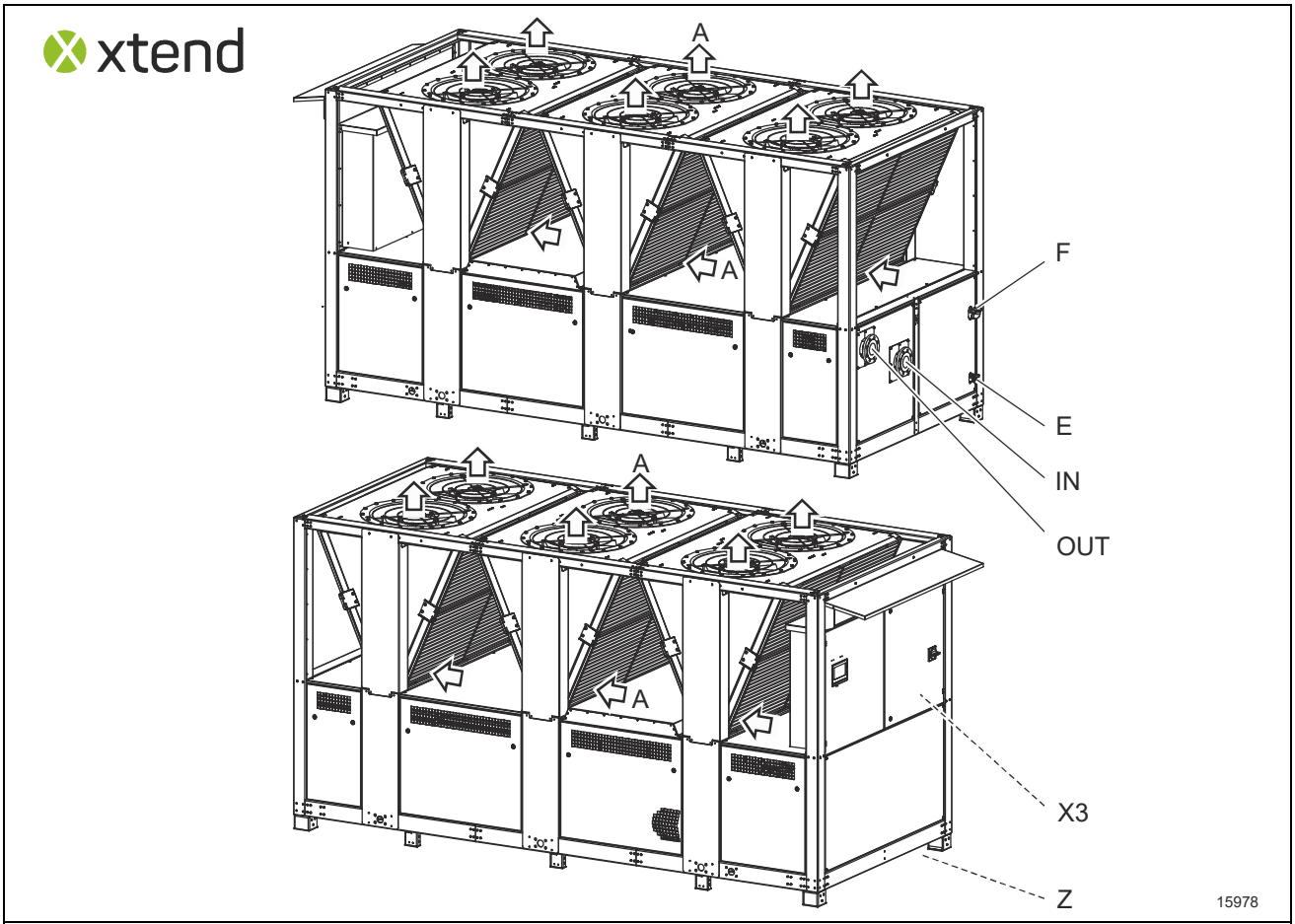
## Cooling unit — xtend 1400 - 3700

# 1 Product data

## 1.1 Dimensions, connections

### 1.1.1 Air-cooled version (A)




| ~~xtend 1400, 1700, 2000~~ | xtend ~~2400~~, 2800 | ~~xtend 3200, 3700~~ |
|---|---|---|
| ~~Dimensions LxWxH:~~ | Dimensions LxWxH: | ~~Dimensions LxWxH:~~ |
| ~~3020x1850x2230 mm~~ | 4220x1850x2230 mm | ~~5620x1850x2230 mm~~ |
| ~~(118.9 x 72.8 x 87.8 inch)~~ | (166.1 x 72.8 x 87.8 inch) | ~~(221.3 x 72.8 x 87.8 inch)~~ |

Fig. 1: Air-cooled version (A) (example: xtend 2800 with special features)

| | | | |
|---|---|---|---|
| IN | Process water inlet | X3 | Power supply connection point |
| OUT | Process water outlet | Z | Entry point for the connection lines |
| F | Filling point (process water) | A | Air inlet, air outlet |
| E | Drainage point (process water) | | |

**NOTE**

- Maintain a lateral distance of ≥700 mm (27.6 inches) between the unit and wall.
- Maintain a distance of ≥1500 mm (59.1 inches) between the unit and ceiling.

