CLIMATIC
ENVIRONMENT
SOLUTIONS
AND EQUIPMENT

X-POOL+ R290

Thermodynamic double flow dehumidifier

MADE IN FRANCE

www.ett-hvac.com

ENERGIE TRANSFERT THERMIQUE

C O N T E N T S

General description

The ETT packaged unit is delivered ready to operate. Its full aluminium structure (frame and casing), ensures an excellent corrosion protection (20-year anti-corrosion guarantee).

Aluminium facilitates the REFURBISHMENT of machines for a second life, unlike a steel structure.

Our technical choices have a major impact on the environment

•DECARBONATION:

ETT is committed to an ambitious approach to reducing greenhouse gas emissions:

- Reducing the energy consumption of our machines
- Fluid refrigerants with low GWP
- Energy monitoring & AI
- Adiabatic cooling
- Development of machine retrofits

•ALUMINIUM : PERFORMANCE AND DURABILITY!

- Lightweight: 3 times lighter than steel
- Corrosion resistant and long lifespan
- Thermal performance
- 100% recyclable indefinitely
- Facilitates the refurbishment of our machines

• ECO-DESIGN:

Our technologies are designed with sustainability in mind, reducing their environmental impact throughout their life cycle.

• LOW-POLLUTION MANUFACTURING PROCESS:

- Selective sorting: 80% recovery rate
- No paint or solvents

• END OF MACHINE LIFE:

In compliance with regulations, ETT is a member of the Ecologic eco-organisation for the end-of-life processing of machines, which are 98% recyclable.

EcoLogic

• ETT CERTIFICATIONS

- **CSR assessment**: ECOVADIS Gold Medal for our CSR approach

GOLD | Top 5% ecovadis Sustainability Rating JAN2025

- **ISO 14001 & ISO 9001 certification**: our Quality and Environmental Management System

ISO 14001 ISO 9001

- **Certificate of competence for handling refrigerants**
- **Membership of the UN Global Compact**
- **Qualiopi certification** for our training centre

Qualiopi processus certifié RÉPUBLIQUE FRANÇAISE

As a positive-impact company, ETT contributes to a more sustainable world through our decarbonising products and services.

In addition, each unit is delivered with a certificate of conformity to EU standards and complies with the following standards:

- Machinery Directive 2006/42/EC - Operator's safety
- Low Voltage Directive (LVD) 2014/35/EU - Electricity
- Electromagnetic Compatibility (EMC) Directive 2014/30/EU
- Regulation (EU) 2016/426 – Gas appliances
- Standard NF EN 60204 -1- Electrical appliances
- Standard EN 378-2 : 2017 – Safety and environmental requirements
- PED Directive 2014/68/EU (in accordance with Articles 2.10, 2.11, 3.4, 5a and 5d of Annex 1) - Pressure equipment
- EcoDesign regulations ErP UE 2281/2016

20-year guarantee against corrosion frame - casing

ENERGY SAVING

ENVIRONMENTAL ATTITUDE

SERVICE LINK

Risk analysis

The **Explosion Protection Document (DRPCE)** is a safety document that identifies, assesses, and controls risks when using flammable or combustible products (as is the case with R32 or R290 refrigerants).

The drafting of the **DRPCE** is required uniformly for all A2L to A3 fluids (according to NF EN 378 2017).

In Europe, Directive 1999/92/EC applies, requiring employers to carry out an assessment of explosion risks,

define ATEX zones and draw up a document detailing the prevention and protection measures put in place to protect workers.

This risk assessment is to be provided at the time of commissioning.

Safety and intervention zone

Since propane is heavier than air, it is important to avoid any areas where gas could accumulate near the machine in the event of a leak.

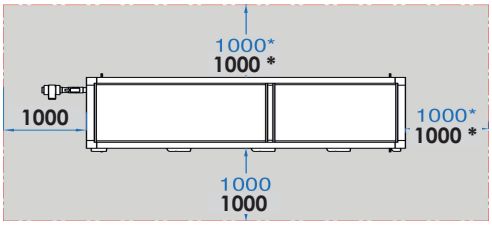
Therefore, in the case of machines installed outdoors, particular attention must be paid to the positioning of the machines in relation to openings (such as Skydomes) and parapets.

In the case of machines installed indoors, it is recommended to duct the valve to the outside of the building to vent gases in case of leakage. It is also recommended to duct the recirculation fan from the technical compartment to the outside of the building.

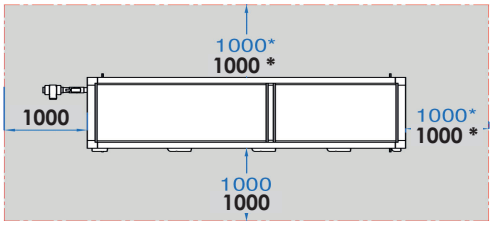
Likewise, it is necessary to ensure the absence of air intakes, wall openings, drainage channels, and low points near the machine.

For each machine size, a safety zone must be maintained (indicated by the shaded area in the diagrams below), and this zone must be free of any external machine equipment.

