Compact water-air units

Neptus XP

Scroll

R-410A

Cooling capacity: *24,6 to 92,4 kW*
Heating capacity: *27,9 to 109,8 kW*

Easy wall installation for its vertical orientation

Personalised control in offices and shopping centres

Discreet solution in centralised units with closed water loop

Applicable in geothermal installations

Plug-fan with EC-HEE motor (optional)

Description

The **Series Neptus RXP - IXP** cooling units and heat pumps are compactly-constructed water/air units.

They are equipped with centrifugal fans, plates exchangers, hermetic scroll compressors and electronic control with microprocessors, components optimised for the R-410A refrigerant.

These units have been designed for the air conditioning of spaces. They are quick to install and operate reliably. A vast number of options meet numerous operating demands.

All units are charged with refrigerant and are tested at the factory, verifying the correct operation of all their components.

Series

Neptus RXP series

Compact vertical water-air **cooling** unit.

Neptus IXP series

Compact vertical **reversible** water-air **heat pump** unit.

Range

- RXP - IXP series: 1 cooling circuit, 1 compressor, 5 models: 90 / 100 / 120 / 160 / 182.
- RXP - IXP series: 1 cooling circuit, 2 compressors, 4 models: 200 / 240 / 320 / 360.

Operation limits

Inlet air conditions		Cooling	Heating
Air inlet	Minimum	14ºC WB	10ºC
	Maximum	22ºC WB	27ºC
Water	Minimum	30ºC ① ③	5ºC ② ⑤
	Maximum	55ºC ①	20ºC ② ④

① Temperature of outlet water.
② Temperature of inlet water.
③ Operation up to 5ºC in units with condensation pressure control (optional).
④ Operation up to 35ºC in units with evaporation pressure control (optional).
⑤ Where there is risk of freezing of the plate exchanger will be required the use of glycol water.

Water loop heat pump systems

(WLHPS)

The topology of the installation is usually a closed loop in which water circulates by means of a circulation pump. This enables water to reach each zone and to supply the adequate temperature by exchanging energy.

This type of system is often used in multi-zone commercial buildings, being specially interesting in buildings that present zones with thermal inversion.

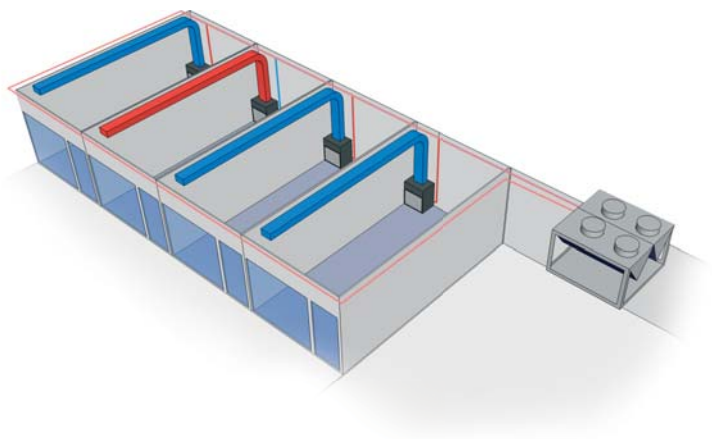
Only there will work the units of the spaces that demand it and with the function that is necessary, well with cooling, heating or ventilation. These will be the only units that will consume energy.

To maintain the conditions of the loop it is common to install units for heating the loop (boiler, air-water heat pump…) and cooling the loop (tower, dry-cooler, chiller…) in order to keep the water temperature between a few limits that allow water-air units to reach very high coefficients of performance and minimize the overall energy consumption of the buildings.

Common control of these systems is set to maintain an optimal water loop temperature. Water-air units in cooling mode will transfer energy to the loop and those in heating mode will evacuate energy. This will allow that sometimes both effects are balanced and produce temperature oscillation between the established limits, so the equipments to maintain the condition of the loop do not have to work. At this point also play an important role the existing inertia in the water loop.

If the temperature of the loop goes under 8ºC-10ºC the heat input elements (boiler, heat pump ...) will turn on. If the temperature raises over a temperature limit of 20-30ºC, there will be activated the heat dissipation systems of the loop (refrigeration tower or others).

Also it is interesting to propose strategies of free cooling by means of the refrigeration tower and / or dry-cooler if the outdoor temperature is lower than the water loop temperature, when the cooling is the main demand.



Geothermal & Hydrothermal energies

Convinced that the air-conditioning with low-enthalpy geothermal energy is an alternative source to the conventional, CIAT bets for this way of air conditioning. In this area, Neptus XP units are integrated in an optimal and simple way in all types of installations.

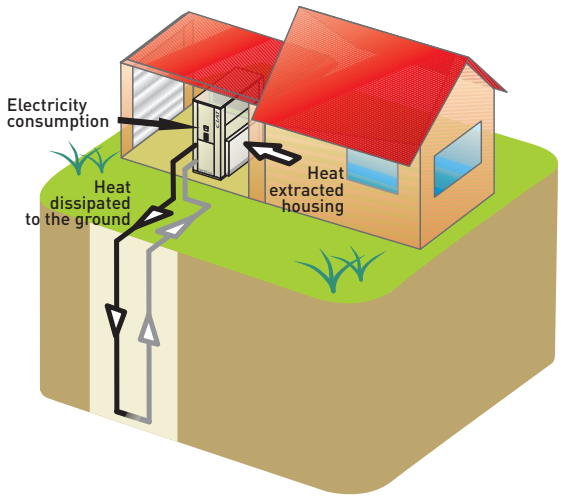
This option of great interest is in harnessing the energy of natural sinks (rivers, wells,...) using low temperature collectors or pumping from the water table:

- Open circuit (wells, rivers...).
- Horizontal geothermal exchangers in closed circuit.
- Vertical soundings geothermal exchangers in closed circuit.

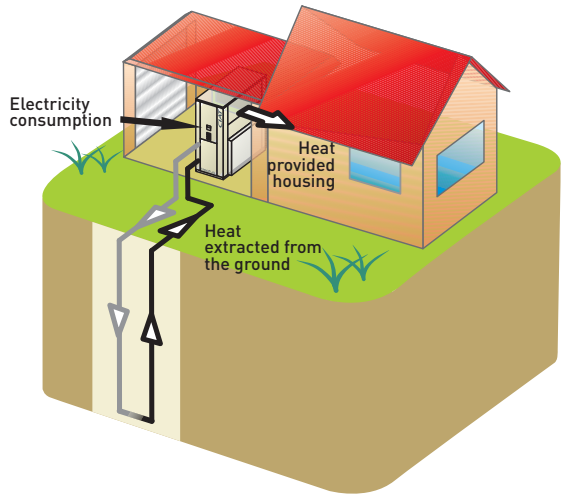
Water-air units can be connected with these systems using water as exchanged fluid. This means significant savings by not having to use other equipment to such order (dry-cooler, boiler, heat pump,...). And stable and moderate temperature of the ground allows units to operate with high seasonal energy efficiency.

In heating mode the ground acts as heat focus, of which energy is removed. And in cooling mode the ground acts as an energy sink.

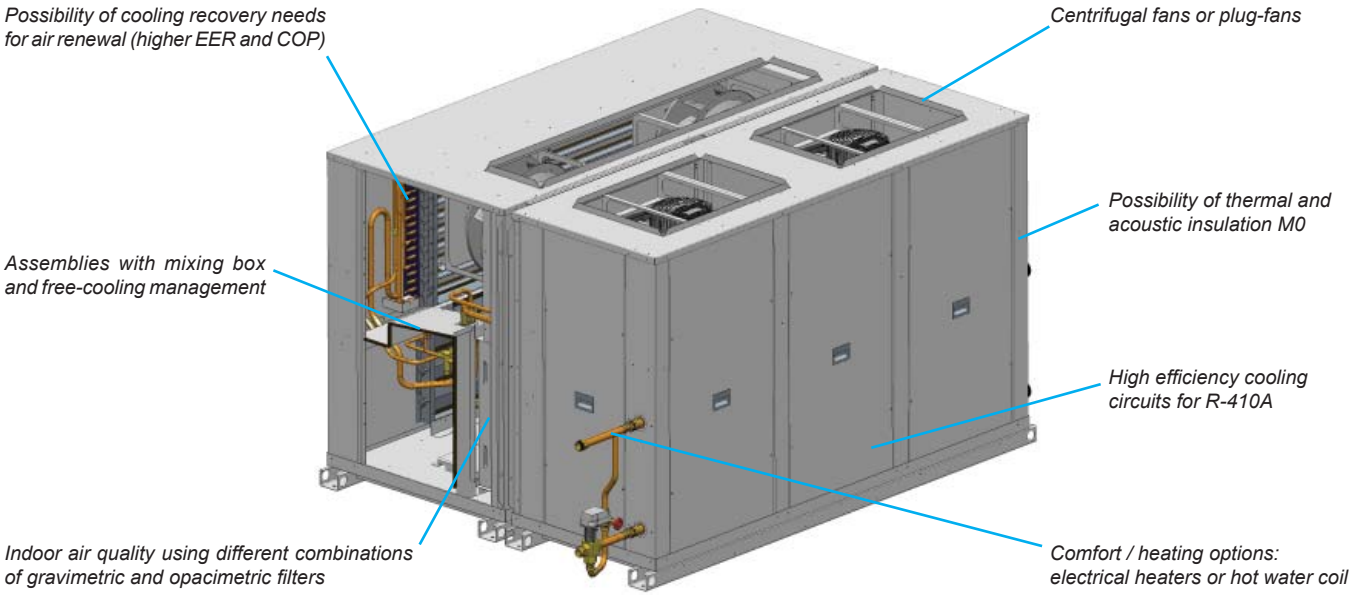
COOLING MODE



HEATING MODE



Compact water-air units



Unit components

Casing

- Casing made of galvanised steel metal with polyester paint, oven-dried. Self-supporting frame.

Cooling circuit

- Hermetic scroll-type compressor(s) with sound insulation, assembled over antivibration mounts. Control of phase equilibrium and the direction of rotation.
- Crankcase heater.
- Thermostatic expansion valve with external equalisation.
- Four-way cycle reversing valve (heat pump units).
- Liquid receiver.
- Liquid sight glass.
- Anti-acid dehydrating filter(s).

Indoor circuit

- Centrifugal fan(s) coupling by pulleys and belts. Electric motor(s) with tensioner, class F, IP55 and internal thermal protection. Double-intake turbine(s), with an impeller with front-curved blades. Greased spherical bearings, with no maintenance required.
- Coil with copper pipes and aluminium fins.
- Reusable air filters, assembled on a frame.
- Condensates drain pan.

Outdoor circuit

- Welded stainless steel plate exchanger.

Protections

- High pressure pressostat.
- Low pressure pressostat.
- Compressor discharge temperature control.
- Non-return valve built into the compressor.
- Main door switch.
- Magnetothermic protection switches for the compressor(s) power line and fan motor.
- Automatic switch in the control circuit.
- Anti-freeze protection built into the control (heat pumps).
- Water flow switch (heat pump units).

Electric panel

- Complete and fully wired electrical panel. Insulated panel cover to prevent condensation.
- Protection IP55.
- Electrical power supply with neutral.
- Main ground connection.
- Compressor and fan motor contacts.

Electronic controls

AVANT / AVANT+ electronic control (standard)

This control is standard for all models (in the AVANT version).

Electronic module with microprocessor comprised of a control board and a user terminal TCO ensures the following functions:

- Selection of the operating mode:
  - HEATING
  - COOLING
  - AUTO Auto
  - DEHUMIDIFICATION
  - FAN (without icon).

- Modification of the setpoint.
- Permanent control of the operating parameters.
- View of the values measured by the probes.
- Timing of the compressors.
- Anti-fire safety.
- Control of the outlet temperature.
- Compressor discharge temperature control by probe.
- Compensation of the setpoint based on the outdoor temperature.
- Timer and weekly programming.

- Failure diagnosis and main alarm.
- Counters of the number of starts and operating hours of the unit's components.

Optional functions:

- Performance in all seasons via the condensation and evaporation pressure control with proportional 3-way valve.
- Control of the auxiliary electrical heaters.
- Proportional control of a hot water auxiliary coil.
- Control of electronic fans.
- Humidity control.
- Control of the opening of the outdoor air damper.
- Management of thermal free-cooling (with the AVANT & AVANT+ versions).
- Management of enthalpic or thermoenthalpic free-cooling (only with the AVANT+ version).
- Detection of clogged filters and management of air flow.
- Connection to a centralised technical management system (BMS) for supervision.

Optionally, this control can have a terminal for pGD1 maintenance that facilitates the initial scheduling of the unit, the modification of the operating parameters and the description of the alarms produced.

AVANT Pro electronic control (optional)

It is available for all the models of the Neptus XP series, being compulsory with the optional of cooling recovery.

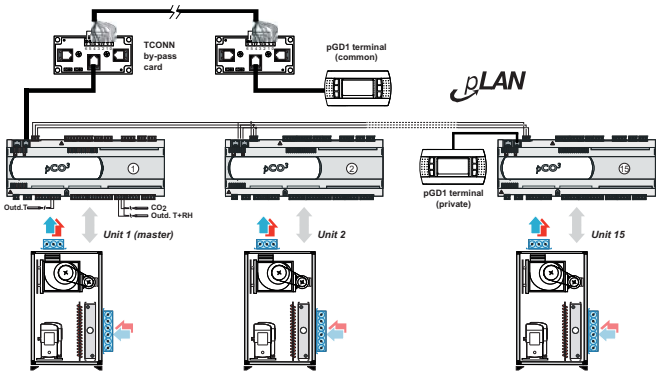
This electronic module with microprocessor comprised of a control board and a user terminal pGD1 ensures the following functions:

- Selection of the operating mode: COOLING / HEATING.
- Modification of the setpoint.
- Permanent control of the operating parameters.
- View of the values measured by the probes.
- Timing of the compressors.

- Anti-fire safety.
- Control of the outlet temperature.
- Compensation of the setpoint in accordance with the outdoor T.
- Daily and weekly programming.
- Failure diagnosis and main alarm.

Optional functions:

- Performance in all seasons via the condensation and evaporation pressure control with proportional 3-way valve.
- Control of the auxiliary electrical heaters.
- Proportional control of a hot water auxiliary coil.
- Management of the cooling recovery circuit.
- Control of electronic fans.
- Humidity control.
- Control of the opening of the outdoor air damper, depending on the mixing air temperature.
- Management of thermal, enthalpic or thermoenthalpic free-cooling.
- Management of clogged filters and control of air flow.
- Management of a smoke detecting station, a refrigerant leak detector and/or an energy meter.
- Control of the air quality probe.
- Connection to a centralised technical management system (BMS) for supervision.
- Connection to a local pLAN network thus allowing data and information communication for a maximum of 15 units.

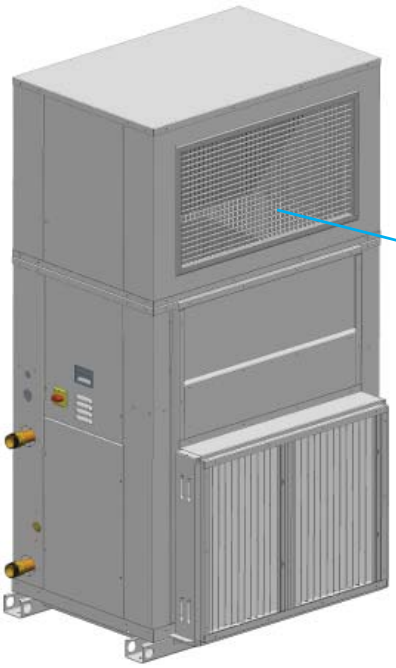


Compact water-air units

Options

Configuration / installation options

- Side air outlet, M01 assembly.
- Different pressure and flow configurations.
- Outlet plenum.



Plenum with punched or double deflection grille, which allows air to be discharged through either side.

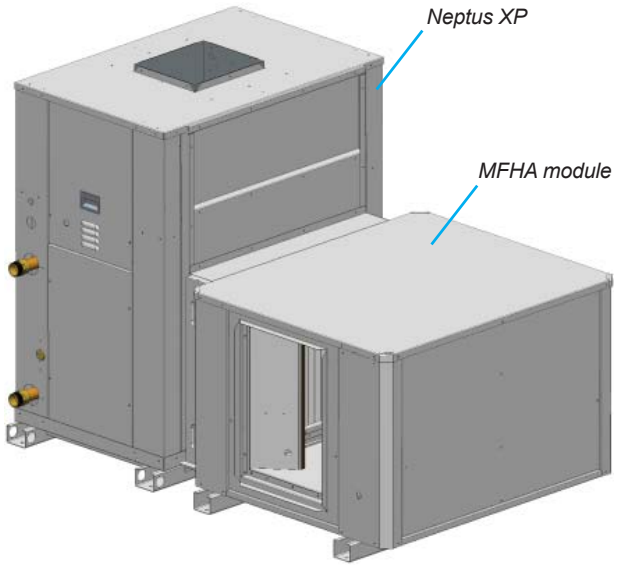
Note: Vertical discharge of the Neptus XP (M00 assembly) is mandatory with this plenum.

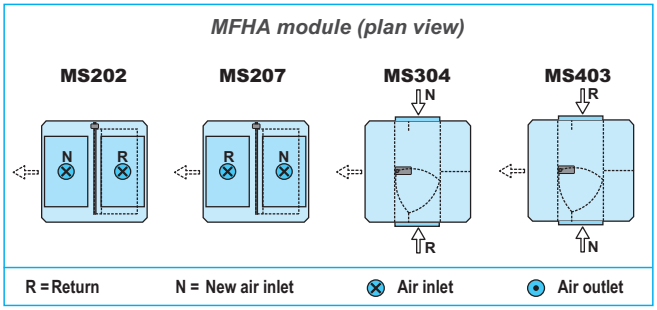
- Antivibration mounts made of rubber.
- Flexible hydraulic connections kit: 500 mm or 700 mm.

Mixing and free-cooling box (models 182 to 360)

Module independent from the unit, available in two configurations:

- **Horizontal box (MFHA module):**
  - 2 motorised dampers: Outdoor air intake with damper, interlocked with return damper.





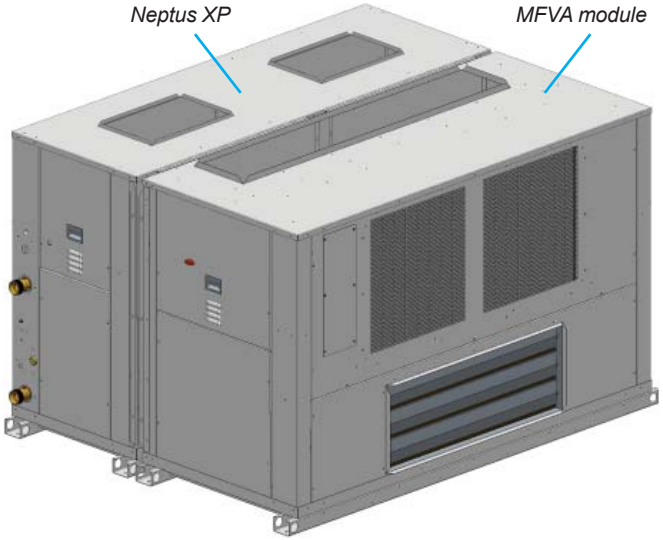
- **Vertical box (MFVA module):**
  - 2 motorised dampers: Outdoor air intake with damper, interlocked with return damper.

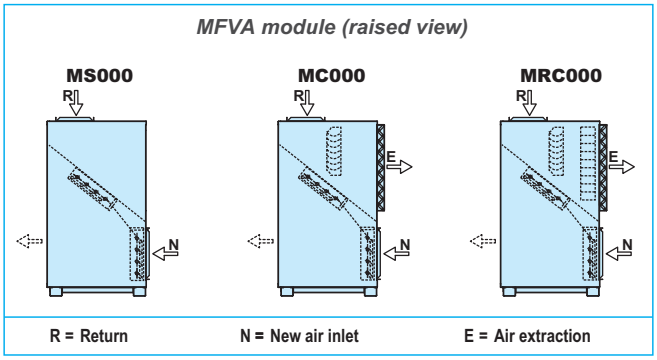
    Module: MS000.
  - 3 motorised dampers:
    - Centrifugal return fan.

      Module: MC000
    - Centrifugal return fan and recovery circuit.

      Module: MRC000

Note: Vertical discharge of the Neptus XP (M00 assembly) is mandatory with this box.





Energy saving / recovery options

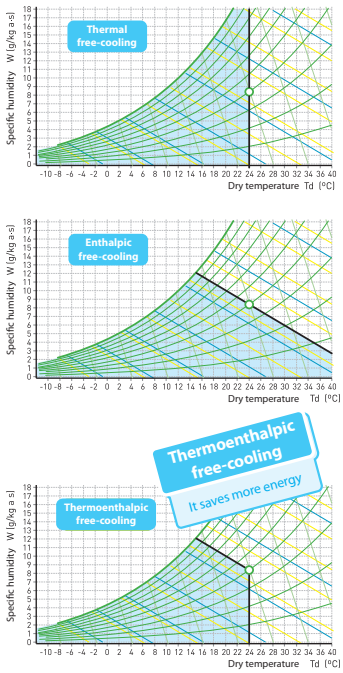
Free-cooling management

The operation of the unit in free-cooling allows the outdoor air conditions to be taken advantage of when these are more favourable than those of the return (or ambient) air. As such, this allows the cooling capacity to be reduced under these circumstances.

The percentage of air refreshing will range from 0% to 100%.

There are three options for the free-cooling management:

- Thermal, with comparison of temperatures.
- Enthalpic, with comparison of enthalpies.
- Thermoenthalpic, with comparison of enthalpies and a correction for temperature.



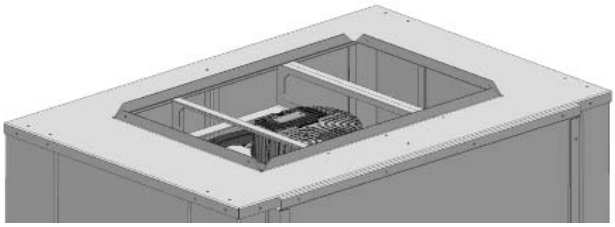
Plug-fan

- Electronic plug-fans in outlet and/or return with variable speed and flow sensor.

  Facilities type of service industries consumption of fans associated with air transportation assumes a high % of the annual consumption of air conditioning. The use of fans of greater efficiency has a direct impact on the reduction of consumption.

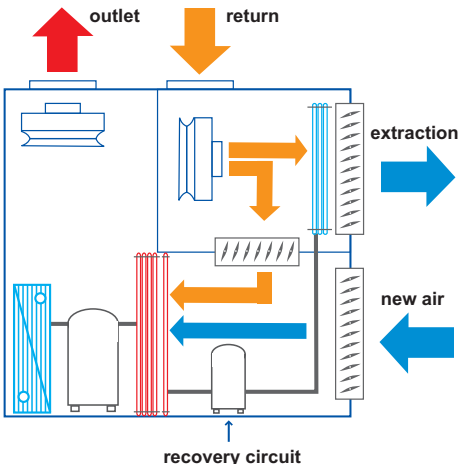
  Plug-fans with variable speed have associated the following advantages:

  - Elimination of friction loss of the transmission by direct link.
  - Greater efficiency aeraulics of the rotor (impeller jet with optimized profile), with very high available pressure.
  - Greater efficiency of the motor, DC motors of permanent magnets powered by electronic switching integrated in the motor.
  - Variable speed that allows to keep the outlet flow constant regardless of the degree of clogging of filters.
  - Accurate measurement of flow, a section calibrated in the fan aspiration and a differential pressure sensor allow control handling flow reliably both on VAC as VAV systems.



Cooling recovery circuit (models 182 to 360)

- Circuit dedicated to recovery, with independent control, adapted to the air refreshing requirements in order to raise the COP and EER of the unit set. With this option it is obligatory to change the AVANT Pro electronic control.
  - Centrifugal fan in vertical box with MRC000 assembly.
  - Air circuit coil comprised with copper pipes and aluminium fins.
  - Thermostatic expansion valve with external equalisation.
  - Hermetic scroll-type compressor with sound insulation, assembled over antivibration mounts.
  - Crankcase heater.
  - Four-way cycle reversing valve (heat pump units).
  - Anti-acid dehydrator.
  - Condensates drain pan.



Safety options

- Soft starter of the outlet and/or return fan which prolongs the set time mainly aimed at installations with cloth ducts.
- Differential pressostat for the detection of clogged filters.
- Differential pressostat for control of air flow.
- Smoke detecting station in accordance with the NF S 61-961 standard (with AVANT Pro control).
- Refrigerant leak detector (with AVANT Pro control), please consult.

Electric panel options

- Transformer for power supply without neutral in electrical panel.
- Compressor soft starter.
- Energy meter for monitoring of the power consumption of the installation (with AVANT Pro control), please consult.

Compact water-air units

Outdoor ambient temperature options

Temperature

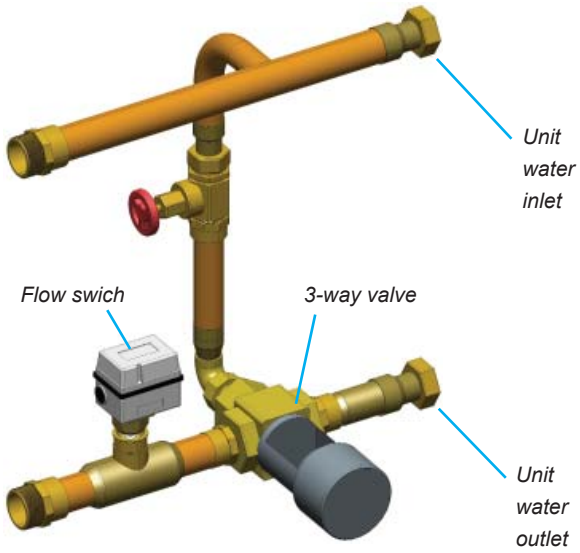
- Thermal and acoustic insulation 30 mm thick, with fire classification Euroclase A2-s1, d0.

Cover loss:

Conditions	Winter	
Indoor	20ºC	50% RH
Outdoor	-20ºC	94% RH
9mm NBR (std)	1790 W	2.0% HC
30mm rock wool	726 W	0.7% HC

Conditions	Summer	
Indoor	27ºC	50% RH
Outdoor	35ºC	40% RH
9mm NBR (std)	615 W	1.00% TCC
30mm rock wool	249 W	0.45% TCC

- Performance in all seasons: condensation and evaporation pressure control with proportional 3-way valve that controls the water flow through the plate exchanger.



Humidity

- Tropicalised electric panel.
- Tropicalised motors and fans (please consult).