### 1.1.2 Water-cooled version (W)

| | | |
|---|---|---|
| *Graphic not yet available* | | |
| xtend 1400, 1700, 2000<br>Dimensions LxBxH:<br>3020x1850x2230 mm<br>(118.9 x 72.8 x 87.8 inch) | xtend 2400, 2800<br>Dimensions LxBxH:<br>4240x1850x2230 mm<br>(166.1 x 72.8 x 87.8 inch) | xtend 3200, 3700<br>Dimensions LxBxH:<br>5620x1850x2230 mm<br>(221.3 x 72.8 x 87.8 inch) |

Fig. 2: Water-cooled version (W) (example)

| | | | |
|---|---|---|---|
| IN | Process water inlet | X3 | Power supply connection point |
| OUT | Process water outlet | Z | Entry point for the connection lines |
| F | Filling point (process water) | CMi | Cooling medium inlet |
| E | Drainage point (process water) | CMo | Cooling medium outlet |

**NOTE**

Maintain a lateral distance of ≥700 mm (27.6 inches) between the unit and wall.

## 1.2 General data

| | | |
|---|---|---|
| Ambient conditions | | |
| - Temperature for transport and storage when completely drained | °C | (-25) ... 60 |
| | °F | (-13) … 140 |
| - Temperature during operation | °C | 5 … 45 |
| | °F | 41 … 113 |
| - Relative humidity (max., not condensing) | % | 80 |
| Recommended maximum lengths between the unit and the connection of the machine: | | |
| - Connecting hoses and pipes with a constant diameter | m | 20 |
| - Cables and connecting lines | ft | 66 |
| When setting the unit up, comply with the maximum height difference between the unit and the connected machine (contact the technotrans group, if necessary). | m | 2,0 |
| | ft | 6.5 |
| Ecodesign requirements for cooling products as per EU 2016/2281 | | compliant |

| | | |
|---|---|---|
| Tolerance: | | |
| Nominal refrigeration capacity (based on the Directive 2016/2281): | % | ± 5 |
| Volume flow (based on DIN EN ISO 9906): | % | ± 9 |
| Delivery head (based on DIN EN ISO 9906): | % | ± 7 |
| Noise emission (as per DIN EN ISO 3744): | dB (A) | ± 2 |

| | |
|---|---|
| Device category in accordance with the Pressure Equipment Directive | II |
| Conformity assessment procedure | Module H |
| Refrigerant fluid group in accordance with the Pressure Equipment Directive | 2 |

## 1.3 Water quality

| | | | |
|---|---|---|---|
| Process water | Turbidity | clear | |
| | | no sediments | |
| | Conductivity | µS/cm | 150 … 2200 |
| | Max. contaminant particle size | µm | < 250 |
| | Microbial count | KBE/ml | < 100 (drinking water) |
| | pH value | pH | 7,5 … 9,0 |
| | Total hardness | mmol/l | < 2 |
| | Chlorine [$Cl_2$] | mg/l | < 0,5 |
| | Chloride [Cl] | mg/l | < 100 |
| | Nitrate [$NO_3$] | mg/l | < 20 |
| | Sulphate [$SO_4$] | mg/l | < 50 |

**Note**

- Depending on the materials and at a medium temperature >45 °C (>113 °F), there may be additional restrictions in terms of the water constituents.
- Other or customer-specific media/requirements (special glycol mixtures, demineralised water, ...) are possible on request.


Technical changes reserved

## 1.4 Installation

Installation altitude (above sea level) for air-cooled units

| | | |
|---|---|---|
| - Unrestricted use up to: | m | 1000 |
| | ft | 3281 |
| - Cooling capacity reduced by 5% per 1000 m (3281 ft): | m | 1000 … 2500 |
| | ft | 3281 … 8202 |
| - Cooling capacity reduced by 5% per 1000 m (3281 ft) at a maximum ambient temperature of 30 °C (86 °F): | m | 2500 … 3500 |
| | ft | 8202 … 11483 |
| - Please contact the technotrans group as of an altitude of: | m | 3500 |
| | ft | 11483 |