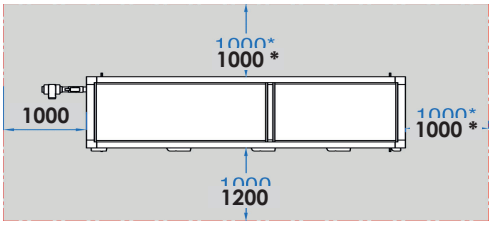
SAFETY AND INTERVENTION ZONE DEPENDING ON THE TYPE OF MACHINE



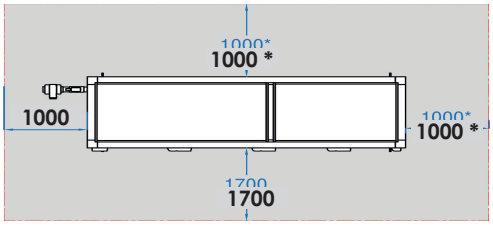
X-POOL+ R290 T1



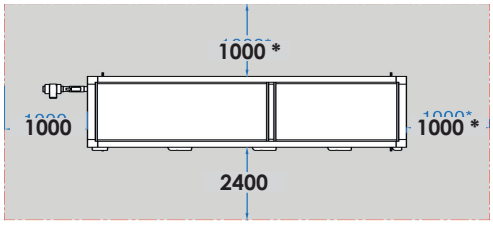
X-POOL+ R290 T2



X-POOL+ R290 T3



X-POOL+ R290 T4



X-POOL+ R290 T5

(* excluding machine against a wall)

Special case of work on the refrigeration circuit:

In this case, the technician must maintain a **5-meter** safety distance **all around** the machine (not shown in the diagrams).

During the intervention, it is essential to secure this expanded zone by preventing any ignition sources and checking that there is no possibility of gas leakage into the building (by closing openings and air intakes, in particular). If it is not possible to seal these openings, an analysis must be carried out to implement preventive measures such as a deflector or a safety system must be installed.

This analysis must be carried out as soon as the machine is installed.

Unit description

The **X-POOL+ R290** thermodynamic double-flow dehumidification system is designed to meet all air treatment needs for small to medium-sized pools. (Hotels, spas, balneos, physiotherapy centres, senior residences, campsites, etc.)

Thanks to the various innovations and materials used, the **X-POOL+ R290** combines performance, reliability, air quality and respect for the environment.

Connected components

Optimum unit operation

myETTvision 1-year subscription provided with no commitment.

4G maintenance gateway

myETTvision

Fans

Specific protection for humid, saline and sulphurous environments (H2+S) (optional)

Analogue Flow Controller (AFC) communicating, direct transmission, electronically commutated "EC" optimum performance and low noise level

New generation PLC with display

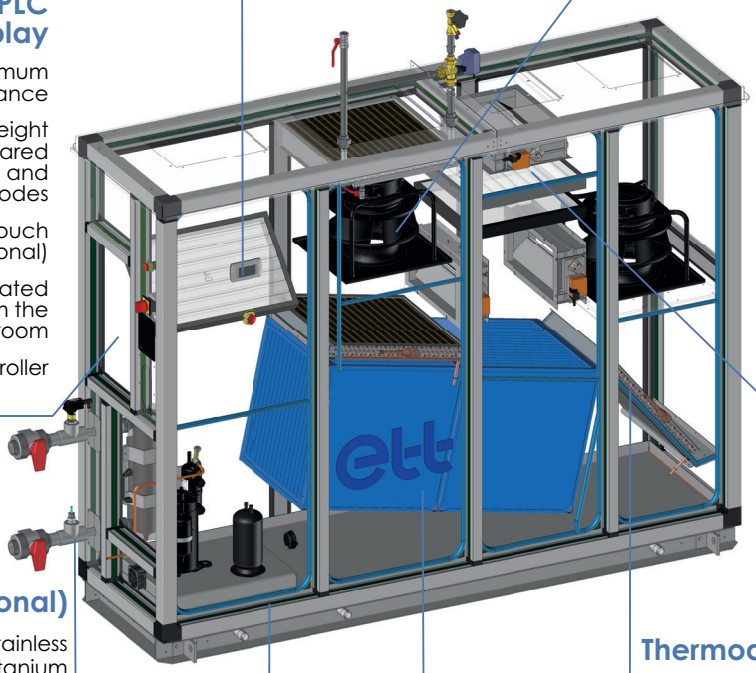
Controls for optimum performance

External water weight can be compared in Free Cooling and Dehumidification modes

New ETT Control Box touch display (optional)

Electrical board ventilated separately from the technical room

Basic phase controller



Eco-design filtration

Low pressure drop.

Analogue clogging controller.

ISO ePM10 50% (M5) standard, ISO ePM1 50% (F7) optional

Water condenser (optional)

Insulated water exchanger stainless steel 316L or titanium

Heat is discharged into the pool water

R290

Thermodynamic batteries

New R290 fluid with a low GWP (0.02) NEW !

GWP = Global warming potential

Optimised heat exchangers with reduced tube diameters and a reduced refrigerant load NEW !

Coil with vinyl fin protection

Electronic expansion valves

Reversible mode for thermodynamic cooling

NEW !

Leak detector

Equipped with propane detector, safety chain and mixing fan from the technical compartment

Energy recovery

Cross-fl ow plate heat exchanger

Anti corrosive paint for swimming pool application

Complies with Eco-design regulations (EU Regulation 1253/2014)

Efficiency greater than 73% in 100% fresh air mode (in accordance with EN 308)

Eurovent-certified heat exchanger

Unit description

Reinforced insulation

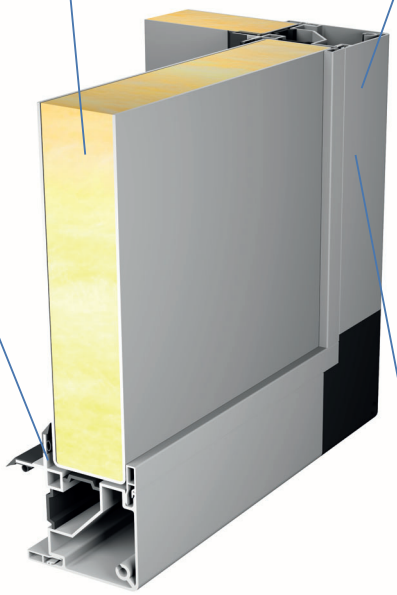
50 mm thick glass wool classified M0/A2s1d0
Integrated thermal bridge breaker

Reinforced acoustic insulation with double skin and high-density glass wool

20-year guarantee against corrosion frame - casing

Aluminium frame and casing assembly

New system with improved thermal performance, class T2TB2 (in accordance with NF EN 1886)
Optimised tightness and thermal insulation.
Compression locks
Reduced weight, for new and refurbish projects.



