SBSF SERIES

Freecooling liquid chillers
EC axial fans
IP54 protection rating
Suitable for OUTDOOR installation

SERIES: SBS-SBSF	DATE: 29/09/2021
CODE: TTD-SBSF-01	UPDATE: -
CHECKED BY	M. Burba

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SBSF

TABLE 1/3

Air-cooled liquid chillers SBSF series, scroll compressors, R410A / R32 / R454B refrigerant, brazed plate / shell and tube evaporator, condenser and freecooling coil with copper tubes and aluminium fins, EC axial fans. Electrical feed 400V/3ph/50Hz (60Hz version as option). IP54 protection rating, chillers suitable for outdoor installation.
Additional modules (2 fans) can be added to improve efficiency (before the order). Inbuilt water storage tank and single pump P3 as option.

Type of available evaporators:
ST = shell and tube evaporator, with high thickness copper tubes (0,41mm)
B-ES = stainless steel brazed plate evaporator

Type of available expansion elements
VTS = Thermostatic expansion valve
ETS = Electronic expansion valve (available as option)

TECHNICAL DATA

PERFORMANCES		Model	095	120	145	160	190	240	290	330
NOMINAL COOLING CAPACITY	W 12°C/7°C @ 35°C (1)	kW	94,1	115,7	146,5	170,4	180,8	223,1	295,3	327,8
TOTAL NOMINAL ABSORBED POWER		kW	27,5	36,8	41,2	56,8	54,4	72,8	89,8	104,0
EER		kW/kW	3,42	3,15	3,56	3,00	3,33	3,07	3,29	3,15
SEPR (HT) (3)		-	5,07	5,02	5,07	5,04	5,05	5,01	5,03	5,03
AIR TEMPERATURE FOR 100% FREE COOLING CAPACITY		°C	1,30	-0,40	2,80	1,20	1,60	-0,05	1,00	0,10
NOMINAL WATER FLOW		m3/h	16,2	19,9	25,2	29,3	31,1	38,4	50,8	56,4
MECHANICAL MODE PRESSURE DROPS (4) (6) (7)		kPa	59	63	58	56	53	48	60	69
FREE COOLING MODE PRESSURE DROPS (5)		kPa	122	150	107	113	115	135	130	152
FRIGORIFIC SECTION										
COMPRESSORS / REFRIGERATING CIRCUITS / PARTITION STEP		nr.	2/1/2	2/1/2	2/1/2	2/1/2	4/2/4	4/2/4	4/2/4	4/2/4
KIND OF EXPANSION ELEMENT		-	VTS	VTS	VTS	VTS	VTS	VTS	VTS	VTS
KIND OF EVAPORATOR		-	B-ES	B-ES	B-ES	B-ES	ST	ST	ST	ST
HYDRAULIC SECTION										
WATER FLOW RANGE (7)		m3/h	13,0÷23,0	16,0÷23,0	21,0÷36,0	25,0÷45,0	25,0÷45,0	30,0÷55,0	36,0÷66,0	40,0÷73,0
MAXIMUM PUMP ABSORBED POWER (WP OR OPTION DP)	P3 (2)	kW	6,12	6,12	6,12	10,20	10,20	10,20	10,20	16,22
MAXIMUM PUMP ABSORBED CURRENT (WP OR OPTION DP)		A	10,40	10,40	10,40	17,40	17,40	17,40	17,40	26,60
MAXIMUM PUMP ABSORBED POWER (OPTION PH OR DPH)	P5 (2)	kW	8.3*	12.04*	12,04	12,04	19,94	19,94	19,94	19,94
MAXIMUM PUMP ABSORBED CURRENT (OPTION PH OR DPH)		A	14,10	20,20	20,20	20,20	32,70	32,70	32,70	32,70
HYDRAULIC CONNECTIONS (FLANGED)		DN	DN65	DN65	DN80	DN80	DN80	DN80	DN100	DN100
TANK VOLUME (6) (9)		dm^3	150	150	300	300	300	300	380	380
EXPANSION VESSEL NUMBER x VOLUME (OPTION XV) (10)		liters	1x8	1x8	1x19	1x19	1x19	1x19	2x19	2x19
FAN SECTION (AXIAL)										
FANS		nr.	2	2	4	4	4	4	6	6
MAXIMUM FANS ABSORBED POWER	EC	kW	3,68	3,68	7,36	7,36	7,36	7,36	11,04	11,04
MAXIMUM FANS ABSORBED CURRENT		A	7,66	7,66	15,32	15,32	15,32	15,32	22,98	22,98
TOTAL AIR FLOW		m3/h	34000	34000	68000	68000	68000	68000	102000	102000
TOTAL ELECTRIC DATA										
MAXIMUM ABSORBED CURRENT (F.L.A) (7)		A	67,7	80,5	103,1	133,8	135,3	161,1	201,4	230,8
MAXIMUM PEAK CURRENT (L.R.A) (7)		A	211,7	269,1	346,7	384,6	279,3	349,6	428,8	481,5
MAXIMUM PEAK CURRENT WITH SOFT START (OPTION SF) (L.R.A) (7)		A	176,9	224,1	289,2	322,6	244,5	304,6	374,4	419,5
NOISE DATA										
SOUND PRESSURE FOR STANDARD CONFIGURATION (7) (8)		dB(A)	56,1	58,8	60,6	61,8	59,1	61,8	64,4	64,4
SOUND PRESSURE FOR LOW NOISE OPTION (LNJ) (7) (8)		dB(A)	54,8	56,1	58,5	59,1	57,8	59,1	61,4	61,4
SOUND PRESSURE FOR SUPER LOW NOISE OPTION (SLN) (7) (8)		dB(A)	52,5	54,5	56,6	57,6	55,5	57,6	60,1	60,1
SOUND PRESSURE FOR EXTRA LOW NOISE OPTION (ELN) (7) (8)		dB(A)	51,8	53,1	55,5	56,1	54,8	56,1	58,4	58,4
DIMENSIONS AND WEIGHT										
LENGTH		mm	1610	1610	3300	3300	3300	3300	4600	4600
WIDTH		mm	2210	2210	2210	2210	2210	2210	2210	2210
HEIGHT		mm	2500	2500	2500	2500	2500	2500	2500	2500
WEIGHT EMPTY FOR STANDARD CONFIGURATION (6) (7)		kg	1120	1280	1950	1990	1990	2300	3250	3270
WEIGHT OPERATIVE FOR STANDARD CONFIGURATION (6) (7)		kg	1170	1340	2070	2120	2120	2440	3550	3590

The manufacturer reserves the right to modify specifications without notice.

Last update: 28/07/2021
Revision: 03-2021

Data referred to:
(1) Data referred to inlet/outlet water temperature = +12/+7 °C, ambient temperature = +35°C, fluid = Water
(2) Available pressure can be calculated from Hitema Online Selection Software
(3) SEPR: data comply with the European Regulation (EU) 2016/2281, referring to high temperature process chillers in the configuration with brazed plate or shell and tube evaporator and without pump. Any added option that modify cooling capacity or absorbed power of the chiller will not be considered in the SEPR value
(4) Pressure drops taken in account: evaporator, valves, piping
(5) Pressure drops taken in account: evaporator, valves, piping, free-cooling coil
(6) Data referred to standard chiller configuration as indicated in frigorific section, with different evaporator this data can change
(7) Data referred to standard chiller configuration NP (no pump) and EC fans
(8) Sound pressure level referred to measures according to normative ISO3744, pressure level at distance of 10 m, referred to free field on reflecting surface
(9) To avoid excessive start/stop of the compressors a minimum water volume for the entire plant must be guarantee, the tank supplied by Hitema can be not enough
(10) The expansion vessel volume is calculated considering 50°C of deltaT between water temperature with chiller stopped and chiller active, 1/2bar of hydraulic circuit pre-charge and considering only the water volume of the unit

* Pump P5 is not available with Tank (T) option
** Pump P5 includes the soft start (SF) option
*** 45 feet container needed for shipment

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SBSF

TABLE 2/3

Air-cooled liquid chillers SBSF series, scroll compressors, R410A / R32 / R454B refrigerant, brazed plate / shell and tube evaporator, condenser and freecooling coil with copper tubes and aluminium fins, EC axial fans. Electrical feed 400V/3ph/50Hz (60Hz version as option). IP54 protection rating, chillers suitable for outdoor installation.
Additional modules (2 fans) can be added to improve efficiency (before the order). Inbuilt water storage tank and single pump P3 as option.

Type of available evaporators:
ST = shell and tube evaporator, with high thickness copper tubes (0,41mm)
B-ES = stainless steel brazed plate evaporator

Type of available expansion elements
VTS = Thermostatic expansion valve
ETS = Electronic expansion valve (available as option)

TECHNICAL DATA

PERFORMANCES		Model	380	430	470	470/F10	530	570	570/F12	610
NOMINAL COOLING CAPACITY	W 12°C/7°C @ 35°C (1)	kW	387,8	432,6	465,5	483,7	521,4	553,4	577,5	592,3
TOTAL NOMINAL ABSORBED POWER		kW	114,7	136,5	151,7	147,3	161,4	175,6	172,9	194,4
EER		kW/kW	3,38	3,17	3,07	3,28	3,23	3,15	3,34	3,05
SEPR (HT) (3)		-	5,04	5,50	5,53	5,50	5,50	5,53	5,50	5,55
AIR TEMPERATURE FOR 100% FREE COOLING CAPACITY		°C	1,10	0,20	-0,40	1,00	0,50	0,00	1,10	-0,60
NOMINAL WATER FLOW		m3/h	66,7	74,4	80,1	83,2	89,7	95,2	99,3	101,9
MECHANICAL MODE PRESSURE DROPS (4) (6) (7)		kPa	72	72	77	83	78	70	77	76
FREE COOLING MODE PRESSURE DROPS (5)		kPa	136	148	162	175	156	156	170	160
FRIGORIFIC SECTION										
COMPRESSORS / REFRIGERATING CIRCUITS / PARTITION STEP		nr.	4/2/4	6/2/4	6/2/4	6/2/4	6/2/4	6/2/4	6/2/4	6/2/4
KIND OF EXPANSION ELEMENT		-	VTS	VTS	ETS	ETS	ETS	ETS	ETS	ETS
KIND OF EVAPORATOR		-	ST	ST	ST	ST	ST	ST	ST	ST
HYDRAULIC SECTION										
WATER FLOW RANGE (7)		m3/h	47,0÷87,0	58,0÷107,0	62,0÷115,0	62,0÷115,0	78,0÷142,0	78,0÷142,0	78,0÷142,0	84,0÷143,0
MAXIMUM PUMP ABSORBED POWER (WP OR OPTION DP)	P3 (2)	kW	16,22	16,22	16,22	16,22	24,85	24,85	24,85	24,85
MAXIMUM PUMP ABSORBED CURRENT (WP OR OPTION DP)	P3 (2)	A	26,60	26,60	26,60	26,60	42,20	42,20	42,20	42,20
MAXIMUM PUMP ABSORBED POWER (OPTION PH OR DPH)	P5 (2)	kW	31,88	31,88	31,88	31,88	39,09	39,09	39,09	39,09
MAXIMUM PUMP ABSORBED CURRENT (OPTION PH OR DPH)	P5 (2)	A	53,50	53,50	53,50	53,50	65,60	65,60	65,60	65,60
HYDRAULIC CONNECTIONS (FLANGED)		DN	DN100	DN125	DN125	DN125	DN150	DN150	DN150	DN150
TANK VOLUME (6) (9)		dm^3	500	500	500	500	500	500	500	500
EXPANSION VESSEL NUMBER x VOLUME (OPTION XV) (10)		liters	2x19	2x19	2x19	2x19	2x19	2x19	2x19	2x19
FAN SECTION (AXIAL)										
FANS		nr.	8	8	8	10	10	10	12	10
MAXIMUM FANS ABSORBED POWER	EC	kW	14,72	14,72	14,72	18,40	18,40	18,40	22,08	18,40
MAXIMUM FANS ABSORBED CURRENT	EC	A	30,64	30,64	30,64	38,30	38,30	38,30	45,96	38,30
TOTAL AIR FLOW	EC	m3/h	136000	136000	136000	170000	170000	170000	204000	170000
TOTAL ELECTRIC DATA										
MAXIMUM ABSORBED CURRENT (F.L.A) (7)		A	267,8	298,3	327,7	335,3	364,7	394,0	401,7	423,0
MAXIMUM PEAK CURRENT (L.R.A) (7)		A	518,5	525,7	578,4	586,0	615,4	644,8	652,4	757,3
MAXIMUM PEAK CURRENT WITH SOFT START (OPTION SF) (L.R.A) (7)		A	456,5	471,3	516,4	524,0	553,4	582,8	590,4	675,7
NOISE DATA										
SOUND PRESSURE FOR STANDARD CONFIGURATION (7) (8)		dB(A)	64,8	66,0	66,0	66,3	66,3	66,3	66,5	67,6
SOUND PRESSURE FOR LOW NOISE OPTION (LNJ) (7) (8)		dB(A)	62,2	62,9	62,9	63,4	63,4	63,4	63,9	64,3
SOUND PRESSURE FOR SUPER LOW NOISE OPTION (SLN) (7) (8)		dB(A)	60,6	61,6	61,6	62,0	62,0	62,0	62,3	63,1
SOUND PRESSURE FOR EXTRA LOW NOISE OPTION (ELN) (7) (8)		dB(A)	59,2	59,9	59,9	60,4	60,4	60,4	60,9	61,3
DIMENSIONS AND WEIGHT										
LENGTH		mm	5900	5900	5900	7200	7200	7200	8500	7200
WIDTH		mm	2210	2210	2210	2210	2210	2210	2210	2210
HEIGHT		mm	2500	2500	2500	2500	2500	2500	2500	2500
WEIGHT EMPTY FOR STANDARD CONFIGURATION (6) (7)		kg	3730	4020	4100	4830	4830	4930	5600	5000
WEIGHT OPERATIVE FOR STANDARD CONFIGURATION (6) (7)		kg	4000	4300	4400	4970	4970	5100	5930	5200

The manufacturer reserves the right to modify specifications without notice.

Last update: 28/07/2021
Revision: 03-2021

Data referred to:
(1) Data referred to inlet/outlet water temperature = +12/+7 °C, ambient temperature = +35°C, fluid = Water
(2) Available pressure can be calculated from Hitema Online Selection Software
(3) SEPR: data comply with the European Regulation (EU) 2016/2281, referring to high temperature process chillers in the configuration with brazed plate or shell and tube evaporator and without pump. Any added option that modify cooling capacity or absorbed power of the chiller will not be considered in the SEPR value
(4) Pressure drops taken in account: evaporator, valves, piping
(5) Pressure drops taken in account: evaporator, valves, piping, free-cooling coil
(6) Data referred to standard chiller configuration as indicated in frigorific section, with different evaporator this data can change
(7) Data referred to standard chiller configuration NP (no pump) and EC fans
(8) Sound pressure level referred to measures according to normative ISO3744, pressure level at distance of 10 m, referred to free field on reflecting surface
(9) To avoid excessive start/stop of the compressors a minimum water volume for the entire plant must be guarantee, the tank supplied by Hitema can be not enough
(10) The expansion vessel volume is calculated considering 50°C of deltaT between water temperature with chiller stopped and chiller active, 1/2bar of hydraulic circuit pre-charge and considering only the water volume of the unit

* Pump P5 is not available with Tank (T) option
** Pump P5 includes the soft start (SF) option
*** 45 feet container needed for shipment

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SBSF

TABLE 3/3

Air-cooled liquid chillers SBSF series, scroll compressors, R410A / R32 / R454B refrigerant, brazed plate / shell and tube evaporator, condenser and freecooling coil with copper tubes and aluminium fins, EC axial fans. Electrical feed 400V/3ph/50Hz (60Hz version as option). IP54 protection rating, chillers suitable for outdoor installation.
Additional modules (2 fans) can be added to improve efficiency (before the order). Inbuilt water storage tank and single pump P3 as option.

Type of available evaporators:
ST = shell and tube evaporator, with high thickness copper tubes (0,41mm)
B-ES = stainless steel brazed plate evaporator

Type of available expansion elements
VTS = Thermostatic expansion valve
ETS = Electronic expansion valve (available as option)

TECHNICAL DATA

PERFORMANCES		Model	610/F12	660	660/F14	720	720/F14	840	930	1030
NOMINAL COOLING CAPACITY	W 12°C/7°C @ 35°C (1)	kW	616,1	661,7	682,5	700,4	720,4	856,4	957,7	1018,3
TOTAL NOMINAL ABSORBED POWER		kW	189,6	206,3	203,3	224,9	219,7	261,0	310,2	337,5
EER		kW/kW	3,25	3,21	3,36	3,11	3,28	3,28	3,09	3,02
SEPR (HT) (3)		-	5,53	5,50	5,51	5,56	5,55	5,56	5,53	5,56
AIR TEMPERATURE FOR 100% FREE COOLING CAPACITY		°C	0,60	0,05	1,00	-0,45	0,50	0,90	-0,48	-0,60
NOMINAL WATER FLOW		m3/h	106,0	113,8	117,4	120,5	123,9	147,0	164,7	175,1
MECHANICAL MODE PRESSURE DROPS (4) (6) (7)		kPa	82	86	92	91	96	81	90	94
FREE COOLING MODE PRESSURE DROPS (5)		kPa	173	164	175	176	186	167	172	178
FRIGORIFIC SECTION										
COMPRESSORS / REFRIGERATING CIRCUITS / PARTITION STEP		nr.	6/2/4	6/2/4	6/2/4	6/2/4	6/2/4	9/3/6	9/3/6	9/3/6
KIND OF EXPANSION ELEMENT		-	ETS	ETS	ETS	ETS	ETS	ETS	ETS	ETS
KIND OF EVAPORATOR		-	ST	ST	ST	ST	ST	ST	ST	ST
HYDRAULIC SECTION										
WATER FLOW RANGE (7)		m3/h	84,0÷143,0	84,0÷148,0	84,0÷148,0	84,0÷157,0	84,0÷157,0	98,0÷183,0	113,0÷210,0	141,0÷230,0
MAXIMUM PUMP ABSORBED POWER (WP OR OPTION DP)	P3 (2)	kW	24,85	24,85	24,85	31,88	31,88	31,88	31,88	31,88
MAXIMUM PUMP ABSORBED CURRENT (WP OR OPTION DP)	P3 (2)	A	42,20	42,20	42,20	53,50	53,50	53,50	53,50	53,50
MAXIMUM PUMP ABSORBED POWER (OPTION PH OR DPH)	P5 (2)	kW	39,09	39,09	39,09	57.65*	57.65*	57.65**	57.65**	57.65**
MAXIMUM PUMP ABSORBED CURRENT (OPTION PH OR DPH)	P5 (2)	A	65,60	65,60	65,60	93,50	93,50	93,50	93,50	93,50
HYDRAULIC CONNECTIONS (FLANGED)		DN	DN150	DN150	DN150	DN150	DN150	DN150	DN200	DN200
TANK VOLUME (6) (9)		dm^3	500	500	500	500	500	700	700	700
EXPANSION VESSEL NUMBER x VOLUME (OPTION XV) (10)		liters	2x19	2x19	2x19	2x19	2x19	1x60	1x60	1x60
FAN SECTION (AXIAL)										
FANS		nr.	12	12	14	12	14	18	18	18
MAXIMUM FANS ABSORBED POWER	EC	kW	22,08	22,08	25,76	22,08	25,76	33,12	33,12	33,12
MAXIMUM FANS ABSORBED CURRENT	EC	A	45,96	45,96	53,62	45,96	53,62	68,94	68,94	68,94
TOTAL AIR FLOW	EC	m3/h	204000	204000	238000	204000	238000	306000	306000	306000
TOTAL ELECTRIC DATA										
MAXIMUM ABSORBED CURRENT (F.L.A) (7)		A	430,7	459,7	467,4	488,7	496,4	602,2	689,4	733,1
MAXIMUM PEAK CURRENT (L.R.A) (7)		A	764,9	793,9	801,6	822,9	830,6	852,9	1023,6	1067,3
MAXIMUM PEAK CURRENT WITH SOFT START (OPTION SF) (L.R.A) (7)		A	683,3	712,3	720,0	741,3	749,0	790,9	942,0	985,7
NOISE DATA										
SOUND PRESSURE FOR STANDARD CONFIGURATION (7) (8)		dB(A)	67,8	68,8	68,9	69,6	69,7	71,3	71,3	71,3
SOUND PRESSURE FOR LOW NOISE OPTION (LNJ) (7) (8)		dB(A)	64,7	65,3	65,6	65,9	66,2	67,7	67,7	67,7
SOUND PRESSURE FOR SUPER LOW NOISE OPTION (SLN) (7) (8)		dB(A)	63,4	64,3	64,5	65,0	65,1	na	na	na
SOUND PRESSURE FOR EXTRA LOW NOISE OPTION (ELN) (7) (8)		dB(A)	61,7	62,3	62,6	62,9	63,2	na	na	na
DIMENSIONS AND WEIGHT										
LENGTH		mm	8500	8500	9800	8500	9800	12790***	12790***	12790***
WIDTH		mm	2210	2210	2210	2210	2210	2210	2210	2210
HEIGHT		mm	2500	2500	2500	2500	2500	2500	2500	2500
WEIGHT EMPTY FOR STANDARD CONFIGURATION (6) (7)		kg	5600	5600	6700	5700	6700	8250	8250	8250
WEIGHT OPERATIVE FOR STANDARD CONFIGURATION (6) (7)		kg	5930	5930	7230	6050	7230	8900	8900	8900

The manufacturer reserves the right to modify specifications without notice.

Last update: 28/07/2021
Revision: 03-2021

Data referred to:
(1) Data referred to inlet/outlet water temperature = +12/+7 °C, ambient temperature = +35°C, fluid = Water
(2) Available pressure can be calculated from Hitema Online Selection Software
(3) SEPR: data comply with the European Regulation (EU) 2016/2281, referring to high temperature process chillers in the configuration with brazed plate or shell and tube evaporator and without pump. Any added option that modify cooling capacity or absorbed power of the chiller will not be considered in the SEPR value
(4) Pressure drops taken in account: evaporator, valves, piping
(5) Pressure drops taken in account: evaporator, valves, piping, free-cooling coil
(6) Data referred to standard chiller configuration as indicated in frigorific section, with different evaporator this data can change
(7) Data referred to standard chiller configuration NP (no pump) and EC fans
(8) Sound pressure level referred to measures according to normative ISO3744, pressure level at distance of 10 m, referred to free field on reflecting surface
(9) To avoid excessive start/stop of the compressors a minimum water volume for the entire plant must be guarantee, the tank supplied by Hitema can be not enough
(10) The expansion vessel volume is calculated considering 50°C of deltaT between water temperature with chiller stopped and chiller active, 1/2bar of hydraulic circuit pre-charge and considering only the water volume of the unit

* Pump P5 is not available with Tank (T) option
** Pump P5 includes the soft start (SF) option
*** 45 feet container needed for shipment

SBSF-OPT SERIES

Optimized freecooling liquid chillers
EC axial fans
IP54 protection rating
Suitable for OUTDOOR installation

SERIES: SBS-SBSF	DATE: 29/09/2021
CODE: TTD-SBSF-OPT-01	UPDATE: -
CHECKED BY	M. Burba

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SBSF-OPT

TABLE 1/2

Air-cooled liquid chillers SBSF-OPT series, scroll compressors, R410A / R32 / R454B refrigerant, brazed plate / shell and tube evaporator, condenser coil with copper tubes and aluminium fins, integrated and optimized free-coolecing coils, EC axial fans. Electrical feed 400V/3ph/50Hz (60Hz version as option). IP54 protection rating, chillers suitable for outdoor installation.
Additional modules (2 fans) can be added to improve efficiency (before the order). Inbuilt water storage tank and single pump P3 as option.

Type of available evaporators:
ST = shell and tube evaporator, with high thickness copper tubes (0,41mm)
B-ES = stainless steel brazed plate evaporator

Type of available expansion elements
VTS = Thermostatic expansion valve
ETS = Electronic expansion valve (available as option)

TECHNICAL DATA

PERFORMANCES		Model	095	120	145	160	190	240	290	330
NOMINAL COOLING CAPACITY	W 12°C/7°C @ 35°C (1)	kW	99,8	124,4	148,6	179,0	186,4	230,9	297,3	331,8
TOTAL NOMINAL ABSORBED POWER		kW	29,2	36,9	42,9	50,6	56,5	74,2	93,7	108,3
EER		kW/kW	3,42	3,38	3,46	3,53	3,30	3,11	3,17	3,06
SEPR (HT) (3)		-	5,02	5,04	5,02	5,03	5,06	5,06	5,05	5,05
AIR TEMPERATURE FOR 100% FREE COOLING CAPACITY		°C	**3,85**	**2,73**	**4,60**	**3,90**	**2,74**	**3,60**	**3,80**	**3,20**
NOMINAL WATER FLOW		m3/h	17,2	21,4	25,6	30,8	32,1	39,7	51,1	57,1
MECHANICAL MODE PRESSURE DROPS (4) (6) (7)		kPa	72	70	65	63	60	55	68	76
FREE COOLING MODE PRESSURE DROPS (5)		kPa	149	165	122	128	129	149	145	167
FRIGORIFIC SECTION										
COMPRESSORS / REFRIGERATING CIRCUITS / PARTITION STEP		nr.	2/1/2	2/1/2	4/2/4	4/2/4	4/2/4	4/2/4	4/2/4	4/2/4
KIND OF EXPANSION ELEMENT		-	VTS	VTS	VTS	VTS	VTS	VTS	VTS	VTS
KIND OF EVAPORATOR		-	B-ES	B-ES	ST	ST	ST	ST	ST	ST
HYDRAULIC SECTION										
WATER FLOW RANGE (7)		m3/h	13,0÷23,0	16,0÷23,0	21,0÷36,0	25,0÷45,0	25,0÷45,0	30,0÷55,0	36,0÷66,0	40,0÷73,0
MAXIMUM PUMP ABSORBED POWER (WP OR OPTION DP)	P3 (2)	kW	6,12	6,12	6,12	10,20	10,20	10,20	10,20	16,22
MAXIMUM PUMP ABSORBED CURRENT (WP OR OPTION DP)		A	10,40	10,40	10,40	17,40	17,40	17,40	17,40	26,60
MAXIMUM PUMP ABSORBED POWER (OPTION PH OR DPH)	P5 (2)	kW	8,30	12,03	12,03	12,03	19,94	19,94	19,94	19,94
MAXIMUM PUMP ABSORBED CURRENT (OPTION PH OR DPH)		A	14,10	20,20	20,20	20,20	32,70	32,70	32,70	32,70
HYDRAULIC CONNECTIONS (FLANGED)		DN	DN65	DN65	DN80	DN80	DN80	DN80	DN100	DN100
TANK VOLUME (6) (9)		dm^3	150	150	300	300	300	300	380	380
EXPANSION VESSEL NUMBER x VOLUME (OPTION XV) (10)		liters	1x12	1x12	1x19	1x19	1x19	1x19	2x19	2x19
FAN SECTION (AXIAL)										
FANS		nr.	4	4	6	6	6	6	8	8
MAXIMUM FANS ABSORBED POWER	EC	kW	7,36	7,36	11,04	11,04	11,04	11,04	14,72	14,72
MAXIMUM FANS ABSORBED CURRENT		A	15,32	15,32	22,98	22,98	22,98	22,98	30,64	30,64
TOTAL AIR FLOW		m3/h	68000	68000	102000	102000	102000	102000	136000	136000
TOTAL ELECTRIC DATA										
MAXIMUM ABSORBED CURRENT (F.L.A) (7)		A	75,3	88,2	110,4	83,0	143,0	168,7	209,1	238,4
MAXIMUM PEAK CURRENT (L.R.A) (7)		A	219,3	276,8	225,9	227,0	287,0	357,3	436,5	489,2
MAXIMUM PEAK CURRENT WITH SOFT START (OPTION SF) (L.R.A) (7)		A	184,5	231,8	197,9	192,2	252,2	312,3	382,1	427,2
NOISE DATA										
SOUND PRESSURE FOR STANDARD CONFIGURATION (7) (8)		dB(A)	58,2	60,0	59,8	59,6	60,3	62,5	64,8	64,8
SOUND PRESSURE FOR LOW NOISE OPTION (LNJ) (7) (8)		dB(A)	57,4	58,2	59,1	59,1	59,3	60,3	62,2	62,2
SOUND PRESSURE FOR SUPER LOW NOISE OPTION (SLN) (7) (8)		dB(A)	57,2	57,7	59,0	58,9	59,1	59,6	61,2	61,2
SOUND PRESSURE FOR EXTRA LOW NOISE OPTION (ELN) (7) (8)		dB(A)	52,7	53,8	54,3	54,2	54,6	56,0	58,0	58,0
DIMENSIONS AND WEIGHT										
LENGTH		mm	3300	3300	4600	4600	4600	4600	5900	5900
WIDTH		mm	2210	2210	2210	2210	2210	2210	2210	2210
HEIGHT		mm	2500	2500	2500	2500	2500	2500	2500	2500
WEIGHT EMPTY FOR STANDARD CONFIGURATION (6) (7)		kg	1670	1830	2690	2810	2810	3230	3490	3540
WEIGHT OPERATIVE FOR STANDARD CONFIGURATION (6) (7)		kg	1776	1946	2940	2960	2960	3400	3726	3786

Last update: 28/07/2021
Revision: 03-2021

Data referred to:
(1) Data referred to inlet/outlet water temperature = +12/+7 °C, ambient temperature = +35°C, fluid = Water
(2) Available pressure can be calculated from Hitema Online Selection Software
(3) SEPR: data comply with the European Regulation (EU) 2016/2281, referring to high temperature process chillers in the configuration with brazed plate or shell and tube evaporator and without pump. Any added option that modify cooling capacity or absorbed power of the chiller will not be considered in the SEPR value
(4) Pressure drops taken in account: evaporator, valves, piping
(5) Pressure drops taken in account: evaporator, valves, piping, free-cooling coil
(6) Data referred to standard chiller configuration as indicated in frigorific section, with different evaporator this data can change
(7) Data referred to standard chiller configuration NP (no pump) and EC fans
(8) Sound pressure level referred to measures according to normative ISO3744, pressure level at distance of 10 m, referred to free field on reflecting surface
(9) To avoid excessive start/stop of the compressors a minimum water volume for the entire plant must be guarantee, the tank supplied by Hitema can be not enough
(10) The expansion vessel volume is calculated considering 50°C of deltaT between water temperature with chiller stopped and chiller active, 1/2bar of hydraulic circuit pre-charge and considering only the water volume of the unit

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SBSF-OPT

TABLE 2/2

Air-cooled liquid chillers SBSF-OPT series, scroll compressors, R410A / R32 / R454B refrigerant, brazed plate / shell and tube evaporator, condenser coil with copper tubes and aluminium fins, integrated and optimized free-coolecing coils, EC axial fans. Electrical feed 400V/3ph/50Hz (60Hz version as option). IP54 protection rating, chillers suitable for outdoor installation.
Additional modules (2 fans) can be added to improve efficiency (before the order). Inbuilt water storage tank and single pump P3 as option.

Type of available evaporators:
ST = shell and tube evaporator, with high thickness copper tubes (0,41mm)
B-ES = stainless steel brazed plate evaporator

Type of available expansion elements
VTS = Thermostatic expansion valve
ETS = Electronic expansion valve (available as option)

TECHNICAL DATA

PERFORMANCES		Model	380	430	470	530	570	610	660	720
NOMINAL COOLING CAPACITY	W 12°C/7°C @ 35°C (1)	kW	386,5	430,3	464,1	514,9	545,0	606,2	667,6	706,8
TOTAL NOMINAL ABSORBED POWER		kW	121,2	143,1	159,2	170,5	186,6	200,0	216,5	232,1
EER		kW/kW	3,19	3,01	2,91	3,02	2,92	3,03	3,08	3,05
SEPR (HT) (3)		-	5,01	5,57	5,50	5,53	5,53	5,56	5,50	5,52
AIR TEMPERATURE FOR 100% FREE COOLING CAPACITY		°C	**3,60**	**3,00**	**2,50**	**3,00**	**2,60**	**3,00**	**3,20**	**2,80**
NOMINAL WATER FLOW		m3/h	66,5	74,0	79,8	88,6	93,7	104,3	114,8	121,6
MECHANICAL MODE PRESSURE DROPS (4) (6) (7)		kPa	79	79	84	86	78	83	94	98
FREE COOLING MODE PRESSURE DROPS (5)		kPa	150	163	177	171	170	174	179	191
FRIGORIFIC SECTION										
COMPRESSORS / REFRIGERATING CIRCUITS / PARTITION STEP		nr.	4/2/4	6/2/4	6/2/4	6/2/4	6/2/4	6/2/4	6/2/4	6/2/4
KIND OF EXPANSION ELEMENT		-	VTS	VTS	ETS	ETS	ETS	ETS	ETS	ETS
KIND OF EVAPORATOR		-	ST	ST	ST	ST	ST	ST	ST	ST
HYDRAULIC SECTION										
WATER FLOW RANGE (7)		m3/h	47,0÷87,0	58,0÷107,0	62,0÷115,0	78,0÷142,0	78,0÷142,0	84,0÷143,0	84,0÷148,0	84,0÷157,0
MAXIMUM PUMP ABSORBED POWER (WP OR OPTION DP)	P3 (2)	kW	16,22	16,22	16,22	16,22	16,22	19,94	19,94	31,88
MAXIMUM PUMP ABSORBED CURRENT (WP OR OPTION DP)		A	26,60	26,60	26,60	26,60	26,60	32,70	32,70	53,50
MAXIMUM PUMP ABSORBED POWER (OPTION PH OR DPH)	P5 (2)	kW	31,88	31,88	31,88	39,09	39,09	39,09	39,09	57,65
MAXIMUM PUMP ABSORBED CURRENT (OPTION PH OR DPH)		A	53,50	53,50	53,50	65,60	65,60	65,60	65,60	93,50
HYDRAULIC CONNECTIONS (FLANGED)		DN	DN100	DN125	DN125	DN150	DN150	DN150	DN150	DN150
TANK VOLUME (6) (9)		dm^3	500	500	500	500	500	500	700	700
EXPANSION VESSEL NUMBER x VOLUME (OPTION XV) (10)		liters	2x19	2x19	2x19	2x19	2x19	2x19	1x60	1x60
FAN SECTION (AXIAL)										
FANS		nr.	10	10	10	12	12	14	16	16
MAXIMUM FANS ABSORBED POWER	EC	kW	18,40	18,40	18,40	22,08	22,08	25,76	29,44	29,44
MAXIMUM FANS ABSORBED CURRENT		A	38,30	38,30	38,30	45,96	45,96	53,62	61,28	61,28
TOTAL AIR FLOW		m3/h	170000	170000	170000	204000	204000	238000	272000	272000
TOTAL ELECTRIC DATA										
MAXIMUM ABSORBED CURRENT (F.L.A) (7)		A	275,5	306,0	335,3	372,3	401,7	438,4	475,0	504,0
MAXIMUM PEAK CURRENT (L.R.A) (7)		A	526,2	533,4	586,0	623,1	652,4	772,6	809,2	838,2
MAXIMUM PEAK CURRENT WITH SOFT START (OPTION SF) (L.R.A) (7)		A	464,2	479,0	524,0	561,1	590,4	691,0	727,6	756,6
NOISE DATA										
SOUND PRESSURE FOR STANDARD CONFIGURATION (7) (8)		dB(A)	65,1	66,3	66,3	66,5	66,5	68,0	69,1	69,8
SOUND PRESSURE FOR LOW NOISE OPTION (LNJ) (7) (8)		dB(A)	62,8	63,4	63,4	63,9	63,9	65,0	65,9	66,4
SOUND PRESSURE FOR SUPER LOW NOISE OPTION (SLN) (7) (8)		dB(A)	62,0	62,4	62,4	63,0	63,0	63,9	64,7	65,1
SOUND PRESSURE FOR EXTRA LOW NOISE OPTION (ELN) (7) (8)		dB(A)	58,5	59,4	59,4	59,8	59,8	61,1	62,0	62,6
DIMENSIONS AND WEIGHT										
LENGTH		mm	7200	7200	7200	8500	8500	9800	11100	11100
WIDTH		mm	2210	2210	2210	2210	2210	2210	2210	2210
HEIGHT		mm	2500	2500	2500	2500	2500	2500	2500	2500
WEIGHT EMPTY FOR STANDARD CONFIGURATION (6) (7)		kg	4320	4610	4690	5420	5520	6180	6780	6880
WEIGHT OPERATIVE FOR STANDARD CONFIGURATION (6) (7)		kg	4646	4946	5046	5616	5746	6492	7222	7342

Last update: 28/07/2021
Revision: 03-2021

Data referred to:
(1) Data referred to inlet/outlet water temperature = +12/+7 °C, ambient temperature = +35°C, fluid = Water
(2) Available pressure can be calculated from Hitema Online Selection Software
(3) SEPR: data comply with the European Regulation (EU) 2016/2281, referring to high temperature process chillers in the configuration with brazed plate or shell and tube evaporator and without pump. Any added option that modify cooling capacity or absorbed power of the chiller will not be considered in the SEPR value
(4) Pressure drops taken in account: evaporator, valves, piping
(5) Pressure drops taken in account: evaporator, valves, piping, free-cooling coil
(6) Data referred to standard chiller configuration as indicated in frigorific section, with different evaporator this data can change
(7) Data referred to standard chiller configuration NP (no pump) and EC fans
(8) Sound pressure level referred to measures according to normative ISO3744, pressure level at distance of 10 m, referred to free field on reflecting surface
(9) To avoid excessive start/stop of the compressors a minimum water volume for the entire plant must be guarantee, the tank supplied by Hitema can be not enough
(10) The expansion vessel volume is calculated considering 50°C of deltaT between water temperature with chiller stopped and chiller active, 1/2bar of hydraulic circuit pre-charge and considering only the water volume of the unit

SBS-MC SERIES

Modular aircooled liquid chillers
Microchannel condenser coil
EC axial fans
IP54 protection rating
Suitable for OUTDOOR installation

SERIES: SBS-SBSFF	DATE: 290/9/02021	
CODE: TTD-SBS-MC-01	UPDATE: -	
CHECKED BY		M. Burba

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SBS-MC

TABLE 1/1

Modular air-cooled liquid chillers SBS-MC series, scroll compressors, 2 refrigrant circuits with one brazed plate evaporator per circuit and aluminum microchannel condenser coils to minimize the refrigerant charge (R410A / R32 / R454B), thermostatic expansion valve.
EC axial fans. IP54 protection rating, chillers suitable for outdoor installation.
Electrical feed 400V/3ph/50Hz (60Hz version as option).
You can connect up to 8 modules in parallel with a single power supply point into a master control pannel installed onboard of the first module.