Installation altitude (above sea level) for water-cooled units

| | | |
|---|---|---|
| - Unrestricted use up to: | m | 2500 |
| | ft | 8202 |
| - Unrestricted use at a max. ambient temperature of 30 °C (86 °F): | m | 2500 … 3500 |
| | ft | 8202 … 11483 |
| - Please contact the technotrans group as of an altitude of: | m | 3500 |
| | ft | 11483 |

| **Weight** | **xtend** | ~~**1400**~~ | ~~**1700**~~ | ~~**2000**~~ | ~~**2400**~~ | **2800** | ~~**3200**~~ | ~~**3700**~~ |
|---|---|---|---|---|---|---|---|---|
| Empty weight (approx.) | kg | ~~2020~~ | ~~2060~~ | ~~2250~~ | ~~2820~~ | 2950 | ~~3600~~ | ~~3700~~ |
| | lb | ~~4450~~ | ~~4540~~ | ~~4960~~ | ~~6217~~ | 6500 | ~~7937~~ | ~~8157~~ |
| Operating weight (approx.) | kg | ~~2420~~ | ~~2460~~ | ~~2650~~ | ~~3620~~ | 3750 | ~~4400~~ | ~~4500~~ |
| | lb | ~~5335~~ | ~~5423~~ | ~~5842~~ | ~~7981~~ | 8267 | ~~9700~~ | ~~9920~~ |

| **Installation location** (x = applicable) | **xtend** | ~~**1400**~~ | ~~**1700**~~ | ~~**2000**~~ | ~~**2400**~~ | **2800** | ~~**3200**~~ | ~~**3700**~~ |
|---|---|---|---|---|---|---|---|---|
| Indoor setup (default) | | ~~x~~ | ~~x~~ | ~~x~~ | ~~x~~ | x | ~~x~~ | ~~x~~ |
| Outdoor setup (option) | | ~~x~~ | ~~x~~ | ~~x~~ | ~~x~~ | x | ~~x~~ | ~~x~~ |

x = applicable

| **Wind loads** (for outdoor setup) | **xtend** | ~~**1400**~~ | ~~**1700**~~ | ~~**2000**~~ | ~~**2400**~~ | **2800** | ~~**3200**~~ | ~~**3700**~~ |
|---|---|---|---|---|---|---|---|---|
| Max. wind speed without additional fasteners | m/s | 37 | | | | | | |
| | fps | 121 | | | | | | |


Technical changes reserved

## 1.5 Process water circuit

**NOTE**

Fill the process water circuit with frost and corrosion protection at ambient temperatures below 5 °C (41 °F) or at a setpoint below 7 °C (45 °F) (e.g.):
Monoethylene glycol Antifrogen N (concentration min. 20%, max. 35%) or Ethylene glycol Zitrec M (concentration min. 25%, max. 35%).

| **General** | | | **xtend** |
|---|---|---|---|
| Temperature control range (min./max. set value) | | °C | 5 … 25 |
| | | °F | 41 … 77 |
| Control accuracy under constant load | | K | ± 1,0 |
| Filling pressure (static system pressure) | | bar | no pressure |
| | | psi | |
| Drainage point (nozzle) | E | ∅ mm | 15 |
| | | ∅ inch | ½" |

| | | ~~**xtend …**~~ | ~~**1400**~~ | ~~**1700**~~ | ~~**2000**~~ | ~~**2400**~~ |
|---|---|---|---|---|---|---|
| ~~Supply rate~~ | | ~~m³/h~~ | ~~24,0~~ | ~~29,3~~ | ~~36,0~~ | ~~41,1~~ |
| | | ~~US gal/h~~ | ~~6340~~ | ~~7740~~ | ~~9510~~ | ~~10857~~ |
| ~~- at external differential pressure~~ | | ~~bar~~ | ~~3,7~~ | ~~3,4~~ | ~~3,0~~ | ~~2,8~~ |
| | | ~~psi~~ | ~~53,7~~ | ~~49,3~~ | ~~43,5~~ | ~~40,6~~ |
| ~~Process water inlet (flange)~~ | ~~**IN**~~ | ~~∅ "~~ | ~~DN 80, PN 10~~ | | | |
| ~~Process water outlet (flange)~~ | ~~**OUT**~~ | ~~∅ "~~ | | | | |
| ~~Storage tank capacity (nominal volume)~~ | | ~~l~~ | ~~400~~ | | | ~~800~~ |
| | | ~~US gal~~ | ~~106~~ | | | ~~211~~ |

| | | **xtend …** | **2800** | ~~**3200**~~ | ~~**3700**~~ |
|---|---|---|---|---|---|
| Supply rate | | m³/h | 47,1 | ~~53,6~~ | ~~64,8~~ |
| | | US gal/h | 12443 | ~~14160~~ | ~~17118~~ |
| - at external differential pressure | | bar | 3,6 | ~~3,4~~ | ~~3,0~~ |
| | | psi | 52,2 | ~~49,3~~ | ~~43,5~~ |
| Process water inlet (flange) | **IN** | ∅ " | DN 80, PN 10 | ~~DN 100, PN 10~~ | |
| Process water outlet (flange) | **OUT** | ∅ " | | | |
| Storage tank capacity (nominal volume) | | l | 800 | | |
| | | US gal | 211 | | |

## 1.6 Refrigerant circuit

### 1.6.1 Air-cooled version (A)

**NOTE**

The specified performance data are applicable for the rated input voltage and a:

- Process water temperature of 20 °C (68 °F)
- Ambient temperature of 32 °C (89.6 °F)
- Temperature difference (Δt) of 5 K between the process water inlet (IN) and process water outlet (OUT).

| **General** | | |
|---|---|---|
| Safety group in accordance with EN 378 | | A1 |
| Refrigeration unit | xtend 1400/1700 | 2x hermetic compressors |
| | 2000 | 3x hermetic compressors |
| | 2400-3700 | 1x semi-hermetic compressor |
| Refrigerant | | R 513A |
| Global warming potential (GWP) of the refrigerant | | 631 |

| | | | ~~xtend ...~~ | ~~1400~~ | ~~1700~~ | ~~2000~~ | ~~2400~~ |
|---|---|---|---|---|---|---|---|
| ~~Refrigeration capacity at:~~ | ~~20 °C (68 °F)~~ | ~~50/60 Hz~~ | ~~kW~~ | ~~139~~ | ~~170~~ | ~~209~~ | ~~239~~ |
| | | | ~~BTU/h~~ | ~~474710~~ | ~~580580~~ | ~~713772~~ | ~~816228~~ |
| ~~Waste heat capacity at:~~ | ~~20 °C (68 °F)~~ | ~~50/60 Hz~~ | ~~kW~~ | ~~167~~ | ~~205~~ | ~~251~~ | ~~286~~ |
| | | | ~~BTU/h~~ | ~~570335~~ | ~~700112~~ | ~~857210~~ | ~~976741~~ |
| ~~Refrigerant fill quantity~~ | ~~-~~ | ~~Weight~~ | ~~kg~~ | ~~19,8~~ | ~~20,5~~ | ~~26,0~~ | ~~35,1~~ |
| | | | ~~lb~~ | ~~43.7~~ | ~~45.2~~ | ~~57.3~~ | ~~77.4~~ |
| | ~~-~~ | ~~$CO_2$ equivalent~~ | ~~t~~ | ~~12,47~~ | ~~12,95~~ | ~~16,41~~ | ~~22,15~~ |
| | | | ~~lb~~ | ~~27545~~ | ~~28519~~ | ~~36169~~ | ~~48828~~ |
| ~~Cooling air flow rate~~ | | ~~50/60 Hz~~ | ~~m³/h~~ | ~~66000~~ | | | ~~99000~~ |
| | | | ~~cu ft/h~~ | ~~2330768~~ | | | ~~3496152~~ |
| ~~SEPR as per EU 2016/2281~~ | | | | ~~5,28~~ | ~~5,43~~ | ~~5,18~~ | ~~5,8~~ |
| ~~Noise emissions at a distance of 10 metres (Open-field conditions)~~ | | | ~~dB (A)~~ | ~~≤ 65~~ | | | |

| | | | **xtend ...** | **2800** | ~~**3200**~~ | ~~**3700**~~ |
|---|---|---|---|---|---|---|
| Refrigeration capacity at: | 20 °C (68 °F) | **50/60 Hz** | kW | 274 | ~~312~~ | ~~377~~ |
| | | | BTU/h | 935759 | ~~1065536~~ | ~~1287522~~ |
| Waste heat capacity at: | 20 °C (68 °F) | **50/60 Hz** | kW | 327 | ~~371~~ | ~~454~~ |
| | | | BTU/h | 1116764 | ~~1267031~~ | ~~1550491~~ |
| Refrigerant fill quantity | - | Weight | kg | 38,6 | ~~48,1~~ | ~~52,1~~ |
| | | | lb | 85.1 | ~~106.0~~ | ~~114.9~~ |
| | - | $CO_2$ equivalent | t | 24,37 | ~~30,33~~ | ~~32,87~~ |
| | | | lb | 53698 | ~~66912~~ | ~~72477~~ |
| Cooling air flow rate | | **50/60 Hz** | m³/h | 99000 | ~~132000~~ | |
| | | | cu ft/h | 3496152 | ~~4661536~~ | |
| SEPR as per EU 2016/2281 | | | | 5,7 | ~~5,91~~ | ~~5,65~~ |
| Noise emissions at a distance of 10 metres (Open-field conditions)) | | | dB (A) | ≤ 65 | | ~~≤ 70~~ |

### 1.6.2 Water-cooled version (W)

**NOTE**

The specified performance data are applicable for the rated input voltage and a:

- Process water temperature of 20 °C (68 °F)
- Cooling medium temperature of 40 °C (104 °F)
- Temperature difference (Δt) of 5 K between the process water inlet (IN) and process water outlet (OUT).

