## اطلاعات فنی | TECHNICAL DATA

| MINI CHILLER | MODEL | ENR.25 | ENR.30 | ENR.38 | ENR.45 |
|---|---|---|---|---|---|
| Type | | Scroll | Scroll | Scroll | Scroll |
| System | | air cooled | air cooled | air cooled | air cooled |
| Cooling capacity | kW | 25 | 31 | 37 | 45 |
| E.E.R. | kW/kW | 2.9 | 3.15 | 2.82 | 3.25 |
| Inlet water fluid temperature | °C | 12 | 12 | 12 | 12 |
| Outlet water fluid temperature | °C | 7 | 7 | 7 | 7 |
| Fluid type | Type | water | water | water | water |
| Minimum ambient temperature | °C | -3 | -3 | -3 | -3 |
| Design ambient temperature | °C | 35 | 35 | 35 | 35 |
| Elevation a.s.l. | m | 0 | 0 | 0 | 0 |
| Type of refrigerant gas | R | 410A | 410A | 410A | 410A |
| Electrical feed according EN 60204-1 | V/ph/Hz | 400/3/50 | 400/3/50 | 400/3/50 | 400/3/50 |
| Electrical cabinet | IP | 54 | 54 | 54 | 54 |
| **COMPRESSOR DATA** | | | | | |
| Number of compressors | N° | 1 | 1 | 1 | 1 |
| Number of circuits | N° | 1 | 1 | 1 | 1 |
| Total compressors nominal absorbed power | kW | 7.8 | 8.4 | 11.5 | 12.4 |
| Total compressors running current RLA | A | 13.91 | 14.62 | 20.02 | 21.59 |
| Steps | N° | 1 | 1 | 1 | 1 |
| **EVAPORATOR DATA** | | | | | |
| Number of evaporators | N° | 1 | 1 | 1 | 1 |
| Type of evaporator | Type | Plate | Plate | Plate | Plate |
| Nominal flow rate | m3/h | 4.29 | 5.32 | 6.34 | 7.72 |
| Minimum flow rate | m3/h | 3 | 4 | 5 | 6 |
| Maximum flow rate | m3/h | 6 | 6 | 12 | 12 |
| Pressure drops (evaporator+valves+piping) | kPa | 45 | 39.2 | 37.2 | 42.5 |
| Hydraulic connections | BSP/DN | 1” | 1 1/2” | 1 1/2” | 1 1/2” |
| **PROCESS PUMP DATA** | | | | | |
| **Pump P3** | | | | | |
| Maximum pump absorbed power | kW | 1.28 | 1.28 | 2.2 | 2.2 |
| Maximum pump absorbed current | A | 2.37 | 2.37 | 4.24 | 4.24 |
| Available pressure with single pump | kPa | 225.67 | 218.08 | 245.08 | 236.05 |
| Available pressure with double pump (optional) | kPa | 212.25 | 197.96 | 237.22 | 224 |
| **Pump P5 (optional)** | | | | | |
| Maximum pump absorbed power | kW | 1.47 | 1.47 | 2.94 | 2.94 |
| Maximum pump absorbed current | A | 2.86 | 2.32 | 5.83 | 5.83 |
| Available pressure with single pump (optional) | kPa | 489.15 | 422.94 | 617.14 | 576.97 |
| Available pressure with double pump (optional) | kPa | NA | 402.82 | 609.28 | 564.92 |
| **TANK DATA** | | | | | |
| Tank volume | dm3 | 110 | 270 | 270 | 270 |
| Expansion vessel volume (optional) | dm3 | 8 | 8 | 8 | 8 |
| **AIR AXIAL FANS AND CONDENSER DATA** | | | | | |
| Number of condenser coils | N° | 1 | 1 | 1 | 1 |
| Number of fans | N° | 1 | 2 | 2 | 2 |
| Total absorbed power | kW | 0.81 | 1.44 | 1.62 | 1.44 |
| Total absorbed current | A | 1.5 | 2.82 | 3.08 | 2.82 |
| Total air flow | m3/h | 6800 | 16000 | 16400 | 15000 |
| **TOTAL ELECTRIC DATA (standard configuration)** | | | | | |
| Nominal absorbed power | kW | 9.89 | 11.12 | 15.32 | 16.04 |
| Maximum absorbed current (FLA) | A | 21.1 | 24.41 | 31.82 | 37.06 |
| Maximum peak current (LRA) | A | 127.37 | 120.37 | 144.24 | 178.24 |
| Maximum peak current with soft-start (LRA) (optional) | A | NA | NA | NA | NA |
| **NOISE DATA** | | | | | |
| Sound pressure level at 10m according ISO3744 | dBA | 55.4 | 55.3 | 57.5 | 55.8 |
| Sound pressure level at 10m according ISO3744 (Low Noise version) | dBA | NA | 54.3 | 57.2 | 54.5 |
| **PRELIMINARY DIMENSIONS** | | | | | |
| Structure in galvanized steel | RAL | 7035 | 7035 | 7035 | 7035 |
| Length | mm | 1010 | 1610 | 1610 | 1610 |
| Width | mm | 720 | 860 | 860 | 860 |
| Height | mm | 1585 | 1550 | 1550 | 1550 |
| **PRELIMINARY WEIGHT** | | | | | |
| Empty | kg | 250 | 375 | 390 | 410 |
| **FREE SPACE** | | | | | |
| Electrical panel side | mm | 1000 | 1000 | 1000 | 1000 |
| Opposite side of electrical panel | mm | 1000 | 1000 | 1000 | 1000 |
| Condensing coil sides | mm | 1000 | 1500 | 1500 | 1500 |

**NOTE**

All data subject to change
With glycol percentage over 30% and leaving water temperature lower than 0°C, pump need to be checked by technical department
TR45 option required with ambient temperature higher than 40°C
LW option required with leaving water temperature lower than 4°C
HW option required with leaving water temperature higher than 15°C
With ambient temperature between -3°C and -25°C, LT (low temperature) option is required
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

## اطلاعات فنی | TECHNICAL DATA

| CFT | MODEL | CFT.55 | CFT.61 | CFT.70 | CFT. 75 | CFT.90 | CFT.100 | CFT.130 |
|---|---|---|---|---|---|---|---|---|
| Type | | scroll | scroll | scroll | scroll | scroll | scroll | scroll |
| System | | air cooled | air cooled | air cooled | air cooled | air cooled | air cooled | air cooled |
| Cooling capacity | kW | 55 | 61 | 67 | 72 | 88 | 110 | 135 |
| C.O.P. | kW/kW | 3.18 | 3.72 | 3.47 | 3.21 | 3.49 | 3.78 | 3.79 |
| E.E.R. | kW/kW | 2.91 | 3.23 | 2.89 | 2.74 | 3.03 | 3.34 | 3.42 |
| Inlet water fluid temperature | °C | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| Outlet water fluid temperature | °C | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
| Fluid type | Type | water | water | water | water | water | water | water |
| Minimum ambient temperature | °C | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| Design ambient temperature | °C | 35 | 35 | 35 | 35 | 35 | 35 | 35 |
| Elevation a.s.l. | m | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Type of refrigerant gas | R | 410A | 410A | 410A | 410A | 410A | 410A | 410A |
| Electrical feed according EN 60204-1 | V/ph/Hz | 400/3/50 | 400/3/50 | 400/3/50 | 400/3/50 | 400/3/50 | 400/3/50 | 400/3/50 |
| Electrical cabinet | IP | 54 | 54 | 54 | 54 | 54 | 54 | 54 |
| **COMPRESSOR DATA** | | | | | | | | |
| Number of compressors | N° | 1 | 2 | 2 | 2 | 2 | 2 | 2 |
| Number of circuits | N° | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Total compressors nominal absorbed power | kW | 17.3 | 16.4 | 19.3 | 22.4 | 25.2 | 29.1 | 35.6 |
| Total compressors running current RLA | A | 30.12 | 28.52 | 33.65 | 39 | 43.87 | 50.67 | 61.91 |
| Steps | N° | 1 | 2 | 2 | 2 | 2 | 2 | 2 |
| **EVAPORATOR DATA** | | | | | | | | |
| Type of evaporator | Type | Plate/ST | Plate/ST | Plate/ST | Plate/ST | Plate/ST | Plate/ST | Plate/ST |
| Nominal flow rate | m3/h | 9.43 | 10.46 | 11.49 | 12.35 | 15.09 | 18.86 | 23.15 |
| Minimum flow rate | m3/h | 6 | 8 | 8 | 8 | 8 | 10 | 15 |
| Maximum flow rate | m3/h | 12 | 17 | 17 | 17 | 17 | 24 | 28 |
| Pressure drops (evaporator+valves+piping) | kPa | 53.91 | 65.5 | 46.71 | 52.94 | 51.13 | 47.71 | 59.04 |
| Hydraulic connections | BSP/DN | 1 1/2" | 2" | 2" | 2" | 2" | 2" | DN65 |
| **PROCESS PUMP DATA** | | | | | | | | |
| Pump P3 (optional) | | | | | | | | |
| Maximum pump absorbed power | kW | 2.2 | 2.53 | 2.53 | 2.53 | 2.53 | 2.53 | 2.53 |
| Maximum pump absorbed current | A | 4.24 | 4.56 | 4.56 | 45.6 | 4.56 | 4.56 | 4.56 |
| Available pressure with single pump (WP option) | kPa | 216.58 | 176.89 | 195.68 | 189.45 | 189.39 | 182.64 | 212.23 |
| Available pressure with double pump (DP option) | kPa | 198.54 | 163.99 | 180.51 | 172 | 186.59 | 178.55 | 205.56 |
| Pump P5 (optional) | | | | | | | | |
| Maximum pump absorbed power | kW | 2.94 | 6.12 | 6.12 | 6.12 | 6.12 | 6.12 | 6.12 |
| Maximum pump absorbed current | A | 5.83 | 10.4 | 10.4 | 10.4 | 10.4 | 10.4 | 10.5 |
| Available pressure with single pump (PH option) | kPa | 514.01 | 405.62 | 422.78 | 415 | 410.34 | 400.19 | 364.21 |
| Available pressure with double pump (DPH option) | kPa | 495.98 | 392.71 | 407.61 | 397.55 | 407.54 | 396.10 | 357.54 |
| **TANK DATA (optional)** | | | | | | | | |
| Volume (optional) | dm3 | 200 | 390 | 390 | 390 | 390 | 330 | 500 |
| Expansion vessel volume (XV option) | dm3 | 12 | 19 | 19 | 19 | 19 | 19 | 19 |
| AIR AXIAL FANS AND CONDENSER DATA | | | | | | | | |
| Number of condenser coils | N° | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Number of fans | N° | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Total absorbed power | kW | 1.62 | 2.5 | 3.88 | 3.88 | 3.88 | 3.88 | 3.88 |
| Total absorbed current | A | 3.08 | 4.96 | 7.8 | 7.8 | 7.8 | 7.8 | 7.8 |
| Total air flow | m3/h | 15600 | 25000 | 36000 | 36000 | 34000 | 32000 | 40000 |
| **TOTAL ELECTRIC DATA (standard configuration)** | | | | | | | | |
| Nominal absorbed power | kW | 18.92 | 18.9 | 23.18 | 26.28 | 29.08 | 32.98 | 39.48 |
| Maximum absorbed current (FLA) | A | 39.52 | 43.4 | 51.52 | 56.8 | 67.8 | 80.68 | 97.02 |
| Maximum peak current (LRA) | A | 225 | 142.18 | 167.02 | 172.3 | 211.8 | 269.24 | 324.41 |
| Maximum peak current with soft-start (LRA) (SF option) | A | 180 | 118.58 | 139.02 | 144.3 | 177 | 224.24 | 270.01 |
| **NOISE DATA** | | | | | | | | |
| Sound pressure level at 10m according ISO3744 | dBA | 58.6 | 57.3 | 59.2 | 59.3 | 59.5 | 61 | 62.06 |
| Sound pressure level at 10m according ISO3744 (low noise version) (LNJ option) | dBA | 56.8 | 56.3 | 58.2 | 58.3 | 58.3 | 56 | 56.08 |
| **DIMENSIONS** | | | | | | | | |
| Structure in galvanized steel | RAL | 7035 | 7035 | 7035 | 7035 | 7035 | 7035 | 7035 |
| Length | mm | 1610 | 2220 | 2220 | 2220 | 2220 | 2220 | 220 |
| Width | mm | 860 | 1100 | 1100 | 1100 | 1100 | 1100 | 1000 |
| Height | mm | 1540 | 2100 | 2100 | 2100 | 2100 | 2100 | 2120 |
| **WEIGHT** | | | | | | | | |
| Empty | kg | 375 | 530 | 560 | 565 | 585 | 670 | 1000 |
| **FREE SPACE** | | | | | | | | |
| Electrical panel side | mm | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 |
| Opposite side of electrical panel | mm | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 |
| Condensing coil sides | mm | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 2500 |

**NOTE**

* With double pump the chiller width is 1305 mm
With glycol percentage over 30% and leaving water temperature lower than 0°C, pump need to be checked by technical department
TR45 option required with ambient temperature higher than 40°C
LW option required with leaving water temperature lower than 4°C
All data subject to change
CFT comply with the European Regulation (EU) 2016/2281, referring to high temperature process chillers, according to minimum SEPR value.