Seal

Airtightness level **L1** (according to NF EN 1886)
Hygienic quality VDI6022

100% recyclable aluminium

Swimming pool applications

Casing specially designed for swimming pools. All stainless steel screws and bolts.
Negative pressure in the technical room to prevent any pollution from stale air being drawn in
Compact casing for wall mounting
Narrow machine width for easy door access during installation
Easy-to-clean machine with integrated condensation tray.

TÜV NORD

*EN1886 performance level on ETT model housing tested and validated by TUV Nord laboratory (2022)

NF EN 1886: 2008	ETT 'Model Box' performance				
Mechanical distortion			D3	D2	D1
Case leak (overpressure +700Pa)			L3	L2	L1
Case leak (negative pressure -400Pa)			L3	L2	L1
Filter frame leak	M5	F6	F7	F8	F9
Transmittance	T5	T4	T3	T2	T1
Thermal bridge	TB5	TB4	TB3	TB2	TB1

(1)

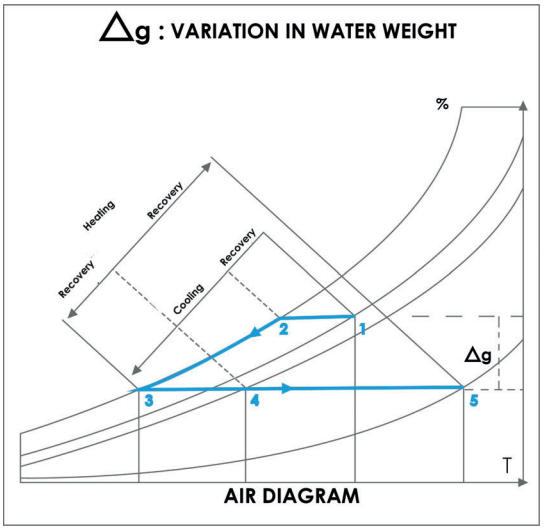
Operating principles

Dehumidification is ensured by the action of the refrigeration cycle of the reversible heat pump combined with a plate heat exchanger (recovery unit).

This initial recovery of heat takes place without any external input, resulting in significant energy savings and a reduction of more than 50% in the size of the compressors, and therefore in subscriptions and electricity consumption.

The extracted air is dried by pre-cooling on the plate heat exchanger and then final cooling on the evaporator. The heat extracted is transferred on the supply side to the other half of the plate heat exchanger and then to the air-cooled condenser, heating the dehumidified air.

Because of the recovery of latent heat and the energy supplied by the compressors, the temperature of the supply air leaving the condenser is higher than the temperature of the air entering the machine (ambient temperature).



Recovery: Plate heat exchanger

Adaptive control :

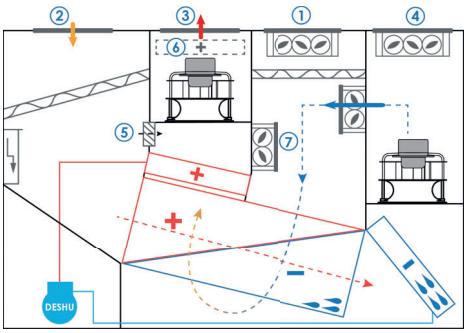
For temperate climates:

> **In vacancy mode**, the control system favours thermodynamic recycling and will launch an over-ventilation cycle one hour before opening to the public.
> **In occupancy mode**, dehumidification will be provided by fresh air, to ensure the comfort of occupants. The thermodynamic system will then operate as a heat pump to recover the heat from the air or water.

For hot and tropical climates:

> **Comparison of the weight of external water with the weight of return water**, thermodynamic dehu in case of drift in the weight of the outside water.
> Free Cooling enabled if conditions are favourable.
> Thermodynamic cooling

Vacancy *mode* :

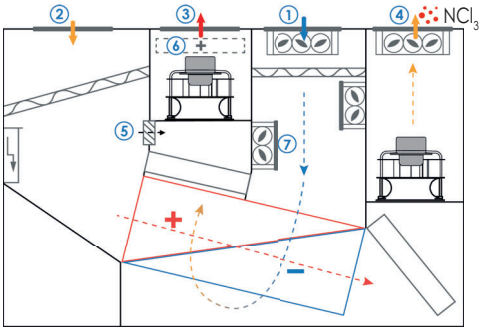


In vacancy mode, thermodynamic dehumidification with air recycling and recovery from the air or water in the pools.
The water weight setpoint remains fixed.

The air flow rate is lowered to reduce energy consumption.
Fresh air can be supplied if thermodynamic dehumidification is not sufficient.

① Fresh air ② Return air ③ Supply air ④ Exhaust air ⑤ Supply air bypass ⑥ Heating auxiliary ⑦ Free Cooling damper

Dechlorination *mode* :



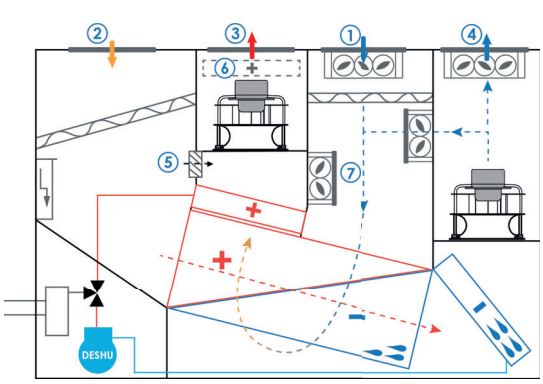
Dechlorination mode before switching to occupancy to clean up indoor air.