Type of available evaporators:
B-ES = stainless steel brazed plate evaporator

Type of available expansion elements:
VTS = Thermostatic expansion valve
ETS = Electronic expansion valve (available as option)

TECHNICAL DATA

PERFORMANCES		Model	095	120	145	160
NOMINAL COOLING CAPACITY	W 12°C/7°C @ 35°C (1)	kW	95,5	119,4	143,7	179,9
TOTAL NOMINAL ABSORBED POWER		kW	22,0	29,0	39,1	57,5
EER		kW/kW	4,34	4,12	3,68	3,13
SEPR (HT) (2)		-	6,32	5,68	5,43	5,26
NOMINAL WATER FLOW		m3/h	16,4	20,5	24,7	30,9
SINGLE MODULE PRESSURE DROPS (4)		kPa	47,4	43,1	40,5	46,9
MULTIPLE MODULES PRESSURE DROPS (5)		kPa	80,5	56,1	57,2	70,1
FRIGORIFIC SECTION						
COMPRESSORS / REFRIGERATING CIRCUITS / PARTITION STEP		nr.	2/2/2	2/2/2	2/2/2	2/2/2
REFRIGERANT CHARGE PER CIRCUIT		kg	<10	<10	<10	<10
HYDRAULIC SECTION (3)						
WATER FLOW RANGE		m3/h	10÷34	13÷34	20÷34	20÷55
HYDRAULIC CONNECTIONS FOR SINGLE MODULE (FLANGED)		DN	65	65	80	80
HEADERS CONNECTIONS SIZE (VICTAULIC) (9)		DN	150	150	150	150
FAN SECTION (AXIAL)						
FANS		nr.	2	2	2	2
MAXIMUM FANS ABSORBED POWER	EC	kW	5,12	5,12	5,12	5,12
MAXIMUM FANS ABSORBED CURRENT		A	7,80	7,80	7,80	7,80
TOTAL AIR FLOW		m3/h	43520	43520	43520	43520
TOTAL ELECTRIC DATA (6)						
MAXIMUM ABSORBED CURRENT (F.L.A)		A	63,8	80,2	91,6	122,4
MAXIMUM PEAK CURRENT (L.R.A)		A	207,8	282,8	335,2	373,1
MAXIMUM PEAK CURRENT WITH SOFT START (OPTION SF) (L.R.A)		A	173,0	234,7	277,7	311,1
NOISE DATA (6) (7)						
SOUND PRESSURE FOR STANDARD CONFIGURATION		dB(A)	58,2	60,5	60,5	61,8
SOUND PRESSURE FOR LOW NOISE OPTION (LNJ)		dB(A)	57,4	58,5	58,5	59,1
SOUND PRESSURE FOR SUPER LOW NOISE OPTION (SLN)		dB(A)	54,8	56,5	56,5	57,5
DIMENSIONS AND WEIGHT						
SINGLE MODULE LENGTH (10)		mm	1610	1610	1610	1610
SINGLE MODULE WIDTH		mm	2590	2590	2590	2590
MULTIPLE MODULES WIDTH		mm	2870	2870	2870	2870
HEIGHT		mm	2500	2500	2500	2500
WEIGHT EMPTY FOR STANDARD CONFIGURATION (6) (8)		kg	850	915	930	1160
WEIGHT OPERATIVE FOR STANDARD CONFIGURATION (6) (8)		kg	870	935	950	1180

Last update: 28/07/2021
Revision: 01-2021

Data referred to:
(1) Data referred to inlet/outlet water temperature = +12/+7 °C, ambient temperature = +35°C, fluid = Water
(2) SEPR: data comply with the European Regulation (EU) 2016/2281, referring to high temperature process chillers
(3) Pump and tank can be supplied in a separate hydro-module (HITEMA HYD series)
(4) Pressure drops taken in account: evaporator, valves, piping
(5) Pressure drops taken in account: evaporator, automatic isolation valves, circuit setter balancing valve, one way valve, piping
(6) Data referred to standard chiller configuration NP (no pump) and EC fans
(7) Sound pressure level referred to measures according to normative ISO3744, pressure level at distance of 10 m, referred to free field on reflecting surface
(8) Weight referred to SINGLE MODULE version. For multiple module configuration, weight to be confirmed in case of order
(9) Headers connection size is valid for a maximum flow rate of 191 m^3/h in multi-module configuration. Dimensions will increase for greater flow rate.
(10) Multiple modules length must be increase of 52mm each module, this length increasing correspond to minimum distance between two consecutive modules

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CHILLER

PROCESS COOLING APPLICATION

R134A / R513A / R1234ze
Screw compressors
Shell & Tube evaporator / Brazed plate economizer
No tank & no pump

NOVA - NOVAF - DTS - DTSF series
From 154 kW up to 2244 kW

Technical Data Tables

SERIES: NOVA/NOVAF-DTS-DTSF	DATE: 19.05.2022
CODE: GPLSPC20	UPDATE: GPLSPC19
CHECKED BY	M. Burba

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DTS SERIES

Air-Cooled liquid Chillers, screw compressors
EC fans
IP54 protection rating
Suitable for OUTDOOR installation

Technical Data Tables

SERIES: DTS - DTSF	DATE: 19.05.2022
CODE: GPLSPC20	UPDATE: GPLSPC19
CHECKED BY	M. Burba

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DTS

TABLE 1/4

Air cooled liquid chillers DTS series, screw compressors R134A / R513a, shell and tube evaporator, brazed-plate economizers, condenser with copper tubes and aluminium finned fins. Each model is equipped with 2 refrigerant circuits, 2 compressors each one with 50-75-100 partition steps and EC FANS. Electrical feed 400V/3ph/50Hz. IP54 protection rating, chillers suitable for outdoor installation.
Special design with exception to above description is available for ** and * marked models: refer to notes.**

Available Models configuration:
ECO.M2 = standard configuration, with AC fans with cut phase regulation, with economizer and standard compressor motor size

M2

TECHNICAL DATA

PERFORMANCES		Model	663/F4**	693/F4**	783/F6	793/F6	863/F6	873/F8	883/F8	893/F10
NOMINAL COOLING CAPACITY (1)	ECO.M2 (3)	kW	248	308	432	477	519	606	666	755
TOTAL NOMINAL ABSORBED POWER (1)		kW	61,20	79,58	110,20	127,66	146,16	153,60	183,20	198,34
EER (1)		kW/kW	3,57	3,51	3,53	3,41	3,28	3,56	3,34	3,45
NOMINAL WATER FLOW		m3/h	42,60	53,00	74,38	82,07	89,26	104,17	114,48	129,85
EVAPORATOR PRESSURE DROP		kPa	22	22	70	59	69	64	50	64
HYDRAULIC SECTION										
WATER FLOW RANGE		m3/h	30÷80	30÷80	44÷88	48÷97	49÷97	74÷148	74÷148	84÷168
MAXIMUM PUMP ABSORBED POWER (OPTION WP OR DP)	P3 (2)	kW	8,3	8,3	10,2	10,2	16,2	16,2	16,2	16,2
MAXIMUM PUMP ABSORBED CURRENT (OPTION WP OR DP)		A	14,1	14,1	17,4	17,4	26,6	26,6	26,6	26,6
MAXIMUM PUMP ABSORBED POWER (OPTION PH OR DPH)	P5 (2)	kW	16,2	16,2	24,9	24,9	31,9	31,9	31,9	31,9
MAXIMUM PUMP ABSORBED CURRENT (OPTION PH OR DPH)		A	26,6	26,6	42,4	42,4	53,5	53,5	53,5	53,5
HYDRAULIC CONNECTIONS (VICTAULIC)		DN	100	100	100	125	125	150	150	150
FAN SECTION (AXIAL)										
FANS		nr.	4	4	6	6	6	8	8	10
CONDENSER COILS		nr.	4	4	6	6	6	8	8	10
MAXIMUM FANS ABSORBED POWER	EC	kW	8,16	8,16	12,24	12,24	12,24	16,32	16,32	20,40
MAXIMUM FANS ABSORBED CURRENT		A	13,84	13,84	20,76	20,76	20,76	27,68	27,68	34,60
TOTAL AIR FLOW		m3/h	79852	79852	119778	119778	119778	159704	159704	199630
TOTAL ELECTRIC DATA										
MAXIMUM ABSORBED CURRENT (F.L.A) (4)		A	147,6	231,6	311,4	347,4	333,4	395,2	423,2	467,0
MAXIMUM PEAK CURRENT (L.R.A) (4)		A	436,8	675,8	796,7	925,7	900,7	1070,6	1230,6	1339,5
MAXIMUM PEAK CURRENT WITH SOFT START (L.R.A) (4)		A	369,2	574,2	679,7	788,5	765,7	910,4	1042,0	1134,9
NOISE DATA										
SOUND PRESSURE FOR STANDARD CONFIGURATION (4) (5)		dB(A)	63,5	65,0	65,0	64,8	67,9	69,3	68,3	68,8
SOUND PRESSURE FOR LOW NOISE CONFIGURTION (4) (5)		dB(A)	61,0	61,9	62,6	62,5	64,4	65,8	65,1	65,8
SOUND PRESSURE FOR SUPER LOW NOISE CONFIGURTION (4) (5)		dB(A)	59,3	60,6	60,9	60,7	63,3	64,8	63,8	64,4
DIMENSIONS AND WEIGHT										
LENGTH		mm	2910	2910	4600	4600	4600	5900	5900	7200
WIDTH		mm	2210	2210	2210	2210	2210	2210	2210	2210
HEIGHT		mm	2500	2500	2500	2500	2500	2500	2500	2500
WEIGHT EMPTY FOR STANDARD CONFIGURATION (4)		kg	3050	3200	4000	4300	4500	5250	5400	6300
WEIGHT OPERATIVE FOR STANDARD CONFIGURATION (4)		kg	3150	3330	4150	4470	4700	5500	5650	6580

Last update: 02/05/2022
Revision: 00-2022

Data referred to:
(1) Data referred to Inlet/Outlet water temperature = +12/7 °C, ambient temperature = +35°C
(2) Available pressure can be calculated from Hitema Online Selection Software
(3) SEPR: data comply with the European Regulation (EU) 2016/2281, referring to high temperature process chillers in the configuration with brazed plate or shell and tube evaporator and without pump. Any added option that modify cooling capacity or absorbed power of the chiller will not be considered in the SEPR value
(4) Data referred to standard chiller configuration NP (chiller without pump) and considering EC fans
(5) Sound pressure level referred to measures according to normative ISO3744, pressure level at distance of 10 m, referred to free field on reflecting surface.

**Model 663-693 is the only one equipped with brazed plate evaporators instead of shell and tube in order to obtain a compact design
***Model 983/F24 and 993/F24 are designed with 3 indipendent refrigerant circuits and 3 compressors each one with 50-75-100 partition steps

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DTS

TABLE 2/4

Air cooled liquid chillers DTS series, screw compressors R134A / R513a, shell and tube evaporator, brazed-plate economizers, condenser with copper tubes and aluminium finned fins. Each model is equipped with 2 refrigerant circuits, 2 compressors each one with 50-75-100 partition steps and EC FANS. Electrical feed 400V/3ph/50Hz. IP54 protection rating, chillers suitable for outdoor installation.
Special design with exception to above description is available for ** and * marked models: refer to notes.**

Available Models configuration:
ECO.M2 = standard configuration, with AC fans with cut phase regulation, with economizer and standard compressor motor size

M2

TECHNICAL DATA

PERFORMANCES		Model	963/F12	973/F12	983/F14	993/F16	9103/F18	9113/F18	983/F24***	993/F24***
NOMINAL COOLING CAPACITY (1)	ECO.M2 (3)	kW	904	1019	1180	1321	1438	1566	1794	1982
TOTAL NOMINAL ABSORBED POWER (1)		kW	231,00	264,80	309,20	345,60	384,90	423,64	300,12	518,40
EER (1)		kW/kW	3,54	3,52	3,49	3,49	3,41	3,40	3,59	3,49
NOMINAL WATER FLOW		m3/h	155,47	175,25	202,95	227,27	247,25	269,37	308,57	340,97
EVAPORATOR PRESSURE DROP		kPa	69	70	74	79	89	99	75	90
HYDRAULIC SECTION										
WATER FLOW RANGE		m3/h	111÷221	101÷201	127÷254	148÷297	158÷315	157÷314	191÷381	189÷379
MAXIMUM PUMP ABSORBED POWER (OPTION WP OR DP)	P3 (2)	kW	23,5	23,5	23,5	0,0	0,0	0,0	0,0	0,0
MAXIMUM PUMP ABSORBED CURRENT (OPTION WP OR DP)		A	39,0	39,0	39,0	0,0	0,0	0,0	0,0	0,0
MAXIMUM PUMP ABSORBED POWER (OPTION PH OR DPH)	P5 (2)	kW	39,1	39,1	39,1	NA	NA	NA	NA	NA
MAXIMUM PUMP ABSORBED CURRENT (OPTION PH OR DPH)		A	65,6	65,6	65,6	NA	NA	NA	NA	NA
HYDRAULIC CONNECTIONS (VICTAULIC)		DN	150	150	200	200	200	200	250	250
FAN SECTION (AXIAL)										
FANS		nr.	12	12	14	16	18	18	24	24
CONDENSER COIL		nr.	12	12	14	16	18	18	12	12
MAXIMUM FANS ABSORBED POWER	EC	kW	24,48	24,48	28,56	32,64	36,72	36,72	48,96	48,96
MAXIMUM FANS ABSORBED CURRENT		A	41,52	41,52	48,44	55,36	62,28	62,28	83,04	83,04
TOTAL AIR FLOW		m3/h	239556	239556	279482	319408	359334	359334	435888	435888
TOTAL ELECTRIC DATA										
MAXIMUM ABSORBED CURRENT (F.L.A) (4)		A	606,8	666,8	694,6	782,4	896,2	1024,2	1053,6	1173,6
MAXIMUM PEAK CURRENT (L.R.A) (4)		A	1792,4	1910,4	2316,3	2558,2	3127,1	3582,1	2655,8	2933,8
MAXIMUM PEAK CURRENT WITH SOFT START (L.R.A) (4)		A	1519,6	1622,0	1945,7	2152,4	2623,1	3008,1	2285,2	2528,0
NOISE DATA										
SOUND PRESSURE FOR STANDARD CONFIGURATION (4) (5)		dB(A)	69,7	69,9	70,8	71,6	72,3	72,8	72,1	72,8
SOUND PRESSURE FOR LOW NOISE CONFIGURTION (4) (5)		dB(A)	66,6	66,8	67,5	68,3	69,0	69,3	68,3	68,9
SOUND PRESSURE FOR SUPER LOW NOISE CONFIGURTION (4) (5)		dB(A)	65,3	65,5	66,3	67,1	67,8	68,3	67,4	68,2
DIMENSIONS AND WEIGHT										
LENGTH		mm	8500	8500	9800	11100	12790	12790	12880	12880
WIDTH		mm	2210	2210	2210	2210	2210	2210	2210	2210
HEIGHT		mm	2500	2500	2500	2500	2500	2500	2500	2500
WEIGHT EMPTY FOR STANDARD CONFIGURATION (4)		kg	7100	7250	8000	9200	9400	10100	11300	11600
WEIGHT OPERATIVE FOR STANDARD CONFIGURATION (4)		kg	7400	7600	8350	9600	9800	10500	11800	12100

Last update: 02/05/2022
Revision: 00-2022

Data referred to:

(1) Data referred to Inlet/Outlet water temperature = +12/7 °C, ambient temperature = +35°C

(2) Available pressure can be calculated from Hitema Online Selection Software

(3) SEPR: data comply with the European Regulation (EU) 2016/2281, referring to high temperature process chillers in the configuration with brazed plate or shell and tube evaporator and without pump. Any added option that modify cooling capacity or absorbed power of the chiller will not be considered in the SEPR value

(4) Data referred to standard chiller configuration NP (chiller without pump) and considering EC fans

(5) Sound pressure level referred to measures according to normative ISO3744, pressure level at distance of 10 m, referred to free field on reflecting surface.

**Model 663-693 is the only one equipped with brazed plate evaporators instead of shell and tube in order to obtain a compact design

***Model 983/F24 and 993/F24 are designed with 3 indipendent refrigerant circuits and 3 compressors each one with 50-75-100 partition steps

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DTS

TABLE 3/4

Air cooled liquid chillers DTS series, screw compressors R134A / R513a, shell and tube evaporator, brazed-plate economizers, condenser with copper tubes and aluminium finned fins. Each model is equipped with 2 refrigerant circuits, 2 compressors each one with 50-75-100 partition steps and EC FANS. Electrical feed 400V/3ph/50Hz. IP54 protection rating, chillers suitable for outdoor installation.
Special design with exception to above description is available for ** and * marked models: refer to notes.**

Available Models configuration:
ECO.M1 = standard configuration, with AC fans with cut phase regulation, with economizer and oversized compressor motor size
NE.M1 = chiller without economizer, with AC fans with cut phase regulation and oversized compressor motor size

M1

TECHNICAL DATA

PERFORMANCES		Model	663/F4**	693/F4**	783/F6	793/F6	863/F6	873/F8	883/F8	893/F10
NOMINAL COOLING CAPACITY (1)	ECO.M1 (3)	kW	247	-	434	478	522	606	652	757
TOTAL NOMINAL ABSORBED POWER (1)	ECO.M1 (3)	kW	60,90	-	112,20	128,80	148,40	155,00	184,40	198,30
EER (1)	ECO.M1 (3)	kW/kW	3,58	-	3,48	3,39	3,25	3,54	3,25	3,46
NOMINAL WATER FLOW	ECO.M1 (3)	m3/h	42,53	-	74,57	82,29	89,80	104,24	112,15	130,15
EVAPORATOR PRESSURE DROP	ECO.M1 (3)	kPa	22	-	71	60	70	64	71	64
NOMINAL COOLING CAPACITY (6)	NE.M1 (3)	kW	297	-	515	568	600	720	771	913
TOTAL NOMINAL ABSORBED POWER (6)	NE.M1 (3)	kW	61,0	-	113,0	133,0	145,0	157,0	182,0	202,0
EER (6)	NE.M1 (3)	kW/kW	4,29	-	4,11	3,91	3,82	4,15	3,89	4,11
NOMINAL WATER FLOW	NE.M1 (3)	m3/h	36,50	-	63,30	69,80	73,80	88,40	94,70	112,20
EVAPORATOR PRESSURE DROP	NE.M1 (3)	kPa	17	-	52	61	48	67	51	48
HYDRAULIC SECTION										
WATER FLOW RANGE		m3/h	30÷80	-	43÷86	52÷103	52÷103	72÷144	79÷158	82÷163
MAXIMUM PUMP ABSORBED POWER (OPTION WP OR DP)	P3 (2)	kW	8,3	-	10,2	10,2	16,2	16,2	16,2	16,2
MAXIMUM PUMP ABSORBED CURRENT (OPTION WP OR DP)	P3 (2)	A	14,1	-	17,4	17,4	26,6	26,6	26,6	26,6
MAXIMUM PUMP ABSORBED POWER (OPTION PH OR DPH)	P5 (2)	kW	16,2	-	24,9	24,9	31,9	31,9	31,9	31,9
MAXIMUM PUMP ABSORBED CURRENT (OPTION PH OR DPH)	P5 (2)	A	26,6	-	42,4	42,4	53,5	53,5	53,5	53,5
HYDRAULIC CONNECTIONS (VICTAULIC)		DN	100	-	100	125	125	150	150	150
FAN SECTION (AXIAL)										
FANS		nr.	4	-	6	6	6	8	8	10
CONDENSER COIL		nr.	4		6	6	6	8	8	10
MAXIMUM FANS ABSORBED POWER	EC	kW	8,16	-	12,24	12,24	12,24	16,32	16,32	20,40
MAXIMUM FANS ABSORBED CURRENT	EC	A	13,84	-	20,76	20,76	20,76	27,68	27,68	34,60
TOTAL AIR FLOW	EC	m3/h	79852	-	119778	119778	119778	159704	159704	199630
TOTAL ELECTRIC DATA										
MAXIMUM ABSORBED CURRENT (F.L.A) (4)		A	231,6	-	363,4	383,4	455,4	523,2	551,2	659,0
MAXIMUM PEAK CURRENT (L.R.A) (4)		A	666,8	-	1039,7	1146,7	1254,7	1380,6	1489,6	1634,5
MAXIMUM PEAK CURRENT WITH SOFT START (L.R.A) (4)		A	565,2	-	881,7	969,3	1066,1	1176,0	1266,8	1398,3
NOISE DATA										
SOUND PRESSURE FOR STANDARD CONFIGURATION (4) (5)		dB(A)	65,0	-	69,1	69,1	68,0	68,6	69,4	69,7
SOUND PRESSURE FOR LOW NOISE CONFIGURTION (4) (5)		dB(A)	61,9	-	65,3	65,3	64,5	65,3	65,8	66,4
SOUND PRESSURE FOR SUPER LOW NOISE CONFIGURTION (4) (5)		dB(A)	60,6	-	64,5	64,5	63,5	64,1	64,8	65,3
DIMENSIONS AND WEIGHT										
LENGTH		mm	2910	-	4600	4600	4600	5900	5900	7200
WIDTH		mm	2210	-	2210	2210	2210	2210	2210	2210
HEIGHT		mm	2500	-	2500	2500	2500	2500	2500	2500
WEIGHT EMPTY FOR STANDARD CONFIGURATION (4)		kg	3050	-	4000	4300	4500	5250	5400	6300
WEIGHT OPERATIVE FOR STANDARD CONFIGURATION (4)		kg	3150	-	4150	4470	4700	5500	5650	6580

The manufacturer reserves the right to modify specifications without notice.

Last update: 02/05/2022
Revision: 00-2022

Data referred to:
(1) Data referred to Inlet/Outlet water temperature = +12/7 °C, ambient temperature = +35°C
(2) Available pressure can be calculated from Hitema Online Selection Software
(3) SEPR: data comply with the European Regulation (EU) 2016/2281, referring to high temperature process chillers in the configuration with brazed plate or shell and tube evaporator and without pump. Any added option that modify cooling capacity or absorbed power of the chiller will not be considered in the SEPR value
(4) Data referred to standard chiller configuration NP (chiller without pump) and considering EC fans
(5) Sound pressure level referred to measures according to normative ISO3744, pressure level at distance of 10 m, referred to free field on reflecting surface.
(6) Data referred to Inlet/Outlet water temperature = +22/15 °C, ambient temperature = +35°C
**Model 663 is the only one equipped with brazed plate evaporators instead of shell and tube in order to obtain a compact design
***Model 983/F24 and 993/F24 are designed with 3 indipendent refrigerant circuits and 3 compressors each one with 50-75-100 partition steps

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DTS

TABLE 4/4

Air cooled liquid chillers DTS series, screw compressors R134A / R513a, shell and tube evaporator, brazed-plate economizers, condenser with copper tubes and aluminium finned fins. Each model is equipped with 2 refrigerant circuits, 2 compressors each one with 50-75-100 partition steps and EC FANS. Electrical feed 400V/3ph/50Hz. IP54 protection rating, chillers suitable for outdoor installation.
Special design with exception to above description is available for ** and * marked models: refer to notes.**

Available Models configuration:
ECO.M1 = standard configuration, with AC fans with cut phase regulation, with economizer and oversized compressor motor size
NE.M1 = chiller without economizer, with AC fans with cut phase regulation and oversized compressor motor size

M1

TECHNICAL DATA

PERFORMANCES		Model	963/F12	973/F12	983/F14	993/F16	9103/F18	9113/F18	983/F24***	993/F24***
NOMINAL COOLING CAPACITY (1)	ECO.M1 (3)	kW	898	1003	1160	1327	1438	-	1764	1980
TOTAL NOMINAL ABSORBED POWER (1)	ECO.M1 (3)	kW	229,68	269,20	302,94	333,94	388,10	-	440,10	506,28
EER (1)	ECO.M1 (3)	kW/kW	3,53	3,41	3,50	3,62	3,38	-	3,61	3,57
NOMINAL WATER FLOW	ECO.M1 (3)	m3/h	154,48	172,48	199,58	228,26	247,25	-	303,43	340,62
EVAPORATOR PRESSURE DROP	ECO.M1 (3)	kPa	68	69	73	81	90	-	74	90
NOMINAL COOLING CAPACITY (6)	NE.M1 (3)	kW	1070	1194	1389	1596	1738	-	2073	2244
TOTAL NOMINAL ABSORBED POWER (6)	NE.M1 (3)	kW	229,0	275,0	305,0	349,0	408,0	-	445,0	520,0
EER (6)	NE.M1 (3)	kW/kW	4,22	3,99	4,16	4,18	3,91	-	4,20	3,94
NOMINAL WATER FLOW	NE.M1 (3)	m3/h	131,40	146,70	170,70	196,10	213,50	-	254,70	275,80
EVAPORATOR PRESSURE DROP	NE.M1 (3)	kPa	71	64	54	60	97	-	71	60
HYDRAULIC SECTION										
WATER FLOW RANGE		m3/h	108÷195	108÷195	123÷247	144÷287	154÷307	-	185÷370	185÷370
MAXIMUM PUMP ABSORBED POWER (OPTION WP OR DP)	P3 (2)	kW	23,5	23,5	23,5	0,0	0,0		0,0	0,0
MAXIMUM PUMP ABSORBED CURRENT (OPTION WP OR DP)	P3 (2)	A	39,0	39,0	39,0	0,0	0,0		0,0	0,0
MAXIMUM PUMP ABSORBED POWER (OPTION PH OR DPH)	P5 (2)	kW	39,1	39,1	39,1	NA	NA		NA	NA
MAXIMUM PUMP ABSORBED CURRENT (OPTION PH OR DPH)	P5 (2)	A	65,6	65,6	65,6	NA	NA		NA	NA
HYDRAULIC CONNECTIONS (VICTAULIC)		DN	150	150	200	200	200	-	250	250
FAN SECTION (AXIAL)										
FANS		nr.	12	12	14	16	18	-	24	24
CONDENSER COIL		nr.	12	12	14	16	18		12	12
MAXIMUM FANS ABSORBED POWER	EC	kW	24,48	24,48	28,56	32,64	36,72	-	48,96	48,96
MAXIMUM FANS ABSORBED CURRENT	EC	A	41,52	41,52	48,44	55,36	62,28	-	83,04	83,04
TOTAL AIR FLOW	EC	m3/h	239556	239556	279482	319408	359334	-	435888	435888
TOTAL ELECTRIC DATA										
MAXIMUM ABSORBED CURRENT (F.L.A) (4)		A	786,8	886,8	954,6	962,4	1202,2	-	1443,6	1443,6
MAXIMUM PEAK CURRENT (L.R.A) (4)		A	2370,4	2637,4	3167,3	3171,2	3705,1	-	3636,8	3636,8
MAXIMUM PEAK CURRENT WITH SOFT START (L.R.A) (4)		A	1999,8	2231,6	2663,3	2667,2	3131,1	-	3132,8	3132,8
NOISE DATA										
SOUND PRESSURE FOR STANDARD CONFIGURATION (4) (5)		dB(A)	70,6	71,3	72,1	72,2	72,8	-	73,6	73,6
SOUND PRESSURE FOR LOW NOISE CONFIGURTION (4) (5)		dB(A)	67,2	67,7	68,5	68,7	69,3	-	69,4	69,4
SOUND PRESSURE FOR SUPER LOW NOISE CONFIGURTION (4) (5)		dB(A)	66,1	66,8	67,5	67,7	68,3		68,8	68,8
DIMENSIONS AND WEIGHT										
LENGTH		mm	8500	8500	9800	11100	12790	-	12880	12880
WIDTH		mm	2210	2210	2210	2210	2210	-	2210	2210
HEIGHT		mm	2500	2500	2500	2500	2500	-	2500	2500
WEIGHT EMPTY FOR STANDARD CONFIGURATION (4)		kg	7100	7250	8000	9200	9400	-	11300	11600
WEIGHT OPERATIVE FOR STANDARD CONFIGURATION (4)		kg	7400	7600	8350	9600	9800	-	11800	12100

The manufacturer reserves the right to modify specifications without notice.

Last update: 02/05/2022
Revision: 00-2022

Data referred to:
(1) Data referred to Inlet/Outlet water temperature = +12/7 °C, ambient temperature = +35°C
(2) Available pressure can be calculated from Hitema Online Selection Software
(3) SEPR: data comply with the European Regulation (EU) 2016/2281, referring to high temperature process chillers in the configuration with brazed plate or shell and tube evaporator and without pump. Any added option that modify cooling capacity or absorbed power of the chiller will not be considered in the SEPR value
(4) Data referred to standard chiller configuration NP (chiller without pump) and considering EC fans
(5) Sound pressure level referred to measures according to normative ISO3744, pressure level at distance of 10 m, referred to free field on reflecting surface.
(6) Data referred to Inlet/Outlet water temperature = +22/15 °C, ambient temperature = +35°C
**Model 663 is the only one equipped with brazed plate evaporators instead of shell and tube in order to obtain a compact design
***Model 983/F24 and 993/F24 are designed with 3 indipendent refrigerant circuits and 3 compressors each one with 50-75-100 partition steps

DTSF SERIES

Freecooling liquid chillers, screw compressors
EC fans
IP54 protection rating
Suitable for OUTDOOR installation

Technical Data Tables

SERIES: DTS - DTSF	DATE: 19.05.2022
CODE: GPLSPC20	UPDATE: GPLSPC19
CHECKED BY	M. Burba

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DTSF

TABLE 1/4

Air cooled liquid chillers DTSF series, screw compressors R134A / R513a, shell and tube evaporator, brazed-plate economizers, condenser and OPTIMIZED freecooling coil with copper tubes and aluminium fins. Each model is equipped with 2 refrigerant circuits, 2 compressors each one with 50-75-100 partition steps and EC FANS. Electrical feed 400V/3ph/50Hz. IP54 protection rating, chillers suitable for outdoor installation. Additional modules (2 fans) can be added to improve efficiency. Inbuilt water storage tank and single pump P3 as option.
Special design with exception to above description is available for ** and * marked models: refer to notes.**

Available Models configuration:
ECO.M2 = standard configuration, with EC fans, with economizer and standard compressor motor size

M2

TECHNICAL DATA

PERFORMANCES		Model	663/F4**	683/F6	773/F6	793/F8	863/F8	873/F10	883/F10	893/F12
NOMINAL COOLING CAPACITY (1)	ECO.M2 (3)	kW	242	286	362	490	531	615	680	768
TOTAL NOMINAL ABSORBED POWER (1)		kW	65.20	67.20	96.96	122.26	139.96	150.96	181.44	198.60
EER (1)		kW/kW	3.28	3.59	3.30	3.52	3.39	3.58	3.35	3.42
NOMINAL WATER FLOW		m3/h	41.54	49.25	62.31	84.26	91.38	105.82	116.90	132.13
AIR TEMPERATURE FOR 100% FREE COOLING CAPACITY		°C	-1.30	0.70	-1.22	-1.35	-2.20	-1.00	-2.00	-1.30
MECHANICAL MODE PRESSURE DROPS (4) (6) (7)		kPa	28	58	79	72	57	67	52	75
FREE COOLING MODE PRESSURE DROPS (5)		kPa	103	102	149	132	126	136	133	131
HYDRAULIC SECTION										
WATER FLOW RANGE (7)		m3/h	30÷80	30÷80	44÷88	54÷108	64÷129	75÷149	83÷166	79÷159
MAXIMUM PUMP ABSORBED POWER (OPTION WP OR DP)	P3 (2)	kW	10.2	10.2	16.2	16.2	24.9	24.9	24.9	24.9
MAXIMUM PUMP ABSORBED CURRENT (OPTION WP OR DP)		A	17.4	17.4	26.6	26.6	42.2	42.2	42.2	42.2
MAXIMUM PUMP ABSORBED POWER (OPTION PH OR DPH)	P5 (2)	kW	19.9	19.9	19.9	31.9	39.1	39.1	39.1	NA
MAXIMUM PUMP ABSORBED CURRENT (OPTION PH OR DPH)		A	32.7	32.7	32.7	53.5	65.6	65.6	65.6	NA
HYDRAULIC CONNECTIONS (VICTAULIC)		DN	100	100	100	125	125	150	150	150
FAN SECTION (AXIAL)										
FANS		nr.	4	6	6	8	8	10	10	12
CONDENSER COILS		nr.	4	6	6	8	8	10	10	12
MAXIMUM FANS ABSORBED POWER	EC	kW	8.44	12.66	12.66	16.88	16.88	21.10	21.70	26.04
MAXIMUM FANS ABSORBED CURRENT		A	14.08	21.12	21.12	28.16	28.16	35.20	35.80	42.96
TOTAL AIR FLOW		m3/h	70984	106476	106476	141968	141968	177460	177460	212952
TOTAL ELECTRIC DATA										
MAXIMUM ABSORBED CURRENT (F.L.A) (7)		A	147.6	195.4	271.4	355.2	341.2	403.0	431.0	474.8
MAXIMUM PEAK CURRENT (L.R.A) (7)		A	436.8	543.7	666.7	929.6	904.6	1074.5	1234.5	1343.4
MAXIMUM PEAK CURRENT WITH SOFT START (L.R.A) (7)		A	369.2	461.5	569.7	792.4	769.6	914.3	1045.9	1138.8
NOISE DATA										
SOUND PRESSURE FOR STANDARD CONFIGURATION (7) (8)		dB(A)	63.5	64.9	64.9	65.3	68.1	69.5	68.5	69.0
SOUND PRESSURE FOR LOW NOISE CONFIGURTION (7) (8)		dB(A)	61.0	62.5	62.5	63.4	65.0	66.2	65.6	66.2
SOUND PRESSURE FOR SUPER LOW NOISE CONFIGURTION (7) (8)		dB(A)	59.3	60.8	60.8	61.4	63.7	65.0	64.2	64.7
DIMENSIONS AND WEIGHT										
LENGTH		mm	2910	4600	4600	5900	5900	7200	7200	8500
WIDTH		mm	2210	2210	2210	2210	2210	2210	2210	2210
HEIGHT		mm	2500	2500	2500	2500	2500	2500	2500	2500
WEIGHT EMPTY FOR STANDARD CONFIGURATION (7)		kg	3050	3200	4000	4300	4500	5250	5400	6300
WEIGHT OPERATIVE FOR STANDARD CONFIGURATION (7)		kg	3150	3330	4150	4470	4700	5500	5650	6580

The manufacturer reserves the right to modify specifications without notice.