Corrosion

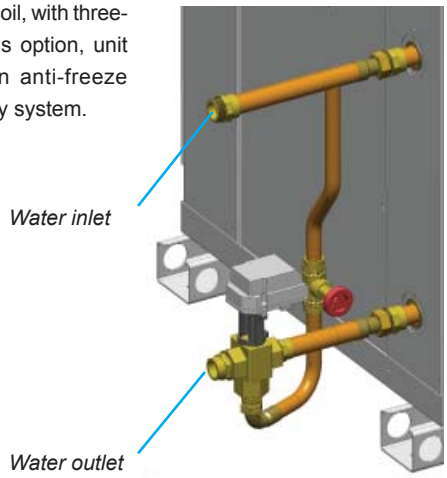
- Coils with copper pipes (indoor and/or auxiliary) and aluminium fins.
- Coils with copper pipes (indoor and /or auxiliary) and aluminium fins with polyurethane and blygold coating.

Comfort / heating options

- Auxiliary electrical heaters. With this option, the air flow controller is compulsory to be selected.

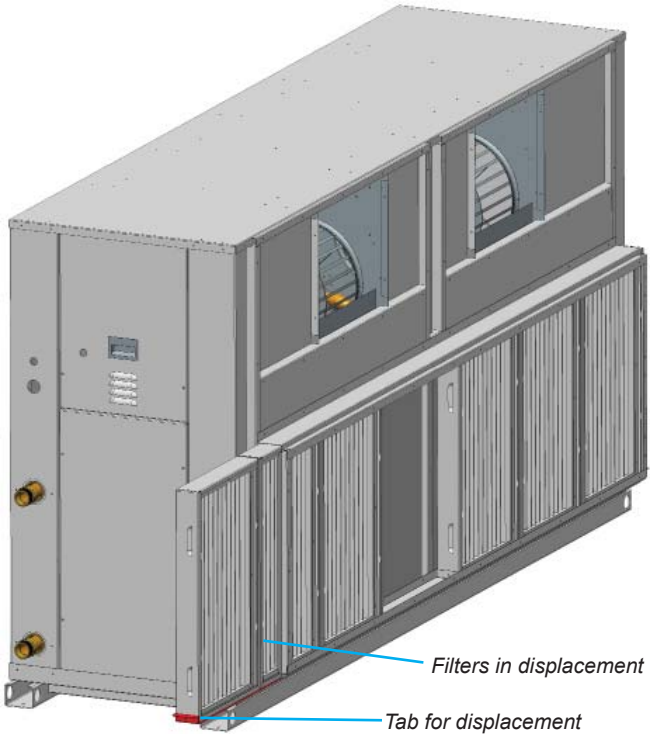
  Nevertheless, if the unit with electrical heaters incorporates outlet plug-fan, it is not possible to select the optional the air flow controller, since the proper fan realizes this function.

- Hot water auxiliary coil, with three-way valve. With this option, unit can incorporate an anti-freeze thermostat as safety system.



Comfort / indoor air quality options

- Gravimetric filter G4.
- Gravimetric filter G4 + Opacimetric folded filters F6 to F9.
- Double stage creased opacimetric filters: F6 + F7, F6 + F8 or F7 + F9.



- Air quality probe for installation in the environment or in duct to enable measuring CO_2 and/or volatile compounds (with AVANT Pro control, instead of the mixing probe).

Duct probe

Ambient probe

Control / comunication options

With AVANT / AVANT+ electronic control

The TCO user terminal is available in two configurations:

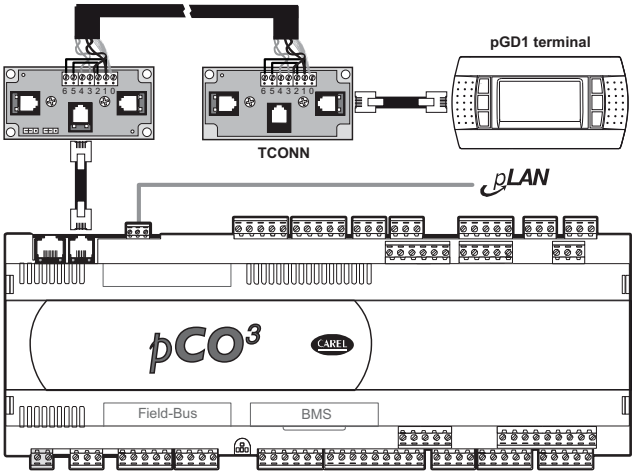
Terminal to fit

Surface terminal

- pGD1 terminal for maintaining of the unit.
- Return or ambient air temperature probe connected to the board that replaces the room probe of the thermostat TCO. This probe is required for fire safety.

With AVANT Pro electronic control

- Control without pGD1 terminal (for units with shared terminal).
- Kit remote control to 200 meters (pGD1 terminal + 2 TCONN bypass cards).
- Ambient air temperature probe.
- Ambient air enthalpy probe.
- Relative humidity probes of return and outdoor air: compulsory in units with enthalpic or thermoenthalpic free-cooling.



Comunication

AVANT and AVANT Pro controls allow the connection to a centralised technical management system by using a specific BMS card for some of the following communication protocols:

- RS485 serial cards for network communication with protocols: Carel, Modbus, LonWorks®, BACnet™ MSTP, Konnex.
- Ethernet pCO Web card for network communication with protocols: Modbus TCP/IP, BACnet™ Ethernet, TCP/IP, SNMP V1-2-3, FTP and HTTP.

Supervision solutions

CIAT has developed different solutions of supervision according to the dimensions of the installation.

- **pCO Web**

  It is the solution for the management and supervision of a single unit if it incorporates the Ethernet pCO Web card.

- **PlantWatchPRO**

  It is a solution designed for the monitoring of installations of medium - small dimensions, with ability to manage up to 10 units. Suitable for technical environments, it has no parts in movement.

  Includes: 5.7 " touch display, buzzer for notifications and 2 USB ports for downloading reports, charge devices models and applying service packs.

  In this case, each unit needs one RS485 Carel / Modbus board.

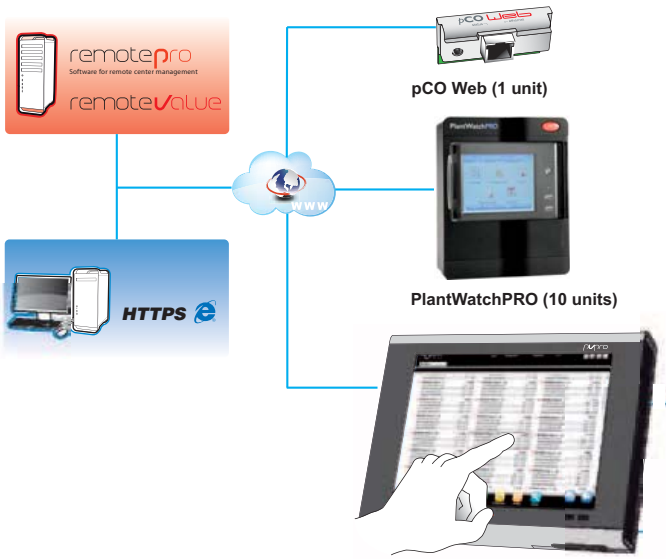
- **PlantVisorPRO2**

  This is the solution for the management and supervision of air-conditioning installations with up to 300 units. It performs advanced monitoring and maintenance functions and enables creating areas and groups which simplify the management of the installation. It also allows the integration of energy meters for monitoring the power consumption of the installation.

  PlantVisorPRO2 is available in two versions:

  - **Box:** comprised of the CPU unit and, optionally, by monitor and keyboard.
  - **Touch:** this includes the CPU and the touchscreen in the one device.

  In this case, each unit needs one RS485 Carel / Modbus board.



These systems allow the installation in remote management. Through a single connection to the Internet is accessed the information system. The Web interface, which is available for the local user, allows the monitoring and the complete configuration of the installation: from the office or any other user's current location.

For remote control of multiple sites, there are dedicated tools for centralized management as **RemotePRO** and **RemoteValue**.

Compact water-air units

TECHNICAL CHARACTERISTICS

Neptus XP		90	100	120	160	182	200	240	320	360
Cooling capacities	Cooling Capacity ① (kW)	24,55	28,76	31,68	40,88	46,61	57,81	63,66	84,01	92,41
	Power input ③ (kW)	5,90	7,24	7,91	10,10	10,70	14,35	15,70	19,88	23,25
	EER performance	4,16	3,97	4,00	4,05	4,36	4,03	4,05	4,23	3,98
Heating capacities	Heating capacity ② (kW)	27,94	33,02	38,18	47,12	53,90	66,69	74,37	98,02	109,79
	Power input ③ (kW)	7,00	8,34	9,79	11,99	13,23	15,49	17,72	23,33	27,25
	COP performance	3,99	3,96	3,90	3,93	4,08	4,31	4,20	4,20	4,03
Outdoor circuit	Nominal water flow (m^3/h)	5,2	6,1	6,7	8,7	9,8	12,2	13,5	17,7	19,6
	Pressure drop (m.w.c)	5,3	7,4	5,8	9,6	6,1	9,6	6,9	4,0	4,9
	Type of hydraulic connections	Gas threaded								
	Diameter of connections	1 1/2" M			2" M					
Indoor centrifugal fan circuit	Nominal air flow (m^3/h)	4.700	6.100	6.400	7.300	8.400	11.800	12.800	15.000	17.000
	Available static pressure (mm.a.c.)	8,0								
	Number / turbines	1 / 1				2 / 2				
	Motor output (kW)	1,1	2,2	3,0	2,2	2 x 1,1	2 x 2,2	2 x 3,0	2 x 2,2	2 x 3,0
	Power input (kW)	0,85	1,17	1,32	1,52	1,25	2,10	2,54	3,10	4,25
	Speed (r.p.m.)	1.048	1.225	1.273	942	952	1.183	1.252	925	1.003
Compressor	Type	Scroll								
	No. / No. stages / No. circuits	1 / 1 / 1					2 / 2 / 1			
	Oil type	Copeland 3MAF 32 cST, Danfoss POE 160 SZ, ICI Emkarate RL32 CF, Mobil EAL Artic 22 CC								
	Volume of oil (l)	3,0	3,3	3,3	3,3	6,2	2 x 3,3	2 x 3,3	2 x 3,3	2 x 6,2
Refrigerant	Type	R-410A								
	Global warming potential (GWP) ④	1.720								
	Charge (kg)	4,6	4,7	5,0	6,4	7,5	8,9	9,5	12,1	12,3
Electrical characteristics	Electrical power supply	400 V / III ph / 50 Hz (±10%)								
	Power supply	3 Wires + Ground + Neutral								
Maximum absorbed current	Compressor (A)	15,3	18,5	20,1	25,1	29,1	37,0	40,2	50,2	58,2
	Fan (A)	2,7	5,0	6,9	5,0	5,4	10,0	13,8	10,0	13.8
	Control (A)	0,9	0,9	0,9	0,9	0,9	1,8	1,8	1,8	1,8
	Total (A)	18,9	24,4	27,9	31,0	35,4	48,8	55,8	62,0	73,8
Dimensions	Length (mm)	1.141			1.471	2.091			2.731	
	Width (mm) ⑤	859			859	859			859	
	Height (mm)	1.284			1.422	1.284			1.422	
Weight	(kg)	334	337	345	453	568	604	625	719	730

① Cooling capacity calculated in accordance with the UNE-EN-14511 standard given for inlet/outlet water temperature conditions of 30/35ºC and indoor air temperature of 27ºC (19ºC WB).

② Heating capacity calculated in accordance with the UNE-EN-14511 standard given for inlet water temperature conditions of 15ºC and indoor temperature conditions of 20ºC.

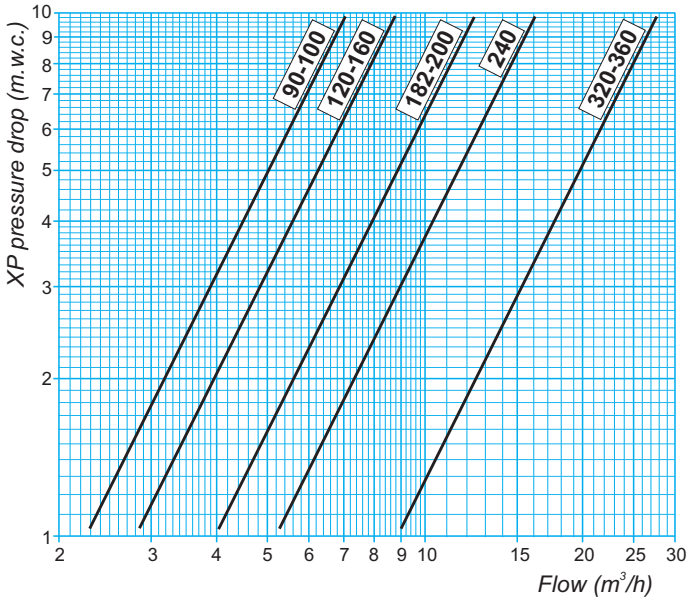
③ Total power input by compressor and motorised fans under nominal conditions, calculated in accordance with the UNE-EN-14511 standard.

④ Climatic warming potential of a kilogram of fluorinated greenhouse gas in relation to a kilogram of carbon dioxide over a period of 100 years.

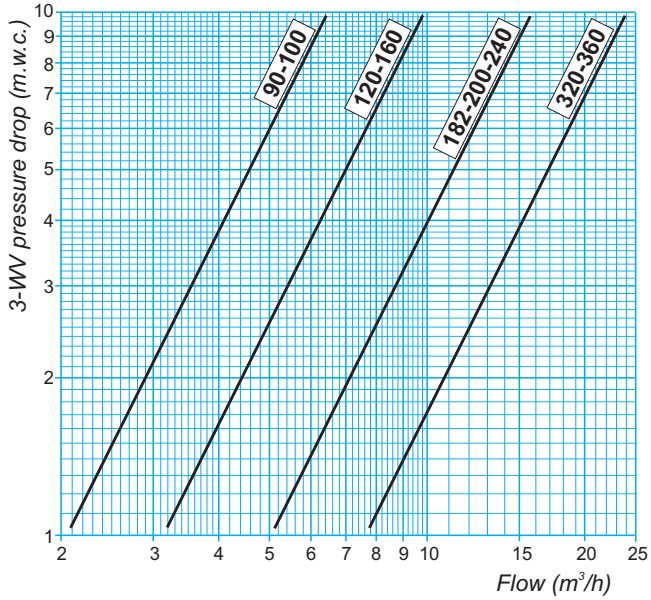
⑤ Upon request, it is possible to supply the frame of filters (146 mm) independently with the unit XP (713 mm), to be joined on site.

WATER PRESSURE DROP

■ Plate exchanger



■ 3-way valve (option)



SOUND POWER AND PRESSURE LEVEL

A) The **sound power level** in the **indoor fan** outlet must be taken into account for the silencer calculation:

Neptus XP	90	100	120	160	182	200	240	320	360
dB(A)	82,0	87,2	88,1	85,0	82,7	89,5	91,1	88,4	91,1

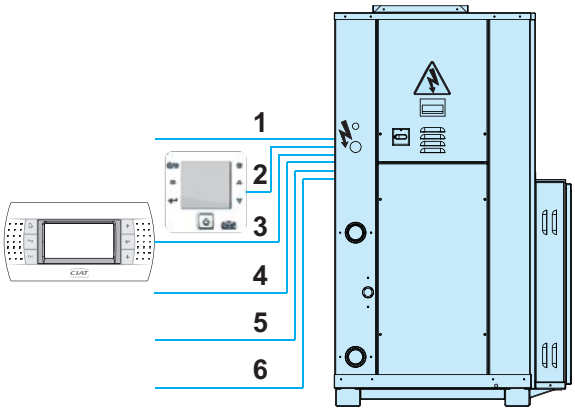
B) The **sound pressure level** of the unit, with the ducted return and discharge connections, measured at a distance of 5 metres, in open field, directivity at 2 and 1.5 metres from the ground is:

Neptus XP	90	100	120	160	182	200	240	320	360
dB(A)	54,7	56,3	58,0	57,6	59,6	58,7	60,7	60,7	64,0

Note: The sound pressure level depends on the installation conditions and, as such, it only indicated as a guide.

ELECTRICAL CONNECTIONS

No.	Neptus XP		90 to 360
1	Main power supply	400 III (±5%)	3 + N + GND
2	TCO user terminal connection ①		2 wires for supplying 230V + 1 shielded cable for communication, type AGW20/22 (1 twisted pair + drainwire + shielding)
3	pGD1 maintenance terminal connection (optional)		telephone cable 6 wires standard (RJ12 connector)
4	Remote off/on (optional)		2 wires
5	Main failure signal (optional)		2 wires
6	Safety electrical heaters (opt.)		2 wires (per stage)



① The same power supply used for powering the control board must also be used for powering the terminal.

OPTIONS FOR THE INDOOR CIRCUIT

■ Electrical heater

Auxiliary 2-stage electrical heaters for assembly and connection inside the unit, in one or two rows.

Important: if the unit has a centrifugal outlet fan (standard), it is mandatory that the air flow be controlled with the electrical heater.

Neptus XP	Total output (kW)	6	9	12	15	18	24	30
	Stage power (kW)	3 + 3	3 + 6	6 + 6	6 + 9	9 + 9	12 + 12	15 + 15
Current (A) (400V / IIIph / 50Hz)	90 / 100 / 120	8,7	13,0	17,3	unavailable			
	160	unavailable		17,3	21,7	26,0	unavailable	
	182 / 200 / 240 / 320 / 360	unavailable			21,7	26,0	34,6	43,3
Module weight (kg)		7,7	9,3	10,7	12,6	14,6	21,4	25,2

■ Auxiliary hot water coil

Hot water coil assembled inside the unit with a three-way valve managed by the unit control for back-up during heating in heat pump units.

In this case the air inlet temperature matches the air outlet temperature of the indoor coil (indoor coil outlet conditions for 20ºC of air inlet, with water inlet temperature to the outdoor circuit of 15ºC).

Neptus XP			90	100	120	160	182	200	240	320	360
Air pressure drop		(mm.a.c.)	3,7	5,7	6,2	4,5	2,8	4,9	5,6	3,9	4,7
Water 80/60ºC	Heating capacity	(kW)	14,0	17,4	16,7	22,0	28,9	38,8	40,0	46,1	50,1
	Water flow	(m^3/h)	0,6	0,8	0,7	1,0	1,3	1,7	1,8	2,0	2,2
	Water pressure drop	(m.w.c)	0,4	0,5	0,5	0,8	1,0	1,5	1,6	1,0	1,2
Water 90/70ºC	Heating capacity	(kW)	19,6	23,9	23,5	30,9	40,4	53,1	55,0	65,2	70,8
	Water flow	(m^3/h)	0,9	1,1	1,0	1,4	1,8	2,4	2,4	2,9	3,1
	Water pressure drop	(m.w.c)	0,7	0,8	0,8	1,5	1,6	2,5	2,7	1,5	1,8
Module weight (empty)		(kg)	7,8	7,8	7,8	11	16,3	16,3	16,3	34,4	34,4
Diameter of hydraulic connections			3/4”			1”					

■ Outlet plug-fan with variable speed

Neptus XP		90	100	120	160	182	200	240	320	360
Nominal air flow	(m^3/h)	4.700	6.100	6.400	7.300	8.400	11.800	12.800	15.000	17.000
Nominal available static pressure	(mm.a.c.)	8								
Nominal power input	(kW)	0,67	0,88	1,00	1,28	1,04	1,94	2,30	2,52	3,34
Maximum available static pressure	(mm.a.c.)	77,3	64,5	59,7	56,1	84,0	68,3	61,7	56,4	39,1
Number		1				2				
Diameter	(mm)	500								
Speed	(r.p.m.)	1.700								
Motor output	(kW)	1 x 2,68				2 x 2,68				
Maximum absorbed current	(A)	4,2				8,4				

■ Return plug-fan with variable speed (MC assembly)

Neptus XP			182	200	240	320	360
Nominal air flow		(m^3/h)	8.400	11.800	12.800	15.000	17.000
Nominal available static pressure		(mm.a.c.)	8				
Nominal power input		(kW)	0,70	1,52	1,86	1,56	2,08
Maximum available static pressure		(mm.a.c.)	116,3	95,3	89,6	66,8	52,8
Number			2				
Diameter		(mm)	400			500	
Speed		(r.p.m.)	2.500			1.700	
Motor output		(kW)	2 x 3,0			2 x 2,68	
Maximum absorbed current		(A)	9,2			8,4	
Dimensions of the module	Long	(mm)	2.091			2.731	
	Width	(mm)	781			781	
	Height	(mm)	1.284			1.422	
Module weight		(kg)	294			305	

■ Cooling recovery circuit (MRC assembly)

Note: with this option, it is obligatory to change the **AVANT Pro** electronic control.

Neptus XP			182	200	240	320	360
Return plug-fan	Nominal flow	(m^3/h)	8.400	11.800	12.800	15.000	17.000
	Nominal power input	(kW)	0,96	2,00	2,42	2,00	2,60
	Maximum available static pressure	(mm.a.c)	107,1	80,6	73,1	58,6	43,2
Recovery compressor characteristics	Type		Scroll				
	No. of compressors / circuits		1 / 1				
	Oil type		Copeland 3MAF 32 cST, Danfoss POE 160 SZ, ICI Emkarate RL32 CF, Mobil EAL Artic 22 CC				
	Volume of oil	(l)	1,6	1,6	1,6	3,0	3,0
	Maximum absorbed current	(A)	9,0	9,0	13,0	15,3	15,3
Refrigerant load R-410A		(kg)	2,5	2,5	2,6	4,3	4,3
Dimensions of the module	Long	(mm)	2.091			2.731	
	Width	(mm)	781			781	
	Height	(mm)	1.284			1.422	
Module weight		(kg)	443			468	

Compact water-air units

Cooling capacity (kW)

Temperature of outlet water 35ºC

RXP IXP	Flow (m^3/h)	Indoor air temperature																	
		20 ºC / 50 % RH			23 ºC / 50 % RH			25 ºC / 50 % RH			27 ºC / 50 % RH			29ºC / 50 % RH			31ºC / 50 % RH		
		Pft	Pfs	Pa	Pft	Pfs	Pa	Pft	Pfs	Pa	Pft	Pfs	Pa	Pft	Pfs	Pa	Pft	Pfs	Pa
90	3.760	20,01	15,97	5,26	21,75	16,55	5,31	22,90	16,86	5,34	24,13	17,18	5,38	25,43	17,49	5,41	26,80	17,76	5,44
	4.700	20,82	17,67	5,27	22,56	18,34	5,33	23,80	18,77	5,37	25,05	19,15	5,40	26,40	19,52	5,42	27,82	19,88	5,47
	5.640	21,33	19,15	5,29	23,07	19,98	5,35	24,35	20,47	5,38	25,64	20,97	5,42	27,04	21,43	5,45	28,54	21,87	5,49
100	4.880	23,64	19,31	6,31	25,59	20,04	6,39	26,98	20,46	6,45	28,46	20,89	6,51	29,98	21,26	6,57	31,60	21,63	6,61
	6.100	24,34	21,36	6,34	26,56	22,20	6,43	27,91	22,78	6,48	29,47	23,30	6,55	31,06	23,77	6,59	32,73	24,23	6,66
	7.320	25,05	23,12	6,37	27,07	24,12	6,45	28,48	24,79	6,51	29,98	25,42	6,57	31,66	26,05	6,61	33,37	26,62	6,68
120	5.120	25,94	20,87	6,91	28,24	21,57	6,95	29,75	22,09	7,00	31,36	22,53	7,05	33,03	22,92	7,10	34,81	23,30	7,15
	6.400	27,03	23,07	6,93	29,30	23,97	6,99	30,90	24,53	7,04	32,52	25,05	7,09	34,27	25,54	7,14	36,07	26,00	7,18
	7.680	27,71	24,98	6,94	29,90	26,04	7,01	31,51	26,71	7,06	33,23	27,37	7,11	35,07	27,98	7,16	37,01	28,78	7,21
160	5.840	33,45	26,03	8,94	36,17	26,85	9,01	38,17	27,37	9,06	40,25	27,88	9,10	42,42	28,36	9,16	44,68	28,76	9,22
	7.300	34,87	28,76	8,98	37,65	29,74	9,05	39,67	30,38	9,08	41,86	31,00	9,14	44,06	31,56	9,20	46,36	32,07	9,27
	8.760	35,84	31,21	9,00	38,81	32,43	9,06	40,86	33,18	9,11	43,00	33,87	9,17	45,23	34,52	9,23	47,56	35,12	9,30
182	6.720	37,61	29,12	9,97	40,91	30,16	10,00	43,16	30,76	10,03	45,51	31,31	10,06	47,97	31,83	10,09	50,69	32,34	10,12
	8.400	39,32	32,11	9,98	42,58	33,26	10,02	44,91	34,00	10,05	47,24	34,69	10,08	49,96	35,32	10,12	52,68	35,94	10,15
	10.080	40,48	34,76	9,99	43,82	36,10	10,04	46,14	36,93	10,06	48,67	37,78	10,10	51,35	38,52	10,13	54,09	39,26	10,16
200	9.440	47,38	38,62	12,68	51,28	39,97	12,84	54,19	40,75	12,96	57,07	41,65	13,08	60,16	42,39	13,17	63,36	43,07	13,30
	11.800	49,15	42,80	12,75	53,18	44,51	12,92	56,04	45,55	13,04	59,04	46,55	13,13	62,34	47,56	13,26	65,55	48,37	13,38
	14.160	50,60	46,69	12,81	54,49	48,67	12,96	57,43	49,96	13,09	60,51	51,11	13,19	63,83	52,28	13,32	67,08	53,29	13,44
240	10.240	52,22	42,21	13,82	56,74	43,76	13,87	59,78	44,64	13,97	62,98	45,50	14,07	66,32	46,28	14,17	69,81	47,00	14,27
	12.800	54,20	46,79	13,89	58,77	48,62	13,94	62,08	49,89	14,05	65,25	50,80	14,14	68,68	51,78	14,24	72,26	52,68	14,37
	15.360	55,57	50,92	13,94	60,31	53,13	13,99	63,48	54,46	14,09	66,92	55,74	14,19	70,35	56,88	14,29	74,05	58,07	14,39
320	12.000	68,84	53,72	17,54	74,61	55,50	17,61	78,59	56,55	17,72	82,76	57,53	17,83	87,12	58,46	17,95	92,09	59,43	17,96
	15.000	71,56	59,36	17,62	77,59	61,54	17,69	81,72	62,83	17,80	86,00	64,10	17,92	90,56	65,26	18,04	95,58	66,42	18,05
	18.000	73,60	64,59	17,69	79,78	67,18	17,75	84,01	68,75	17,87	88,42	70,21	18,00	93,33	71,68	18,10	98,11	72,95	18,13
360	13.600	76,01	59,65	20,14	82,30	61,62	20,25	86,75	62,83	20,28	91,64	64,04	20,29	96,70	65,18	20,31	101,81	66,12	20,40
	17.000	79,04	65,94	20,19	85,62	68,35	20,28	90,17	69,82	20,31	95,40	71,45	20,33	100,43	72,75	20,37	105,76	73,95	20,46
	20.400	81,32	71,81	20,22	88,09	74,65	20,33	93,09	76,54	20,34	98,05	78,24	20,36	103,15	79,74	20,43	108,52	81,23	20,50

