



*Screw compressors*  
*CIAT shell and tube*  
*dry expansion evaporator*  
*Hydraulic module versions*  
*"Plug and Cool"*  
*All-aluminium*  
*micro-channel condenser*



Cooling capacity: 660 to 1 350 kW



Cooling  
only



Hydraulic  
module



Heat  
recovery



## OPERATION

The latest generation of **POWERCIAT2** air-to-water water chillers are the perfect solution for all cooling applications in the Offices, Healthcare, Industry, Administration, Shopping Centres and Collective Housing markets.

These standard packaged units are designed for outdoor installation and require no special protection against adverse weather conditions.

The range has been optimised to use ozone-friendly HFC R134a refrigerant. The use of this refrigerant guarantees compliance with the most demanding requirements for environmental protection and increased energy efficiency.

Each unit is delivered fully assembled, wired (control and power), charged with refrigerant and factory tested.

Simply make the necessary electrical and hydraulic connections and your unit is ready to operate.

## RANGE

### POWERCIAT2 LX series

Cooling only version without hydraulic system.

### POWERCIAT2 LXC series

Cooling only version with hydraulic system including single or dual circulation pump. A buffer tank option is also available for this version.

There are three acoustic versions (Standard, Low Noise and Xtra Low Noise) to satisfy all sound level constraints, whatever the application.

## DESCRIPTION

■ POWERCIAT2 machines are single units delivered as standard with the following components:

- Screw compressors
- Shell and tube chilled-water dry expansion evaporator
- Air-cooled micro-channel exchangers with axial fan motor assembly
- Electrical power and remote control cabinet:
  - general electrical power supply 400V-3ph-50Hz (+10% / -10%) + earth
  - transformer fitted as standard on the machine for supplying the remote control circuit with 230V-1ph-50Hz (+10%/-10%)
- CIAT XTRACONNECT2 electronic control module
- Casing for outdoor installation

■ The entire POWERCIAT2 range conforms to standards EN 60-204 and EN 378-2 and the following European Directives:

- Machinery 2006/42 CE
- EMC 2004/108/CE electromagnetics
- 2006/95/EC low voltage
- 97/23/EC pressure equipment:
  - Category 3 : 2800X to 4800X series
  - Category 4 : 5600X to 6400X series

## DESCRIPTIVE CODES

|    |   |                      |      |   |                   |
|----|---|----------------------|------|---|-------------------|
| LX | > | cooling only version | 4800 | > | unit size         |
| C  | > | hydraulic version    | X    | > | R134a refrigerant |

## CONFIGURATION

|         |   |                                                                        |
|---------|---|------------------------------------------------------------------------|
| STD     | > | Standard (HS ventilation)                                              |
| STD LN  | > | Standard Low Noise (LS ventilation)                                    |
| STD XLN | > | Standard Xtra Low Noise (LS ventilation + compressor noise insulation) |



LX 5600X - 6400X Models

## DESCRIPTION OF THE MAIN COMPONENTS

### Compressors

- **Double-screw**-type accessible hermetic
- Optimised rotor profile guarantees high performance
- Integrated electric motor with star-delta start
- Motor features integral electronic protection
- Direction of rotation and phase balance control
- Integrated pressure relief valve
- Discharge temperature control
- Pressurised lubrication control
- Integrated 3-way oil separator
- Crankcase heater
- Fine suction filter
- Discharge valve
- Slide-control continuous power control
- Mounted on anti-vibration dampers

### Evaporator

- Dry expansion shell and tube-type
- High performance copper tube bundle
- Steel body
- Anti-corrosion baffles
- Cellular foam thermal insulation with UV-resistant polyurethane film

### Air-cooled condenser

- All-aluminium micro-channel coils
- Direct drive propeller fans
- Rotation speed: **910** or **720** rpm
- Three-phase electric motors, IP 54

### Cooling accessories

- Dehumidifier filters with rechargeable cartridges
- Hygroscopic sight glasses
- Solenoid valves on liquid refrigerant lines
- Electronic expansion valves

### Control and safety devices

- HP/LP pressure transmitters
- High and low pressure safety valves
- Chilled water control sensor (flow and return)
- Outdoor temperature sensor
- Evaporator frost protection sensor
- Compressor discharge sensor
- Evaporator water circulation controller

### Electrics box

- IP 44
- 400V 3ph 50Hz power supply + Earth (-10%/+10%)
- Wire numbering and electrical component marking
- Main safety switch (fused isolator) with external handle
- Control circuit transformer
- Compressor motor contactors
- Fan motor switches
- Fused motor compressors
- Fan motor protection
- Main earth connection
- Phase controller (reversal, loss, asymmetry, over and under voltage)

### XTRACONNECT2 electronic control module



The CIAT electronic control module performs the following main functions:

- Control of chilled water temperature
- Control of water temperature based on the outdoor temperature (water law)
- Control for low temperature energy storage
- Second setpoint management
- Complete management of compressors with start-up sequence, timer and runtime balancing
- Self-adjusting and proactive functions with adjustment of settings on drift control
- Continuous capacity-reduction system for compressors according to cooling requirements
- Management of compressor short-cycle protection
- Management of the machine operation limit according to outdoor temperature
- Operating status and fault status diagnostics
- Management of a fault memory allowing a log of the last 20 incidents to be accessed, with an operating reading taken when the fault occurs
- Master/slave management of the two machines in parallel with runtime balancing and automatic changeover if a fault occurs on one machine
- Machine timer programming
- Display and access to the operating parameters via a multilingual LCD screen with 4 lines of 24 characters

### Remote control

XTRACONNECT2 is equipped as standard with an RS485 serial port offering a range of remote management, monitoring and diagnostic options via the communication bus.

Several contacts are available as standard, enabling the POWERCIAT2 to be controlled remotely by cabled link:

- Automatic operation control: when this contact is open, the machine stops
- Setpoint 1/setpoint 2 selector: when this contact is closed, a second cooling setpoint is activated (energy storage mode, for example)
- Setpoint adjustable via 4-20 mA signal: this input is used to adjust the setpoint in COOLING mode
- Compressor load shedding: closing the contact or contacts concerned allows the power or cooling consumption of the machine to be limited by stopping one or more compressors
- Water pump 1 and 2 control: these outputs control the switches for one or more water pumps
- Fault reporting: this contact indicates the presence of a major fault which has caused one or both cooling circuits to stop

### Energy meter (optional)

- Energy meter fitted in the electrical cabinet of the machine providing the following measurements:
  - voltage for each phase
  - total input current
  - total power input
  - total electrical energy consumption
- This meter can also be used to limit the machine's consumption of electricity up to a maximum threshold which can be configured in the controller. This limitation can either be:
  - permanent
  - activated by an on/off input
  - activated by CMS ModBus

### Power control

- Continuous power control

### Frame and casing

- Frame made from RAL 7035 and RAL 7024 painted panels.
- Casing made from panels painted in the following colours: RAL 7035 and 7024.