Last update: 03/05/2022
Revision: 00-2022

Data referred to:
(1) Data referred to Inlet/Outlet water temperature = +12/7 °C, ambient temperature = +35°C
(2) Available pressure can be calculated from Hitema Online Selection Software
(3) SEPR: data comply with the European Regulation (EU) 2016/2281, referring to high temperature process chillers in the configuration with brazed plate or shell and tube evaporator and without pump. Any added option that modify cooling capacity or absorbed power of the chiller will not be considered in the SEPR value
(4) Pressure drops taken in account: evaporator, valves, piping
(5) Pressure drops taken in account: evaporator, valves, piping, free-cooling coil
(6) Data referred to standard chiller configuration as indicated in frigorific section, with different evaporator this data can change
(7) Data referred to standard chiller configuration NP (chiller without pump) and considering EC fans
(8) Sound pressure level referred to measures according to normative ISO3744, pressure level at distance of 10 m, referred to free field on reflecting surface.

**Model 663-693 is the only one equipped with brazed plate evaporators instead of shell and tube in order to obtain a compact design
***Model 983/F24 and 993/F24 are designed with 3 indipendent refrigerant circuits and 3 compressors each one with 50-75-100 partition steps

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DTSF

TABLE 2/4

Air cooled liquid chillers DTSF series, screw compressors R134A / R513a, shell and tube evaporator, brazed-plate economizers, condenser and OPTIMIZED freecooling coil with copper tubes and aluminium fins. Each model is equipped with 2 refrigerant circuits, 2 compressors each one with 50-75-100 partition steps and EC FANS. Electrical feed 400V/3ph/50Hz. IP54 protection rating, chillers suitable for outdoor installation. Additional modules (2 fans) can be added to improve efficiency. Inbuilt water storage tank and single pump P3 as option.
Special design with exception to above description is available for ** and * marked models: refer to notes.**

Available Models configuration:
ECO.M2 = standard configuration, with EC fans, with economizer and standard compressor motor size

M2

TECHNICAL DATA

PERFORMANCES		Model	963/F14	973/F14	983/F16	993/F16	9103/F18	9113/F18	973/F24***	983/F24***
NOMINAL COOLING CAPACITY (1)	ECO.M2 (3)	kW	912	1029	1185	1306	1410	1509	1546	1730
TOTAL NOMINAL ABSORBED POWER (1)		kW	236.00	268.00	320.00	368.00	412.96	454.00	381.96	480.66
EER (1)		kW/kW	3.42	3.45	3.34	3.24	3.12	3.06	3.56	3.25
NOMINAL WATER FLOW		m3/h	156.86	177.03	203.74	224.70	242.51	259.52	265.85	297.63
AIR TEMPERATURE FOR 100% FREE COOLING CAPACITY		°C	-1.50	-2.80	-2.80	-4.00	-3.50	-4.40	-6.00	-6.80
MECHANICAL MODE PRESSURE DROPS (4) (6) (7)		kPa	81	78	87	84	97	110	90	112
FREE COOLING MODE PRESSURE DROPS (5)		kPa	139	148	158	165	176	199	143	172
HYDRAULIC SECTION										
WATER FLOW RANGE (7)		m3/h	102÷203	117÷233	147÷295	150÷300	150÷300	150÷300	155÷320	160÷325
MAXIMUM PUMP ABSORBED POWER (OPTION WP OR DP)	P3 (2)	kW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MAXIMUM PUMP ABSORBED CURRENT (OPTION WP OR DP)		A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MAXIMUM PUMP ABSORBED POWER (OPTION PH OR DPH)	P5 (2)	kW	NA	NA	NA	NA	NA	NA	NA	NA
MAXIMUM PUMP ABSORBED CURRENT (OPTION PH OR DPH)		A	NA	NA	NA	NA	NA	NA	NA	NA
HYDRAULIC CONNECTIONS (VICTAULIC)		DN	150	150	200	200	200	200	200	200
FAN SECTION (AXIAL)										
FANS		nr.	14	14	16	16	18	18	24	24
CONDENSER COIL		nr.	14	14	16	16	18	18	12	12
MAXIMUM FANS ABSORBED POWER	EC	kW	30.38	30.38	34.72	34.72	39.06	39.06	51.60	51.60
MAXIMUM FANS ABSORBED CURRENT		A	50.12	50.12	57.28	57.28	64.44	64.44	85.44	85.44
TOTAL AIR FLOW		m3/h	248444	248444	283936	283936	319428	319428	412608	412608
TOTAL ELECTRIC DATA										
MAXIMUM ABSORBED CURRENT (F.L.A) (7)		A	614.6	674.6	702.4	782.4	896.2	1024.2	1023.6	1053.6
MAXIMUM PEAK CURRENT (L.R.A) (7)		A	1796.3	1914.3	2320.2	2558.2	3127.1	3582.1	2243.8	2655.8
MAXIMUM PEAK CURRENT WITH SOFT START (L.R.A) (7)		A	1523.5	1625.9	1949.6	2152.4	2623.1	3008.1	1955.4	2285.2
NOISE DATA										
SOUND PRESSURE FOR STANDARD CONFIGURATION (7) (8)		dB(A)	69.9	70.1	70.9	71.6	72.3	72.8	71.3	72.1
SOUND PRESSURE FOR LOW NOISE CONFIGURTION (7) (8)		dB(A)	67.0	67.1	67.8	68.3	69.0	69.3	67.7	68.3
SOUND PRESSURE FOR SUPER LOW NOISE CONFIGURTION (7) (8)		dB(A)	65.6	65.7	66.5	67.1	67.8	68.3	66.7	67.4
DIMENSIONS AND WEIGHT										
LENGTH		mm	9800	9800	11100	11100	12790	12790	12880	12880
WIDTH		mm	2210	2210	2210	2210	2210	2210	2210	2210
HEIGHT		mm	2500	2500	2500	2500	2500	2500	2500	2500
WEIGHT EMPTY FOR STANDARD CONFIGURATION (7)		kg	7100	7250	8000	9200	9400	10100	11300	11600
WEIGHT OPERATIVE FOR STANDARD CONFIGURATION (7)		kg	7400	7600	8350	9600	9800	10500	11800	12100

Last update: 03/05/2022
Revision: 00-2022

Data referred to:
(1) Data referred to Inlet/Outlet water temperature = +12/7 °C, ambient temperature = +35°C
(2) Available pressure can be calculated from Hitema Online Selection Software
(3) SEPR: data comply with the European Regulation (EU) 2016/2281, referring to high temperature process chillers in the configuration with brazed plate or shell and tube evaporator and without pump. Any added option that modify cooling capacity or absorbed power of the chiller will not be considered in the SEPR value
(4) Pressure drops taken in account: evaporator, valves, piping
(5) Pressure drops taken in account: evaporator, valves, piping, free-cooling coil
(6) Data referred to standard chiller configuration as indicated in frigorific section, with different evaporator this data can change
(7) Data referred to standard chiller configuration NP (chiller without pump) and considering EC fans
(8) Sound pressure level referred to measures according to normative ISO3744, pressure level at distance of 10 m, referred to free field on reflecting surface.

**Model 663-693 is the only one equipped with brazed plate evaporators instead of shell and tube in order to obtain a compact design
***Model 983/F24 and 993/F24 are designed with 3 indipendent refrigerant circuits and 3 compressors each one with 50-75-100 partition steps

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DTSF

TABLE 3/4

Air cooled liquid chillers DTSF series, screw compressors R134A / R513a, shell and tube evaporator, brazed-plate economizers, condenser and OPTIMIZED freecooling coil with copper tubes and aluminium fins. Each model is equipped with 2 refrigerant circuits, 2 compressors each one with 50-75-100 partition steps and EC FANS. Electrical feed 400V/3ph/50Hz. IP54 protection rating, chillers suitable for outdoor installation. Additional modules (2 fans) can be added to improve efficiency. Inbuilt water storage tank and single pump P3 as option.
Special design with exception to above description is available for ** and * marked models: refer to notes.**

Available Models configuration:
ECO.M1 = standard configuration, with EC fans, with economizer and oversized compressor motor size
NE.M1 = chiller without economizer, with EC fans and oversized compressor motor size

M1

TECHNICAL DATA

PERFORMANCES		Model	663/F4**	683/F6	773/F6	793/F8	863/F8	873/F10	883/F10	893/F12
NOMINAL COOLING CAPACITY (1)	ECO.M1 (3)	kW	242	-	365	489	536	613	665	767
TOTAL NOMINAL ABSORBED POWER (1)		kW	64.54	-	96.42	127.76	145.18	157.12	184.78	200.92
EER (1)		kW/kW	3.31	-	3.34	3.38	3.31	3.44	3.22	3.38
NOMINAL WATER FLOW		m3/h	41.54	-	62.70	84.07	92.18	105.43	114.33	131.93
AIR TEMPERATURE FOR 100% FREE COOLING CAPACITY		°C	-1.26	-	-1.26	-1.35	-2.26	-1.39	-2.20	-1.80
MECHANICAL MODE PRESSURE DROPS (4) (6) (7)		kPa	28	-	80	72	58	67	51	74
FREE COOLING MODE PRESSURE DROPS (5)		kPa	92	-	140	133	127	134	127	129
NOMINAL COOLING CAPACITY (9)	NE.M1 (3)	kW	284	-	437	582	610	719	771	906
TOTAL NOMINAL ABSORBED POWER (9)		kW	64.8	-	99.1	129.6	141.8	157.7	182.0	203.8
EER (9)		kW/kW	3.88	-	3.91	3.97	3.84	4.02	3.78	3.94
NOMINAL WATER FLOW (9)		m3/h	34.90	-	53.70	71.50	74.90	88.30	94.70	111.30
AIR TEMPERATURE FOR 100% FREE COOLING CAPACITY		°C	5.00		4.83	4.80	4.23	5.00	4.15	4.39
MECHANICAL MODE PRESSURE DROPS (4) (6) (7)		kPa	21	-	77	71	54	64	50	54
FREE COOLING MODE PRESSURE DROPS (5)		kPa	91		146	139	127	135	130	119
HYDRAULIC SECTION										
WATER FLOW RANGE (7)		m3/h	30÷80	-	43÷86	52÷103	52÷103	72÷144	79÷158	82÷163
MAXIMUM PUMP ABSORBED POWER (OPTION WP OR DP)	P3 (2)	kW	10.2	-	16.2	16.2	24.9	24.9	24.9	24.9
MAXIMUM PUMP ABSORBED CURRENT (OPTION WP OR DP)		A	17.4	-	26.6	26.6	42.2	42.2	42.2	42.2
MAXIMUM PUMP ABSORBED POWER (OPTION PH OR DPH)	P5 (2)	kW	19.9	-	19.9	31.9	39.1	39.1	39.1	NA
MAXIMUM PUMP ABSORBED CURRENT (OPTION PH OR DPH)		A	32.7	-	32.7	53.5	65.6	65.6	65.6	NA
HYDRAULIC CONNECTIONS (VICTAULIC)		DN	100	-	100	125	125	150	150	150
FAN SECTION (AXIAL)										
FANS		nr.	4	-	6	8	8	10	10	12
CONDENSER COIL		nr.	4		6	8	8	10	10	12
MAXIMUM FANS ABSORBED POWER	EC	kW	8.44	-	12.66	16.88	16.88	21.10	21.70	26.04
MAXIMUM FANS ABSORBED CURRENT		A	14.08	-	21.12	28.16	28.16	35.20	35.80	42.96
TOTAL AIR FLOW		m3/h	70984	-	106476	141968	141968	177460	177460	212952
TOTAL ELECTRIC DATA										
MAXIMUM ABSORBED CURRENT (F.L.A) (7)		A	231.6	-	347.4	391.2	463.2	531.0	559.0	666.8
MAXIMUM PEAK CURRENT (L.R.A) (7)		A	666.8	-	925.7	1150.6	1258.6	1384.5	1493.5	1638.4
MAXIMUM PEAK CURRENT WITH SOFT START (L.R.A) (7)		A	565.2	-	788.5	973.2	1070.0	1179.9	1270.7	1402.2
NOISE DATA										
SOUND PRESSURE FOR STANDARD CONFIGURATION (7) (8)		dB(A)	65.0	-	64.8	69.3	68.3	68.8	69.6	69.9
SOUND PRESSURE FOR LOW NOISE CONFIGURTION (7) (8)		dB(A)	61.9	-	62.5	65.8	65.1	65.8	66.3	66.8
SOUND PRESSURE FOR SUPER LOW NOISE CONFIGURTION (7) (8)		dB(A)	60.6	-	60.7	64.8	63.8	64.4	65.1	65.5
DIMENSIONS AND WEIGHT										
LENGTH		mm	2910	-	4600	5900	5900	7200	7200	8500
WIDTH		mm	2210	-	2210	2210	2210	2210	2210	2210
HEIGHT		mm	2500	-	2500	2500	2500	2500	2500	2500
WEIGHT EMPTY FOR STANDARD CONFIGURATION (7)		kg	3050	-	4000	4300	4500	5250	5400	6300
WEIGHT OPERATIVE FOR STANDARD CONFIGURATION (7)		kg	3150	-	4150	4470	4700	5500	5650	6580

The manufacturer reserves the right to modify specifications without notice.

Last update: 03/05/2022
Revision: 00-2022

Data referred to:
(1) Data referred to Inlet/Outlet water temperature = +12/7 °C, ambient temperature = +35°C
(2) Available pressure can be calculated from Hitema Online Selection Software
(3) SEPR: data comply with the European Regulation (EU) 2016/2281, referring to high temperature process chillers in the configuration with brazed plate or shell and tube evaporator and without pump. Any added option that modify cooling capacity or absorbed power of the chiller will not be considered in the SEPR value
(4) Pressure drops taken in account: evaporator, valves, piping
(5) Pressure drops taken in account: evaporator, valves, piping, free-cooling coil
(6) Data referred to standard chiller configuration as indicated in frigorific section, with different evaporator this data can change
(7) Data referred to standard chiller configuration NP (chiller without pump) and considering EC fans
(8) Sound pressure level referred to measures according to normative ISO3744, pressure level at distance of 10 m, referred to free field on reflecting surface.
(9) Data referred to Inlet/Outlet water temperature = +22/15 °C, ambient temperature = +35°C
**Model 663 is the only one equipped with brazed plate evaporators instead of shell and tube in order to obtain a compact design
***Model 983/F24 and 993/F24 are designed with 3 indipendent refrigerant circuits and 3 compressors each one with 50-75-100 partition steps

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DTSF

TABLE 4/4

Air cooled liquid chillers DTSF series, screw compressors R134A / R513a, shell and tube evaporator, brazed-plate economizers, condenser and OPTIMIZED freecooling coil with copper tubes and aluminium fins. Each model is equipped with 2 refrigerant circuits, 2 compressors each one with 50-75-100 partition steps and EC FANS. Electrical feed 400V/3ph/50Hz. IP54 protection rating, chillers suitable for outdoor installation. Additional modules (2 fans) can be added to improve efficiency. Inbuilt water storage tank and single pump P3 as option.
Special design with exception to above description is available for ** and * marked models: refer to notes.**

Available Models configuration:
ECO.M1 = standard configuration, with EC fans, with economizer and oversized compressor motor size
NE.M1 = chiller without economizer, with EC fans and oversized compressor motor size

M1

TECHNICAL DATA

PERFORMANCES		Model	963/F14	973/F14	983/F16	993/F16	9103/F18	9113/F18	973/F24***	983/F24***
NOMINAL COOLING CAPACITY (1)	ECO.M1 (3)	kW	906	1011	1165	1301	1410	-	1546	1708
TOTAL NOMINAL ABSORBED POWER (1)		kW	235.14	275.34	313.32	364.14	416.48	-	396.33	466.05
EER (1)		kW/kW	3.41	3.31	3.35	3.26	3.10	-	3.45	3.30
NOMINAL WATER FLOW		m3/h	155.87	173.87	200.37	223.71	242.51	-	265.85	293.76
AIR TEMPERATURE FOR 100% FREE COOLING CAPACITY		°C	-1.95	-3.10	-3.20	-4.52	-3.50		-4.90	-6.60
MECHANICAL MODE PRESSURE DROPS (4) (6) (7)		kPa	80	75	85	83	97	-	90	109
FREE COOLING MODE PRESSURE DROPS (5)		kPa	137	141	153	163	176		141	169
NOMINAL COOLING CAPACITY (9)	NE.M1 (3)	kW	1053	1175	1362	1518	1663	-	1781	1989
TOTAL NOMINAL ABSORBED POWER (9)		kW	233.0	280.0	314.0	372.0	428.0	-	401.0	471.0
EER (9)		kW/kW	4.00	3.79	3.91	3.73	3.56	-	3.94	3.81
NOMINAL WATER FLOW (9)		m3/h	129.40	144.40	167.30	186.50	204.30	-	218.80	244.40
AIR TEMPERATURE FOR 100% FREE COOLING CAPACITY		°C	4.39	3.05	2.87	1.26	2.30		0.90	0.00
MECHANICAL MODE PRESSURE DROPS (4) (6) (7)		kPa	71	53	77	76	90	-	63	77
FREE COOLING MODE PRESSURE DROPS (5)		kPa	143	129	156	170	183		118	141
HYDRAULIC SECTION										
WATER FLOW RANGE (7)		m3/h	108÷195	108÷195	123÷247	144÷287	154÷307	-	185÷370	185÷370
MAXIMUM PUMP ABSORBED POWER (OPTION WP OR DP)	P3 (2)	kW	0.0	0.0	0.0	0.0	0.0		0.0	0.0
MAXIMUM PUMP ABSORBED CURRENT (OPTION WP OR DP)		A	0.0	0.0	0.0	0.0	0.0		0.0	0.0
MAXIMUM PUMP ABSORBED POWER (OPTION PH OR DPH)	P5 (2)	kW	NA	NA	NA	NA	NA		NA	NA
MAXIMUM PUMP ABSORBED CURRENT (OPTION PH OR DPH)		A	NA	NA	NA	NA	NA		NA	NA
HYDRAULIC CONNECTIONS (VICTAULIC)		DN	150	150	200	200	200	-	200	200
FAN SECTION (AXIAL)										
FANS		nr.	14	14	16	16	18	-	24	24
CONDENSER COIL		nr.	14	14	16	16	18		12	12
MAXIMUM FANS ABSORBED POWER	EC	kW	30.38	30.38	34.72	34.72	39.06	-	51.60	51.60
MAXIMUM FANS ABSORBED CURRENT		A	50.12	50.12	57.28	57.28	64.44	-	85.44	85.44
TOTAL AIR FLOW		m3/h	248444	248444	283936	283936	319428	-	412608	412608
TOTAL ELECTRIC DATA										
MAXIMUM ABSORBED CURRENT (F.L.A) (7)		A	794.6	894.6	962.4	962.4	1202.2	-	1353.6	1443.6
MAXIMUM PEAK CURRENT (L.R.A) (7)		A	2374.3	2641.3	3171.2	3171.2	3705.1	-	3080.8	3636.8
MAXIMUM PEAK CURRENT WITH SOFT START (L.R.A) (7)		A	2003.7	2235.5	2667.2	2667.2	3131.1	-	2675.0	3132.8
NOISE DATA										
SOUND PRESSURE FOR STANDARD CONFIGURATION (7) (8)		dB(A)	70.8	71.5	72.2	72.2	72.8	-	72.8	73.6
SOUND PRESSURE FOR LOW NOISE CONFIGURTION (7) (8)		dB(A)	67.5	68.0	68.7	68.7	69.3	-	68.9	69.4
SOUND PRESSURE FOR SUPER LOW NOISE CONFIGURTION (7) (8)		dB(A)	66.3	67.0	67.7	67.7	68.3		68.2	68.8
DIMENSIONS AND WEIGHT										
LENGTH		mm	9800	9800	11100	11100	12790	-	12880	12880
WIDTH		mm	2210	2210	2210	2210	2210	-	2210	2210
HEIGHT		mm	2500	2500	2500	2500	2500	-	2500	2500
WEIGHT EMPTY FOR STANDARD CONFIGURATION (7)		kg	7100	7250	8000	9200	9400	-	11300	11600
WEIGHT OPERATIVE FOR STANDARD CONFIGURATION (7)		kg	7400	7600	8350	9600	9800	-	11800	12100

The manufacturer reserves the right to modify specifications without notice.

Last update: 03/05/2022
Revision: 00-2022

Data referred to:
(1) Data referred to Inlet/Outlet water temperature = +12/7 °C, ambient temperature = +35°C
(2) Available pressure can be calculated from Hitema Online Selection Software
(3) SEPR: data comply with the European Regulation (EU) 2016/2281, referring to high temperature process chillers in the configuration with brazed plate or shell and tube evaporator and without pump. Any added option that modify cooling capacity or absorbed power of the chiller will not be considered in the SEPR value
(4) Pressure drops taken in account: evaporator, valves, piping
(5) Pressure drops taken in account: evaporator, valves, piping, free-cooling coil
(6) Data referred to standard chiller configuration as indicated in frigorific section, with different evaporator this data can change
(7) Data referred to standard chiller configuration NP (chiller without pump) and considering EC fans
(8) Sound pressure level referred to measures according to normative ISO3744, pressure level at distance of 10 m, referred to free field on reflecting surface.
(9) Data referred to Inlet/Outlet water temperature = +22/15 °C, ambient temperature = +35°C
**Model 663 is the only one equipped with brazed plate evaporators instead of shell and tube in order to obtain a compact design
***Model 983/F24 and 993/F24 are designed with 3 indipendent refrigerant circuits and 3 compressors each one with 50-75-100 partition steps

NOVA SERIES

Air-Cooled liquid Chillers, screw compressors
AC axial fans
IP54 protection rating
Suitable for OUTDOOR installation

SERIES: NOVA-NOVAF	DATE: 04/10/2021	
CODE: TTD-NOVA-01	UPDATE: -	M. Burba
CHECKED BY		

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NOVA

TABLE 1/4

Air cooled liquid chillers NOVA series, screw compressors R134A / R513a, shell and tube evaporator, brazed-plate economizers, condenser with copper tubes and aluminium finned fins and axial fans. Each model is equipped with 2 refrigerant circuits, 2 compressors each one with 50-75-100 partition steps. Electrical feed 400V/3ph/50Hz. IP54 protection rating, chillers suitable for outdoor installation. Water storage tank NOT available.
Special design with exception to above description is available for ** and * marked models: refer to notes.**

Available Models configuration:
ECO.M2 = standard configuration, with AC fans with cut phase regulation, with economizer and standard compressor motor size
HE.M2 = high efficiency configuration with EC fans, optimized coil design, with economizer and standard compressor motor size
NE.M2 = chiller without economizer, with AC fans with cut phase regulation and standard compressor motor size

M2

TECHNICAL DATA

PERFORMANCES		Model	663/F4**	693/F4**	783/F6	793/F6	863/F6	873/F8	883/F8	893/F10
NOMINAL COOLING CAPACITY (1)	ECO.M2 (3)	kW	240	295	428	471	517	598	656	748
TOTAL NOMINAL ABSORBED POWER (1)		kW	63,76	84,30	118,24	138,20	156,00	166,00	199,00	213,00
EER (1)		kW/kW	3,40	3,24	3,34	3,18	3,11	3,32	3,08	3,25
NOMINAL WATER FLOW		m3/h	41,20	50,70	73,70	80,90	89,00	102,00	112,80	128,00
EVAPORATOR PRESSURE DROP		kPa	21	25	43	58	68	62	49	63
NOMINAL COOLING CAPACITY (1)	NE.M2 (3)	kW	213	263	381	422	449	533	576	672
TOTAL NOMINAL ABSORBED POWER (1)		kW	56,0	74,0	103,0	121,0	131,0	146,0	170,0	187,0
EER (1)		kW/kW	3,40	3,27	3,38	3,21	3,17	3,35	3,15	3,30
NOMINAL WATER FLOW		m3/h	36,60	45,20	65,00	72,00	77,00	92,00	99,00	115,00
EVAPORATOR PRESSURE DROP		kPa	18	18	46	48	53	51	56	52
NOMINAL COOLING CAPACITY (1)	HE.M2 (3)	kW	244	304	439	483	526	614	676	767
TOTAL NOMINAL ABSORBED POWER (1)		kW	60,4	78,9	110,9	129,4	148,0	155,0	184,0	199,0
EER (1)		kW/kW	3,56	3,47	3,57	3,41	3,28	3,58	3,37	3,49
NOMINAL WATER FLOW		m3/h	42,00	52,20	75,00	83,00	90,50	105,60	116,00	131,00
EVAPORATOR PRESSURE DROP		kPa	21	26	44	60	70	65	51	66
HYDRAULIC SECTION										
WATER FLOW RANGE		m3/h	30÷80	30÷80	43÷86	52÷103	52÷103	72÷144	79÷158	82÷163
MAXIMUM PUMP ABSORBED POWER (OPTION WP OR DP)	P3 (2)	kW	8,3	8,3	10,2	10,2	16,2	16,2	16,2	16,2
MAXIMUM PUMP ABSORBED CURRENT (OPTION WP OR DP)		A	14,1	14,1	17,4	17,4	26,6	26,6	26,6	26,6
MAXIMUM PUMP ABSORBED POWER (OPTION PH OR DPH)	P5 (2)	kW	16,2	16,2	24,9	24,9	31,9	31,9	31,9	31,9
MAXIMUM PUMP ABSORBED CURRENT (OPTION PH OR DPH)		A	26,6	26,6	42,4	42,4	53,5	53,5	53,5	53,5
HYDRAULIC CONNECTIONS (VICTAULIC)		DN	100	100	100	125	125	150	150	150
FAN SECTION (AXIAL)										
FANS		nr.	4	4	6	6	6	8	8	10
MAXIMUM FANS ABSORBED POWER	AC	kW	7,76	7,76	11,64	11,64	11,64	15,52	15,52	19,40
MAXIMUM FANS ABSORBED CURRENT		A	15,60	15,60	23,40	23,40	23,40	31,20	31,20	39,00
TOTAL AIR FLOW		m3/h	71651	71651	107476	107476	104378	143302	143302	179127
MAXIMUM FANS ABSORBED POWER	EC	kW	10,24	10,24	15,36	15,36	15,36	20,48	20,48	25,60
MAXIMUM FANS ABSORBED CURRENT		A	15,60	15,60	23,40	23,40	23,40	31,20	31,20	39,00
TOTAL AIR FLOW		m3/h	81515	81515	122272	122272	122272	163030	163030	203787
TOTAL ELECTRIC DATA										
MAXIMUM ABSORBED CURRENT (F.L.A) (4)		A	147,6	231,6	311,4	347,4	333,4	395,2	423,2	467,0
MAXIMUM PEAK CURRENT (L.R.A) (4)		A	437,0	676,0	797,0	926,0	901,0	1014,2	1231,0	1340,0
MAXIMUM PEAK CURRENT WITH SOFT START (L.R.A) (4)		A	369,0	574,0	680,0	789,0	766,0	910,0	1042,0	1135,0
NOISE DATA										
SOUND PRESSURE FOR STANDARD CONFIGURATION (4) (5)		dB(A)	63,8	65,6	64,3	64,1	67,5	68,6	67,7	68,1
SOUND PRESSURE FOR LOW NOISE CONFIGURTION (4) (5)		dB(A)	61,5	63,0	61,4	61,3	63,6	64,1	63,8	64,4
SOUND PRESSURE FOR SUPER LOW NOISE CONFIGURTION (4) (5)		dB(A)	59,7	61,4	60,0	59,8	62,9	63,8	63,0	63,4
DIMENSIONS AND WEIGHT										
LENGTH		mm	3100	3100	4050	4050	4050	5000	5000	5950
WIDTH		mm	2210	2210	2210	2210	2210	2210	2210	2210
HEIGHT		mm	2500	2500	2500	2500	2500	2500	2500	2500
WEIGHT EMPTY FOR STANDARD CONFIGURATION (4)		kg	3050	3200	4000	4300	4500	5250	5400	6300
WEIGHT OPERATIVE FOR STANDARD CONFIGURATION (4)		kg	3150	3330	4150	4470	4700	5500	5650	6580

The manufacturer reserves the right to modify specifications without notice.

Last update: 01/04/2021
Revision: 00-2021

Data referred to:
(1) Data referred to Inlet/Outlet water temperature = +12/7 °C, ambient temperature = +35°C
(2) Available pressure can be calculated from Hitema Online Selection Software
(3) SEPR: data comply with the European Regulation (EU) 2016/2281, referring to high temperature process chillers in the configuration with brazed plate or shell and tube evaporator and without pump. Any added option that modify cooling capacity or absorbed power of the chiller will not be considered in the SEPR value
(4) Data referred to standard chiller configuration NP (chiller without pump) and considering EC fans
(5) Sound pressure level referred to measures according to normative ISO3744, pressure level at distance of 10 m, referred to free field on reflecting surface.