## اطلاعات فنی | TECHNICAL DATA

| CFT | MODEL | CFT.160 | CFT.185 | CFT.200 | CFT.230 | CFT.280 | CFT.340 | CFT.370 | CFT.430 |
|---|---|---|---|---|---|---|---|---|---|
| Type | | scroll | scroll | scroll | scroll | scroll | scroll | scroll | scroll |
| System | | air cooled | air cooled | air cooled | air cooled | air cooled | air cooled | air cooled | air cooled |
| Cooling capacity | kW | 150 | 170 | 204 | 227 | 277 | 319 | 365 | 410 |
| C.O.P. | kW/kW | 3.29 | 3.24 | 3.7 | 3.4 | 3.25 | 3.26 | 3.38 | 3.28 |
| E.E.R. | kW/kW | 2.92 | 2.92 | 3.24 | 2.97 | 2.92 | 2.97 | 3.05 | 3 |
| Inlet water fluid temperature | °C | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| Outlet water fluid temperature | °C | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
| Fluid type | Type | water | water | water | water | water | water | water | water |
| Minimum ambient temperature | °C | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| Design ambient temperature | °C | 35 | 35 | 35 | 35 | 35 | 35 | 35 | 35 |
| Elevation a.s.l. | m | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Type of refrigerant gas | R | 410A | 410A | 410A | 410A | 410A | 410A | 410A | 410A |
| Electrical feed according EN 60204-1 | 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 |
| Electrical cabinet | IP | 54 | 54 | 54 | 54 | 54 | 54 | 54 | 54 |
| **COMPRESSOR DATA** | | | | | | | | | |
| Number of compressors | N° | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| Number of circuits | N° | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Total compressors nominal absorbed power | kW | 45.6 | 52.4 | 55.2 | 66.8 | 85.2 | 97.8 | 108 | 125 |
| Total compressors running current RLA | A | 79.39 | 91.23 | 96.16 | 116.3 | 148.34 | 170.28 | 188.04 | 217.63 |
| Steps | N° | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| **EVAPORATOR DATA** | | | | | | | | | |
| Type of evaporator | Type | Plate/ST | Plate/ST | Plate/ST | Plate/ST | Plate/ST | Plate/ST | Plate/ST | Plate/ST |
| Nominal flow rate | m3/h | 25.72 | 29.15 | 34.98 | 38.93 | 47.5 | 54.7 | 62.59 | 70.31 |
| Minimum flow rate | m3/h | 14 | 14 | 22 | 22 | 25 | 30 | 35 | 35 |
| Maximum flow rate | m3/h | 34 | 34 | 47 | 47 | 60 | 70 | 80 | 87 |
| Pressure drops (evaporator+valves+piping) | kPa | 57.25 | 47.84 | 38.94 | 42.94 | 50.29 | 52.72 | 54.63 | 53.51 |
| Hydraulic connections | BSP/DN | DN65 | DN65 | DN125 | DN125 | DN125 | DN125 | DN150 | DN150 |
| **PROCESS PUMP DATA** | | | | | | | | | |
| **Pump P3 (optional)** | | | | | | | | | |
| Maximum pump absorbed power | kW | 4.56 | 4.56 | 8.3 | 8.3 | 8.3 | 8.3 | 10.2 | 10.2 |
| Maximum pump absorbed current | A | 7.75 | 7.75 | 14.1 | 14.1 | 14.1 | 14.1 | 17.4 | 17.4 |
| Available pressure with single pump (WP option) | kPa | 203.46 | 208.77 | 278.98 | 271.81 | 254.67 | 239.84 | 234.68 | 227.71 |
| Available pressure with double pump (DP option) | kPa | 195.11 | 197.8 | 264.27 | 263.94 | 243.22 | 224.06 | 226.73 | 218.56 |
| **Pump P5 (optional)** | | | | | | | | | |
| Maximum pump absorbed power | kW | 10.2 | 10.2 | 16.22 | 16.22 | 16.22 | 16.22 | 16.22 | 19.94 |
| Maximum pump absorbed current | A | 17.4 | 17.4 | 26.6 | 26.6 | 26.6 | 26.6 | 26.6 | 32.7 |
| Available pressure with single pump (PH option) | kPa | 440.09 | 445.04 | 494.24 | 488.55 | 474.74 | 464.5 | 450.49 | 421.19 |
| Available pressure with double pump (DPH option) | kPa | 431.74 | 434.07 | 479.54 | 480.68 | 463.28 | 448.71 | 442.54 | 412.04 |
| **TANK DATA (optional)** | | | | | | | | | |
| Volume (optional) | dm3 | 390 | 390 | 390 | 500 | 500 | 500 | 500 | 500 |
| Expansion vessel volume (XV option) | dm3 | 19 | 19 | 19 | 19 | 19 | 19 | 19 | 19 |
| **AIR AXIAL FANS AND CONDENSER DATA** | | | | | | | | | |
| Number of condenser coils | N° | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Number of fans | N° | 3 | 3 | 4 | 5 | 5 | 5 | 6 | 6 |
| Total absorbed power | kW | 5.82 | 5.82 | 7.76 | 9.7 | 9.7 | 9.7 | 11.64 | 11.64 |
| Total absorbed current | A | 11.7 | 11.7 | 15.6 | 19.5 | 19.5 | 19.5 | 23.4 | 23.4 |
| Total air flow | m3/h | 57000 | 54000 | 68800 | 91000 | 90000 | 85000 | 102000 | 96000 |
| **TOTAL ELECTRIC DATA (standard configuration)** | | | | | | | | | |
| Nominal absorbed power | kW | 51.42 | 58.22 | 62.96 | 76.5 | 94.9 | 107.5 | 119.64 | 136.64 |
| Maximum absorbed current (FLA) | A | 109.7 | 131.7 | 148.48 | 165.26 | 197.94 | 227.3 | 260.56 | 289.56 |
| Maximum peak current (LRA) | A | 225.2 | 275.7 | 337.04 | 353.82 | 425.33 | 478.01 | 511.27 | 623.77 |
| Maximum peak current with soft-start (LRA) (SF option) | A | 197.2 | 240.9 | 292.04 | 308.82 | 370.93 | 416.01 | 449.27 | 542.17 |
| **NOISE DATA** | | | | | | | | | |
| Sound pressure level at 10m according ISO3744 | dBA | 61.3 | 61.5 | 63.3 | 64.6 | 66 | 66 | 66.4 | 67.8 |
| Sound pressure level at 10m according ISO3744 (low noise version) (LNJ option) | dBA | 60.1 | 60.2 | 61.7 | 62.8 | 63.5 | 63.5 | 64 | 64.8 |
| **DIMENSIONS** | | | | | | | | | |
| Structure in galvanized steel | RAL | 7035 | 7035 | 7035 | 7035 | 7035 | 7035 | 7035 | 7035 |
| Length | mm | 3355 | 3355 | 4355 | 5350 | 5350 | 5350 | 6350 | 6350 |
| Width | mm | 1105 | 1105* | 1105* | 1105 | 1105 | 1105 | 1105 | 1105 |
| Height | mm | 2180 | 2180 | 2180 | 2180 | 2180 | 2180 | 2180 | 2180 |
| **WEIGHT** | | | | | | | | | |
| Empty | kg | 1050 | 1100 | 1690 | 1915 | 2070 | 2150 | 2410 | 2565 |
| **FREE SPACE** | | | | | | | | | |
| Electrical panel side | mm | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 |
| Opposite side of electrical panel | mm | 1000 | 1000 | 1000 | 1000 | 1500 | 1500 | 1500 | 1500 |
| Condensing coil sides | mm | 2500 | 2500 | 2500 | 2500 | 2500 | 2500 | 2500 | 2500 |

**NOTE**

* With double pump the chiller width is 1305 mm
With glycol percentage over 30% and leaving water temperature lower than 0°C, pump need to be checked by technical department
TR45 option required with ambient temperature higher than 40°C
LW option required with leaving water temperature lower than 4°C
All data subject to change
CFT comply with the European Regulation (EU) 2016/2281, referring to high temperature process chillers, according to minimum SEPR value.

## اطلاعات فنی | TECHNICAL DATA

| SBS | MODEL | SBS.095 | SBS.120 | SBS.145 | SBS.160 | SBS.190 | SBS.240 | SBS.290 | SBS.330 |
|---|---|---|---|---|---|---|---|---|---|
| Type | | scroll | scroll | scroll | scroll | scroll | scroll | scroll | scroll |
| System | | air cooled | air cooled | air cooled | air cooled | air cooled | air cooled | air cooled | air cooled |
| Cooling capacity | kW | 98.4 | 122.6 | 144.7 | 161.2 | 189 | 236 | 288.9 | 319.9 |
| E.E.R. at design point | kW/kW | 3.8 | 3.6 | 3.3 | 3.1 | 3.68 | 3.47 | 3.26 | 3.09 |
| Inlet water fluid temperature | °C | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| Outlet water fluid temperature | °C | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
| Fluid type | Type | water | water | water | water | water | water | water | water |
| Minimum ambient temperature | °C | -20 | -20 | -20 | -20 | -20 | -20 | -20 | -20 |
| Design ambient temperature | °C | 35 | 35 | 35 | 35 | 35 | 35 | 35 | 35 |
| Elevation a.s.l. | m | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Type of refrigerant gas | R | 410A | 410A | 410A | 410A | 410A | 410A | 410A | 410A |
| Electrical feed according EN 60204-1 | 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 |
| Electrical cabinet | IP | 54 | 54 | 54 | 54 | 54 | 54 | 54 | 54 |
| **COMPRESSOR DATA** | | | | | | | | | |
| Number of compressors | N° | 2 | 2 | 2 | 2 | 4 | 4 | 4 | 4 |
| Number of circuits | N° | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 |
| Compressor E.E.R. | kW/kW | 4.43 | 4.03 | 3.56 | 3.34 | 4.3 | 3.89 | 3.56 | 3.33 |
| Total Compressors Nominal Absorbed Power | kW | 22.2 | 30.4 | 40.6 | 48.3 | 44 | 60.6 | 81.2 | 96.2 |
| Total Compressors Running current RLA | A | 39.1 | 53.6 | 71.5 | 85.1 | 77.5 | 106.8 | 143.1 | 169.5 |
| Steps | N° | 2 | 2 | 2 | 2 | 4 | 4 | 4 | 4 |
| **EVAPORATOR DATA** | | | | | | | | | |
| Number of evaporators | N° | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Type of evaporator | Type | Plate | Plate | Plate | Plate | ST | ST | ST | ST |
| Nominal flow rate | m3/h | 16.87 | 21.02 | 24.81 | 27.64 | 32.41 | 40.47 | 49.54 | 54.86 |
| Minimum flow rate | m3/h | 13.00 | 16.00 | 16.00 | 20.00 | 23.00 | 29.00 | 36.00 | 38.00 |
| Maximum flow rate | m3/h | 23.00 | 23.00 | 42.00 | 42.00 | 42.00 | 53.00 | 66.00 | 70.00 |
| Pressure drops (evaporator + valves + piping) | kPa | 49.85 | 53.61 | 54.62 | 53.78 | 46.74 | 39.94 | 40.90 | 46.76 |
| Hydraulic connections | BSP/DN | DN65 | DN65 | DN80 | DN80 | DN80 | DN80 | DN100 | DN100 |
| **PROCESS PUMP DATA** | | | | | | | | | |
| Pump P3 (optional) | | | | | | | | | |
| Maximum pump absorbed power | kW | 3.46 | 4.56 | 4.56 | 4.56 | 8.30 | 8.30 | 8.30 | 8.30 |
| Maximum pump absorbed current | A | 6.33 | 7.75 | 7.75 | 7.75 | 14.10 | 14.10 | 14.10 | 14.10 |
| Available pressure with single pump (WP option) | kPa | 241.01 | 211.22 | 207.07 | 204.64 | 273.83 | 273.61 | 260.55 | 245.54 |
| Available pressure with double pump (DP option) | kPa | 230.05 | 195.33 | 200.12 | 194.68 | 260.90 | 264.63 | 247.58 | 229.62 |
| Pump P5 (optional) | | | | | | | | | |
| Maximum pump absorbed power | kW | 6.12 | 10.20 | 10.20 | 10.20 | 16.22 | 16.22 | 16.22 | 16.22 |
| Maximum pump absorbed current | A | 10.40 | 17.40 | 17.40 | 17.40 | 26.60 | 26.60 | 26.60 | 26.60 |
| Available pressure with single pump (PH option) | kPa | 406.02 | 448.21 | 443.68 | 441.49 | 487.55 | 490.88 | 482.28 | 470.24 |
| Available pressure with double pump (DPH option) | kPa | 395.06 | 432.33 | 436.73 | 431.53 | 474.62 | 481.90 | 469.31 | 454.32 |
| **TANK DATA (optional)** | | | | | | | | | |
| Volume (optional) | dm3 | 150 | 150 | 150 | 150 | 300 | 300 | 300 | 300 |
| Expansion vessel volume (XV option) | dm3 | 19 | 19 | 19 | 19 | 19 | 19 | 19 | 19 |
| **AIR AXIAL FANS AND CONDENSER DATA** | | | | | | | | | |
| Number of condenser coils | N° | 2 | 2 | 2 | 2 | 4 | 4 | 4 | 4 |
| Number of fans | N° | 2 | 2 | 2 | 2 | 4 | 4 | 4 | 4 |
| Total absorbed power | kW | 3.68 | 3.68 | 3.68 | 3.68 | 7.36 | 7.36 | 7.36 | 7.36 |
| Total 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 (standard configuration)** | | | | | | | | | |
| Nominal absorbed power | kW | 25.88 | 34.08 | 44.28 | 51.98 | 51.36 | 67.96 | 88.56 | 103.56 |
| Maximum absorbed current (FLA) | A | 67.70 | 80.50 | 96.90 | 111.60 | 135.30 | 161.10 | 193.80 | 223.10 |
| Maximum peak current (LRA) | A | 211.70 | 269.10 | 324.30 | 362.30 | 279.30 | 349.60 | 421.20 | 473.80 |
| Maximum peak current with soft-start (LRA) (SF option) | A | 176.90 | 224.10 | 269.90 | 300.30 | 244.50 | 304.60 | 366.80 | 411.80 |
| **NOISE DATA** | | | | | | | | | |
| Sound pressure level at 10m according ISO3744 | dBA | 58 | 60 | 62 | 62 | 61 | 63 | 65 | 65 |
| Sound pressure level at 10m (low noise version) | dBA | 57 | 58 | 59 | 59 | 60 | 61 | 62 | 62 |
| Sound pressure level at 10m (super low noise version) | dBA | 54 | 56 | 57 | 57 | 57 | 59 | 60 | 60 |
| Sound pressure level at 10m (extra low noise version) | dBA | 54 | 55 | 56 | 56 | 57 | 58 | 59 | 59 |
| **DIMENSIONS** | | | | | | | | | |
| Structure in galvanized steel | RAL | 7035 | 7035 | 7035 | 7035 | 7035 | 7035 | 7035 | 7035 |
| 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 | kg | 1030 | 1200 | 1250 | 1280 | 1900 | 2220 | 2320 | 2350 |
| **FREE SPACE** | | | | | | | | | |
| Electrical panel side | mm | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 |
| Opposite side of electrical panel | mm | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 |
| Condensing coil sides | mm | 2500 | 2500 | 2500 | 2500 | 2500 | 2500 | 2500 | 2500 |

**NOTE**

All data subject to change
** pump P5 includes the soft start (SF) option
* 45 feet container required for shipment.
With glycol percentage over 30% and leaving water temperature lower than 0°C, pump need to be checked by technical department
TR45 option required with ambient temperature higher than 40°C
LW option required with leaving water temperature lower than 4°C
SBS comply with the European Regulation (EU) 2016/2281, referring to high temperature process chillers, according to minimum SEPR value.