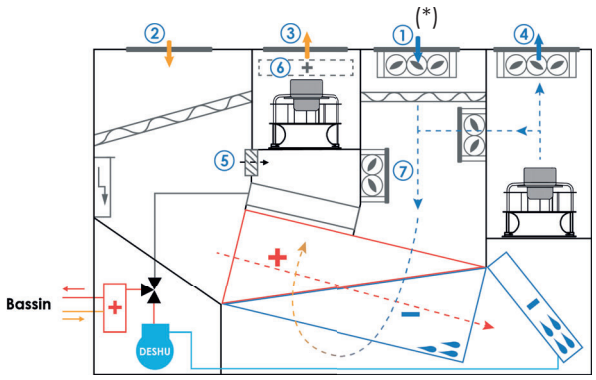
This mode can also be activated manually.

① Fresh air ② Return air ③ Supply air ④ Exhaust air ⑤ Supply air bypass ⑥ Heating auxiliary ⑦ Free Cooling damper

Operating principles

Occupancy mode : Dehumidification:



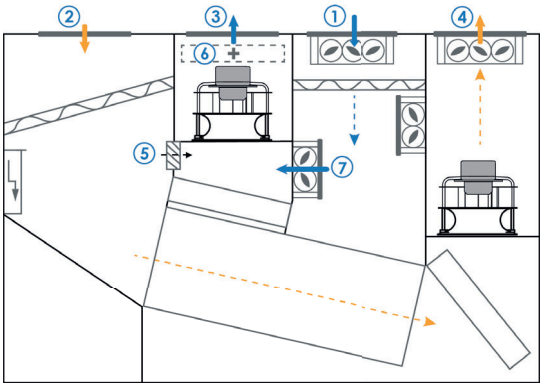


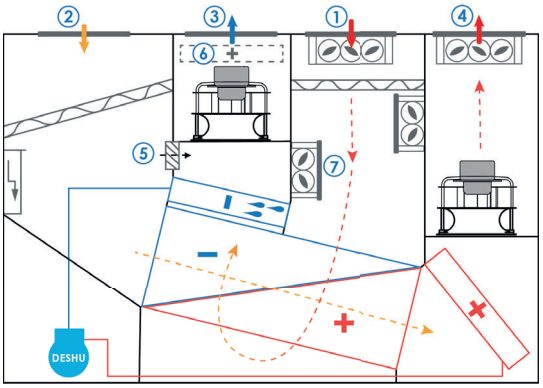
In occupancy mode, dehumidification is carried out by modulating the fresh air. The heat is then recovered by the plate heat exchanger and then the heat pump, and recovered from the air or water.

(*) For hot and tropical climates, the outside water weight is measured to check the fresh air damper.

(1) Fresh air (2) Return air (3) Supply air (4) Exhaust air (5) Supply air bypass (6) Heating auxiliary (7) Free Cooling damper

Cooling mode:





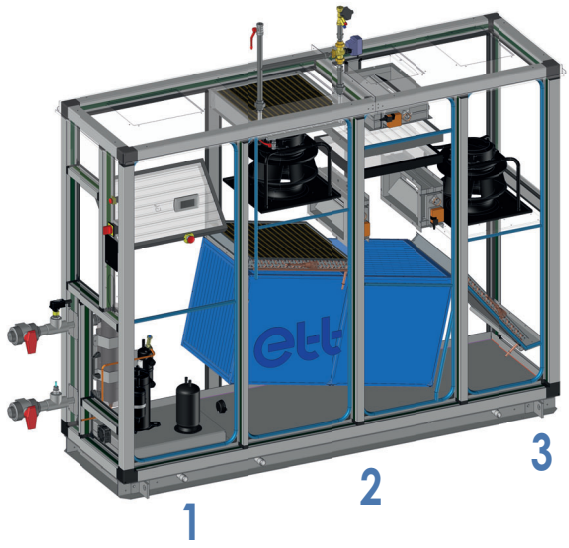
The control system favours Free Cooling.

If outdoor conditions are unfavourable, the thermodynamic system will be used for cooling,

The heat can also be recovered from the water in dehumidification and cooling mode via a water-cooled condenser (optional).

(1) Fresh air (2) Return air (3) Supply air (4) Exhaust air (5) Supply air bypass (6) Heating auxiliary (7) Free Cooling damper

Detailed components



The ETT packaged unit comprises 3 different compartments:

1. A technical compartment containing the refrigeration components, the electrical board and the control and safety devices.
2. A supply air compartment for fresh air renewal and energy recovery.
3. An extraction compartment for dehumidification.

Aluminium frame and casing :

- **Rigid, compact** and lightweight packaged unit, with perfect weather resistance and a 20-year anti corrosion warranty on the entire casing.
- **Watertight floor** with drainage outlets around the unit, connected to rubber traps.
- **Full** aluminium **casing** (AG3).
- A **separate technical compartment** that facilitates maintenance and control of the unit, enables measurements to be taken and settings to be fine-tuned during operation.
- **High thermal and aeraulic performance housing : thermal class T2 & TB2 leakage level L1 & F9 according to NF EN 1886.**
- **Access through** large **"easy to remove" panels**. The panels are fitted **with compression locks**. The removable panels are sealed by compression on a flexible lip seal, ensuring a perfect sealing over time.
- **Double-skin internal sound and heat insulation** of the side walls using 50 mm thick glass wool classified M0/A2s1d0, protected by a 13/10 thick aluminium sheet for mechanical protection and ease of maintenance.
- 50 mm of M0/A2s1d0-rated glass wool with double skin provides **soundproofing and thermal insulation for the floor**.
- 3-Damper **mixing box** consisting of a fresh air damper with a bird proof grid, a motorised exhaust air damper and a motorised mixing damper, ensuring the desired proportions and optimising the Free Cooling phases. The dampers have extruded aluminium blades with low pressure drop due to the aircraft wing profile. The damper frame is made of aluminium.