## STANDARD EQUIPMENT/AVAILABLE OPTIONS

| POWERCIA2 LX-LXC EQUIPMENT                                                        | 2800X to 6400X |
|-----------------------------------------------------------------------------------|----------------|
| Fused isolator safety device                                                      | ●              |
| Control circuit transformer                                                       | ●              |
| Electrical cabinet wire numbers                                                   | ●              |
| RS485 communication interface                                                     | ●              |
| Water flow controller                                                             | ●              |
| All-season operation (min. outdoor temp.: -15°C)                                  | ●              |
| Electronic expansion valve                                                        | ●              |
| Star-delta start compressors                                                      | ●              |
| Phase controller (reversal, loss, asymmetry, over and under voltage)              | ●              |
| Ethernet gateway                                                                  | ●              |
| Optimised high pressure operation (all-season operation with energy optimisation) | ▲              |
| Variable speed fans                                                               | ▲              |
| Energy meter                                                                      | ▲              |
| Low Noise version (LN)                                                            | ▲              |
| Xtra Low Noise Version (XLN)                                                      | ▲              |
| Compressor suction shut-off valves                                                | ▲              |
| Frost protection                                                                  | ▲              |
| Low-temperature glycol/water mix (0°C to -8°C)                                    | ▲              |
| Partial heat recovery - Desuperheater                                             | ▲              |
| Single and dual pumps (1)                                                         | ▲              |
| Pump intake mini safety device                                                    | ▲              |
| Buffer tank (1)                                                                   | ▲              |
| Container handling equipment                                                      | ▲              |
| CIAT M2M remote monitoring machine                                                | ▲              |
| Refrigerant leak detection                                                        | ▲              |
| Handling shackles                                                                 | ■              |
| Anti-vibration mounts                                                             | ■              |
| Flexible hydraulic sleeves                                                        | ■              |
| Remote control unit (remote control console)                                      | ■              |
| Relay board with dry contacts                                                     | ■              |
| MULTICONNECT multi-unit management                                                | ■              |
| POWERCONTROL/CRISTOCONTROL energy pool management                                 | ■              |
| LONWORKS / BACNET gateway                                                         | ■              |

● Supplied as standard    ▲ Factory-fitted option

■ Option supplied in kit

(1) Only for LXC version.

(2) For air temperature  $\geq 45^{\circ}\text{C}$ .

## TECHNICAL CHARACTERISTICS

| POWERCIAT2 LX-LXC                 |                                     |                     | 2800X                                                                             | 3000X                                                                             | 3200X                                                                             | 3400X                                                                              | 3600X                                                                               | 4200X                                                                               | 4800X                                                                               | 5600X            | 6400X     |
|-----------------------------------|-------------------------------------|---------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|------------------|-----------|
| EUROVENT                          |                                     |                     |  |  |  |  |  |  |  | (*)              | (*)       |
| Standard version                  | Net cooling capacity (1)            | kW                  | 667                                                                               | 723                                                                               | 792                                                                               | 840                                                                                | 891                                                                                 | 1049                                                                                | 1156                                                                                | 1269             | 1355      |
|                                   | Net power input (1) (2)             | kW                  | 227                                                                               | 250                                                                               | 266                                                                               | 282                                                                                | 299                                                                                 | 345                                                                                 | 390                                                                                 | 426              | 470       |
|                                   | Net EER/ESEER                       |                     | 2.94/3.55                                                                         | 2.9/3.5                                                                           | 2.98/3.58                                                                         | 2.98/3.59                                                                          | 2.98/3.6                                                                            | 3.04/3.64                                                                           | 2.96/3.56                                                                           | 2.98/3.58        | 2.88/3.47 |
|                                   | Lw / Lp (3)                         | dB(A)               | 100/67                                                                            | 100/67                                                                            | 101/68                                                                            | 101/68                                                                             | 101/68                                                                              | 102/69                                                                              | 102/69                                                                              | 103/70           | 103/70    |
| Low Noise Xtra Low Noise Versions | Net cooling capacity (1)            | kW                  | 659                                                                               | 711                                                                               | 782                                                                               | 829                                                                                | 877                                                                                 | 1036                                                                                | 1138                                                                                | 1252             | 1334      |
|                                   | Net power input (1) (2)             | kW                  | 226                                                                               | 251                                                                               | 265                                                                               | 283                                                                                | 300                                                                                 | 343                                                                                 | 394                                                                                 | 425              | 472       |
|                                   | Net EER/ESEER                       |                     | 2.91/3.82                                                                         | 2.83/3.72                                                                         | 2.95/3.84                                                                         | 2.93/3.82                                                                          | 2.92/3.82                                                                           | 3.02/3.91                                                                           | 2.89/3.75                                                                           | 2.95/3.83        | 2.83/3.69 |
|                                   | Lw / Lp Low Noise (3)               | dB(A)               | 96/63                                                                             | 97/64                                                                             | 97/64                                                                             | 97/64                                                                              | 97/64                                                                               | 98/65                                                                               | 99/66                                                                               | 100/67           | 100/67    |
|                                   | Lw / Lp Xtra Low Noise (3)          | dB(A)               | 90/57                                                                             | 90/57                                                                             | 91/58                                                                             | 91/58                                                                              | 91/58                                                                               | 92/59                                                                               | 92/59                                                                               | 93/60            | 93/60     |
| Refrigerating circuit             | Refrigerant (GWP)                   |                     | R134a (1430)                                                                      |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                  |           |
|                                   | Quantity                            |                     | 2                                                                                 |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                  |           |
|                                   | Refrigerant circuit 1               | kg                  | 49                                                                                | 57                                                                                | 61                                                                                | 76                                                                                 | 76                                                                                  | 93                                                                                  | 101                                                                                 | 112              | 112       |
|                                   | Refrigerant circuit 2               | kg                  | 48                                                                                | 48                                                                                | 59                                                                                | 59                                                                                 | 74                                                                                  | 80                                                                                  | 88                                                                                  | 91               | 94        |
|                                   | Tonne CO <sub>2</sub> Equivalent    | TCO <sub>2</sub> Eq | 138.71                                                                            | 150.15                                                                            | 171.6                                                                             | 193.05                                                                             | 214.5                                                                               | 247.39                                                                              | 270.27                                                                              | 290.29           | 294.58    |
| Compressor                        | Type                                |                     | Double-screw accessible hermetic                                                  |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                  |           |
|                                   | Quantity                            |                     | 2                                                                                 |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                  |           |
|                                   | Rotation speed                      | rpm                 | 2900                                                                              |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                  |           |
|                                   | Power control                       | %                   | Continuous from 25 to 100 % (50 to 100% on each compressor)                       |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                  |           |
|                                   | Type of oil for R134a               |                     | BITZER BSE 170                                                                    |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                  |           |
|                                   | Oil capacity circuit 1              | litres              | 19                                                                                | 30                                                                                | 30                                                                                | 30                                                                                 | 30                                                                                  | 30                                                                                  | 30                                                                                  | 32               | 32        |
|                                   | Oil capacity circuit 2              | litres              | 19                                                                                | 19                                                                                | 30                                                                                | 30                                                                                 | 30                                                                                  | 30                                                                                  | 30                                                                                  | 30               | 32        |
| Evaporator                        | Type                                |                     | Dry expansion shell and tube                                                      |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                  |           |
|                                   | Quantity                            |                     | 1                                                                                 |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                  |           |
|                                   | Water content                       | litres              | 240                                                                               |                                                                                   | 283                                                                               |                                                                                    |                                                                                     | 443                                                                                 |                                                                                     | 560              |           |
|                                   | Hydraulic connection                | LX                  | VICTAULIC DN 200                                                                  |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     | VICTAULIC DN 250 |           |
|                                   |                                     | LXC                 | VICTAULIC DN 200                                                                  |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                  |           |
|                                   | Max. pressure, water end            | bar                 | 10                                                                                |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                  |           |
|                                   | Min/max water flow                  | m <sup>3</sup> /h   | 71/241                                                                            | 77/241                                                                            | 83/241                                                                            | 90/241                                                                             | 96/241                                                                              | 111/241                                                                             | 124/241                                                                             | 136/383          | 145/383   |
| Air-cooled condenser              | Fans                                |                     | Direct-drive axial - diameter 910 mm                                              |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                  |           |
|                                   | Number of fans                      |                     | 12                                                                                |                                                                                   | 14                                                                                |                                                                                    |                                                                                     | 18                                                                                  |                                                                                     | 22               |           |
|                                   | Rotation speed                      | rpm                 | STANDARD version: 910 rpm                                                         |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                  |           |
|                                   | Air flow rate                       | m <sup>3</sup> /h   | 264 000                                                                           |                                                                                   | 308 000                                                                           |                                                                                    |                                                                                     | 396 000                                                                             |                                                                                     | 484 000          |           |
|                                   | Motor output (per motor)            | kW                  | 1.8                                                                               |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                  |           |
|                                   | Rotation speed                      | rpm                 | LOW NOISE - XTRA LOW NOISE 720 rpm versions                                       |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                  |           |
|                                   | Air flow rate                       | m <sup>3</sup> /h   | 198 000                                                                           |                                                                                   | 231 000                                                                           |                                                                                    |                                                                                     | 297 000                                                                             |                                                                                     | 363 000          |           |
|                                   | Motor output (per motor)            | kW                  | 1.2                                                                               |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                  |           |
| Hydraulic module (Option)         | Expansion vessel capacity           | litres              | 80                                                                                |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                  |           |
|                                   | Max. pressure, water end            | bar                 | 4                                                                                 |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                  |           |
|                                   | Tank capacity (option)              | litres              | 900                                                                               |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                  |           |
| Dimensions                        | Length of LX version                | mm                  | 6506                                                                              |                                                                                   | 7592                                                                              |                                                                                    |                                                                                     | 9756                                                                                |                                                                                     | 11928            |           |
|                                   | Length of LXC version               | mm                  | 7598                                                                              |                                                                                   | 8684                                                                              |                                                                                    |                                                                                     | 10848                                                                               |                                                                                     | 13020            |           |
|                                   | Length of LXC version + buffer tank |                     | 8690                                                                              |                                                                                   | 9776                                                                              |                                                                                    |                                                                                     | 11940                                                                               |                                                                                     | 14112            |           |
|                                   | Width                               | mm                  | 2251                                                                              |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                  |           |
|                                   | Height                              | mm                  | 2436                                                                              |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                  |           |
| Weight (Empty)(4)                 | LX version                          | kg                  | 5196                                                                              | 5612                                                                              | 6558                                                                              | 6591                                                                               | 6618                                                                                | 7843                                                                                | 7867                                                                                | 9334             | 9508      |
|                                   | LXC version                         | kg                  | 6378                                                                              | 6793                                                                              | 7766                                                                              | 7798                                                                               | 7826                                                                                | 9036                                                                                | 9060                                                                                | 10562            | 10736     |
|                                   | LXC version + buffer tank           | kg                  | 7015                                                                              | 7430                                                                              | 8403                                                                              | 8435                                                                               | 8463                                                                                | 9673                                                                                | 9697                                                                                | 11199            | 11373     |
| Weight in operation               | LX version                          | kg                  | 5436                                                                              | 5852                                                                              | 6841                                                                              | 6873                                                                               | 6901                                                                                | 8278                                                                                | 8302                                                                                | 9889             | 10067     |
|                                   | LXC version                         | kg                  | 6762                                                                              | 7177                                                                              | 8197                                                                              | 8229                                                                               | 8256                                                                                | 9612                                                                                | 9636                                                                                | 11292            | 11470     |
|                                   | LXC version + buffer tank           | kg                  | 8391                                                                              | 8807                                                                              | 9810                                                                              | 9842                                                                               | 9869                                                                                | 11234                                                                               | 11258                                                                               | 12914            | 13091     |
| Maximum storage temperature       |                                     | °C                  | +65                                                                               |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                  |           |