## اطلاعات فنی | TECHNICAL DATA

| SBS | MODEL | SBS.330/F6 | SBS.380 | SBS.430 | SBS.470 | SBS.470/F8 | SBS.530 | SBS.570 | SBS.610 |
|---|---|---|---|---|---|---|---|---|---|
| Type | | scroll | scroll | scroll | scroll | scroll | scroll | scroll | scroll |
| System | | air cooled | air cooled | air cooled | air cooled | air cooled | air cooled | air cooled | air cooled |
| Cooling capacity | kW | 345.5 | 387 | 433.3 | 464.8 | 490.9 | 527.4 | 563 | 603 |
| E.E.R. at design point | kW/kW | 3.53 | 3.5 | 3.26 | 3.15 | 3.46 | 3.42 | 3.34 | 3.23 |
| Inlet water fluid temperature | °C | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| Outlet water fluid temperature | °C | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
| Fluid type | Type | water | water | water | water | water | water | water | water |
| Minimum ambient temperature | °C | -20 | -20 | -20 | -20 | -20 | -20 | -20 | -20 |
| Design ambient temperature | °C | 35 | 35 | 35 | 35 | 35 | 35 | 35 | 35 |
| Elevation a.s.l. | m | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Type of refrigerant gas | R | 410A | 410A | 410A | 410A | 410A | 410A | 410A | 410A |
| Electrical feed according EN 60204-1 | 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 |
| Electrical cabinet | IP | 54 | 54 | 54 | 54 | 54 | 54 | 54 | 54 |
| **COMPRESSOR DATA** | | | | | | | | | |
| Number of compressors | N° | 4 | 4 | 6 | 6 | 6 | 6 | 6 | 6 |
| Number of circuits | N° | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Compressor E.E.R. | kW/kW | 3.98 | 3.89 | 3.56 | 3.41 | 3.86 | 3.78 | 3.67 | 3.51 |
| Total Compressors Nominal Absorbed Power | kW | 86.8 | 99.6 | 121.8 | 136.4 | 127.1 | 139.7 | 153.6 | 171.8 |
| Total Compressors Running current RLA | A | 153.0 | 175.5 | 214.6 | 240.4 | 224 | 246.2 | 270.7 | 302.8 |
| Steps | N° | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| **EVAPORATOR DATA** | | | | | | | | | |
| Number of evaporators | N° | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Type of evaporator | Type | ST | ST | ST | ST | ST | ST | ST | ST |
| Nominal flow rate | m3/h | 59.25 | 66.36 | 74.30 | 79.70 | 84.18 | 90.44 | 96.54 | 103.40 |
| Minimum flow rate | m3/h | 38.00 | 47.00 | 60.00 | 62.00 | 62.00 | 79.00 | 79.00 | 81.00 |
| Maximum flow rate | m3/h | 70.00 | 87.00 | 110.00 | 120.00 | 120.00 | 145.00 | 145.00 | 150.00 |
| Pressure drops (evaporator + valves + piping) | kPa | 54.90 | 56.77 | 55.85 | 59.71 | 66.81 | 58.79 | 51.83 | 55.79 |
| Hydraulic connections | BSP/DN | DN100 | DN100 | DN125 | DN125 | DN125 | DN150 | DN150 | DN150 |
| **PROCESS PUMP DATA** | | | | | | | | | |
| Pump P3 (optional) | | | | | | | | | |
| Maximum pump absorbed power | kW | 8.30 | 10.20 | 10.20 | 10.20 | 10.20 | 16.22 | 16.22 | 16.22 |
| Maximum pump absorbed current | A | 14.10 | 17.40 | 17.40 | 17.40 | 17.40 | 26.60 | 26.60 | 26.60 |
| Available pressure with single pump (WP option) | kPa | 229.27 | 228.59 | 221.16 | 211.60 | 199.78 | 253.70 | 256.91 | 248.25 |
| Available pressure with double pump (DP option) | kPa | 210.31 | 219.62 | 211.18 | 199.66 | 185.82 | 237.76 | 238.97 | 239.29 |
| Pump P5 (optional) | | | | | | | | | |
| Maximum pump absorbed power | kW | 16.22 | 24.85 | 24.85 | 24.85 | 24.85 | 24.85 | 31.88 | 31.88 |
| Maximum pump absorbed current | A | 26.60 | 42.40 | 42.40 | 42.40 | 42.40 | 42.40 | 53.50 | 53.50 |
| Available pressure with single pump (PH option) | kPa | 455.48 | 482.04 | 475.30 | 463.88 | 450.50 | 449.52 | 455.33 | 448.60 |
| Available pressure with double pump (DPH option) | kPa | 436.51 | 473.08 | 465.32 | 451.93 | 436.54 | 433.58 | 437.39 | 439.63 |
| **TANK DATA (optional)** | | | | | | | | | |
| Volume (optional) | dm3 | 300 | 380 | 380 | 380 | 380 | 500 | 500 | 500 |
| Expansion vessel volume (XV option) | dm3 | 19 | 19 | 19 | 19 | 19 | 19 | 19 | 19 |
| **AIR AXIAL FANS AND CONDENSER DATA** | | | | | | | | | |
| Number of condenser coils | N° | 6 | 6 | 6 | 6 | 8 | 8 | 8 | 8 |
| Number of fans | N° | 6 | 6 | 6 | 6 | 8 | 8 | 8 | 8 |
| Total absorbed power | kW | 11.04 | 11.04 | 11.04 | 11.04 | 14.72 | 14.72 | 14.72 | 14.72 |
| Total absorbed current | A | 22.98 | 22.98 | 22.98 | 23 | 31 | 30.64 | 30.64 | 30.64 |
| Total air flow | m3/h | 123600 | 123600 | 123600 | 123600 | 164800 | 164800 | 164800 | 164800 |
| **TOTAL ELECTRIC DATA (standard configuration)** | | | | | | | | | |
| Nominal absorbed power | kW | 97.84 | 110.64 | 132.84 | 147.44 | 141.82 | 154.42 | 168.32 | 186.52 |
| Maximum absorbed current (FLA) | A | 230.80 | 260.10 | 290.60 | 320.00 | 327.70 | 357.00 | 386.40 | 415.40 |
| Maximum peak current (LRA) | A | 481.50 | 510.90 | 518.00 | 570.70 | 578.40 | 607.70 | 637.10 | 749.60 |
| Maximum peak current with soft-start (LRA) (SF option) | A | 419.50 | 448.90 | 463.60 | 508.70 | 516.40 | 545.70 | 575.10 | 668.00 |
| **NOISE DATA** | | | | | | | | | |
| Sound pressure level at 10m according ISO3744 | dBA | 65 | 65 | 66 | 66 | 67 | 67 | 67 | 68 |
| Sound pressure level at 10m (low noise version) | dBA | 63 | 63 | 63 | 63 | 64 | 64 | 64 | 65 |
| Sound pressure level at 10m (super low noise version) | dBA | 61 | 61 | 62 | 62 | 62 | 62 | 62 | 64 |
| Sound pressure level at 10m (extra low noise version) | dBA | 60 | 60 | 60 | 60 | 61 | 61 | 61 | 62 |
| **DIMENSIONS** | | | | | | | | | |
| Structure in galvanized steel | RAL | 7035 | 7035 | 7035 | 7035 | 7035 | 7035 | 7035 | 7035 |
| 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 | kg | 2740 | 2850 | 3270 | 3320 | 3900 | 3950 | 4050 | 4100 |
| **FREE SPACE** | | | | | | | | | |
| Electrical panel side | mm | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 |
| Opposite side of electrical panel | mm | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 |
| Condensing coil sides | mm | 2500 | 2500 | 2500 | 2500 | 2500 | 2500 | 2500 | 2500 |

**NOTE**

All data subject to change
** pump P5 includes the soft start (SF) option
* 45 feet container required for shipment.
With glycol percentage over 30% and leaving water temperature lower than 0°C, pump need to be checked by technical department
TR45 option required with ambient temperature higher than 40°C
LW option required with leaving water temperature lower than 4°C
SBS comply with the European Regulation (EU) 2016/2281, referring to high temperature process chillers, according to minimum SEPR value.

## اطلاعات فنی | TECHNICAL DATA

| SBS | MODEL | SBS.610/F10 | SBS.660 | SBS.660/F10 | SBS.720 | SBS.840 | SBS.930 | SBS.1030 | SBS.1230 |
|---|---|---|---|---|---|---|---|---|---|
| Type | | scroll | scroll | scroll | scroll | scroll | scroll | scroll | scroll |
| System | | air cooled | air cooled | air cooled | air cooled | air cooled | air cooled | air cooled | air cooled |
| Cooling capacity | kW | 629.3 | 645.6 | 675.8 | 717.6 | 842 | 965.6 | 1021.7 | 1287.5 |
| E.E.R. at design point | kW/kW | 3.47 | 3.15 | 3.41 | 3.35 | 3.34 | 3.16 | 3.06 | 3.16 |
| Inlet water fluid temperature | °C | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| Outlet water fluid temperature | °C | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
| Fluid type | Type | water | water | water | water | water | water | water | water |
| Minimum ambient temperature | °C | -20 | -20 | -20 | -20 | -20 | -20 | -20 | -20 |
| Design ambient temperature | °C | 35 | 35 | 35 | 35 | 35 | 35 | 35 | 35 |
| Elevation a.s.l. | m | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Type of refrigerant gas | R | 410A | 410A | 410A | 410A | 410A | 410A | 410A | 410A |
| Electrical feed according EN 60204-1 | 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 |
| Electrical cabinet | IP | 54 | 54 | 54 | 54 | 54 | 54 | 54 | 54 |
| **COMPRESSOR DATA** | | | | | | | | | |
| Number of compressors | N° | 6 | 6 | 6 | 6 | 9 | 9 | 9 | 12 |
| Number of circuits | N° | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 4 |
| Compressor E.E.R. | kW/kW | 3.86 | 3.39 | 3.76 | 3.67 | 3.66 | 3.41 | 3.28 | 3.41 |
| Total Compressors Nominal Absorbed Power | kW | 163.2 | 190.4 | 179.8 | 195.6 | 230 | 283 | 312 | 377.6 |
| Total Compressors Running current RLA | A | 287.6 | 335.5 | 316.8 | 344.7 | 395.5 | 480 | 525.2 | 640.0 |
| Steps | N° | 4 | 4 | 4 | 4 | 6 | 6 | 6 | 8 |
| **EVAPORATOR DATA** | | | | | | | | | |
| Number of evaporators | N° | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Type of evaporator | Type | ST | ST | ST | ST | ST | ST | ST | ST |
| Nominal flow rate | m3/h | 107.91 | 110.71 | 115.89 | 123.06 | 144.44 | 165.58 | 175.20 | 220.78 |
| Minimum flow rate | m3/h | 81.00 | 81.00 | 81.00 | 86.00 | 102.00 | 108.00 | 115.00 | 142.00 |
| Maximum flow rate | m3/h | 150.00 | 150.00 | 150.00 | 161.00 | 180.00 | 200.00 | 215.00 | 251.00 |
| Pressure drops (evaporator + valves + piping) | kPa | 60.79 | 58.80 | 63.77 | 72.71 | 73.73 | 68.74 | 71.76 | 83.68 |
| Hydraulic connections | BSP/DN | DN150 | DN150 | DN150 | DN150 | DN150 | DN200 | DN200 | DN200 |
| **PROCESS PUMP DATA** | | | | | | | | | |
| Pump P3 (optional) | | | | | | | | | |
| Maximum pump absorbed power | kW | 16.22 | 16.22 | 16.22 | 16.22 | 23.51 | 23.51 | 31.88 | 31.88 |
| Maximum pump absorbed current | A | 26.60 | 26.60 | 26.60 | 26.60 | 39.00 | 39.00 | 53.50 | 53.50 |
| Available pressure with single pump (WP option) | kPa | 239.71 | 239.50 | 229.94 | 214.09 | 245.06 | 244.68 | 238.11 | 205.47 |
| Available pressure with double pump (DP option) | kPa | 230.74 | 229.54 | 218.98 | 202.14 | 228.12 | 232.72 | 225.15 | 184.55 |
| Pump P5 (optional) | | | | | | | | | |
| Maximum pump absorbed power | kW | 31.88 | 31.88 | 31.88 | 39.09 | 39.09 | 39.09 | 47.31** | 47.31** |
| Maximum pump absorbed current | A | 53.50 | 53.50 | 53.50 | 65.60 | 65.60 | 65.60 | 77.60 | 77.60 |
| Available pressure with single pump (PH option) | kPa | 441.77 | 442.37 | 433.76 | 444.65 | 436.16 | 431.51 | 492.36 | 448.26 |
| Available pressure with double pump (DPH option) | kPa | 432.80 | 432.40 | 422.80 | 432.70 | 419.22 | 419.56 | 479.40 | 427.34 |
| **TANK DATA (optional)** | | | | | | | | | |
| Volume (optional) | dm3 | 500 | 500 | 500 | 500 | 600 | 600 | 600 | 700 |
| Expansion vessel volume (XV option) | dm3 | 19 | 19 | 19 | 19 | 38 | 38 | 38 | 38 |
| **AIR AXIAL FANS AND CONDENSER DATA** | | | | | | | | | |
| Number of condenser coils | N° | 10 | 8 | 10 | 10 | 12 | 12 | 12 | 16 |
| Number of fans | N° | 10 | 8 | 10 | 10 | 12 | 12 | 12 | 16 |
| Total absorbed power | kW | 18.40 | 14.72 | 18.40 | 18.40 | 22.08 | 22.08 | 22.08 | 29.44 |
| Total 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 (standard configuration)** | | | | | | | | | |
| Nominal absorbed power | kW | 181.60 | 205.12 | 198.20 | 214.00 | 252.18 | 305.28 | 333.68 | 407.04 |
| Maximum absorbed current (FLA) | A | 423.00 | 444.40 | 452.00 | 481.00 | 579.60 | 666.60 | 710.10 | 888.80 |
| Maximum peak current (LRA) | A | 757.30 | 778.60 | 786.30 | 815.30 | 830.30 | 1000.80 | 1044.30 | 1223.00 |
| Maximum peak current with soft-start (LRA) (SF option) | A | 675.70 | 697.00 | 704.70 | 733.70 | 768.30 | 919.20 | 962.70 | 1141.40 |
| **NOISE DATA** | | | | | | | | | |
| Sound pressure level at 10m according ISO3744 | dBA | 68 | 69 | 690 | 70 | 68 | 71 | 71 | 72 |
| Sound pressure level at 10m (low noise version) | dBA | 65 | 65 | 659 | 66 | 66 | 67 | 68 | 69 |
| Sound pressure level at 10m (super low noise version) | dBA | 64 | 64 | 646 | 65 | 64 | 66 | NA | NA |
| Sound pressure level at 10m (extra low noise version) | dBA | 62 | 62 | 629 | 63 | 63 | 64 | NA | NA |
| **DIMENSIONS** | | | | | | | | | |
| Structure in galvanized steel | RAL | 7035 | 7035 | 7035 | 7035 | 7035 | 7035 | 7035 | 7035 |
| 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 | kg | 4750 | 4170 | 5286 | 4900 | 5900 | 6050 | 6200 | 7600 |
| **FREE SPACE** | | | | | | | | | |
| Electrical panel side | mm | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 |
| Opposite side of electrical panel | mm | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 |
| Condensing coil sides | mm | 2500 | 2500 | 2500 | 2500 | 2500 | 2500 | 2500 | 2500 |

**NOTE**

All data subject to change
** pump P5 includes the soft start (SF) option
* 45 feet container required for shipment.
With glycol percentage over 30% and leaving water temperature lower than 0°C, pump need to be checked by technical department
TR45 option required with ambient temperature higher than 40°C
LW option required with leaving water temperature lower than 4°C
SBS comply with the European Regulation (EU) 2016/2281, referring to high temperature process chillers, according to minimum SEPR value.

## اطلاعات فنی | 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 |
| SOUND PRESSURE FOR EXTRA LOW NOISE OPTION (ELN) (7) (8) | | 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 |

**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

## اطلاعات فنی | 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 COILS | | 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 |
| SOUND PRESSURE FOR EXTRA LOW NOISE OPTION (ELN) (7) (8) | | 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 |

**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

## اطلاعات فنی | 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) | | kW | 60,90 | - | 112,20 | 128,80 | 148,40 | 155,00 | 184,40 | 198,30 |
| EER (1) | | kW/kW | 3,58 | - | 3,48 | 3,39 | 3,25 | 3,54 | 3,25 | 3,46 |
| NOMINAL WATER FLOW | | m3/h | 42,53 | - | 74,57 | 82,29 | 89,80 | 104,24 | 112,15 | 130,15 |
| EVAPORATOR PRESSURE DROP | | 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) | | kW | 61,0 | - | 113,0 | 133,0 | 145,0 | 157,0 | 182,0 | 202,0 |
| EER (6) | | kW/kW | 4,29 | - | 4,11 | 3,91 | 3,82 | 4,15 | 3,89 | 4,11 |
| NOMINAL WATER FLOW | | m3/h | 36,50 | - | 63,30 | 69,80 | 73,80 | 88,40 | 94,70 | 112,20 |
| EVAPORATOR PRESSURE DROP | | 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) | | 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) | | 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 | | A | 13,84 | - | 20,76 | 20,76 | 20,76 | 27,68 | 27,68 | 34,60 |
| TOTAL AIR FLOW | | 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 |

**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

## اطلاعات فنی | 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) | | kW | 229,68 | 269,20 | 302,94 | 333,94 | 388,10 | - | 440,10 | 506,28 |
| EER (1) | | kW/kW | 3,53 | 3,41 | 3,50 | 3,62 | 3,38 | - | 3,61 | 3,57 |
| NOMINAL WATER FLOW | | m3/h | 154,48 | 172,48 | 199,58 | 228,26 | 247,25 | - | 303,43 | 340,62 |
| EVAPORATOR PRESSURE DROP | | 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) | | kW | 229,0 | 275,0 | 305,0 | 349,0 | 408,0 | - | 445,0 | 520,0 |
| EER (6) | | kW/kW | 4,22 | 3,99 | 4,16 | 4,18 | 3,91 | - | 4,20 | 3,94 |
| NOMINAL WATER FLOW | | m3/h | 131,40 | 146,70 | 170,70 | 196,10 | 213,50 | - | 254,70 | 275,80 |
| EVAPORATOR PRESSURE DROP | | 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) | | 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) | | 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 | | A | 41,52 | 41,52 | 48,44 | 55,36 | 62,28 | - | 83,04 | 83,04 |
| TOTAL AIR FLOW | | 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 |

**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

## اطلاعات فنی | 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 COIL | | 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 (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 manufactorer reserves the right to modify specifications without notice

**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

## اطلاعات فنی | 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 |

The manufactorer reserves the right to modify specifications without notice

**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

## اطلاعات فنی | 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 (4) | | kg | 3050 | - | 4000 | 4300 | 4500 | 5250 | 5400 | 6300 |
| WEIGHT OPERATIVE FOR STANDARD CONFIGURATION (4) | | kg | 3150 | - | 4150 | 4470 | 4700 | 5500 | 5650 | 6580 |

The manufactorer reserves the right to modify specifications without notice

**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

## اطلاعات فنی | 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) | P3 (2) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | - | 0.0 | 0.0 |
| MAXIMUM PUMP ABSORBED CURRENT (OPTION WP OR DP) | | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | - | 0.0 | 0.0 |
| MAXIMUM PUMP ABSORBED POWER (OPTION PH OR DPH) | P5 (2) | P5 (2) | NA | NA | NA | NA | NA | - | NA | NA |
| MAXIMUM PUMP ABSORBED CURRENT (OPTION PH OR DPH) | | | 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 |

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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) 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

