



**TEAM**  
AIR POWER

**ISV / ISVF / ISVF-OPT SERIES**



# DISCOVER HITEMA® CUSTOMIZED APPLICATIONS

choose your customized configuration



**ENR/ENRF SERIES**  
1,6kW ÷ 440kW

**CSE SERIES**  
30kW ÷ 377kW

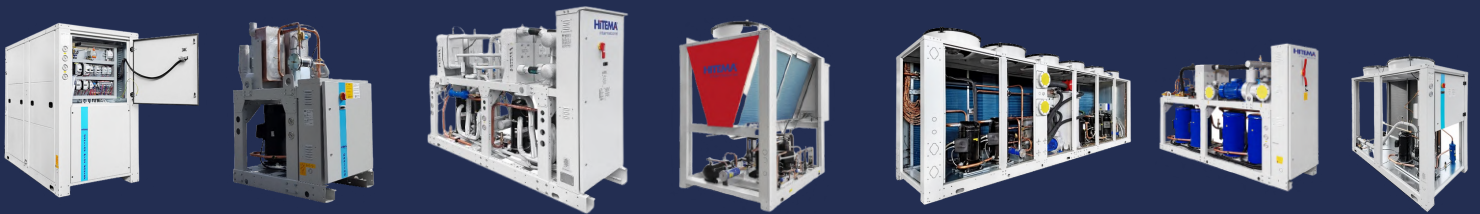
**CFT SERIES**  
7,9kW ÷ 410kW

**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

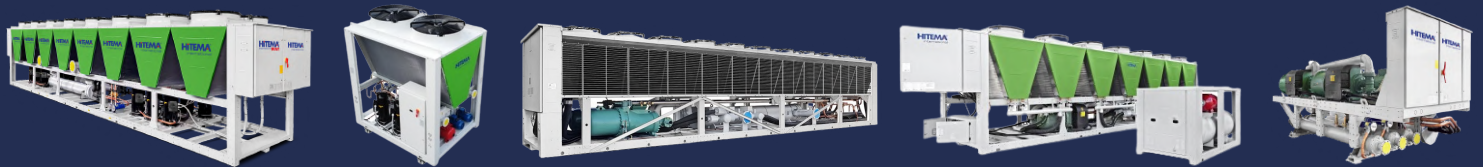
**HFT SERIES**  
16kW ÷ 345kW

**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

# 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         |



# 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         |



**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**

| <b>PERFORMANCES</b>                                     |                       | 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                                      |                       | m <sup>3</sup> /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     |
| <b>FRIGORIFIC SECTION</b>                               |                       |                   |             |             |             |             |             |             |             |        |
| 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         | ETS    |
| KIND OF EVAPORATOR                                      | -                     | ST                | ST          | ST          | ST          | ST          | ST          | ST          | ST          | ST     |
| <b>ECONOMIZER</b>                                       |                       | NO                | YES         | NO          | YES         | NO          | YES         | NO          | YES         | YES    |
| TYPE OF ECONOMIZER                                      | type                  | plate             | plate       | plate       | plate       | plate       | plate       | plate       | plate       | plate  |
| <b>HYDRAULIC SECTION</b>                                |                       |                   |             |             |             |             |             |             |             |        |
| WATER FLOW RANGE (6)                                    | m <sup>3</sup> /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       | DN125       | DN150  |
| TANK VOLUME (5) (9)                                     | dm <sup>3</sup>       | 380               | 380         | 380         | 500         | 500         | 500         | 500         | 500         | 500    |
| EXPANSION VESSEL NUMBER x VOLUME (OPTION XV) (10)       | liters                | 1x19              | 1x19        | 1x19        | 2x19        | 2x19        | 2x19        | 2x19        | 2x19        | 2x19   |
| <b>FAN SECTION (AXIAL)</b>                              |                       |                   |             |             |             |             |             |             |             |        |
| FANS  | nr.                   | 6                 | 6           | 6           | 8           | 8           | 8           | 10          | 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  |                       | m <sup>3</sup> /h | 123600      | 123600      | 123600      | 164800      | 164800      | 164800      | 206000      | 206000 |
| <b>TOTAL ELECTRIC DATA</b>                              |                       |                   |             |             |             |             |             |             |             |        |
| MAXIMUM ABSORBED CURRENT (F.L.A) (6)                    | A                     | 243,0             | 243,0       | 283,0       | 290,6       | 370,6       | 370,6       | 418,3       | 478,3       |        |
| <b>NOISE DATA</b>                                       |                       |                   |             |             |             |             |             |             |             |        |
| 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        |        |
| <b>DIMENSIONS AND WEIGHT</b>                            |                       |                   |             |             |             |             |             |             |             |        |
| 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        |        |