(1) Net cooling capacity for chilled water temperature 12°C/7°C and a condenser air inlet temperature of 35°C in accordance with EN 14511-2013 EUROVENT standard conditions

(2) Net power input = compressors + fans

(3) Lw: Overall power level as per standard ISO 3744

Lp: Overall pressure levels measured at 10 m in a free field, calculated using the formula  $L_p = L_w - 10 \log S$

(4) Weight without boxes phonic compressors. Weight boxes = 300 kg (2 x 150 kg)

(\*) Sizes uncertified Eurovent. (Beyond the maximum power that can be certified.)

## ELECTRICAL CHARACTERISTICS

| POWERCIAT2 LX-LXC                             |    | 2800X            | 3000X              | 3200X            | 3400X              | 3600X            | 4200X            | 4800X            | 5600X              | 6400X            |
|-----------------------------------------------|----|------------------|--------------------|------------------|--------------------|------------------|------------------|------------------|--------------------|------------------|
| COMPRESSORS (1)                               |    |                  |                    |                  |                    |                  |                  |                  |                    |                  |
| Maximum rated current                         | A  | 418<br>(2 x 209) | 447<br>(238 + 209) | 476<br>(2 x 238) | 497<br>(259 + 209) | 518<br>(2 x 259) | 612<br>(2 x 306) | 682<br>(2 x 341) | 756<br>(415 + 341) | 830<br>(2 x 415) |
| Star-Delta starting current (3)               | A  | 473              | 568                | 609              | 638                | 637              | 785              | 872              | 1139               | 1182             |
| FAN MOTORS (1)                                |    |                  |                    |                  |                    |                  |                  |                  |                    |                  |
| STANDARD VERSION: 910 rpm                     |    |                  |                    |                  |                    |                  |                  |                  |                    |                  |
| Maximum rated current                         | A  | 46               |                    | 53.6             |                    |                  | 68.9             |                  | 84.3               |                  |
| LOW NOISE - XTRA LOW NOISE 720 rpm VERSIONS   |    |                  |                    |                  |                    |                  |                  |                  |                    |                  |
| Maximum rated current                         | A  | 26.6             |                    | 31.1             |                    |                  | 40               |                  | 48.8               |                  |
| LX FROST PROTECTION (OPTION) (2)              |    |                  |                    |                  |                    |                  |                  |                  |                    |                  |
| Evaporator heating element capacity           | W  | 320              |                    |                  |                    |                  |                  |                  | 640                |                  |
| Maximum rated current                         | A  | 0.8              |                    |                  |                    |                  |                  |                  | 1.6                |                  |
| LXC FROST PROTECTION (OPTION) (2)             |    |                  |                    |                  |                    |                  |                  |                  |                    |                  |
| Evaporator heating element capacity + piping  | W  | 500              |                    |                  |                    |                  |                  |                  | 820                |                  |
| Maximum rated current                         | A  | 1.3              |                    |                  |                    |                  |                  |                  | 2.1                |                  |
| Pump module heating element capacity          | W  | 1500             |                    |                  |                    |                  |                  |                  |                    |                  |
| Maximum rated current                         | A  | 3.8              |                    |                  |                    |                  |                  |                  |                    |                  |
| FROST PROTECTION - LXC + BUFFER TANK (OPTION) |    |                  |                    |                  |                    |                  |                  |                  |                    |                  |
| Evaporator heating element capacity + piping  | W  | 500              |                    |                  |                    |                  |                  |                  | 820                |                  |
| Maximum rated current                         | A  | 1.3              |                    |                  |                    |                  |                  |                  | 2.1                |                  |
| Tank + pump module heating element capacity   | W  | 2 x 1500         |                    |                  |                    |                  |                  |                  |                    |                  |
| Maximum nominal current                       | A  | 2 x 3.8          |                    |                  |                    |                  |                  |                  |                    |                  |
| DESUPERHEATER FROST PROTECTION (OPTION) (2)   |    |                  |                    |                  |                    |                  |                  |                  |                    |                  |
| Heat exchanger heating element power          | W  | 240 (2 x 120)    |                    |                  |                    |                  |                  |                  |                    |                  |
| Maximum rated current                         | A  | 0.6 (2 x 0.3)    |                    |                  |                    |                  |                  |                  |                    |                  |
| REMOTE CONTROL AUXILIARY CIRCUIT (2)          |    |                  |                    |                  |                    |                  |                  |                  |                    |                  |
| Maximum rated current                         | A  | 4                |                    |                  |                    |                  | 8                |                  |                    |                  |
| Transformer capacity                          | VA | 1000             |                    |                  |                    |                  | 1600             |                  |                    |                  |
| Machine protection rating                     |    | IP44             |                    |                  |                    |                  |                  |                  |                    |                  |