**Model 663 is the only one equipped with brazed plate evaporators instead of shell and tube in order to obtain a compact design
***Model 983/F24 and 993/F24 are designed with 3 indipendent refrigerant circuits and 3 compressors each one with 50-75-100 partition steps

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NOVA

TABLE 2/4

Air cooled liquid chillers NOVA series, screw compressors R134A / R513a, shell and tube evaporator, brazed-plate economizers, condenser with copper tubes and aluminium finned fins and axial fans. Each model is equipped with 2 refrigerant circuits, 2 compressors each one with 50-75-100 partition steps. Electrical feed 400V/3ph/50Hz. IP54 protection rating, chillers suitable for outdoor installation. Water storage tank NOT available.
Special design with exception to above description is available for ** and * marked models: refer to notes.**

Available Models configuration:
ECO.M2 = standard configuration, with AC fans with cut phase regulation, with economizer and standard compressor motor size
HE.M2 = high efficiency configuration with EC fans, optimized coil design, with economizer and standard compressor motor size
NE.M2 = chiller without economizer, with AC fans with cut phase regulation and standard compressor motor size

M2

TECHNICAL DATA

PERFORMANCES		Model	963/F12	973/F12	983/F14	993/F18	9103/F18	9113/F20	983/F24***	993/F24***
NOMINAL COOLING CAPACITY (1)	ECO.M2 (3)	kW	896	973	1130	1314	1408	1526	1695	1851
TOTAL NOMINAL ABSORBED POWER (1)	ECO.M2 (3)	kW	246,00	279,00	326,00	365,00	414,00	445,00	321,00	363,00
EER (1)	ECO.M2 (3)	kW/kW	3,35	3,24	3,22	3,32	3,16	3,18	4,68	4,57
NOMINAL WATER FLOW	ECO.M2 (3)	m3/h	154,00	167,00	194,00	226,00	242,00	262,00	291,00	318,00
EVAPORATOR PRESSURE DROP	ECO.M2 (3)	kPa	68	65	68	79	85	95	67	79
NOMINAL COOLING CAPACITY (1)	NE.M2 (3)	kW	802	874	1016	1195	1283	1399	1527	1680
TOTAL NOMINAL ABSORBED POWER (1)	NE.M2 (3)	kW	216,0	247,0	288,0	330,0	374,0	406,0	429,0	491,0
EER (1)	NE.M2 (3)	kW/kW	3,39	3,27	3,26	3,31	3,17	3,18	3,25	3,16
NOMINAL WATER FLOW	NE.M2 (3)	m3/h	137,00	150,00	174,80	205,60	220,00	240,00	262,00	288,00
EVAPORATOR PRESSURE DROP	NE.M2 (3)	kPa	56	54	57	66	72	81	56	66
NOMINAL COOLING CAPACITY (1)	HE.M2 (3)	kW	921	1004	1163	1358	1442	1566	1744	1891
TOTAL NOMINAL ABSORBED POWER (1)	HE.M2 (3)	kW	231,0	262,0	307,0	338,0	397,0	423,0	302,0	347,0
EER (1)	HE.M2 (3)	kW/kW	3,58	3,48	3,45	3,60	3,31	3,36	4,96	4,77
NOMINAL WATER FLOW	HE.M2 (3)	m3/h	158,00	172,00	200,00	233,00	248,00	269,00	300,00	325,00
EVAPORATOR PRESSURE DROP	HE.M2 (3)	kPa	71	68	72	83	89	99	71	82
HYDRAULIC SECTION										
WATER FLOW RANGE		m3/h	108÷195	108÷195	123÷247	144÷287	154÷307	167÷333	185÷370	185÷370
MAXIMUM PUMP ABSORBED POWER (OPTION WP OR DP)	P3 (2)	kW	23,5	23,5	23,5	NA for this cabinet size, please refer to Hitema hydro module series HYD				
MAXIMUM PUMP ABSORBED CURRENT (OPTION WP OR DP)	P3 (2)	A	39,0	39,0	39,0					
MAXIMUM PUMP ABSORBED POWER (OPTION PH OR DPH)	P5 (2)	kW	39,1	39,1	39,1	NA for this cabinet size, please refer to Hitema hydro module series HYD				
MAXIMUM PUMP ABSORBED CURRENT (OPTION PH OR DPH)	P5 (2)	A	65,6	65,6	65,6					
HYDRAULIC CONNECTIONS (VICTAULIC)		DN	150	150	200	200	200	200	250	250
FAN SECTION (AXIAL)										
FANS		nr.	12	12	14	18	18	20	24	24
MAXIMUM FANS ABSORBED POWER	AC	kW	23,28	23,28	27,16	34,92	34,92	38,80	46,56	46,56
MAXIMUM FANS ABSORBED CURRENT	AC	A	46,80	46,80	54,60	70,20	70,20	78,00	93,60	93,60
TOTAL AIR FLOW	AC	m3/h	199461	199461	232704	299191	285249	332435	420610	402020
MAXIMUM FANS ABSORBED POWER	EC	kW	30,72	30,72	35,84	46,08	46,08	51,20	61,44	61,44
MAXIMUM FANS ABSORBED CURRENT	EC	A	46,80	46,80	54,60	70,20	70,20	78,00	93,60	93,60
TOTAL AIR FLOW	EC	m3/h	226261	226261	263971	339391	339391	377101	475792	475792
TOTAL ELECTRIC DATA										
MAXIMUM ABSORBED CURRENT (F.L.A) (4)		A	606,8	666,8	694,6	790,2	896,2	1032,0	1053,6	1173,6
MAXIMUM PEAK CURRENT (L.R.A) (4)		A	1792,0	1910,0	2316,0	2562,0	3127,0	3586,0	2656,0	2934,0
MAXIMUM PEAK CURRENT WITH SOFT START (L.R.A) (4)		A	1520,0	1622,0	1946,0	2156,0	2623,0	3012,0	2285,0	2528,0
NOISE DATA										
SOUND PRESSURE FOR STANDARD CONFIGURATION (4) (5)		dB(A)	68,7	69,3	70,1	70,9	71,6	72,2	72,1	72,9
SOUND PRESSURE FOR LOW NOISE CONFIGURTION (4) (5)		dB(A)	64,3	65,7	66,0	66,6	67,3	67,8	68,7	69,0
SOUND PRESSURE FOR SUPER LOW NOISE CONFIGURTION (4) (5)		dB(A)	63,9	64,6	65,3	66,1	66,8	67,4	67,5	68,2
DIMENSIONS AND WEIGHT										
LENGTH		mm	6900	6900	7850	9750	9750	10700	13140	13140
WIDTH		mm	2210	2210	2210	2210	2210	2210	2210	2210
HEIGHT		mm	2500	2500	2500	2500	2500	2500	2500	2500
WEIGHT EMPTY FOR STANDARD CONFIGURATION (4)		kg	7100	7250	8000	9200	9400	10100	11300	11600
WEIGHT OPERATIVE FOR STANDARD CONFIGURATION (4)		kg	7400	7600	8350	9600	9800	10500	11800	12100

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Data referred to:
(1) Data referred to Inlet/Outlet water temperature = +12/7 °C, ambient temperature = +35°C
(2) Available pressure can be calculated from Hitema Online Selection Software
(3) SEPR: data comply with the European Regulation (EU) 2016/2281, referring to high temperature process chillers in the configuration with brazed plate or shell and tube evaporator and without pump. Any added option that modify cooling capacity or absorbed power of the chiller will not be considered in the SEPR value
(4) Data referred to standard chiller configuration NP (chiller without pump) and considering EC fans
(5) Sound pressure level referred to measures according to normative ISO3744, pressure level at distance of 10 m, referred to free field on reflecting surface.

**Model 663 is the only one equipped with brazed plate evaporators instead of shell and tube in order to obtain a compact design
***Model 983/F24 and 993/F24 are designed with 3 indipendent refrigerant circuits and 3 compressors each one with 50-75-100 partition steps

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NOVA

TABLE 3/4

Air cooled liquid chillers NOVA series, screw compressors R134A / R513a, shell and tube evaporator, brazed-plate economizers, condenser with copper tubes and aluminium finned fins and axial fans. Each model is equipped with 2 refrigerant circuits, 2 compressors each one with 50-75-100 partition steps. Electrical feed 400V/3ph/50Hz. IP54 protection rating, chillers suitable for outdoor installation. Water storage tank NOT available.
Special design with exception to above description is available for ** and * marked models: refer to notes.**

Available Models configuration:
ECO.M1 = standard configuration, with AC fans with cut phase regulation, with economizer and oversized compressor motor size
HE.M1 = high efficiency configuration with EC fans, optimized coil design, with economizer and oversized compressor motor size
NE.M1 = chiller without economizer, with AC fans with cut phase regulation and oversized compressor motor size

M1

TECHNICAL DATA

PERFORMANCES		Model	663/F4**	693/F4**	783/F6	793/F6	863/F6	873/F8	883/F8	893/F10
NOMINAL COOLING CAPACITY (1)	ECO.M1 (3)	kW	217	-	388	423	467	541	584	685
TOTAL NOMINAL ABSORBED POWER (1)	ECO.M1 (3)	kW	79,52	-	149,20	174,00	199,50	212,50	251,40	266,00
EER (1)	ECO.M1 (3)	kW/kW	2,48	-	2,41	2,28	2,21	2,37	2,19	2,40
NOMINAL WATER FLOW	ECO.M1 (3)	m3/h	37,26	-	66,60	72,61	80,33	93,06	100,42	117,00
EVAPORATOR PRESSURE DROP	ECO.M1 (3)	kPa	13	-	53	43	52	47	53	49
NOMINAL COOLING CAPACITY (6)	NE.M1 (3)	kW	283	-	494	542	577	683	731	875
TOTAL NOMINAL ABSORBED POWER (6)	NE.M1 (3)	kW	63,0	-	120,0	140,8	152,2	168,7	195,8	214,0
EER (6)	NE.M1 (3)	kW/kW	4,00	-	3,75	3,56	3,52	3,71	3,46	3,75
NOMINAL WATER FLOW	NE.M1 (3)	m3/h	34,72	-	60,80	66,71	71,10	84,00	90,00	107,60
EVAPORATOR PRESSURE DROP	NE.M1 (3)	kPa	11	-	43	51	40	56	42	40
NOMINAL COOLING CAPACITY (1)	HE.M1 (3)	kW	223	-	401	438	481	560	605	706
TOTAL NOMINAL ABSORBED POWER (1)	HE.M1 (3)	kW	75,4	-	140,0	162,0	188,0	199,5	232,0	248,5
EER (1)	HE.M1 (3)	kW/kW	2,68	-	2,64	2,52	2,41	2,60	2,44	2,64
NOMINAL WATER FLOW	HE.M1 (3)	m3/h	38,29	-	68,83	75,16	82,00	96,30	103,80	121,00
EVAPORATOR PRESSURE DROP	HE.M1 (3)	kPa	13	-	56	46	55	50	57	52
HYDRAULIC SECTION										
WATER FLOW RANGE		m3/h	30÷80	-	43÷86	52÷103	52÷103	72÷144	79÷158	82÷163
MAXIMUM PUMP ABSORBED POWER (OPTION WP OR DP)	P3 (2)	kW	8,3	-	10,2	10,2	16,2	16,2	16,2	16,2
MAXIMUM PUMP ABSORBED CURRENT (OPTION WP OR DP)	P3 (2)	A	14,1	-	17,4	17,4	26,6	26,6	26,6	26,6
MAXIMUM PUMP ABSORBED POWER (OPTION PH OR DPH)	P5 (2)	kW	16,2	-	24,9	24,9	31,9	31,9	31,9	31,9
MAXIMUM PUMP ABSORBED CURRENT (OPTION PH OR DPH)	P5 (2)	A	26,6	-	42,4	42,4	53,5	53,5	53,5	53,5
HYDRAULIC CONNECTIONS (VICTAULIC)		DN	100	-	100	125	125	150	150	150
FAN SECTION (AXIAL)										
FANS		nr.	4	-	6	6	6	8	8	10
MAXIMUM FANS ABSORBED POWER	AC	kW	7,76	-	11,64	11,64	11,64	15,52	15,52	19,40
MAXIMUM FANS ABSORBED CURRENT	AC	A	15,60	-	23,40	23,40	23,40	31,20	31,20	39,00
TOTAL AIR FLOW	AC	m3/h	71651	-	107476	107476	104378	143302	143302	179127
MAXIMUM FANS ABSORBED POWER	EC	kW	10,24	-	15,36	15,36	15,36	20,48	20,48	25,60
MAXIMUM FANS ABSORBED CURRENT	EC	A	15,60	-	23,40	23,40	23,40	31,20	31,20	39,00
TOTAL AIR FLOW	EC	m3/h	81515	-	122272	122272	122272	163030	163030	203787
TOTAL ELECTRIC DATA										
MAXIMUM ABSORBED CURRENT (F.L.A) (4)		A	232,0	-	360,0	383,0	455,0	523,0	551,0	659,0
MAXIMUM PEAK CURRENT (L.R.A) (4)		A	667,0	-	1040,0	1147,0	1255,0	1381,0	1490,0	1635,0
MAXIMUM PEAK CURRENT WITH SOFT START (L.R.A) (4)		A	565,0	-	882,0	969,0	1066,0	1176,0	1267,0	1398,0
NOISE DATA										
SOUND PRESSURE FOR STANDARD CONFIGURATION (4) (5)		dB(A)	64,9	-	68,9	69,0	67,7	68,1	69,0	69,1
SOUND PRESSURE FOR LOW NOISE CONFIGURTION (4) (5)		dB(A)	61,8	-	64,7	65,0	63,8	64,1	64,8	64,9
SOUND PRESSURE FOR SUPER LOW NOISE CONFIGURTION (4) (5)		dB(A)	60,5	-	64,1	64,3	63,0	63,4	64,2	64,4
DIMENSIONS AND WEIGHT										
LENGTH		mm	3100	-	4050	4050	4050	5000	5000	5950
WIDTH		mm	2210	-	2210	2210	2210	2210	2210	2210
HEIGHT		mm	2500	-	2500	2500	2500	2500	2500	2500
WEIGHT EMPTY FOR STANDARD CONFIGURATION (4)		kg	3050	-	4000	4300	4500	5250	5400	6300
WEIGHT OPERATIVE FOR STANDARD CONFIGURATION (4)		kg	3150	-	4150	4470	4700	5500	5650	6580

The manufacturer reserves the right to modify specifications without notice.

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Data referred to:
(1) Data referred to Inlet/Outlet water temperature = +12/7 °C, ambient temperature = +45°C
(2) Available pressure can be calculated from Hitema Online Selection Software
(3) SEPR: data comply with the European Regulation (EU) 2016/2281, referring to high temperature process chillers in the configuration with brazed plate or shell and tube evaporator and without pump. Any added option that modify cooling capacity or absorbed power of the chiller will not be considered in the SEPR value
(4) Data referred to standard chiller configuration NP (chiller without pump) and considering EC fans
(5) Sound pressure level referred to measures according to normative ISO3744, pressure level at distance of 10 m, referred to free field on reflecting surface.
(6) Data referred to Inlet/Outlet water temperature = +22/15 °C, ambient temperature = +35°C
**Model 663 is the only one equipped with brazed plate evaporators instead of shell and tube in order to obtain a compact design
***Model 983/F24 and 993/F24 are designed with 3 indipendent refrigerant circuits and 3 compressors each one with 50-75-100 partition steps

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NOVA

TABLE 4/4

Air cooled liquid chillers NOVA series, screw compressors R134A / R513a, shell and tube evaporator, brazed-plate economizers, condenser with copper tubes and aluminium finned fins and axial fans. Each model is equipped with 2 refrigerant circuits, 2 compressors each one with 50-75-100 partition steps. Electrical feed 400V/3ph/50Hz. IP54 protection rating, chillers suitable for outdoor installation. Water storage tank NOT available.
Special design with exception to above description is available for ** and * marked models: refer to notes.**

Available Models configuration:
ECO.M1 = standard configuration, with AC fans with cut phase regulation, with economizer and oversized compressor motor size
HE.M1 = high efficiency configuration with EC fans, optimized coil design, with economizer and oversized compressor motor size
NE.M1 = chiller without economizer, with AC fans with cut phase regulation and oversized compressor motor size

M1

TECHNICAL DATA

PERFORMANCES		Model	963/F12	973/F12	983/F14	993/F18	9103/F18	9113/F20	983/F24***	993/F24***
NOMINAL COOLING CAPACITY (1)	ECO.M1 (3)	kW	796	857	991	1169	1236	-	1534	1694
TOTAL NOMINAL ABSORBED POWER (1)	ECO.M1 (3)	kW	300,00	344,80	385,20	434,00	502,00	-	567,00	645,00
EER (1)	ECO.M1 (3)	kW/kW	2,46	2,33	2,40	2,49	2,30	-	2,50	2,45
NOMINAL WATER FLOW	ECO.M1 (3)	m3/h	136,70	147,00	170,00	200,00	212,00	-	256,00	283,00
EVAPORATOR PRESSURE DROP	ECO.M1 (3)	kPa	50	47	49	59	63	-	49	59
NOMINAL COOLING CAPACITY (6)	NE.M1 (3)	kW	1031	1112	1294	1543	1655	-	2003	2193
TOTAL NOMINAL ABSORBED POWER (6)	NE.M1 (3)	kW	238,0	282,0	316,0	364,8	431,6	-	468,0	540,0
EER (6)	NE.M1 (3)	kW/kW	3,95	3,64	3,77	3,86	3,55	-	3,89	3,74
NOMINAL WATER FLOW	NE.M1 (3)	m3/h	126,70	136,80	159,00	190,00	203,00	-	240,00	262,00
EVAPORATOR PRESSURE DROP	NE.M1 (3)	kPa	61	51	43	52	84	-	59	50
NOMINAL COOLING CAPACITY (1)	HE.M1 (3)	kW	822	888	1029	1224	1279	-	1591	1741
TOTAL NOMINAL ABSORBED POWER (1)	HE.M1 (3)	kW	298,0	325,6	364,4	404,0	480,0	-	538,8	618,0
EER (1)	HE.M1 (3)	kW/kW	2,56	2,55	2,63	2,79	2,48	-	2,72	2,62
NOMINAL WATER FLOW	HE.M1 (3)	m3/h	141,30	152,00	176,00	210,00	219,00	-	266,00	291,00
EVAPORATOR PRESSURE DROP	HE.M1 (3)	kPa	53	50	53	64	67	-	53	62
HYDRAULIC SECTION										
WATER FLOW RANGE		m3/h	108÷195	108÷195	123÷247	144÷287	154÷307	-	185÷370	185÷370
MAXIMUM PUMP ABSORBED POWER (OPTION WP OR DP)	P3 (2)	kW	23,5	23,5	23,5	NA for this cabinet size, please refer to Hitema hydro module series HYD				
MAXIMUM PUMP ABSORBED CURRENT (OPTION WP OR DP)	P3 (2)	A	39,0	39,0	39,0					
MAXIMUM PUMP ABSORBED POWER (OPTION PH OR DPH)	P5 (2)	kW	39,1	39,1	39,1	NA for this cabinet size, please refer to Hitema hydro module series HYD				
MAXIMUM PUMP ABSORBED CURRENT (OPTION PH OR DPH)	P5 (2)	A	65,6	65,6	65,6					
HYDRAULIC CONNECTIONS (VICTAULIC)		DN	150	150	200	200	200	-	250	250
FAN SECTION (AXIAL)										
FANS		nr.	12	12	14	18	18	-	24	24
MAXIMUM FANS ABSORBED POWER	AC	kW	23,28	23,28	27,16	34,92	34,92	-	46,56	46,56
MAXIMUM FANS ABSORBED CURRENT	AC	A	46,80	46,80	54,60	70,20	70,20	-	93,60	93,60
TOTAL AIR FLOW	AC	m3/h	199461	199461	232704	299191	285249	-	420610	402020
MAXIMUM FANS ABSORBED POWER	EC	kW	30,72	30,72	35,84	46,08	46,08	-	61,44	61,44
MAXIMUM FANS ABSORBED CURRENT	EC	A	46,80	46,80	54,60	70,20	70,20	-	93,60	93,60
TOTAL AIR FLOW	EC	m3/h	226261	226261	263971	339391	339391	-	475792	475792
TOTAL ELECTRIC DATA										
MAXIMUM ABSORBED CURRENT (F.L.A) (4)		A	787,0	887,0	955,0	970,0	1202,0	-	1444,0	1444,0
MAXIMUM PEAK CURRENT (L.R.A) (4)		A	2370,0	2637,0	3157,0	3175,0	3705,0	-	3637,0	3637,0
MAXIMUM PEAK CURRENT WITH SOFT START (L.R.A) (4)		A	2000,0	2232,0	2663,0	2671,0	3131,0	-	3133,0	3133,0
NOISE DATA										
SOUND PRESSURE FOR STANDARD CONFIGURATION (4) (5)		dB(A)	70,1	70,9	71,6	71,6	72,2	-	73,6	73,6
SOUND PRESSURE FOR LOW NOISE CONFIGURTION (4) (5)		dB(A)	66,0	66,6	67,3	67,3	67,8	-	69,5	69,5
SOUND PRESSURE FOR SUPER LOW NOISE CONFIGURTION (4) (5)		dB(A)	65,3	66,1	66,8	66,8	67,4		68,9	68,9
DIMENSIONS AND WEIGHT										
LENGTH		mm	6900	6900	7850	9750	9750	-	13140	13140
WIDTH		mm	2210	2210	2210	2210	2210	-	2210	2210
HEIGHT		mm	2450	2450	2450	2450	2450	-	2450	2450
WEIGHT EMPTY FOR STANDARD CONFIGURATION (4)		kg	7100	7250	8000	9200	9400	-	11300	11600
WEIGHT OPERATIVE FOR STANDARD CONFIGURATION (4)		kg	7400	7600	8350	9600	9800	-	11800	12100

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Data referred to:
(1) Data referred to Inlet/Outlet water temperature = +12/7 °C, ambient temperature = +45°C
(2) Available pressure can be calculated from Hitema Online Selection Software
(3) SEPR: data comply with the European Regulation (EU) 2016/2281, referring to high temperature process chillers in the configuration with brazed plate or shell and tube evaporator and without pump. Any added option that modify cooling capacity or absorbed power of the chiller will not be considered in the SEPR value
(4) Data referred to standard chiller configuration NP (chiller without pump) and considering EC fans
(5) Sound pressure level referred to measures according to normative ISO3744, pressure level at distance of 10 m, referred to free field on reflecting surface.
(6) Data referred to Inlet/Outlet water temperature = +22/15 °C, ambient temperature = +35°C
**Model 663 is the only one equipped with brazed plate evaporators instead of shell and tube in order to obtain a compact design
***Model 983/F24 and 993/F24 are designed with 3 indipendent refrigerant circuits and 3 compressors each one with 50-75-100 partition steps

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NOVA

TABLE 1/2

Air cooled liquid chillers NOVA series, screw compressors R1234ze, shell and tube evaporator, brazed-plate economizers, condenser with copper tubes and aluminium finned fins and axial fans. Each model is equipped with 2 refrigerant circuits, 2 compressors each one with 50-75-100 partition steps. Electrical feed 400V/3ph/50Hz. IP54 protection rating, chillers suitable for outdoor installation. Water storage tank NOT available.
Special design with exception to above description is available for ** and * marked models: refer to notes.**

Available Models configuration:
ECO.M2 = standard configuration, with AC fans with cut phase regulation, with economizer and standard compressor motor size
HE.M2 = high efficiency configuration with EC fans, optimized coil design, with economizer and standard compressor motor size
NE.M2 = chiller without economizer, with AC fans with cut phase regulation and standard compressor motor size

M2

TECHNICAL DATA

PERFORMANCES		Model	663/F4**	693/F4**	783/F6	793/F6	863/F6	873/F8	883/F8	893/F10
NOMINAL COOLING CAPACITY (1)	ECO.M2 (3)	kW	154	231	334	369	404	467	516	585
TOTAL NOMINAL ABSORBED POWER (1)	ECO.M2 (3)	kW	35,80	58,98	82,40	96,20	106,00	115,00	136,00	146,80
EER (1)	ECO.M2 (3)	kW/kW	3,54	3,46	3,55	3,42	3,43	3,58	3,41	3,52
NOMINAL WATER FLOW	ECO.M2 (3)	m3/h	26,60	39,67	57,33	63,34	69,47	80,26	88,57	100,59
EVAPORATOR PRESSURE DROP	ECO.M2 (3)	kPa	25	26	47	51	51	51	42	52
NOMINAL COOLING CAPACITY (1)	NE.M2 (3)	kW	137	209	301	335	357	423	460	533
TOTAL NOMINAL ABSORBED POWER (1)	NE.M2 (3)	kW	31,9	53,1	74,0	87,0	92,6	103,4	119,4	132,8
EER (1)	NE.M2 (3)	kW/kW	3,46	3,44	3,51	3,40	3,42	3,56	3,41	3,50
NOMINAL WATER FLOW	NE.M2 (3)	m3/h	23,61	35,70	51,67	57,50	61,31	72,61	78,90	91,32
EVAPORATOR PRESSURE DROP	NE.M2 (3)	kPa	30	22	40	42	40	42	34	43
NOMINAL COOLING CAPACITY (1)	HE.M2 (3)	kW	155	234	339	374	409	472	523	593
TOTAL NOMINAL ABSORBED POWER (1)	HE.M2 (3)	kW	35,2	57,2	80,3	92,8	102,0	111,6	131,2	142,0
EER (1)	HE.M2 (3)	kW/kW	3,41	3,46	3,54	3,46	3,49	3,57	3,45	3,54
NOMINAL WATER FLOW	HE.M2 (3)	m3/h	26,62	39,50	58,02	64,20	70,20	81,02	89,60	101,62
EVAPORATOR PRESSURE DROP	HE.M2 (3)	kPa	25	26	48	52	52	52	43	53
HYDRAULIC SECTION										
WATER FLOW RANGE		m3/h	25÷52	30÷61	36÷73	40÷80	42÷85	46÷94	47÷95	54÷108
MAXIMUM PUMP ABSORBED POWER (OPTION WP OR DP)	P3 (2)	kW	8,3	8,3	10,2	10,2	16,2	16,2	16,2	16,2
MAXIMUM PUMP ABSORBED CURRENT (OPTION WP OR DP)	P3 (2)	A	14,1	14,1	17,4	17,4	26,6	26,6	26,6	26,6
MAXIMUM PUMP ABSORBED POWER (OPTION PH OR DPH)	P5 (2)	kW	16,2	16,2	24,9	24,9	31,9	31,9	31,9	31,9
MAXIMUM PUMP ABSORBED CURRENT (OPTION PH OR DPH)	P5 (2)	A	26,6	26,6	42,4	42,4	53,5	53,5	53,5	53,5
HYDRAULIC CONNECTIONS (VICTAULIC)		DN	80	100	100	100	100	100	100	125
FAN SECTION (AXIAL)										
FANS		nr.	4	4	6	6	6	8	8	10
MAXIMUM FANS ABSORBED POWER	AC	kW	7,76	7,76	11,64	11,64	11,64	15,52	15,52	19,40
MAXIMUM FANS ABSORBED CURRENT	AC	A	15,60	15,60	23,40	23,40	23,40	31,20	31,20	39,00
TOTAL AIR FLOW	AC	m3/h	71651	71651	107476	107476	104378	143302	143302	179127
MAXIMUM FANS ABSORBED POWER	EC	kW	10,24	10,24	15,36	15,36	15,36	20,48	20,48	25,60
MAXIMUM FANS ABSORBED CURRENT	EC	A	15,60	15,60	23,40	23,40	23,40	31,20	31,20	39,00
TOTAL AIR FLOW	EC	m3/h	81515	81515	122272	122272	122272	163030	163030	203787
TOTAL ELECTRIC DATA										
MAXIMUM ABSORBED CURRENT (F.L.A) (4)		A	147,6	231,6	311,4	347,4	333,4	395,2	423,2	467,0
MAXIMUM PEAK CURRENT (L.R.A) (4)		A	437,0	676,0	797,0	926,0	901,0	1014,2	1231,0	1340,0
MAXIMUM PEAK CURRENT WITH SOFT START (L.R.A) (4)		A	369,0	574,0	680,0	789,0	766,0	910,0	1042,0	1135,0
NOISE DATA										
SOUND PRESSURE FOR STANDARD CONFIGURATION (4) (5)		dB(A)	63,8	65,6	64,3	64,1	67,5	68,6	67,7	68,1
SOUND PRESSURE FOR LOW NOISE CONFIGURTION (4) (5)		dB(A)	61,5	63,0	61,4	61,3	63,6	64,1	63,8	64,4
SOUND PRESSURE FOR SUPER LOW NOISE CONFIGURTION (4) (5)		dB(A)	59,7	61,4	60,0	59,8	62,9	63,8	63,0	63,4
DIMENSIONS AND WEIGHT										
LENGTH		mm	3100	3100	4050	4050	4050	5000	5000	5950
WIDTH		mm	2210	2210	2210	2210	2210	2210	2210	2210
HEIGHT		mm	2500	2500	2500	2500	2500	2500	2500	2500
WEIGHT EMPTY FOR STANDARD CONFIGURATION (4)		kg	3050	3200	4000	4300	4500	5250	5400	6300
WEIGHT OPERATIVE FOR STANDARD CONFIGURATION (4)		kg	3150	3330	4150	4470	4700	5500	5650	6580

The manufacturer reserves the right to modify specifications without notice.

Last update: 01/04/2021
Revision: 00-2021

Data referred to:
(1) Data referred to Inlet/Outlet water temperature = +12/7 °C, ambient temperature = +35°C
(2) Available pressure can be calculated from Hitema Online Selection Software
(3) SEPR: data comply with the European Regulation (EU) 2016/2281, referring to high temperature process chillers in the configuration with brazed plate or shell and tube evaporator and without pump. Any added option that modify cooling capacity or absorbed power of the chiller will not be considered in the SEPR value
(4) Data referred to standard chiller configuration NP (chiller without pump) and considering EC fans
(5) Sound pressure level referred to measures according to normative ISO3744, pressure level at distance of 10 m, referred to free field on reflecting surface.

**Model 663 is the only one equipped with brazed plate evaporators instead of shell and tube in order to obtain a compact design
***Model 983/F24 and 993/F24 are designed with 3 indipendent refrigerant circuits and 3 compressors each one with 50-75-100 partition steps

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NOVA

TABLE 2/2

Air cooled liquid chillers NOVA series, screw compressors R1234ze, shell and tube evaporator, brazed-plate economizers, condenser with copper tubes and aluminium finned fins and axial fans. Each model is equipped with 2 refrigerant circuits, 2 compressors each one with 50-75-100 partition steps. Electrical feed 400V/3ph/50Hz. IP54 protection rating, chillers suitable for outdoor installation. Water storage tank NOT available.
Special design with exception to above description is available for ** and * marked models: refer to notes.**

Available Models configuration:
ECO.M2 = standard configuration, with AC fans with cut phase regulation, with economizer and standard compressor motor size
HE.M2 = high efficiency configuration with EC fans, optimized coil design, with economizer and standard compressor motor size
NE.M2 = chiller without economizer, with AC fans with cut phase regulation and standard compressor motor size

M2

TECHNICAL DATA

PERFORMANCES		Model	963/F12	973/F12	983/F14	993/F18	9103/F18	9113/F20	983/F24***	993/F24***
NOMINAL COOLING CAPACITY (1)	ECO.M2 (3)	kW	691	759	879	1023	1104	1191	1349	1478
TOTAL NOMINAL ABSORBED POWER (1)	ECO.M2 (3)	kW	169,00	193,20	224,70	249,60	278,00	302,30	222,40	250,80
EER (1)	ECO.M2 (3)	kW/kW	3,59	3,51	3,49	3,60	3,53	3,49	5,02	4,97
NOMINAL WATER FLOW	ECO.M2 (3)	m3/h	118,61	130,20	151,00	175,60	189,67	204,40	231,50	253,70
EVAPORATOR PRESSURE DROP	ECO.M2 (3)	kPa	48	56	63	60	61	73	61	77
NOMINAL COOLING CAPACITY (1)	NE.M2 (3)	kW	626	688	799	945	1015	1105	1230	1357
TOTAL NOMINAL ABSORBED POWER (1)	NE.M2 (3)	kW	151,6	174,8	202,0	229,7	254,0	279,6	200,6	229,9
EER (1)	NE.M2 (3)	kW/kW	3,58	3,47	3,49	3,57	3,51	3,47	4,98	4,91
NOMINAL WATER FLOW	NE.M2 (3)	m3/h	107,45	118,27	137,52	162,20	174,22	189,60	211,13	232,90
EVAPORATOR PRESSURE DROP	NE.M2 (3)	kPa	40	46	52	52	52	64	51	66
NOMINAL COOLING CAPACITY (1)	HE.M2 (3)	kW	700	770	894	1035	1122	1209	1364	1498
TOTAL NOMINAL ABSORBED POWER (1)	HE.M2 (3)	kW	164,0	186,1	214,8	241,2	266,8	291,8	215,0	240,1
EER (1)	HE.M2 (3)	kW/kW	3,59	3,55	3,57	3,60	3,59	3,52	4,93	4,97
NOMINAL WATER FLOW	HE.M2 (3)	m3/h	119,90	132,20	153,45	177,60	192,59	207,52	234,13	257,13
EVAPORATOR PRESSURE DROP	HE.M2 (3)	kPa	49	57	65	62	63	75	62	79
HYDRAULIC SECTION										
WATER FLOW RANGE		m3/h	75÷150	75÷165	82÷172	122÷245	125÷250	120÷240	162÷324	165÷335
MAXIMUM PUMP ABSORBED POWER (OPTION WP OR DP)	P3 (2)	kW	23,5	23,5	23,5	NA for this cabinet size, please refer to Hitema hydro module series HYD				
MAXIMUM PUMP ABSORBED CURRENT (OPTION WP OR DP)	P3 (2)	A	39,0	39,0	39,0					
MAXIMUM PUMP ABSORBED POWER (OPTION PH OR DPH)	P5 (2)	kW	39,1	39,1	39,1	NA for this cabinet size, please refer to Hitema hydro module series HYD				
MAXIMUM PUMP ABSORBED CURRENT (OPTION PH OR DPH)	P5 (2)	A	65,6	65,6	65,6					
HYDRAULIC CONNECTIONS (VICTAULIC)		DN	150	150	150	200	200	200	200	200
FAN SECTION (AXIAL)										
FANS		nr.	12	12	14	18	18	20	24	24
MAXIMUM FANS ABSORBED POWER	AC	kW	23,28	23,28	27,16	34,92	34,92	38,80	46,56	46,56
MAXIMUM FANS ABSORBED CURRENT	AC	A	46,80	46,80	54,60	70,20	70,20	78,00	93,60	93,60
TOTAL AIR FLOW	AC	m3/h	199461	199461	232704	299191	285249	332435	420610	402020
MAXIMUM FANS ABSORBED POWER	EC	kW	30,72	30,72	35,84	46,08	46,08	51,20	61,44	61,44
MAXIMUM FANS ABSORBED CURRENT	EC	A	46,80	46,80	54,60	70,20	70,20	78,00	93,60	93,60
TOTAL AIR FLOW	EC	m3/h	226261	226261	263971	339391	339391	377101	475792	475792
TOTAL ELECTRIC DATA										
MAXIMUM ABSORBED CURRENT (F.L.A) (4)		A	606,8	666,8	694,6	790,2	896,2	1032,0	1053,6	1173,6
MAXIMUM PEAK CURRENT (L.R.A) (4)		A	1792,0	1910,0	2316,0	2562,0	3127,0	3586,0	2656,0	2934,0
MAXIMUM PEAK CURRENT WITH SOFT START (L.R.A) (4)		A	1520,0	1622,0	1946,0	2156,0	2623,0	3012,0	2285,0	2528,0
NOISE DATA										
SOUND PRESSURE FOR STANDARD CONFIGURATION (4) (5)		dB(A)	68,7	69,3	70,1	70,9	71,6	72,2	72,1	72,9
SOUND PRESSURE FOR LOW NOISE CONFIGURTION (4) (5)		dB(A)	64,3	65,7	66,0	66,6	67,3	67,8	68,7	69,0
SOUND PRESSURE FOR SUPER LOW NOISE CONFIGURTION (4) (5)		dB(A)	63,9	64,6	65,3	66,1	66,8	67,4	67,5	68,2
DIMENSIONS AND WEIGHT										
LENGTH		mm	6900	6900	7850	9750	9750	10700	13140	13140
WIDTH		mm	2210	2210	2210	2210	2210	2210	2210	2210
HEIGHT		mm	2500	2500	2500	2500	2500	2500	2500	2500
WEIGHT EMPTY FOR STANDARD CONFIGURATION (4)		kg	7100	7250	8000	9200	9400	10100	11300	11600
WEIGHT OPERATIVE FOR STANDARD CONFIGURATION (4)		kg	7400	7600	8350	9600	9800	10500	11800	12100

The manufacturer reserves the right to modify specifications without notice.

Last update: 01/04/2021
Revision: 00-2021

Data referred to:
(1) Data referred to Inlet/Outlet water temperature = +12/7 °C, ambient temperature = +35°C
(2) Available pressure can be calculated from Hitema Online Selection Software
(3) SEPR: data comply with the European Regulation (EU) 2016/2281, referring to high temperature process chillers in the configuration with brazed plate or shell and tube evaporator and without pump. Any added option that modify cooling capacity or absorbed power of the chiller will not be considered in the SEPR value
(4) Data referred to standard chiller configuration NP (chiller without pump) and considering EC fans
(5) Sound pressure level referred to measures according to normative ISO3744, pressure level at distance of 10 m, referred to free field on reflecting surface.

**Model 663 is the only one equipped with brazed plate evaporators instead of shell and tube in order to obtain a compact design
***Model 983/F24 and 993/F24 are designed with 3 indipendent refrigerant circuits and 3 compressors each one with 50-75-100 partition steps

NOVAF SERIES

Freecooling liquid chillers, screw compressors
AC axial fans
IP54 protection rating
Suitable for OUTDOOR installation

SERIES: NOVA-NOVAF	DATE: 04/10/2021	M. Burba
CODE: TTD-NOVAF-01	UPDATE: -	
CHECKED BY		

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NOVAF

TABLE 1/4

Freecooling chillers NOVAF series, screw compressors R134A / R513a, shell and tube evaporator, brazed-plate economizers, condenser with copper tubes and aluminium finned core and axial fans Each model is equipped as standard with 2 refrigerant circuits, 2 compressors each with partition steps per compressor 50-75-100. Electrical feed 400V/3ph/50Hz.