## اطلاعات فنی | TECHNICAL DATA

| NOVA | MODEL | NOVA.663F4 | | NOVA.783F6 | | NOVA.793F6 | |
|---|---|---|---|---|---|---|---|
| | | ECO.M1 | HE.M1 | ECO.M1 | HE.M1 | ECO.M1 | HE.M1 |
| Type | | screw | screw | screw | screw | screw | screw |
| System | | air cooled | air cooled | air cooled | air cooled | air cooled | air cooled |
| Cooling capacity | kW | 238 | 245 | 427 | 441 | 465 | 482 |
| Compressor E.E.R. | kW/kW | 3.73 | 4.04 | 3.56 | 3.9 | 3.32 | 3.67 |
| E.E.R. | kW/kW | 3.39 | 3.58 | 3.3 | 3.54 | 3.11 | 3.37 |
| Inlet water fluid temperature | °C | 12 | 12 | 12 | 12 | 12 | 12 |
| Outlet water fluid temperature | °C | 7 | 7 | 7 | 7 | 7 | 7 |
| Fluid type | Type | water | water | water | water | water | water |
| Minimum ambient temperature | °C | 0 | 0 | 0 | 0 | 0 | 0 |
| Maximum ambient temperature at 100% load | °C | 50 | 52 | 48 | 50 | 46 | 48 |
| Design ambient temperature | °C | 35 | 35 | 35 | 35 | 35 | 35 |
| Elevation a.s.l. | m | 0 | 0 | 0 | 0 | 0 | 0 |
| Type of refrigerant gas | R | 134a | 134a | 134a | 134a | 134a | 134a |
| Number of refrigerating circuits | N° | 2 | 2 | 2 | 2 | 2 | 2 |
| Electrical feed according EN 60204-1 | V/ph/Hz | 400/3/50 | 400/3/50 | 400/3/50 | 400/3/50 | 400/3/50 | 400/3/50 |
| Electrical cabinet | IP | 54 | 54 | 54 | 54 | 54 | 54 |
| **COMPRESSOR DATA** | | | | | | | |
| Number of compressors | N° | 2 | 2 | 2 | 2 | 2 | 2 |
| Total compressors nominal absorbed power | kW | 63.87 | 60.68 | 119.84 | 112.95 | 139.87 | 131.37 |
| Total compressors running current RLA | A | 110.09 | 105.7 | 194.75 | 184.47 | 227.58 | 214.94 |
| Starting Method | Type | Part-Winding | Part-Winding | Part-Winding | Part-Winding | Part-Winding | Part-Winding |
| Max peak start current per compressor LRA | A | 269/508 | 269/508 | 479/790 | 479/790 | 516/887 | 516/887 |
| Max absorbed working current per compressor FLA | A | 108.0 | 108.0 | 170.0 | 170.0 | 180.0 | 180.0 |
| Partition steps per compressor | % | Continuous | Continuous | Continuous | Continuous | Continuous | Continuous |
| **ECONOMIZER DATA** | | | | | | | |
| Economizer | Type | Plate | Plate | Plate | Plate | Plate | Plate |
| **EVAPORATOR DATA** | | | | | | | |
| Type of evaporator | Type | PLATE | PLATE | SHELL&TUBE | ST | ST | ST |
| Approval | | PED | PED | PED | PED | PED | PED |
| Nominal flow rate | m3/h | 40.81 | 42.01 | 73.22 | 75.62 | 79.74 | 82.65 |
| Minimum flow rate | m3/h | 30 | 30 | 42 | 44 | 51 | 48 |
| Maximum flow rate | m3/h | 80 | 80 | 85 | 88 | 102 | 96 |
| Pressure drops | kPa | 20.81 | 21.91 | 68.67 | 72.47 | 56.63 | 60.64 |
| Hydraulic connections | DN | 100 | 100 | 100 | 100 | 125 | 125 |
| **AIR AXIAL FANS AND CONDENSER DATA** | | | | | | | |
| Number of condenser coils | N° | 4 | 4 | 4 | 4 | 4 | 4 |
| Number of fans | N° | 4 | 4 | 6 | 6 | 6 | 6 |
| Total absorbed power | kW | 6.40 | 7.84 | 9.60 | 11.76 | 9.60 | 11.76 |
| Total absorbed current | A | 13.44 | 13.20 | 20.16 | 19.80 | 20.16 | 19.80 |
| Total air flow | m3/h | 71651 | 81515 | 107476 | 122272 | 107476 | 122272 |
| **TOTAL ELECTRIC DATA (for standard configuration)** | | | | | | | |
| Nominal absorbed power | kW | 70.27 | 68.52 | 129.44 | 124.71 | 149.47 | 143.13 |
| Maximum absorbed power | kW | 138 | 140 | 216 | 219 | 236 | 239 |
| Maximum absorbed current (FLA) | A | 232 | 232 | 363 | 363 | 383 | 383 |
| Maximum peak current (LRA) | A | 667 | 667 | 1040 | 1040 | 1147 | 1147 |
| Maximum peak current with soft-start (LRA) (SF option) | A | 565 | 565 | 882 | 882 | 969 | 969 |
| **NOISE DATA AT 10m ACCORDING ISO3744*** | | | | | | | |
| Sound pressure level | dBA | 64.5 | 64.9 | 68.7 | 68.9 | 68.7 | 69.0 |
| Sound pressure level (low noise version) (LNX option) | dBA | 60.8 | 61.8 | 64.2 | 64.7 | 64.2 | 65.0 |
| Sound pressure level (extra low noise version) (ELN option) | dBA | 59.9 | 60.5 | 63.8 | 64.1 | 63.8 | 64.3 |
| **DIMENSIONS**** | | | | | | | |
| Structure in galvanized steel | RAL | 7035 | 7035 | 7035 | 7035 | 7035 | 7035 |
| Length | mm | 3100 | 3100 | 4050 | 4050 | 4050 | 4050 |
| Width | mm | 2210 | 2210 | 2210 | 2210 | 2210 | 2210 |
| Height | mm | 2500 | 2500 | 2500 | 2500 | 2500 | 2500 |
| **WEIGHT** | | | | | | | |
| Empty | kg | 3150 | 3150 | 4150 | 4150 | 4470 | 4470 |
| **FREE SPACE** | | | | | | | |
| Electrical panel side | mm | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 |
| Opposite side of electrical panel | mm | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 |
| Condensing coil sides | mm | 2500 | 2500 | 2500 | 2500 | 2500 | 2500 |

**NOTE**

All data subject to change
M1 - HIGH AMBIENT MOTOR VERSION
HE - HIGH EFFICIENCY VERSION
With glycol percentage > 30% and leaving water temperature < 0°C, pump need to be checked by technical department
With ambient temperature > 40°C, TR45 option required with ambient temperature > 45°C, TR50 option required
With ambient temperature between 0°C and -15°C, Low temperature (LT) option required

## اطلاعات فنی | TECHNICAL DATA

| NOVA | MODEL | NOVA.863F6 | | NOVA.873F8 | | NOVA.883F8 | | NOVA.893F10 | |
|---|---|---|---|---|---|---|---|---|---|
| | | ECO.M1 | HE.M1 | ECO.M1 | HE.M1 | ECO.M1 | HE.M1 | ECO.M1 | HE.M1 |
| Type | | screw | screw | screw | screw | screw | screw | screw | screw |
| System | | air cooled | air cooled | air cooled | air cooled | air cooled | air cooled | air cooled | air cooled |
| Cooling capacity | kW | 514 | 529 | 596 | 616 | 643 | 667 | 754 | 777 |
| Compressor E.E.R. | kW/kW | 3.22 | 3.5 | 3.49 | 3.87 | 3.18 | 3.56 | 3.51 | 3.87 |
| E.E.R. | kW/kW | 3.04 | 3.25 | 3.25 | 3.52 | 2.99 | 3.28 | 3.26 | 3.53 |
| Inlet water fluid temperature | °C | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| Outlet water fluid temperature | °C | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
| Fluid type | Type | water | water | water | water | water | water | water | water |
| Minimum ambient temperature | °C | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Maximum ambient temperature at 100% load | °C | 44 | 46 | 46 | 50 | 44 | 48 | 46 | 50 |
| Design ambient temperature | °C | 35 | 35 | 35 | 35 | 35 | 35 | 35 | 35 |
| Elevation a.s.l. | m | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Type of refrigerant gas | R | 134a | 134a | 134a | 134a | 134a | 134a | 134a | 134a |
| Number of refrigerating circuits | N° | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Electrical feed according EN 60204-1 | 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 |
| Electrical cabinet | IP | 54 | 54 | 54 | 54 | 54 | 54 | 54 | 54 |
| **COMPRESSOR DATA** | | | | | | | | | |
| Number of compressors | N° | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Total compressors nominal absorbed power | kW | 159.45 | 151.17 | 170.73 | 159.17 | 202.07 | 187.55 | 215.12 | 200.77 |
| Total compressors running current RLA | A | 265.09 | 252.74 | 283.78 | 266.67 | 332.28 | 309.21 | 367.49 | 346.03 |
| Starting Method | Type | Part-Winding | Part-Winding | Part-Winding | Part-Winding | Part-Winding | Part-Winding | Part-Winding | Part-Winding |
| Max peak start current per compressor LRA | A | 612/943 | 612/943 | 665/1023 | 665/1023 | 729/1114 | 729/1114 | 757/1181 | 757/1181 |
| Max absorbed working current per compressor FLA | A | 216 | 216 | 246 | 246 | 260 | 260 | 310 | 310 |
| Partition steps per compressor | % | Continuous | Continuous | Continuous | Continuous | Continuous | Continuous | Continuous | Continuous |
| **ECONOMIZER DATA** | | | | | | | | | |
| Economizer | Type | Plate | Plate | Plate | Plate | Plate | Plate | Plate | Plate |
| **EVAPORATOR DATA** | | | | | | | | | |
| Type of evaporator | Type | ST | ST | ST | ST | ST | ST | ST | ST |
| Approval | | PED | PED | PED | PED | PED | PED | PED | PED |
| Nominal flow rate | m3/h | 88.14 | 90.71 | 102.2 | 105.63 | 110.26 | 103.98 | 129.3 | 133.24 |
| Minimum flow rate | m3/h | 51 | 48 | 72 | 75 | 59 | 56 | 82 | 78 |
| Maximum flow rate | m3/h | 102 | 96 | 145 | 150 | 117 | 112 | 165 | 155 |
| Pressure drops | kPa | 67.45 | 71.55 | 61.64 | 65.54 | 68.58 | 61.03 | 63.7 | 67.64 |
| Hydraulic connections | DN | 125 | 125 | 150 | 150 | 150 | 150 | 150 | 150 |
| **AIR AXIAL FANS AND CONDENSER DATA** | | | | | | | | | |
| Number of condenser coils | N° | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| Number of fans | N° | 6 | 6 | 8 | 8 | 8 | 8 | 10 | 10 |
| Total absorbed power | kW | 9.78 | 11.76 | 12.80 | 15.68 | 12.8 | 15.68 | 16 | 19.6 |
| Total absorbed current | A | 20.28 | 19.80 | 26.88 | 26.40 | 26.88 | 26.4 | 33.6 | 33 |
| Total air flow | m3/h | 103603 | 122272 | 143302 | 163030 | 143302 | 163030 | 179127 | 203787 |
| **TOTAL ELECTRIC DATA (for standard configuration)** | | | | | | | | | |
| Nominal absorbed power | kW | 169.23 | 162.93 | 183.53 | 174.85 | 214.87 | 203.23 | 231.12 | 220.37 |
| Maximum absorbed power | kW | 276 | 279 | 316 | 320 | 336 | 340 | 391 | 398 |
| Maximum absorbed current (FLA) | A | 455 | 455 | 523 | 523 | 551 | 551 | 659 | 659 |
| Maximum peak current (LRA) | A | 1255 | 1255 | 1381 | 1381 | 1490 | 1490 | 1635 | 1635 |
| Maximum peak current with soft-start (LRA) (SF option) | A | 1066 | 1066 | 1176 | 1176 | 1267 | 1267 | 1398 | 1398 |
| **NOISE DATA AT 10m ACCORDING ISO3744*** | | | | | | | | | |
| Sound pressure level | dBA | 67.5 | 67.7 | 67.9 | 68.10 | 68.8 | 69 | 69 | 69.1 |
| Sound pressure level (low noise version) (LNX option) | dBA | 63.3 | 63.8 | 63.5 | 64.10 | 64.3 | 64.8 | 64.5 | 64.9 |
| Sound pressure level (extra low noise version) (ELN option) | dBA | 62.8 | 63.0 | 63.0 | 63.40 | 63.9 | 64.2 | 64.1 | 64.4 |
| **DIMENSIONS**** | | | | | | | | | |
| Structure in galvanized steel | RAL | 7035 | 7035 | 7035 | 7035 | 7035 | 7035 | 7035 | 7035 |
| Length | mm | 4050 | 4050 | 5000 | 5000 | 5000 | 5000 | 5950 | 5950 |
| Width | mm | 2210 | 2210 | 2210 | 2210 | 2210 | 2210 | 2210 | 2210 |
| Height | mm | 2500 | 2500 | 2500 | 2500 | 2500 | 2500 | 2500 | 2500 |
| **WEIGHT** | | | | | | | | | |
| Empty | kg | 4700 | 4700 | 5250 | 5250 | 5400 | 5400 | 6300 | 6300 |
| **FREE SPACE** | | | | | | | | | |
| Electrical panel side | mm | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 |
| Opposite side of electrical panel | mm | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 |
| Condensing coil sides | mm | 2500 | 2500 | 2500 | 2500 | 2500 | 2500 | 2500 | 2500 |

**NOTE**

All data subject to change
M1 - HIGH AMBIENT MOTOR VERSION
HE - HIGH EFFICIENCY VERSION
With glycol percentage > 30% and leaving water temperature < 0°C, pump need to be checked by technical department
With ambient temperature > 40°C, TR45 option required with ambient temperature > 45°C, TR50 option required
With ambient temperature between 0°C and -15°C, Low temperature (LT) option required