| SINGLE PUMPS (LXC ONLY) (1) |    |     |      |      |     |     |
|-----------------------------|----|-----|------|------|-----|-----|
| Number                      |    | 111 | 113  | 114  | 115 | 116 |
| Power                       | kW | 11  | 15   | 18.5 | 22  | 30  |
| Maximum nominal current     | A  | 20  | 26.5 | 32.5 | 39  | 53  |
| DUAL PUMPS (LXC ONLY) (1)   |    |     |      |      |     |     |
| Number                      |    | 211 | 213  | 214  | 215 | 216 |
| Power                       | kW | 11  | 15   | 18.5 | 22  | 30  |
| Maximum nominal current     | A  | 20  | 26.5 | 32.5 | 39  | 53  |

(1) Current for voltage 400V/3Ph/50Hz (+10/-10%)

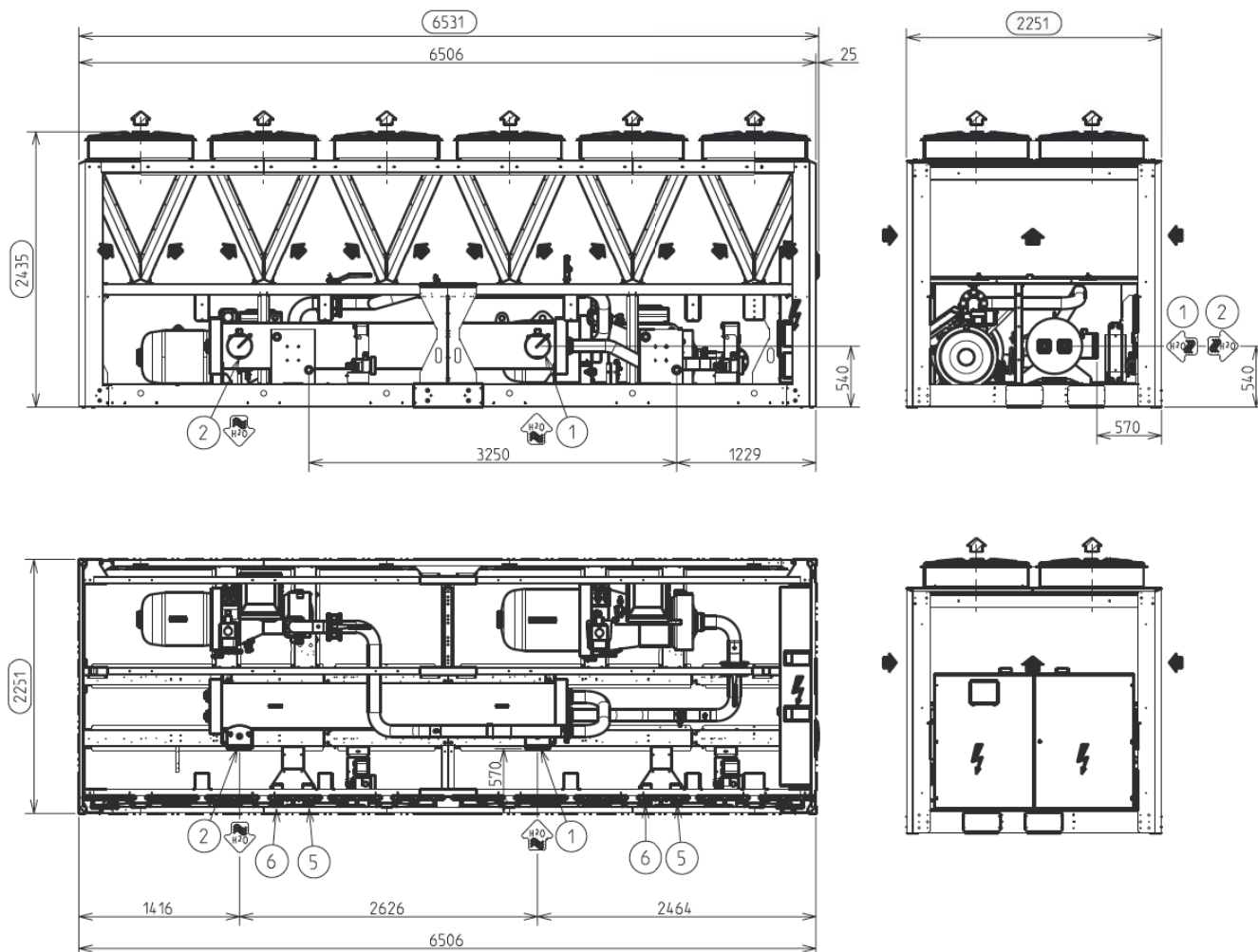
(2) Current for voltage 230V/1Ph/50Hz (+10/-10%)

(3) Starting current of largest compressor + maximum current of other compressors at 50% load.

Cable selection nominal current = sum of maximum rated currents in above tables.