Available Models configuration:
ECO.M2 = standard configuration, with AC fans with cut phase regulation, with economizer and standard compressor motor size
HE.M2 = high efficiency configuration with EC fans, optimized coil design, with economizer and standard compressor motor size
NE.M2 = chiller without economizer, with AC fans with cut phase regulation and standard compressor motor size

M2

TECHNICAL DATA

PERFORMANCES		Model	663/F4***	683/F6	693/F6	773/F6	783/F8	793/F8	863/F8	873/F10
NOMINAL COOLING CAPACITY (1)	ECO.M2 (3)	kW	232	277	308	351	432	475	517	596
TOTAL NOMINAL ABSORBED POWER (1)		kW	69.32	70.00	79.90	104.30	115.00	135.00	156.00	168.00
EER (1)		kW/kW	3.04	3.44	3.40	3.05	3.34	3.18	3.04	3.21
AIR TEMPERATURE 100% FREE COOLING (1)		°C	-1.90	0.60	-0.20	-1.40	-0.70	-1.60	-2.50	-1.90
FREECOOLING PRESSURE DROP		kPa	89.90	110.90	142.90	151.50	132.70	141.10	136.00	137.00
NOMINAL WATER FLOW		m3/h	40.00	47.00	52.90	60.30	74.00	81.70	89.00	102.50
EVAPORATOR PRESSURE DROP		kPa	26	55	79	74	69	69	54	64
NOMINAL COOLING CAPACITY (1)	NE.M2 (3)	kW	241	286	318	366	447	494	536	620
TOTAL NOMINAL ABSORBED POWER (1)		kW	62.8	64.9	73.3	94.7	105.8	122.0	139.0	151.0
EER (1)		kW/kW	3.38	3.68	3.70	3.41	3.64	3.55	3.42	3.52
AIR TEMPERATURE 100% FREE COOLING (1)		°C	-4.00	-0.90	-1.90	-3.30	-2.50	-3.60	-4.70	-3.30
FREECOOLING PRESSURE DROP		kPa	84.60	113.30	148.90	160.10	128.70	136.30	130.80	160.80
NOMINAL WATER FLOW		m3/h	41.50	49.00	54.70	63.00	77.00	85.00	92.00	106.70
EVAPORATOR PRESSURE DROP		kPa	28	58	84	81	74	73	58	68
NOMINAL COOLING CAPACITY (1)	HE.M2 (3)	kW	203	247	277	314	386	427	449	532
TOTAL NOMINAL ABSORBED POWER (1)		kW	59.3	61.5	71.2	91.9	101.0	119.3	131.0	146.0
EER (1)		kW/kW	3.06	3.43	3.40	3.07	3.35	3.20	3.09	3.25
AIR TEMPERATURE 100% FREE COOLING (1)		°C	-0.70	1.50	0.60	-0.40	0.30	-0.60	-1.00	-0.80
FREECOOLING PRESSURE DROP		kPa	67.90	92.90	121.90	126.60	110.80	118.50	123.60	114.00
NOMINAL WATER FLOW		m3/h	34.00	42.50	47.70	54.00	66.00	73.50	77.30	91.60
EVAPORATOR PRESSURE DROP		kPa	21	45	66	61	57	56	57	52
HYDRAULIC SECTION										
WATER FLOW RANGE		m3/h	30÷60	33÷62	33÷62	42÷84	47÷94	57÷114	62÷125	72÷144
MAXIMUM PUMP ABSORBED POWER (OPTION WP OR DP)	P3 (2)	kW	10.2	10.2	10.2	16.2	16.2	16.2	24.9	24.9
MAXIMUM PUMP ABSORBED CURRENT (OPTION WP OR DP)		A	17.4	17.4	17.4	26.6	26.6	26.6	42.2	42.2
MAXIMUM PUMP ABSORBED POWER (OPTION PH OR DPH)	P5 (2)	kW	19.9	19.9	19.9	19.9	31.9	31.9	39.1	39.1
MAXIMUM PUMP ABSORBED CURRENT (OPTION PH OR DPH)		A	32.7	32.7	32.7	32.7	53.5	53.5	65.6	65.6
HYDRAULIC CONNECTIONS (VICTAULIC)		DN	100	100	100	100	100	125	125	150
FAN SECTION (AXIAL)										
FANS		nr.	4	6	6	6	8	8	8	10
MAXIMUM FANS ABSORBED POWER	AC	kW	7.76	11.64	11.64	11.64	15.52	15.52	15.52	19.40
MAXIMUM FANS ABSORBED CURRENT		A	15.60	23.40	23.40	23.40	31.20	31.20	31.20	39.00
TOTAL AIR FLOW		m3/h	63389	95083	95083	95083	126778	126778	126778	158472
MAXIMUM FANS ABSORBED POWER	EC	kW	10.24	15.36	15.36	15.36	20.48	20.48	20.48	25.60
MAXIMUM FANS ABSORBED CURRENT		A	15.60	23.40	23.40	23.40	31.20	31.20	31.20	39.00
TOTAL AIR FLOW		m3/h	76528	114793	114793	114793	153057	153057	153057	229585
TOTAL ELECTRIC DATA										
MAXIMUM ABSORBED CURRENT (F.L.A) (4)		A	147.6	195.4	239.4	271.4	319.2	355.2	341.2	403.0
MAXIMUM PEAK CURRENT (L.R.A) (4)		A	437.0	544.0	680.0	667.0	801.0	930.0	905.0	1075.0
MAXIMUM PEAK CURRENT WITH SOFT START (L.R.A) (4)		A	369.0	462.0	578.0	570.0	684.0	792.0	770.0	910.0
NOISE DATA										
SOUND PRESSURE FOR STANDARD CONFIGURATION (4) (5)		dB(A)	63.8	64.5	65.2	64.5	64.7	64.5	67.7	69.0
SOUND PRESSURE FOR LOW NOISE CONFIGURTION (4) (5)		dB(A)	61.6	62.0	62.4	62.0	62.0	61.9	64.0	65.0
SOUND PRESSURE FOR SUPER LOW NOISE CONFIGURTION (4) (5)		dB(A)	59.7	60.3	60.9	60.3	60.5	60.3	63.1	64.3
DIMENSIONS AND WEIGHT										
LENGTH		mm	3100	4050	4050	4050	5000	5000	5000	5950
WIDTH		mm	2210	2210	2210	2210	2210	2210	2210	2210
HEIGHT		mm	2500	2500	2500	2500	2500	2500	2500	2500
WEIGHT EMPTY FOR STANDARD CONFIGURATION (4)		kg	2900	3800	3900	4050	4650	4800	4950	5500
WEIGHT OPERATIVE FOR STANDARD CONFIGURATION (4)		kg	3100	4150	4200	4350	5100	5300	5450	6100

Last update: 05/10/2021

Data referred to:

(1) Data referred to Inlet/Outlet water temperature = +12/7 °C, ambient temperature = +35°C

(2) Available pressure can be calculated from Hitema Online Selection Software

(3) SEPR: data comply with the European Regulation (EU) 2016/2281, referring to high temperature process chillers in the configuration with brazed plate or shell and tube evaporator and without pump. Any added option that modify cooling capacity or absorbed power of the chiller will not be considered in the SEPR value

(4) Data referred to standard chiller configuration NP (chiller without pump) and considering EC fans

(5) Sound pressure level referred to measures according to normative ISO3744, pressure level at distance of 10 m, referred to free field on reflecting surface.

**Model 663 is the only one equipped with brazed plate evaporators instead of shell and tube in order to obtain a compact design

***Model 983/F24 and 993/F24 are designed with 3 indipendent refrigerant circuits and 3 compressors each one with 50-75-100 partition steps

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TABLE 2/4

Freecooling chillers NOVAF series, screw compressors R134A / R513a, shell and tube evaporator, brazed-plate economizers, condenser with copper tubes and aluminium finned core and axial fans Each model is equipped as standard with 2 refrigerant circuits, 2 compressors each with partition steps per compressor 50-75-100. Electrical feed 400V/3ph/50Hz.

Available Models configuration:
ECO.M2 = standard configuration, with AC fans with cut phase regulation, with economizer and standard compressor motor size
HE.M2 = high efficiency configuration with EC fans, optimized coil design, with economizer and standard compressor motor size
NE.M2 = chiller without economizer, with AC fans with cut phase regulation and standard compressor motor size

M2

TECHNICAL DATA

PERFORMANCES		Model	883/F12	893/F14	963/F16	973/F18	983/F20	993/F22	973/F24
NOMINAL COOLING CAPACITY (1)	ECO.M2 (3)	kW	683	768	899	1025	1183	1321	1501
TOTAL NOMINAL ABSORBED POWER (1)		kW	179.00	198.70	244.80	268.00	321.00	361.00	406.50
EER (1)		kW/kW	3.40	3.44	3.29	3.41	3.31	3.30	3.34
AIR TEMPERATURE 100% FREE COOLING (1)		°C	-1.60	-3.40	-2.00	-2.00	-2.20	-2.30	-6.60
FREECOOLING PRESSURE DROP		kPa	148.00	142.70	127.50	138.10	148.60	154.60	145.30
NOMINAL WATER FLOW		m3/h	117.00	132.00	154.60	176.00	203.00	227.00	258.00
EVAPORATOR PRESSURE DROP		kPa	53	75	78	78	88	86	85
NOMINAL COOLING CAPACITY (1)	NE.M2 (3)	kW	703	790	931	1068	1227	1372	1531
TOTAL NOMINAL ABSORBED POWER (1)		kW	165.0	183.0	225.0	249.5	295.6	330.0	390.0
EER (1)		kW/kW	3.67	3.70	3.58	3.70	3.69	3.63	3.47
AIR TEMPERATURE 100% FREE COOLING (1)		°C	-4.00	-3.30	-3.40	-3.50	-3.70	-3.60	-5.30
FREECOOLING PRESSURE DROP		kPa	135.40	150.00	142.50	159.20	177.90	191.80	151.00
NOMINAL WATER FLOW		m3/h	120.60	176.00	160.00	183.70	211.00	236.00	263.40
EVAPORATOR PRESSURE DROP		kPa	56	79	84	84	93	92	88
NOMINAL COOLING CAPACITY (1)	HE.M2 (3)	kW	611	697	803	928	1067	1207	1358
TOTAL NOMINAL ABSORBED POWER (1)		kW	156.0	177.8	215.0	243.0	286.0	325.9	364.0
EER (1)		kW/kW	3.43	3.44	3.29	3.37	3.31	3.31	3.34
AIR TEMPERATURE 100% FREE COOLING (1)		°C	-0.50	-2.40	-1.00	-1.00	-1.20	-1.40	-5.30
FREECOOLING PRESSURE DROP		kPa	140.60	122.00	107.70	117.20	126.00	134.00	123.40
NOMINAL WATER FLOW		m3/h	105.00	120.00	138.00	159.60	183.50	207.60	233.00
EVAPORATOR PRESSURE DROP		kPa	61	62	64	65	73	73	71
HYDRAULIC SECTION									
WATER FLOW RANGE		m3/h	82÷154	82÷154	108÷200	112÷200	142÷284	144÷289	150÷301
MAXIMUM PUMP ABSORBED POWER (OPTION WP OR DP)	P3 (2)	kW	24.9	24.9	24.9	NA for this cabinet size, please refer to Hitema hydro module series HYD			
MAXIMUM PUMP ABSORBED CURRENT (OPTION WP OR DP)		A	42.4	42.4	42.4				
MAXIMUM PUMP ABSORBED POWER (OPTION PH OR DPH)	P5 (2)	kW	39.1	39.1	39.1	NA for this cabinet size, please refer to Hitema hydro module series HYD			
MAXIMUM PUMP ABSORBED CURRENT (OPTION PH OR DPH)		A	65.6	65.6	65.6				
HYDRAULIC CONNECTIONS (VICTAULIC)		DN	150	150	150	150	200	200	200
FAN SECTION (AXIAL)									
FANS		nr.	12	14	16	18	20	22	22
MAXIMUM FANS ABSORBED POWER	AC	kW	23.28	27.16	31.04	34.92	38.80	42.68	42.68
MAXIMUM FANS ABSORBED CURRENT		A	46.80	54.60	62.40	70.20	78.00	85.80	85.80
TOTAL AIR FLOW		m3/h	179322	209209	239096	268983	298870	328757	367939
MAXIMUM FANS ABSORBED POWER	EC	kW	30.72	35.84	40.96	46.08	51.20	56.32	56.32
MAXIMUM FANS ABSORBED CURRENT		A	46.80	54.60	62.40	70.20	78.00	85.80	85.80
TOTAL AIR FLOW		m3/h	216287	252335	288383	324431	360479	396527	442548
TOTAL ELECTRIC DATA									
MAXIMUM ABSORBED CURRENT (F.L.A) (4)		A	438.8	482.6	622.4	690.2	718.0	805.8	911.8
MAXIMUM PEAK CURRENT (L.R.A) (4)		A	1238.0	1347.0	1800.0	1922.0	2328.0	2570.0	2244.0
MAXIMUM PEAK CURRENT WITH SOFT START (L.R.A) (4)		A	1050.0	1143.0	1527.0	1634.0	1957.0	2164.0	1955.0
NOISE DATA									
SOUND PRESSURE FOR STANDARD CONFIGURATION (4) (5)		dB(A)	68.1	68.4	69.2	69.4	70.2	71.0	71.7
SOUND PRESSURE FOR LOW NOISE CONFIGURTION (4) (5)		dB(A)	64.7	64.9	65.4	65.6	66.2	66.9	68.5
SOUND PRESSURE FOR SUPER LOW NOISE CONFIGURTION (4) (5)		dB(A)	63.6	63.9	64.5	64.8	65.5	66.2	67.2
DIMENSIONS AND WEIGHT									
LENGTH		mm	6900	7850	8800	9750	10700	11650	13140
WIDTH		mm	2210	2210	2210	2210	2210	2210	2210
HEIGHT		mm	2500	2500	2500	2500	2500	2500	2500
WEIGHT EMPTY FOR STANDARD CONFIGURATION (4)		kg	6300	7400	8500	9500	10400	11400	11700
WEIGHT OPERATIVE FOR STANDARD CONFIGURATION (4)		kg	6900	8050	9300	10600	11500	12700	13200

Last update: 05/10/2021

Data referred to:

(1) Data referred to Inlet/Outlet water temperature = +12/7 °C, ambient temperature = +35°C

(2) Available pressure can be calculated from Hitema Online Selection Software

(3) SEPR: data comply with the European Regulation (EU) 2016/2281, referring to high temperature process chillers in the configuration with brazed plate or shell and tube evaporator and without pump. Any added option that modify cooling capacity or absorbed power of the chiller will not be considered in the SEPR value

(4) Data referred to standard chiller configuration NP (chiller without pump) and considering EC fans

(5) Sound pressure level referred to measures according to normative ISO3744, pressure level at distance of 10 m, referred to free field on reflecting surface.

**Model 663 is the only one equipped with brazed plate evaporators instead of shell and tube in order to obtain a compact design

***Model 983/F24 and 993/F24 are designed with 3 indipendent refrigerant circuits and 3 compressors each one with 50-75-100 partition steps

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NOVAF

TABLE 3/4

Freecooling chillers NOVAF series, screw compressors R134A / R513a, shell and tube evaporator, brazed-plate economizers, condenser with copper tubes and aluminium finned core and axial fans Each model is equipped as standard with 2 refrigerant circuits, 2 compressors each with partition steps per compressor 50-75-100. Electrical feed 400V/3ph/50Hz.

Available Models configuration:
ECO.M1 = standard configuration, with AC fans with cut phase regulation, with economizer and oversized compressor motor size
HE.M1 = high efficiency configuration with EC fans, optimized coil design, with economizer and oversized compressor motor size
NE.M1 = chiller without economizer, with AC fans with cut phase regulation and oversized compressor motor size

M1

TECHNICAL DATA

PERFORMANCES		Model	663/F4***	683/F6	693/F6	773/F6	783/F8	793/F8	863/F8	873/F10
NOMINAL COOLING CAPACITY (1)	ECO.M1 (3)	kW	225	-	-	344	426	469	509	590
TOTAL NOMINAL ABSORBED POWER (1)		kW	90.34	-	-	135.20	144.00	166.80	208.00	222.70
EER (1)		kW/kW	2.29	-	-	2.34	2.67	2.57	2.28	2.44
AIR TEMPERATURE 100% FREE COOLING (1)		°C	1.40	-	-	1.74	2.47	1.60	0.65	1.10
FREECOOLING PRESSURE DROP		kPa	81.40	-	-	152.90	132.70	141.30	137.40	137.10
NOMINAL WATER FLOW		m3/h	38.70	-	-	59.17	73.27	80.67	87.55	101.48
EVAPORATOR PRESSURE DROP		kPa	19	-	-	60	65	64	53	59
NOMINAL COOLING CAPACITY (6)	NE.M1 (3)	kW	239	-	-	366	448	493	540	621
TOTAL NOMINAL ABSORBED POWER (6)		kW	81.6	-	-	121.8	140.0	160.8	185.2	198.0
EER (6)		kW/kW	2.60	-	-	2.67	2.79	2.72	2.63	2.78
AIR TEMPERATURE 100% FREE COOLING (1)		°C	-0.71	-	-	-0.19	0.55	-0.46	-1.52	-0.22
FREECOOLING PRESSURE DROP		kPa	84.60	-	-	161.00	128.80	137.50	132.10	160.80
NOMINAL WATER FLOW		m3/h	41.11	-	-	62.95	77.06	84.80	92.88	106.81
EVAPORATOR PRESSURE DROP		kPa	20	-	-	65	70	69	56	64
NOMINAL COOLING CAPACITY (1)	HE.M1 (3)	kW	266	-	-	406	501	546	577	685
TOTAL NOMINAL ABSORBED POWER (1)		kW	68.2	-	-	104.4	117.2	139.6	152.0	168.0
EER (1)		kW/kW	3.50	-	-	3.50	3.77	3.52	3.44	3.66
AIR TEMPERATURE 100% FREE COOLING (1)		°C	5.20	-	-	5.70	6.60	5.50	5.00	5.30
FREECOOLING PRESSURE DROP		kPa	67.90	-	-	127.60	111.50	119.50	125.80	114.00
NOMINAL WATER FLOW		m3/h	32.68	-	-	49.88	61.55	67.08	70.89	84.16
EVAPORATOR PRESSURE DROP		kPa	10	-	-	53	43	57	42	51
HYDRAULIC SECTION										
WATER FLOW RANGE		m3/h	30÷60	-	-	42÷84	47÷94	57÷114	62÷125	72÷144
MAXIMUM PUMP ABSORBED POWER (OPTION WP OR DP)	P3 (2)	kW	10.2	-	-	16.2	16.2	16.2	24.9	24.9
MAXIMUM PUMP ABSORBED CURRENT (OPTION WP OR DP)		A	17.4	-	-	26.6	26.6	26.6	42.2	42.2
MAXIMUM PUMP ABSORBED POWER (OPTION PH OR DPH)	P5 (2)	kW	19.9	-	-	19.9	31.9	31.9	39.1	39.1
MAXIMUM PUMP ABSORBED CURRENT (OPTION PH OR DPH)		A	32.7	-	-	32.7	53.5	53.5	65.6	65.6
HYDRAULIC CONNECTIONS (VICTAULIC)		DN	100	-	-	100	100	125	125	150
FAN SECTION (AXIAL)										
FANS		nr.	4	-	-	6	8	8	8	10
MAXIMUM FANS ABSORBED POWER	AC	kW	7.76	-	-	11.64	15.52	15.52	15.52	19.40
MAXIMUM FANS ABSORBED CURRENT		A	15.60	-	-	23.40	31.20	31.20	31.20	39.00
TOTAL AIR FLOW		m3/h	63389	-	-	95083	126778	126778	126778	158472
MAXIMUM FANS ABSORBED POWER	EC	kW	10.24	-	-	15.36	20.48	20.48	20.48	25.60
MAXIMUM FANS ABSORBED CURRENT		A	15.60	-	-	23.40	31.20	31.20	31.20	39.00
TOTAL AIR FLOW		m3/h	76528	-	-	114793	153057	153057	153057	229585
TOTAL ELECTRIC DATA										
MAXIMUM ABSORBED CURRENT (F.L.A) (4)		A	232.0	-	-	347.0	371.0	391.0	463.0	531.0
MAXIMUM PEAK CURRENT (L.R.A) (4)		A	667.0	-	-	926.0	1044.0	1151.0	1259.0	1385.0
MAXIMUM PEAK CURRENT WITH SOFT START (L.R.A) (4)		A	565.0	-	-	789.0	866.0	973.0	1070.0	1180.0
NOISE DATA										
SOUND PRESSURE FOR STANDARD CONFIGURATION (4) (5)		dB(A)	65.2	-	-	64.5	69.0	69.0	67.9	68.2
SOUND PRESSURE FOR LOW NOISE CONFIGURTION (4) (5)		dB(A)	62.4	-	-	61.9	65.0	65.0	64.2	64.4
SOUND PRESSURE FOR SUPER LOW NOISE CONFIGURTION (4) (5)		dB(A)	60.9			60.3	64.3	64.3	63.3	63.6
DIMENSIONS AND WEIGHT										
LENGTH		mm	3100	-	-	4050	5000	5000	5000	5950
WIDTH		mm	2210	-	-	2210	2210	2210	2210	2210
HEIGHT		mm	2500	-	-	2500	2500	2500	2500	2500
WEIGHT EMPTY FOR STANDARD CONFIGURATION (4)		kg	2900	-	-	4050	4650	4800	4950	5500
WEIGHT OPERATIVE FOR STANDARD CONFIGURATION (4)		kg	3100			4350	5100	5300	5450	6100

Last update: 05/10/2021

Data referred to:

(1) Data referred to Inlet/Outlet water temperature = +12/7 °C, ambient temperature = +45°C

(2) Available pressure can be calculated from Hitema Online Selection Software

(3) SEPR: data comply with the European Regulation (EU) 2016/2281, referring to high temperature process chillers in the configuration with brazed plate or shell and tube evaporator and without pump. Any added option that modify cooling capacity or absorbed power of the chiller will not be considered in the SEPR value

(4) Data referred to standard chiller configuration NP (chiller without pump) and considering EC fans

(5) Sound pressure level referred to measures according to normative ISO3744, pressure level at distance of 10 m, referred to free field on reflecting surface.

(6) Data referred to Inlet/Outlet water temperature = +22/15 °C, ambient temperature = +35°C

**Model 663 is the only one equipped with brazed plate evaporators instead of shell and tube in order to obtain a compact design

***Model 983/F24 and 993/F24 are designed with 3 indipendent refrigerant circuits and 3 compressors each one with 50-75-100 partition steps

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NOVAF

TABLE 4/4

Freecooling chillers NOVAF series, screw compressors R134A / R513a, shell and tube evaporator, brazed-plate economizers, condenser with copper tubes and aluminium finned core and axial fans Each model is equipped as standard with 2 refrigerant circuits, 2 compressors each with partition steps per compressor 50-75-100. Electrical feed 400V/3ph/50Hz.

Available Models configuration:
ECO.M1 = standard configuration, with AC fans with cut phase regulation, with economizer and oversized compressor motor size
HE.M1 = high efficiency configuration with EC fans, optimized coil design, with economizer and oversized compressor motor size
NE.M1 = chiller without economizer, with AC fans with cut phase regulation and oversized compressor motor size

M1

TECHNICAL DATA

PERFORMANCES		Model	883/F12	893/F14	963/F16	973/F18	983/F20	993/F22	973/F24
NOMINAL COOLING CAPACITY (1)	ECO.M1 (3)	kW	667	775	872	994	1147	1280	1457
TOTAL NOMINAL ABSORBED POWER (1)		kW	241.20	260.00	314.60	351.40	397.00	454.00	507.50
EER (1)		kW/kW	2.52	2.70	2.52	2.57	2.63	2.58	2.65
AIR TEMPERATURE 100% FREE COOLING (1)		°C	1.60	1.25	1.28	1.35	1.07	0.50	1.20
FREECOOLING PRESSURE DROP		kPa	144.00	143.80	127.40	135.60	144.90	154.60	141.70
NOMINAL WATER FLOW		m3/h	114.73	133.30	149.99	170.97	197.29	220.16	250.61
EVAPORATOR PRESSURE DROP		kPa	55	69	69	64	69	74	79
NOMINAL COOLING CAPACITY (6)	NE.M1 (3)	kW	694	803	917	1045	1169	1315	1472
TOTAL NOMINAL ABSORBED POWER (6)		kW	236.0	238.0	288.0	320.0	385.4	438.0	495.0
EER (6)		kW/kW	2.60	2.93	2.79	2.85	2.68	2.66	2.67
AIR TEMPERATURE 100% FREE COOLING (1)		°C	-0.75	-0.47	-0.12	-0.05	2.20	1.35	1.00
FREECOOLING PRESSURE DROP		kPa	131.90	150.00	141.40	153.80	173.20	191.80	147.10
NOMINAL WATER FLOW		m3/h	119.37	138.12	157.73	179.74	201.07	226.18	253.19
EVAPORATOR PRESSURE DROP		kPa	49	72	72	68	74	80	88
NOMINAL COOLING CAPACITY (1)	HE.M1 (3)	kW	757	855	968	1120	1277	1488	1670
TOTAL NOMINAL ABSORBED POWER (1)		kW	168.2	195.5	232.0	267.3	305.2	340.0	395.0
EER (1)		kW/kW	3.95	3.84	3.68	3.71	3.71	3.89	3.82
AIR TEMPERATURE 100% FREE COOLING (1)		°C	6.07	4.00	5.91	5.84	5.60	5.75	5.60
FREECOOLING PRESSURE DROP		kPa	136.20	122.00	109.50	113.50	120.50	134.00	119.50
NOMINAL WATER FLOW		m3/h	93.00	105.04	118.93	137.60	156.89	182.81	205.17
EVAPORATOR PRESSURE DROP		kPa	47	45	49	41	62	68	70
HYDRAULIC SECTION									
WATER FLOW RANGE		m3/h	82÷154	82÷154	108÷200	112÷200	142÷284	144÷289	150÷301
MAXIMUM PUMP ABSORBED POWER (OPTION WP OR DP)	P3 (2)	kW	24.9	24.9	24.9	NA for this cabinet size, please refer to Hitema hydro module series HYD			
MAXIMUM PUMP ABSORBED CURRENT (OPTION WP OR DP)		A	42.4	42.2	42.2				
MAXIMUM PUMP ABSORBED POWER (OPTION PH OR DPH)	P5 (2)	kW	39.1	39.1	39.1	NA for this cabinet size, please refer to Hitema hydro module series HYD			
MAXIMUM PUMP ABSORBED CURRENT (OPTION PH OR DPH)		A	65.6	65.6	65.6				
HYDRAULIC CONNECTIONS (VICTAULIC)		DN	150	150	150	150	200	200	200
FAN SECTION (AXIAL)									
FANS		nr.	12	14	16	18	20	22	22
MAXIMUM FANS ABSORBED POWER	AC	kW	23.28	27.16	31.04	34.92	38.80	42.68	42.68
MAXIMUM FANS ABSORBED CURRENT		A	46.80	54.60	62.40	70.20	78.00	85.80	85.80
TOTAL AIR FLOW		m3/h	179322	209209	239096	268983	298870	328757	367939
MAXIMUM FANS ABSORBED POWER	EC	kW	30.72	35.84	40.96	46.08	51.20	56.32	56.32
MAXIMUM FANS ABSORBED CURRENT		A	46.80	54.60	62.40	70.20	78.00	85.80	85.80
TOTAL AIR FLOW		m3/h	216287	252335	288383	324431	360479	396527	442548
TOTAL ELECTRIC DATA									
MAXIMUM ABSORBED CURRENT (F.L.A) (4)		A	567.0	675.0	802.0	910.0	978.0	986.0	1354.0
MAXIMUM PEAK CURRENT (L.R.A) (4)		A	1497.0	1642.0	2378.0	2649.0	3179.0	3183.0	3081.0
MAXIMUM PEAK CURRENT WITH SOFT START (L.R.A) (4)		A	1275.0	1406.0	2008.0	2243.0	2675.0	2679.0	2675.0
NOISE DATA									
SOUND PRESSURE FOR STANDARD CONFIGURATION (4) (5)		dB(A)	69.2	69.4	70.2	71.0	71.7	71.7	73.1
SOUND PRESSURE FOR LOW NOISE CONFIGURTION (4) (5)		dB(A)	65.5	65.6	66.2	66.9	67.5	67.5	69.5
SOUND PRESSURE FOR SUPER LOW NOISE CONFIGURTION (4) (5)		dB(A)	64.6	64.8	65.5	66.2	66.9	66.9	68.5
DIMENSIONS AND WEIGHT									
LENGTH		mm	6900	7850	8800	9750	10700	11650	13140
WIDTH		mm	2210	2210	2210	2210	2210	2210	2210
HEIGHT		mm	2500	2500	2500	2500	2500	2500	2500
WEIGHT EMPTY FOR STANDARD CONFIGURATION (4)		kg	6300	7400	8500	9500	10400	11400	11700
WEIGHT OPERATIVE FOR STANDARD CONFIGURATION (4)		kg	6900	8050	9300	10600	11500	12700	13200

Last update: 05/10/2021

Revision: #RIF!

Data referred to:
(1) Data referred to Inlet/Outlet water temperature = +12/7 °C, ambient temperature = +45°C
(2) Available pressure can be calculated from Hitema Online Selection Software
(3) SEPR: data comply with the European Regulation (EU) 2016/2281, referring to high temperature process chillers in the configuration with brazed plate or shell and tube evaporator and without pump. Any added option that modify cooling capacity or absorbed power of the chiller will not be considered in the SEPR value
(4) Data referred to standard chiller configuration NP (chiller without pump) and considering EC fans
(5) Sound pressure level referred to measures according to normative ISO3744, pressure level at distance of 10 m, referred to free field on reflecting surface.
(6) Data referred to Inlet/Outlet water temperature = +22/15 °C, ambient temperature = +35°C
**Model 663 is the only one equipped with brazed plate evaporators instead of shell and tube in order to obtain a compact design
***Model 983/F24 and 993/F24 are designed with 3 indipendent refrigerant circuits and 3 compressors each one with 50-75-100 partition steps

INVERTER SCREW CHILLERS

R134A / R513A / R1234ZE
Rotary / Scroll compressors
Shell & Tube evaporator / Brazed plate economizer
Inbuilt water storage tank & single pump P3 as option

ISV - ISVF - ISVF-OPT series
From 300 kW up to 1390 kW

Technical Data Tables

SERIES: ISV-ISVF-ISVFOPT	DATE: 19.05.2022	
CODE: GPLSPC20	UPDATE: GPLSPC19	
CHECKED BY	M. Burba	

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ISV SERIES

Air-Cooled liquid Chillers, INVERTER screw compressors
EC axial fans
IP54 protection rating
Suitable for OUTDOOR installation

SERIES: ISV-ISVF	DATE: 04/10/2021
CODE: TTD-ISV-01	UPDATE: -
CHECKED BY	M. Burba

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ISV

TABLE 1/2

Air-cooled liquid chillers ISV series, inverter screw compressors, R134A / R513A / R1234ze refrigerant, shell and tube evaporator, brazed plate economizer, condenser coil with copper tubes and aluminium fins, EC axial fans r. Electrical feed 400V/3ph/50Hz (60Hz version as option). IP54 protection rating, chillers suitable for outdoor installation. Additional modules (2 fans) can be added to improve efficiency (before the order). Inbuilt water storage tank and single pump P3 as option. Microchannel condenser coils as option.

Type of available evaporators:
ST = shell and tube evaporator, with high thickness copper tubes (0,41mm)
B-ES = stainless steel brazed plate evaporator

Type of available expansion elements:
ETS = Electronic expansion valve (available as option)

TECHNICAL DATA

PERFORMANCES		Model	300	350	390	440	480	520	600	680
NOMINAL COOLING CAPACITY	W 12°C/7°C @ 35°C (1)	kW	300,0	351,0	392,0	441,0	483,0	525,0	608,0	681,0
TOTAL NOMINAL ABSORBED POWER		kW	84,1	100,9	115,8	126,1	143,5	159,8	175,0	205,9
EER		kW/kW	3,57	3,48	3,38	3,50	3,37	3,28	3,47	3,31
SEPR (HT) (3)		-	5,04	5,01	5,04	5,55	5,54	5,52	5,57	5,55
NOMINAL WATER FLOW		m3/h	51,5	60,3	67,3	75,8	83,0	90,2	104,5	117,0
MECHANICAL MODE PRESSURE DROPS (4) (5) (6)		kPa	58	58	58	53	53	61	49	48
FRIGORIFIC SECTION										
COMPRESSORS / REFRIGERATING CIRCUITS / CAPACITY CONTROL		nr.	1/1/27÷108%	1/1/25÷100%	1/1/20÷101%	1/1/20÷100%	1/1/16÷102%	1/1/16÷100%	2/2/26÷102%	2/2/25÷100%
KIND OF EXPANSION ELEMENT		-	ETS	ETS	ETS	ETS	ETS	ETS	ETS	ETS
KIND OF EVAPORATOR		-	ST	ST	ST	ST	ST	ST	ST	ST
ECONOMIZER			NO	YES	NO	YES	NO	YES	NO	YES
TYPE OF ECONOMIZER		type	plate	plate	plate	plate	plate	plate	plate	plate
HYDRAULIC SECTION										
WATER FLOW RANGE (6)		m3/h	36,0÷72,0	42,0÷80,0	42,0÷84,0	52,0÷105,0	57,0÷113,0	57,0÷113,0	68,0÷137,0	81,0÷162,0
MAXIMUM PUMP ABSORBED POWER (WP OR OPTION DP)	P3 (2)	kW	8,30	8,30	10,20	10,20	10,20	16,22	16,22	16,22
MAXIMUM PUMP ABSORBED CURRENT (WP OR OPTION DP)		A	14,10	14,10	17,40	17,40	17,40	26,60	26,60	26,60
MAXIMUM PUMP ABSORBED POWER (OPTION PH OR DPH)	P5 (2)	kW	16,22	16,22	24,85	24,85	24,85	24,85	31,88	31,88
MAXIMUM PUMP ABSORBED CURRENT (OPTION PH OR DPH)		A	26,60	26,60	42,40	42,40	42,40	42,40	53,50	53,50
HYDRAULIC CONNECTIONS (FLANGED/VICTAULIC) (8)		DN	DN100	DN100	DN100	DN125	DN125	DN125	DN125	DN150
TANK VOLUME (5) (9)		dm^3	380	380	380	500	500	500	500	500
EXPANSION VESSEL NUMBER x VOLUME (OPTION XV) (10)		liters	1x19	1x19	1x19	2x19	2x19	2x19	2x19	2x19
FAN SECTION (AXIAL)										
FANS		nr.	6	6	6	8	8	8	10	10
MAXIMUM FANS ABSORBED POWER	EC	kW	11,04	11,04	11,04	14,72	14,72	14,72	18,40	18,40
MAXIMUM FANS ABSORBED CURRENT		A	22,98	22,98	22,98	30,64	30,64	30,64	38,30	38,30
TOTAL AIR FLOW		m3/h	123600	123600	123600	164800	164800	164800	206000	206000
TOTAL ELECTRIC DATA										
MAXIMUM ABSORBED CURRENT (F.L.A) (6)		A	243,0	243,0	283,0	290,6	370,6	370,6	418,3	478,3
NOISE DATA										
SOUND PRESSURE FOR STANDARD CONFIGURATION (6) (7)		dB(A)	68,6	68,6	69,5	69,7	70,6	70,6	71,5	71,5
SOUND PRESSURE FOR LOW NOISE OPTION (LNJ) (6) (7)		dB(A)	64,9	64,9	65,6	66,1	66,8	66,8	67,6	67,6
SOUND PRESSURE FOR SUPER LOW NOISE OPTION (SLN) (6) (7)		dB(A)	64,0	64,0	64,8	65,1	66,0	66,0	66,8	66,8
SOUND PRESSURE FOR EXTRA LOW NOISE OPTION (ELN) (6) (7)		dB(A)	61,9	61,9	62,6	63,1	63,8	63,8	64,6	64,6
DIMENSIONS AND WEIGHT										
LENGTH		mm	4600	4600	4600	5900	5900	5900	7200	7200
WIDTH		mm	2210	2210	2210	2210	2210	2210	2210	2210
HEIGHT		mm	2450	2450	2450	2450	2450	2450	2450	2450
WEIGHT EMPTY FOR STANDARD CONFIGURATION (5) (6)		kg	3050	3100	3200	3600	3670	3750	5200	5250
WEIGHT OPERATIVE FOR STANDARD CONFIGURATION (5) (6)		kg	3180	3250	3370	3780	3850	3930	5500	5600

Last update: 28/07/2021
Revision: 03-2021

Data referred to:

(1) Data referred to inlet/outlet water temperature = +12/+7 °C, ambient temperature = +35°C, fluid = Water

(2) Available pressure can be calculated from Hitema Online Selection Software

(3) SEPR: data comply with the European Regulation (EU) 2016/2281, referring to high temperature process chillers in the configuration with brazed plate or shell and tube evaporator and without pump. Any added option that modify cooling capacity or absorbed power of the chiller will not be considered in the SEPR value

(4) Pressure drops taken in account: evaporator, piping

(5) Data referred to standard chiller configuration as indicated in frigorific section, with different evaporator this data can change

(6) Data referred to standard chiller configuration NP (no pump) and EC fans

(7) Sound pressure level referred to measures according to normative ISO3744, pressure level at distance of 10 m, referred to free field on reflecting surface

(8) Flanged connections with one of next options: Pump, Double pump, Tank. Flanged connections standard for models 095÷160

(9) To avoid excessive start/stop of the compressors a minimum water volume for the entire plant must be guarantee, the tank supplied by Hitema can be not enough

(10) The expansion vessel volume is calculated considering 50°C of deltaT between water temperature with chiller stopped and chiller active, 1/2bar of hydraulic circuit pre-charge and considering only the water volume of the unit

** pump P5 includes the soft start (SF) option

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ISV

TABLE 2/2

Air-cooled liquid chillers ISV series, inverter screw compressors, R134A / R513A / R1234ze refrigerant, shell and tube evaporator, brazed plate economizer, condenser coil with copper tubes and aluminium fins, EC axial fans r. Electrical feed 400V/3ph/50Hz (60Hz version as option).
IP54 protection rating, chillers suitable for outdoor installation. Additional modules (2 fans) can be added to improve efficiency (before the order).
Inbuilt water storage tank and single pump P3 as option. Microchannel condenser coils as option.