## اطلاعات فنی | TECHNICAL DATA

| NOVA | MODEL | NOVA.963F12 | | NOVA.973F12 | | NOVA.983F14 | |
|---|---|---|---|---|---|---|---|
| | | ECO.M1 | HE.M1 | ECO.M1 | HE.M1 | ECO.M1 | HE.M1 |
| Type | | screw | screw | screw | screw | screw | screw |
| System | | air cooled | air cooled | air cooled | air cooled | air cooled | air cooled |
| Cooling capacity | kW | 876 | 905 | 942 | 977 | 1090 | 1132 |
| Compressor E.E.R. | kW/kW | 3.61 | 3.94 | 3.4 | 3.73 | 3.52 | 3.86 |
| E.E.R. | kW/kW | 3.34 | 3.56 | 3.17 | 3.42 | 3.28 | 3.52 |
| Inlet water fluid temperature | °C | 12 | 12 | 12 | 12 | 12 | 12 |
| Outlet water fluid temperature | °C | 7 | 7 | 7 | 7 | 7 | 7 |
| Fluid type | Type | water | water | water | water | water | water |
| Minimum ambient temperature | °C | | 0 | | | | |
| Maximum ambient temperature at 100% load | °C | 48 | 50 | 48 | 48 | 46 | 48 |
| Design ambient temperature | °C | 35 | 35 | 35 | 35 | 35 | 35 |
| Elevation a.s.l. | m | 0 | 0 | 0 | 0 | 0 | 0 |
| Type of refrigerant gas | R | 134a | 134a | 134a | 134a | 134a | 134a |
| Number of refrigerating circuits | N° | 2 | 2 | 2 | 2 | 2 | 2 |
| Electrical feed according EN 60204-1 | V/ph/Hz | 400/3/50 | 400/3/50 | 400/3/50 | 400/3/50 | 400/3/50 | 400/3/50 |
| Electrical cabinet | IP | 54 | 54 | 54 | 54 | 54 | 54 |
| **COMPRESSOR DATA** | | | | | | | |
| Number of compressors | N° | 2 | 2 | 2 | 2 | 2 | 2 |
| Total compressors nominal absorbed power | kW | 242.49 | 229.93 | 276.97 | 261.58 | 309.45 | 292.95 |
| Total compressors running current RLA | A | 400.04 | 381.14 | 453.79 | 430.22 | 507.12 | 482.27 |
| Starting Method | Type | Star-Delta | Star-Delta | Star-Delta | Star-Delta | Star-Delta | Star-Delta |
| Max peak start current per compressor LRA | A | 586/1853 | 586/1853 | 650/2029 | 650/2029 | 805/2520 | 805/2520 |
| Max absorbed working current per compressor FLA | A | 370 | 370 | 420 | 420 | 450 | 450 |
| Partition steps per compressor | % | Continuous | Continuous | Continuous | Continuous | Continuous | Continuous |
| **ECONOMIZER DATA** | | | | | | | |
| Economizer | Type | Plate | Plate | Plate | Plate | Plate | Plate |
| **EVAPORATOR DATA** | | | | | | | |
| Type of evaporator | Type | ST | ST | ST | ST | ST | ST |
| Approval | | PED | PED | PED | PED | PED | PED |
| Nominal flow rate | m3/h | 150.22 | 155.19 | 161.54 | 167.54 | 186.91 | 194.12 |
| Minimum flow rate | m3/h | 106 | 110 | 103 | 97 | 119 | 124 |
| Maximum flow rate | m3/h | 213 | 220 | 206 | 194 | 238 | 247 |
| Pressure drops | kPa | 65.58 | 68.64 | 61.57 | 65.64 | 64.66 | 68.66 |
| Hydraulic connections | DN | 150 | 150 | 150 | 150 | 200 | 200 |
| **AIR AXIAL FANS AND CONDENSER DATA** | | | | | | | |
| Number of condenser coils | N° | 4 | 4 | 4 | 4 | 4 | 4 |
| Number of fans | N° | 12 | 12 | 12 | 12 | 14 | 14 |
| Total absorbed power | kW | 19.8 | 24.48 | 19.8 | 24.48 | 23.1 | 28.56 |
| Total absorbed current | A | 40.92 | 40.8 | 40.92 | 40.8 | 47.74 | 47.6 |
| Total air flow | m3/h | 199461 | 226261 | 199461 | 226261 | 232704 | 263971 |
| **TOTAL ELECTRIC DATA (for standard configuration)** | | | | | | | |
| Nominal absorbed power | kW | 262.29 | 254.41 | 296.77 | 286.06 | 332.55 | 321.51 |
| Maximum absorbed power | kW | 515 | 523 | 533 | 541 | 587 | 596 |
| Maximum absorbed current (FLA) | A | 787 | 787 | 887 | 887 | 955 | 955 |
| Maximum peak current (LRA) | A | 2370 | 2370 | 2637 | 2637 | 3167 | 3167 |
| Maximum peak current with soft-start (LRA) (SF option) | A | 2000 | 2000 | 2232 | 2232 | 2663 | 2663 |
| **NOISE DATA AT 10m ACCORDING ISO3744*** | | | | | | | |
| Sound pressure level | dBA | 69.9 | 70.1 | 70.7 | 70.9 | 71.5 | 71.6 |
| Sound pressure level (low noise version) (LNX option) | dBA | 65.4 | 66 | 66.2 | 66.6 | 66.9 | 67.3 |
| Sound pressure level (extra low noise version) (ELN option) | dBA | 65 | 65.3 | 65.9 | 66.1 | 66.6 | 66.8 |
| **DIMENSIONS**** | | | | | | | |
| Structure in galvanized steel | RAL | 7035 | 7035 | 7035 | 7035 | 7035 | 7035 |
| Length | mm | 6900 | 6900 | 6900 | 6900 | 7850 | 7850 |
| Width | mm | 2210 | 2210 | 2210 | 2210 | 2210 | 2210 |
| Height | mm | 2500 | 2500 | 2500 | 2500 | 2500 | 2500 |
| **WEIGHT** | | | | | | | |
| Empty | kg | 7100 | 7100 | 7250 | 7250 | 8000 | 8000 |
| **FREE SPACE** | | | | | | | |
| Electrical panel side | mm | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 |
| Opposite side of electrical panel | mm | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 |
| Condensing coil sides | mm | 2500 | 2500 | 2500 | 2500 | 2500 | 2500 |

**NOTE**

All data subject to change
M1 - HIGH AMBIENT MOTOR VERSION
HE - HIGH EFFICIENCY VERSION
With glycol percentage > 30% and leaving water temperature < 0°C, pump need to be checked by technical department
With ambient temperature > 40°C, TR45 option required with ambient temperature > 45°C, TR50 option required
With ambient temperature between 0°C and -15°C, Low temperature (LT) option required

## اطلاعات فنی | TECHNICAL DATA

| NOVA | MODEL | NOVA.983F24 | | NOVA.993F18 | | NOVA.993F24 | | NOVA.9103F18 | |
|---|---|---|---|---|---|---|---|---|---|
| | | ECO.M1 | HE.M1 | ECO.M1 | HE.M1 | ECO.M1 | HE.M1 | ECO.M1 | HE.M1 |
| Type | | screw | screw | screw | screw | screw | screw | screw | screw |
| System | | air cooled | air cooled | air cooled | air cooled | air cooled | air cooled | air cooled | air cooled |
| Cooling capacity | kW | 1644 | 1704 | 1286 | 1290 | 1815 | 1865 | 1359 | 1407 |
| Compressor E.E.R. | kW/kW | 3.59 | 3.94 | 3.68 | 3.96 | 3.50 | 3.74 | 3.36 | 3.64 |
| E.E.R. | kW/kW | 3.18 | 3.38 | 3.39 | 3.56 | 3.14 | 3.27 | 3.13 | 3.32 |
| Inlet water fluid temperature | °C | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| Outlet water fluid temperature | °C | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
| Fluid type | Type | water | water | water | water | water | water | water | water |
| Minimum ambient temperature | °C | 0 | 0 | 0 | 0 | 0 | 0 | | |
| Maximum ambient temperature at 100% load | °C | 46 | 50 | 46 | 48 | 46 | 48 | 46 | 48 |
| Design ambient temperature | °C | 35 | 35 | 35 | 35 | 35 | 35 | 35 | 35 |
| Elevation a.s.l. | m | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Type of refrigerant gas | R | 134a | 134a | 134a | 134a | 134a | 134a | 134a | 134a |
| Number of refrigerating circuits | N° | 3 | 3 | 2 | 2 | 3 | 3 | 2 | 2 |
| Electrical feed according EN 60204-1 | 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 |
| Electrical cabinet | IP | 54 | 54 | 54 | 54 | 54 | 54 | 54 | 54 |
| **COMPRESSOR DATA** | | | | | | | | | |
| Number of compressors | N° | 3 | 3 | 2 | 2 | 3 | 3 | 2 | 2 |
| Total compressors nominal absorbed power | kW | 304.89 | 288.52 | 349.19 | 325.91 | 345.38 | 332.13 | 404.15 | 386.49 |
| Total compressors running current RLA | A | 500.24 | 475.63 | 567.46 | 532.05 | 561.66 | 541.5 | 659.11 | 631.96 |
| Starting Method | Type | Star-Delta | Star-Delta | Star-Delta | Star-Delta | Star-Delta | Star-Delta | Star-Delta | Star-Delta |
| Max peak start current per compressor LRA | A | 805/2520 | 805/2520 | 805/2520 | 805/2520 | 805/2520 | 805/2520 | 917/2870 | 917/2870 |
| Max absorbed working current per compressor FLA | A | 450 | 450 | 450 | 450 | 450 | 450 | 566 | 566 |
| Partition steps per compressor | % | Continuous | Continuous | Continuous | Continuous | Continuous | Continuous | Continuous | Continuous |
| **ECONOMIZER DATA** | | | | | | | | | |
| Economizer | Type | Plate | Plate | Plate | Plate | Plate | Plate | Plate | Plate |
| **EVAPORATOR DATA** | | | | | | | | | |
| Type of evaporator | Type | ST | ST | ST | ST | ST | ST | ST | ST |
| Approval | | PED | PED | PED | PED | PED | PED | PED | PED |
| Nominal flow rate | m3/h | 281.92 | 292.2 | 220.53 | 221.21 | 311.24 | 319.81 | 233.04 | 241.27 |
| Minimum flow rate | m3/h | 200 | 186 | 141 | 142 | 198 | 185 | 149 | 154 |
| Maximum flow rate | m3/h | 399 | 372 | 281 | 284 | 397 | 371 | 297 | 307 |
| Pressure drops | kPa | 63.65 | 68.53 | 76.53 | 76.52 | 76.58 | 79.51 | 80.48 | 85.56 |
| Hydraulic connections | DN | 250 | 250 | 200 | 200 | 250 | 250 | 200 | 200 |
| **AIR AXIAL FANS AND CONDENSER DATA** | | | | | | | | | |
| Number of condenser coils | N° | 12 | 12 | 4 | 4 | 12 | 12 | 4 | 4 |
| Number of fans | N° | 24 | 24 | 18 | 18 | 24 | 24 | 18 | 18 |
| Total absorbed power | kW | 38.88 | 47.76 | 29.7 | 36.72 | 39.6 | 47.76 | 30.24 | 36.72 |
| Total absorbed current | A | 80.88 | 80.16 | 61.38 | 61.2 | 81.84 | 80.16 | 62.1 | 61.2 |
| Total air flow | m3/h | 420610 | 475792 | 299191 | 339391 | 402020 | 475792 | 285249 | 339391 |
| **TOTAL ELECTRIC DATA (for standard configuration)** | | | | | | | | | |
| Nominal absorbed power | kW | 343.77 | 336.28 | 378.89 | 362.63 | 384.98 | 379.89 | 434.39 | 423.21 |
| Maximum absorbed power | kW | 887 | 901 | 595 | 606 | 887 | 901 | 699 | 710 |
| Maximum absorbed current (FLA) | A | 1444 | 1444 | 970 | 970 | 1444 | 1444 | 1202 | 1202 |
| Maximum peak current (LRA) | A | 3637 | 3637 | 3175 | 3175 | 3637 | 3637 | 3705 | 3705 |
| Maximum peak current with soft-start (LRA) (SF option) | A | 3133 | 3133 | 2671 | 2671 | 3133 | 3133 | 3131 | 3131 |
| **NOISE DATA AT 10m ACCORDING ISO3744*** | | | | | | | | | |
| Sound pressure level | dBA | 73.4 | 73.6 | 71.5 | 71.6 | 73.4 | 73.6 | 72.1 | 72.2 |
| Sound pressure level (low noise version) (LNX option) | dBA | 69 | 69.5 | 66.9 | 67.3 | 69.1 | 69.5 | 67.5 | 67.8 |
| Sound pressure level (extra low noise version) (ELN option) | dBA | 68.5 | 68.9 | 66.6 | 66.8 | 68.6 | 68.9 | 67.2 | 67.4 |
| **DIMENSIONS**** | | | | | | | | | |
| Structure in galvanized steel | RAL | 7035 | 7035 | 7035 | 7035 | 7035 | 7035 | 7035 | 7035 |
| Length | mm | 12880 | 12880 | 9750 | 9750 | 12880 | 12880 | 9750 | 9750 |
| Width | mm | 2210 | 2210 | 2210 | 2210 | 2210 | 2210 | 2210 | 2210 |
| Height | mm | 2500 | 2500 | 2500 | 2500 | 2500 | 2500 | 2500 | 2500 |
| **WEIGHT** | | | | | | | | | |
| Empty | kg | 11300 | 11300 | 9200 | 9200 | 11600 | 11600 | 9400 | 9400 |
| **FREE SPACE** | | | | | | | | | |
| Electrical panel side | mm | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 |
| Opposite side of electrical panel | mm | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 |
| Condensing coil sides | mm | 2500 | 2500 | 2500 | 2500 | 2500 | 2500 | 2500 | 2500 |

**NOTE**

All data subject to change
M1 - HIGH AMBIENT MOTOR VERSION
HE - HIGH EFFICIENCY VERSION
With glycol percentage > 30% and leaving water temperature < 0°C, pump need to be checked by technical department
With ambient temperature > 40°C, TR45 option required with ambient temperature > 45°C, TR50 option required
With ambient temperature between 0°C and -15°C, Low temperature (LT) option required

## اطلاعات فنی | TECHNICAL DATA

| NOVA F (Free-Cooling) | MODEL | NOVA F.663F4 | | NOVA F.773F6 | | NOVA F.783F8 | | NOVA F.793F8 | |
|---|---|---|---|---|---|---|---|---|---|
| | | ECO.M1 | HE.M1 | ECO.M1 | HE.M1 | ECO.M1 | HE.M1 | ECO.M1 | HE.M1 |
| Type | | screw | screw | screw | screw | screw | screw | screw | screw |
| System | | air cooled | air cooled | air cooled | air cooled | air cooled | air cooled | air cooled | air cooled |
| Cooling capacity | kW | 231 | 241 | 353 | 368 | 434 | 448 | 476 | 495 |
| Compressor E.E.R. | kW/kW | 3.33 | 3.85 | 3.39 | 3.9 | 3.68 | 4.16 | 3.48 | 3.99 |
| E.E.R. | kW/kW | 3.02 | 3.39 | 3.08 | 3.44 | 3.29 | 3.59 | 3.15 | 3.51 |
| Inlet water fluid temperature | °C | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| Outlet water fluid temperature | °C | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
| Design ambient temperature | °C | 35 | 35 | 35 | 35 | 35 | 35 | 35 | 35 |
| Elevation a.s.l. | m | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Type of refrigerant gas | R | 134a | 134a | 134a | 134a | 134a | 134a | 134a | 134a |
| Number of refrigerating circuits | N° | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Electrical feed according EN 60204-1 | 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 |
| Electrical cabinet | IP | 54 | 54 | 54 | 54 | 54 | 54 | 54 | 54 |
| **COMPRESSOR DATA** | | | | | | | | | |
| Number of compressors | N° | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Total compressors nominal absorbed power | kW | 69.46 | 62.64 | 104.08 | 94.28 | 118.08 | 107.74 | 136.94 | 124.1 |
| Total compressors running current RLA | A | 123.38 | 114.34 | 173.92 | 159.92 | 196.58 | 181.84 | 228.54 | 210.22 |
| Starting method | Type | Part-Winding | Part-Winding | Part-Winding | Part-Winding | Part-Winding | Part-Winding | Part-Winding | Part-Winding |
| Max peak start current per compressor LRA | A | 269/508 | 269/508 | 423/686 | 423/686 | 479/790 | 479/790 | 516/887 | 516/887 |
| Max absorbed working current per compressor FLA | A | 108 | 108 | 162 | 162 | 170 | 170 | 180 | 180 |
| Partition steps per compressor | % | continuous | continuous | continuous | continuous | continuous | continuous | continuous | continuous |
| **ECONOMIZER DATA** | | | | | | | | | |
| Economizer | Type | plate | plate | plate | plate | plate | plate | plate | plate |
| **FREE - COOLING INTEGRATED** | | | | | | | | | |
| Cooling capacity | kW | 231 | 241 | 353 | 368 | 434 | 448 | 476 | 495 |
| Ambient temperature for 100% free cooling | °C | -1.9 | -4 | -1.5 | -3.4 | -0.7 | -2.5 | -1.6 | -3.6 |
| Inlet water fluid temperature | °C | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| Outlet water fluid temperature | °C | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
| Free cooling pressure drop free cooling (coil+evaporator+valves+piping) | kPa | 80.63 | 84.3 | 152.06 | 160.11 | 132.07 | 127.88 | 140.35 | 136.8 |
| **EVAPORATOR DATA** | | | | | | | | | |
| Type of evaporator | Type | Plate | Plate | ST | ST | ST | ST | ST | ST |
| Approval | | PED | PED | PED | PED | PED | PED | PED | PED |
| Nominal flow rate | m3/h | 39.61 | 41.33 | 60.53 | 63.11 | 74.42 | 76.82 | 81.63 | 84.88 |
| Minimum flow rate | m3/h | 30 | 30 | 42 | 44 | 47 | 45 | 57 | 54 |
| Maximum flow rate | m3/h | 60 | 60 | 85 | 88 | 95 | 90 | 114 | 108 |
| Pressure drops | kPa | 25.76 | 27.9 | 74.59 | 80.5 | 68.67 | 73.47 | 68.54 | 73.62 |
| Hydraulic connections | DN | 100 | 100 | 100 | 100 | 100 | 100 | 125 | 125 |
| **PROCESS PUMP DATA** | | | | | | | | | |
| **Pump P3 (optional)** | | | | | | | | | |
| Maximum pump absorbed power | kW | 10.2 | 10.2 | 16.2 | 16.2 | 16.2 | 16.2 | 16.2 | 16.2 |
| Maximum pump absorbed current | A | 17.4 | 17.4 | 26.6 | 26.6 | 26.6 | 26.6 | 26.6 | 26.6 |
| Available pressure with single pump (WP option) | kPa | 280.83 | 275.47 | 251.63 | 242.41 | 262.30 | 264.41 | 247.41 | 247.89 |
| Available pressure with double pump (DP option) | kPa | NA | NA | NA | NA | NA | NA | NA | NA |
| **Pump P5 (optional)** | | | | | | | | | |
| Maximum pump absorbed power | kW | 19.94 | 19.94 | 19.94 | 19.94 | 31.9 | 31.9 | 31.9 | 31.9 |
| Maximum pump absorbed current | A | 32.7 | 32.7 | 32.7 | 32.7 | 53.5 | 53.5 | 53.5 | 53.5 |
| Available pressure with single pump (PH option) | kPa | 521.67 | 516.97 | 431.96 | 419.46 | 495.51 | 496.8 | 478.09 | 477.12 |
| Available pressure with double pump (DPH option) | kPa | NA | NA | NA | NA | NA | NA | NA | NA |
| **AIR AXIAL FANS AND CONDENSER DATA** | | | | | | | | | |
| Number of condenser coils | N° | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| Number of fans | N° | 4 | 4 | 6 | 6 | 8 | 8 | 8 | 8 |
| Total absorbed power | kW | 7 | 8.44 | 10.5 | 12.66 | 14.00 | 16.88 | 14 | 16.88 |
| Total absorbed current | A | 14.36 | 14.08 | 21.54 | 21.12 | 28.72 | 28.16 | 28.72 | 28.16 |
| Total air flow | m3/h | 63389 | 76528 | 95083 | 114793 | 126778 | 153057 | 126778 | 153057 |
| **TOTAL ELECTRIC DATA** (for standard configuration) | | | | | | | | | |
| Nominal absorbed power | kW | 76.46 | 71.08 | 114.58 | 106.94 | 132.08 | 124.62 | 150.94 | 140.98 |
| Maximum absorbed power | kW | 138 | 140 | 204 | 207 | 220 | 224 | 240 | 244 |
| Maximum absorbed current (FLA) | A | 232 | 232 | 347 | 347 | 371 | 371 | 391 | 391 |
| Maximum peak current (LRA) | A | 667 | 667 | 926 | 926 | 1044 | 1044 | 1151 | 1151 |
| Maximum peak current with soft-start (LRA) (SF option) | A | 565 | 565 | 789 | 789 | 886 | 886 | 973 | 973 |
| **NOISE DATA AT 10m ACCORDING ISO3744*** | | | | | | | | | |
| Sound pressure level | dBA | 64.8 | 65.2 | 64 | 64.5 | 68.8 | 69 | 68.8 | 69 |
| Sound pressure level (low noise version) (LNX option) | dBA | 61.5 | 62.4 | 61 | 61.9 | 64.6 | 65 | 64.6 | 65 |
| Sound pressure level (extra low noise version) (ELN option) | dBA | 60.3 | 60.9 | 59.6 | 60.3 | 64.0 | 64.3 | 64 | 64.3 |
| **DIMENSIONS**** | | | | | | | | | |
| Length | mm | 3100 | 3100 | 4050 | 4050 | 5000 | 5000 | 5000 | 5000 |
| Width | mm | 2210 | 2210 | 2210 | 2210 | 2210 | 2210 | 2210 | 2210 |
| Height | mm | 2500 | 2500 | 2500 | 2500 | 2500 | 2500 | 2500 | 2500 |
| **WEIGHT** | | | | | | | | | |
| Empty | kg | 2900 | 2900 | 4050 | 4050 | 4650 | 4650 | 4800 | 4800 |
| **FREE SPACE** | | | | | | | | | |
| Electrical panel side | mm | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 |
| Opposite side of electrical panel | mm | 2500 | 2500 | 2500 | 2500 | 2500 | 2500 | 2500 | 2500 |
| Condensing coil sides | mm | 2500 | 2500 | 2500 | 2500 | 2500 | 2500 | 2500 | 2500 |