## LX DIMENSIONS

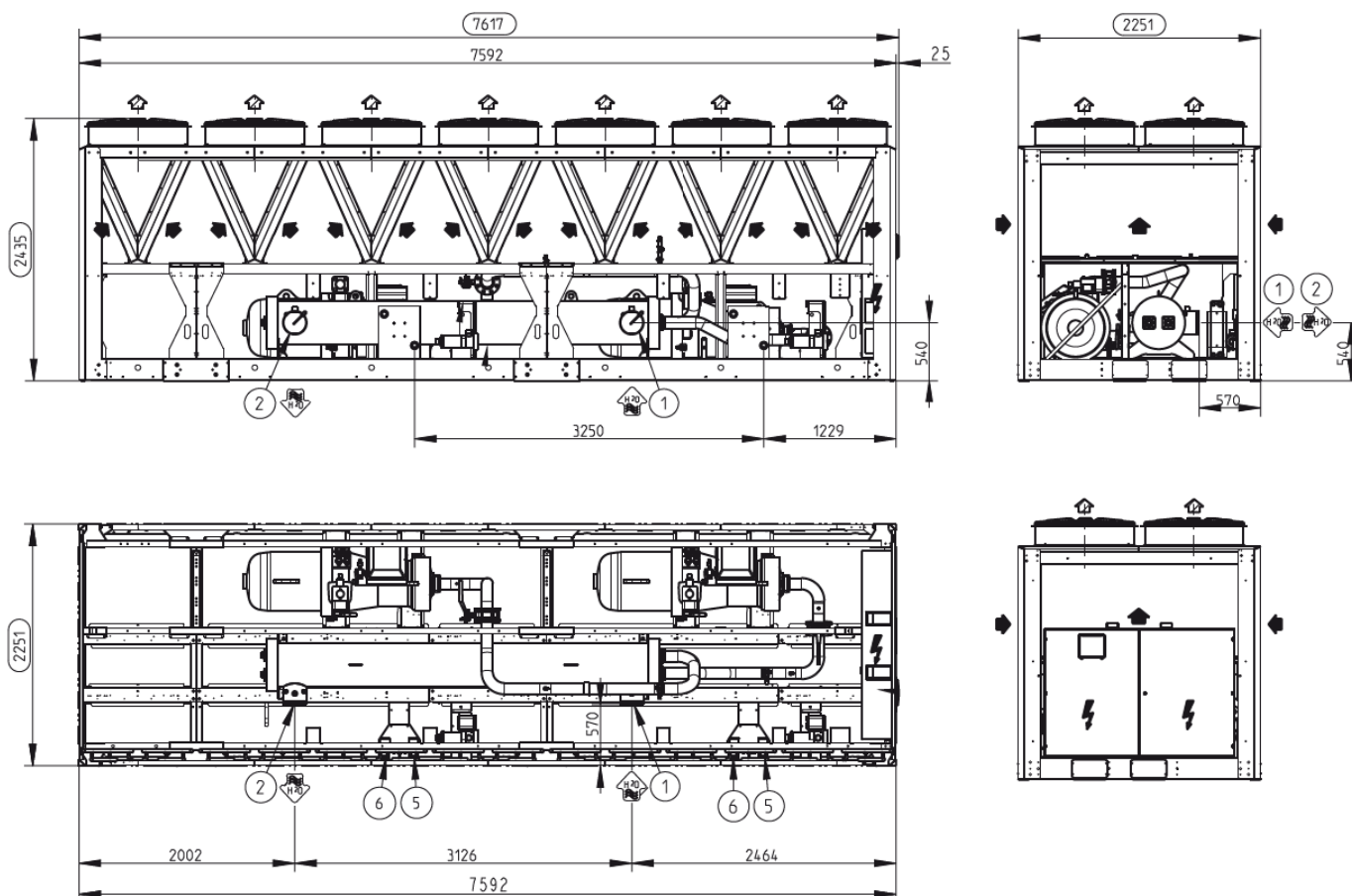
### ■ Sizes 2800X - 3000X



| POWERCIAT2<br>LX | Chilled water       |        | Desuperheater hot water |        | Weight (kg) |              |
|------------------|---------------------|--------|-------------------------|--------|-------------|--------------|
|                  | inlet               | outlet | inlet                   | outlet | empty       | in operation |
|                  | 1                   | 2      | 5                       | 6      |             |              |
| 2800X STD        | VICTAULIC<br>DN 200 |        | VICTAULIC<br>DN 50      |        | 5196        | 5436         |
| 3000X STD        |                     |        |                         |        | 5612        | 5852         |

## LX DIMENSIONS

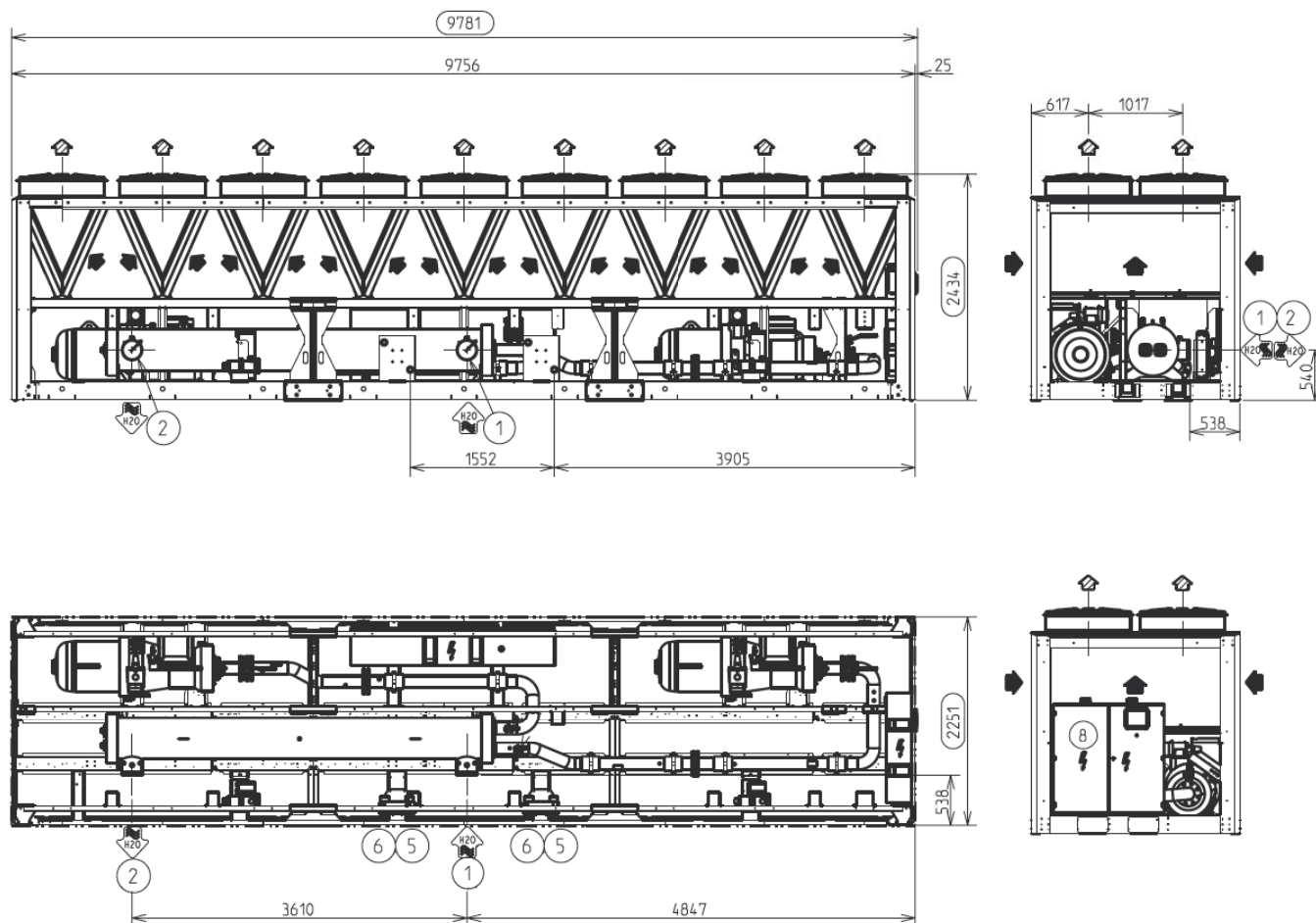
### ■ Sizes 3200X to 3600X



| POWERCAT2 LX | Chilled water    |        | Desuperheater hot water |        | Weight (kg) |              |
|--------------|------------------|--------|-------------------------|--------|-------------|--------------|
|              | inlet            | outlet | inlet                   | outlet | empty       | in operation |
| 3200X STD    | 1                | 2      | 5                       | 6      | 6558        | 6841         |
| 3400X STD    | VICTAULIC DN 200 |        | VICTAULIC DN 50         |        | 6591        | 6873         |
| 3600X STD    |                  |        |                         |        | 6618        | 6901         |