Detailed components

Air system assembly :

- **Easily removable 48 mm thick Eco-concept filtration** (supply and exhaust) - ISO ePM10 efficiency 50% (M5) in pleated media with fouling controlled by the regulator.
- High-performance plug fan on the supply and exhaust side to eliminate losses due to pulley-belt transmissions and thus improve the energy efficiency of the unit.
- **Last generation internal fans (High Energy Performance):**
  - ✓ **Direct transmission** (savings in maintenance, reliability and consumption),
  - ✓ **Fitted with a variable speed " EC "** electronically commutated motor combined with an Analogue Flow Controller - AFC (savings on commissioning),
  - ✓ Communicating for real time operation adjustment,
  - ✓ With integrated Soft Starter to reduce starting current and enable soft starting (textile ducts).

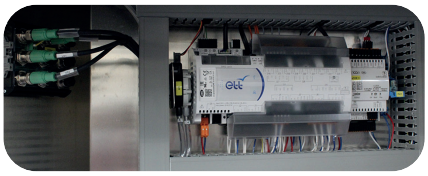
Energy and thermodynamic assembly:

- **Refrigeration circuits** compliant with European directive on pressure equipment (PED 2014/68/EU).
- R290 **refrigerant**.
- **A fixed plate heat exchanger,** aluminium plates, with high recovery capacity and sized to optimise the heat pump's efficiency. The plate heat exchanger recovers heat from the extracted air and transfers it on the fresh air side to the second half of the plate heat exchanger. Heat transfer takes place without energy consumption. The plate heat exchanger will be protected by vinyl treatment on the plates and anti-corrosion paint on the frame.
- **Direct expansion heat exchangers,** with copper tubes and aluminium fins, with high heat exchange capacity optimised by a thermostatic expansion valve, selected for an air speed of less than 2.5 m/s to avoid any risk of condensate being carried away. The coils are oversized to achieve the highest possible COPs. Direct expansion exchangers are protected with vinyl coating.
- **Two (2) electronic expansion valves** combining increased optimisation of the exchangers and fast stabilisation of the thermodynamic system
- Anti-acid **filter drier**.
- HP **pressure switch**
- **Leak detection:** The X-POOL+ R290 is fitted with leak detection as standard. This detection enables the unit to be shut down in the event of an R290 fluid leak.

Detailed components

Electrical assembly:

- **Electrical board** compliant with standards NF EN C 15100 and NF EN 6020401, including:
- ✓ **An ETT PLC** with display.
- ✓ **A power switch** with lockable external handle for full load cut-off. Standard universal cable connection. Optional copper/ aluminium junction boxes.
- ✓ A 400-230-24V **transformer** for control and regulation circuits.
- ✓ **A fault summary** with a dry contact on standby terminal.
- ✓ **Numbered terminal blocks** with disconnect terminals for all transfers or remote controls.
- ✓ **A terminal block** for compressor load shedding.
- ✓ **Internal wiring** fully numbered at both ends with numbered rings.
- ✓ An Ik3 **breaking capacity** of 10 kA basic.
- ✓ All components **protected** by circuit breakers.
- ✓ **A phase controller**



Additional heating assembly :

- ✓ Heating auxiliary (hot water) will be sized specifically for the project.

Control assembly :

- **NTC-type temperature sensors** whose reliability and accuracy have been tested and validated both in the factory and on site.
- **One or more BEST (Building Energy Saving Technology) PLCs** developed specifically by ETT for this range of machines. Programmes are updated annually to add functions required in certain applications and to optimise machine power consumption as far as possible.
- Native MODBUS IP communication protocol (optional BacNet IP)

The microprocessor, memory and size of the PLCs are adapted to the application and the options selected, incorporating a factory-set programme of 160 possible configurations.

The PLC is housed in a plastic enclosure, which guarantees a high level of mechanical protection and reduces the risk of electrostatic discharges.

The PLC performs the following functions, among others:

- ✓ **On/off by remote contact** or vacancy contact
- ✓ **Occupancy/vacancy mode** according to programmed schedule (2 time slots per day).
- ✓ **Fault overview** with dry contact for transfer to customer system.
- ✓ **Management of safety devices** (anti-freeze thermostat, smoke detector, HP pressure switch, R290 sensor, mixing fan) and faults.
- ✓ **Control of the air blowing and extraction flow rates** according to a progressive control curve related to the setpoints for indoor temperature and humidity.
- ✓ **Optimisation** and equalisation of compressor operating times.
- ✓ **Measurement, indication and adjustment of the supply/extraction airflow rate,** enabling precise control of airflow rates according to the machine's operating modes.
- ✓ **Management of night-time energy consumption** with limited ventilation
- ✓ **Fault history** in literal form (no code) with time and outdoor temperature display.
- ✓ **Recording of** machine, compressor and auxiliaries **operating times**.
- ✓ **Control of the machine's operating points,** whatever the external environment, enabling comfort to be managed for users, while considering the relationship between energy efficiency and the protection of the building.

The maintenance gateway (4G router + switch) provides essential features to ensure the performance, reliability, and scalability of your equipment:

- Provides a reliable and constant connection to the server
- Real-time monitoring in the event of anomalies or failures on critical systems
- Offers connected customer support that facilitates technical assistance through remote diagnostics, thereby limiting on-site interventions
- Prepares for the implementation of an Energy Performance Contract.
- Able to receive software updates incorporating the latest improvements from ETT in terms of regulation, energy performance, and comfort.
- Prepares for future developments related to artificial intelligence, such as predictive maintenance or data analysis.