**NOTE**

All data subject to change
M2 - STANDARD MOTOR VERSION
M1 - HIGH AMBIENT MOTOR VERSION
HE - HIGH EFFICIENCY VERSION
NE - WITHOUT ECONOMIZER VERSION
With glycol percentage > 30% and leaving water temperature < 0°C, pump need to be checked by technical department
With ambient temperature > 40°C, TR45 option required

**NOTE**

With ambient temperature > 45°C, TR50 option required
With leaving water temperature 13°C, NOVA F NE.M1 version need to be chose
With ambient temperature between 0°C and -15°C, Low temperature (LT) option required
*From NOVA F.963 jackets instead of box for compressors
NOVA F comply with the European Regulation (EU) 2016/2281, referring to high temperature process
chillers, according to minimum SEPR value.

## اطلاعات فنی | TECHNICAL DATA

| NOVA F (Free-Cooling) | MODEL | NOVA F.863F8 | | NOVA F.873F10 | | NOVA F.883F12 | |
|---|---|---|---|---|---|---|---|
| | | ECO.M1 | HE.M1 | ECO.M1 | HE.M1 | ECO.M1 | HE.M1 |
| Type | | screw | screw | screw | screw | screw | screw |
| System | | air cooled | air cooled | air cooled | air cooled | air cooled | air cooled |
| Cooling capacity | kW | 521 | 542 | 598 | 620 | 671 | 689 |
| Compressor E.E.R. | kW/kW | 3.31 | 3.86 | 3.52 | 4.07 | 3.73 | 4.15 |
| E.E.R. | kW/kW | 3.04 | 3.44 | 3.19 | 3.57 | 3.34 | 3.59 |
| Inlet water fluid temperature | °C | 12 | 12 | 12 | 12 | 12 | 12 |
| Outlet water fluid temperature | °C | 7 | 7 | 7 | 7 | 7 | 7 |
| Design ambient temperature | °C | 35 | 35 | 35 | 35 | 35 | 35 |
| Elevation a.s.l. | m | 0 | 0 | 0 | 0 | 0 | 0 |
| Type of refrigerant gas | R | 134a | 134a | 134a | 134a | 134a | 134a |
| Number of refrigerating circuits | N° | 2 | 2 | 2 | 2 | 2 | 2 |
| Electrical feed according EN 60204-1 | V/ph/Hz | 400/3/50 | 400/3/50 | 400/3/50 | 400/3/50 | 400/3/50 | 400/3/50 |
| Electrical cabinet | IP | 54 | 54 | 54 | 54 | 54 | 54 |
| **COMPRESSOR DATA** | | | | | | | |
| Number of compressors | N° | 2 | 2 | 2 | 2 | 2 | 2 |
| Total compressors nominal absorbed power | kW | 157.2 | 140.5 | 169.76 | 152.42 | 179.68 | 166.08 |
| Total compressors running current RLA | A | 269.04 | 244.96 | 290.4 | 265.48 | 301.48 | 281.14 |
| Starting method | Type | Part-Winding | Part-Winding | Part-Winding | Part-Winding | Part-Winding | Part-Winding |
| Max peak start current per compressor LRA | A | 612/943 | 612/943 | 665/1023 | 665/1023 | 729/1114 | 729/1114 |
| Max absorbed working current per compressor FLA | A | 216 | 216 | 246 | 246 | 260 | 260 |
| Partition steps per compressor | % | continuous | continuous | continuous | continuous | continuous | continuous |
| **ECONOMIZER DATA** | | | | | | | |
| Economizer | Type | plate | plate | plate | plate | plate | plate |
| **FREE - COOLING INTEGRATED** | | | | | | | |
| Cooling capacity | kW | 521 | 542 | 598 | 620 | 671 | 689 |
| Ambient temperature for 100% free cooling | °C | -2.5 | -4.7 | -1.9 | -3.3 | -1.5 | -3.8 |
| Inlet water fluid temperature | °C | 12 | 12 | 12 | 12 | 12 | 12 |
| Outlet water fluid temperature | °C | 7 | 7 | 7 | 7 | 7 | 7 |
| Free cooling pressure drop free cooling (coil+evaporator+valves+piping) | kPa | 136.61 | 131.09 | 136.42 | 159.95 | 142.92 | 131.12 |
| **EVAPORATOR DATA** | | | | | | | |
| Type of evaporator | Type | ST | ST | ST | ST | ST | ST |
| Approval | | PED | PED | PED | PED | PED | PED |
| Nominal flow rate | m3/h | 89.34 | 92.94 | 102.55 | 106.32 | 115.06 | 118.15 |
| Minimum flow rate | m3/h | 63 | 65 | 72 | 75 | 81 | 83 |
| Maximum flow rate | m3/h | 125 | 131 | 144 | 149 | 162 | 166 |
| Pressure drops | kPa | 54.68 | 58.55 | 63.68 | 67.64 | 50.62 | 53.68 |
| Hydraulic connections | DN | 125 | 125 | 150 | 150 | 150 | 150 |
| **PROCESS PUMP DATA** | | | | | | | |
| **Pump P3 (optional)** | | | | | | | |
| Maximum pump absorbed power | kW | 24.9 | 24.9 | 24.9 | 24.9 | 24.9 | 24.9 |
| Maximum pump absorbed current | A | 42.2 | 42.2 | 42.2 | 42.2 | 42.2 | 42.2 |
| Available pressure with single pump (WP option) | kPa | 284.67 | 288.38 | 277.86 | 251.97 | 263.51 | 272.99 |
| Available pressure with double pump (DP option) | kPa | NA | NA | NA | NA | NA | NA |
| **Pump P5 (optional)** | | | | | | | |
| Maximum pump absorbed power | kW | 39.1 | 39.1 | 39.1 | 39.1 | 39.1 | 39.1 |
| Maximum pump absorbed current | A | 65.6 | 65.6 | 65.6 | 65.6 | 65.6 | 65.6 |
| Available pressure with single pump (PH option) | kPa | 450.06 | 454.32 | 445.38 | 420.43 | 432.71 | 442.59 |
| Available pressure with double pump (DPH option) | kPa | NA | NA | NA | NA | NA | NA |
| **AIR AXIAL FANS AND CONDENSER DATA** | | | | | | | |
| Number of condenser coils | N° | 4 | 4 | 4 | 4 | 4 | 4 |
| Number of fans | N° | 8 | 8 | 10 | 10 | 12 | 12 |
| Total absorbed power | kW | 14 | 16.88 | 17.5 | 21.1 | 21.36 | 26.04 |
| Total absorbed current | A | 28.72 | 28.16 | 35.9 | 35.2 | 43.56 | 42.96 |
| Total air flow | m3/h | 126778 | 153057 | 158472 | 191321 | 179322 | 216287 |
| **TOTAL ELECTRIC DATA** (for standard configuration) | | | | | | | |
| Nominal absorbed power | kW | 171.2 | 157.38 | 187.26 | 173.52 | 201.04 | 192.12 |
| Maximum absorbed power | kW | 280 | 284 | 319 | 326 | 343 | 351 |
| Maximum absorbed current (FLA) | A | 463 | 463 | 531 | 531 | 567 | 567 |
| Maximum peak current (LRA) | A | 1259 | 1259 | 1385 | 1385 | 1497 | 1497 |
| Maximum peak current with soft-start (LRA) (SF option) | A | 1070 | 1070 | 1180 | 1180 | 1275 | 1275 |
| **NOISE DATA AT 10m ACCORDING ISO3744*** | | | | | | | |
| Sound pressure level | dBA | 67.6 | 67.9 | 68 | 68.2 | 69 | 69.2 |
| Sound pressure level (low noise version) (LNX option) | dBA | 63.6 | 64.2 | 63.9 | 64.4 | 64.8 | 65.5 |
| Sound pressure level (extra low noise version) (ELN option) | dBA | 62.9 | 63.3 | 63.3 | 63.6 | 64.2 | 64.6 |
| **DIMENSIONS**** | | | | | | | |
| Length | mm | 5000 | 5000 | 5950 | 5950 | 6900 | 6900 |
| Width | mm | 2210 | 2210 | 2210 | 2210 | 2210 | 2210 |
| Height | mm | 2500 | 2500 | 2500 | 2500 | 2500 | 2500 |
| **WEIGHT** | | | | | | | |
| Empty | kg | 4950 | 4950 | 5500 | 5500 | 6300 | 6300 |
| **FREE SPACE** | | | | | | | |
| Electrical panel side | mm | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 |
| Opposite side of electrical panel | mm | 2500 | 2500 | 2500 | 2500 | 2500 | 2500 |
| Condensing coil sides | mm | 2500 | 2500 | 2500 | 2500 | 2500 | 2500 |

**NOTE**

All data subject to change
M2 - STANDARD MOTOR VERSION
M1 - HIGH AMBIENT MOTOR VERSION
HE - HIGH EFFICIENCY VERSION
NE - WITHOUT ECONOMIZER VERSION
With glycol percentage > 30% and leaving water temperature < 0°C, pump need to be checked by technical department
With ambient temperature > 40°C, TR45 option required

**NOTE**

With ambient temperature > 45°C, TR50 option required
With leaving water temperature 13°C, NOVA F NE.M1 version need to be chose
With ambient temperature between 0°C and -15°C, Low temperature (LT) option required
*From NOVA F.963 jackets instead of box for compressors
NOVA F comply with the European Regulation (EU) 2016/2281, referring to high temperature process
chillers, according to minimum SEPR value.