| General | | |
|---|---|---|
| Safety group in accordance with EN 378 | | A1 |
| Refrigeration unit xtend | 1400/1700 | 2x hermetic compressors |
| | 2000 | 3x hermetic compressors |
| | 2400-3700 | 1x semi-hermetic compressor |
| Refrigerant | | R 513A |
| Global warming potential (GWP) of the refrigerant | | 631 |

| | | xtend ... | 1400 | 1700 | 2000 | 2400 |
|---|---|---|---|---|---|---|
| Refrigeration capacity at: 20 °C (68 °F) **50/60 Hz** | | kW | 152 | 185 | 228 | 261 |
| | | BTU/h | 519107 | 631808 | 778661 | 891362 |
| Waste heat capacity at: 20 °C (68 °F) **50/60 Hz** | | kW | 177 | 215 | 265 | 303 |
| | | BTU/h | 604487 | 734264 | 905022 | 1034799 |
| Refrigerant fill quantity | - Weight | kg | 13,4 | 15,9 | 21,5 | 28,7 |
| | | lb | 29.5 | 35.1 | 47.4 | 63.3 |
| | - $CO_2$ equivalent | t | 8,48 | 10,06 | 13,55 | 18,09 |
| | | lb | 18640 | 22119 | 29910 | 39926 |
| Cooling medium requirement with 35% ethylene glycol and a cooling medium temperature of 40 °C (104 °F) | | m³/h | 24,7 | 29,9 | 36,8 | 36,8 |
| | | US gal/h | 6525 | 7899 | 9722 | 9722 |
| Pressure loss | | bar | 0,84 | 0,99 | 1,4 | 1,32 |
| | | psi | 12.2 | 14.4 | 20.3 | 19.1 |
| Maximum supply pressure | | bar | 10,0 | | | |
| | | psi | 145.0 | | | |
| Maximum permissible CMi/CMo pressure differential | | bar | 4,0 | | | |
| | | psi | 58.0 | | | |
| Minimum permissible CMi/CMo pressure differential | | bar | 2,0 | | | |
| | | psi | 29.0 | | | |
| Cooling medium inlet (flange) **CMi** | | ∅ " | DN65/ PN10 | | | DN80/ PN10 |
| Cooling medium outlet (flange) **CMo** | | ∅ " | | | | |
| Noise emissions at a distance of 10 metres (Open-field conditions) | | dB (A) | ≤ 60 | | | ≤ 65 |

| | | xtend … | 2800 | 3200 | 3700 |
|---|---|---|---|---|---|
| Refrigeration capacity at: 20 °C (68 °F) **50/60 Hz** | | kW | 299 | 340 | 413 |
| | | BTU/h | 1021139 | 1161161 | 1410469 |
| Waste heat capacity at: 20 °C (68 °F) **50/60 Hz** | | kW | 346 | 393 | 479 |
| | | BTU/h | 1181652 | 1342165 | 1635871 |
| Refrigerant fill quantity | Weight | kg | 35,8 | 41,2 | 53,7 |
| | | lb | 78.9 | 90.8 | 118.4 |
| | - $CO_2$ equivalent | t | 22,59 | 26,01 | 33,91 |
| | | lb | 49802 | 57314 | 74704 |
| Cooling medium requirement with 35% ethylene glycol and a cooling medium temperature of 40 °C (104 °F) | | $m^3/h$ | 42,1 | 47,8 | 58,3 |
| | | US gal/h | 11122 | 12627 | 15401 |
| Pressure loss | | bar | 1,55 | 1,1 | 1,47 |
| | | psi | 22.5 | 15.9 | 21.3 |
| Maximum supply pressure | | bar | 10,0 | | |
| | | psi | 145.0 | | |
| Maximum permissible CMi/CMo pressure differential | | bar | 4,0 | | |
| | | psi | 58.0 | | |
| Minimum permissible CMi/CMo pressure differential | | bar | 2,0 | | |
| | | psi | 29.0 | | |
| Cooling medium inlet (flange) | **CMi** | ∅ " | DN80 / PN10 | | |
| Cooling medium outlet (flange) | **CMo** | ∅ " | | | |
| Noise emissions at a distance of 10 metres (Open-field conditions) | | dB (A) | ≤ 65 | | ≤ 70 |


Technical changes reserved

## 1.7 Electrical connection

| General | | | xtend |
|---|---|---|---|
| Supply voltage | **50 Hz** | V, Ph | 400 ± 10%, 3 |
| - with clockwise phase sequence | **60 Hz** | | 460 ± 10%, 3 |
| - Connection via terminal strip | | | X3 |
| Frequency tolerance | continuous | % | ±1,0 |
| | temporary | % | ±2,0 |
| Control voltage | | VDC | 24 ± 10% |
| IP enclosure rating of control cabinet | | | IP 54 |