## LX DIMENSIONS

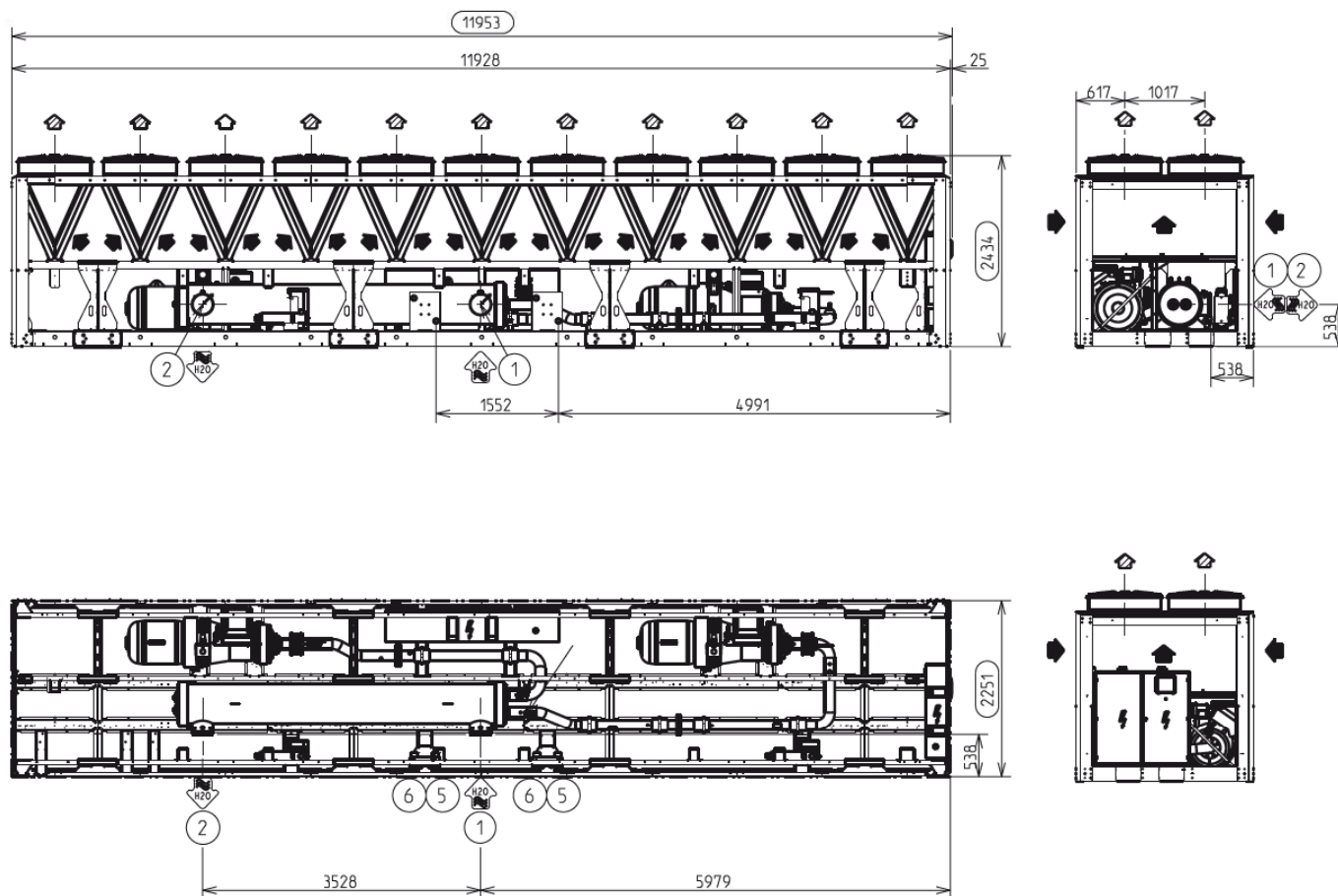
### ■ Sizes 4200X to 4800X



| POWERCIAT2<br>LX | Chilled water       |        | Desuperheater hot water |        | Weight (kg) |              |
|------------------|---------------------|--------|-------------------------|--------|-------------|--------------|
|                  | inlet               | outlet | inlet                   | outlet |             |              |
|                  | 1                   | 2      | 5                       | 6      | empty       | in operation |
| 4200X STD        | VICTAULIC<br>DN 200 |        | VICTAULIC<br>DN 50      |        | 7843        | 8278         |
| 4800X STD        |                     |        |                         |        | 7867        | 8302         |

## LX DIMENSIONS

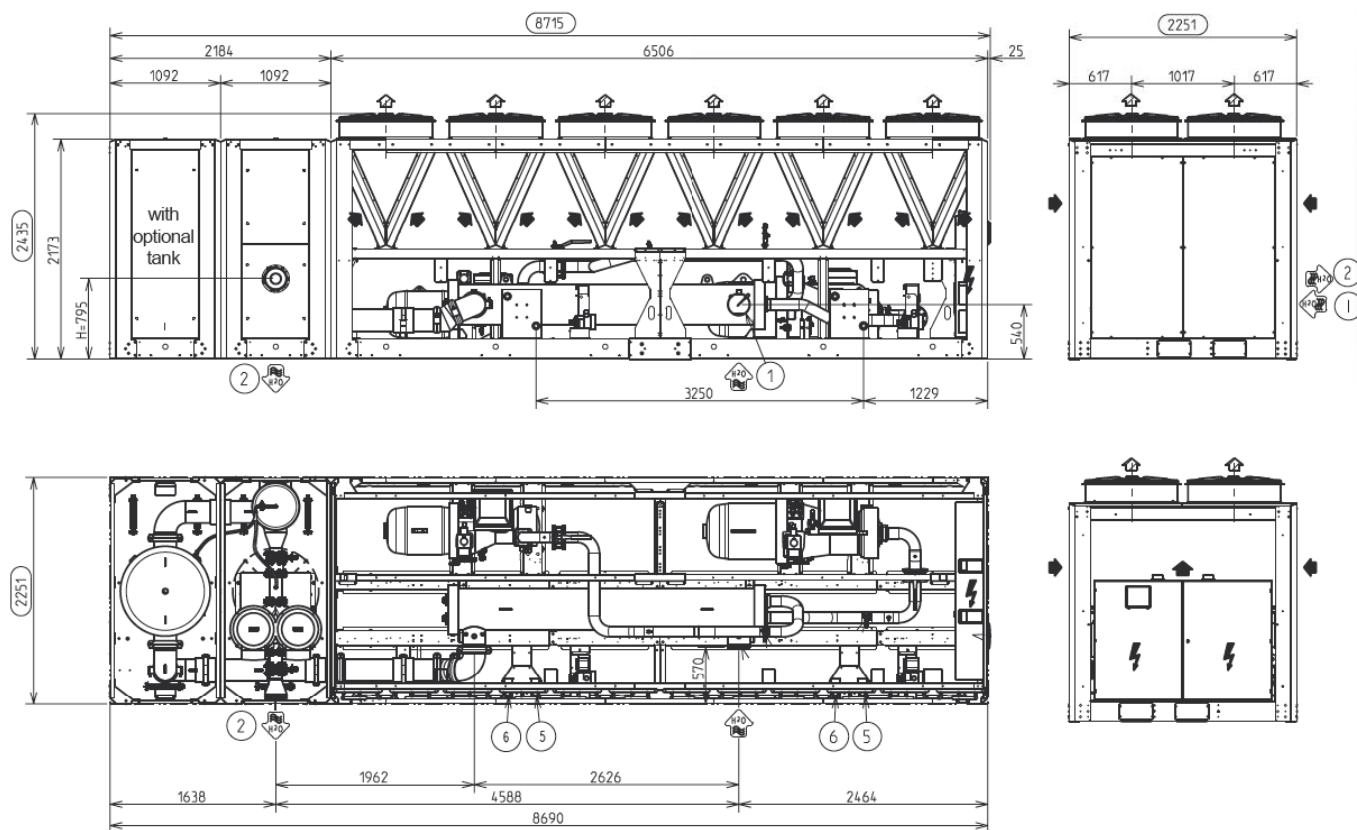
### ■ Sizes 5600X - 6400X



| POWERCIAT2<br>LX | Chilled water       |        | Desuperheater hot water |        | Weight (kg) |              |
|------------------|---------------------|--------|-------------------------|--------|-------------|--------------|
|                  | inlet               | outlet | inlet                   | outlet |             |              |
|                  | 1                   | 2      | 5                       | 6      | empty       | in operation |
| 5600X STD        | VICTAULIC<br>DN 250 |        | VICTAULIC<br>DN 50      |        | 9334        | 9889         |
| 6400X STD        |                     |        |                         |        | 9508        | 10067        |