Pft: Total cooling capacity in kW
Pfs: Sensitive cooling capacity in kW
Pa: Compressor power input in kW

Correction coefficients due to variation of the outlet water temperature

Outlet temperature	30ºC	35ºC	40ºC	45ºC	50ºC	55ºC
Coefficient K1	1,042	1,000	0,955	0,904	0,851	0,792
Coefficient K2	1,022	1,000	0,976	0,949	0,919	0,888
Coefficient K3	0,907	1,000	1,102	1,218	1,348	1,496

Correction coefficients due to variation of the relative humidity

Relative humidity	40%	50%	60%	70%
Coefficient K4	0,945	1,000	1,054	1,111
Coefficient K5	1,120	1,000	0,879	0,766
Coefficient K6	0,994	1,000	1,006	1,012

PFT = Pft x K1 x K4
PFS = Pfs x K2 x K5
PA = Pa x K3 x K6

Heating capacity (kW)

Indoor temperature 20ºC

IXP	Flow (m^3/h)	Water inlet temperature							
		5ºC		10ºC		15ºC		20ºC	
		Pc	Pa	Pc	Pa	Pc	Pa	Pc	Pa
90	3.760	21,72	6,17	24,27	6,56	26,82	6,95	29,39	7,69
	4.700	23,03	5,95	24,72	6,17	27,44	6,50	30,16	6,84
	5.640	23,24	5,69	25,03	5,89	27,75	6,18	30,70	6,50
100	4.880	25,82	7,23	28,75	7,66	31,69	8,11	34,80	8,60
	6.100	26,02	6,84	29,21	7,23	32,31	7,62	35,65	8,06
	7.320	26,32	6,60	29,48	6,94	32,72	7,30	36,28	7,71
120	5.120	29,48	8,33	31,87	8,83	36,26	9,39	38,69	9,95
	6.400	30,48	8,03	32,58	8,31	37,34	8,95	39,68	9,27
	7.680	30,75	7,69	33,00	7,96	37,64	8,38	40,34	8,81
160	5.840	36,79	10,61	40,74	11,19	45,11	11,93	49,37	12,66
	7.300	37,59	9,92	41,65	10,42	46,14	11,01	50,85	11,66
	8.760	37,94	9,44	42,25	9,91	46,94	10,43	51,85	11,00
182	6.720	42,57	12,22	46,96	12,87	51,89	13,66	56,82	14,49
	8.400	43,02	11,37	48,08	11,95	53,27	12,60	58,64	13,32
	10.080	43,54	10,86	48,66	11,34	54,14	11,93	59,71	12,53
200	9.440	52,31	13,53	58,25	14,33	64,20	15,18	70,50	16,09
	11.800	52,72	12,80	59,18	13,53	65,46	14,26	72,23	15,08
	14.160	53,32	12,35	59,73	12,99	66,29	13,66	73,50	14,43
240	10.240	57,46	15,02	62,12	15,92	70,67	16,93	75,41	17,94
	12.800	59,41	14,48	63,50	14,99	72,78	16,14	77,34	16,72
	15.360	59,94	13,87	64,32	14,35	73,36	15,11	78,63	15,89
320	12.000	76,57	20,56	84,79	21,69	93,89	23,12	102,75	24,54
	15.000	78,24	19,23	86,69	20,20	96,03	21,34	105,83	22,60
	18.000	78,96	18,30	87,93	19,21	97,70	20,22	107,91	21,32
360	13.600	85,35	23,53	94,15	24,78	104,03	26,30	113,92	27,90
	17.000	86,25	21,89	96,39	23,01	106,80	24,26	117,57	25,65
	20.400	87,29	20,91	97,56	21,83	108,54	22,97	119,71	24,13

Pc: Total heating capacity in kW

Pa: Compressor power input in kW

Correction coefficients due to variation of the indoor temperature

Indoor temperature	17ºC	19ºC	20ºC	21ºC	23ºC	25ºC	27ºC
Coefficient K1	1,014	1,005	1,000	0,995	0,983	0,971	0,961
Coefficient K2	0,946	0,981	1,000	1,018	1,054	1,093	1,135

PC = Pc x K1

PA = Pa x K2

Capacities of the MRC recovery circuit (optional)

Total cooling capacity

Outlet water temperature 35ºC

RXP IXP	Outdoor air	% new air	Flow (m³/h)	Indoor air temperature																	
				20 ºC / 50 % HR			23 ºC / 50 % HR			25 ºC / 50 % HR			27 ºC / 50 % HR			29 ºC / 50 % HR			31 ºC / 50 % HR		
				Pft	Pfs	Pa	Pft	Pfs	Pa	Pft	Pfs	Pa	Pft	Pfs	Pa	Pft	Pfs	Pa	Pft	Pfs	Pa
182	20 ºC 40 %	20	6720	45,33	32,90	14,53	47,73	33,56	14,83	49,47	33,93	15,03	51,31	34,24	15,24	53,25	34,50	15,44	55,29	34,70	15,64
			8400	47,89	36,96	14,25	50,39	37,74	14,55	52,19	38,19	14,75	54,09	38,57	14,95	56,10	38,90	15,15	58,20	39,18	15,35
			10080	49,70	40,52	14,03	52,29	41,42	14,32	54,15	41,94	14,52	56,11	42,40	14,72	58,17	42,79	14,92	60,33	43,14	15,12
		40	6720	46,23	34,18	13,66	48,01	34,54	13,94	49,29	34,68	14,12	50,63	34,75	14,31	52,05	34,74	14,51	53,54	34,66	14,70
			8400	48,62	38,38	13,46	50,47	38,81	13,73	51,80	39,00	13,92	53,20	39,12	14,11	54,66	39,15	14,30	56,19	39,10	14,49
			10080	50,30	42,02	13,31	52,22	42,54	13,58	53,59	42,78	13,76	55,03	42,92	13,95	56,53	42,98	14,14	58,10	42,97	14,33
		100	6720	45,56	37,12	12,93	45,30	37,02	13,14	45,11	36,96	13,29	44,91	36,88	13,44	44,70	36,80	13,60	44,47	36,72	13,75
			8400	47,82	41,53	12,85	47,54	41,41	13,06	47,35	41,32	13,21	47,14	41,22	13,36	46,91	41,12	13,51	46,67	41,01	13,67
			10080	49,35	45,30	12,79	49,07	45,16	13,00	48,87	45,05	13,15	48,66	44,93	13,30	48,43	44,81	13,45	48,18	44,68	13,61
	35 ºC 40 %	20	6720	48,92	33,54	14,63	51,31	34,64	14,93	53,04	35,29	15,13	54,88	35,85	15,33	56,82	36,35	15,53	58,84	36,78	15,72
			8400	51,62	37,76	14,35	54,10	39,03	14,65	55,90	39,77	14,84	57,79	40,43	15,04	59,79	41,02	15,24	61,88	41,54	15,43
			10080	53,53	41,44	14,13	56,13	42,89	14,42	57,99	43,75	14,61	59,95	44,52	14,81	62,01	45,21	15,01	64,16	45,81	15,20
		40	6720	53,56	35,86	13,84	55,33	36,87	14,11	56,61	37,43	14,29	57,96	37,90	14,47	59,37	38,29	14,66	60,84	38,60	14,85
			8400	56,22	40,42	13,63	58,08	41,56	13,90	59,41	42,21	14,08	60,81	42,75	14,26	62,27	43,21	14,45	63,80	43,58	14,64
			10080	58,13	44,37	13,47	60,08	45,67	13,74	61,47	46,42	13,92	62,93	47,06	14,10	64,44	47,60	14,29	66,01	48,03	14,48
		100	6720	64,93	43,29	13,27	64,58	43,16	13,48	64,33	43,08	13,62	64,08	42,98	13,76	63,82	42,89	13,90	63,56	42,79	14,05
			8400	68,02	48,92	13,18	67,64	48,77	13,38	67,38	48,66	13,52	67,12	48,55	13,66	66,84	48,44	13,81	66,57	48,30	13,96
			10080	70,28	53,90	13,12	69,89	53,73	13,32	69,62	53,59	13,46	69,35	53,44	13,60	69,07	53,29	13,74	68,79	53,13	13,89
	55 ºC 40 %	20	6720	56,87	30,20	14,87	59,04	32,06	15,15	60,61	33,20	15,34	62,29	34,25	15,52	64,07	35,21	15,71	65,95	36,06	15,89
			8400	59,83	34,09	14,58	62,06	36,27	14,86	63,68	37,60	15,04	65,41	38,81	15,23	67,23	39,91	15,42	69,16	40,89	15,60
			10080	61,97	37,55	14,35	64,27	40,02	14,63	65,94	41,52	14,81	67,72	42,90	15,00	69,60	44,14	15,18	71,57	45,24	15,37
		40	6720	67,96	32,34	14,18	69,54	34,23	14,43	70,68	35,36	14,60	71,89	36,40	14,78	73,16	37,34	14,96	74,49	38,18	15,13
			8400	71,10	36,49	13,97	72,70	38,71	14,22	73,87	40,04	14,39	75,10	41,25	14,56	76,41	42,34	14,74	77,77	43,31	14,92
			10080	73,39	40,23	13,81	75,04	42,74	14,06	76,23	44,25	14,23	77,50	45,62	14,40	78,84	46,86	14,58	80,24	47,96	14,76
		100	6720	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
			8400	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
			10080	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Pft: Total cooling capacity (sum of the power of the main circuit and the recovery circuit) in kW

Pfs: Sensitive cooling capacity in kW

Pa: Compressor power input in kW

Total heating capacity

Inlet water temperature 15ºC

IXP	Indoor air	% new air	Flow (m³/h)	Outdoor air temperature											
				-40ºC BH		-15ºC BH		-10ºC BH		0ºC BH		6ºC BH		15ºC BH	
				Pc	Pa	Pc	Pa	Pc	Pa	Pc	Pa	Pc	Pa	Pc	Pa
182	20 ºC	20	6720	68,65	14,16	66,41	16,43	66,07	16,83	65,32	17,59	64,86	18,02	64,21	18,68
			8400	71,15	12,94	68,77	15,09	68,42	15,45	67,71	16,17	67,24	16,58	66,56	17,17
			10080	72,75	12,15	70,29	14,21	69,91	14,57	69,20	15,25	68,76	15,63	68,06	16,19
		40	6720	--	--	70,28	14,15	69,42	14,95	67,89	16,47	67,09	17,33	65,73	18,58
			8400	--	--	72,73	12,88	71,83	13,63	70,16	15,08	69,37	15,88	68,03	17,03
			10080	--	--	74,28	12,05	73,36	12,78	71,65	14,17	70,80	14,92	69,48	16,03
		100	6720	--	--	--	--	--	--	--	--	71,04	14,92	68,04	17,82
			8400	--	--	--	--	--	--	--	--	73,49	13,59	70,42	16,32
			10080	--	--	--	--	--	--	--	--	75,05	12,72	71,88	15,34

Pc: Total heating capacity (sum of the power of the main circuit and the recovery circuit) in kW

Pa: Compressor power input in kW

Capacities of the MRC recovery circuit (optional)

Total cooling capacity

Outlet water temperature 35ºC

RXP IXP	Outdoor air	% new air	Flow (m³/h)	Indoor air temperature																	
				20 ºC / 50 % HR			23 ºC / 50 % HR			25 ºC / 50 % HR			27 ºC / 50 % HR			29 ºC / 50 % HR			31 ºC / 50 % HR		
				Pft	Pfs	Pa	Pft	Pfs	Pa	Pft	Pfs	Pa	Pft	Pfs	Pa	Pft	Pfs	Pa	Pft	Pfs	Pa
200	20 ºC 40 %	20	9400	56,05	43,25	16,69	59,07	44,18	17,08	61,24	44,70	17,34	63,53	45,16	17,60	65,95	45,55	17,87	68,48	45,86	
			11800	58,73	48,68	16,51	61,86	49,83	16,89	64,11	50,49	17,15	66,47	51,07	17,42	68,95	51,56	17,68	71,54	51,97	
			14160	60,59	53,40	16,38	63,85	54,78	16,77	66,17	55,59	17,02	68,61	56,30	17,29	71,17	56,93	17,55	73,84	57,46	
		40	9400	56,59	44,76	15,92	58,83	45,29	16,26	60,43	45,51	16,50	62,11	45,64	16,73	63,89	45,69	16,97	65,74	45,64	
			11800	59,11	50,31	15,84	61,45	51,00	16,17	63,11	51,31	16,40	64,85	51,52	16,64	66,67	51,61	16,87	68,56	51,59	
			14160	60,88	55,12	15,78	63,32	55,98	16,11	65,04	56,39	16,34	66,84	56,69	16,57	68,72	56,86	16,81	70,67	56,91	
		100	9400	55,41	48,37	15,35	55,14	48,25	15,57	54,94	48,17	15,72	54,73	48,08	15,87	54,51	47,98	16,03	54,28	47,88	
			11800	57,75	54,13	15,38	57,47	53,99	15,59	57,27	53,89	15,74	57,05	53,78	15,89	56,82	53,66	16,05	56,58	53,54	
			14160	59,36	59,12	15,39	59,09	58,97	15,60	58,89	58,86	15,75	58,68	58,74	15,90	58,46	58,62	16,06	58,22	58,48	
	35 ºC 40 %	20	9400	60,44	44,13	16,90	63,45	45,64	17,28	65,63	46,52	17,54	67,92	47,31	17,80	70,33	48,00	18,07	72,85	48,60	
			11800	63,25	49,78	16,71	66,39	51,59	17,10	68,64	52,65	17,36	71,01	53,61	17,62	73,49	54,46	17,88	76,08	55,21	
			14160	65,26	54,75	16,59	68,51	56,84	16,97	70,84	58,08	17,23	73,28	59,21	17,49	75,84	60,23	17,75	78,50	61,13	
		40	9400	65,52	47,03	16,30	67,78	48,38	16,64	69,41	49,16	16,87	71,12	49,82	17,11	72,90	50,37	17,34	74,75	50,80	
			11800	68,33	53,10	16,21	70,71	54,73	16,55	72,40	55,65	16,78	74,16	56,44	17,01	76,00	57,11	17,25	77,91	57,66	
			14160	70,39	58,47	16,16	72,86	60,33	16,49	74,61	61,40	16,72	76,43	62,34	16,96	78,33	63,13	17,19	80,29	63,80	
		100	9400	79,13	56,72	16,23	78,75	56,57	16,43	78,50	56,47	16,57	78,24	56,35	16,72	77,97	56,23	16,87	77,70	56,10	
			11800	82,32	64,35	16,26	81,94	64,14	16,46	81,68	64,00	16,60	81,41	63,86	16,75	81,13	63,71	16,89	80,85	63,56	
			14160	84,70	71,10	16,28	84,31	70,88	16,48	84,04	70,72	16,62	83,77	70,57	16,76	83,49	70,41	16,91	83,21	70,24	
	55 ºC 40 %	20	9400	70,11	39,75	17,29	72,82	42,31	17,65	74,79	43,86	17,90	76,89	45,28	18,15	79,11	46,56	18,40	81,46	47,71	
			11800	73,20	45,04	17,10	75,98	48,06	17,46	78,00	49,88	17,71	80,15	51,55	17,95	82,43	53,03	18,21	84,82	54,37	
			14160	75,42	49,74	16,97	78,29	53,19	17,33	80,37	55,27	17,58	82,57	57,13	17,83	84,91	58,82	18,08	87,37	60,36	
		40	9400	83,00	42,40	16,95	84,99	44,96	17,27	86,44	46,50	17,49	87,96	47,91	17,72	89,58	49,17	17,94	91,26	50,28	
			11800	86,26	48,14	16,86	88,28	51,17	17,17	89,75	52,99	17,39	91,32	54,65	17,62	92,96	56,14	17,85	94,68	57,47	
			14160	88,67	53,32	16,80	90,75	56,77	17,12	92,26	58,84	17,34	93,86	60,73	17,56	95,54	62,45	17,79	97,31	63,99	
		100	9400	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
			11800	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
			14160	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	

Pft: Total cooling capacity (sum of the power of the main circuit and the recovery circuit) in kW

Pfs: Sensitive cooling capacity in kW

Pa: Compressor power input in kW

Total heating capacity

Inlet water temperature 15ºC

IXP	Indoor air	% new air	Flow (m³/h)	Outdoor air temperature											
				-40ºC BH		-15ºC BH		-10ºC BH		0ºC BH		6ºC BH		15ºC BH	
				Pc	Pa	Pc	Pa	Pc	Pa	Pc	Pa	Pc	Pa	Pc	Pa
200	20 ºC	20	9440	80,23	17,35	79,81	17,77	78,99	18,60	78,46	19,06	77,65	19,74	77,65	19,74
			11800	82,42	16,20	81,92	16,62	81,10	17,39	80,60	17,84	79,78	18,47	79,78	18,47
			14160	83,85	15,43	83,32	15,84	82,48	16,58	81,98	17,02	81,17	17,62	81,17	17,62
		40	9440	84,63	14,74	83,58	15,62	81,62	17,30	80,67	18,21	79,12	19,54	79,12	19,54
			11800	86,86	13,68	85,78	14,52	83,76	16,12	82,72	17,00	81,22	18,26	81,22	18,26
			14160	88,36	12,97	87,26	13,78	85,21	15,33	84,10	16,20	82,63	17,41	82,63	17,41
		100	9440	--	--	--	--	--	--	85,28	15,55	81,67	18,71	81,67	18,71
			11800	--	--	--	--	--	--	87,51	14,43	83,76	17,43	83,76	17,43
			14160	--	--	--	--	--	--	88,98	13,68	85,14	16,59	85,14	16,59

Pc: Total heating capacity (sum of the power of the main circuit and the recovery circuit) in kW

Pa: Compressor power input in kW

Capacities of the MRC recovery circuit (optional)

Total cooling capacity

Outlet water temperature 35ºC

RXP IXP	Outdoor air	% new air	Flow (m³/h)	Indoor air temperature																	
				20 ºC / 50 % HR			23 ºC / 50 % HR			25 ºC / 50 % HR			27 ºC / 50 % HR			29 ºC / 50 % HR			31 ºC / 50 % HR		
				Pft	Pfs	Pa	Pft	Pfs	Pa	Pft	Pfs	Pa	Pft	Pfs	Pa	Pft	Pfs	Pa	Pft	Pfs	Pa
240	20 ºC 40 %	20	10240	61,70	47,40	18,90	65,39	48,51	19,29	67,95	49,14	19,58	70,60	49,66	19,87	73,33	50,09	20,16	76,15	50,43	20,47
			12800	64,67	53,24	18,67	68,48	54,59	19,06	71,13	55,34	19,34	73,85	55,99	19,62	76,66	56,53	19,92	79,57	56,99	20,22
			15360	66,73	58,39	18,50	70,65	59,97	18,88	73,37	60,88	19,15	76,18	61,67	19,44	79,07	62,35	19,73	82,06	62,92	20,03
		40	10240	62,25	49,04	18,01	65,03	49,70	18,35	66,95	49,98	18,59	68,94	50,17	18,84	70,99	50,24	19,10	73,09	50,19	19,37
			12800	65,09	55,02	17,88	67,96	55,85	18,21	69,94	56,23	18,45	71,98	56,48	18,69	74,08	56,59	18,95	76,25	56,59	19,21
			15360	67,02	60,27	17,78	69,98	61,26	18,11	72,02	61,74	18,34	74,11	62,08	18,58	76,27	62,27	18,84	78,49	62,33	19,10
		100	10240	60,88	52,98	17,32	60,59	52,86	17,56	60,40	52,77	17,72	60,21	52,69	17,89	60,00	52,60	18,06	59,79	52,51	18,24
			12800	63,55	59,20	17,33	63,24	59,04	17,56	63,03	58,94	17,72	62,82	58,83	17,89	62,60	58,72	18,06	62,38	58,60	18,24
			15360	65,37	64,65	17,32	65,04	64,47	17,55	64,82	64,35	17,72	64,60	64,22	17,88	64,38	64,10	18,06	64,14	63,97	18,24
	35 ºC 40 %	20	10240	66,93	48,47	19,09	70,46	50,17	19,50	72,93	51,15	19,79	75,50	52,01	20,09	78,16	52,76	20,40	80,91	53,39	20,71
			12800	70,06	54,54	18,86	73,73	56,56	19,26	76,30	57,74	19,55	78,97	58,79	19,84	81,72	59,71	20,15	84,58	60,52	20,46
			15360	72,27	59,95	18,68	76,06	62,27	19,08	78,71	63,64	19,36	81,46	64,87	19,65	84,31	65,97	19,96	87,25	66,94	20,27
		40	10240	72,74	51,71	18,33	75,36	53,21	18,69	77,18	54,05	18,95	79,08	54,77	19,22	81,05	55,37	19,49	83,08	55,84	19,78
			12800	75,96	58,25	18,18	78,68	60,05	18,54	80,58	61,06	18,80	82,55	61,93	19,06	84,59	62,66	19,34	86,70	63,26	19,62
			15360	78,21	64,09	18,07	81,02	66,14	18,43	82,99	67,31	18,68	85,03	68,32	18,95	87,14	69,19	19,22	89,32	69,92	19,51
		100	10240	88,04	62,45	18,02	87,58	62,25	18,27	87,27	62,12	18,45	86,97	61,99	18,63	86,67	61,85	18,81	86,37	61,71	19,00
			12800	91,84	70,74	18,01	91,35	70,49	18,26	91,02	70,32	18,43	90,70	70,16	18,61	90,38	69,99	18,80	90,06	69,82	18,98
			15360	94,58	78,15	18,00	94,06	77,86	18,25	93,73	77,67	18,42	93,39	77,48	18,60	93,06	77,29	18,78	92,73	77,10	18,97
	55 ºC 40 %	20	10240	77,86	43,69	19,53	81,00	46,54	19,93	83,22	48,23	20,22	85,55	49,78	20,52	87,98	51,17	20,83	90,54	52,42	21,15
			12800	81,37	49,34	19,28	84,59	52,66	19,68	86,88	54,65	19,96	89,29	56,48	20,26	91,81	58,14	20,57	94,46	59,64	20,89
			15360	83,84	54,40	19,08	87,14	58,14	19,48	89,50	60,41	19,77	91,99	62,51	20,06	94,60	64,42	20,37	97,34	66,16	20,70
		40	10240	92,75	46,67	19,05	94,94	49,55	19,43	96,51	51,29	19,70	98,16	52,86	19,98	99,89	54,26	20,27	101,70	55,51	20,58
			12800	96,60	52,96	18,88	98,85	56,36	19,26	100,50	58,37	19,53	102,20	60,20	19,82	104,00	61,86	20,11	105,90	63,35	20,41
			15360	99,32	58,60	18,75	101,60	62,42	19,14	103,30	64,70	19,41	105,10	66,79	19,69	106,90	68,70	19,99	108,90	70,41	20,30
		100	10240	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
			12800	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
			15360	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Pft: Total cooling capacity (sum of the power of the main circuit and the recovery circuit) in kW

Pfs: Sensitive cooling capacity in kW

Pa: Compressor power input in kW

Total heating capacity

Inlet water temperature 15ºC

IXP	Indoor air	% new air	Flow (m³/h)	Outdoor air temperature											
				-40ºC BH		-15ºC BH		-10ºC BH		0ºC BH		6ºC BH		15ºC BH	
				Pc	Pa	Pc	Pa	Pc	Pa	Pc	Pa	Pc	Pa	Pc	Pa
240	20 ºC	20	10240	91,74	16,84	88,67	19,65	88,23	20,12	87,34	21,05	86,76	21,58	85,89	22,35
			12800	95,23	16,03	92,05	18,70	91,53	19,17	90,63	20,05	90,08	20,55	89,18	21,26
			15360	96,89	15,09	93,61	17,64	93,04	18,10	92,14	18,93	91,59	19,41	90,70	20,10
		40	10240	--	--	93,73	16,82	92,58	17,81	90,43	19,71	89,41	20,74	87,72	22,24
			12800	--	--	97,18	15,95	95,98	16,89	93,74	18,70	92,63	19,69	90,95	21,12
			15360	--	--	98,84	14,98	97,60	15,88	95,31	17,61	94,11	18,57	92,47	19,93
		100	10240	--	--	--	--	--	--	--	--	94,66	17,82	90,71	21,40
			12800	--	--	--	--	--	--	--	--	98,15	16,86	94,02	20,29
			15360	--	--	--	--	--	--	--	--	99,83	15,84	95,57	19,10

Pc: Total heating capacity (sum of the power of the main circuit and the recovery circuit) in kW

Pa: Compressor power input in kW

Capacities of the MRC recovery circuit (optional)