## اطلاعات فنی | TECHNICAL DATA

| NOVA F (Free-Cooling) | MODEL | NOVA F.893F14 | | NOVA F.963F16 | | NOVA F.973F18 | |
|---|---|---|---|---|---|---|---|
| | | ECO.M1 | HE.M1 | ECO.M1 | HE.M1 | ECO.M1 | HE.M1 |
| Type | | screw | screw | screw | screw | screw | screw |
| System | | air cooled | air cooled | air cooled | air cooled | air cooled | air cooled |
| Cooling capacity | kW | 771 | 792 | 894 | 924 | 1009 | 1050 |
| Compressor E.E.R. | kW/kW | 3.88 | 4.32 | 3.68 | 4.13 | 3.65 | 4.14 |
| E.E.R. | kW/kW | 3.45 | 3.7 | 3.29 | 3.57 | 3.27 | 3.59 |
| Inlet water fluid temperature | °C | 12 | 12 | 12 | 12 | 12 | 12 |
| Outlet water fluid temperature | °C | 7 | 7 | 7 | 7 | 7 | 7 |
| Design ambient temperature | °C | 35 | 35 | 35 | 35 | 35 | 35 |
| Elevation a.s.l. | m | 0 | 0 | 0 | 0 | 0 | 0 |
| Type of refrigerant gas | R | 134a | 134a | 134a | 134a | 134a | 134a |
| Number of refrigerating circuits | N° | 2 | 2 | 2 | 2 | 2 | 2 |
| Electrical feed according EN 60204-1 | V/ph/Hz | 400/3/50 | 400/3/50 | 400/3/50 | 400/3/50 | 400/3/50 | 400/3/50 |
| Electrical cabinet | IP | 54 | 54 | 54 | 54 | 54 | 54 |
| **COMPRESSOR DATA** | | | | | | | |
| Number of compressors | N° | 2 | 2 | 2 | 2 | 2 | 2 |
| Total compressors nominal absorbed power | kW | 198.64 | 183.48 | 243.1 | 223.92 | 276.48 | 253.5 |
| Total compressors running current RLA | A | 356.06 | 334.9 | 410.6 | 382.88 | 461.56 | 427.88 |
| Starting method | Type | Part-Winding | Part-Winding | Star-Delta | Star-Delta | Star-Delta | Star-Delta |
| Max peak start current per compressor LRA | A | 757/1181 | 757/1181 | 586/1853 | 586/1853 | 650/2029 | 650/2029 |
| Max absorbed working current per compressor FLA | A | 310 | 310 | 370 | 370 | 420 | 420 |
| Partition steps per compressor | % | continuous | continuous | continuous | continuous | continuous | continuous |
| **ECONOMIZER DATA** | | | | | | | |
| Economizer | Type | plate | plate | plate | plate | plate | plate |
| **FREE - COOLING INTEGRATED** | | | | | | | |
| Cooling capacity | kW | 771 | 792 | 894 | 924 | 1009 | 1050 |
| Ambient temperature for 100% free cooling | °C | -3.4 | -3.3 | -2 | -3.4 | -2 | -3.3 |
| Inlet water fluid temperature | °C | 12 | 12 | 12 | 12 | 12 | 12 |
| Outlet water fluid temperature | °C | 7 | 7 | 7 | 7 | 7 | 7 |
| Free cooling pressure drop free cooling (coil+evaporator+valves+piping) | kPa | 142.96 | 149.15 | 126.75 | 140.42 | 134.7 | 153.04 |
| **EVAPORATOR DATA** | | | | | | | |
| Type of evaporator | Type | ST | ST | ST | ST | ST | ST |
| Approval | | PED | PED | PED | PED | PED | PED |
| Nominal flow rate | m3/h | 132.21 | 135.81 | 153.3 | 158.45 | 173.02 | 180.06 |
| Minimum flow rate | m3/h | 77 | 79 | 107 | 111 | 110 | 115 |
| Maximum flow rate | m3/h | 155 | 159 | 215 | 222 | 220 | 229 |
| Pressure drops | kPa | 75.56 | 78.55 | 77.6 | 82.43 | 75.5 | 80.6 |
| Hydraulic connections | DN | 150 | 150 | 150 | 150 | 150 | 150 |
| **PROCESS PUMP DATA** | | | | | | | |
| **Pump P3 (optional)** | | | | | | | |
| Maximum pump absorbed power | kW | 24.9 | 24.9 | - | - | - | - |
| Maximum pump absorbed current | A | 42.2 | 42.2 | - | - | - | - |
| Available pressure with single pump (WP option) | kPa | 247.9 | 238.32 | | | | |
| Available pressure with double pump (DP option) | kPa | - | - | - | - | - | - |
| **Pump P5 (optional)** | | | | | | | |
| Maximum pump absorbed power | kW | - | - | - | - | - | - |
| Maximum pump absorbed current | A | - | - | - | - | - | - |
| Available pressure with single pump (PH option) | kPa | | | | | | |
| Available pressure with double pump (DPH option) | kPa | - | - | - | - | - | - |
| **AIR AXIAL FANS AND CONDENSER DATA** | | | | | | | |
| Number of condenser coils | N° | 4 | 4 | 4 | 4 | 4 | 4 |
| Number of fans | N° | 14 | 14 | 16 | 16 | 18 | 18 |
| Total absorbed power | kW | 24.92 | 30.38 | 28.48 | 34.72 | 32.04 | 39.06 |
| Total absorbed current | A | 50.82 | 50.12 | 58.08 | 57.28 | 65.34 | 64.44 |
| Total air flow | m3/h | 209209 | 252335 | 239096 | 288383 | 268983 | 324431 |
| **TOTAL ELECTRIC DATA** (for standard configuration) | | | | | | | |
| Nominal absorbed power | kW | 223.56 | 213.86 | 271.58 | 258.64 | 308.52 | 292.56 |
| Maximum absorbed power | kW | 399 | 408 | 523 | 533 | 545 | 556 |
| Maximum absorbed current (FLA) | A | 675 | 675 | 802 | 802 | 910 | 910 |
| Maximum peak current (LRA) | A | 1642 | 1642 | 2378 | 2378 | 2649 | 2649 |
| Maximum peak current with soft-start (LRA) (SF option) | A | 1406 | 1406 | 2008 | 2008 | 2243 | 2243 |
| **NOISE DATA AT 10m ACCORDING ISO3744*** | | | | | | | |
| Sound pressure level | dBA | 69.2 | 69.4 | 70 | 70.2 | 70.8 | 71 |
| Sound pressure level (low noise version) (LNX option) | dBA | 65 | 65.6 | 65.7 | 66.2 | 66.4 | 66.9 |
| Sound pressure level (extra low noise version) (ELN option) | dBA | 64.4 | 64.8 | 65.2 | 65.5 | 66 | 66.2 |
| **DIMENSIONS**** | | | | | | | |
| Length | mm | 7850 | 7850 | 8800 | 8800 | 9750 | 9750 |
| Width | mm | 2210 | 2210 | 2210 | 2210 | 2210 | 2210 |
| Height | mm | 2500 | 2500 | 2500 | 2500 | 2500 | 2500 |
| **WEIGHT** | | | | | | | |
| Empty | kg | 7400 | 7400 | 8500 | 8500 | 9500 | 9500 |
| **FREE SPACE** | | | | | | | |
| Electrical panel side | mm | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 |
| Opposite side of electrical panel | mm | 2500 | 2500 | 2500 | 2500 | 2500 | 2500 |
| Condensing coil sides | mm | 2500 | 2500 | 2500 | 2500 | 2500 | 2500 |

**NOTE**

All data subject to change
M2 - STANDARD MOTOR VERSION
M1 - HIGH AMBIENT MOTOR VERSION
HE - HIGH EFFICIENCY VERSION
NE - WITHOUT ECONOMIZER VERSION
With glycol percentage > 30% and leaving water temperature < 0°C, pump need to be checked by technical department
With ambient temperature > 40°C, TR45 option required

**NOTE**

With ambient temperature > 45°C, TR50 option required
With leaving water temperature 13°C, NOVA F NE.M1 version need to be chose
With ambient temperature between 0°C and -15°C, Low temperature (LT) option required
*From NOVA F.963 jackets instead of box for compressors
NOVA F comply with the European Regulation (EU) 2016/2281, referring to high temperature process
chillers, according to minimum SEPR value.

## اطلاعات فنی | TECHNICAL DATA

| NOVA F (Free-Cooling) | MODEL | NOVA F.973F24 | | NOVA F.983F20 | | NOVA F.993F22 | |
|---|---|---|---|---|---|---|---|
| | | ECO.M1 | HE.M1 | ECO.M1 | HE.M1 | ECO.M1 | HE.M1 |
| Type | | screw | screw | screw | screw | screw | screw |
| System | | air cooled | air cooled | air cooled | air cooled | air cooled | air cooled |
| Cooling capacity | kW | 1478 | 1506 | 1163 | 1208 | 1321 | 1372 |
| Compressor E.E.R. | kW/kW | 3.58 | 3.8 | 3.7 | 4.2 | 3.74 | 4.25 |
| E.E.R. | kW/kW | 3.24 | 3.36 | 3.32 | 3.65 | 3.37 | 3.71 |
| Inlet water fluid temperature | °C | 12 | 12 | 12 | 12 | 12 | 12 |
| Outlet water fluid temperature | °C | 7 | 7 | 7 | 7 | 7 | 7 |
| Design ambient temperature | °C | 35 | 35 | 35 | 35 | 35 | 35 |
| Elevation a.s.l. | m | 0 | 0 | 0 | 0 | 0 | 0 |
| Type of refrigerant gas | R | 134a | 134a | 134a | 134a | 134a | 134a |
| Number of refrigerating circuits | N° | 3 | 3 | 2 | 2 | 2 | 2 |
| Electrical feed according EN 60204-1 | V/ph/Hz | 400/3/50 | 400/3/50 | 400/3/50 | 400/3/50 | 400/3/50 | 400/3/50 |
| Electrical cabinet | IP | 54 | 54 | 54 | 54 | 54 | 54 |
| **COMPRESSOR DATA** | | | | | | | |
| Number of compressors | N° | 3 | 3 | 2 | 2 | 2 | 2 |
| Total compressors nominal absorbed power | kW | 413.01 | 396.33 | 314.64 | 287.7 | 352.86 | 322.52 |
| Total compressors running current RLA | A | 689.82 | 665.25 | 526.12 | 487.08 | 582.66 | 537.66 |
| Starting method | Type | Star-Delta | Star-Delta | Star-Delta | Star-Delta | Star-Delta | Star-Delta |
| Max peak start current per compressor LRA | A | 650/2029 | 650/2029 | 805/2520 | 805/2520 | 805/2520 | 805/2520 |
| Max absorbed working current per compressor FLA | A | 420 | 420 | 450 | 450 | 450 | 450 |
| Partition steps per compressor | % | continuous | continuous | continuous | continuous | continuous | continuous |
| **ECONOMIZER DATA** | | | | | | | |
| Economizer | Type | plate | plate | plate | plate | plate | plate |
| **FREE - COOLING INTEGRATED** | | | | | | | |
| Cooling capacity | kW | 1478 | 1506 | 1163 | 1208 | 1321 | 1372 |
| Ambient temperature for 100% free cooling | °C | -6.4 | -5.1 | -2.2 | -3.5 | -2.3 | -3.6 |
| Inlet water fluid temperature | °C | 12 | 12 | 12 | 12 | 12 | 12 |
| Outlet water fluid temperature | °C | 7 | 7 | 7 | 7 | 7 | 7 |
| Free cooling pressure drop free cooling (coil+evaporator+valves+piping) | kPa | 140.98 | 146.25 | 144.08 | 172.12 | 153.82 | 190.62 |
| **EVAPORATOR DATA** | | | | | | | |
| Type of evaporator | Type | ST | ST | ST | ST | ST | ST |
| Approval | | PED | PED | PED | PED | PED | PED |
| Nominal flow rate | m3/h | 253.45 | 258.25 | 199.43 | 207.15 | 226.53 | 235.27 |
| Minimum flow rate | m3/h | 161 | 151 | 140 | 145 | 144 | 150 |
| Maximum flow rate | m3/h | 323 | 302 | 279 | 290 | 289 | 300 |
| Pressure drops | kPa | 81.58 | 85.5 | 83.52 | 90.43 | 85.57 | 91.43 |
| Hydraulic connections | DN | 200 | 200 | 200 | 200 | 200 | 200 |
| **PROCESS PUMP DATA** | | | | | | | |
| **Pump P3 (optional)** | | | | | | | |
| Maximum pump absorbed power | kW | - | - | - | - | - | - |
| Maximum pump absorbed current | A | - | - | - | - | - | - |
| Available pressure with single pump (WP option) | kPa | | | | | | |
| Available pressure with double pump (DP option) | kPa | - | - | - | - | - | - |
| **Pump P5 (optional)** | | | | | | | |
| Maximum pump absorbed power | kW | - | - | - | - | - | - |
| Maximum pump absorbed current | A | - | - | - | - | - | - |
| Available pressure with single pump (PH option) | kPa | | | | | | |
| Available pressure with double pump (DPH option) | kPa | - | - | - | - | - | - |
| **AIR AXIAL FANS AND CONDENSER DATA** | | | | | | | |
| Number of condenser coils | N° | 12 | 12 | 4 | 4 | 4 | 4 |
| Number of fans | N° | 24 | 24 | 20 | 20 | 22 | 22 |
| Total absorbed power | kW | 42.48 | 51.6 | 35.6 | 43.4 | 39.16 | 47.74 |
| Total absorbed current | A | 86.64 | 85.44 | 72.6 | 71.6 | 79.86 | 78.76 |
| Total air flow | m3/h | 367939 | 442548 | 298870 | 360479 | 328757 | 396527 |
| **TOTAL ELECTRIC DATA** (for standard configuration) | | | | | | | |
| Nominal absorbed power | kW | 455.49 | 447.93 | 350.24 | 331.1 | 392.02 | 370.26 |
| Maximum absorbed power | kW | 812 | 826 | 599 | 611 | 603 | 616 |
| Maximum absorbed current (FLA) | A | 1354 | 1354 | 978 | 978 | 986 | 986 |
| Maximum peak current (LRA) | A | 3081 | 3081 | 3179 | 3179 | 3183 | 3183 |
| Maximum peak current with soft-start (LRA) (SF option) | A | 2675 | 2675 | 2675 | 2675 | 2679 | 2679 |
| **NOISE DATA AT 10m ACCORDING ISO3744*** | | | | | | | |
| Sound pressure level | dBA | 72.8 | 73.1 | 71.6 | 71.7 | 71.6 | 71.7 |
| Sound pressure level (low noise version) (LNX option) | dBA | 68.8 | 69.5 | 67.1 | 67.5 | 67.1 | 67.5 |
| Sound pressure level (extra low noise version) (ELN option) | dBA | 68.1 | 68.5 | 66.7 | 66.9 | 66.7 | 66.9 |
| **DIMENSIONS**** | | | | | | | |
| Length | mm | 12880 | 12880 | 10700 | 10700 | 11650 | 11650 |
| Width | mm | 2210 | 2210 | 2210 | 2210 | 2210 | 2210 |
| Height | mm | 2500 | 2500 | 2500 | 2500 | 2500 | 2500 |
| **WEIGHT** | | | | | | | |
| Empty | kg | 13200 | 13200 | 10400 | 10400 | 11400 | 11400 |
| **FREE SPACE** | | | | | | | |
| Electrical panel side | mm | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 |
| Opposite side of electrical panel | mm | 2500 | 2500 | 2500 | 2500 | 2500 | 2500 |
| Condensing coil sides | mm | 2500 | 2500 | 2500 | 2500 | 2500 | 2500 |

**NOTE**

All data subject to change
M2 - STANDARD MOTOR VERSION
M1 - HIGH AMBIENT MOTOR VERSION
HE - HIGH EFFICIENCY VERSION
NE - WITHOUT ECONOMIZER VERSION
With glycol percentage > 30% and leaving water temperature < 0°C, pump need to be checked by technical department
With ambient temperature > 40°C, TR45 option required

**NOTE**

With ambient temperature > 45°C, TR50 option required
With leaving water temperature 13°C, NOVA F NE.M1 version need to be chose
With ambient temperature between 0°C and -15°C, Low temperature (LT) option required
*From NOVA F.963 jackets instead of box for compressors
NOVA F comply with the European Regulation (EU) 2016/2281, referring to high temperature process
chillers, according to minimum SEPR value.

## اطلاعات فنی | 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) | P3 (2) | 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) | P5 (2) | 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 | EC | A | 15,32 | 22,98 | 22,98 | 22,98 | 30,64 | 30,64 | 30,64 | 38,30 |
| TOTAL AIR FLOW | EC | 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 |

**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

## اطلاعات فنی | 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) | | 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 |
| **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 | | A | 38,30 | 45,96 | 53,62 | 53,62 | 61,28 | 68,94 | 68,94 | 68,94 |
| TOTAL AIR FLOW | | 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 |

**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

## اطلاعات فنی | 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) | P3 (2) | 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) | P5 (2) | 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 | EC | A | 22,98 | 22,98 | 30,64 | 30,64 | 38,30 | 38,30 | 45,96 | 45,96 |
| TOTAL AIR FLOW | EC | 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 |