## LXC DIMENSIONS

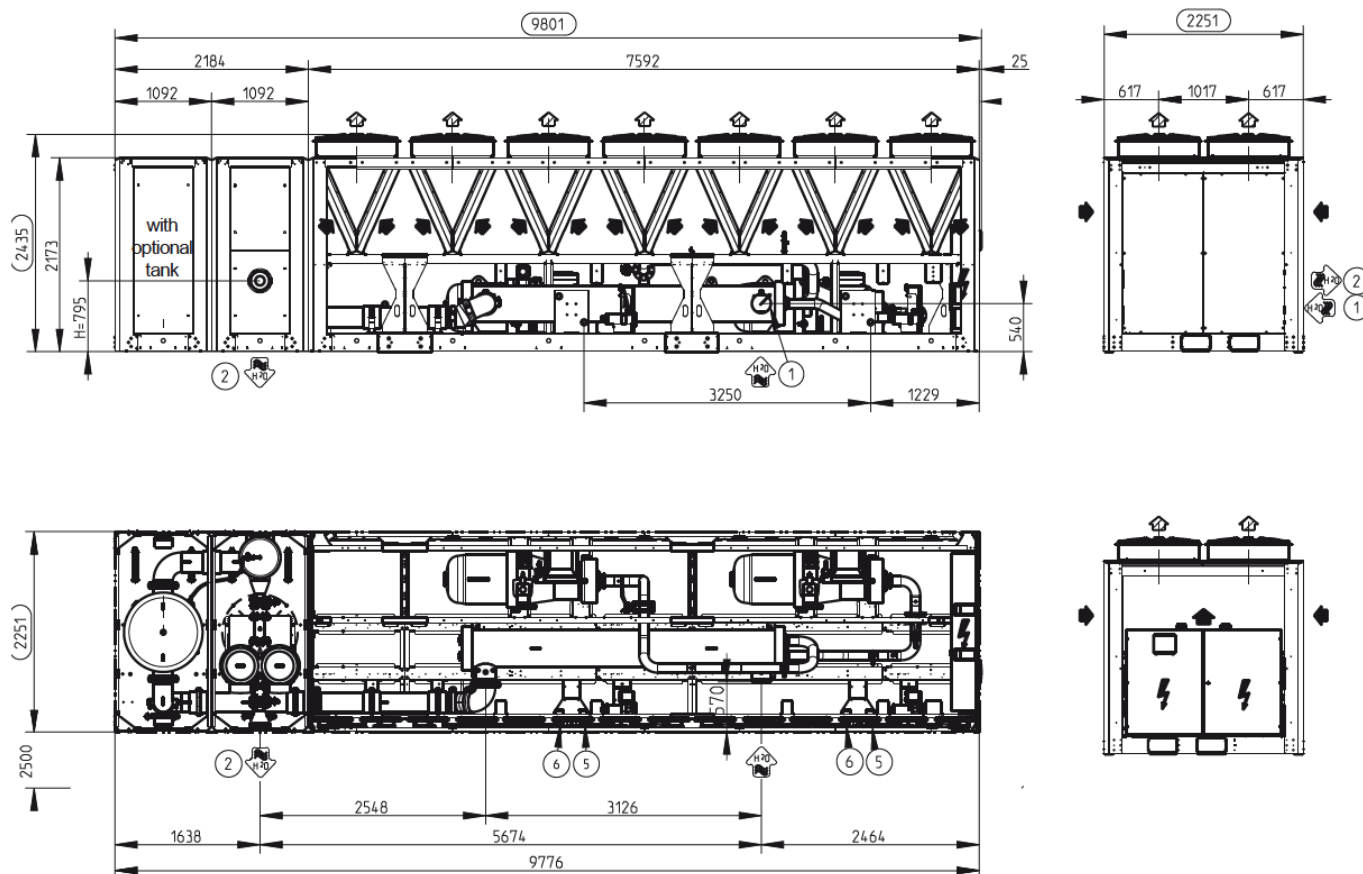
### ■ Sizes 2800X - 3000X



| POWERCIAT2<br>LXC | Chilled water       |        | Desuperheater hot water |        | Weight (kg)         |              |                  |              |
|-------------------|---------------------|--------|-------------------------|--------|---------------------|--------------|------------------|--------------|
|                   | inlet               | outlet | inlet                   | outlet | Without buffer tank |              | With buffer tank |              |
|                   | 1                   | 2      | 5                       | 6      | empty               | in operation | empty            | in operation |
| 2800X STD         | VICTAULIC<br>DN 200 |        | VICTAULIC<br>DN 50      |        | 6378                | 6762         | 7015             | 8391         |
| 3000X STD         |                     |        |                         |        | 6793                | 7177         | 7430             | 8807         |