Total cooling capacity

Outlet water temperature 35ºC

RXP IXP	Outdoor air	% new air	Flow (m³/h)	Indoor air temperature																	
				20 ºC / 50 % HR			23 ºC / 50 % HR			25 ºC / 50 % HR			27 ºC / 50 % HR			29 ºC / 50 % HR			31 ºC / 50 % HR		
				Pft	Pfs	Pa	Pft	Pfs	Pa	Pft	Pfs	Pa	Pft	Pfs	Pa	Pft	Pfs	Pa	Pft	Pfs	Pa
320	20 ºC 40 %	20	12000	83,89	60,57	23,71	88,68	61,87	24,26	92,18	62,61	24,67	95,89	63,26	25,10	99,79	63,81	25,55	103,80	64,25	26,01
			15000	87,92	68,17	23,60	93,01	69,79	24,14	96,70	70,76	24,55	100,60	71,63	24,98	104,70	72,39	25,42	108,90	73,03	25,86
			18000	90,95	74,98	23,55	96,27	76,88	24,08	100,10	78,07	24,48	104,20	79,15	24,91	108,50	80,11	25,34	112,90	80,95	25,78
		40	12000	84,68	62,65	24,01	88,57	63,44	24,48	91,40	63,81	24,83	94,38	64,04	25,20	97,51	64,13	25,58	100,80	64,05	25,96
			15000	88,79	70,53	23,87	92,91	71,60	24,33	95,89	72,16	24,67	99,03	72,57	25,03	102,30	72,83	25,40	105,70	72,92	25,78
			18000	91,95	77,66	23,81	96,26	78,96	24,26	99,36	79,64	24,60	102,70	80,22	24,95	106,10	80,63	25,31	109,60	80,86	25,68
		100	12000	84,10	68,24	24,34	85,31	68,60	24,56	86,17	68,86	24,72	87,06	69,12	24,89	88,00	69,41	25,07	88,96	69,70	25,25
			15000	88,38	76,83	24,18	89,68	77,37	24,38	90,60	77,75	24,54	91,56	78,13	24,70	92,54	78,52	24,86	93,54	78,91	25,03
			18000	91,61	84,46	24,08	92,99	85,13	24,29	93,96	85,60	24,43	94,98	86,08	24,59	96,01	86,57	24,75	97,06	87,06	24,90
	35 ºC 40 %	20	12000	88,90	61,23	24,15	93,66	63,36	24,73	97,12	64,63	25,15	100,80	65,78	25,60	104,60	66,79	26,04	108,50	67,68	26,48
			15000	93,18	68,98	24,04	98,22	71,51	24,62	101,90	73,04	25,04	105,70	74,44	25,48	109,70	75,70	25,92	113,90	76,82	26,36
			18000	96,39	75,94	23,99	101,70	78,89	24,56	105,50	80,68	24,98	109,50	82,33	25,41	113,70	83,82	25,85	118,00	85,16	26,28
		40	12000	94,59	64,53	24,93	98,47	66,55	25,45	101,20	67,72	25,81	104,10	68,74	26,19	107,20	69,60	26,56	110,30	70,31	26,93
			15000	99,14	72,79	24,80	103,30	75,19	25,31	106,20	76,61	25,68	109,30	77,86	26,05	112,50	78,93	26,41	115,70	79,83	26,78
			18000	102,70	80,33	24,73	107,10	83,13	25,25	110,10	84,77	25,61	113,40	86,24	25,98	116,70	87,52	26,34	120,10	88,62	26,70
		100	12000	109,90	75,86	26,82	110,80	76,24	27,03	111,40	76,50	27,19	112,00	76,75	27,35	112,60	77,00	27,51	113,30	77,23	27,67
			15000	115,40	85,86	26,71	116,40	86,38	26,91	117,00	86,73	27,06	117,70	87,08	27,21	118,40	87,42	27,36	119,10	87,75	27,50
			18000	119,60	95,05	26,64	120,70	95,68	26,84	121,50	96,11	26,98	122,20	96,53	27,13	123,00	96,94	27,27	123,80	97,35	27,41
	55 ºC 40 %	20	12000	101,00	53,95	24,86	105,30	57,74	25,44	108,50	60,00	25,86	111,90	62,08	26,29	115,50	63,95	26,71	119,20	65,64	27,13
			15000	105,60	61,29	24,75	110,20	65,60	25,34	113,60	68,20	25,76	117,20	70,60	26,19	121,00	72,78	26,61	124,80	74,77	27,02
			18000	109,10	67,89	24,69	114,00	72,71	25,29	117,60	75,64	25,70	121,30	78,35	26,13	125,20	80,84	26,55	129,30	83,12	26,96
		40	12000	116,00	56,71	26,27	119,60	60,49	26,77	122,10	62,75	27,11	124,70	64,80	27,44	127,50	66,65	27,76	130,30	68,29	28,06
			15000	121,20	64,62	26,16	125,00	68,92	26,67	127,70	71,50	27,01	130,50	73,88	27,35	133,40	76,02	27,67	136,30	77,94	27,97
			18000	125,30	71,82	26,11	129,30	76,63	26,62	132,10	79,54	26,97	135,10	82,22	27,30	138,10	84,65	27,62	141,20	86,84	27,92
		100	12000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
			15000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
			18000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Pft: Total cooling capacity (sum of the power of the main circuit and the recovery circuit) in kW

Pfs: Sensitive cooling capacity in kW

Pa: Compressor power input in kW

Total heating capacity

Inlet water temperature 15ºC

IXP	Indoor air	% new air	Flow (m³/h)	Outdoor air temperature											
				-40ºC BH		-15ºC BH		-10ºC BH		0ºC BH		6ºC BH		15ºC BH	
				Pc	Pa	Pc	Pa	Pc	Pa	Pc	Pa	Pc	Pa	Pc	Pa
320	20 ºC	20	12000	122,90	23,87	118,70	27,60	118,10	28,24	116,80	29,49	115,90	30,19	114,80	31,25
			15000	127,20	21,80	122,80	25,32	122,20	25,92	120,90	27,08	120,10	27,73	118,80	28,70
			18000	130,60	20,46	126,10	23,84	125,40	24,43	124,10	25,54	123,30	26,16	122,00	27,07
		40	12000	--	--	125,80	24,09	124,30	25,41	121,40	27,91	120,00	29,29	117,60	31,31
			15000	--	--	130,40	21,95	128,80	23,19	125,70	25,56	124,30	26,85	121,90	28,71
			18000	--	--	133,80	20,54	132,10	21,73	129,00	24,00	127,50	25,23	125,10	27,02
		100	12000	--	--	--	--	--	--	--	--	127,90	25,66	122,40	30,42
			15000	--	--	--	--	--	--	--	--	132,60	23,34	126,90	27,82
			18000	--	--	--	--	--	--	--	--	135,90	21,82	130,10	26,12

Pc: Total heating capacity (sum of the power of the main circuit and the recovery circuit) in kW

Pa: Compressor power input in kW

Capacities of the MRC recovery circuit (optional)

Total cooling capacity

Outlet water temperature 35ºC

RXP IXP	Outdoor air	% new air	Flow (m³/h)	Indoor air temperature																	
				20 ºC / 50 % HR			23 ºC / 50 % HR			25 ºC / 50 % HR			27 ºC / 50 % HR			29 ºC / 50 % HR			31 ºC / 50 % HR		
				Pft	Pfs	Pa	Pft	Pfs	Pa	Pft	Pfs	Pa	Pft	Pfs	Pa	Pft	Pfs	Pa	Pft	Pfs	Pa
360	20 ºC 40 %	20	13600	91,02	66,99	26,33	96,51	68,51	26,83	100,50	69,40	27,21	104,70	70,18	27,61	109,00	70,84	28,03	113,60	71,39	28,45
			17000	95,64	75,34	26,21	101,40	77,20	26,70	105,50	78,33	27,07	109,90	79,34	27,46	114,50	80,23	27,87	119,20	80,99	28,28
			20400	98,85	82,76	26,09	104,80	84,96	26,57	109,10	86,28	26,93	113,70	87,49	27,32	118,40	88,60	27,72	123,30	89,57	28,12
		40	13600	91,72	69,22	26,62	96,13	70,20	27,05	99,31	70,67	27,38	102,70	70,99	27,72	106,20	71,15	28,08	109,80	71,14	28,44
			17000	96,48	77,95	26,48	101,10	79,17	26,90	104,40	79,83	27,22	107,90	80,33	27,55	111,60	80,66	27,90	115,40	80,82	28,24
			20400	99,87	85,71	26,36	104,70	87,22	26,78	108,20	88,02	27,09	111,80	88,63	27,42	115,60	89,13	27,75	119,50	89,43	28,09
		100	13600	90,98	75,38	26,93	92,19	75,79	27,15	93,06	76,08	27,32	93,96	76,37	27,49	94,89	76,66	27,66	95,83	76,96	27,84
			17000	95,85	84,79	26,76	97,18	85,38	26,97	98,12	85,79	27,13	99,09	86,21	27,29	100,10	86,63	27,45	101,10	87,06	27,62
			20400	99,26	93,06	26,61	100,70	93,78	26,82	101,70	94,29	26,97	102,70	94,81	27,12	103,80	95,33	27,28	104,90	95,86	27,44
	35 ºC 40 %	20	13600	96,89	67,81	26,71	102,30	70,24	27,24	106,20	71,69	27,63	110,30	73,00	28,04	114,60	74,16	28,45	119,00	75,18	28,86
			17000	101,70	76,32	26,59	107,40	79,19	27,11	111,50	80,93	27,49	115,80	82,51	27,90	120,20	83,93	28,30	124,90	85,20	28,70
			20400	105,10	83,93	26,46	111,00	87,25	26,97	115,30	89,27	27,35	119,70	91,13	27,75	124,40	92,81	28,15	129,20	94,31	28,54
		40	13600	103,30	71,49	27,42	107,70	73,78	27,90	110,80	75,10	28,24	114,00	76,26	28,59	117,40	77,25	28,93	120,90	78,07	29,27
			17000	108,40	80,62	27,27	113,00	83,35	27,75	116,30	84,94	28,09	119,70	86,35	28,43	123,30	87,56	28,77	126,90	88,58	29,10
			20400	112,20	88,85	27,15	117,00	91,98	27,62	120,40	93,81	27,95	124,00	95,45	28,29	127,70	96,89	28,62	131,40	98,13	28,95
		100	13600	120,80	84,22	29,11	121,70	84,65	29,32	122,40	84,94	29,48	123,00	85,22	29,64	123,70	85,50	29,80	124,30	85,77	29,95
			17000	126,70	95,21	28,96	127,70	95,77	29,17	128,50	96,16	29,32	129,20	96,54	29,47	129,90	96,92	29,62	130,70	97,28	29,76
			20400	131,00	105,20	28,80	132,10	105,90	29,01	132,90	106,30	29,15	133,70	106,80	29,30	134,60	107,20	29,44	135,40	107,70	29,58
	55 ºC 40 %	20	13600	110,40	59,78	27,36	115,40	64,10	27,90	119,00	66,69	28,28	122,90	69,03	28,67	126,80	71,12	29,06	131,00	73,00	29,43
			17000	115,60	67,87	27,23	120,80	72,79	27,77	124,60	75,69	28,15	128,60	78,36	28,53	132,80	80,79	28,92	137,10	82,99	29,29
			20400	119,20	75,07	27,10	124,70	80,49	27,63	128,70	83,74	28,00	132,80	86,75	28,39	137,10	89,51	28,77	141,60	92,02	29,14
		40	13600	127,30	62,89	28,64	131,30	67,20	29,10	134,20	69,78	29,41	137,10	72,06	29,71	140,20	74,10	30,00	143,30	75,92	30,27
			17000	133,00	71,62	28,51	137,30	76,52	28,97	140,30	79,38	29,28	143,40	82,01	29,58	146,50	84,38	29,87	149,80	86,50	30,14
			20400	137,30	79,48	28,38	141,70	84,87	28,84	144,80	88,09	29,15	148,00	91,04	29,45	151,30	93,72	29,74	154,70	96,13	30,00
		100	13600	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
			17000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
			20400	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Pft: Total cooling capacity (sum of the power of the main circuit and the recovery circuit) in kW

Pfs: Sensitive cooling capacity in kW

Pa: Compressor power input in kW

Total heating capacity

Inlet water temperature 15ºC

IXP	Indoor air	% new air	Flow (m³/h)	Outdoor air temperature											
				-40ºC BH		-15ºC BH		-10ºC BH		0ºC BH		6ºC BH		15ºC BH	
				Pc	Pa	Pc	Pa	Pc	Pa	Pc	Pa	Pc	Pa	Pc	Pa
360	20 ºC	20	13600	134,60	26,13	129,90	30,30	129,30	31,00	127,90	32,39	127,00	33,16	125,70	34,32
			17000	139,80	23,83	134,90	27,75	134,20	28,42	132,80	29,70	131,90	30,43	130,60	31,48
			20400	142,60	22,55	137,60	26,29	136,80	26,96	135,40	28,17	134,50	28,88	133,10	29,87
		40	13600	--	--	137,70	26,30	136,00	27,78	132,80	30,57	131,20	32,10	128,60	34,32
			17000	--	--	143,00	23,91	141,20	25,29	137,90	27,93	136,30	29,35	133,60	31,41
			20400	--	--	145,60	22,52	143,80	23,84	140,40	26,36	138,60	27,75	136,10	29,72
		100	13600	--	--	--	--	--	--	--	--	139,70	27,95	133,70	33,25
			17000	--	--	--	--	--	--	--	--	145,10	25,38	138,90	30,35
			20400	--	--	--	--	--	--	--	--	147,50	23,90	141,10	28,68

Pc: Total heating capacity (sum of the power of the main circuit and the recovery circuit) in kW

Pa: Compressor power input in kW

Operation with glycol water

Where there is risk of freezing of the plate exchanger will be required the use of glycol water.

Correction coefficients (30% MEG)	Evaporator	Condenser
Output	0,98	0,98
Cold water flow	1,05	1,05
Water flow resistance	1,15	1,10
Average working conditions	15ºC / 10ºC	30ºC / 35ºC

Anti-freeze protection with glycol water: freezing point

Concentration	%	0	10	20	30	40	50
Mono-ethylene glycol (MEG)	ºC	0	-3	-7	-13	-20	-29
Mono-propylene glycol (MPEG)	ºC	0	-2	-5	-10	-15	-21

Corrosion behaviour

Corrosion problems may be present in the hydraulic circuit, and in particular the plates exchangers, if the characteristics of the water and its variations are not adequate.

It is recommended that the water filling the hydraulic circuits be filtered and treated, if necessary.

The units' hydraulic circuits are made of copper pipes. The exchanger plates are made of AISI-316 stainless steel, and the material used for soldering the plates is copper.

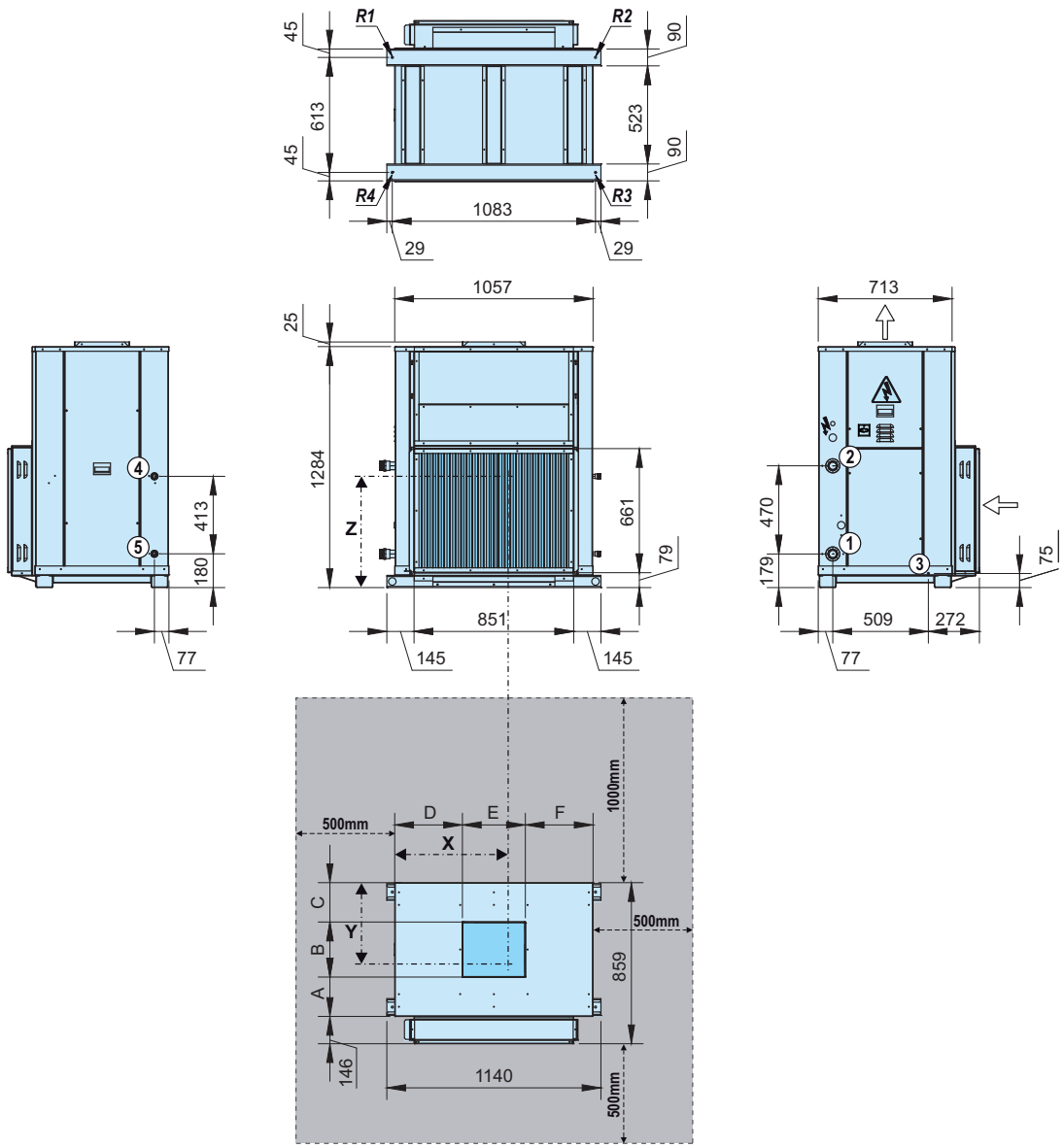
The following table indicates corrosion behaviour for copper and the AISI-316 stainless steel with regard to water with different compositions.

IMPORTANT: For open-circuit installations, if it is not possible to maintain the water conditions within the values indicated in the previous table, it will be necessary to install an exchanger that separates the unit's circuit from the water circuit to be treated by using materials compatible with these characteristics, whether stainless steel or titanium.

Water content	Concentration (mg/l)	AISI 316	Copper
Organic substances		+	0
Electrical conductivity	< 500 µS/cm	+	+
	> 500 µS/cm	+	-
NH_3	< 2	+	+
	2 - 20	+	0
	> 20	+	-
Chlorides *	< 300	+	+
	> 300	0	+
Sulphites, chloride-free	< 5	0	+
	> 5	0/-	0
Iron in solution	< 10	+	+
	> 10	+	0
Free carbonic acid	< 20	+	0
	20 - 50	+	-
	50	+	-
Manganese in solution	< 1	+	+
	> 1	+	0
pH value	< 6	0	+
	6 - 9	0/+	+
	> 9	+	0
Oxygen	< 2	+	+
	> 2	+	+
Sulphates	< 70	+	+
	70 - 300	+	0
	> 300	-	-

Dimensions schemes

Neptus XP - 90, 100 and 120 with upper outlet, M00 assembly (mm)



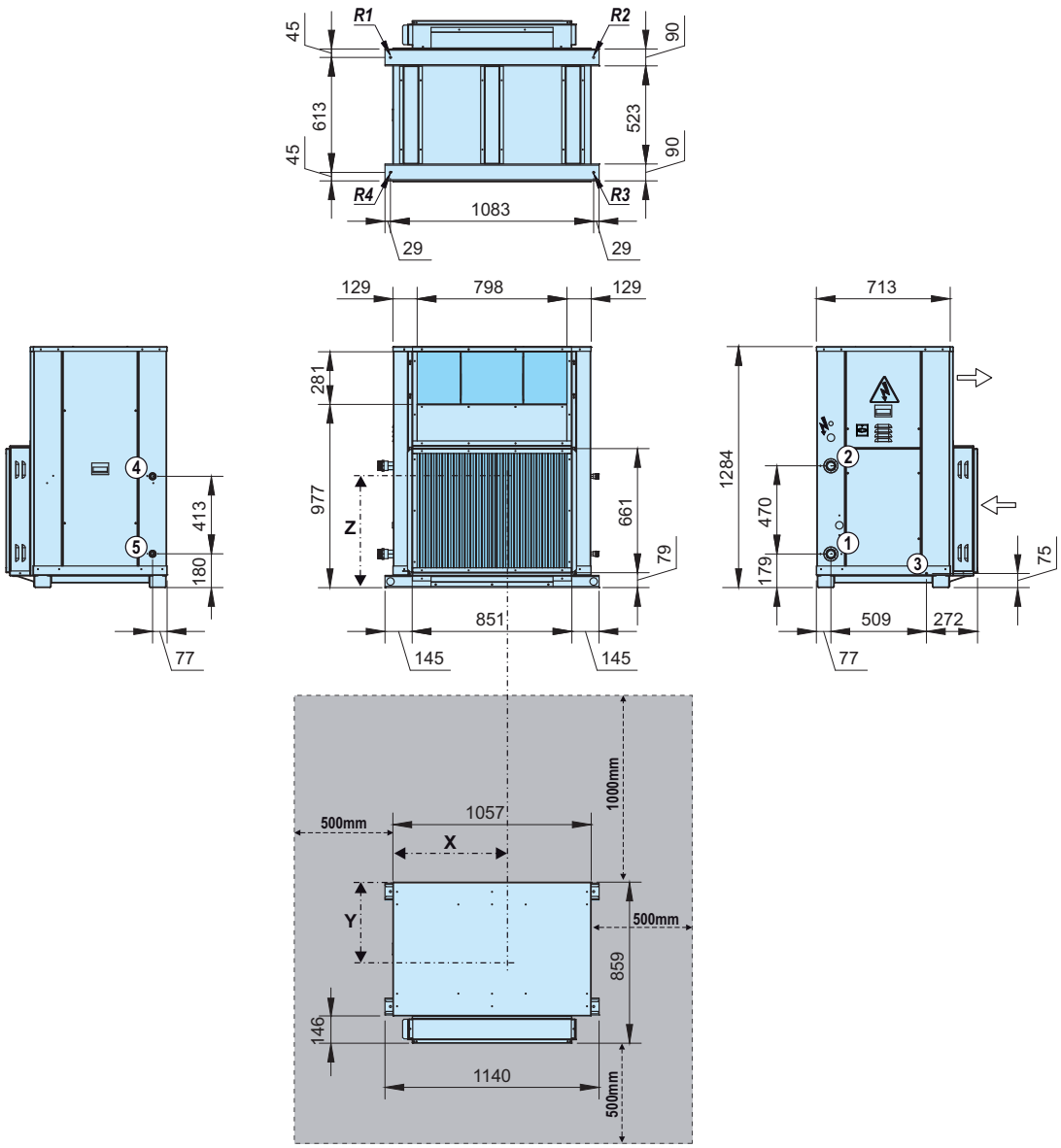
LEGEND
Indoor air circulation circuit
Electric panel
Electric power supply
Door switch
① Water outlet of the outdoor circuit
② Water inlet of the outdoor circuit
③ Condensate outlet, trunk M7/8"
④ Auxiliary coil water inlet (optional)
⑤ Auxiliary coil water outlet (optional)
Anti-vibration anchoring: rivet nut M8
Clear space to be observed for maintenance operations and unit start-up. Note: foresee space for the top extraction of the air coil.

Dimensions (mm)	A	B	C	D	E	F
Centrifugal fan	210	293	210	361	355	361
Plug-fan	131	450	131	229	683	229

Neptus XP		Centre of gravity (mm)			Reactions in the supports (kg)				
		X	Y	Z	Weight	R1	R2	R3	R4
90	Centrifugal fan	548	354	446	334	60	66	107	101
	Plug-fan	548	354	446	330	59	65	106	100
100	Centrifugal fan	548	354	446	337	60	67	108	102
	Plug-fan	548	354	446	328	59	65	105	99
120	Centrifugal fan	548	354	446	345	62	68	111	105
	Plug-fan	548	354	446	334	60	66	107	101

Dimensions schemes

Neptus XP - 90, 100 and 120 with side outlet, M01 assembly (mm)

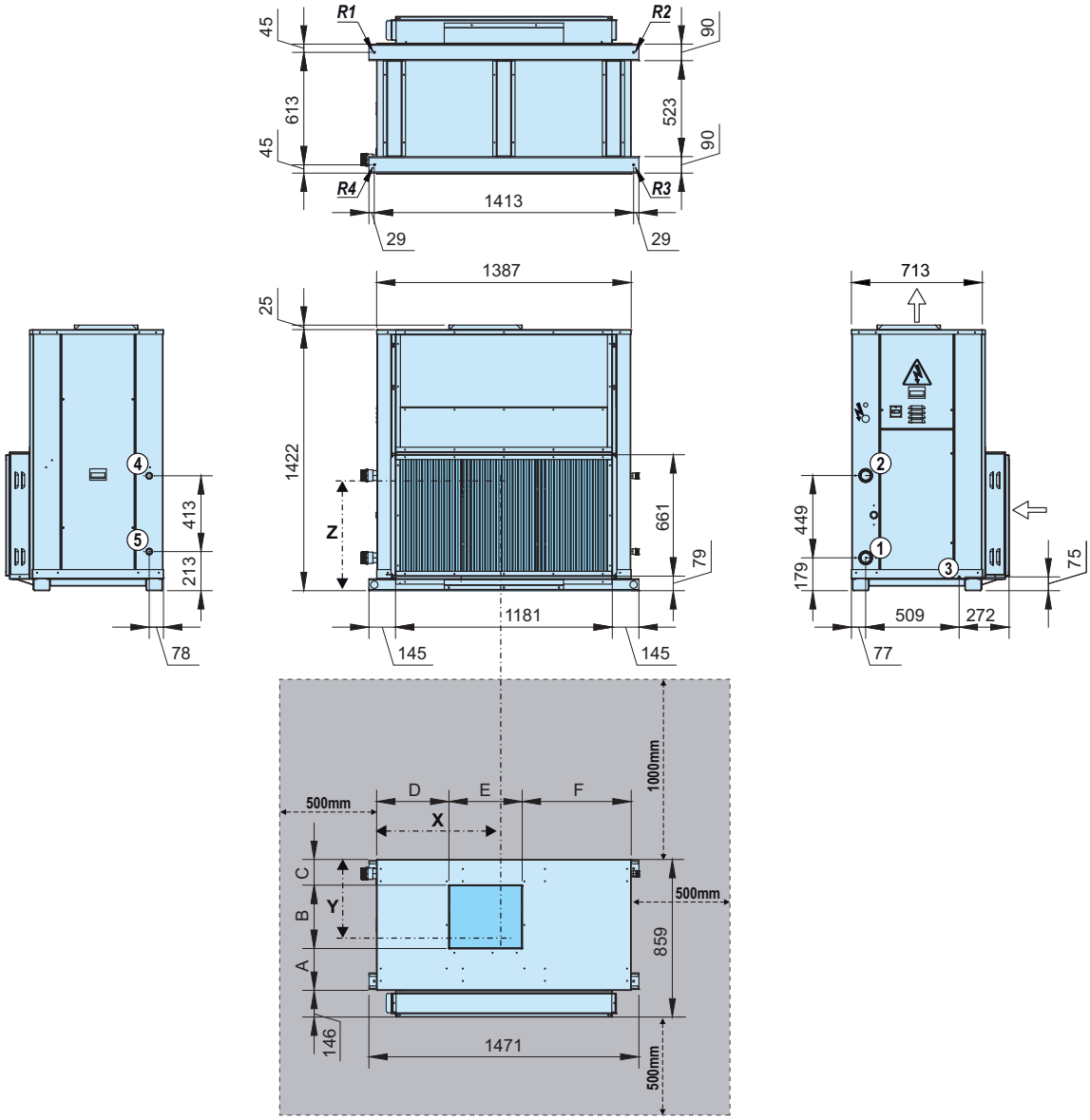


LEGEND
Indoor air circulation circuit
Electric panel
Electric power supply
Door switch
① Water outlet of the outdoor circuit
② Water inlet of the outdoor circuit
③ Condensate outlet, trunk M7/8"
④ Auxiliary coil water inlet (optional)
⑤ Auxiliary coil water outlet (optional)
Anti-vibration anchoring: rivet nut M8
Clear space to be observed for maintenance operations and unit start-up. Note: foresee space for the top extraction of the air coil.