| | xtend …A | | ~~1400~~ | ~~1700~~ | ~~2000~~ | ~~2400~~ | 2800 | ~~3200~~ | ~~3700~~ |
|---|---|---|---|---|---|---|---|---|---|
| Input power (max.) | **50 Hz** | kW | ~~65,1~~ | ~~74,5~~ | ~~89,8~~ | ~~84,7~~ | 97 | ~~109~~ | ~~133~~ |
| | **60 Hz** | | ~~61,9~~ | ~~75,7~~ | ~~84,6~~ | ~~130,2~~ | 139,9 | ~~150,1~~ | ~~187,8~~ |
| Current consumption (max.) | **50 Hz** | A | ~~134,7~~ | ~~155,7~~ | ~~186,7~~ | ~~149,7~~ | 171,6 | ~~189,6~~ | ~~232,6~~ |
| | **60 Hz** | | ~~114,7~~ | ~~134,7~~ | ~~156,7~~ | ~~180,7~~ | 206,6 | ~~220,6~~ | ~~266,6~~ |
| Fuse protection provided by the customer | **50 Hz** | A | ~~200~~ | ~~200~~ | ~~250~~ | ~~200~~ | 250 | ~~250~~ | ~~315~~ |
| | **60 Hz** | | ~~160~~ | ~~200~~ | ~~200~~ | ~~250~~ | 315 | ~~315~~ | ~~315~~ |

| | xtend …W | | 1400 | 1700 | 2000 | 2400 | 2800 | ~~3200~~ | 3700 |
|---|---|---|---|---|---|---|---|---|---|
| Input power (max.) | **50 Hz** | kW | 59,1 | 68,5 | 83,8 | ~~75,7~~ | 88 | 97 | 121 |
| | **60 Hz** | | 55,9 | 69,7 | ~~78,6~~ | 121,2 | 130,9 | 138,1 | 175,8 |
| Current consumption (max.) | **50 Hz** | A | ~~123,7~~ | ~~143,7~~ | 174,7 | 131,7 | 153,6 | 165,6 | 208,6 |
| | **60 Hz** | | 104,4 | 124,4 | ~~146,4~~ | 172,6 | 190,6 | 198,6 | 247,4 |
| Fuse protection provided by the customer | **50 Hz** | A | 160 | 200 | 250 | 200 | ~~250~~ | 250 | 315 |
| | **60 Hz** | | 160 | 160 | 200 | 250 | 250 | ~~250~~ | ~~315~~ |

**NOTE**

The specified power consumption and current consumption refer to a system including a duty pump and circulation pump.

## 1.8 Options / System configuration

### Standard equipment

| | |
|---|---|
| • Standard colour as per RAL 7035 | • 7" graphic touch display |
| • Electronic expansion valve, microchannel heat exchanger | • Stainless-steel tank (process water) including a level indicator and a system for protecting the pump against dry operation |
| • Ready for crane transport | • Standard voltage 400 V, +/-10%, 50 Hz, 3 phases + PE |
| • Hermetic scroll compressors or semi-hermetic rotary-screw compressors (xtend 2400 or higher) in combination with EC fans | • External activation/potential-free collective error message |
| | • Automatic replenishment system |

### Options

#### General/installation

| | |
|---|---|
| [ ] Outdoor installation | [ ] Platform installation |
| [ ] Basement installation | [ ] Special colours as per RAL |

#### Process water circuit

| | |
|---|---|
| [ ] Extension of the temperature control range 0 °C ... +30°C | [ ] Shut-off valves in the feed/return flow |
| | [ ] Max. feed flow pressure-limiting/bypass valve |
| [ ] Speed-controlled pump (reference variable Δp or ΔT) | [ ] Increase of the control accuracy to ±0.5 K |
| [ ] Customer-specific supply rates/external pressure differences | [ ] Version without a tank |
| [ ] Redundant duty pump | [ ] Closed system |
| [ ] Additional insulation | [ ] Manual replenishment system |
| [ ] Filter in the feed/return flow including a monitoring system | |

#### Refrigeration circuit

| | |
|---|---|
| [ ] Aluminium filter for the condenser | [ ] Sound-insulating hood for the compressor |