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
- (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

**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**

| <b>PERFORMANCES</b>                                     |                          | Model  | 770         | 850         | 910         | 970         | 1030        | 1140        | 1290        | 1390        |
|---|--------------------------|--------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| NOMINAL COOLING CAPACITY                                | W 12°C/7°C<br>@ 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          |
| <b>FRIGORIFIC SECTION</b>                               |                          |        |             |             |             |             |             |             |             |             |
| 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         | ETS         |
| KIND OF EVAPORATOR                                      | -                        | ST     | ST          | ST          | ST          | ST          | ST          | ST          | ST          | ST          |
| <b>ECONOMIZER</b>                                       |                          | NO     | YES         | NO          | NO          | YES         | NO          | NO          | YES         |             |
| TYPE OF ECONOMIZER                                      | type                     | plate  | plate       | plate       | plate       | plate       | plate       | plate       | plate       | plate       |
| <b>HYDRAULIC SECTION</b>                                |                          |        |             |             |             |             |             |             |             |             |
| 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)                                     |                          | dm³    | 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        |
| <b>FAN SECTION (AXIAL)</b>                              |                          |        |             |             |             |             |             |             |             |             |
| 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      |
| <b>TOTAL ELECTRIC DATA</b>                              |                          |        |             |             |             |             |             |             |             |             |
| MAXIMUM ABSORBED CURRENT (F.L.A) (6)                    |                          | A      | 566,0       | 573,6       | 733,6       | 741,3       | 741,3       | 908,9       | 908,9       | 908,9       |
| <b>NOISE DATA</b>                                       |                          |        |             |             |             |             |             |             |             |             |
| 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        |
| <b>DIMENSIONS AND WEIGHT</b>                            |                          |        |             |             |             |             |             |             |             |             |
| 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
- (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: ITD-ISVF-01 | UPDATE: -        |
| CHECKED BY:       | M. Burba         |



**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**

| <b>PERFORMANCES</b>                                     |                          | <b>Model</b>      | <b>300</b>  | <b>350</b>  | <b>390</b>  | <b>440</b>  | <b>480</b>  | <b>520</b>  | <b>600</b>  | <b>680</b>  |
|---|--------------------------|-------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| NOMINAL COOLING CAPACITY                                | W 12°C/7°C<br>@ 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                                      |                          | m <sup>3</sup> /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      |
| <b>FRIGORIFIC SECTION</b>                               |                          |                   |             |             |             |             |             |             |             |             |
| 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          |             |
| <b>ECONOMIZER</b>                                       |                          | NO                | YES         | NO          | YES         | NO          | YES         | NO          | YES         |             |
| TYPE OF ECONOMIZER                                      | type                     | plate             | plate       | plate       | plate       | plate       | plate       | plate       | plate       |             |
| <b>HYDRAULIC SECTION</b>                                |                          |                   |             |             |             |             |             |             |             |             |
| WATER FLOW RANGE (7)                                    |                          | m <sup>3</sup> /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 <sup>3</sup>   | 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        |
| <b>FAN SECTION (AXIAL)</b>                              |                          |                   |             |             |             |             |             |             |             |             |
| 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  |                          | m <sup>3</sup> /h | 123600      | 164800      | 164800      | 206000      | 206000      | 247200      | 288400      | 288400      |
| <b>TOTAL ELECTRIC DATA</b>                              |                          |                   |             |             |             |             |             |             |             |             |
| MAXIMUM ABSORBED CURRENT (F.L.A) (7)                    |                          | A                 | 243,0       | 250,6       | 290,6       | 298,3       | 378,3       | 386,0       | 433,6       | 493,6       |
| <b>NOISE DATA</b>                                       |                          |                   |             |             |             |             |             |             |             |             |
| 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        |
| <b>DIMENSIONS AND WEIGHT</b>                            |                          |                   |             |             |             |             |             |             |             |             |
| 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