Type of available evaporators:
ST = shell and tube evaporator, with high thickness copper tubes (0,41mm)
B-ES = stainless steel brazed plate evaporator

Type of available expansion elements:
ETS = Electronic expansion valve (available as option)

TECHNICAL DATA

PERFORMANCES		Model	770	850	910	970	1030	1140	1290	1390
NOMINAL COOLING CAPACITY	W 12°C/7°C @ 35°C (1)	kW	778,0	857,0	916,0	982,0	1048,0	1167,0	1290,0	1390,0
TOTAL NOMINAL ABSORBED POWER		kW	228,9	250,0	276,9	292,5	320,0	333,7	385,5	416,3
EER		kW/kW	3,40	3,43	3,31	3,36	3,27	3,50	3,35	3,34
SEPR (HT) (3)		-	5,57	5,56	5,51	5,57	5,55	5,52	5,52	5,51
NOMINAL WATER FLOW		m3/h	133,7	147,2	157,4	168,7	180,0	200,5	221,6	238,8
MECHANICAL MODE PRESSURE DROPS (4) (5) (6)		kPa	55	64	68	65	68	66	76	89
FRIGORIFIC SECTION										
COMPRESSORS / REFRIGERATING CIRCUITS / CAPACITY CONTROL		nr.	2/2/20÷102%	2/2/20÷102%	2/2/17÷106%	2/2/16÷100%	2/2/16÷100%	2/2/22÷112%	2/2/22÷100%	2/2/22÷100%
KIND OF EXPANSION ELEMENT		-	ETS	ETS	ETS	ETS	ETS	ETS	ETS	ETS
KIND OF EVAPORATOR		-	ST	ST	ST	ST	ST	ST	ST	ST
ECONOMIZER			NO	YES	NO	NO	YES	NO	NO	YES
TYPE OF ECONOMIZER		type	plate	plate	plate	plate	plate	plate	plate	plate
HYDRAULIC SECTION										
WATER FLOW RANGE (6)		m3/h	94,0÷188,0	102,0÷203,0	108,0÷210,0	117,0÷210,0	124,0÷227,0	125,0÷250,0	141,0÷270,0	141,0÷270,0
MAXIMUM PUMP ABSORBED POWER (WP OR OPTION DP)	P3 (2)	kW	16,22	23,51	23,51	23,51	31,88	31,88	31,88	31,88
MAXIMUM PUMP ABSORBED CURRENT (WP OR OPTION DP)		A	26,60	39,00	39,00	39,00	53,50	53,50	53,50	53,50
MAXIMUM PUMP ABSORBED POWER (OPTION PH OR DPH)	P5 (2)	kW	39,09	39,09	39,09	39,09	39,09	47.31**	47.31**	47.31**
MAXIMUM PUMP ABSORBED CURRENT (OPTION PH OR DPH)		A	65,60	65,60	65,60	65,60	65,60	77,60	77,60	77,60
HYDRAULIC CONNECTIONS (FLANGED/VICTAULIC) (8)		DN	DN150	DN150	DN150	DN150	DN200	DN200	DN200	DN200
TANK VOLUME (5) (9)		dm^3	600	600	600	600	600	700	700	700
EXPANSION VESSEL NUMBER x VOLUME (OPTION XV) (10)		liters	2x19	2x19	2x19	1x60	1x60	1x60	1x60	1x60
FAN SECTION (AXIAL)										
FANS		nr.	12	14	14	16	16	18	18	18
MAXIMUM FANS ABSORBED POWER	EC	kW	22,08	25,76	25,76	29,44	29,44	33,12	33,12	33,12
MAXIMUM FANS ABSORBED CURRENT		A	45,96	53,62	53,62	61,28	61,28	68,94	68,94	68,94
TOTAL AIR FLOW		m3/h	247200	288400	288400	329600	329600	370800	370800	370800
TOTAL ELECTRIC DATA										
MAXIMUM ABSORBED CURRENT (F.L.A) (6)		A	566,0	573,6	733,6	741,3	741,3	908,9	908,9	908,9
NOISE DATA										
SOUND PRESSURE FOR STANDARD CONFIGURATION (6) (7)		dB(A)	72,5	72,6	73,6	73,7	73,7	74,6	74,6	74,6
SOUND PRESSURE FOR LOW NOISE OPTION (LNJ) (6) (7)		dB(A)	68,6	68,9	69,6	69,8	69,8	70,6	70,6	70,6
SOUND PRESSURE FOR SUPER LOW NOISE OPTION (SLN) (6) (7)		dB(A)	67,9	68,0	68,9	69,0	69,0	69,9	69,9	69,9
SOUND PRESSURE FOR EXTRA LOW NOISE OPTION (ELN) (6) (7)		dB(A)	65,6	65,9	66,6	66,8	66,8	67,6	67,6	67,6
DIMENSIONS AND WEIGHT										
LENGTH		mm	8500	9800	9800	11100	11100	12400	12400	12400
WIDTH		mm	2210	2210	2210	2210	2210	2210	2210	2210
HEIGHT		mm	2450	2450	2450	2450	2450	2450	2450	2450
WEIGHT EMPTY FOR STANDARD CONFIGURATION (5) (6)		kg	5900	6550	6730	7450	7700	9100	9600	9600
WEIGHT OPERATIVE FOR STANDARD CONFIGURATION (5) (6)		kg	6200	6900	7100	7900	8200	9650	10200	10200

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Data referred to:
(1) Data referred to inlet/outlet water temperature = +12/+7 °C, ambient temperature = +35°C, fluid = Water
(2) Available pressure can be calculated from Hitema Online Selection Software
(3) SEPR: data comply with the European Regulation (EU) 2016/2281, referring to high temperature process chillers in the configuration with brazed plate or shell and tube evaporator and without pump. Any added option that modify cooling capacity or absorbed power of the chiller will not be considered in the SEPR value
(4) Pressure drops taken in account: evaporator, piping
(5) Data referred to standard chiller configuration as indicated in frigorific section, with different evaporator this data can change
(6) Data referred to standard chiller configuration NP (no pump) and EC fans
(7) Sound pressure level referred to measures according to normative ISO3744, pressure level at distance of 10 m, referred to free field on reflecting surface
(8) Flanged connections with one of next options: Pump, Double pump, Tank. Flanged connections standard for models 095÷160
(9) To avoid excessive start/stop of the compressors a minimum water volume for the entire plant must be guarantee, the tank supplied by Hitema can be not enough
(10) The expansion vessel volume is calculated considering 50°C of deltaT between water temperature with chiller stopped and chiller active, 1/2bar of hydraulic circuit pre-charge and considering only the water volume of the unit

** pump P5 includes the soft start (SF) option

ISVF SERIES

Freecooling liquid chillers, INVERTER screw compressors
EC axial fans
IP54 protection rating
Suitable for OUTDOOR installation

SERIES: ISV-ISVF	DATE: 04/10/2021
CODE: TTD-ISVF-01	UPDATE: -
CHECKED BY	M. Burba

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ISVF

TABLE 1/2

Air-cooled liquid chillers ISV series, inverter screw compressors, R134A / R513A / R1234ze refrigerant, shell and tube evaporator, brazed plate economizer, condenser and freecooling coil with copper tubes and aluminium fins, EC axial fans r. Electrical feed 400V/3ph/50Hz (60Hz version as option). IP54 protection rating, chillers suitable for outdoor installation. Additional modules (2 fans) can be added to improve efficiency (before the order). Inbuilt water storage tank and single pump P3 as option. Microchannel condenser coils as option.

Type of available evaporators:
ST = shell and tube evaporator, with high thickness copper tubes (0,41mm)
B-ES = stainless steel brazed plate evaporator

Type of available expansion elements:
ETS = Electronic expansion valve (available as option)

TECHNICAL DATA

PERFORMANCES		Model	300	350	390	440	480	520	600	680
NOMINAL COOLING CAPACITY	W 12°C/7°C @ 35°C (1)	kW	301,0	351,0	392,0	441,0	483,0	532,0	608,0	691,0
TOTAL NOMINAL ABSORBED POWER		kW	92,4	104,6	119,5	130,9	151,4	162,1	178,4	212,2
EER		kW/kW	3,26	3,35	3,28	3,37	3,19	3,28	3,41	3,26
SEPR (HT) (3)		-	5,04	5,01	5,04	5,55	5,54	5,52	5,57	5,55
AIR TEMPERATURE FOR 100% FREE COOLING CAPACITY		°C	0,55	1,64	0,81	1,61	0,87	1,55	1,68	0,77
NOMINAL WATER FLOW		m3/h	51,7	60,3	67,3	75,8	83,0	91,4	104,5	118,7
MECHANICAL MODE PRESSURE DROPS (4) (6) (7)		kPa	58	58	58	53	53	61	49	48
FREE COOLING MODE PRESSURE DROPS (5)		kPa	128,00	125,70	125,60	108,00	119,16	124,65	106,72	120,57
FRIGORIFIC SECTION										
COMPRESSORS / REFRIGERATING CIRCUITS / CAPACITY CONTROL		nr.	1/1/27÷108%	1/1/25÷100%	1/1/20÷101%	1/1/20÷100%	1/1/16÷102%	1/1/16÷100%	2/2/26÷102%	2/2/25÷100%
KIND OF EXPANSION ELEMENT		-	ETS	ETS	ETS	ETS	ETS	ETS	ETS	ETS
KIND OF EVAPORATOR		-	ST	ST	ST	ST	ST	ST	ST	ST
ECONOMIZER			NO	YES	NO	YES	NO	YES	NO	YES
TYPE OF ECONOMIZER		type	plate	plate	plate	plate	plate	plate	plate	plate
HYDRAULIC SECTION										
WATER FLOW RANGE (7)		m3/h	36,0÷72,0	42,0÷80,0	42,0÷84,0	52,0÷105,0	57,0÷113,0	57,0÷113,0	68,0÷137,0	81,0÷162,0
MAXIMUM PUMP ABSORBED POWER (WP OR OPTION DP)	P3 (2)	kW	10,20	16,22	16,22	16,22	16,22	24,85	24,85	24,85
MAXIMUM PUMP ABSORBED CURRENT (WP OR OPTION DP)		A	17,40	26,60	26,60	26,60	26,60	42,20	42,20	42,20
MAXIMUM PUMP ABSORBED POWER (OPTION PH OR DPH)	P5 (2)	kW	19,94	19,94	31,88	31,88	31,88	39,09	39,09	39,09
MAXIMUM PUMP ABSORBED CURRENT (OPTION PH OR DPH)		A	32,70	32,70	53,50	53,50	53,50	65,60	65,60	65,60
HYDRAULIC CONNECTIONS (FLANGED/VICTAULIC) (9)		DN	DN100	DN100	DN100	DN125	DN125	DN150	DN150	DN150
TANK VOLUME (6) (10)		dm^3	380	380	500	500	500	500	500	500
EXPANSION VESSEL NUMBER x VOLUME (OPTION XV) (11)		liters	1x19	2x19	2x19	2x19	2x19	2x19	2x19	2x19
FAN SECTION (AXIAL)										
FANS		nr.	6	8	8	10	10	12	14	14
MAXIMUM FANS ABSORBED POWER	EC	kW	11,04	14,72	14,72	18,40	18,40	22,08	25,76	25,76
MAXIMUM FANS ABSORBED CURRENT		A	22,98	30,64	30,64	38,30	38,30	45,96	53,62	53,62
TOTAL AIR FLOW		m3/h	123600	164800	164800	206000	206000	247200	288400	288400
TOTAL ELECTRIC DATA										
MAXIMUM ABSORBED CURRENT (F.L.A) (7)		A	243,0	250,6	290,6	298,3	378,3	386,0	433,6	493,6
NOISE DATA										
SOUND PRESSURE FOR STANDARD CONFIGURATION (7) (8)		dB(A)	68,6	68,8	69,7	69,9	70,8	70,9	71,7	71,7
SOUND PRESSURE FOR LOW NOISE OPTION (LNJ) (7) (8)		dB(A)	64,9	65,4	66,1	66,5	67,1	67,4	68,2	68,2
SOUND PRESSURE FOR SUPER LOW NOISE OPTION (SLN) (7) (8)		dB(A)	64,0	64,3	65,1	65,4	66,2	66,4	67,2	67,2
SOUND PRESSURE FOR EXTRA LOW NOISE OPTION (ELN) (7) (8)		dB(A)	61,9	62,4	63,1	63,5	64,1	64,4	65,2	65,2
DIMENSIONS AND WEIGHT										
LENGTH		mm	4600	5900	5900	7200	7200	8500	9800	9800
WIDTH		mm	2210	2210	2210	2210	2210	2210	2210	2210
HEIGHT		mm	2450	2450	2450	2450	2450	2450	2450	2450
WEIGHT EMPTY FOR STANDARD CONFIGURATION (6) (7)		kg	3150	3850	4000	4700	4750	5400	6600	6800
WEIGHT OPERATIVE FOR STANDARD CONFIGURATION (6) (7)		kg	3350	4100	4270	5020	5090	5790	7040	7260

The manufacturer reserves the right to modify specifications without notice. Last update: 28/07/2021

Data referred to:
(1) Data referred to inlet/outlet water temperature = +12/+7 °C, ambient temperature = +35°C, fluid = Water
(2) Available pressure can be calculated from Hitema Online Selection Software
(3) SEPR: data comply with the European Regulation (EU) 2016/2281, referring to high temperature process chillers in the configuration with brazed plate or shell and tube evaporator and without pump. Any added option that modify cooling capacity or absorbed power of the chiller will not be considered in the SEPR value
(4) Pressure drops taken in account: evaporator, piping
(5) Pressure drops taken in account: evaporator, valves, piping, free-cooling coil
(6) Data referred to standard chiller configuration as indicated in frigorific section, with different evaporator this data can change
(7) Data referred to standard chiller configuration NP (no pump) and EC fans
(8) Sound pressure level referred to measures according to normative ISO3744, pressure level at distance of 10 m, referred to free field on reflecting surface
(9) Flanged connections with one of next options: Pump, Double pump, Tank. Flanged connections standard for models 095÷160
(10) To avoid excessive start/stop of the compressors a minimum water volume for the entire plant must be guarantee, the tank supplied by Hitema can be not enough
(11) The expansion vessel volume is calculated considering 50°C of deltaT between water temperature with chiller stopped and chiller active, 1/2bar of hydraulic circuit pre-charge and considering only the water volume of the unit

** pump P5 includes the soft start (SF) option

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TABLE 2/2

Air-cooled liquid chillers ISV series, inverter screw compressors, R134A / R513A / R1234ze refrigerant, shell and tube evaporator, brazed plate economizer, condenser and freecooling coil with copper tubes and aluminium fins, EC axial fans r. Electrical feed 400V/3ph/50Hz (60Hz version as option). IP54 protection rating, chillers suitable for outdoor installation. Additional modules (2 fans) can be added to improve efficiency (before the order). Inbuilt water storage tank and single pump P3 as option. Microchannel condenser coils as option.

Type of available evaporators:
ST = shell and tube evaporator, with high thickness copper tubes (0,41mm)
B-ES = stainless steel brazed plate evaporator

Type of available expansion elements:
ETS = Electronic expansion valve (available as option)

TECHNICAL DATA

PERFORMANCES		Model	770	850	910
NOMINAL COOLING CAPACITY	W 12°C/7°C @ 35°C (1)	kW	785,0	868,0	926,0
TOTAL NOMINAL ABSORBED POWER		kW	238,4	257,3	293,1
EER		kW/kW	3,29	3,37	3,16
SEPR (HT) (3)		-	5,57	5,56	5,51
AIR TEMPERATURE FOR 100% FREE COOLING CAPACITY		°C	0,77	0,93	0,42
NOMINAL WATER FLOW		m3/h	134,9	149,1	159,1
MECHANICAL MODE PRESSURE DROPS (4) (6) (7)		kPa	55	64	68
FREE COOLING MODE PRESSURE DROPS (5)		kPa	136,1	132,9	145,8
FRIGORIFIC SECTION					
COMPRESSORS / REFRIGERATING CIRCUITS / CAPACITY CONTROL		nr.	2/2/20÷102%	2/2/20÷102%	2/2/17÷106%
KIND OF EXPANSION ELEMENT		-	ETS	ETS	ETS
KIND OF EVAPORATOR		-	ST	ST	ST
ECONOMIZER			NO	YES	NO
TYPE OF ECONOMIZER		type	plate	plate	plate
HYDRAULIC SECTION					
WATER FLOW RANGE (7)		m3/h	94,0÷188,0	102,0÷203,0	108,0÷210,0
MAXIMUM PUMP ABSORBED POWER (WP OR OPTION DP)	P3 (2)	kW	31,88	31,88	31,88
MAXIMUM PUMP ABSORBED CURRENT (WP OR OPTION DP)		A	53,50	53,50	53,50
MAXIMUM PUMP ABSORBED POWER (OPTION PH OR DPH)	P5 (2)	kW	57.65*	57.65**	57.65**
MAXIMUM PUMP ABSORBED CURRENT (OPTION PH OR DPH)		A	93,50	93,50	93,50
HYDRAULIC CONNECTIONS (FLANGED/VICTAULIC) (9)		DN	DN150	DN150	DN150
TANK VOLUME (6) (10)		dm^3	500	700	700
EXPANSION VESSEL NUMBER x VOLUME (OPTION XV) (11)		liters	2x19	1x60	1x60
FAN SECTION (AXIAL)					
FANS		nr.	16	18	18
MAXIMUM FANS ABSORBED POWER	EC	kW	29,44	33,12	33,12
MAXIMUM FANS ABSORBED CURRENT		A	61,28	68,94	68,94
TOTAL AIR FLOW		m3/h	329600	370800	370800
TOTAL ELECTRIC DATA					
MAXIMUM ABSORBED CURRENT (F.L.A) (7)		A	581,3	588,9	748,9
NOISE DATA					
SOUND PRESSURE FOR STANDARD CONFIGURATION (7) (8)		dB(A)	72,7	72,8	73,7
SOUND PRESSURE FOR LOW NOISE OPTION (LNJ) (7) (8)		dB(A)	69,1	69,3	70,0
SOUND PRESSURE FOR SUPER LOW NOISE OPTION (SLN) (7) (8)		dB(A)	68,1	68,3	69,1
SOUND PRESSURE FOR EXTRA LOW NOISE OPTION (ELN) (7) (8)		dB(A)	66,1	66,3	67,0
DIMENSIONS AND WEIGHT					
LENGTH		mm	11100	12400	12400
WIDTH		mm	2210	2210	2210
HEIGHT		mm	2450	2450	2450
WEIGHT EMPTY FOR STANDARD CONFIGURATION (6) (7)		kg	7600	8400	8600
WEIGHT OPERATIVE FOR STANDARD CONFIGURATION (6) (7)		kg	8110	8970	9200

Last update: 28/07/2021
Revision: #RIF!

Data referred to:

(1) Data referred to inlet/outlet water temperature = +12/+7 °C, ambient temperature = +35°C, fluid = Water

(2) Available pressure can be calculated from Hitema Online Selection Software

(3) SEPR: data comply with the European Regulation (EU) 2016/2281, referring to high temperature process chillers in the configuration with brazed plate or shell and tube evaporator and without pump. Any added option that modify cooling capacity or absorbed power of the chiller will not be considered in the SEPR value

(4) Pressure drops taken in account: evaporator, piping

(6) Data referred to standard chiller configuration as indicated in frigorific section, with different evaporator this data can change

(7) Data referred to standard chiller configuration NP (no pump) and EC fans

(8) Sound pressure level referred to measures according to normative ISO3744, pressure level at distance of 10 m, referred to free field on reflecting surface

(9) Flanged connections with one of next options: Pump, Double pump, Tank. Flanged connections standard for models 095÷160

(10) To avoid excessive start/stop of the compressors a minimum water volume for the entire plant must be guarantee, the tank supplied by Hitema can be not enough

(11) The expansion vessel volume is calculated considering 50°C of deltaT between water temperature with chiller stopped and chiller active, 1/2bar of hydraulic circuit pre-charge and considering only the water volume of the unit

** pump P5 includes the soft start (SF) option

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ISVF-OPT
TABLE 1/2

Air-cooled liquid chillers ISVF-OPT series, inverter screw compressors, R134A / R513A / R1234ze refrigerant, shell and tube evaporator, brazed plate economizer, condenser and OPTIMIZED freecooling coil with copper tubes and aluminium fins, EC axial fans. Electrical feed 400V/3ph/50Hz (60Hz version as option).

IP54 protection rating, chillers suitable for outdoor installation. Additional modules (2 fans) can be added to improve efficiency (before the order). Inbuilt water storage tank and single pump P3 as option. Microchannel condenser coils as option.

Type of available evaporators:
ST = shell and tube evaporator, with high thickness copper tubes (0,41mm)
B-ES = stainless steel brazed plate evaporator

Type of available expansion elements:
ETS = Electronic expansion valve (available as option)

TECHNICAL DATA

PERFORMANCES		Model	300	350	390	440	480	520	600	680
NOMINAL COOLING CAPACITY	W 12°C/7°C @ 35°C (1)	kW	304,0	351,0	390,0	435,0	477,0	522,0	594,0	688,0
TOTAL NOMINAL ABSORBED POWER		kW	97,0	109,4	123,2	137,1	158,1	170,8	187,4	219,6
EER		kW/kW	3,13	3,21	3,17	3,17	3,02	3,06	3,17	3,13
SEPR (HT) (3)		-	5,04	5,01	5,04	5,55	5,54	5,52	5,57	5,55
AIR TEMPERATURE FOR 100% FREE COOLING CAPACITY		°C	3,45	3,90	3,33	3,71	3,18	3,54	3,54	3,41
NOMINAL WATER FLOW		m3/h	52,2	60,3	67,0	74,7	81,9	89,7	102,0	118,2
MECHANICAL MODE PRESSURE DROPS (4) (6) (7)		kPa	53	53	53	48	48	56	44	43
FREE COOLING MODE PRESSURE DROPS (5)		kPa	109,00	112,83	110,70	96,90	106,80	114,96	98,31	104,39
FRIGORIFIC SECTION										
COMPRESSORS / REFRIGERATING CIRCUITS / CAPACITY CONTROL		nr.	1/1/27÷108%	1/1/25÷100%	1/1/20÷101%	1/1/20÷100%	1/1/16÷102%	1/1/16÷100%	2/2/26÷102%	2/2/25÷100%
KIND OF EXPANSION ELEMENT		-	ETS	ETS	ETS	ETS	ETS	ETS	ETS	ETS
KIND OF EVAPORATOR		-	ST	ST	ST	ST	ST	ST	ST	ST
ECONOMIZER			NO	YES	NO	YES	NO	YES	NO	YES
TYPE OF ECONOMIZER		type	plate	plate	plate	plate	plate	plate	plate	plate
HYDRAULIC SECTION										
WATER FLOW RANGE (7)		m3/h	36,0÷72,0	42,0÷80,0	42,0÷84,0	52,0÷105,0	57,0÷113,0	57,0÷113,0	68,0÷137,0	81,0÷162,0
MAXIMUM PUMP ABSORBED POWER (WP OR OPTION DP)	P3 (2)	kW	10,20	16,22	16,22	16,22	16,22	24,85	24,85	24,85
MAXIMUM PUMP ABSORBED CURRENT (WP OR OPTION DP)		A	17,40	26,60	26,60	26,60	26,60	42,20	42,20	42,20
MAXIMUM PUMP ABSORBED POWER (OPTION PH OR DPH)	P5 (2)	kW	19,94	19,94	31,88	31,88	31,88	39,09	39,09	39,09
MAXIMUM PUMP ABSORBED CURRENT (OPTION PH OR DPH)		A	32,70	32,70	53,50	53,50	53,50	65,60	65,60	65,60
HYDRAULIC CONNECTIONS (FLANGED/VICTAULIC) (9)		DN	DN100	DN100	DN100	DN125	DN125	DN150	DN150	DN150
TANK VOLUME (6) (10)		dm^3	380	380	500	500	500	500	500	500
EXPANSION VESSEL NUMBER x VOLUME (OPTION XV) (11)		liters	1x19	2x19	2x19	2x19	2x19	2x19	2x19	2x19
FAN SECTION (AXIAL)										
FANS		nr.	8	10	10	12	12	14	16	18
MAXIMUM FANS ABSORBED POWER	EC	kW	14,72	18,40	18,40	22,08	22,08	25,76	29,44	33,12
MAXIMUM FANS ABSORBED CURRENT		A	30,64	38,30	38,30	45,96	45,96	53,62	61,28	68,94
TOTAL AIR FLOW		m3/h	164800	206000	206000	247200	247200	288400	329600	370800
TOTAL ELECTRIC DATA										
MAXIMUM ABSORBED CURRENT (F.L.A) (7)		A	250,6	258,3	298,3	306,0	386,0	393,6	441,3	508,9
NOISE DATA										
SOUND PRESSURE FOR STANDARD CONFIGURATION (7) (8)		dB(A)	68,8	69,0	69,9	70,1	70,9	71,1	71,8	71,9
SOUND PRESSURE FOR LOW NOISE OPTION (LNJ) (7) (8)		dB(A)	65,4	65,9	66,5	66,9	67,4	67,7	68,5	68,7
SOUND PRESSURE FOR SUPER LOW NOISE OPTION (SLN) (7) (8)		dB(A)	64,3	64,6	65,4	65,6	66,4	66,6	67,3	67,5
SOUND PRESSURE FOR EXTRA LOW NOISE OPTION (ELN) (7) (8)		dB(A)	62,4	62,9	63,5	63,9	64,4	64,7	65,5	65,7
DIMENSIONS AND WEIGHT										
LENGTH		mm	5900	7200	7200	8500	8500	9800	11100	12400
WIDTH		mm	2210	2210	2210	2210	2210	2210	2210	2210
HEIGHT		mm	2450	2450	2450	2450	2450	2450	2450	2450
WEIGHT EMPTY FOR STANDARD CONFIGURATION (6) (7)		kg	3850	4750	4750	5500	6200	6900	7950	8800
WEIGHT OPERATIVE FOR STANDARD CONFIGURATION (6) (7)		kg	4400	5400	5400	6250	6950	7800	9000	9900

The manufacturer reserves the right to modify specifications without notice. Last update: 28/07/2021

Data referred to:
(1) Data referred to inlet/outlet water temperature = +12/+7 °C, ambient temperature = +35°C, fluid = Water
(2) Available pressure can be calculated from Hitema Online Selection Software
(3) SEPR: data comply with the European Regulation (EU) 2016/2281, referring to high temperature process chillers in the configuration with brazed plate or shell and tube evaporator and without pump. Any added option that modify cooling capacity or absorbed power of the chiller will not be considered in the SEPR value
(4) Pressure drops taken in account: evaporator, piping
(5) Pressure drops taken in account: evaporator, valves, piping, free-cooling coil
(6) Data referred to standard chiller configuration as indicated in frigorific section, with different evaporator this data can change
(7) Data referred to standard chiller configuration NP (no pump) and EC fans
(8) Sound pressure level referred to measures according to normative ISO3744, pressure level at distance of 10 m, referred to free field on reflecting surface
(9) Flanged connections with one of next options: Pump, Double pump, Tank. Flanged connections standard for models 095÷160
(10) To avoid excessive start/stop of the compressors a minimum water volume for the entire plant must be guarantee, the tank supplied by Hitema can be not enough
(11) The expansion vessel volume is calculated considering 50°C of deltaT between water temperature with chiller stopped and chiller active, 1/2bar of hydraulic circuit pre-charge and considering only the water volume of the unit

** pump P5 includes the soft start (SF) option

TURBOCOR

R134A / R513A / R1234ZE
Turbocor compressors
Hybrid falling film/flooded evaporator
Inbuilt water storage tank & single pump P3 as option

TFV - TFVF - TFW series
From 233 kW up to 3104 kW

Technical Data Tables

SERIES: TFV-TFVF-TFW	DATE: 19.05.2022	
CODE: GPLSPC20	UPDATE: GPLSPC19	
CHECKED BY	M. Burba	

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TFV SERIES

Air-Cooled liquid Chillers, turbocor compressor
EC axial fans
IP54 protection rating
Suitable for OUTDOOR installation

SERIES: TFV-TFVF	DATE: 04/10/2021
CODE: TTD-TFV-01	UPDATE: -
CHECKED BY	M. Burba

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TFV

TABLE 1/2

Air-cooled liquid chillers TFV series, turbocore compressors, R134A / R513A / R1234ze refrigerant, hybrid falling film/flooded evaporator, brazed plate economizer, condenser coil with copper tubes and aluminium fins, EC axial fans. Electrical feed 400V/3ph/50Hz (60Hz version as option). IP54 protection rating, chillers suitable for outdoor installation. Additional modules (2 fans) can be added to improve efficiency (before the order). Inbuilt single or double pumps P3 as option. Microchannel condenser coils as option.