Neptus XP		Centre of gravity (mm)			Reactions in the supports (kg)				
		X	Y	Z	Weight	R1	R2	R3	R4
90	Centrifugal fan	548	354	446	334	60	66	107	101
	Plug-fan	548	354	446	330	59	65	106	100
100	Centrifugal fan	548	354	446	337	60	67	108	102
	Plug-fan	548	354	446	328	59	65	105	99
120	Centrifugal fan	548	354	446	345	62	68	111	105
	Plug-fan	548	354	446	334	60	66	107	101

Dimensions schemes

Neptus XP - 160 with upper outlet, M00 assembly (mm)



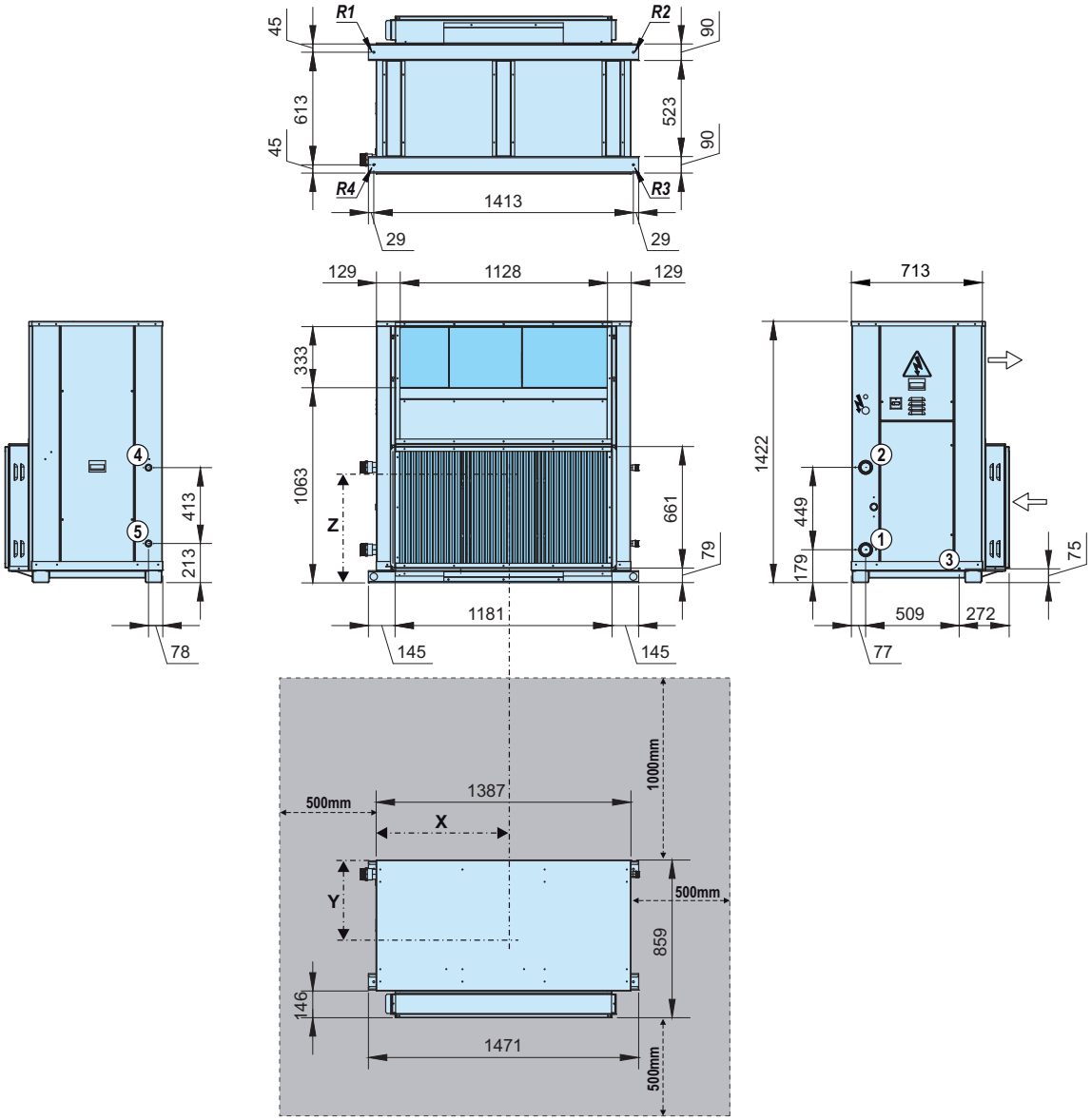
LEGEND
Indoor air circulation circuit
Electric panel
Electric power supply
Door switch
① Water outlet of the outdoor circuit
② Water inlet of the outdoor circuit
③ Condensate outlet, trunk M7/8"
④ Auxiliary coil water inlet (optional)
⑤ Auxiliary coil water outlet (optional)
Anti-vibration anchoring: rivet nut M8
Clear space to be observed for maintenance operations and unit start-up. Note: foresee space for the top extraction of the air coil.

Dimensions (mm)	A	B	C	D	E	F
Centrifugal fan	228	345	140	394	399	594
Plug-fan	130	452	130	228	1.015	228

Neptus XP		Centre of gravity (mm)			Reactions in the supports (kg)				
		X	Y	Z	Weight	R1	R2	R3	R4
160	Centrifugal fan	746	350	502	453	75	92	151	134
	Plug-fan	746	350	502	434	72	88	145	129

Dimensions schemes

Neptus XP - 160 with upper outlet, M01 assembly (mm)

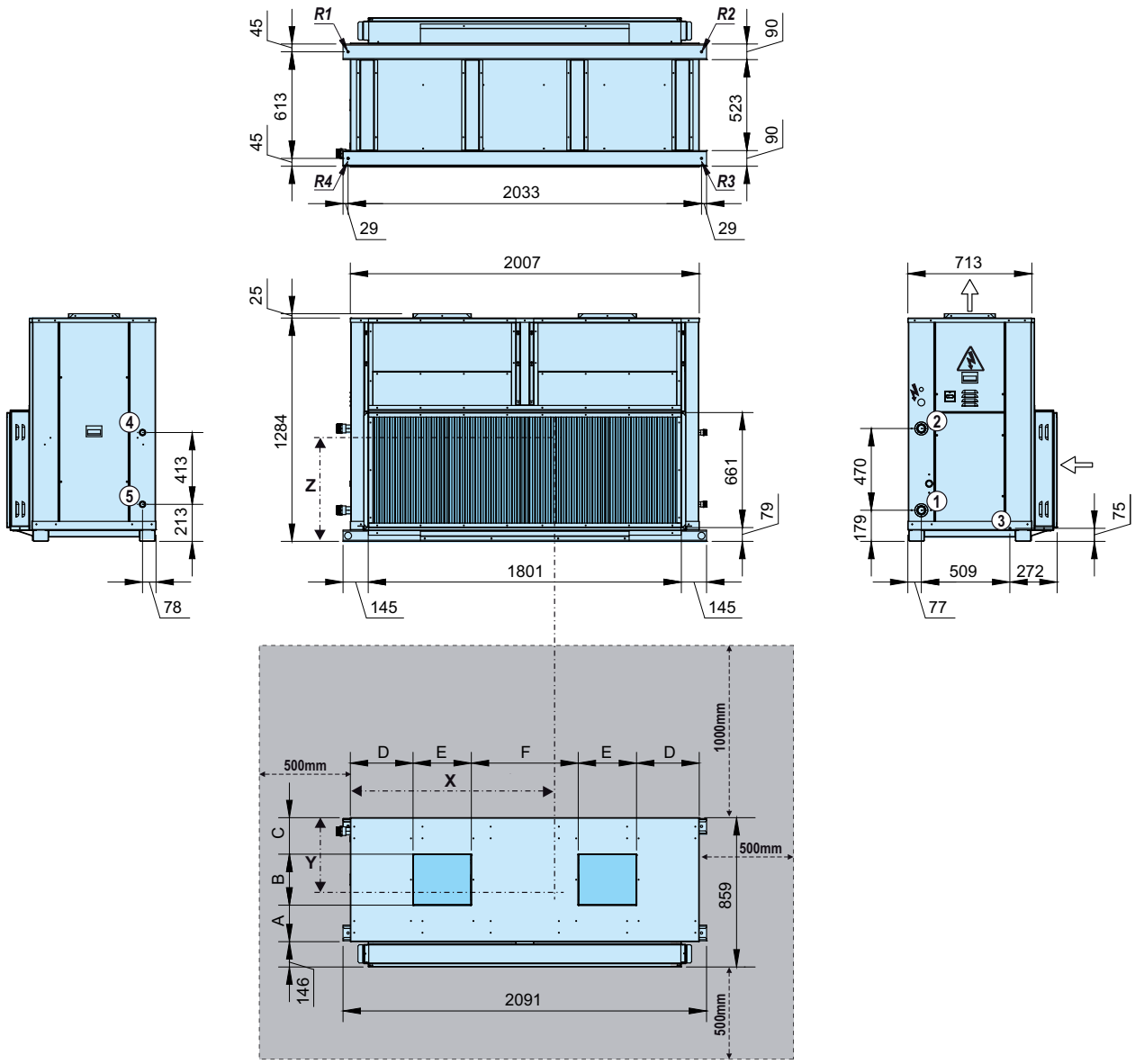


LEGEND
Indoor air circulation circuit
Electric panel
Electric power supply
Door switch
① Water outlet of the outdoor circuit
② Water inlet of the outdoor circuit
③ Condensate outlet, trunk M7/8"
④ Auxiliary coil water inlet (optional)
⑤ Auxiliary coil water outlet (optional)
Anti-vibration anchoring: rivet nut M8
Clear space to be observed for maintenance operations and unit start-up. Note: foresee space for the top extraction of the air coil.

Neptus XP		Centre of gravity (mm)			Reactions in the supports (kg)				
		X	Y	Z	Weight	R1	R2	R3	R4
160	Centrifugal fan	746	350	502	453	75	92	151	134
	Plug-fan	746	350	502	434	72	88	145	129

Dimensions schemes

Neptus XP - 182, 200 and 240 with upper outlet, M00 assembly (mm)



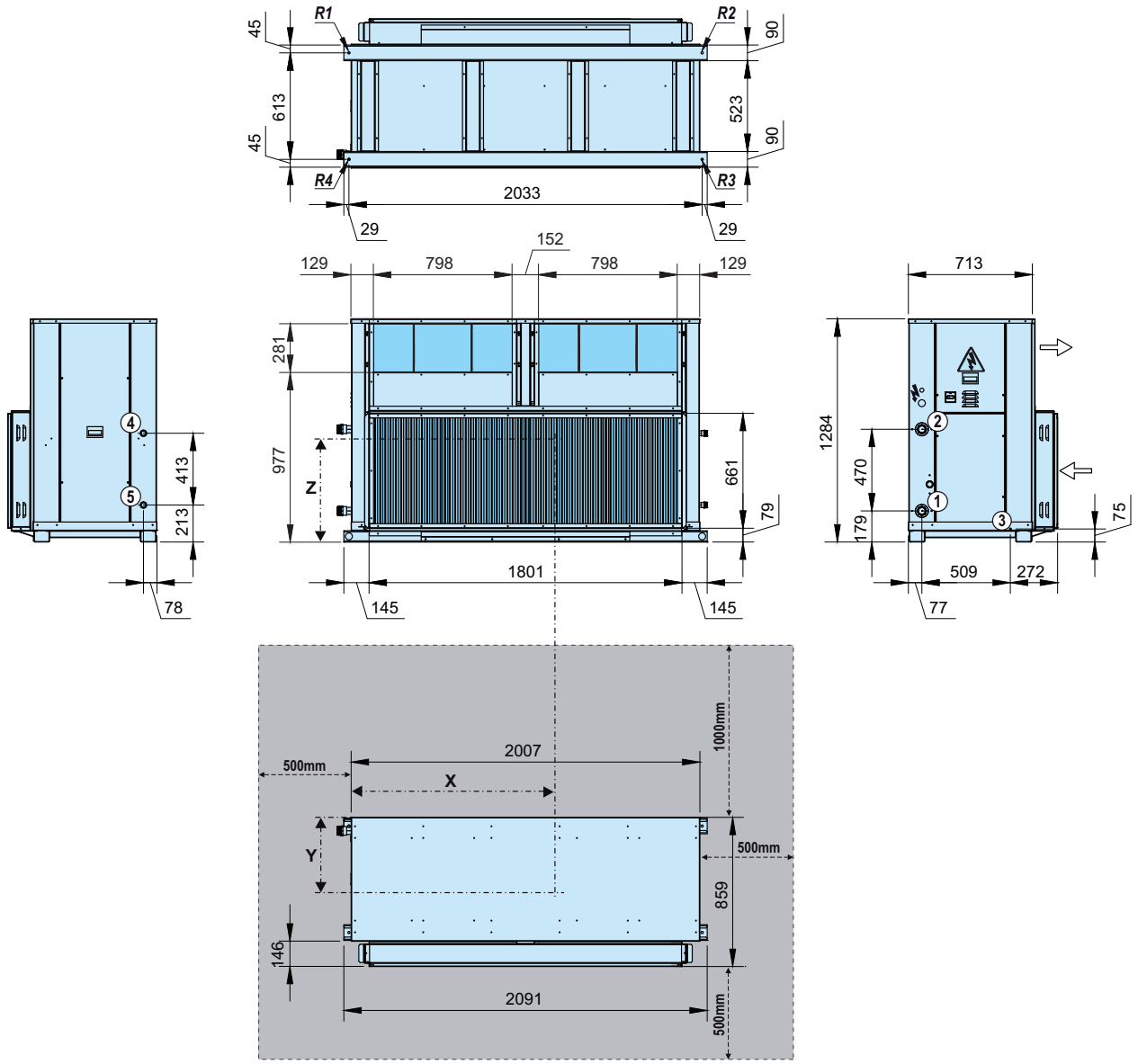
LEGEND
Indoor air circulation circuit
Electric panel
Electric power supply
Door switch
① Water outlet of the outdoor circuit
② Water inlet of the outdoor circuit
③ Condensate outlet, trunk M7/8"
④ Auxiliary coil water inlet (optional)
⑤ Auxiliary coil water outlet (optional)
Anti-vibration anchoring: rivet nut M10
Clear space to be observed for maintenance operations and unit start-up. Note: foresee space for the top extraction of the air coil.

Dimensions (mm)	A	B	C	D	E	F
Centrifugal fan	210	293	210	361	335	615
Plug-fan	131	450	131	228	683	268

Neptus XP		Centre of gravity (mm)			Reactions in the supports (kg)				
		X	Y	Z	Weight	R1	R2	R3	R4
182	Centrifugal fan	1170	376	425	568	94	140	190	144
	Plug-fan	1170	376	425	567	94	140	190	143
200	Centrifugal fan	1170	376	425	604	100	149	202	153
	Plug-fan	1170	376	425	586	97	145	196	148
240	Centrifugal fan	1170	376	425	625	103	155	209	158
	Plug-fan	1170	376	425	601	99	149	201	152

Dimensions schemes

Neptus XP - 182, 200 and 240 with side outlet, M01 assembly (mm)



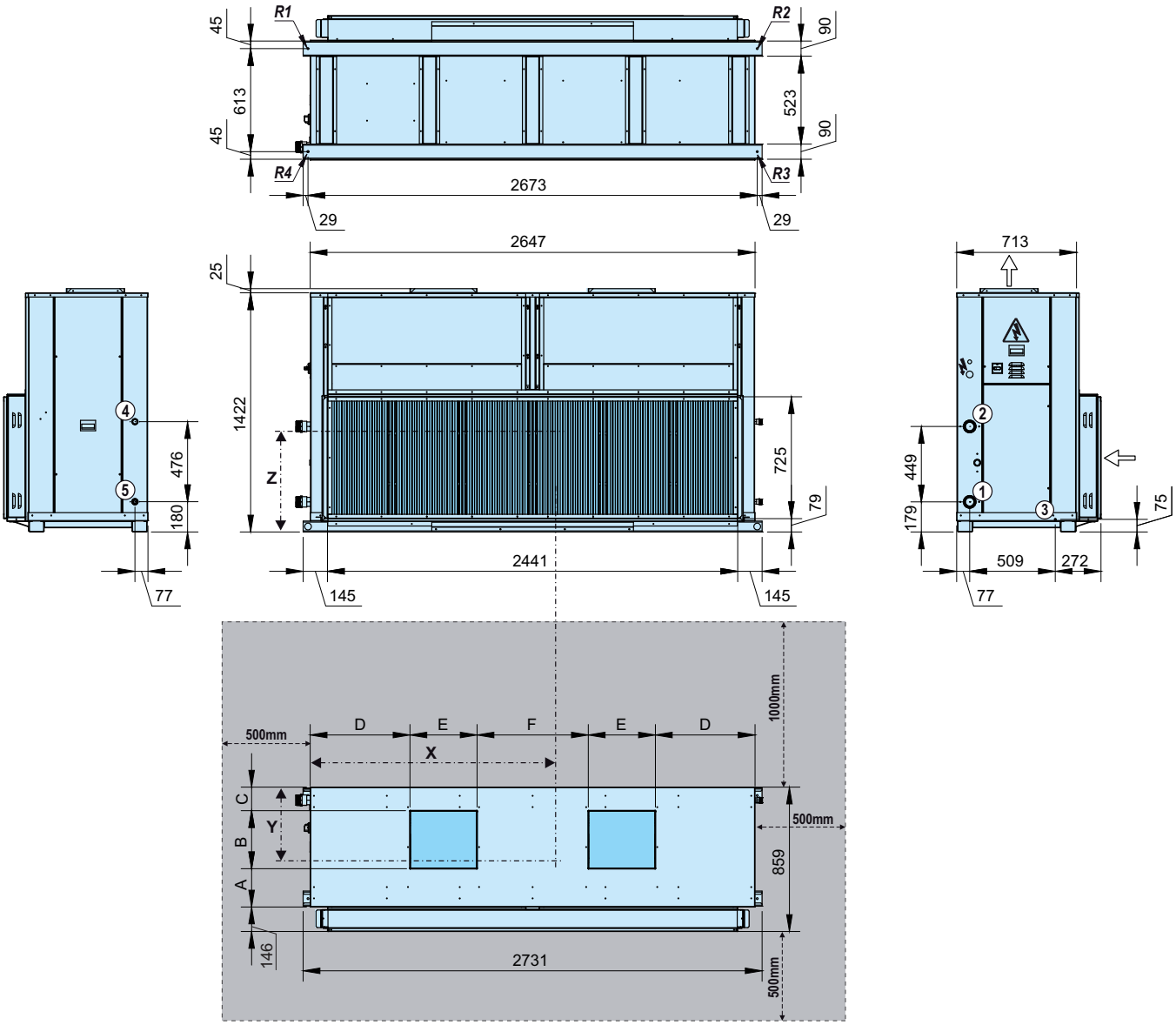
LEGEND
Indoor air circulation circuit
Electric panel
Electric power supply
Door switch
① Water outlet of the outdoor circuit
② Water inlet of the outdoor circuit
③ Condensate outlet, trunk M7/8"
④ Auxiliary coil water inlet (optional)
⑤ Auxiliary coil water outlet (optional)
Anti-vibration anchoring: rivet nut M10
Clear space to be observed for maintenance operations and unit start-up. Note: foresee space for the top extraction of the air coil.

Neptus XP		Centre of gravity (mm)			Reactions in the supports (kg)				
		X	Y	Z	Weight	R1	R2	R3	R4
182	Centrifugal fan	1170	376	425	568	94	140	190	144
	Plug-fan	1170	376	425	567	94	140	190	143
200	Centrifugal fan	1170	376	425	604	100	149	202	153
	Plug-fan	1170	376	425	586	97	145	196	148
240	Centrifugal fan	1170	376	425	625	103	155	209	158
	Plug-fan	1170	376	425	601	99	149	201	152

Compact water-air units

Dimensions schemes

Neptus XP - 320 and 360 with upper outlet, M00 assembly (mm)



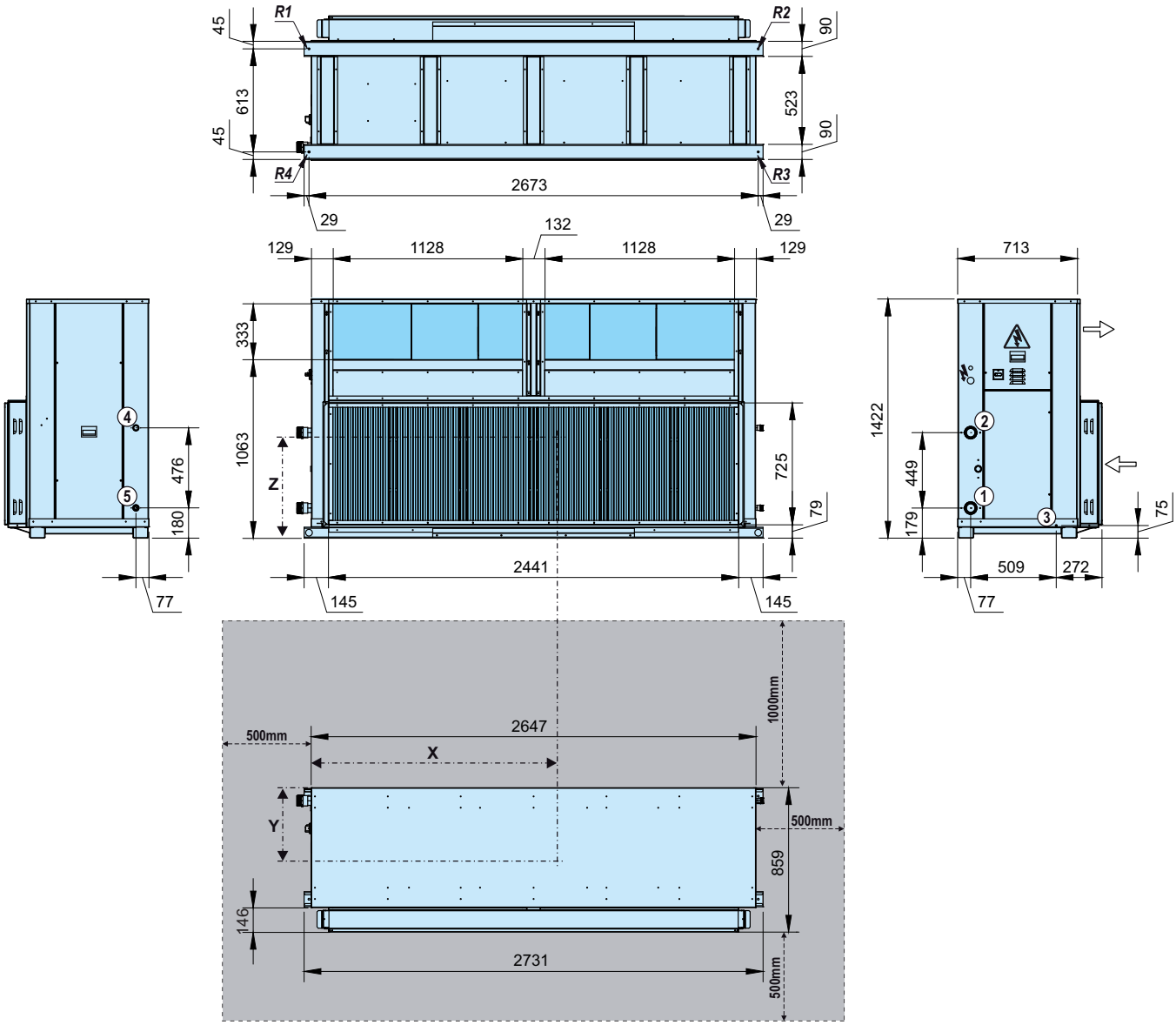
LEGEND
Indoor air circulation circuit
Electric panel
Electric power supply
Door switch
① Water outlet of the outdoor circuit
② Water inlet of the outdoor circuit
③ Condensate outlet, trunk M7/8"
④ Auxiliary coil water inlet (optional)
⑤ Auxiliary coil water outlet (optional)
Anti-vibration anchoring: rivet nut M10
Clear space to be observed for maintenance operations and unit start-up. Note: foresee space for the top extraction of the air coil.