**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**

| <b>PERFORMANCES</b>                                     |                          | <b>Model</b> | <b>770</b>  | <b>850</b>  | <b>910</b> |
|---|--------------------------|--------------|-------------|-------------|------------|
| NOMINAL COOLING CAPACITY                                | W 12°C/7°C<br>@ 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      |
| <b>FRIGORIFIC SECTION</b>                               |                          |              |             |             |            |
| 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          |            |
| <b>ECONOMIZER</b>                                       |                          |              |             |             |            |
| TYPE OF ECONOMIZER                                      | type                     | plate        | plate       | plate       |            |
| <b>HYDRAULIC SECTION</b>                                |                          |              |             |             |            |
| 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)                                    | dm³                      | 500          | 700         | 700         |            |
| EXPANSION VESSEL NUMBER x VOLUME (OPTION XV) (11)       | liters                   | 2x19         | 1x60        | 1x60        |            |
| <b>FAN SECTION (AXIAL)</b>                              |                          |              |             |             |            |
| 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     |
| <b>TOTAL ELECTRIC DATA</b>                              |                          |              |             |             |            |
| MAXIMUM ABSORBED CURRENT (F.L.A) (7)                    | A                        | 581,3        | 588,9       | 748,9       |            |
| <b>NOISE DATA</b>                                       |                          |              |             |             |            |
| 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        |            |
| <b>DIMENSIONS AND WEIGHT</b>                            |                          |              |             |             |            |
| 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        |            |

The manufacturer reserves the right to modify specifications without notice.

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Revision: #R1F1

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

**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**

| <b>PERFORMANCES</b>                                     |                          | Model     | 300         | 350         | 390         | 440         | 480         | 520         | 600         | 680         |             |
|---|--------------------------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| NOMINAL COOLING CAPACITY                                | W 12°C/7°C<br>@ 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        |             |
| <b>AIR TEMPERATURE FOR 100% FREE COOLING CAPACITY</b>   |                          | °C        | <b>3,45</b> | <b>3,90</b> | <b>3,33</b> | <b>3,71</b> | <b>3,18</b> | <b>3,54</b> | <b>3,54</b> | <b>3,41</b> |             |
| 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      |             |
| <b>FRIGORIFIC SECTION</b>                               |                          |           |             |             |             |             |             |             |             |             |             |
| 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          |             |             |
| <b>ECONOMIZER</b>                                       |                          | NO        | YES         | NO          | YES         | NO          | YES         | NO          | YES         |             |             |
| TYPE OF ECONOMIZER                                      | type                     | plate     | plate       | plate       | plate       | plate       | plate       | plate       | plate       |             |             |
| <b>HYDRAULIC SECTION</b>                                |                          |           |             |             |             |             |             |             |             |             |             |
| 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)                                    | dm³                      | 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        |             |             |
| <b>FAN SECTION (AXIAL)</b>                              |                          |           |             |             |             |             |             |             |             |             |             |
| 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      |             |
| <b>TOTAL ELECTRIC DATA</b>                              |                          |           |             |             |             |             |             |             |             |             |             |
| MAXIMUM ABSORBED CURRENT (F.L.A) (7)                    | A                        | 250,6     | 258,3       | 298,3       | 306,0       | 386,0       | 393,6       | 441,3       | 508,9       |             |             |
| <b>NOISE DATA</b>                                       |                          |           |             |             |             |             |             |             |             |             |             |
| 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        |             |             |
| <b>DIMENSIONS AND WEIGHT</b>                            |                          |           |             |             |             |             |             |             |             |             |             |
| 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

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