Main options

Frame - Casing	▪ Machine for outdoor installation ▪ Motorised external supply air damper ▪ Stainless steel frame 'METU' ▪ Multiblock * ▪ Sealing sheet kit (Multiblock unit transport)
Acoustics	▪ STOPFLAM foam sound insulation for the technical compartment ▪ Acoustic insulation for fresh air cowl ▪ Compressor soundproofing covers *
Air handling	▪ Pressure gauge per filtration cell ▪ Filter Fouling Analogue Control (FFAC) ▪ 2-stage fresh air filtration ▪ Opacimetric filters ISO ePM1 50% (F7) th. 48 mm
Thermal heat exchangers	▪ Hot water coil with analogue frost protection thermostat ▪ 3-way progressive valve mounted on hot water coil ▪ Pre-assembled shut-off valve + balancing valve
Installation	▪ Feet, aluminium, 200, 400 mm
Electrics and communication	▪ Machine Global Energy Meter ▪ Additional years of subscription to myETTvision beyond the first year offered without commitment (4G gateway), provided the service is available in the relevant country ▪ Fresh air humidity sensor with water weight comparison (recommended with reverse cycle cooling) ▪ Software licence for BacNet IP protocol ▪ IT earthing system compatibility ▪ ETT 'Control Box' remote touch display ▪ TWIN regulation (see page 24)
Recovery	▪ 316 L stainless steel insulated water condenser with 3-way valve and automatic reset water flow controller (only for chlorine water treatment) ▪ PVC-C shut-off valve on water-cooled condenser
Reinforced protections	▪ Heresite protection on hot water coil ▪ Hérésite protection on thermodynamic coils ▪ Titanium insulated water-cooled condenser with 3-way refrigerant valve and automatic reset water flow controller ▪ High-performance plug fan with H2+S protective coating

* depending on model

Technical features

X-POOL+ R290 1-2000

	DESCRIPTION	Unit	1-2000
FEATURES	Nominal supply air flow	m3/h	2,000
	Min./max. nominal supply air flow	m3/h	1,100/2,900
	Dehumidified air flow rate	m3/h	2,000
	Min./max. treated air flow	m3/h	1,100/2,500
	100% FA cooling-based dehumidification capacity (5)	kg/h	9.9
	100% recirculation heating-based dehumidification capacity (2)	kg/h	5.3
	20% FA heating-based dehumidification capacity (2)	kg/h	14.1
	50% FA heating-based dehumidification capacity (2)	kg/h	24.2
	Thermodynamic COP in heating base (2)	kW/kW	5.2
	Overall heating efficiency (2)(6)	kW/kW	7.5
	Plate heat exchanger recovery capacity (2)	kW	4.8
	Heat recovery efficiency with 100% fresh air (ErP 2021 / EN308)	%	76%
	Air-cooled condenser recovery capacity (2)	kW	6.5
	Water condenser recovery power, pool recovery (4)	kW	6.6
	Recommended total water flow rate per water-cooled condenser, pool recovery (4)	m3/h	1.1
	Pressure drop, with water-cooled condenser, for recovery on pool water(4)	mWC	0.3
	Total cooling capacity in cooling cycle (3)	kW	7.6
	Number of independent refrigeration circuits	u	1
ELECTRICS	Total installed electrical machine power (standard)(1)	kW	8.1
	Total rated/starting current (standard)(1)	A	13.4/29.2
FANS	**SUPPLY AIR**		
	Quantity of fans	u	1
	Installed capacity	kW	3.0
	Power consumption at 250 Pa available at supply air	kW	0.7
	RETURN		
	Quantity of fans	u	1
	Installed capacity	kW	3.0
	Power consumption at 250 Pa available for recovery	kW	0.8
	Average sound pressure at 10m ref. 2 x 10^{-5} in free field conditions	dB(A)	36
GENERAL INFORMATION	Weight of ETT unit without option	kg	549

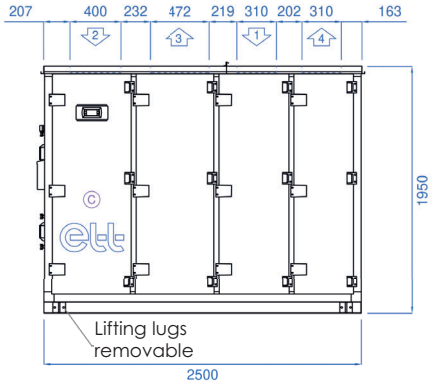
Three-phase power supply 400V-50Hz + earth without neutral.

(1) Excluding auxiliaries.
(2) Conditions : Return 28°C/65% RH; Outside -7°C/95% RH.
(3) Conditions : Return 29°C/70% RH; Outside +35°C/40% RH.
(4) Conditions : Pool water 28°C; Return 28°C/65 RH.
(5) Conditions : Return 28°C/67% RH; Outside 32°C/40% RH.
(6) Dehumidification efficiency including electricity consumption of fans and compressors
FA: Fresh air

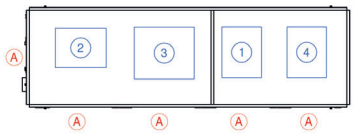
Dimensions and connections

X-POOL+ R290 1-2000

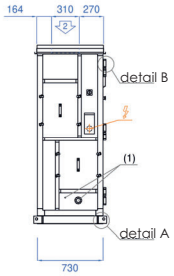
Front view:

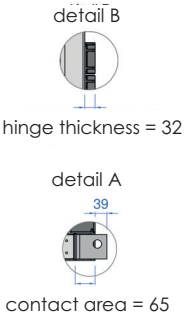


Top view:



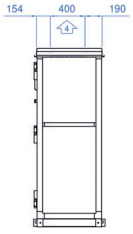
Side view (return):





(1): Mixing fan and sleeved valve outlet

Side view (exhaust):



① Fresh air
② Return air
③ Supply air
④ Extracted air
Ⓐ Access
⚡ Power supply
Ⓒ Technical compartment

	Length	Width	Height
Dimensions of assembled casing (mm)	2,500	730	1,984
Overall dimensions for transport (mm)	2,569	807	1,984

Note: Allow for a minimum 200 mm support under the unit for connection of condensate traps.