Dimensions (mm)	A	B	C	D	E	F
Centrifugal fan	228	345	140	594	399	662
Plug-fan	130	452	130	228	1050	245

Neptus XP		Centre of gravity (mm)			Reactions in the supports (kg)				
		X	Y	Z	Weight	R1	R2	R3	R4
320	Centrifugal fan	1700	392	450	719	107	208	252	151
	Plug-fan	1700	392	450	689	103	200	242	145
360	Centrifugal fan	1700	392	450	730	109	212	256	153
	Plug-fan	1700	392	450	700	104	203	246	147

Dimensions schemes

Neptus XP - 320 and 360 with side outlet, M01 assembly (mm)

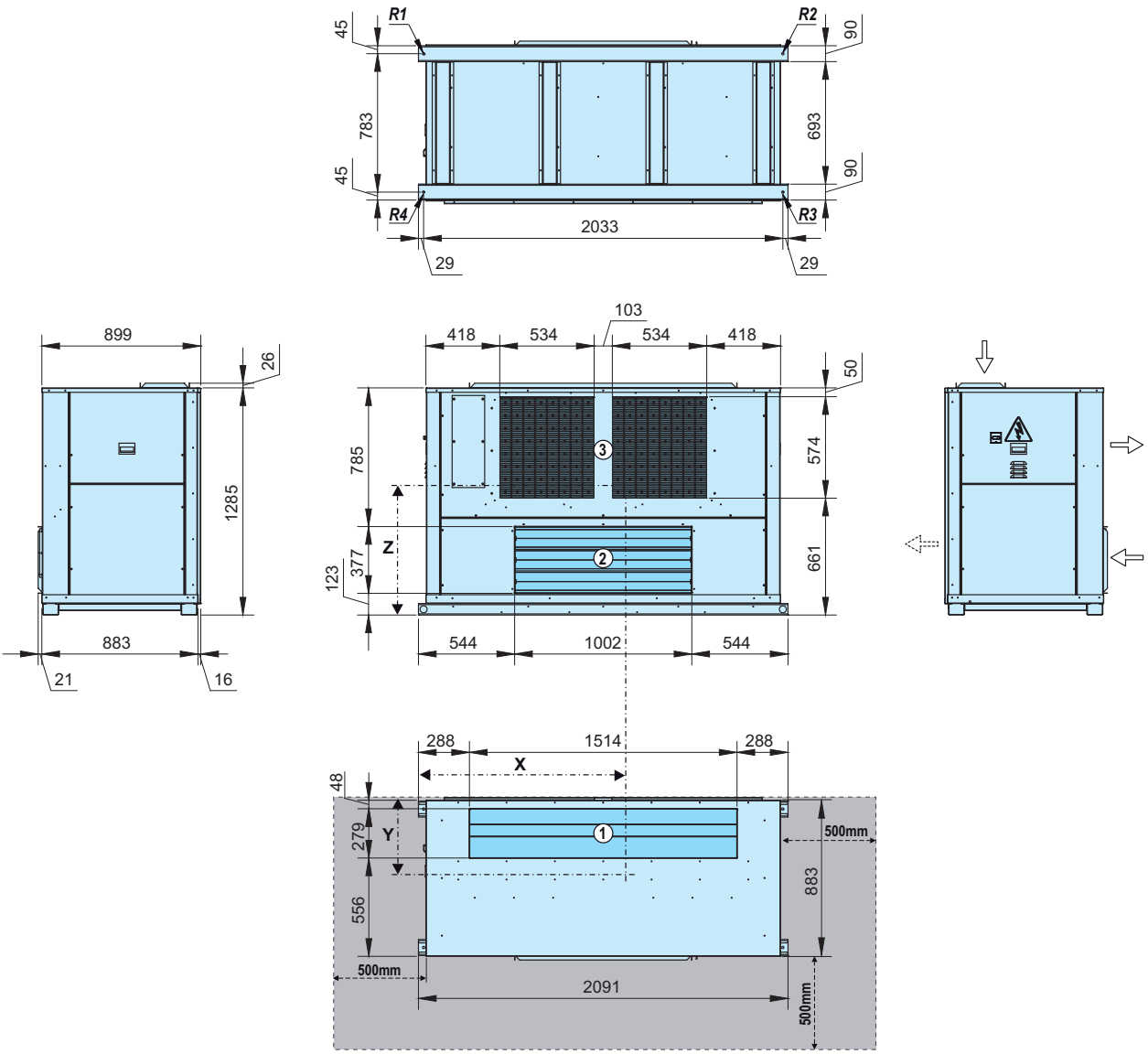


LEGEND
Indoor air circulation circuit
Electric panel
Electric power supply
Door switch
① Water outlet of the outdoor circuit
② Water inlet of the outdoor circuit
③ Condensate outlet, trunk M7/8"
④ Auxiliary coil water inlet (optional)
⑤ Auxiliary coil water outlet (optional)
Anti-vibration anchoring: rivet nut M10
Clear space to be observed for maintenance operations and unit start-up. Note: foresee space for the top extraction of the air coil.

Neptus XP		Centre of gravity (mm)			Reactions in the supports (kg)				
		X	Y	Z	Weight	R1	R2	R3	R4
320	Centrifugal fan	1700	392	450	719	107	208	252	151
	Plug-fan	1700	392	450	689	103	200	242	145
360	Centrifugal fan	1700	392	450	730	109	212	256	153
	Plug-fan	1700	392	450	700	104	203	246	147

Dimensions schemes

Vertical box (MFVA module) for Neptus XP - 182, 200 and 240 (mm) (optional)



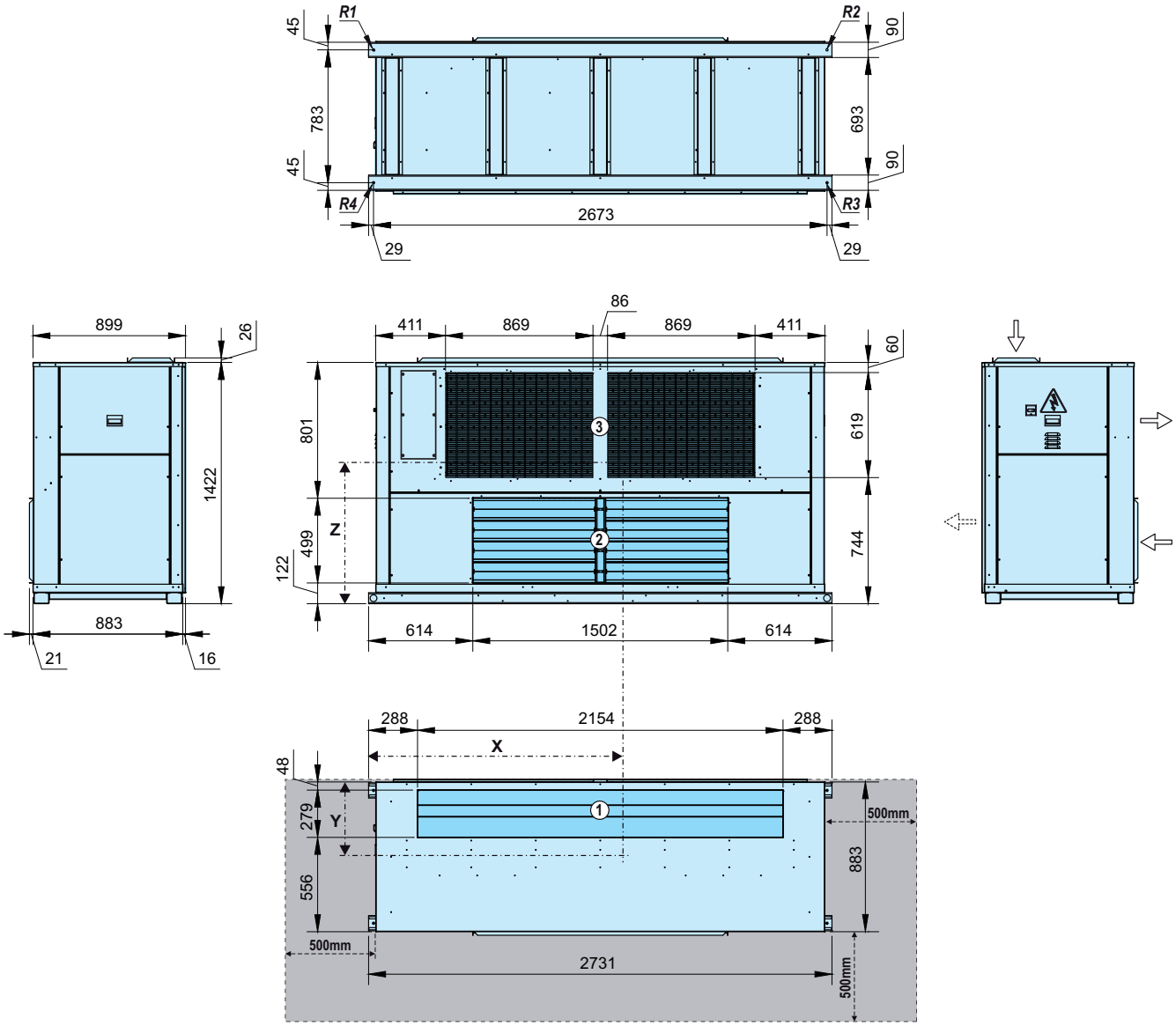
LEGEND
⇨ Indoor air circulation circuit
Electric panel
Door switch
① Air return
② New air inlet
③ Air extraction (in MC000 and MRC000)
Anti-vibration anchoring: rivet nut M10
Clear space to be observed for maintenance operations and unit start-up

Note: If the unit XP has an MFVA box, the frame with the filters is located inside that box.

MFVA module		Centre of gravity (mm)			Reactions in the supports (kg)				
		X	Y	Z	Weight	R1	R2	R3	R4
182 200 240	MS000	1025	428	555	221	54	52	56	58
	MC000	1034	425	663	292	71	69	75	77
	MRC000	1081	405	569	367	80	86	104	97

Dimensions schemes

Vertical box (MFVA module) for Neptus XP - 320 and 360 (mm) (optional)



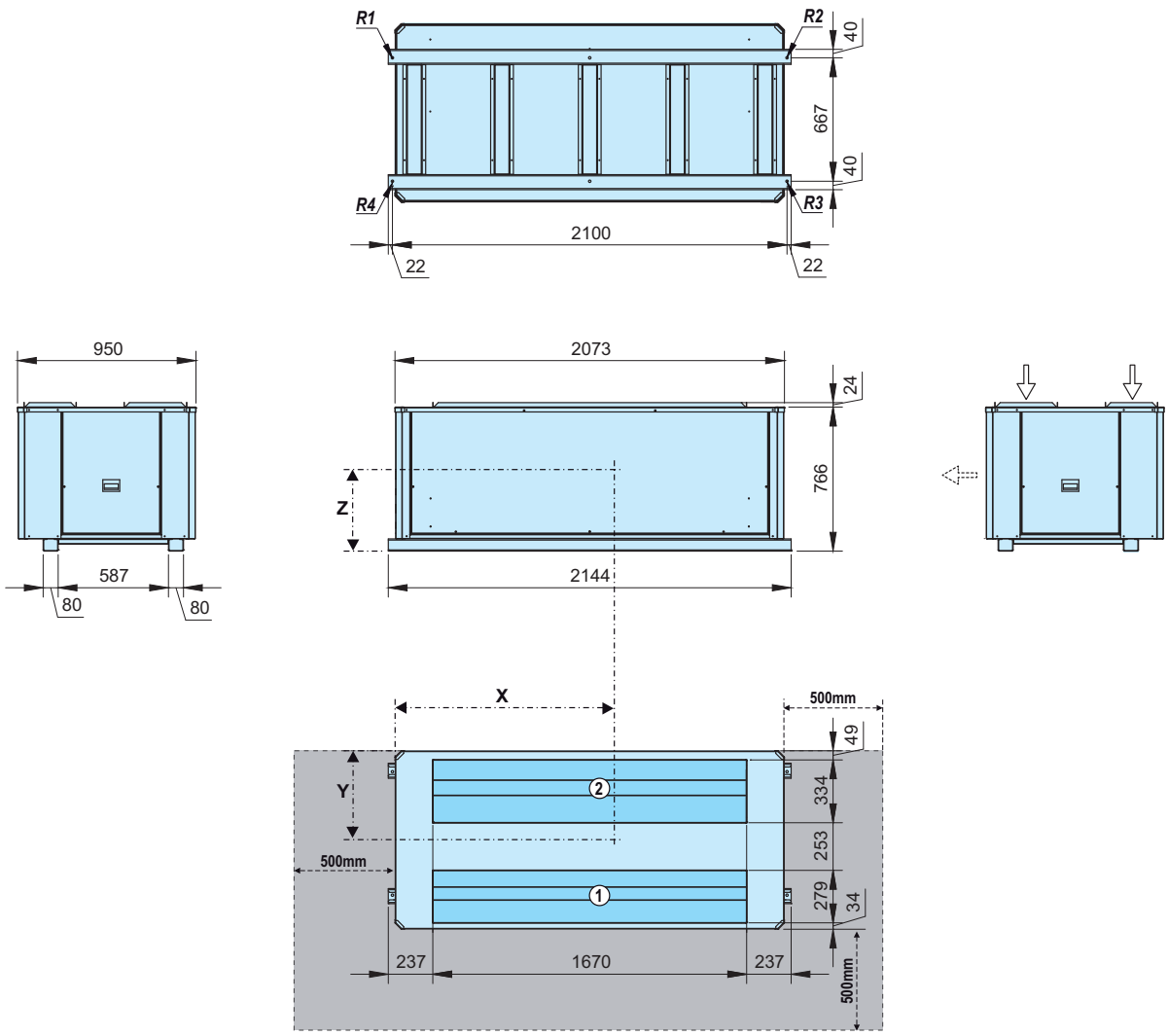
LEGEND
Indoor air circulation circuit
Electric panel
Door switch
① Air return
② New air inlet
③ Air extraction (in MC000 and MRC000)
Anti-vibration anchoring: rivet nut M10
Clear space to be observed for maintenance operations and unit start-up

Note: If the unit XP has an MFVA box, the frame with the filters is located inside that box.

MFVA module		Centre of gravity (mm)			Reactions in the supports (kg)				
		X	Y	Z	Weight	R1	R2	R3	R4
320 360	MS000	1327	437	607	297	76	71	73	77
	MC000	1343	447	729	397	102	99	96	100
	MRC000	1404	426	626	502	117	124	134	127

Dimensions schemes

Vertical box (MFHA MS202-MS207 module) for Neptus XP - 182, 200 and 240 (mm) (optional)

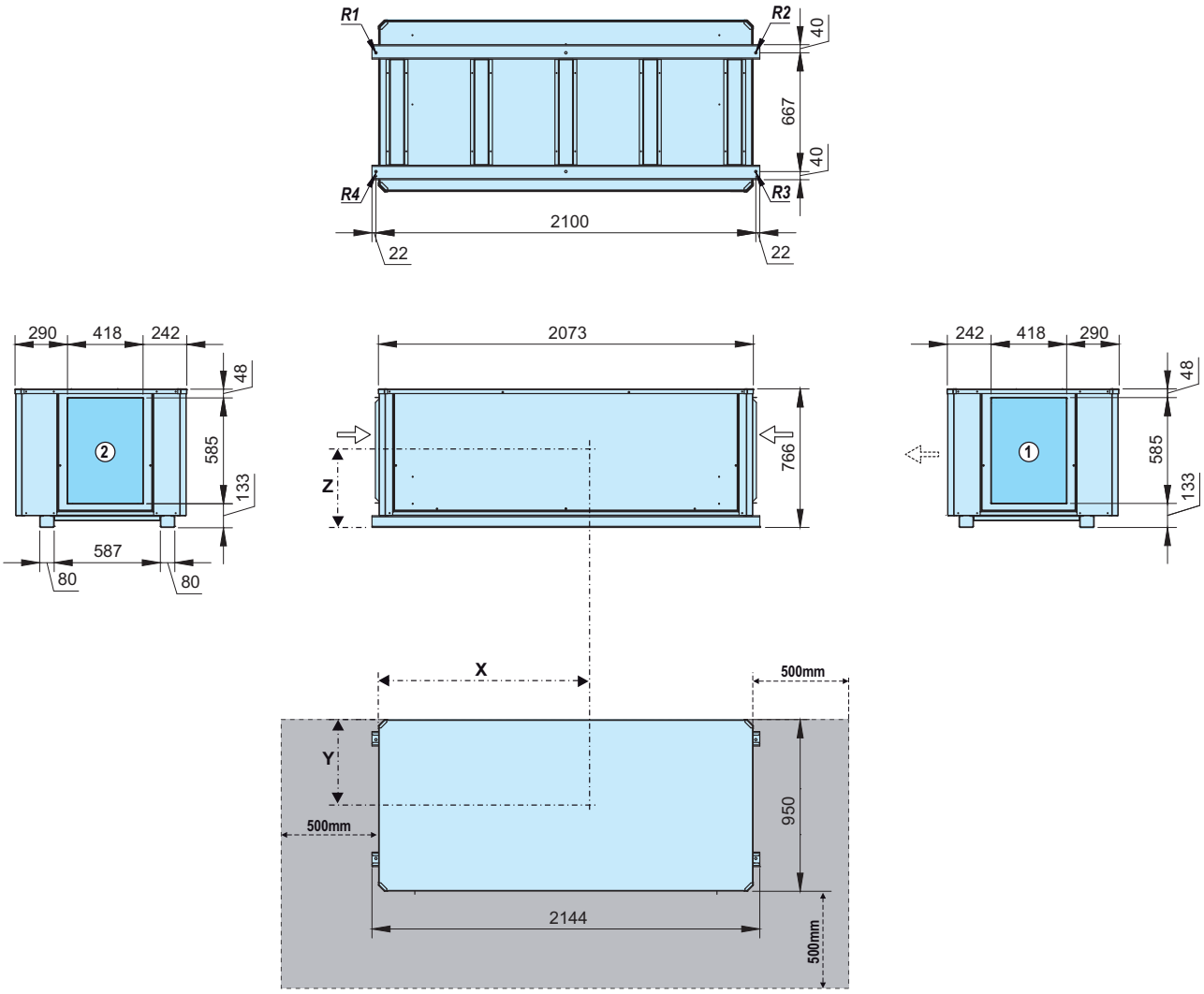


LEGEND
Indoor air circulation circuit
Electric panel
Door switch
① Return in MS202 and new air inlet in MS207
② New air inlet in MS202 and return in MS207
Anti-vibration anchoring: rivet nut M10
Free space to be observed for maintenance operations and starting the unit

MFHA module		Centre of gravity (mm)			Reactions in the supports (kg)				
		X	Y	Z	Weight	R1	R2	R3	R4
182 200 240	MS202 MS207	1030	528	321	148	31	31	43	43

Dimensions schemes

Horizontal box (MFHA MS304-MS403 module) for Neptus XP - 182, 200 and 240 (mm) (optional)

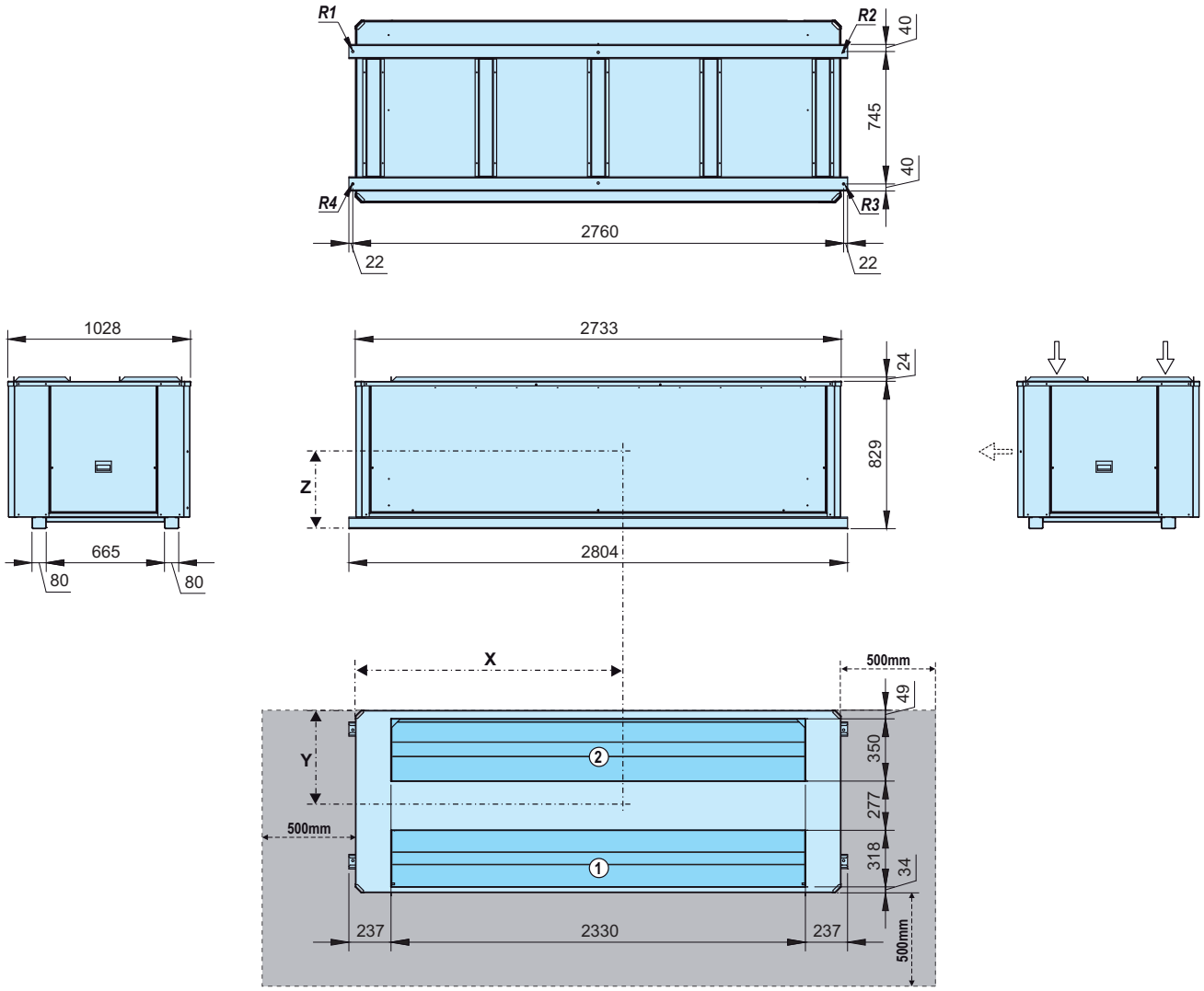


LEGEND
⇨ Indoor air circulation circuit
Electric panel
Door switch
① Return in MS304 and new air inlet in MS403
② New air inlet in MS304 and return in MS403
Anti-vibration anchoring: rivet nut M10
Free space to be observed for maintenance operations and starting the unit

MFHA module		Centre of gravity (mm)			Reactions in the supports (kg)				
		X	Y	Z	Weight	R1	R2	R3	R4
182 200 240	MS304 MS403	1030	514	327	152	34	33	42	43

Dimensions schemes

Horizontal box (MFHA MS202-MS207 module) for Neptus XP - 320 and 360 (mm) (optional)

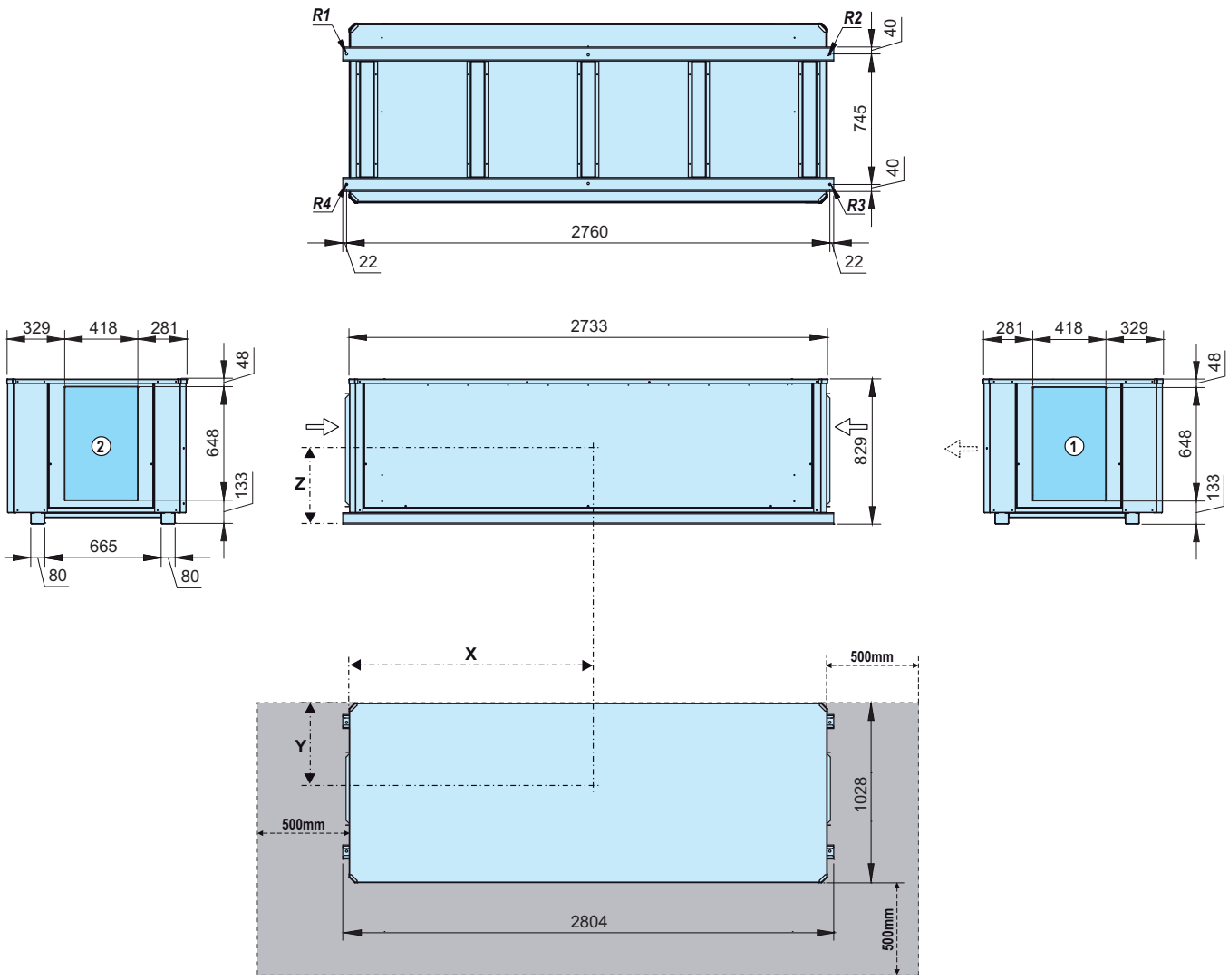


LEGEND
Indoor air circulation circuit
Electric panel
Door switch
① Return in MS202 and new air inlet in MS207
② New air inlet in MS202 and return in MS207
Anti-vibration anchoring: rivet nut M10
Free space to be observed for maintenance operations and starting the unit

MFHA module		Centre of gravity (mm)			Reactions in the supports (kg)				
		X	Y	Z	Weight	R1	R2	R3	R4
320 360	MS202 MS207	1360	521	350	200	49	49	51	51

Dimensions schemes

Horizontal box (MFHA MS304-MS403 module) for Neptus XP - 320 and 360 (mm) (optional)

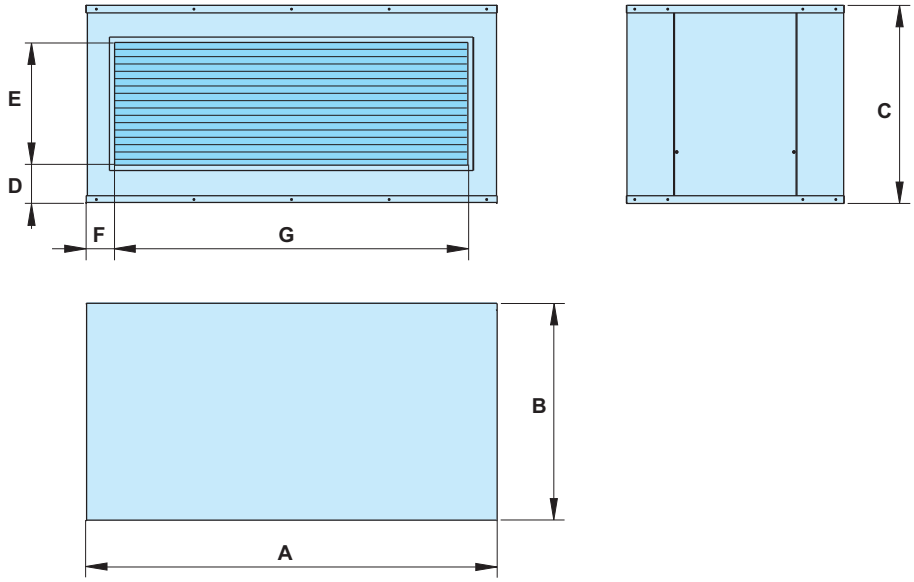


LEGEND
Indoor air circulation circuit
Electric panel
Door switch
① Return in MS304 and new air inlet in MS403
② New air inlet in MS304 and return in MS403
Anti-vibration anchoring: rivet nut M10
Free space to be observed for maintenance operations and starting the unit