**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

## اطلاعات فنی | 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 |

**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

## اطلاعات فنی | TECHNICAL DATA

| PERFORMANCES | | Model | 240 | 300 | 350 | 430 | 500 | 610 | 700 |
|---|---|---|---|---|---|---|---|---|---|
| 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 |
| NOMINAL HEATING CAPACITY (4) | | kW | 277,8 | 353,4 | 404,6 | 504,9 | 579,8 | 720,2 | 809,2 |
| TOTAL NOMINAL ABSORBED POWER | | kW | 45,0 | 62,4 | 65,1 | 87,8 | 94,8 | 128,5 | 130,2 |
| EER | | kW/kW | 5,17 | 4,67 | 5,22 | 4,75 | 5,12 | 4,61 | 5,22 |
| COP (4) | | kW/kW | 6,17 | 5,67 | 6,22 | 5,75 | 6,12 | 5,61 | 6,22 |
| SEPR (HT) (10) | | - | 7,03 | 7,03 | 8,01 | 8,02 | 8,04 | 8,05 | 8,02 |
| NOMINAL WATER FLOW, EVAPORATOR SIDE (TOTAL) | | m3/h | 39,9 | 49,9 | 58,2 | 71,5 | 83,2 | 101,5 | 116,4 |
| NOMINAL WATER FLOW, CONDENSER SIDE (EACH) | | m3/h | 47,6 | 60,6 | 69,4 | 86,6 | 99,4 | 123,5 | 138,8 |
| MECHANICAL MODE PRESSURE DROPS, EVAPORATOR SIDE (3) | | kPa | 34,5 | 43,4 | 42,2 | 46,2 | 41,8 | 50,9 | 55,9 |
| MECHANICAL MODE PRESSURE DROPS, CONDENSER SIDE (5) | | kPa | 11,5 | 12,5 | 13,4 | 15,4 | 41,2 | 39,4 | 39,3 |
| 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 |
| NOMINAL HEATING CAPACITY (4) | | kW | 283,7 | 360,5 | 413,2 | 515,3 | 592,0 | 734,7 | 826,4 |
| TOTAL NOMINAL ABSORBED POWER | | kW | 43,7 | 60,5 | 63,2 | 85,3 | 92,0 | 124,7 | 126,4 |
| EER | | kW/kW | 5,49 | 4,96 | 5,54 | 5,04 | 5,43 | 4,89 | 5,54 |
| COP (4) | | kW/kW | 6,49 | 5,96 | 6,54 | 6,04 | 6,43 | 5,89 | 6,54 |
| NOMINAL WATER FLOW, EVAPORATOR SIDE (TOTAL) | | m3/h | 41,2 | 51,4 | 60,0 | 73,7 | 85,7 | 104,6 | 120,0 |
| NOMINAL WATER FLOW, CONDENSER SIDE (EACH) | | m3/h | 48,6 | 61,8 | 70,9 | 88,4 | 101,5 | 126,0 | 141,7 |
| MECHANICAL MODE PRESSURE DROPS, EVAPORATOR SIDE (3) | | kPa | 36,7 | 46,1 | 44,8 | 49,1 | 44,4 | 54,1 | 59,4 |
| MECHANICAL MODE PRESSURE DROPS, CONDENSER SIDE (5) | | kPa | 12,0 | 13,0 | 14,0 | 16,0 | 43,0 | 41,0 | 41,0 |
| **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 |
| COMPRESSORS STARTING METHOD | | - | 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 |
| WATER FLOW RANGE, CONDENSER SIDE (EACH) | | m3/h | 40÷80 | 52÷104 | 59÷119 | 68÷136 | 70÷139 | 75÷150 | 75÷160 |
| HYDRAULIC CONNECTIONS, EVAPORATOR SIDE (VICTAULIC) | | DN | 100 | 100 | 125 | 125 | 150 | 150 | 150 |
| HYDRAULIC CONNECTIONS, CONDENSER SIDE (FLANGED) | | DN | 100 | 125 | 125 | 125 | 125 | 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 |
| MAXIMUM PEAK CURRENT (L.R.A) (9) | | A | 20,0 | 20,0 | 20,0 | 20,0 | 165,0 | 165,0 | 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 |
| **NOISE DATA** | | | | | | | | | |
| SOUND PRESSURE FOR STANDARD CONFIGURATION | | dB(A) | 62,0 | 62,0 | 63,0 | 63,0 | 65,0 | 65,0 | 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 |
| **DIMENSIONS AND WEIGHT** | | | | | | | | | |
| LENGTH | | mm | 2600 | 2600 | 2600 | 2600 | 3900 | 3900 | 4000 |
| WIDTH | | mm | 1500 | 1500 | 1500 | 1500 | 1600 | 1600 | 1600 |
| HEIGHT | | mm | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 |
| WEIGHT EMPTY FOR STANDARD CONFIGURATION (5) (8) | | kg | 2250 | 2850 | | 3000 | 3650 | 3700 | 3800 |
| WEIGHT OPERATIVE FOR STANDARD CONFIGURATION (5) (8) | | kg | 2380 | 3000 | 3070 | 3200 | 3890 | 3990 | 4120 |

**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

## اطلاعات فنی | TECHNICAL DATA

| PERFORMANCES | | Model | 870 | 930 | 1050 | 1290 | 1460 | 1730 | 1960 |
|---|---|---|---|---|---|---|---|---|---|
| NOMINAL COOLING CAPACITY | W 12°C/7°C EVAPORATOR SIDE W 40/45°C CONDENSER SIDE (1) | kW | 834,2 | 902,1 | 1018,5 | 1251,3 | 1416,2 | 1668,4 | 1901,2 |
| NOMINAL HEATING CAPACITY (4) | | kW | 1009,9 | 1104,3 | 1213,7 | 1514,8 | 1690,6 | 2019,8 | 2279,6 |
| TOTAL NOMINAL ABSORBED POWER | | kW | 175,7 | 202,2 | 195,2 | 263,5 | 274,4 | 351,4 | 378,4 |
| EER | | kW/kW | 4,75 | 4,46 | 5,22 | 4,75 | 5,16 | 4,75 | 5,02 |
| COP (4) | | kW/kW | 5,75 | 5,46 | 6,22 | 5,75 | 6,16 | 5,75 | 6,02 |
| SEPR (HT) (10) | | - | 8,06 | 7,06 | 7,02 | 7,01 | 8,05 | 8,00 | 8,04 |
| NOMINAL WATER FLOW, EVAPORATOR SIDE (TOTAL) | | m3/h | 143,0 | 154,7 | 174,7 | 214,6 | 242,9 | 286,1 | 326,0 |
| NOMINAL WATER FLOW, CONDENSER SIDE (EACH) | | m3/h | 173,2 | 189,4 | 208,1 | 259,8 | 289,9 | 346,4 | 390,9 |
| MECHANICAL MODE PRESSURE DROPS, EVAPORATOR SIDE (3) | | kPa | 69,2 | 537,1 | 471,2 | 616,6 | 474,9 | 375,4 | 463,5 |
| MECHANICAL MODE PRESSURE DROPS, CONDENSER SIDE (5) | | kPa | 40,3 | 36,5 | 37,4 | 35,5 | 37,4 | 43,2 | 41,3 |
| NOMINAL COOLING CAPACITY | W 12°C/7°C EVAPORATOR SIDE W 30/35°C CONDENSER SIDE (2) | kW | 860,0 | 930,0 | 1050,0 | 1290,0 | 1460,0 | 1720,0 | 1960,0 |
| NOMINAL HEATING CAPACITY (4) | | kW | 1030,6 | 1126,3 | 1239,5 | 1545,8 | 1726,4 | 2061,1 | 2327,4 |
| TOTAL NOMINAL ABSORBED POWER | | kW | 170,6 | 196,3 | 189,5 | 255,8 | 266,4 | 341,1 | 367,4 |
| EER | | kW/kW | 5,04 | 4,74 | 5,54 | 5,04 | 5,48 | 5,04 | 5,33 |
| COP (4) | | kW/kW | 6,04 | 5,74 | 6,54 | 6,04 | 6,48 | 6,04 | 6,33 |
| NOMINAL WATER FLOW, EVAPORATOR SIDE (TOTAL) | | m3/h | 147,5 | 159,5 | 180,1 | 221,2 | 250,4 | 294,9 | 336,1 |
| NOMINAL WATER FLOW, CONDENSER SIDE (EACH) | | m3/h | 176,7 | 193,1 | 212,6 | 265,1 | 296,0 | 353,4 | 399,1 |
| MECHANICAL MODE PRESSURE DROPS, EVAPORATOR SIDE (3) | | kPa | 73,6 | 570,9 | 500,8 | 655,3 | 504,7 | 398,9 | 492,7 |
| MECHANICAL MODE PRESSURE DROPS, CONDENSER SIDE (5) | | kPa | 42,0 | 38,0 | 39,0 | 37,0 | 39,0 | 45,0 | 43,0 |
| **FRIGORIFIC SECTION** | | | | | | | | | |
| COMPRESSORS / REFRIGERATING CIRCUITS / CONDENSER | | nr. | 2/1/1 | 3/1/1 | 3/1/1 | 3/1/1 | 4/1/1 | 4/1/1 | 5/1/1 |
| COMPRESSORS STARTING METHOD | | - | INVERTER | INVERTER | INVERTER | INVERTER | INVERTER | INVERTER | INVERTER |
| **HYDRAULIC SECTION (6)** | | | | | | | | | |
| WATER FLOW RANGE, EVAPORATOR SIDE (TOTAL) | | m3/h | 462,0 | 32÷59 | 39÷78 | 45÷91 | 52÷103 | 58÷116 | 71÷142 |
| WATER FLOW RANGE, CONDENSER SIDE (EACH) | | m3/h | 251,0 | 102÷204 | 130÷225 | 140÷323 | 165÷380 | 195÷395 | 201÷442 |
| HYDRAULIC CONNECTIONS, EVAPORATOR SIDE (VICTAULIC) | | DN | 247,0 | 150 | 150 | 200 | 200 | 250 | 250 |
| HYDRAULIC CONNECTIONS, CONDENSER SIDE (FLANGED) | | DN | 150 | 150 | 200 | 200 | 200 | 250 | 250 |
| **TOTAL ELECTRIC DATA** | | | | | | | | | |
| MAXIMUM ABSORBED CURRENT (F.L.A) | | A | 462,0 | 435,0 | 693,0 | 693,0 | 924,0 | 924,0 | 1155,0 |
| MAXIMUM PEAK CURRENT (L.R.A)(9) | | A | 251,0 | 310,0 | 482,0 | 482,0 | 713,0 | 713,0 | 944,0 |
| MAXIMUM PEAK CURRENT WITH SOFT START (OPTION SF) (L.R.A)(9) | | A | 247,0 | 306,0 | 478,0 | 478,0 | 709,0 | 709,0 | 940,0 |
| **NOISE DATA** | | | | | | | | | |
| SOUND PRESSURE FOR STANDARD CONFIGURATION | | dB(A) | 66,0 | 66,8 | 67,8 | 67,8 | 69,0 | 69,0 | 70,0 |
| SOUND PRESSURE FOR LOW NOISE CONFIGURATION (OPTION LNJ) | | dB(A) | 61,0 | 61,8 | 62,8 | 62,8 | 64,0 | 64,0 | 65,0 |
| **DIMENSIONS AND WEIGHT** | | | | | | | | | |
| LENGTH | | mm | 4000 | 4200 | 4200 | 4200 | 5000 | 5000 | 5000 |
| WIDTH | | mm | 1600 | 1800 | 1800 | 1800 | 2210 | 2210 | 2210 |
| HEIGHT | | mm | 2000 | 2100 | 2100 | 2100 | 2500 | 2500 | 2500 |
| WEIGHT EMPTY FOR STANDARD CONFIGURATION (5) (8) | | kg | 3900 | 4250 | 4650 | 5250 | 6300 | 7180 | 7950 |
| WEIGHT OPERATIVE FOR STANDARD CONFIGURATION (5) (8) | | kg | 4300 | 4720 | 5200 | 5850 | 7120 | 8180 | 9050 |

**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

## اطلاعات فنی | TECHNICAL DATA

| PERFORMANCES | | Model | 2150 | 2450 | 2600 | 2950 | 3200 |
|---|---|---|---|---|---|---|---|
| NOMINAL COOLING CAPACITY | W 12°C/7°C EVAPORATOR SIDE W 40/45°C CONDENSER SIDE (1) | kW | 2085,5 | 2374,6 | 2473,5 | 2858,6 | 3104,0 |
| NOMINAL HEATING CAPACITY (4) | | kW | 2524,7 | 2857,3 | 2989,9 | 3451,4 | 3728,1 |
| TOTAL NOMINAL ABSORBED POWER | | kW | 439,2 | 482,7 | 516,4 | 592,8 | 624,1 |
| EER | | kW/kW | 4,75 | 4,92 | 4,79 | 4,82 | 4,97 |
| COP (4) | | kW/kW | 5,75 | 5,92 | 5,79 | 5,82 | 5,97 |
| SEPR (HT) (10) | | - | 8,06 | 8,06 | 8,01 | 8,04 | 8,02 |
| NOMINAL WATER FLOW, EVAPORATOR SIDE (TOTAL) | | m3/h | 357,6 | 407,2 | 424,2 | 490,2 | 532,3 |
| NOMINAL WATER FLOW, CONDENSER SIDE (EACH) | | m3/h | 432,9 | 490,0 | 512,7 | 591,9 | 639,3 |
| MECHANICAL MODE PRESSURE DROPS, EVAPORATOR SIDE (3) | | kPa | 382,9 | 518,1 | 439,5 | 457,3 | 489,5 |
| MECHANICAL MODE PRESSURE DROPS, CONDENSER SIDE (5) | | kPa | 44,2 | 40,3 | 44,2 | 44,2 | 45,1 |
| NOMINAL COOLING CAPACITY | W 12°C/7°C EVAPORATOR SIDE W 30/35°C CONDENSER SIDE (2) | kW | 2150,0 | 2448,0 | 2550,0 | 2947,0 | 3200,0 |
| NOMINAL HEATING CAPACITY (4) | | kW | 2576,4 | 2916,7 | 3051,4 | 3522,5 | 3805,9 |
| TOTAL NOMINAL ABSORBED POWER | | kW | 426,4 | 468,7 | 501,4 | 575,5 | 605,9 |
| EER | | kW/kW | 5,04 | 5,22 | 5,09 | 5,12 | 5,28 |
| COP (4) | | kW/kW | 6,04 | 6,22 | 6,09 | 6,12 | 6,28 |
| NOMINAL WATER FLOW, EVAPORATOR SIDE (TOTAL) | | m3/h | 368,7 | 419,8 | 437,3 | 505,4 | 548,7 |
| NOMINAL WATER FLOW, CONDENSER SIDE (EACH) | | m3/h | 441,8 | 500,2 | 523,3 | 604,1 | 652,6 |
| MECHANICAL MODE PRESSURE DROPS, EVAPORATOR SIDE (3) | | kPa | 407,0 | 550,7 | 467,1 | 486,0 | 520,2 |
| MECHANICAL MODE PRESSURE DROPS, CONDENSER SIDE (5) | | kPa | 46,0 | 42,0 | 46,0 | 46,0 | 47,0 |
| **FRIGORIFIC SECTION** | | | | | | | |
| COMPRESSORS / REFRIGERATING CIRCUITS / CONDENSER | | nr. | 5/1/1 | 6/1/1 | 6/1/1 | 7/1/1 | 8/1/1 |
| COMPRESSORS STARTING METHOD | | - | INVERTER | INVERTER | INVERTER | INVERTER | INVERTER |
| **HYDRAULIC SECTION (6)** | | | | | | | |
| WATER FLOW RANGE, EVAPORATOR SIDE (TOTAL) | | m3/h | 81÷162 | 96÷192 | 120÷224 | 129÷258 | 147÷294 |
| WATER FLOW RANGE, CONDENSER SIDE (EACH) | | m3/h | 212÷488 | 252÷580 | 265÷600 | 305÷671 | 329÷800 |
| HYDRAULIC CONNECTIONS, EVAPORATOR SIDE (VICTAULIC) | | DN | 250 | 300 | 300 | 300 | 300 |
| HYDRAULIC CONNECTIONS, CONDENSER SIDE (FLANGED) | | DN | 250 | 300 | 300 | 300 | 300 |
| **TOTAL ELECTRIC DATA** | | | | | | | |
| MAXIMUM ABSORBED CURRENT (F.L.A) | | A | 1155,0 | 1386,0 | 1386,0 | 1617,0 | 1848,0 |
| MAXIMUM PEAK CURRENT (L.R.A)(9) | | A | 944,0 | 1175,0 | 1175,0 | 1406,0 | 1637,0 |
| MAXIMUM PEAK CURRENT WITH SOFT START (OPTION SF) (L.R.A)(9) | | A | 940,0 | 1171,0 | 1171,0 | 1402,0 | 1633,0 |
| **NOISE DATA** | | | | | | | |
| SOUND PRESSURE FOR STANDARD CONFIGURATION | | dB(A) | 70,0 | 70,8 | 70,8 | 71,5 | 72,0 |
| SOUND PRESSURE FOR LOW NOISE CONFIGURATION (OPTION LNJ) | | dB(A) | 65,0 | 65,8 | 65,8 | 66,5 | 67,0 |
| **DIMENSIONS AND WEIGHT** | | | | | | | |
| LENGTH | | mm | 5000 | 6000 | 6200 | 7400 | 7400 |
| WIDTH | | mm | 2210 | 2210 | 2210 | 2210 | 2210 |
| HEIGHT | | mm | 2500 | 2500 | 2500 | 2500 | 2500 |
| WEIGHT EMPTY FOR STANDARD CONFIGURATION (5) (8) | | kg | 8380 | 8530 | 9000 | 9600 | 10300 |
| WEIGHT OPERATIVE FOR STANDARD CONFIGURATION (5) (8) | | kg | 9570 | 10000 | 10500 | 11400 | 11600 |

**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
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