Type of available evaporators:
HYB = hybrid falling film / flooded

Type of available expansion elements:
ETS = Electronic expansion valve (available as option)

TECHNICAL DATA

PERFORMANCES		Model	250	280	310	350	390	440	500	560
NOMINAL COOLING CAPACITY	W 12°C/7°C @ 35°C (1)	kW	250,0	280,0	310,0	350,0	390,0	440,0	500,0	560,0
TOTAL NOMINAL ABSORBED POWER		kW	70,8	77,9	83,5	97,8	108,0	121,1	156,7	143,6
EER		kW/kW	3,53	3,59	3,71	3,58	3,61	3,63	3,19	3,90
SEPR (HT) (3)		-	5,04	5,01	5,04	5,55	5,54	5,52	5,57	5,55
NOMINAL WATER FLOW		m3/h	43,0	48,1	53,3	60,1	67,0	75,6	85,9	96,2
MECHANICAL MODE PRESSURE DROPS (4) (5) (6)		kPa	47	58	58	53	53	61	49	48
FRIGORIFIC SECTION										
COMPRESSORS / REFRIGERATING CIRCUITS / CAPACITY CONTROL		nr.	1/1/27÷108%	1/1/25÷100%	1/1/20÷101%	1/1/20÷100%	1/1/16÷102%	1/1/16÷100%	2/2/26÷102%	2/2/25÷100%
KIND OF EXPANSION ELEMENT		-	ETS	ETS	ETS	ETS	ETS	ETS	ETS	ETS
KIND OF EVAPORATOR		-	ST	ST	ST	ST	ST	ST	ST	ST
ECONOMIZER			NO	NO	YES	NO	NO	YES	NO	NO
TYPE OF ECONOMIZER		type	plate	plate	plate	plate	plate	plate	plate	plate
HYDRAULIC SECTION										
WATER FLOW RANGE (6)		m3/h	32,0÷72,0	33,0÷82,0	49,0÷90,0	49,0÷108,0	57,0÷113,0	57,0÷113,0	68,0÷137,0	81,0÷162,0
MAXIMUM PUMP ABSORBED POWER (WP OR OPTION DP)	P3 (2)	kW	8,30	8,30	10,20	10,20	10,20	16,22	16,22	16,22
MAXIMUM PUMP ABSORBED CURRENT (WP OR OPTION DP)		A	14,10	14,10	17,40	17,40	17,40	26,60	26,60	26,60
MAXIMUM PUMP ABSORBED POWER (OPTION PH OR DPH)	P5 (2)	kW	16,22	16,22	24,85	24,85	24,85	24,85	31,88	31,88
MAXIMUM PUMP ABSORBED CURRENT (OPTION PH OR DPH)		A	26,60	26,60	42,40	42,40	42,40	42,40	53,50	53,50
HYDRAULIC CONNECTIONS (FLANGED/VICTAULIC) (8)		DN	DN100	DN100	DN100	DN125	DN125	DN125	DN125	DN150
FAN SECTION (AXIAL)										
FANS		nr.	4	6	6	6	8	8	8	10
MAXIMUM FANS ABSORBED POWER	EC	kW	7,36	11,04	11,04	11,04	14,72	14,72	14,72	18,40
MAXIMUM FANS ABSORBED CURRENT		A	15,32	22,98	22,98	22,98	30,64	30,64	30,64	38,30
TOTAL AIR FLOW		m3/h	82400	123600	123600	123600	164800	164800	164800	206000
TOTAL ELECTRIC DATA										
MAXIMUM ABSORBED CURRENT (F.L.A) (6)		A	150,3	158,0	158,0	233,0	240,6	240,6	310,6	308,3
NOISE DATA										
SOUND PRESSURE FOR STANDARD CONFIGURATION (6) (7)		dB(A)	63,8	64,4	64,4	65,0	65,6	65,6	66,8	67,1
SOUND PRESSURE FOR LOW NOISE OPTION (LNJ) (6) (7)		dB(A)	61,1	62,3	62,3	62,6	63,5	63,5	64,1	64,8
SOUND PRESSURE FOR SUPER LOW NOISE OPTION (SLN) (6) (7)		dB(A)	59,5	60,4	60,4	60,9	61,6	61,6	62,6	63,0
SOUND PRESSURE FOR EXTRA LOW NOISE OPTION (ELN) (6) (7)		dB(A)	58,1	59,3	59,3	59,6	60,5	60,5	61,1	61,8
DIMENSIONS AND WEIGHT										
LENGTH		mm	4600	4600	4600	5900	5900	5900	7200	7200
WIDTH		mm	2210	2210	2210	2210	2210	2210	2210	2210
HEIGHT		mm	2450	2450	2450	2450	2450	2450	2450	2450
WEIGHT EMPTY FOR STANDARD CONFIGURATION (5) (6)		kg	3050	3100	3200	3600	3670	3750	5200	5250
WEIGHT OPERATIVE FOR STANDARD CONFIGURATION (5) (6)		kg	3180	3250	3370	3780	3850	3930	5500	5600

Last update: 28/07/2021
Revision: 03-2021

Data referred to:

(1) Data referred to inlet/outlet water temperature = +12/+7 °C, ambient temperature = +35°C, fluid = Water

(2) Available pressure can be calculated from Hitema Online Selection Software

(3) SEPR: data comply with the European Regulation (EU) 2016/2281, referring to high temperature process chillers in the configuration with brazed plate or shell and tube evaporator and without pump. Any added option that modify cooling capacity or absorbed power of the chiller will not be considered in the SEPR value

(4) Pressure drops taken in account: evaporator, piping

(5) Data referred to standard chiller configuration as indicated in frigorific section, with different evaporator this data can change

(6) Data referred to standard chiller configuration NP (no pump) and EC fans

(7) Sound pressure level referred to measures according to normative ISO3744, pressure level at distance of 10 m, referred to free field on reflecting surface

(8) Flanged connections with one of next options: Pump, Double pump, Tank. Flanged connections standard for models 095÷160

** pump P5 includes the soft start (SF) option

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TFV

TABLE 2/2

Air-cooled liquid chillers TFV series, turbocore compressors, R134A / R513A / R1234ze refrigerant, hybrid falling film/flooded evaporator, brazed plate economizer, condenser coil with copper tubes and aluminium fins, EC axial fans. Electrical feed 400V/3ph/50Hz (60Hz version as option). IP54 protection rating, chillers suitable for outdoor installation. Additional modules (2 fans) can be added to improve efficiency (before the order). Inbuilt single or double pumps P3 as option. Microchannel condenser coils as option.

Type of available evaporators:
HYB = hybrid falling film / flooded

Type of available expansion elements:
ETS = Electronic expansion valve (available as option)

TECHNICAL DATA

PERFORMANCES		**Model**	**620**	**700**	**780**	**850**	**920**	**1004**	**1110**	**1215**
NOMINAL COOLING CAPACITY	W 12°C/7°C @ 35°C (1)	kW	620,0	700,0	780,0	850,0	920,0	1004,0	1110,0	1215,0
TOTAL NOMINAL ABSORBED POWER		kW	171,1	195,7	224,3	234,4	260,1	273,3	321,7	338,8
EER		kW/kW	3,62	3,58	3,48	3,63	3,54	3,67	3,45	3,59
SEPR (HT) (3)		-	5,57	5,56	5,51	5,57	5,55	5,52	5,52	5,51
NOMINAL WATER FLOW		m3/h	106,5	120,3	134,0	146,0	158,1	172,5	190,7	208,7
MECHANICAL MODE PRESSURE DROPS (4) (5) (6)		kPa	55	64	68	65	68	66	76	89
FRIGORIFIC SECTION										
COMPRESSORS / REFRIGERATING CIRCUITS / CAPACITY CONTROL		nr.	2/2/20÷102%	2/2/20÷102%	2/2/17÷106%	2/2/16÷100%	2/2/16÷100%	3/3/22÷112%	3/3/22÷100%	3/3/22÷100%
KIND OF EXPANSION ELEMENT		-	ETS	ETS	ETS	ETS	ETS	ETS	ETS	ETS
KIND OF EVAPORATOR		-	ST	ST	ST	ST	ST	ST	ST	ST
ECONOMIZER			YES	NO	NO	YES	YES	NO	NO	YES
TYPE OF ECONOMIZER		type	plate	plate	plate	plate	plate	plate	plate	plate
HYDRAULIC SECTION										
WATER FLOW RANGE (6)		m3/h	94,0÷188,0	102,0÷203,0	108,0÷210,0	117,0÷210,0	124,0÷227,0	125,0÷250,0	141,0÷270,0	141,0÷270,0
MAXIMUM PUMP ABSORBED POWER (WP OR OPTION DP)	P3 (2)	kW	16,22	23,51	23,51	23,51	31,88	31,88	31,88	31,88
MAXIMUM PUMP ABSORBED CURRENT (WP OR OPTION DP)	P3 (2)	A	26,60	39,00	39,00	39,00	53,50	53,50	53,50	53,50
MAXIMUM PUMP ABSORBED POWER (OPTION PH OR DPH)	P5 (2)	kW	39,09	39,09	39,09	39,09	39,09	47.31**	47.31**	47.31**
MAXIMUM PUMP ABSORBED CURRENT (OPTION PH OR DPH)	P5 (2)	A	65,60	65,60	65,60	65,60	65,60	77,60	77,60	77,60
HYDRAULIC CONNECTIONS (FLANGED/VICTAULIC) (8)		DN	DN150	DN150	DN150	DN150	DN200	DN200	DN200	DN200
FAN SECTION (AXIAL)										
FANS		nr.	10	12	14	14	16	18	18	18
MAXIMUM FANS ABSORBED POWER	EC	kW	18,40	22,08	25,76	25,76	29,44	33,12	33,12	33,12
MAXIMUM FANS ABSORBED CURRENT	EC	A	38,30	45,96	53,62	53,62	61,28	68,94	68,94	68,94
TOTAL AIR FLOW	EC	m3/h	206000	247200	288400	288400	329600	370800	370800	370800
TOTAL ELECTRIC DATA										
MAXIMUM ABSORBED CURRENT (F.L.A) (6)		A	308,3	466,0	473,6	473,6	481,3	698,9	698,9	698,9
NOISE DATA										
SOUND PRESSURE FOR STANDARD CONFIGURATION (6) (7)		dB(A)	67,1	68,1	68,3	68,3	68,6	69,8	69,8	69,8
SOUND PRESSURE FOR LOW NOISE OPTION (LNJ) (6) (7)		dB(A)	64,8	65,6	66,1	66,1	66,5	67,4	67,4	67,4
SOUND PRESSURE FOR SUPER LOW NOISE OPTION (SLN) (6) (7)		dB(A)	63,0	63,9	64,3	64,3	64,6	65,7	65,7	65,7
SOUND PRESSURE FOR EXTRA LOW NOISE OPTION (ELN) (6) (7)		dB(A)	61,8	62,6	63,1	63,1	63,5	64,4	64,4	64,4
DIMENSIONS AND WEIGHT										
LENGTH		mm	8500	9800	9800	11100	11100	12400	12400	12400
WIDTH		mm	2210	2210	2210	2210	2210	2210	2210	2210
HEIGHT		mm	2450	2450	2450	2450	2450	2450	2450	2450
WEIGHT EMPTY FOR STANDARD CONFIGURATION (5) (6)		kg	5900	6550	6730	7450	7700	9100	9600	9600
WEIGHT OPERATIVE FOR STANDARD CONFIGURATION (5) (6)		kg	6200	6900	7100	7900	8200	9650	10200	10200

The manufacturer reserves the right to modify specifications without notice.

Last update: 28/07/2021
Revision: 03-2021

Data referred to:

(1) Data referred to inlet/outlet water temperature = +12/+7 °C, ambient temperature = +35°C, fluid = Water

(2) Available pressure can be calculated from Hitema Online Selection Software

(3) SEPR: data comply with the European Regulation (EU) 2016/2281, referring to high temperature process chillers in the configuration with brazed plate or shell and tube evaporator and without pump. Any added option that modify cooling capacity or absorbed power of the chiller will not be considered in the SEPR value

(4) Pressure drops taken in account: evaporator, piping

(5) Data referred to standard chiller configuration as indicated in frigorific section, with different evaporator this data can change

(6) Data referred to standard chiller configuration NP (no pump) and EC fans

(7) Sound pressure level referred to measures according to normative ISO3744, pressure level at distance of 10 m, referred to free field on reflecting surface

(8) Flanged connections with one of next options: Pump, Double pump, Tank. Flanged connections standard for models 095÷160

** pump P5 includes the soft start (SF) option

TFVF SERIES

Freecooling liquid chillers, turbocor compressors
EC axial fans
IP54 protection rating
Suitable for OUTDOOR installation

SERIES: TFV-TFVF	DATE: 04/10/2021
CODE: TTD-TFVF-01	UPDATE: -
CHECKED BY	M. Burba

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TFVF

TABLE 1/2

Air-cooled liquid chillers TFVF series, turbocore compressors, R134A / R513A / R1234ze refrigerant, hybrid falling film/flooded evaporator, brazed plate economizer, condenser and freecooling coil with copper tubes and aluminium fins, EC axial fans. Electrical feed 400V/3ph/50Hz (60Hz version as option). IP54 protection rating, chillers suitable for outdoor installation. Additional modules (2 fans) can be added to improve efficiency (before the order). Inbuilt single or double pumps P3 as option. Microchannel condenser coils as option.

Type of available evaporators:
HYB = hybrid falling film / flooded

Type of available expansion elements:
ETS = Electronic expansion valve (available as option)

TECHNICAL DATA

PERFORMANCES		Model	250	280	310	350	390	440	500	560
NOMINAL COOLING CAPACITY	W 12°C/7°C @ 35°C (1)	kW	250,0	280,0	310,0	350,0	390,0	440,0	500,0	560,0
TOTAL NOMINAL ABSORBED POWER		kW	70,7	83,8	86,6	99,7	111,7	124,8	141,1	167,1
EER		kW/kW	3,53	3,34	3,58	3,51	3,49	3,53	3,54	3,35
SEPR (HT) (3)		-	5,04	5,01	5,04	5,55	5,54	5,52	5,57	5,55
AIR TEMPERATURE FOR 100% FREE COOLING CAPACITY		°C	2,45	1,75	2,85	2,15	2,85	2,10	2,45	1,75
NOMINAL WATER FLOW		m3/h	43,0	48,1	53,3	60,1	67,0	75,6	85,9	96,2
MECHANICAL MODE PRESSURE DROPS (4) (6) (7)		kPa	47	58	58	53	53	61	49	48
FREE COOLING MODE PRESSURE DROPS (5)		kPa	120	143	136	144	129	139	129	142
FRIGORIFIC SECTION										
COMPRESSORS / REFRIGERATING CIRCUITS / CAPACITY CONTROL		nr.	1/1/27÷108%	1/1/25÷100%	1/1/20÷101%	1/1/20÷100%	1/1/16÷102%	1/1/16÷100%	2/2/26÷102%	2/2/25÷100%
KIND OF EXPANSION ELEMENT		-	ETS	ETS	ETS	ETS	ETS	ETS	ETS	ETS
KIND OF EVAPORATOR		-	ST	ST	ST	ST	ST	ST	ST	ST
ECONOMIZER			NO	NO	YES	NO	NO	YES	NO	NO
TYPE OF ECONOMIZER		type	plate	plate	plate	plate	plate	plate	plate	plate
HYDRAULIC SECTION										
WATER FLOW RANGE (7)		m3/h	32,0÷72,0	33,0÷82,0	49,0÷90,0	49,0÷108,0	57,0÷113,0	57,0÷113,0	68,0÷137,0	81,0÷162,0
MAXIMUM PUMP ABSORBED POWER (WP OR OPTION DP)	P3 (2)	kW	10,20	10,20	10,20	16,22	16,22	16,22	16,22	24,85
MAXIMUM PUMP ABSORBED CURRENT (WP OR OPTION DP)		A	17,40	17,40	17,40	26,60	26,60	26,60	26,60	42,20
MAXIMUM PUMP ABSORBED POWER (OPTION PH OR DPH)	P5 (2)	kW	19,94	19,94	19,94	19,94	31,88	31,88	31,88	39,09
MAXIMUM PUMP ABSORBED CURRENT (OPTION PH OR DPH)		A	32,70	32,70	32,70	32,70	53,50	53,50	53,50	65,60
HYDRAULIC CONNECTIONS (FLANGED/VICTAULIC) (9)		DN	DN100	DN100	DN125	DN125	DN125	DN125	DN150	DN150
FAN SECTION (AXIAL)										
FANS		nr.	6	6	8	8	10	10	12	12
MAXIMUM FANS ABSORBED POWER	EC	kW	11,04	11,04	14,72	14,72	18,40	18,40	22,08	22,08
MAXIMUM FANS ABSORBED CURRENT		A	22,98	22,98	30,64	30,64	38,30	38,30	45,96	45,96
TOTAL AIR FLOW		m3/h	123600	123600	164800	164800	206000	206000	247200	247200
TOTAL ELECTRIC DATA										
MAXIMUM ABSORBED CURRENT (F.L.A) (7)		A	158,0	158,0	165,6	240,6	248,3	248,3	326,0	316,0
NOISE DATA										
SOUND PRESSURE FOR STANDARD CONFIGURATION (7) (8)		dB(A)	64,4	64,4	65,0	65,6	66,0	66,0	67,5	67,5
SOUND PRESSURE FOR LOW NOISE OPTION (LNJ) (7) (8)		dB(A)	62,3	62,3	63,2	63,5	64,2	64,2	65,3	65,3
SOUND PRESSURE FOR SUPER LOW NOISE OPTION (SLN) (7) (8)		dB(A)	60,4	60,4	61,1	61,6	62,1	62,1	63,4	63,4
SOUND PRESSURE FOR EXTRA LOW NOISE OPTION (ELN) (7) (8)		dB(A)	59,3	59,3	60,2	60,5	61,2	61,2	62,3	62,3
DIMENSIONS AND WEIGHT										
LENGTH		mm	4600	4600	5900	5900	7200	7200	8500	8500
WIDTH		mm	2210	2210	2210	2210	2210	2210	2210	2210
HEIGHT		mm	2450	2450	2450	2450	2450	2450	2450	2450
WEIGHT EMPTY FOR STANDARD CONFIGURATION (6) (7)		kg	3168	3208	4044	4160	4858	4923	5200	5250
WEIGHT OPERATIVE FOR STANDARD CONFIGURATION (6) (7)		kg	3476	3523	4448	4577	5369	5445	5912	5983

Last update: 28/07/2021
Revision: 03-2021

Data referred to:

(1) Data referred to inlet/outlet water temperature = +12/+7 °C, ambient temperature = +35°C, fluid = Water

(2) Available pressure can be calculated from Hitema Online Selection Software

(3) SEPR: data comply with the European Regulation (EU) 2016/2281, referring to high temperature process chillers in the configuration with brazed plate or shell and tube evaporator and without pump. Any added option that modify cooling capacity or absorbed power of the chiller will not be considered in the SEPR value

(4) Pressure drops taken in account: evaporator, piping

(5) Pressure drops taken in account: evaporator, valves, piping, free-cooling coil

(6) Data referred to standard chiller configuration as indicated in frigorific section, with different evaporator this data can change

(7) Data referred to standard chiller configuration NP (no pump) and EC fans

(8) Sound pressure level referred to measures according to normative ISO3744, pressure level at distance of 10 m, referred to free field on reflecting surface

(9) Flanged connections with one of next options: Pump, Double pump, Tank. Flanged connections standard for models 095÷160

** pump P5 includes the soft start (SF) option

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TFVF

TABLE 2/2

Air-cooled liquid chillers TFVF series, turbocore compressors, R134A / R513A / R1234ze refrigerant, hybrid falling film/flooded evaporator, brazed plate economizer, condenser and freecooling coil with copper tubes and aluminium fins, EC axial fans. Electrical feed 400V/3ph/50Hz (60Hz version as option). IP54 protection rating, chillers suitable for outdoor installation. Additional modules (2 fans) can be added to improve efficiency (before the order). Inbuilt single or double pumps P3 as option. Microchannel condenser coils as option.

Type of available evaporators:
HYB = hybrid falling film / flooded

Type of available expansion elements:
ETS = Electronic expansion valve (available as option)

TECHNICAL DATA

PERFORMANCES		Model	620	700	780	850	920
NOMINAL COOLING CAPACITY	W 12°C/7°C @ 35°C (1)	kW	620,0	700,0	780,0	850,0	920,0
TOTAL NOMINAL ABSORBED POWER		kW	178,5	203,0	227,9	241,7	273,1
EER		kW/kW	3,47	3,45	3,42	3,52	3,37
SEPR (HT) (3)		-	5,57	5,56	5,51	5,57	5,55
AIR TEMPERATURE FOR 100% FREE COOLING CAPACITY		°C	2,10	2,15	1,45	1,65	1,10
NOMINAL WATER FLOW		m3/h	106,5	120,3	134,0	146,0	158,1
MECHANICAL MODE PRESSURE DROPS (4) (6) (7)		kPa	55	64	68	65	68
FREE COOLING MODE PRESSURE DROPS (5)		kPa	139	153	172	155	168
FRIGORIFIC SECTION							
COMPRESSORS / REFRIGERATING CIRCUITS / CAPACITY CONTROL		nr.	2/2/20÷102%	2/2/20÷102%	2/2/17÷106%	2/2/16÷100%	2/2/16÷100%
KIND OF EXPANSION ELEMENT		-	ETS	ETS	ETS	ETS	ETS
KIND OF EVAPORATOR		-	ST	ST	ST	ST	ST
ECONOMIZER			YES	NO	NO	YES	YES
TYPE OF ECONOMIZER		type	plate	plate	plate	plate	plate
HYDRAULIC SECTION							
WATER FLOW RANGE (7)		m3/h	94,0÷188,0	102,0÷203,0	108,0÷210,0	117,0÷210,0	124,0÷227,0
MAXIMUM PUMP ABSORBED POWER (WP OR OPTION DP)	P3 (2)	kW	24,85	24,85	31,88	31,88	31,88
MAXIMUM PUMP ABSORBED CURRENT (WP OR OPTION DP)		A	42,20	42,20	53,50	53,50	53,50
MAXIMUM PUMP ABSORBED POWER (OPTION PH OR DPH)	P5 (2)	kW	39,09	39,09	57.65*	57.65*	57.65*
MAXIMUM PUMP ABSORBED CURRENT (OPTION PH OR DPH)		A	65,60	65,60	93,50	93,50	93,50
HYDRAULIC CONNECTIONS (FLANGED/VICTAULIC) (9)		DN	DN150	DN150	DN200	DN200	DN200
FAN SECTION (AXIAL)							
FANS		nr.	14	16	16	18	18
MAXIMUM FANS ABSORBED POWER	EC	kW	25,76	29,44	29,44	33,12	33,12
MAXIMUM FANS ABSORBED CURRENT		A	53,62	61,28	61,28	68,94	68,94
TOTAL AIR FLOW		m3/h	288400	329600	329600	370800	370800
TOTAL ELECTRIC DATA							
MAXIMUM ABSORBED CURRENT (F.L.A) (7)		A	323,6	481,3	481,3	488,9	488,9
NOISE DATA							
SOUND PRESSURE FOR STANDARD CONFIGURATION (7) (8)		dB(A)	67,8	68,6	68,6	68,8	68,8
SOUND PRESSURE FOR LOW NOISE OPTION (LNJ) (7) (8)		dB(A)	65,8	66,5	66,5	66,9	66,9
SOUND PRESSURE FOR SUPER LOW NOISE OPTION (SLN) (7) (8)		dB(A)	63,8	64,6	64,6	64,9	64,9
SOUND PRESSURE FOR EXTRA LOW NOISE OPTION (ELN) (7) (8)		dB(A)	62,8	63,5	63,5	63,9	63,9
DIMENSIONS AND WEIGHT							
LENGTH		mm	9800	11100	11100	12790	12790
WIDTH		mm	2210	2210	2210	2210	2210
HEIGHT		mm	2450	2450	2450	2450	2450
WEIGHT EMPTY FOR STANDARD CONFIGURATION (6) (7)		kg	5900	6550	6730	7450	7700
WEIGHT OPERATIVE FOR STANDARD CONFIGURATION (6) (7)		kg	7010	7632	7661	8493	8862

Last update: 28/07/2021
Revision: 03-2021

Data referred to:

(1) Data referred to inlet/outlet water temperature = +12/+7 °C, ambient temperature = +35°C, fluid = Water

(2) Available pressure can be calculated from Hitema Online Selection Software

(3) SEPR: data comply with the European Regulation (EU) 2016/2281, referring to high temperature process chillers in the configuration with brazed plate or shell and tube evaporator and without pump. Any added option that modify cooling capacity or absorbed power of the chiller will not be considered in the SEPR value

(4) Pressure drops taken in account: evaporator, piping

(5) Pressure drops taken in account: evaporator, valves, piping, free-cooling coil

(6) Data referred to standard chiller configuration as indicated in frigorific section, with different evaporator this data can change

(7) Data referred to standard chiller configuration NP (no pump) and EC fans

(8) Sound pressure level referred to measures according to normative ISO3744, pressure level at distance of 10 m, referred to free field on reflecting surface

(9) Flanged connections with one of next options: Pump, Double pump, Tank. Flanged connections standard for models 095÷160

** pump P5 includes the soft start (SF) option

TFW SERIES

Watercooled liquid chillers, turbocor compressors IP54 protection rating Suitable for INDOOR and OUTDOOR installation

SERIES: TFW	DATE: 04/10/2021
CODE: TTD-TFW-01	UPDATE: -
CHECKED BY	M. Burba

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TFW

TABLE 1/3

Watercooled liquid chillers TFW series, turbocor compressors, R134a / R513a refrigerant (R1234ze on request), 1 flooded or hybrid faling film evaporator, shell and tube condensers, electronic expansion valves, open cabinet and compact design to fit in narrow spaces.
Electrical feed 400V/3ph/50Hz (60Hz version as option), IP54 protection rating, chillers suitable for indoor / outdoor installation.

Types of available condensing temperature control system:
No one condensing temperature control system (standard)
PCC2 = 2 ways valve/s on water side, regulated by condensing pressure
PCC3 = 3 ways valve/s on water side, regulated by condensing pressure

Type of compressors starting method:
INVERTER

TECHNICAL DATA

PERFORMANCES		Model	240	300	350	430	500	610	700	870
NOMINAL COOLING CAPACITY	W 12°C/7°C EVAPORATOR SIDE W 40/45°C CONDENSER SIDE (1)	kW	232,8	291,0	339,5	417,1	485,0	591,7	679,0	834,2
NOMINAL HEATING CAPACITY (4)		kW	277,8	353,4	404,6	504,9	579,8	720,2	809,2	1009,9
TOTAL NOMINAL ABSORBED POWER		kW	45,0	62,4	65,1	87,8	94,8	128,5	130,2	175,7
EER		kW/kW	5,17	4,67	5,22	4,75	5,12	4,61	5,22	4,75
COP (4)		kW/kW	6,17	5,67	6,22	5,75	6,12	5,61	6,22	5,75
SEPR (HT) (10)		-	7,03	7,03	8,01	8,02	8,04	8,05	8,02	8,06
NOMINAL WATER FLOW, EVAPORATOR SIDE (TOTAL)		m3/h	39,9	49,9	58,2	71,5	83,2	101,5	116,4	143,0
NOMINAL WATER FLOW, CONDENSER SIDE (EACH)		m3/h	47,6	60,6	69,4	86,6	99,4	123,5	138,8	173,2
MECHANICAL MODE PRESSURE DROPS, EVAPORATOR SIDE (3)		kPa	34,5	43,4	42,2	46,2	41,8	50,9	55,9	69,2
MECHANICAL MODE PRESSURE DROPS, CONDENSER SIDE (5)		kPa	11,5	12,5	13,4	15,4	41,2	39,4	39,3	40,3
NOMINAL COOLING CAPACITY	W 12°C/7°C EVAPORATOR SIDE W 30/35°C CONDENSER SIDE (2)	kW	240,0	300,0	350,0	430,0	500,0	610,0	700,0	860,0
NOMINAL HEATING CAPACITY (4)		kW	283,7	360,5	413,2	515,3	592,0	734,7	826,4	1030,6
TOTAL NOMINAL ABSORBED POWER		kW	43,7	60,5	63,2	85,3	92,0	124,7	126,4	170,6
EER		kW/kW	5,49	4,96	5,54	5,04	5,43	4,89	5,54	5,04
COP (4)		kW/kW	6,49	5,96	6,54	6,04	6,43	5,89	6,54	6,04
NOMINAL WATER FLOW, EVAPORATOR SIDE (TOTAL)		m3/h	41,2	51,4	60,0	73,7	85,7	104,6	120,0	147,5
NOMINAL WATER FLOW, CONDENSER SIDE (EACH)		m3/h	48,6	61,8	70,9	88,4	101,5	126,0	141,7	176,7
MECHANICAL MODE PRESSURE DROPS, EVAPORATOR SIDE (3)		kPa	36,7	46,1	44,8	49,1	44,4	54,1	59,4	73,6
MECHANICAL MODE PRESSURE DROPS, CONDENSER SIDE (5)		kPa	12,0	13,0	14,0	16,0	43,0	41,0	41,0	42,0
FRIGORIFIC SECTION										
COMPRESSORS / REFRIGERATING CIRCUITS / CONDENSERS		nr.	1/1/1	1/1/1	1/1/1	1/1/1	2/1/1	2/1/1	2/1/1	2/1/1
COMPRESSORS STARTING METHOD		-	INVERTER	INVERTER	INVERTER	INVERTER	INVERTER	INVERTER	INVERTER	INVERTER
HYDRAULIC SECTION (6)										
WATER FLOW RANGE, EVAPORATOR SIDE (TOTAL)		m3/h	32÷64	36÷73	43÷86	63÷126	73÷140	85÷160	85÷160	97÷195
WATER FLOW RANGE, CONDENSER SIDE (EACH)		m3/h	40÷80	52÷104	59÷119	68÷136	70÷139	75÷150	75÷160	93÷187
HYDRAULIC CONNECTIONS, EVAPORATOR SIDE (VICTAULIC)		DN	100	100	125	125	150	150	150	150
HYDRAULIC CONNECTIONS, CONDENSER SIDE (FLANGED)		DN	100	125	125	125	125	150	150	150
TOTAL ELECTRIC DATA										
MAXIMUM ABSORBED CURRENT (F.L.A)		A	145,0	145,0	231,0	231,0	290,0	290,0	462,0	462,0
MAXIMUM PEAK CURRENT (L.R.A) (9)		A	20,0	20,0	20,0	20,0	165,0	165,0	251,0	251,0
MAXIMUM PEAK CURRENT WITH SOFT START (OPTION SF) (L.R.A) (9)		A	16,0	16,0	16,0	16,0	161,0	161,0	247,0	247,0
NOISE DATA (7)										
SOUND PRESSURE FOR STANDARD CONFIGURATION		dB(A)	62,0	62,0	63,0	63,0	65,0	65,0	66,0	66,0
SOUND PRESSURE FOR LOW NOISE CONFIGURATION (OPTION LNJ)		dB(A)	57,0	57,0	58,0	58,0	60,0	60,0	61,0	61,0
DIMENSIONS AND WEIGHT										
LENGTH		mm	2600	2600	2600	2600	3900	3900	4000	4000
WIDTH		mm	1500	1500	1500	1500	1600	1600	1600	1600
HEIGHT		mm	2000	2000	2000	2000	2000	2000	2000	2000
WEIGHT EMPTY FOR STANDARD CONFIGURATION (5) (8)		kg	2250	2850	2900	3000	3650	3700	3800	3900
WEIGHT OPERATIVE FOR STANDARD CONFIGURATION (5) (8)		kg	2380	3000	3070	3200	3890	3990	4120	4300

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Revision: 00-2021

Data referred to:
(1) Data referred to inlet/outlet water temperatures: evaporator side = +12/+7 °C (fluid = Water), condenser side = +30/35°C (fluid = Water)
(2) Data referred to inlet/outlet water temperatures: evaporator side = +12/+7 °C (fluid = Water), condenser side = +40/45°C (fluid = Water)
(3) Pressure drops taken in account: heat exchanger, valves, piping
(4) Water cooled chillers can be used as not reversible heat pumps, this kind of application must be indicated in the order
(5) Data referred to standard chiller configuration (no one condensing temperature control system), with different condensing temperature control system this data will change
(6) You can match an hydromodule with this chiller: go to select it at https://www.hitema.com/standard-products/hydro-module
(7) Sound pressure level referred to measures according to normative ISO3744, pressure level at distance of 10 m, referred to free field on reflecting surface
(8) Weight will be confirmed in case of order
(9) Data referred to standard compressors starting method, with different starting method this data will change
(10) SEPR: data comply with the European Regulation (EU) 2016/2281, referring to high temperature process chillers in the configuration with brazed plate or shell and tube evaporator and without pump. Any added option that modify cooling capacity or absorbed power of the chiller will not be considered in the SEPR value

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TFW

TABLE 2/3

Watercooled liquid chillers TFW series, turbocor compressors, R134a / R513a refrigerant (R1234ze on request), 1 flooded or hybrid faling film evaporator, shell and tube condensers, electronic expansion valves, open cabinet and compact design to fit in narrow spaces.
Electrical feed 400V/3ph/50Hz (60Hz version as option), IP54 protection rating, chillers suitable for indoor / outdoor installation.

Types of available condensing temperature control system:
No one condensing temperature control system (standard)
PCC2 = 2 ways valve/s on water side, regulated by condensing pressure
PCC3 = 3 ways valve/s on water side, regulated by condensing pressure

Type of compressors starting method:
INVERTER

TECHNICAL DATA

PERFORMANCES		Model	930	1050	1290	1460	1730	1960	2150	2450
NOMINAL COOLING CAPACITY	W 12°C/7°C EVAPORATOR SIDE W 40/45°C CONDENSER SIDE (1)	kW	902,1	1018,5	1251,3	1416,2	1668,4	1901,2	2085,5	2374,6
NOMINAL HEATING CAPACITY (4)		kW	1104,3	1213,7	1514,8	1690,6	2019,8	2279,6	2524,7	2857,3
TOTAL NOMINAL ABSORBED POWER		kW	202,2	195,2	263,5	274,4	351,4	378,4	439,2	482,7
EER		kW/kW	4,46	5,22	4,75	5,16	4,75	5,02	4,75	4,92
COP (4)		kW/kW	5,46	6,22	5,75	6,16	5,75	6,02	5,75	5,92
SEPR (HT) (10)		-	7,06	7,02	7,01	8,05	8,00	8,04	8,06	8,06
NOMINAL WATER FLOW, EVAPORATOR SIDE (TOTAL)		m3/h	154,7	174,7	214,6	242,9	286,1	326,0	357,6	407,2
NOMINAL WATER FLOW, CONDENSER SIDE (EACH)		m3/h	189,4	208,1	259,8	289,9	346,4	390,9	432,9	490,0
MECHANICAL MODE PRESSURE DROPS, EVAPORATOR SIDE (3)		kPa	537,1	471,2	616,6	474,9	375,4	463,5	382,9	518,1
MECHANICAL MODE PRESSURE DROPS, CONDENSER SIDE (5)		kPa	36,5	37,4	35,5	37,4	43,2	41,3	44,2	40,3
NOMINAL COOLING CAPACITY	W 12°C/7°C EVAPORATOR SIDE W 30/35°C CONDENSER SIDE (2)	kW	930,0	1050,0	1290,0	1460,0	1720,0	1960,0	2150,0	2448,0
NOMINAL HEATING CAPACITY (4)		kW	1126,3	1239,5	1545,8	1726,4	2061,1	2327,4	2576,4	2916,7
TOTAL NOMINAL ABSORBED POWER		kW	196,3	189,5	255,8	266,4	341,1	367,4	426,4	468,7
EER		kW/kW	4,74	5,54	5,04	5,48	5,04	5,33	5,04	5,22
COP (4)		kW/kW	5,74	6,54	6,04	6,48	6,04	6,33	6,04	6,22
NOMINAL WATER FLOW, EVAPORATOR SIDE (TOTAL)		m3/h	159,5	180,1	221,2	250,4	294,9	336,1	368,7	419,8
NOMINAL WATER FLOW, CONDENSER SIDE (EACH)		m3/h	193,1	212,6	265,1	296,0	353,4	399,1	441,8	500,2
MECHANICAL MODE PRESSURE DROPS, EVAPORATOR SIDE (3)		kPa	570,9	500,8	655,3	504,7	398,9	492,7	407,0	550,7
MECHANICAL MODE PRESSURE DROPS, CONDENSER SIDE (5)		kPa	38,0	39,0	37,0	39,0	45,0	43,0	46,0	42,0
FRIGORIFIC SECTION										
COMPRESSORS / REFRIGERATING CIRCUITS / CONDENSERS		nr.	3/1/1	3/1/1	3/1/1	4/1/1	4/1/1	5/1/1	5/1/1	6/1/1
COMPRESSORS STARTING METHOD		-	INVERTER	INVERTER	INVERTER	INVERTER	INVERTER	INVERTER	INVERTER	INVERTER
HYDRAULIC SECTION (6)										
WATER FLOW RANGE, EVAPORATOR SIDE (TOTAL)		m3/h	32÷59	39÷78	45÷91	52÷103	58÷116	71÷142	81÷162	96÷192
WATER FLOW RANGE, CONDENSER SIDE (EACH)		m3/h	102÷204	130÷225	140÷323	165÷380	195÷395	201÷442	212÷488	252÷580
HYDRAULIC CONNECTIONS, EVAPORATOR SIDE (VICTAULIC)		DN	150	150	200	200	250	250	250	300
HYDRAULIC CONNECTIONS, CONDENSER SIDE (FLANGED)		DN	150	200	200	200	250	250	250	300
TOTAL ELECTRIC DATA										
MAXIMUM ABSORBED CURRENT (F.L.A)		A	435,0	693,0	693,0	924,0	924,0	1155,0	1155,0	1386,0
MAXIMUM PEAK CURRENT (L.R.A) (9)		A	310,0	482,0	482,0	713,0	713,0	944,0	944,0	1175,0
MAXIMUM PEAK CURRENT WITH SOFT START (OPTION SF) (L.R.A) (9)		A	306,0	478,0	478,0	709,0	709,0	940,0	940,0	1171,0
NOISE DATA (7)										
SOUND PRESSURE FOR STANDARD CONFIGURATION		dB(A)	66,8	67,8	67,8	69,0	69,0	70,0	70,0	70,8
SOUND PRESSURE FOR LOW NOISE CONFIGURATION (OPTION LNJ)		dB(A)	61,8	62,8	62,8	64,0	64,0	65,0	65,0	65,8
DIMENSIONS AND WEIGHT										
LENGTH		mm	4200	4200	4200	5000	5000	5000	5000	6000
WIDTH		mm	1800	1800	1800	2210	2210	2210	2210	2210
HEIGHT		mm	2100	2100	2100	2500	2500	2500	2500	2500
WEIGHT EMPTY FOR STANDARD CONFIGURATION (5) (8)		kg	4250	4650	5250	6300	7180	7950	8380	8530
WEIGHT OPERATIVE FOR STANDARD CONFIGURATION (5) (8)		kg	4720	5200	5850	7120	8180	9050	9570	10000

Last update: 22/12/2021
Revision: 00-2021

Data referred to:
(1) Data referred to inlet/outlet water temperatures: evaporator side = +12/+7 °C (fluid = Water), condenser side = +30/35°C (fluid = Water)
(2) Data referred to inlet/outlet water temperatures: evaporator side = +12/+7 °C (fluid = Water), condenser side = +40/45°C (fluid = Water)
(3) Pressure drops taken in account: heat exchanger, valves, piping
(4) Water cooled chillers can be used as not reversible heat pumps, this kind of application must be indicated in the order
(5) Data referred to standard chiller configuration (no one condensing temperature control system), with different condensing temperature control system this data will change
(6) You can match an hydromodule with this chiller: go to select it at https://www.hitema.com/standard-products/hydro-module
(7) Sound pressure level referred to measures according to normative ISO3744, pressure level at distance of 10 m, referred to free field on reflecting surface
(8) Weight will be confirmed in case of order
(9) Data referred to standard compressors starting method, with different starting method this data will change
(10) SEPR: data comply with the European Regulation (EU) 2016/2281, referring to high temperature process chillers in the configuration with brazed plate or shell and tube evaporator and without pump. Any added option that modify cooling capacity or absorbed power of the chiller will not be considered in the SEPR value

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TFW
TABLE 3/3

Watercooled liquid chillers TFW series, turbocor compressors, R134a / R513a refrigerant (R1234ze on request), 1 flooded or hybrid faling film evaporator, shell and tube condensers, electronic expansion valves, open cabinet and compact design to fit in narrow spaces.
Electrical feed 400V/3ph/50Hz (60Hz version as option), IP54 protection rating, chillers suitable for indoor / outdoor installation.