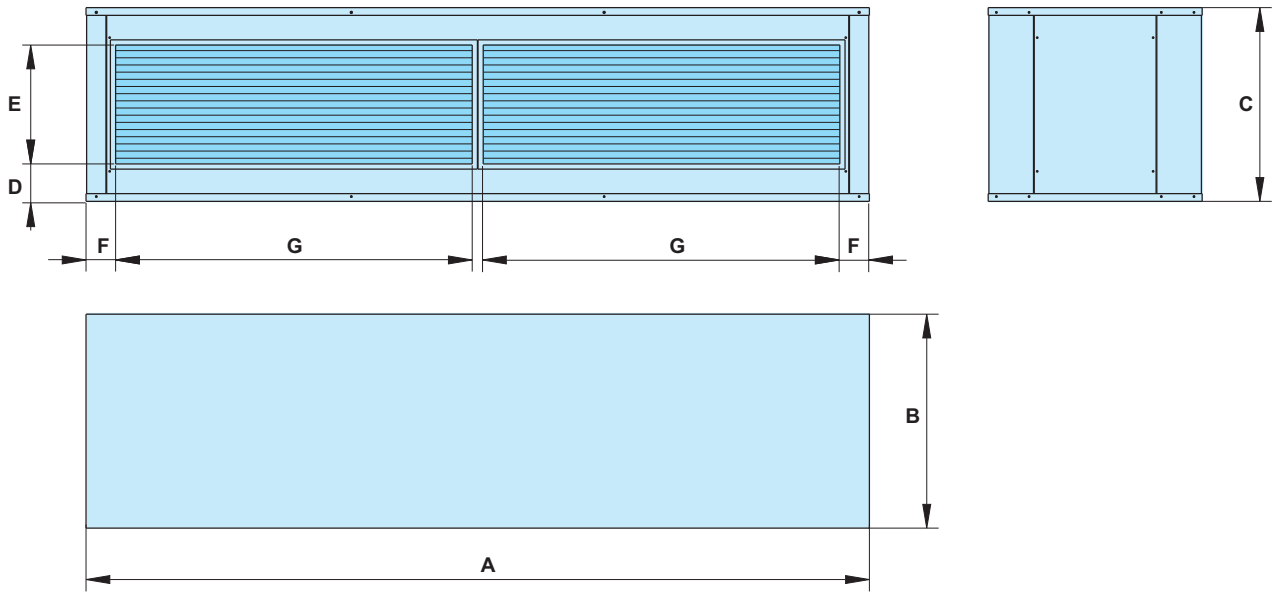
MFHA module		Centre of gravity (mm)			Reactions in the supports (kg)				
		X	Y	Z	Weight	R1	R2	R3	R4
320 360	MS304 MS403	1360	557	360	200	44	44	56	56

Dimensions schemes

Outlet plenum for Neptus XP - 90, 100, 120 and 160 (mm) (optional)



Outlet plenum for Neptus XP - 182, 200, 240, 320 and 360 (mm) (optional)

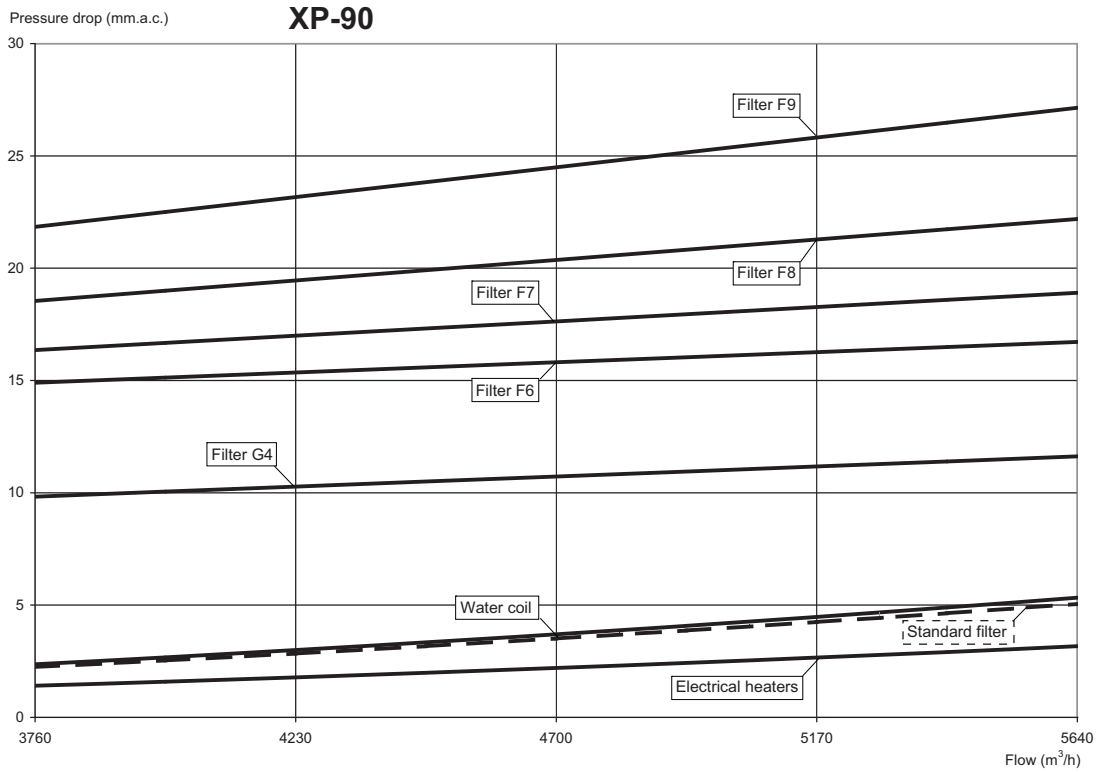


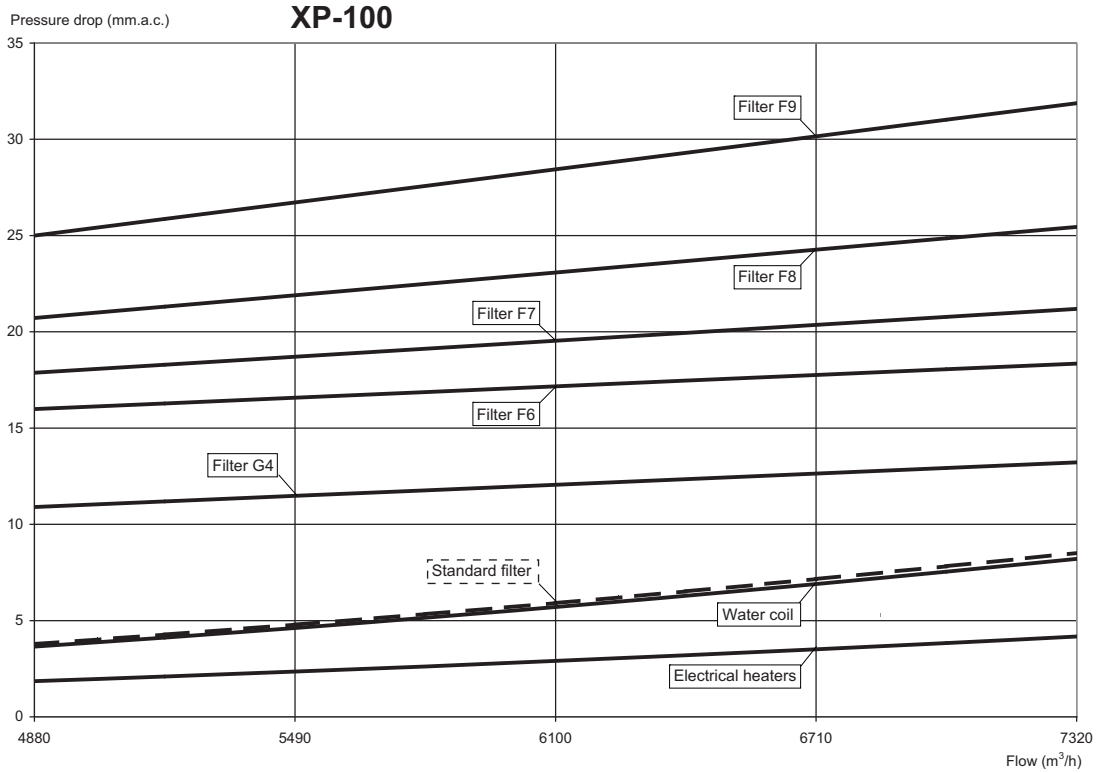
Neptus XP	Outdoor dimensions (mm)			Punched or double deflection grille (mm)			
	A	B	C	D	E	F	G
90 / 100 / 120	1057	720	655	107	440	121	815
160	1387	720	655	107	440	121	1145
182 / 200 / 240	2007	720	655	107	440	121	815
320 / 360	2647	720	655	107	440	121	1145

Note: plenum allows air to be discharged through either side.

Pressure drops

■ Outlet pressure drops in the available options





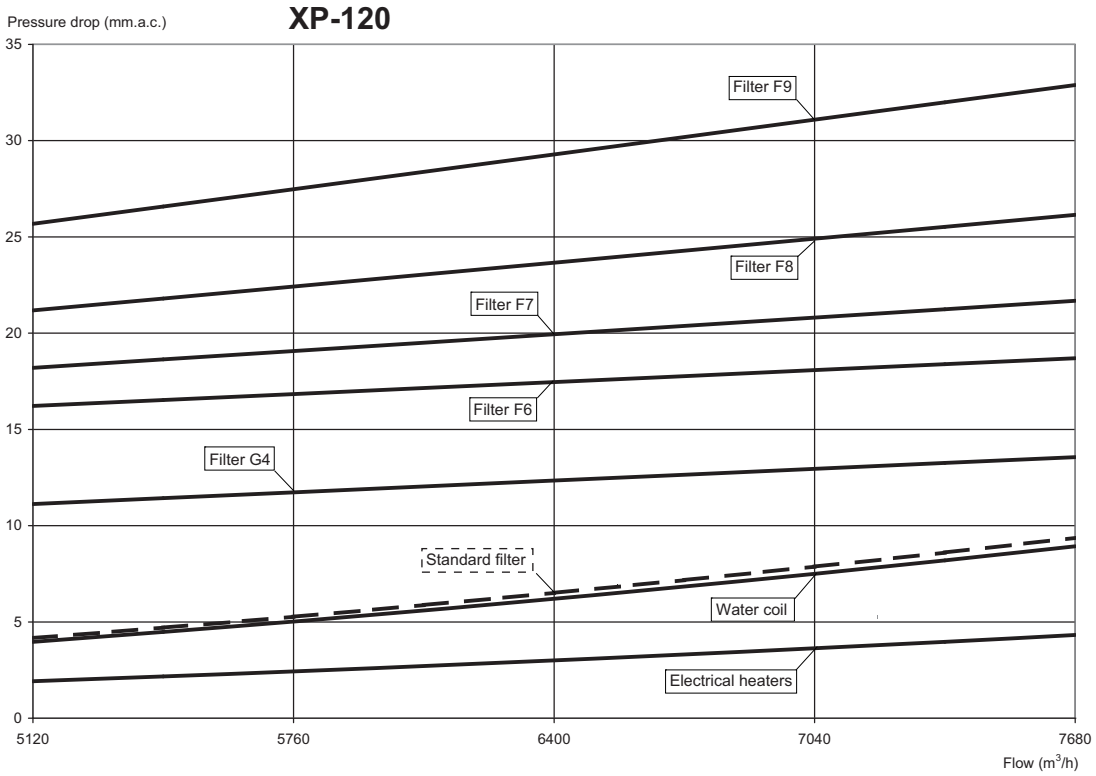
When changing filters, take away the pressure drop from the standard filter.

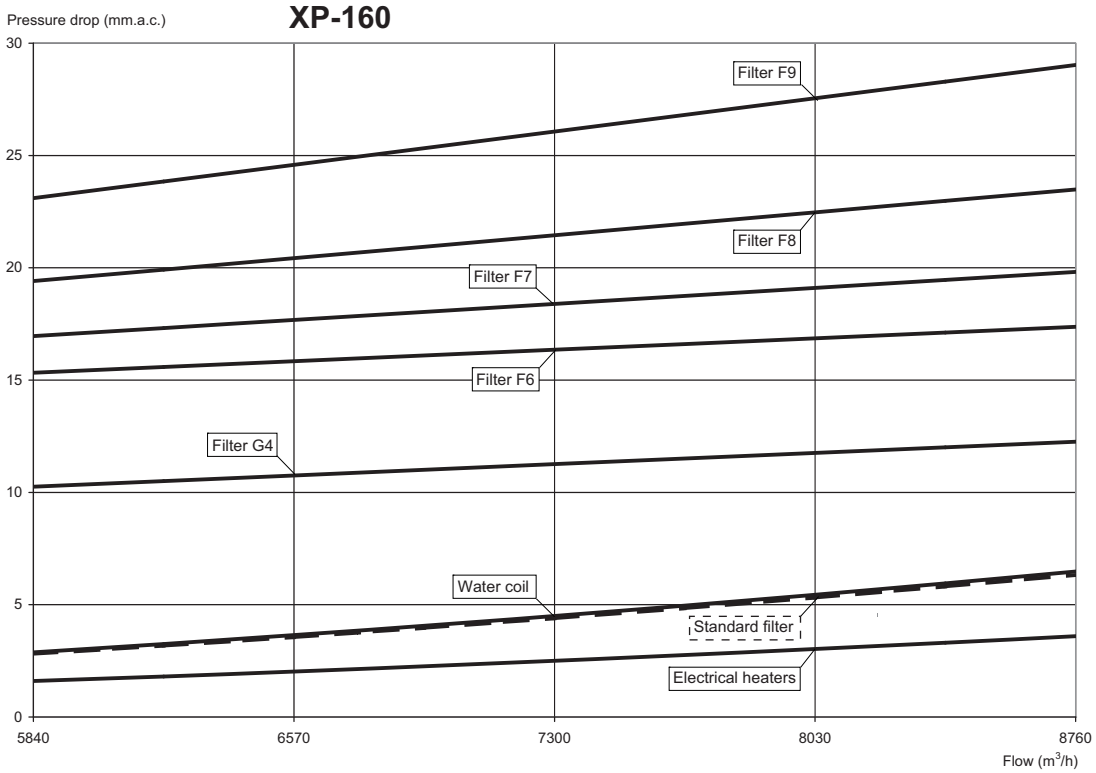
Based on the losses supported by the options selected, verify if it is necessary to change to outlet plug-fan.

Note: Pressure drops in the filters have been calculated for an average level of clogging.

Pressure drops

■ Outlet pressure drops in the available options





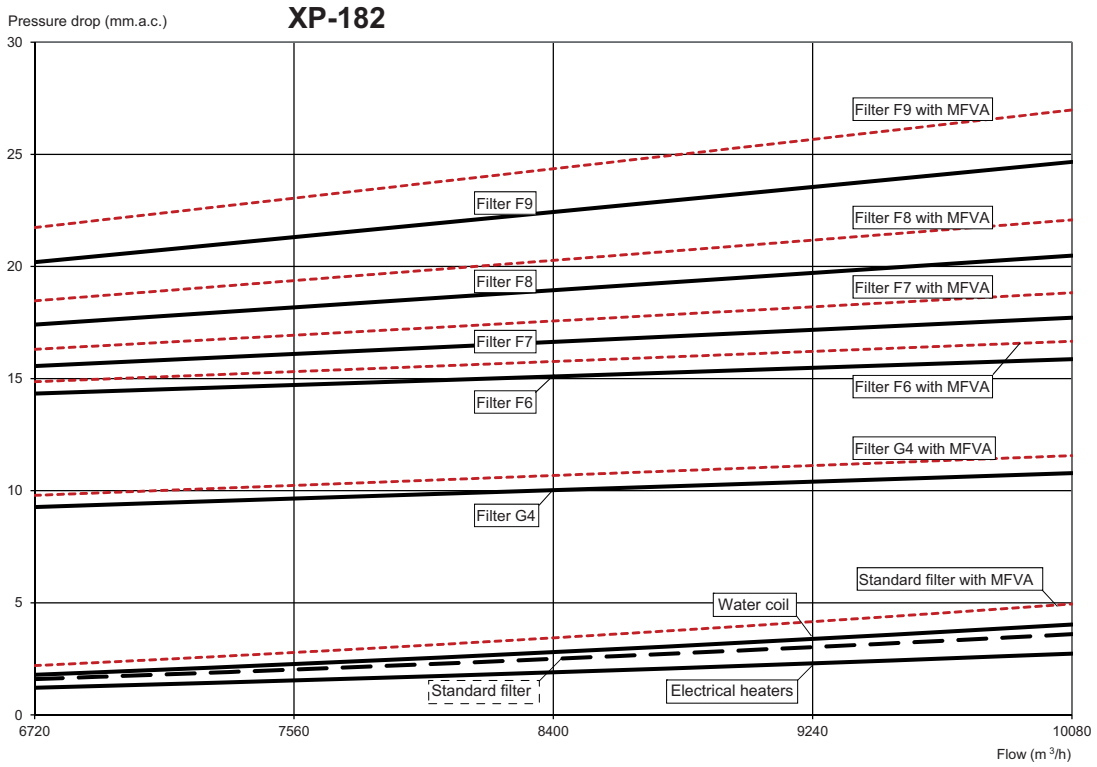
When changing filters, take away the pressure drop from the standard filter.

Based on the losses supported by the options selected, verify if it is necessary to change to outlet plug-fan.

Note: Pressure drops in the filters have been calculated for an average level of clogging.

Pressure drops

■ Outlet pressure drops in the available options

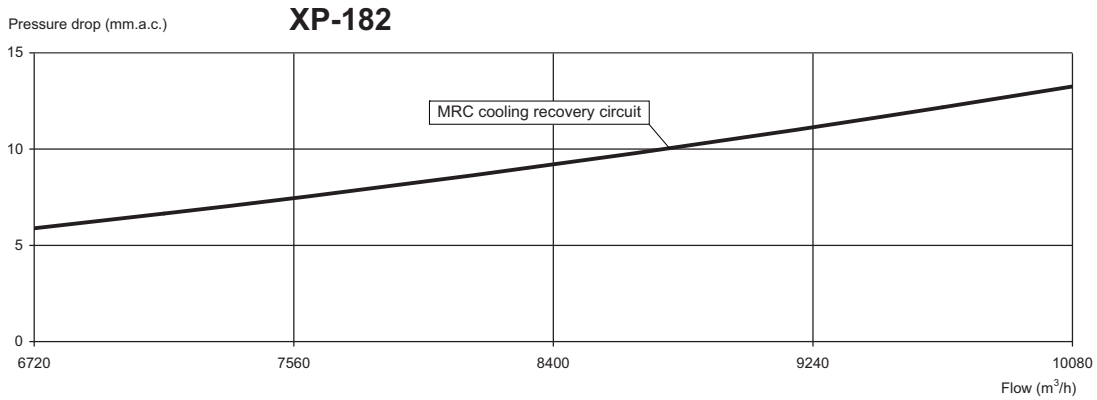


When changing filters, take away the pressure drop from the standard filter.

Based on the losses supported by the options selected, verify if it is necessary to change to outlet plug-fan.

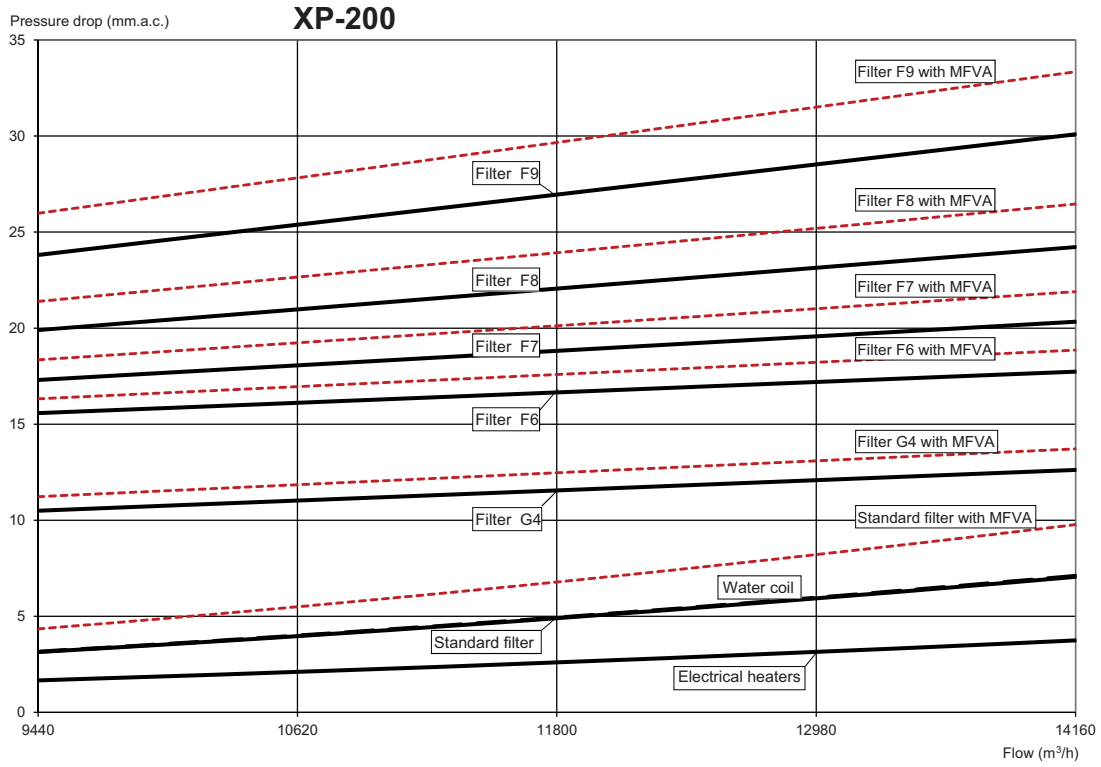
Note: Pressure drops in the filters have been calculated for an average level of clogging.

■ Return pressure drops in the available options



Pressure drops

■ Outlet pressure drops in the available options

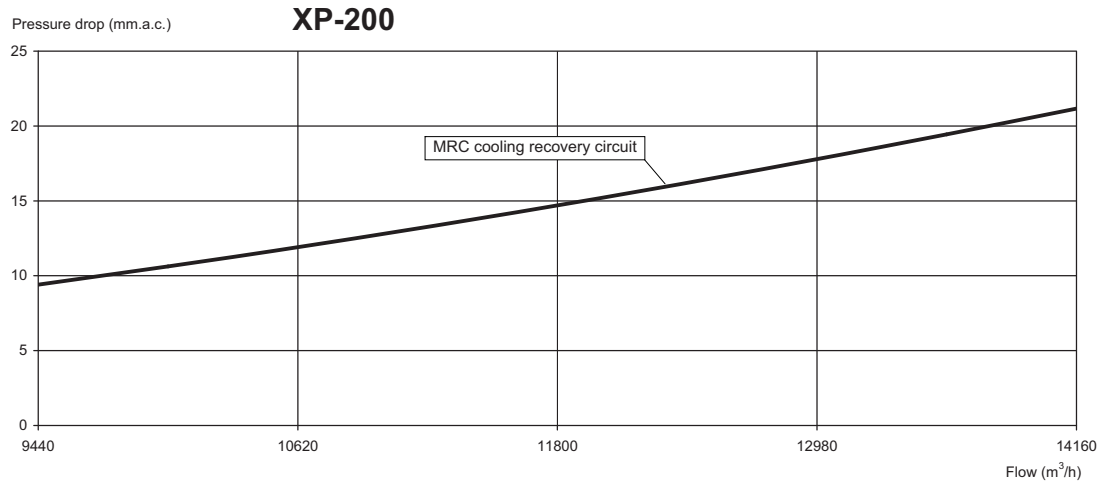


When changing filters, take away the pressure drop from the standard filter.

Based on the losses supported by the options selected, verify if it is necessary to change to outlet plug-fan.

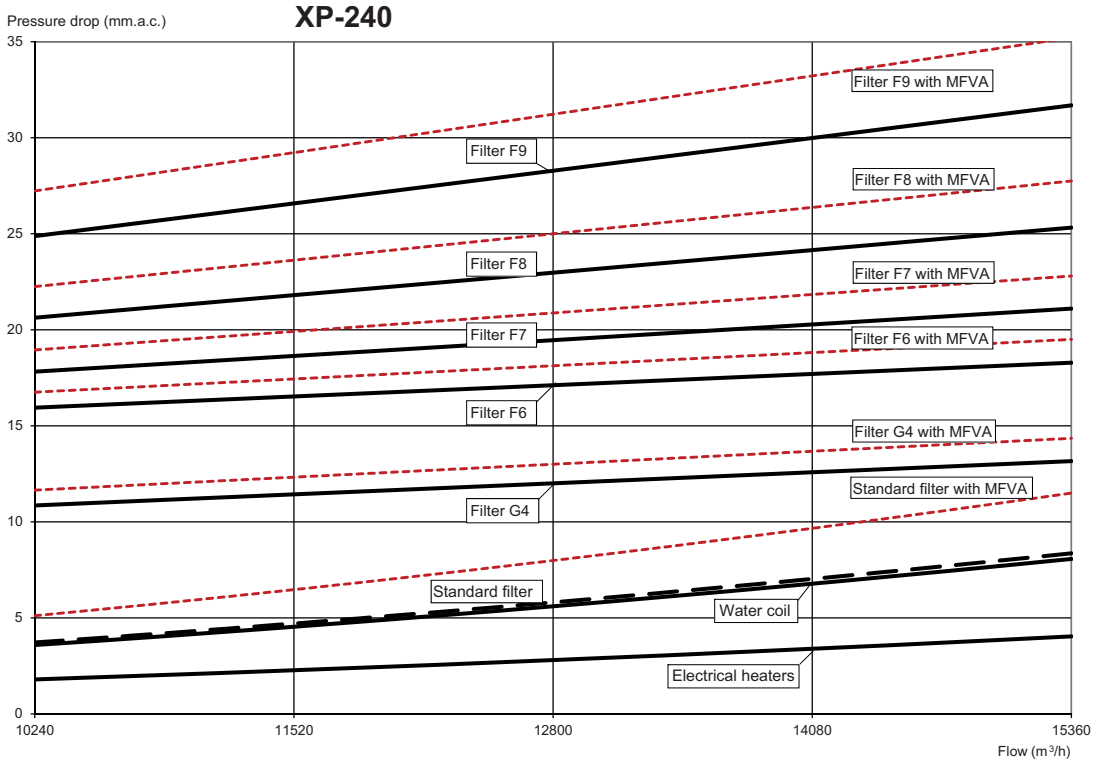
Note: Pressure drops in the filters have been calculated for an average level of clogging.