Technical features

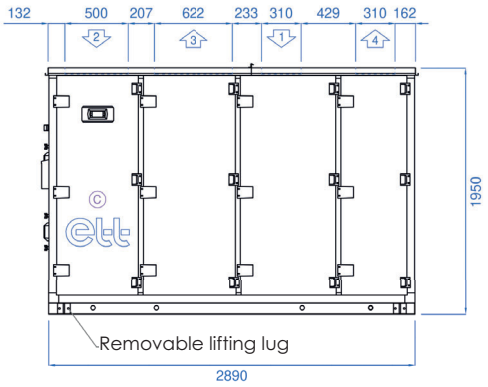
X-POOL+ R290 2-3000 / 2-4000

	DESCRIPTION	Unit	2-3000	2-4000
FEATURES	Nominal supply air flow	m3/h	3,000	4,000
	Min./max. nominal supply air flow	m3/h	2,400/4,500	3,600/5,000
	Dehumidified air flow rate	m3/h	3,000	4,000
	Min./max. treated air flow	m3/h	2,400/3,600	3,600/4,400
	100% FA cooling-based dehumidification capacity (5)	kg/h	14.8	19.8
	100% recirculation heating-based dehumidification capacity (2)	kg/h	8.5	10.2
	20% FA heating-based dehumidification capacity (2)	kg/h	21.5	27.8
	50% FA heating-based dehumidification capacity (2)	kg/h	36.5	48.3
	Thermodynamic COP in heating base (2)	kW/kW	5.1	5.6
	Overall heating efficiency (2)(6)	kW/kW	8.8	8.5
	Plate heat exchanger recovery capacity (2)	kW	7.1	9.3
	Heat recovery efficiency with 100% fresh air (ErP 2021 / EN308)	%	74%	75%
	Air-cooled condenser recovery capacity (2)	kW	10.5	12.5
	Water condenser recovery power, pool recovery (4)	kW	10.7	12.9
	Recommended total water flow rate per water-cooled condenser, pool recovery (4)	m3/h	1.8	2.2
	Pressure drop, with water-cooled condenser, for recovery on pool water(4)	mWC	0.6	0.8
	Total cooling capacity in cooling cycle (3)	kW	8.4	10.3
	Number of independent refrigeration circuits	u	1	1
ELECTRICS	Total installed electrical machine power (standard)(1)	kW	10.3	10.8
	Total rated/starting current (standard) (1)	A	16.9/39.4	16.9/61.4
FANS	**SUPPLY AIR**			
	Quantity of fans	u	1	1
	Installed capacity	kW	3.4	3.4
	Power consumption at 250 Pa available at supply air	kW	0.8	1.2
	RETURN			
	Quantity of fans	u	1	1
	Installed capacity	kW	3.4	3.4
	Power consumption at 250 Pa available for recovery	kW	0.9	1.4
	Average sound pressure at 10m ref. 2 x 10^{-5} in free field conditions	dB(A)	32	34
GENERAL INFORMATION	Weight of ETT unit without option	kg	726	726

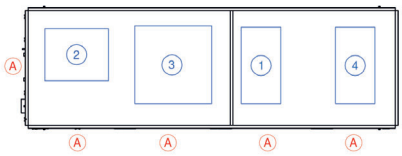
Three-phase power supply 400V-50Hz + earth without neutral.

(1) Excluding auxiliaries.
(2) Conditions : Return 28°C/65% RH; Outside -7°C/95% RH.
(3) Conditions : Return 29°C/70% RH; Outside +35°C/40% RH.
(4) Conditions : Pool water 28°C; Return 28°C/65 RH.
(5) Conditions : Return 28°C/67% RH; Outside 32°C/40% RH.
(6) Dehumidification efficiency including electricity consumption of fans and compressors
FA: Fresh air

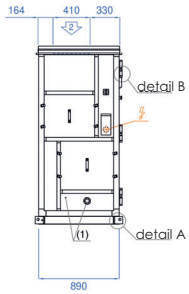
Front view:



Top view:



Side view (return):



detail B

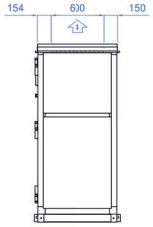
hinge thickness = 32

detail A

contact area = 65

(1): Mixing fan and sleeved valve outlet

Side view (exhaust):



① Fresh air
② Return air
③ Supply air
④ Extracted air
Ⓐ Access
⚡ Power supply
Ⓒ Technical compartment

	Length	Width	Height
Dimensions of assembled casing (mm)	2,890	890	1,984
Overall dimensions for transport (mm)	2,959	967	1,984

Note: Allow for a minimum 200 mm support under the unit for connection of condensate traps.

Technical features

X-POOL+ R290 3-5000 / 3-6000

	DESCRIPTION	Unit	3-5000	3-6000
FEATURES	Nominal supply air flow	m3/h	5,000	6,000
	Min./max. nominal supply air flow	m3/h	4,700/7,200	5,600/7,900
	Dehumidified air flow rate	m3/h	5,000	6,000
	Min./max. treated air flow	m3/h	4,700/5,600	5,600/6,700
	100% FA cooling-based dehumidification capacity (5)	kg/h	24.7	29.7
	100% recirculation heating-based dehumidification capacity (2)	kg/h	14.7	17.3
	20% FA heating-based dehumidification capacity (2)	kg/h	36.5	43.5
	50% FA heating-based dehumidification capacity (2)	kg/h	61.0	73.0
	Thermodynamic COP in heating base (2)	kW/kW	5.8	5.5
	Overall heating efficiency (2)(6)	kW/kW	9.7	8.8
	Plate heat exchanger recovery capacity (2)	kW	11.9	14.5
	Heat recovery efficiency with 100% fresh air (ErP 2021 / EN308)	%	74%	75%
	Air-cooled condenser recovery capacity (2)	kW	17.7	20.8
	Water condenser recovery power, pool recovery (4)	kW	18.1	21.3
	Recommended total water flow rate per water-cooled condenser, pool recovery (4)	m3/h	3.1	3.7
	Pressure drop, with water-cooled condenser, for recovery on pool water(4)	mWC	1.3	1.7
	Total cooling capacity in cooling cycle (3)	kW	14.4	16.8
	Number of independent refrigeration circuits	u	1	1
ELECTRICS	Total installed electrical machine power (standard)(1)	kW	14.22	15.52
	Total rated/starting current (standard) (1)	A	22.5/83.6	24.8/91.6
FANS	**SUPPLY AIR**			
	Quantity of fans	u	1	1
	Installed capacity	kW	3.4	3.4
	Power consumption at 250 Pa available at supply air	kW	1.3	1.8
	RETURN			
	Quantity of fans	u	1	1
	Installed capacity	kW	3.4	3.4
	Power consumption at 250 Pa available for recovery	kW	1.4	2.0
	Average sound pressure at 10m ref. 2 x 10^{-5} in free field conditions	dB(A)	34	38
GENERAL INFORMATION	Weight of ETT unit without option	kg	942	942