#### Electrical system

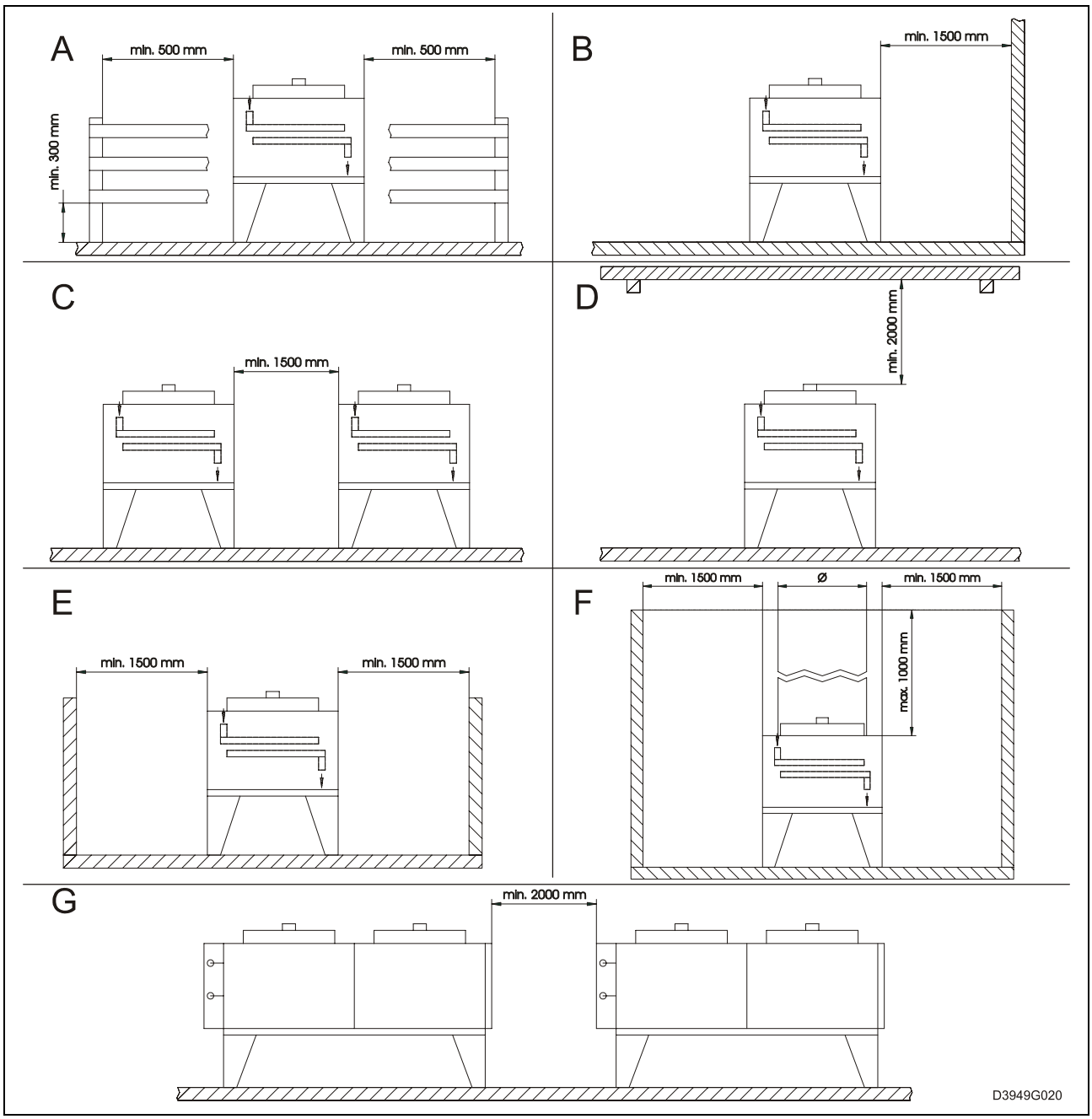
| | |
|---|---|
| Special voltage, e.g. | UL version |
| [ ] 380 V, ± 10%, 60 Hz, 3 phases | [ ] Control cabinet labelled as per UL 508 A |
| [ ] 400/460 V, ±-10%, 50/60 Hz, 3 phases | [ ] UL wiring (complete) |
| [ ] Single core marking | [ ] UL drives |
| [ ] Various Fieldbus interfaces | |

**NOTE**

The values that are stated are standard values. Depending on the specific variant, deviations are possible; unit-specific information concerning the electrical system can be found in the circuit diagram.


Technical changes reserved

## 5.6 Installation instructions for recoolers




| | | | |
|---|---|---|---|
| A | Installation behind a viewing protection | E/F | Installation in pits or enclosures |
| • | Free space of 30% min. and 300 mm clear height min. from the floor are required. | • | When the unit height < enclosure height, a round duct extension must be provided. |
| B | Clearance from walls and buildings | • | Max. duct length = 1,000 mm. |
| C | Arrangement in longitudinal direction next to one another | • | Adapt duct diameter according to the fan diameter |
| D | Minimum clearance from roofings | G | Arrangement with fronts next to one another |

Detail Y

Detail Z

the pipework is completely insulated
with Armaflex 1/2" wall

DN 65 / 2-1/2"

DN 65 / DN 50

DN 50 / 2"

2 x 4 x min. 0,75 mm² Oelflex
(delivery and installation by customer)

the pipework is completely insulated
with Armaflex 1/2" wall

process cooling unit for
outside installation Universal Chiller
type: xtend 2800 A

A

DN 65 / 2-1/2"

DN 65 / DN 50

DN 50 / 2"

Operation relay 2
"Cool water supply ready"
xtend 2800 A
(delivery and installation
by customer)

"Cooling water request"
xtend 2800 A
(delivery and installation
by customer)

chill water
connections
DN 80 / 3"