## LXC DIMENSIONS

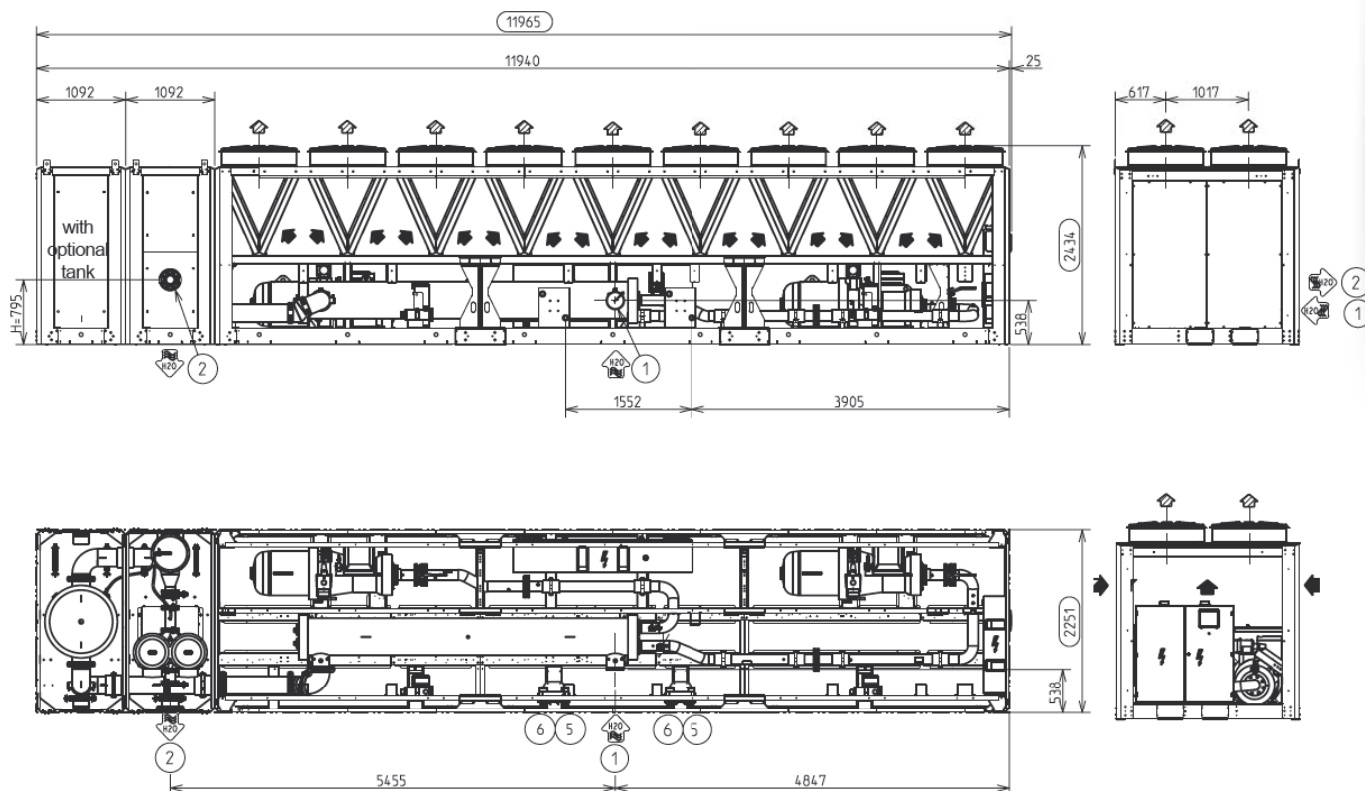
### ■ Sizes 3200X to 3600X



| POWERCAT2<br>LXC | Chilled water       |        | Desuperheater hot water |        | Weight (kg)         |              |                  |              |
|------------------|---------------------|--------|-------------------------|--------|---------------------|--------------|------------------|--------------|
|                  | inlet               | outlet | inlet                   | outlet | Without buffer tank |              | With buffer tank |              |
|                  | 1                   | 2      | 5                       | 6      | empty               | in operation | empty            | in operation |
| 3200X STD        | VICTAULIC<br>DN 200 |        | VICTAULIC<br>DN 50      |        | 7766                | 8197         | 8403             | 9810         |
| 3400X STD        |                     |        |                         |        | 7798                | 8229         | 8435             | 9842         |
| 3600X STD        |                     |        |                         |        | 7826                | 8256         | 8463             | 9869         |

## LXC DIMENSIONS

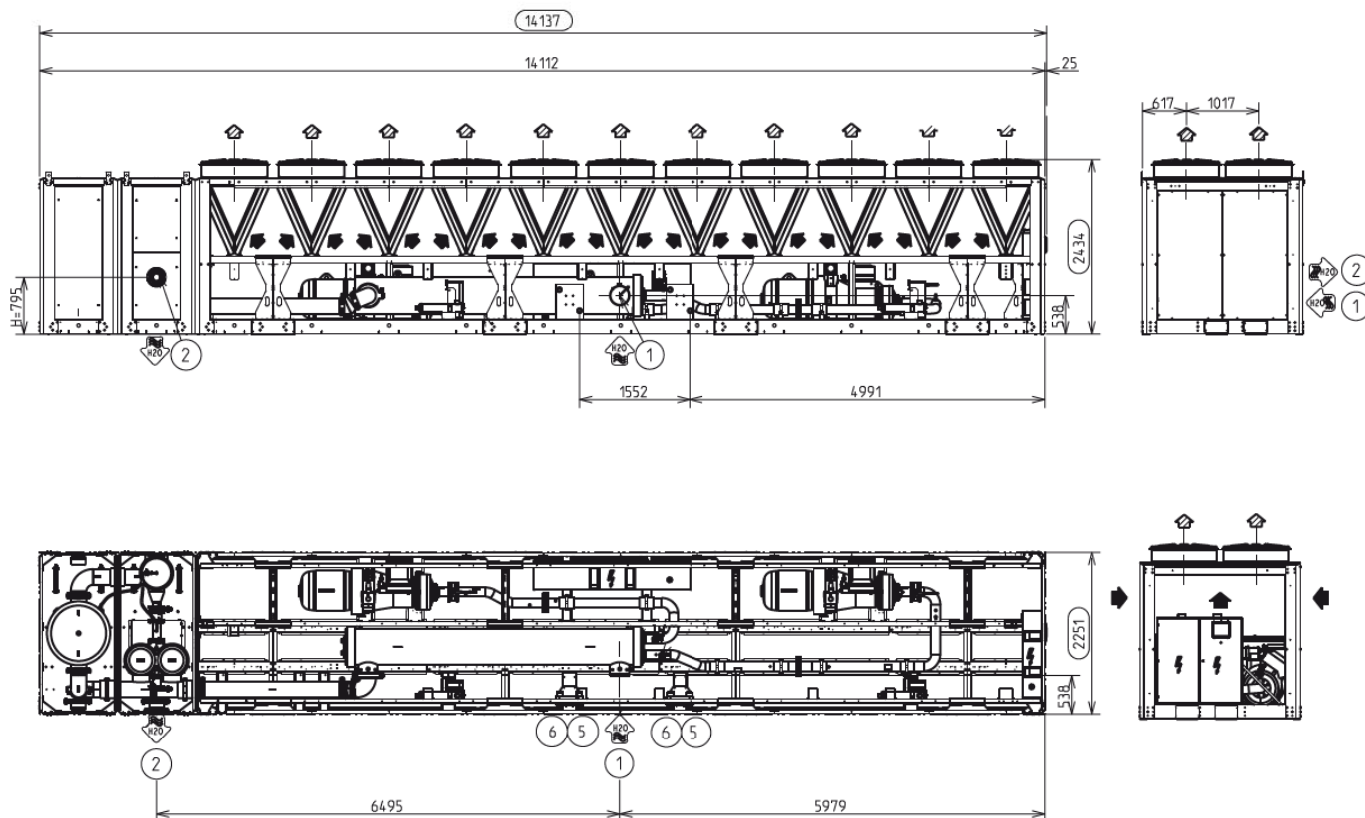
### ■ Sizes 4200X - 4800X



| POWERCIAT2<br>LXC | Chilled water       |        | Desuperheater hot water |        | Weight (kg)         |              |                  |              |
|-------------------|---------------------|--------|-------------------------|--------|---------------------|--------------|------------------|--------------|
|                   | inlet               | outlet | inlet                   | outlet | Without buffer tank |              | With buffer tank |              |
|                   | 1                   | 2      | 5                       | 6      | empty               | in operation | empty            | in operation |
| 4200X STD         | VICTAULIC<br>DN 200 |        | VICTAULIC<br>DN 50      |        | 9036                | 9612         | 9673             | 11234        |
| 4800X STD         |                     |        |                         |        | 9060                | 9636         | 9697             | 11258        |

## LXC DIMENSIONS

### ■ Sizes 5600X - 6400X



| POWERCAT2<br>LXC | Chilled water       |        | Desuperheater hot water |        | Weight (kg)         |              |                  |              |
|------------------|---------------------|--------|-------------------------|--------|---------------------|--------------|------------------|--------------|
|                  | inlet               | outlet | inlet                   | outlet | Without buffer tank |              | With buffer tank |              |
|                  | 1                   | 2      | 5                       | 6      | empty               | in operation | empty            | in operation |
| 5600X STD        | VICTAULIC<br>DN 200 |        | VICTAULIC<br>DN 50      |        | 10562               | 11292        | 11199            | 12914        |
| 6400X STD        |                     |        |                         |        | 10736               | 11470        | 11373            | 13091        |



→ Air-cooled water  
chillers

POWERCIAT2

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