Types of available condensing temperature control system:
No one condensing temperature control system (standard)
PCC2 = 2 ways valve/s on water side, regulated by condensing pressure
PCC3 = 3 ways valve/s on water side, regulated by condensing pressure

Type of compressors starting method:
INVERTER

TECHNICAL DATA

PERFORMANCES		Model	2600	2950	3200		
NOMINAL COOLING CAPACITY	W 12°C/7°C EVAPORATOR SIDE W 30/35°C CONDENSER SIDE (1)	kW	2473,5	2858,6	3104,0		
NOMINAL HEATING CAPACITY (4)		kW	2989,9	3451,4	3728,1		
TOTAL NOMINAL ABSORBED POWER		kW	516,4	592,8	624,1		
EER		kW/kW	4,79	4,82	4,97		
COP (4)		kW/kW	5,79	5,82	5,97		
SEPR (HT) (10)		-	8,01	8,04	8,02		
NOMINAL WATER FLOW, EVAPORATOR SIDE (TOTAL)		m3/h	424,2	490,2	532,3		
NOMINAL WATER FLOW, CONDENSER SIDE (EACH)		m3/h	512,7	591,9	639,3		
MECHANICAL MODE PRESSURE DROPS, EVAPORATOR SIDE (3)		kPa	439,5	457,3	489,5		
MECHANICAL MODE PRESSURE DROPS, CONDENSER SIDE (5)		kPa	44,2	44,2	45,1		
NOMINAL COOLING CAPACITY	W 12°C/7°C EVAPORATOR SIDE W 40/45°C CONDENSER SIDE (2)	kW	2550,0	2947,0	3200,0		
NOMINAL HEATING CAPACITY (4)		kW	3051,4	3522,5	3805,9		
TOTAL NOMINAL ABSORBED POWER		kW	501,4	575,5	605,9		
EER		kW/kW	5,09	5,12	5,28		
COP (4)		kW/kW	6,09	6,12	6,28		
NOMINAL WATER FLOW, EVAPORATOR SIDE (TOTAL)		m3/h	437,3	505,4	548,7		
NOMINAL WATER FLOW, CONDENSER SIDE (EACH)		m3/h	523,3	604,1	652,6		
MECHANICAL MODE PRESSURE DROPS, EVAPORATOR SIDE (3)		kPa	467,1	486,0	520,2		
MECHANICAL MODE PRESSURE DROPS, CONDENSER SIDE (5)		kPa	46,0	46,0	47,0		
FRIGORIFIC SECTION							
COMPRESSORS / REFRIGERATING CIRCUITS / CONDENSERS		nr.	6/1/1	7/1/1	8/1/1		
COMPRESSORS STARTING METHOD		-	INVERTER	INVERTER	INVERTER		
HYDRAULIC SECTION (6)							
WATER FLOW RANGE, EVAPORATOR SIDE (TOTAL)		m3/h	120÷224	129÷258	147÷294		
WATER FLOW RANGE, CONDENSER SIDE (EACH)		m3/h	265÷600	305÷671	329÷800		
HYDRAULIC CONNECTIONS, EVAPORATOR SIDE (VICTAULIC)		DN	300	300	300		
HYDRAULIC CONNECTIONS, CONDENSER SIDE (FLANGED)		DN	300	300	300		
TOTAL ELECTRIC DATA							
MAXIMUM ABSORBED CURRENT (F.L.A)		A	1386,0	1617,0	1848,0		
MAXIMUM PEAK CURRENT (L.R.A) (9)		A	1175,0	1406,0	1637,0		
MAXIMUM PEAK CURRENT WITH SOFT START (OPTION SF) (L.R.A) (9)		A	1171,0	1402,0	1633,0		
NOISE DATA (7)							
SOUND PRESSURE FOR STANDARD CONFIGURATION		dB(A)	70,8	71,5	72,0		
SOUND PRESSURE FOR LOW NOISE CONFIGURATION (OPTION LNJ)		dB(A)	65,8	66,5	67,0		
DIMENSIONS AND WEIGHT							
LENGTH		mm	6200	7400	7400		
WIDTH		mm	2210	2210	2210		
HEIGHT		mm	2500	2500	2500		
WEIGHT EMPTY FOR STANDARD CONFIGURATION (5) (8)		kg	9000	9600	10300		
WEIGHT OPERATIVE FOR STANDARD CONFIGURATION (5) (8)		kg	10500	11400	11600		

Last update: 22/12/2021
Revision: 00-2021

Data referred to:
(1) Data referred to inlet/outlet water temperatures: evaporator side = +12/+7 °C (fluid = Water), condenser side = +30/35°C (fluid = Water)
(2) Data referred to inlet/outlet water temperatures: evaporator side = +12/+7 °C (fluid = Water), condenser side = +40/45°C (fluid = Water)
(3) Pressure drops taken in account: heat exchanger, valves, piping
(4) Water cooled chillers can be used as not reversible heat pumps, this kind of application must be indicated in the order
(5) Data referred to standard chiller configuration (no one condensing temperature control system), with different condensing temperature control system this data will change
(6) You can match an hydromodule with this chiller: go to select it at https://www.hitema.com/standard-products/hydro-module
(7) Sound pressure level referred to measures according to normative ISO3744, pressure level at distance of 10 m, referred to free field on reflecting surface
(8) Weight will be confirmed in case of order
(9) Data referred to standard compressors starting method, with different starting method this data will change
(10) SEPR: data comply with the European Regulation (EU) 2016/2281, referring to high temperature process chillers in the configuration with brazed plate or shell and tube evaporator and without pump. Any added option that modify cooling capacity or absorbed power of the chiller will not be considered in the SEPR value

PROPANE

R290
Reciprocating compressors
Plate evaporator
No tank & no pump

PRP-M - HPRP series
From 56,8 kW up to 688 kW

Technical Data Tables

SERIES: PRPM-HPRP	DATE: 19.05.2022
CODE: GPLSPC20	UPDATE: GPLSPC19
CHECKED BY	M. Burba

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PRP-M SERIES

Air-Cooled liquid Chillers, R290 refrigerant
EC axial fans
IP54 protection rating
Suitable ONLY for OUTDOOR installation

SERIES: PRP-M	DATE: 04/10/2021
CODE: TTD-PRP-M-01	UPDATE: -
CHECKED BY	M. Burba

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PRP

TABLE 1/1

Modular air-cooled liquid chillers PRP series designed to minimize the refrigerant charge, reciprocating compressors, R290 refrigerant, brazed plate evaporator, aluminium microchannel condenser, AC axial fans regulated with cut phase speed regulator. Electrical feed 400V/3ph/50Hz. IP54 protection rating, chillers suitable only for outdoor installation in open air (10). Leak detection system included. You can connect up to 8 modules in parallel with a single power supply point into a master control pannel installed onboard of the first module.

Available Models configurations:

HT = configuration for leaving water temperature down to 5°C with standard frigorific circuit

MT = configuration for leaving water temperature below 5°C with the adding of liquid-suction heat exchanger on the frigorific circuit that permit to subcooling liquid refrigerant to prevent flash gas formation at inlet to expansion valve and fully evaporating any residual liquid that may remain in the liquid-suction prior to reaching the compressor

TECHNICAL DATA

PERFORMANCES		**Model**	**080**	**095**	**120**	**145**	**160**	**190**	**240**	**290**
NOMINAL COOLING CAPACITY (8)	PRP-HT (1)	kW	84,9	97,3	124,5	138,8	169,8	194,7	248,9	277,6
TOTAL NOMINAL ABSORBED POWER		kW	24,7	30,0	44,9	51,3	49,4	60,1	89,9	102,5
EER		kW/kW	3,02	2,91	2,58	2,54	3,02	2,91	2,58	2,54
REFRIGERANT CHARGE (8) (10)		kg	13	13	13	13	13 + 13	13 + 13	13 + 13	13 + 13
NOMINAL WATER FLOW		m3/h	14,6	16,7	21,4	23,8	29,3	33,4	42,8	47,7
SINGLE MODULE PRESSURE DROPS (4)		kPa	45	56	48	48	45	56	48	48
MULTIPLE MODULES PRESSURE DROPS (5)		kPa	54	69	70	69	54	69	70	69
NOMINAL COOLING CAPACITY (8)	PRP-MT (2)	kW	58,1	65,9	80,9	86,0	116,2	131,7	161,8	172,0
TOTAL NOMINAL ABSORBED POWER		kW	19,9	24,1	35,7	40,7	39,8	48,2	71,4	81,5
EER		kW/kW	2,50	2,40	2,07	1,95	2,50	2,40	2,07	1,95
REFRIGERANT CHARGE (8) (10)		kg	15	15	15	15	15 + 15	15 + 15	15 + 15	15 + 15
NOMINAL WATER FLOW		m3/h	13,9	15,6	19,3	20,5	27,8	31,2	38,6	41,1
SINGLE MODULE PRESSURE DROPS (4)		kPa	57	69	55	50	57	69	55	50
MULTIPLE MODULES PRESSURE DROPS (5)		kPa	66	80	72	70	66	80	72	70
FRIGORIFIC SECTION										
COMPRESSORS / REFRIGERATING CIRCUITS / PARTITION STEP		nr.	1/1/1	1/1/1	1/1/1	1/1/1	2/2/2	2/2/2	2/2/2	2/2/2
HYDRAULIC SECTION (3)										
WATER FLOW RANGE		m3/h	9÷22	9÷22	16÷40	16÷40	20÷50	20÷50	34÷80	34÷80
HYDRAULIC CONNECTIONS FOR SINGLE MODULE (FLANGED)		DN	50	50	65	65	80	80	100	100
HEADERS CONNECTIONS SIZE (VICTAULIC) (9)		DN	150	150	150	150	150	150	150	150
FAN SECTION (AXIAL)										
FANS		nr.	2	2	2	2	4	4	4	4
MAXIMUM FANS ABSORBED POWER	AC	kW	3,68	3,68	3,68	3,68	7,36	7,36	7,36	7,36
MAXIMUM FANS ABSORBED CURRENT		A	7,66	7,66	7,66	7,66	15,32	15,32	15,32	15,32
TOTAL AIR FLOW		m3/h	41160	41160	41160	41160	82320	82320	82320	82320
MAXIMUM FANS ABSORBED POWER (OPTION EC)	EC	kW	5,12	5,12	5,12	5,12	10,24	10,24	10,24	10,24
MAXIMUM FANS ABSORBED CURRENT (OPTION EC)		A	7,80	7,80	7,80	7,80	15,60	15,60	15,60	15,60
TOTAL AIR FLOW (OPTION EC)		m3/h	43520	43520	43520	43520	87040	87040	87040	87040
TOTAL ELECTRIC DATA (8)										
MAXIMUM ABSORBED CURRENT (F.L.A)		A	68,7	82,3	111,0	118,9	137,3	164,5	221,9	237,7
MAXIMUM PEAK CURRENT (PART WINDING START) (L.R.A)		A	159,2	188,6	390,0	417,0	227,9	270,9	501,0	535,9
MAXIMUM PEAK CURRENT WITH SOFT START (OPTION SF) (L.R.A)		A	127,4	150,9	312,0	333,6	196,0	233,1	423,0	452,5
NOISE DATA (6) (8)										
SOUND PRESSURE FOR STANDARD CONFIGURATION		dB(A)	59,2	59,5	60,5	64,0	62,2	62,5	63,5	67,0
SOUND PRESSURE FOR LOW NOISE OPTION (LNJ)		dB(A)	57,4	57,9	59,5	60,5	60,4	61,0	62,5	63,5
SOUND PRESSURE FOR SUPER LOW NOISE OPTION (SLN)		dB(A)	55,3	55,7	58,1	59,4	58,3	58,7	61,1	62,5
DIMENSIONS AND WEIGHT										
LENGTH (SINGLE MODULE, HEADERS EXCLUDED)		mm	1610	1610	1610	1610	3300	3300	3300	3300
LENGTH (MULTIPLE MODULES, HEADERS INCLUDED)		mm	1662	1662	1662	1662	3580	3580	3580	3580
WIDTH (SINGLE MODULE, HEADERS EXCLUDED)		mm	2590	2590	2590	2590	2210	2210	2210	2210
WIDTH (MULTIPLE MODULES, HEADERS INCLUDED)		mm	2870	2870	2870	2870	2254	2254	2254	2254
HEIGHT		mm	2500	2500	2500	2500	2500	2500	2500	2500
WEIGHT EMPTY (7) (8)		kg	1390	1395	1465	1480	2165	2175	2245	2260
WEIGHT OPERATIVE (7) (8)		kg	1450	1455	1525	1540	2215	2225	2295	2320

The manufacturer reserves the right to modify specifications without notice.

Last update: 12/10/2020
Revision: 01-2020

Data referred to:

(1) Data referred to inlet/outlet water temperature = +12/+7 °C, ambient temperature = +35°C, fluid = Water, AC fans

(2) Data referred to inlet/outlet water temperature = -4/-8 °C, ambient temperature = +35°C, fluid = 70% Water + 30% Ethylene Glycol, AC fans

(3) Pump and tank can be suppyed in a separate hydro-module (HITEMA HYD series)

(4) Pressure drops taken in account: evaporator, piping

(5) Pressure drops taken in account: evaporator, automatic isolation valves, circuit setter balancing valve, one way valve, piping

(6) Sound pressure level referred to measures according to normative ISO3744, pressure level at distance of 10 m, referred to free field on reflecting surface

(7) Weight refered to PRP-LT version, multiple module configuration. Weight to be confirmed in case of order

(8) Data referred to standard chiller configuration NP (no pump), aluminium microchannel condenser and AC fans

(9) Headers connection size is valid for a maximum flow rate of 191 m3/h in multi-module configuration. Dimensions will increase for greater flow rate

(10) PRP series can be installed only in an area with c access category (as per chapter 5.1.1 of EN 378-1:2016) in open air, class III location (as per chapter 5.3 of EN 378-1:2016)

HPRP SERIES

Air-Cooled reversible Heatpumps, R290 refrigerant
EC axial fans
IP54 protection rating, leak detection system
Suitable ONLY for OUTDOOR installation

SERIES: HPRP	DATE: 27/12/2021	
CODE: TTD-HPRP-01	UPDATE: -	
CHECKED BY		M. Burba

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HPRP

TABLE 1/4

Reversible heat-pumps HPRP series, PISTONS compressors, R290 refrigerant, brazed-plate evaporator/condenser, condenser/evaporator coil with copper tubes and aluminium fins with hydrophilic coating, EC axial fans, electronic expansion valve. IP54 protection rating, heat-pump suitable for outdoor installation. Minimum working ambient temperature admitted = -5°C

Type of available evaporators:
B-ES = stainless steel brazed plate evaporator

❄ COOLING

TECHNICAL DATA

PERFORMANCES		Model	055	063	085	100	120	152	180	200
NOMINAL COOLING CAPACITY	W 12°C/7°C @ 35°C (1)	kW	56,8	62,8	86,8	113,7	125,6	153,4	179,0	212,6
TOTAL NOMINAL ABSORBED POWER		kW	17,8	19,9	28,7	35,5	39,7	48,0	58,1	73,4
EER		kW/kW	3,20	3,16	3,02	3,20	3,16	3,20	3,08	2,90
SEPR (HT) (3)		-	5,72	5,73	5,71	5,69	5,97	6,16	5,89	6,07
NOMINAL WATER FLOW (5)		m3/h	9,8	10,8	14,9	19,5	21,6	26,4	30,7	36,5
MECHANICAL MODE PRESSURE DROPS (4)		kPa	40	32	45	40	48	35	34	45
FRIGORIFIC SECTION										
COMPRESSORS / REFRIGERATING CIRCUITS / PARTITION STEP		nr.	1/1/2	1/1/2	1/1/2	2/2/4	2/2/4	2/2/4	2/2/4	2/2/4
HYDRAULIC SECTION										
WATER FLOW RANGE (6)		m3/h	6÷12	8÷17	8÷17	13÷23	16÷35	16÷35	20÷40	29÷53
MAXIMUM PUMP ABSORBED POWER (WP OR OPTION DP)	P3 (2)	kW	2,53	2,53	2,53	3,46	4,56	4,56	8,30	8,30
MAXIMUM PUMP ABSORBED CURRENT (WP OR OPTION DP)		A	4,56	4,56	4,56	6,33	7,75	7,75	14,10	14,10
MAXIMUM PUMP ABSORBED POWER (OPTION PH OR DPH)	P5 (2)	kW	6,12	6,12	6,12	6,12	10,20	10,20	16,22	16,22
MAXIMUM PUMP ABSORBED CURRENT (OPTION PH OR DPH)		A	10,40	10,40	10,40	10,40	17,40	17,40	26,60	26,60
HYDRAULIC CONNECTIONS (THREADED / FLANGED)		BSP / DN	2"	2"	2"	DN65	DN65	DN65	DN80	DN80
FAN SECTION (AXIAL)										
FANS		nr.	2	2	2	4	4	4	4	6
MAXIMUM FANS ABSORBED POWER	EC	kW	3,88	3,88	3,88	7,76	7,76	7,76	7,76	11,64
MAXIMUM FANS ABSORBED CURRENT		A	7,80	7,80	7,80	15,60	15,60	15,60	15,60	23,40
TOTAL AIR FLOW		m3/h	41166	41166	41166	82332	82332	82332	82332	123498
TOTAL ELECTRIC DATA										
ELECTRICAL FEED		V/ph/Hz	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50
MAXIMUM ABSORBED CURRENT (F.L.A) (6)		A	41,5	46,1	61,5	82,9	92,2	106,2	122,9	158,6
MAXIMUM PEAK CURRENT (L.R.A) (6)		A	126,1	140,4	167,0	167,6	186,5	205,4	228,5	306,0
MAXIMUM PEAK CURRENT WITH SOFT START (OPTION SF) (L.R.A) (6)		A	102,4	113,9	135,2	143,9	160,0	176,5	196,6	263,0
NOISE DATA										
SOUND PRESSURE FOR STANDARD CONFIGURATION (6) (7)		dB(A)	57,8	58,5	59,3	60,8	61,5	61,8	62,3	63,5
SOUND PRESSURE FOR LOW NOISE OPTION (LNJ) (6) (7)		dB(A)	57,3	57,5	57,9	60,3	60,5	60,7	60,9	62,4
DIMENSIONS AND WEIGHT										
LENGTH		mm	1610	1610	1610	2910	2910	2910	2910	4210
WIDTH		mm	2210	2210	2210	2210	2210	2210	2210	2210
HEIGHT		mm	2500	2500	2500	2500	2500	2500	2500	2500
WEIGHT EMPTY FOR STANDARD CONFIGURATION (6)		kg	1030	1200	1250	1900	2100	2200	2320	2740
WEIGHT OPERATIVE FOR STANDARD CONFIGURATION (6)		kg	1050	1225	1280	1950	2170	2280	2400	2840

Last update: 05/10/2021
Revision: 00-2021

Data referred to:
(1) Data referred to inlet/outlet water temperature = +12/+7 °C, ambient temperature = +35°C, fluid = Water
(2) Available pressure can be calculated from Hitema Online Selection Software
(3) SEPR: data comply with the European Regulation (EU) 2016/2281, referring to high temperature process chillers
(4) Pressure drops taken in account: evaporator, valves, piping
(5) Water flow is different from heating mode, assuming that an inverter pump will be used
(6) Data referred to standard chiller configuration NP (no pump) and AC fans
(7) Sound pressure level referred to measures according to normative ISO3744, pressure level at distance of 10 m, referred to free field on reflecting surface

* For the configuration DPH (double pump P5) the chiller width will be 1305mm
** For the configurations DP or DPH (double pump P3 or double pump P5) the chiller width will be 1305mm

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HPRP

TABLE 2/4

Reversible heat-pumps HPRP series, PISTONS compressors, R290 refrigerant, brazed-plate evaporator/condenser, condenser/evaporator coil with copper tubes and aluminium fins with hydrophilic coating, EC axial fans, electronic expansion valve. IP54 protection rating, heat-pump suitable for outdoor installation. Minimum working ambient temperature admitted = -5°C

Type of available evaporators:
B-ES = stainless steel brazed plate evaporator

❄ COOLING

TECHNICAL DATA

PERFORMANCES		**Model**	**235**	**260**	**290**	**330**
NOMINAL COOLING CAPACITY	W 12°C/7°C @ 35°C (1)	kW	237,9	261,4	286,4	330,9
TOTAL NOMINAL ABSORBED POWER		kW	77,1	86,2	100,3	115,1
EER		kW/kW	3,09	3,03	2,86	2,87
SEPR (HT) (3)		-	6,21	6,47	6,17	5,90
NOMINAL WATER FLOW (5)		m3/h	40,9	44,9	49,2	56,8
MECHANICAL MODE PRESSURE DROPS (4)		kPa	43	42	40	40
FRIGORIFIC SECTION						
COMPRESSORS / REFRIGERATING CIRCUITS / PARTITION STEP		nr.	2/2/4	2/2/4	2/2/4	2/2/4
HYDRAULIC SECTION						
WATER FLOW RANGE (6)		m3/h	29÷53	29÷53	36÷66	36÷70
MAXIMUM PUMP ABSORBED POWER (WP OR OPTION DP)	P3 (2)	kW	8,30	8,30	8,30	8,30
MAXIMUM PUMP ABSORBED CURRENT (WP OR OPTION DP)		A	14,10	14,10	14,10	14,10
MAXIMUM PUMP ABSORBED POWER (OPTION PH OR DPH)	P5 (2)	kW	16,22	16,22	16,22	16,22
MAXIMUM PUMP ABSORBED CURRENT (OPTION PH OR DPH)		A	26,60	26,60	26,60	26,60
HYDRAULIC CONNECTIONS (THREADED / FLANGED)		BSP / DN	DN80	DN80	DN100	DN100
FAN SECTION (AXIAL)						
FANS		nr.	6	6	8	8
MAXIMUM FANS ABSORBED POWER	AC	kW	11,64	11,64	15,52	15,52
MAXIMUM FANS ABSORBED CURRENT		A	23,40	23,40	31,20	31,20
TOTAL AIR FLOW		m3/h	123498	123498	164664	164664
TOTAL ELECTRIC DATA						
ELECTRICAL FEED		V/ph/Hz	400/3/50	400/3/50	400/3/50	400/3/50
MAXIMUM ABSORBED CURRENT (F.L.A) (6)		A	173,7	196,0	224,8	250,1
MAXIMUM PEAK CURRENT (L.R.A) (6)		A	356,6	435,7	518,0	557,6
MAXIMUM PEAK CURRENT WITH SOFT START (OPTION SF) (L.R.A) (6)		A	305,0	370,5	440,0	474,2
NOISE DATA						
SOUND PRESSURE FOR STANDARD CONFIGURATION (6) (7)		dB(A)	63,6	65,7	66,6	67,8
SOUND PRESSURE FOR LOW NOISE OPTION (LNJ) (6) (7)		dB(A)	62,5	63,5	64,5	65,1
DIMENSIONS AND WEIGHT						
LENGTH		mm	4210	4210	5900	5900
WIDTH		mm	2210	2210	2210	2210
HEIGHT		mm	2500	2500	2500	2500
WEIGHT EMPTY FOR STANDARD CONFIGURATION (6)		kg	2850	3270	3900	4050
WEIGHT OPERATIVE FOR STANDARD CONFIGURATION (6)		kg	2950	3370	4000	4180

Last update: 28/07/2020
Revision: 00-2020

Data referred to:
(1) Data referred to inlet/outlet water temperature = +12/+7 °C, ambient temperature = +35°C, fluid = Water
(2) Available pressure can be calculated from Hitema Online Selection Software
(3) SEPR: data comply with the European Regulation (EU) 2016/2281, referring to high temperature process chillers
(4) Pressure drops taken in account: evaporator, valves, piping
(5) Water flow is different from heating mode, assuming that an inverter pump will be used
(6) Data referred to standard chiller configuration NP (no pump) and AC fans
(7) Sound pressure level referred to measures according to normative ISO3744, pressure level at distance of 10 m, referred to free field on reflecting surface

* For the configuration DPH (double pump P5) the chiller width will be 1305mm
** For the configurations DP or DPH (double pump P3 or double pump P5) the chiller width will be 1305mm

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HPRP

TABLE 3/4

Reversible heat-pumps HPRP series, PISTONS compressors, R290 refrigerant, brazed-plate evaporator/condenser, condenser/evaporator coil with copper tubes and aluminium fins with hydrophilic coating, EC axial fans, electronic expansion valve. IP54 protection rating, heat-pump suitable for outdoor installation. Minimum working ambient temperature admitted = -5°C

Type of available evaporators:
B-ES = stainless steel brazed plate evaporator

❄ HEATING

TECHNICAL DATA

PERFORMANCES		Model	055	063	085	100	120	152	180	200
NOMINAL COOLING CAPACITY	W 40°C/45°C @ 7°C (1)	kW	59,0	65,7	92,2	117,9	130,9	159,0	184,4	219,3
TOTAL NOMINAL ABSORBED POWER		kW	18,7	20,4	28,4	37,5	42,2	48,8	56,8	73,0
EER		kW/kW	3,15	3,21	3,24	3,15	3,10	3,26	3,24	3,00
SEPR (HT) (3)		-	3,15	3,21	3,24	3,15	3,10	3,26	3,24	3,00
NOMINAL WATER FLOW (5)		m3/h	10,1	11,3	15,8	20,3	22,5	27,3	31,7	37,7
MECHANICAL MODE PRESSURE DROPS (4)		kPa	40	32	45	38	48	37	37	49
FRIGORIFIC SECTION										
COMPRESSORS / REFRIGERATING CIRCUITS / PARTITION STEP		nr.	1/1/2	1/1/2	1/1/2	2/2/4	2/2/4	2/2/4	2/2/4	2/2/4
HYDRAULIC SECTION										
WATER FLOW RANGE (6)		m3/h	6÷12	8÷17	8÷17	13÷23	16÷35	16÷35	20÷40	29÷53
MAXIMUM PUMP ABSORBED POWER (WP OR OPTION DP)	P3 (2)	kW	2,53	2,53	2,53	3,46	4,56	4,56	8,30	8,30
MAXIMUM PUMP ABSORBED CURRENT (WP OR OPTION DP)		A	4,56	4,56	4,56	6,33	7,75	7,75	14,10	14,10
MAXIMUM PUMP ABSORBED POWER (OPTION PH OR DPH)	P5 (2)	kW	6,12	6,12	6,12	6,12	10,20	10,20	16,22	16,22
MAXIMUM PUMP ABSORBED CURRENT (OPTION PH OR DPH)		A	10,40	10,40	10,40	10,40	17,40	17,40	26,60	26,60
HYDRAULIC CONNECTIONS (THREADED / FLANGED)		BSP / DN	2"	2"	2"	DN65	DN65	DN65	DN80	DN80
FAN SECTION (AXIAL)										
FANS		nr.	2	2	2	4	4	4	4	6
MAXIMUM FANS ABSORBED POWER	EC	kW	3,88	3,88	3,88	7,76	7,76	7,76	7,76	11,64
MAXIMUM FANS ABSORBED CURRENT		A	7,80	7,80	7,80	15,60	15,60	15,60	15,60	23,40
TOTAL AIR FLOW		m3/h	41166	41166	41166	82332	82332	82332	82332	123498
TOTAL ELECTRIC DATA										
ELECTRICAL FEED		V/ph/Hz	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50
MAXIMUM ABSORBED CURRENT (F.L.A) (6)		A	41,5	46,1	61,5	82,9	92,2	106,2	122,9	158,6
MAXIMUM PEAK CURRENT (L.R.A) (6)		A	126,1	140,4	167,0	167,6	186,5	205,4	228,5	306,0
MAXIMUM PEAK CURRENT WITH SOFT START (OPTION SF) (L.R.A) (6)		A	102,4	113,9	135,2	143,9	160,0	176,5	196,6	263,0
NOISE DATA										
SOUND PRESSURE FOR STANDARD CONFIGURATION (6) (7)		dB(A)	57,8	58,5	59,3	60,8	61,5	61,8	62,3	63,5
SOUND PRESSURE FOR LOW NOISE OPTION (LNJ) (6) (7)		dB(A)	57,3	57,5	57,9	60,3	60,5	60,7	60,9	62,4
DIMENSIONS AND WEIGHT										
LENGTH		mm	1610	1610	1610	2910	2910	2910	2910	4210
WIDTH		mm	2210	2210	2210	2210	2210	2210	2210	2210
HEIGHT		mm	2500	2500	2500	2500	2500	2500	2500	2500
WEIGHT EMPTY FOR STANDARD CONFIGURATION (6)		kg	1030	1200	1250	1900	2100	2200	2320	2740
WEIGHT OPERATIVE FOR STANDARD CONFIGURATION (6)		kg	1050	1225	1280	1950	2170	2280	2400	2840

Last update: 05/10/2021
Revision: 00-2021

Data referred to:
(1) Data referred to inlet/outlet water temperature = +40/+45 °C, ambient temperature = +7°C, fluid = Water
(2) Available pressure can be calculated from Hitema Online Selection Software
(3) SEPR: data comply with the European Regulation (EU) 2016/2281, referring to high temperature process chillers
(4) Pressure drops taken in account: evaporator, valves, piping
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(7) Sound pressure level referred to measures according to normative ISO3744, pressure level at distance of 10 m, referred to free field on reflecting surface

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HPRP

TABLE 4/4

Reversible heat-pumps HPRP series, PISTONS compressors, R290 refrigerant, brazed-plate evaporator/condenser, condenser/evaporator coil with copper tubes and aluminium fins with hydrophilic coating, EC axial fans, electronic expansion valve. IP54 protection rating, heat-pump suitable for outdoor installation. Minimum working ambient temperature admitted = -5°C

Type of available evaporators:
B-ES = stainless steel brazed plate evaporator

❄ **HEATING**

TECHNICAL DATA

PERFORMANCES		**Model**	**235**	**260**	**290**	**330**
NOMINAL COOLING CAPACITY	W 40°C/45°C @ 7°C (1)	kW	247,5	270,1	319,9	357,1
TOTAL NOMINAL ABSORBED POWER		kW	78,5	85,6	100,4	113,9
EER		kW/kW	3,15	3,15	3,18	3,14
SEPR (HT) (3)		-	3,15	3,15	3,18	3,14
NOMINAL WATER FLOW (5)		m3/h	42,5	46,4	54,9	61,3
MECHANICAL MODE PRESSURE DROPS (4)		kPa	43	41	46	42
FRIGORIFIC SECTION						
COMPRESSORS / REFRIGERATING CIRCUITS / PARTITION STEP		nr.	2/2/4	2/2/4	2/2/4	2/2/4
HYDRAULIC SECTION						
WATER FLOW RANGE (6)		m3/h	29÷53	29÷53	36÷66	36÷70
MAXIMUM PUMP ABSORBED POWER (WP OR OPTION DP)	P3 (2)	kW	8,30	8,30	8,30	8,30
MAXIMUM PUMP ABSORBED CURRENT (WP OR OPTION DP)		A	14,10	14,10	14,10	14,10
MAXIMUM PUMP ABSORBED POWER (OPTION PH OR DPH)	P5 (2)	kW	16,22	16,22	16,22	16,22
MAXIMUM PUMP ABSORBED CURRENT (OPTION PH OR DPH)		A	26,60	26,60	26,60	26,60
HYDRAULIC CONNECTIONS (THREADED / FLANGED)		BSP / DN	DN80	DN80	DN100	DN100
FAN SECTION (AXIAL)						
FANS		nr.	6	6	8	8
MAXIMUM FANS ABSORBED POWER	AC	kW	11,64	11,64	15,52	15,52
MAXIMUM FANS ABSORBED CURRENT		A	23,40	23,40	31,20	31,20
TOTAL AIR FLOW		m3/h	123498	123498	164664	164664
TOTAL ELECTRIC DATA						
ELECTRICAL FEED		V/ph/Hz	400/3/50	400/3/50	400/3/50	400/3/50
MAXIMUM ABSORBED CURRENT (F.L.A) (6)		A	173,7	196,0	224,8	250,1
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NOISE DATA						
SOUND PRESSURE FOR STANDARD CONFIGURATION (6) (7)		dB(A)	63,6	65,7	66,6	67,8
SOUND PRESSURE FOR LOW NOISE OPTION (LNJ) (6) (7)		dB(A)	62,5	63,5	64,5	65,1
DIMENSIONS AND WEIGHT						
LENGTH		mm	4210	4210	5900	5900
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HEIGHT		mm	2500	2500	2500	2500
WEIGHT EMPTY FOR STANDARD CONFIGURATION (6)		kg	2850	3270	3900	4050
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Last update: 28/07/2020
Revision: 00-2020

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