DN 80 / DN 65

Fill / Drain
ports

CCU

ProStream

CCU

Fill / Drain
ports

Detail X

view A

2230

890

310

738

1850

min. 1500

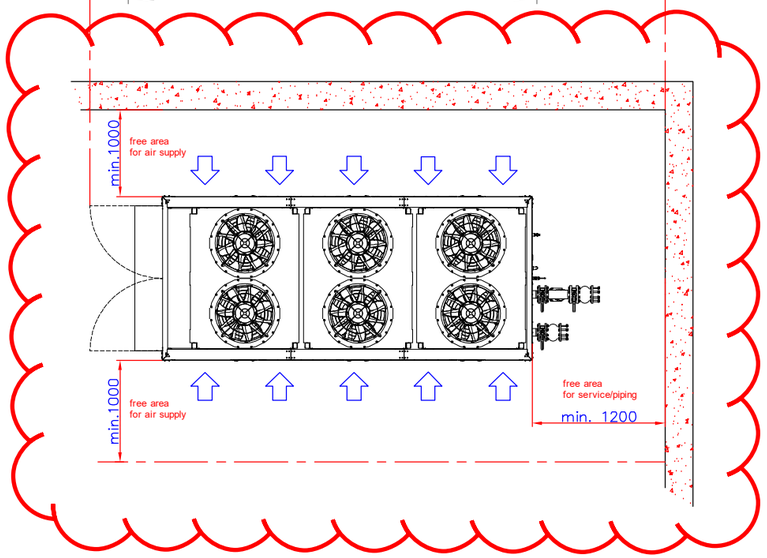
Service /
free area

4186

technotrans delivery

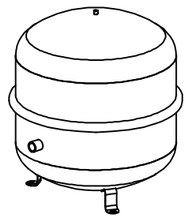
min.1200

free area
for service/piping

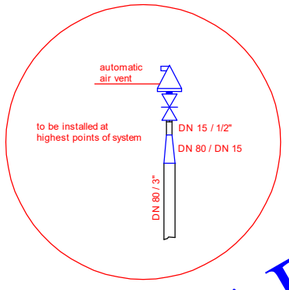



## Detail X (as required)

expansion vessel min. 50 liters with a total
Initial tension 0,5 bar.

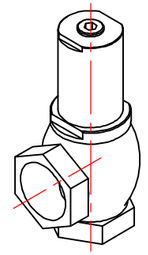


## Detail Y




## Detail Z

angle overflow valve G2" / 3,5 bar



PRELIMINARY

Please note:
maximum total pipe line with this interpretation =
2 x 50m (50m feed and 50m return) on all attached peripherals. If the entire pipeline will be longer than 2 x 50m, so we want to ask you to contact us.

chilled water (incl. 40 % glycol)

pipework from carbon steel or copper pipe
pipes isolated with Armaflex 1/2" wall

wiring according to VDE rules

water capacity pipes

| | |
|---|---|
| DN 125 / 5" | = 13,2 l/m |
| DN 100 / 4" | = 9,00 l/m |
| DN 80 / 3" | = 5,35 l/m |
| DN 65 / 2 1/2" | = 3,88 l/m |
| DN 50 / 2" | = 2,06 l/m |
| DN 40 / 1 1/2" | = 1,46 l/m |
| DN 32 / 1 1/4" | = 0,85 l/m |
| DN 25 / 1" | = 0,48 l/m |
| DN 20 / 3/4" | = 0,35 l/m |

PI pressure gauge 0 - 10 bar

TI thermometer 0 - 60° C

overflow valve adjustable

bellows expansion joint
(glycol - resistant)

screw connection

filling valve

control valve

Filter ca. 1000µm

shutter

ball valve

hose connection for operating
pressure up to 16 bar
glycol - resistant
min. length 500 mm / 20"

fixed point of pipework

recommended anti-freeze protection
40 % concentration
type: Ethylene Glycol
Delivery and filling by customer !

C T Limit of delivery
T = delivery technotrans
C = delivery by customer

This drawing is an instruction only to support the pipework and electrical installation. The installation has to be done according to valid rules from professional, authorized companies.
The executing companies are fully liable for their work in case of warranty claims.

do not use galvanized pipework
loss of warranty !

the pipework has to be flushed
carefully before filling with water/glycol

Proj.: Canon ProStream END USER

| | | | | |
|---|---|---|---|---|
| Format: AutoCad-A1 | Maßstab: | | | |
| Pfad: SAP/Z35 | Werkstoff: | | | |
| | Gewicht kg | | | |
| | | Index: | Änderung | Datum: Name: |
| Scharfe Kanten gebrochen ≦ 0,3x45° | Datum: | Name: | Benennung: System Diagram xtend 2800 A | |
| Maße ohne Toleranzangabe nach DIN ISO 2768 Teil 1 und 2 mittel | Gez.: | ??? | | |
| | Gepr.: | | | |
| technotrans D-48336 Sassenberg | Blatt/Blätter: 1/1 | | Zeichnungsnummer/Art.Nr.: END USER | |
| | Ers. für: END USER<br>Ers. durch: | | Rechte gemäß DIN 34 vorbehalten | |