■ Return pressure drops in the available options



Pressure drops

■ Outlet pressure drops in the available options

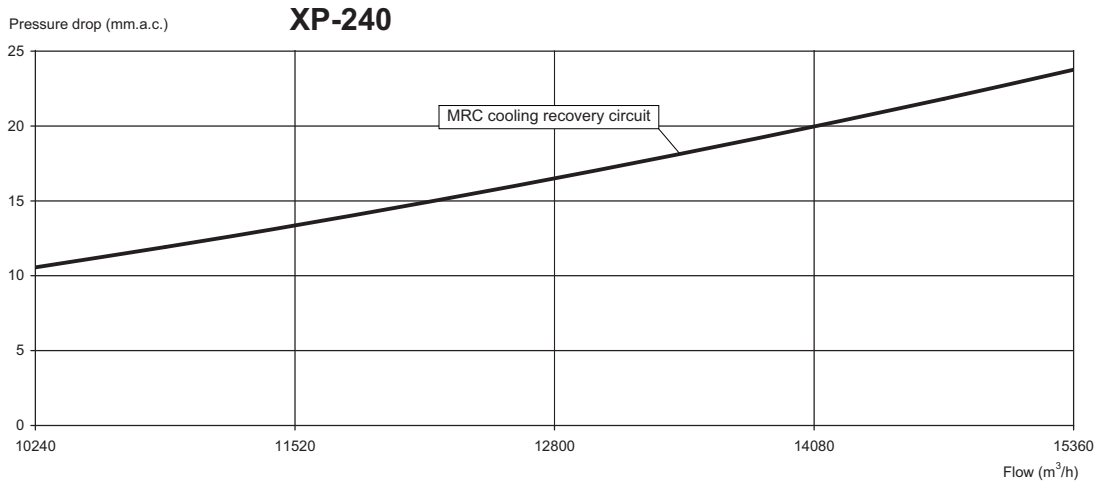


When changing filters, take away the pressure drop from the standard filter.

Based on the losses supported by the options selected, verify if it is necessary to change to outlet plug-fan.

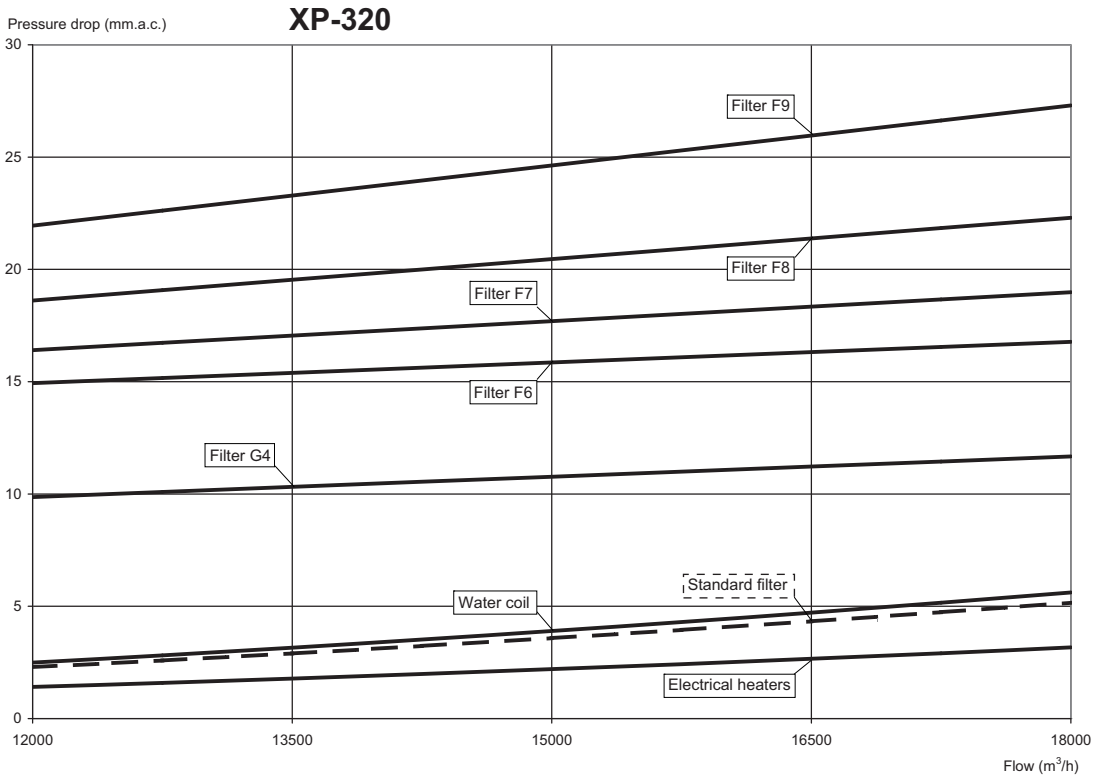
Note: Pressure drops in the filters have been calculated for an average level of clogging.

■ Return pressure drops in the available options



Pressure drops

■ Outlet pressure drops in the available options

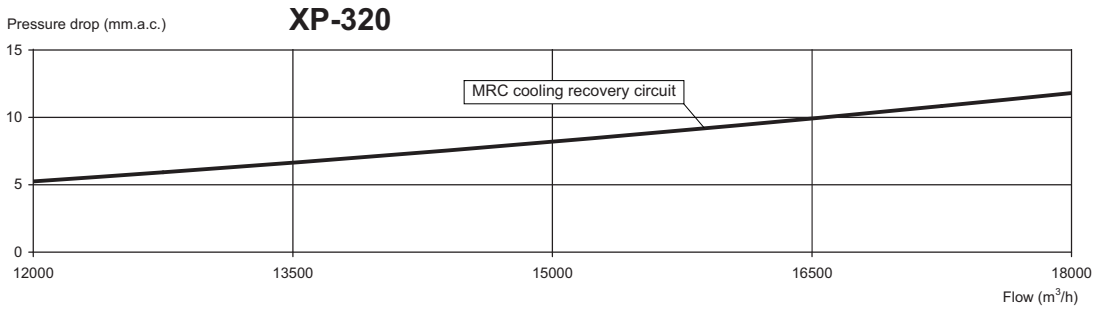


When changing filters, take away the pressure drop from the standard filter.

Based on the losses supported by the options selected, verify if it is necessary to change to outlet plug-fan.

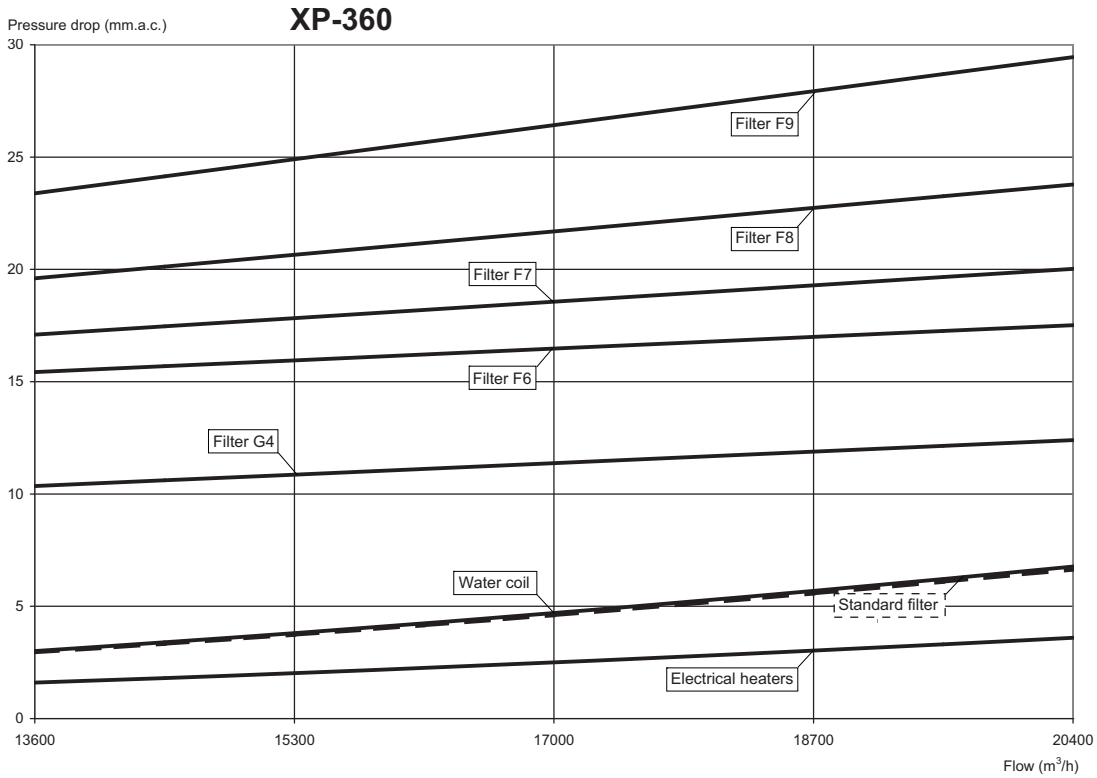
Note: Pressure drops in the filters have been calculated for an average level of clogging.

■ Return pressure drops in the available options



Pressure drops

■ Outlet pressure drops in the available options

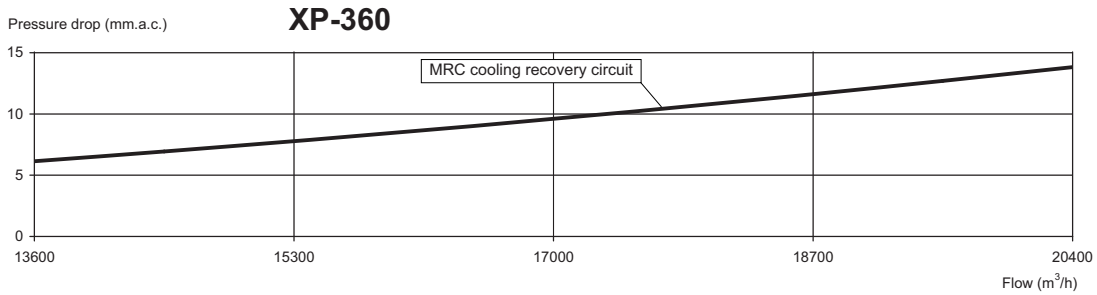


When changing filters, take away the pressure drop from the standard filter.

Based on the losses supported by the options selected, verify if it is necessary to change to outlet plug-fan.

Note: Pressure drops in the filters have been calculated for an average level of clogging.

■ Return pressure drops in the available options



SELECTION OF THE OUTLET VENTILATION

Neptus XP - 90				
Available pressure (mm.a.c)	Motor output (kW)	Power input (kW)	Fan speed (r.p.m.)	Code
Flow: 3.760 m³/h				
8	0,75	0,47	886	OPK0010
15	0,75	0,57	1000	OPK0009
20	1,1	0,63	1079	OPK0480
25	1,1	0,71	1156	OPK0478
30	---	---	---	---
35	---	---	---	---
Débit : 4.320 m³/h				
8	1,1	0,64	966	OPK0481
15	1,1	0,74	1068	OPK0480
20	1,1	0,82	1140	OPK0478
25	1,1	0,90	1210	OPK0479
30	1,5	0,98	1278	OPK0482
35	---	---	---	---
Débit : 4.700 m³/h				
8	1,1	0,85	1048	OPK0480
15	1,5	0,96	1141	OPK0483
20	1,5	1,04	1206	OPK0021
25	1,5	1,13	1270	OPK0482
30	1,5	1,21	1333	OPK0359
35	2,2	1,30	1395	OPK0487
Débit : 5.170 m³/h				
8	1,5	1,11	1132	OPK0483
15	---	---	---	---
20	2,2	1,31	1277	OPK0357
25	2,2	1,40	1336	OPK0359
30	2,2	1,49	1395	OPK0487
35	2,2	1,59	1452	OPK0487
Débit : 5.640 m³/h				
8	2,2	1,41	1218	OPK0030
15	2,2	1,53	1297	OPK0359
20	2,2	1,63	1352	OPK0359
25	2,2	1,72	1406	OPK0487
30	2,2	1,82	1461	OPK0487
35	3,0	1,92	1514	OPK0491

Neptus XP - 100				
Available pressure (mm.a.c)	Motor output (kW)	Power input (kW)	Fan speed (r.p.m.)	Code
Flow: 4.880 m³/h				
8	1,1	0,63	1018	OPK0017
15	1,5	0,71	1109	OPK0483
20	1,5	0,77	1173	OPK0021
25	2,2	0,83	1236	OPK0357
30	2,2	0,89	1298	OPK0359
35	2,2	0,95	1359	OPK0359
Débit : 5.490 m³/h				
8	2,2	0,87	1121	OPK0342
15	2,2	0,95	1202	OPK0030
20	2,2	1,02	1259	OPK0357
25	2,2	1,08	1316	OPK0359
30	2,2	1,15	1372	OPK0359
35	2,2	1,22	1428	OPK0487
Débit : 6.100 m³/h				
8	2,2	1,16	1225	OPK0030
15	2,2	1,26	1299	OPK0357
20	3,0	1,33	1351	OPK0492
25	3,0	1,40	1402	OPK0492
30	---	---	---	---
35	3,0	1,55	1504	OPK0491
Débit : 6.710 m³/h				
8	3,0	1,52	1332	OPK0114
15	3,0	1,63	1399	OPK0492
20	3,0	1,70	1446	OPK0492
25	---	---	---	---
30	4,0	1,86	1540	OPK0349
35	4,0	1,94	1587	OPK0349
Débit : 7.320 m³/h				
8	---	---	---	---
15	---	---	---	---
20	4,0	2,15	1545	OPK0349
25	4,0	2,23	1588	OPK0349
30	---	---	---	---
35	---	---	---	---

Neptus XP - 120				
Available pressure (mm.a.c)	Motor output (kW)	Power input (kW)	Fan speed (r.p.m.)	Code
Flow: 5.120 m³/h				
8	1,5	0,71	1055	OPK0022
15	1,5	0,79	1142	OPK0483
20	1,5	0,85	1203	OPK0021
25	2,2	0,91	1263	OPK0357
30	2,2	0,97	1323	OPK0359
35	2,2	1,04	1382	OPK0487
Débit : 5.760 m³/h				
8	2,2	0,98	1163	OPK0030
15	2,2	1,07	1240	OPK0357
20	2,2	1,13	1295	OPK0359
25	2,2	1,20	1350	OPK0359
30	3,0	1,27	1404	OPK0492
35	3,0	1,34	1457	OPK0492
Débit : 6.400 m³/h				
8	3,0	1,31	1273	OPK0114
15	3,0	1,41	1343	OPK0492
20	3,0	1,48	1393	OPK0492
25	---	---	---	---
30	3,0	1,63	1491	OPK0491
35	4,0	1,71	1540	OPK0349
Débit : 7.040 m³/h				
8	---	---	---	---
15	---	---	---	---
20	---	---	---	---
25	4,0	1,99	1540	OPK0349
30	4,0	2,07	1584	OPK0349
35	---	---	---	---
Flow: 7.680 m³/h				
8	---	---	---	---
15	---	---	---	---
20	---	---	---	---
25	---	---	---	---
30	---	---	---	---
35	---	---	---	---

SELECTION OF THE OUTLET VENTILATION

Neptus XP - 160				
Available pressure (mm.a.c)	Motor output (kW)	Power input (kW)	Fan speed (r.p.m.)	Code
Flow: 5.840 m³/h				
8	1,1	0,84	791	OPK0042
15	1,5	0,98	882	OPK0048
20	1,5	1,08	945	OPK0047
25	2,2	1,19	1008	OPK0363
30	---	---	---	---
35	---	---	---	---
Flow: 6.570 m³/h				
8	---	---	---	---
15	2,2	1,30	946	OPK0512
20	2,2	1,41	1003	OPK0363
25	2,2	1,53	1060	OPK0402
30	3,0	1,65	1116	OPK0354
35	---	---	---	---
Flow: 7.300 m³/h				
8	2,2	1,52	942	OPK0512
15	2,2	1,69	1015	OPK0363
20	3,0	1,81	1067	OPK0368
25	3,0	1,94	1118	OPK0354
30	3,0	2,07	1169	OPK0369
35	3,0	2,21	1220	OPK0515
Flow: 8.030 m³/h				
8	3,0	1,98	1021	OPK0367
15	3,0	2,16	1087	OPK0370
20	3,0	2,29	1134	OPK0354
25	4,0	2,43	1181	OPK0374
30	4,0	2,57	1228	OPK0165
35	4,0	2,71	1274	OPK0521
Flow: 8.760 m³/h				
8	4,0	2,53	1100	OPK0372
15	4,0	2,72	1161	OPK0374
20	4,0	2,86	1204	OPK0374
25	4,0	3,01	1247	OPK0165
30	4,0	3,16	1290	OPK0521
35	---	---	---	---

Neptus XP - 182				
Available pressure (mm.a.c)	Motor output (kW)	Power input (kW)	Fan speed (r.p.m.)	Code
Flow: 6.720 m³/h				
8	2 x 0,55	2 x 0,35	815	OPK0004
15	2 x 0,75	2 x 0,44	941	OPK0477
20	2 x 0,75	2 x 0,50	1027	OPK0009
25	---	---	---	---
30	---	---	---	---
35	---	---	---	---
Flow: 7.560 m³/h				
8	2 x 0,75	2 x 0,47	882	OPK0010
15	2 x 0,75	2 x 0,57	996	OPK0009
20	2 x 1,1	2 x 0,63	1074	OPK0480
25	2 x 1,1	2 x 0,71	1151	OPK0478
30	---	---	---	---
35	---	---	---	---
Flow: 8.400 m³/h				
8	2 x 1,1	2 x 0,62	952	OPK0481
15	2 x 1,1	2 x 0,72	1056	OPK0480
20	2 x 1,1	2 x 0,80	1128	OPK0478
25	2 x 1,1	2 x 0,87	1198	OPK0479
30	2 x 1,5	2 x 0,95	1267	OPK0482
35	---	---	---	---
Flow: 9.240 m³/h				
1,1	2 x 1,1	2 x 0,80	1024	OPK0017
1,5	2 x 1,5	2 x 0,91	1119	OPK0483
1,5	2 x 1,5	2 x 0,99	1186	OPK0021
1,5	2 x 1,5	2 x 1,07	1251	OPK0482
2,2	2 x 2,2	2 x 1,16	1315	OPK0359
2,2	2 x 2,2	2 x 1,24	1378	OPK0487
Flow: 10.080 m³/h				
8	---	---	---	---
15	2 x 1,5	2 x 1,13	1186	OPK0021
20	2 x 2,2	2 x 1,22	1247	OPK0357
25	2 x 2,2	2 x 1,30	1308	OPK0359
30	2 x 2,2	2 x 1,39	1367	OPK0359
35	2 x 2,2	2 x 1,49	1426	OPK0487

Neptus XP - 200				
Available pressure (mm.a.c)	Motor output (kW)	Power input (kW)	Fan speed (r.p.m.)	Code
Flow: 9.440 m³/h				
8	---	---	---	---
15	2 x 1,5	2 x 0,64	1079	OPK0022
20	2 x 1,5	2 x 0,70	1145	OPK0483
25	2 x 1,5	2 x 0,76	1210	OPK0021
30	2 x 1,5	2 x 0,82	1274	OPK0482
35	2 x 2,2	2 x 0,88	1337	OPK0359
Flow: 10.620 m³/h				
8	2 x 1,5	2 x 0,78	1083	OPK0022
15	2 x 2,2	2 x 0,87	1167	OPK0030
20	2 x 2,2	2 x 0,93	1226	OPK0030
25	2 x 2,2	2 x 0,99	1285	OPK0357
30	2 x 2,2	2 x 1,06	1343	OPK0359
35	2 x 2,2	2 x 1,13	1400	OPK0487
Flow: 11.800 m³/h				
8	2 x 2,2	2 x 1,05	1183	OPK0030
15	2 x 2,2	2 x 1,14	1259	OPK0357
20	2 x 2,2	2 x 1,21	1313	OPK0359
25	2 x 2,2	2 x 1,28	1366	OPK0359
30	2 x 3,0	2 x 1,35	1419	OPK0492
35	2 x 3,0	2 x 1,42	1471	OPK0491
Flow: 12.980 m³/h				
8	2 x 3,0	2 x 1,37	1284	OPK0114
15	2 x 3,0	2 x 1,47	1354	OPK0492
20	2 x 3,0	2 x 1,54	1403	OPK0492
25	---	---	---	---
30	---	---	---	---
35	2 x 4,0	2 x 1,77	1548	OPK0349
Flow: 14.160 m³/h				
8	---	---	---	---
15	---	---	---	---
20	---	---	---	---
25	2 x 4,0	2 x 2,02	1541	OPK0349
30	2 x 4,0	2 x 2,10	1586	OPK0349
35	---	---	---	---

SELECTION OF THE OUTLET VENTILATION

Neptus XP - 240				
Available pressure (mm.a.c)	Motor output (kW)	Power input (kW)	Fan speed (r.p.m.)	Code
Flow: 10.240 m³/h				
8	---	---	---	---
15	2 x 1,5	2 x 0,76	1125	OPK0483
20	2 x 1,5	2 x 0,82	1186	OPK0021
25	2 x 2,2	2 x 0,88	1247	OPK0357
30	2 x 2,2	2 x 0,94	1307	OPK0359
35	2 x 2,2	2 x 1,00	1366	OPK0359
Flow: 11.520 m³/h				
8	2 x 2,2	2 x 0,94	1144	OPK0342
15	2 x 2,2	2 x 1,03	1222	OPK0030
20	2 x 2,2	2 x 1,09	1277	OPK0357
25	2 x 2,2	2 x 1,16	1331	OPK0359
30	2 x 3,0	2 x 1,23	1385	OPK0492
35	2 x 3,0	2 x 1,30	1439	OPK0492
Flow: 12.800 m³/h				
8	2 x 3,0	2 x 1,27	1252	OPK0114
15	2 x 3,0	2 x 1,36	1322	OPK0114
20	2 x 3,0	2 x 1,43	1372	OPK0492
25	2 x 3,0	2 x 1,50	1422	OPK0492
30	2 x 3,0	2 x 1,58	1471	OPK0491
35	2 x 3,0	2 x 1,65	1520	OPK0491
Flow: 14.080 m³/h				
8	---	---	---	---
15	---	---	---	---
20	---	---	---	---
25	2 x 4,0	2 x 1,92	1517	OPK0349
30	2 x 4,0	2 x 2,00	1562	OPK0349
35	---	---	---	---
Flow: 15.360 m³/h				
8	---	---	---	---
15	---	---	---	---
20	---	---	---	---
25	---	---	---	---
30	---	---	---	---
35	---	---	---	---

Neptus XP - 320				
Available pressure (mm.a.c)	Motor output (kW)	Power input (kW)	Fan speed (r.p.m.)	Code
Flow: 12.000 m³/h				
8	2 x 1,5	2 x 0,85	776	OPK0505
15	2 x 1,5	2 x 0,99	865	OPK0048
20	2 x 1,5	2 x 1,09	927	OPK0047
25	2 x 2,2	2 x 1,20	989	OPK0363
30	---	---	---	---
35	---	---	---	---
Flow: 13.500 m³/h				
8	2 x 1,5	2 x 1,16	850	OPK0337
15	2 x 2,2	2 x 1,32	928	OPK0513
20	2 x 2,2	2 x 1,43	984	OPK0512
25	2 x 2,2	2 x 1,55	1040	OPK0402
30	2 x 2,2	2 x 1,67	1095	OPK0509
35	2 x 3,0	2 x 1,80	1149	OPK0354
Flow: 15.000 m³/h				
8	2 x 2,2	2 x 1,55	925	OPK0513
15	2 x 2,2	2 x 1,72	996	OPK0363
20	2 x 3,0	2 x 1,84	1046	OPK0368
25	2 x 3,0	2 x 1,97	1097	OPK0370
30	2 x 3,0	2 x 2,10	1147	OPK0354
35	2 x 3,0	2 x 2,23	1196	OPK0369
Flow: 16.500 m³/h				
8	2 x 3,0	2 x 2,02	1002	OPK0367
15	2 x 3,0	2 x 2,20	1067	OPK0368
20	2 x 3,0	2 x 2,33	1113	OPK0370
25	2 x 4,0	2 x 2,47	1158	OPK0374
30	2 x 4,0	2 x 2,61	1204	OPK0374
35	2 x 4,0	2 x 2,75	1250	OPK0165
Flow: 18.000 m³/h				
8	2 x 4,0	2 x 2,58	1080	OPK0372
15	2 x 4,0	2 x 2,77	1139	OPK0376
20	2 x 4,0	2 x 2,91	1182	OPK0374
25	2 x 4,0	2 x 3,06	1224	OPK0165
30	---	---	---	---
35	---	---	---	---

Neptus XP - 360				
Available pressure (mm.a.c)	Motor output (kW)	Power input (kW)	Fan speed (r.p.m.)	Code
Flow: 13.600 m³/h				
8	2 x 1,5	2 x 1,15	834	OPK0337
15	2 x 2,2	2 x 1,30	913	OPK0513
20	2 x 2,2	2 x 1,41	968	OPK0512
25	2 x 2,2	2 x 1,53	1024	OPK0363
30	2 x 2,2	2 x 1,65	1079	OPK0509
35	2 x 3,0	2 x 1,78	1133	OPK0354
Flow: 15.300 m³/h				
8	2 x 2,2	2 x 1,59	918	OPK0513
15	2 x 3,0	2 x 1,75	987	OPK0367
20	2 x 3,0	2 x 1,87	1037	OPK0368
25	2 x 3,0	2 x 2,00	1086	OPK0370
30	2 x 3,0	2 x 2,13	1136	OPK0354
35	2 x 3,0	2 x 2,27	1185	OPK0369
Flow: 17.000 m³/h				
8	2 x 3,0	2 x 2,12	1003	OPK0367
15	2 x 3,0	2 x 2,31	1066	OPK0368
20	2 x 4,0	2 x 2,44	1110	OPK0372
25	2 x 4,0	2 x 2,58	1155	OPK0374
30	2 x 4,0	2 x 2,72	1199	OPK0374
35	2 x 4,0	2 x 2,86	1244	OPK0165
Flow: 18.700 m³/h				
8	2 x 4,0	2 x 2,78	1089	OPK0372
15	2 x 4,0	2 x 2,97	1146	OPK0376
20	2 x 4,0	2 x 3,12	1187	OPK0374
25	2 x 4,0	2 x 3,27	1228	OPK0374
30	---	---	---	---
35	---	---	---	---
Flow: 20.400 m³/h				
8	---	---	---	---
15	---	---	---	---
20	---	---	---	---
25	---	---	---	---
30	---	---	---	---
35	---	---	---	---

NOTES