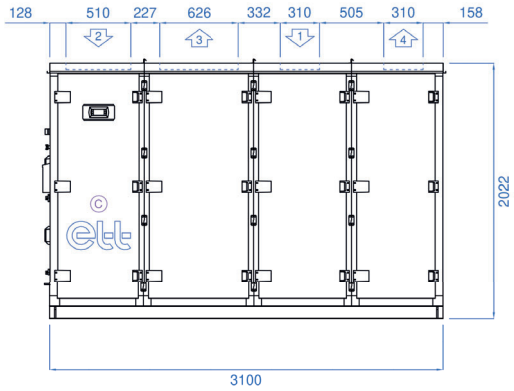
Three-phase power supply 400V-50Hz + earth without neutral.

(1) Excluding auxiliaries.
(2) Conditions : Return 28°C/65% RH; Outside -7°C/95% RH.
(3) Conditions : Return 29°C/70% RH; Outside +35°C/40% RH.
(4) Conditions : Pool water 28°C; Return 28°C/65 RH.
(5) Conditions : Return 28°C/67% RH; Outside 32°C/40% RH.
(6) Dehumidification efficiency including electricity consumption of fans and compressors
FA: Fresh air

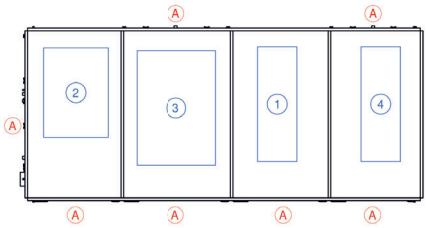
Dimensions and connections

X-POOL+ R290 3-5000 / 3-6000

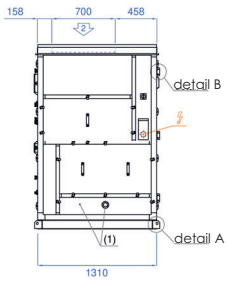
Front view:



Top view: ,



Side view (return):



detail B

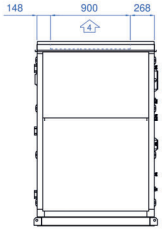
hinge thickness = 32

detail A

contact area = 65

(1): Mixing fan and sleeved valve outlet

Side view (exhaust):



① Fresh air
② Return air
③ Supply air
④ Extracted air
Ⓐ Access
⚡ Power supply
Ⓒ Technical compartment

	Length	Width	Height
Dimensions of assembled casing (mm)	3,100	1,310	2,054
Overall dimensions for transport (mm)	3,163	1,385	2,054

Note: Allow for a minimum 200 mm support under the unit for connection of condensate traps.

Technical features

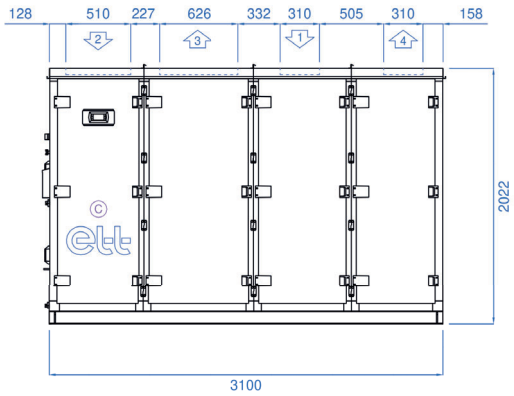
X-POOL+ R290 4-7000 / 4-9000

	DESCRIPTION	Unit	4-7000	4-9000
FEATURES	Nominal supply air flow	m3/h	7,000	9,000
	Min./max. nominal supply air flow	m3/h	6,600/9,000	8,000/11,000
	Dehumidified air flow rate	m3/h	7,000	9,000
	Min./max. treated air flow	m3/h	6,600/8,000	8,000/10,000
	100% FA cooling-based dehumidification capacity (5)	kg/h	34.6	44.5
	100% recirculation heating-based dehumidification capacity (2)	kg/h	19.6	21.9
	20% FA heating-based dehumidification capacity (2)	kg/h	50.3	62.2
	50% FA heating-based dehumidification capacity (2)	kg/h	85.1	108.5
	Thermodynamic COP in heating base (2)	kW/kW	5.9	5.7
	Overall heating efficiency (2)(6)	kW/kW	9.9	8.7
	Plate heat exchanger recovery capacity (2)	kW	16.5	20.6
	Heat recovery efficiency with 100% fresh air (ErP 2021 / EN308)	%	74%	75%
	Air-cooled condenser recovery capacity (2)	kW	23.6	27.2
	Water condenser recovery power, pool recovery (4)	kW	24.0	27.7
	Recommended total water flow rate per water-cooled condenser, pool recovery (4)	m3/h	4.2	4.8
	Pressure drop, with water-cooled condenser, for recovery on pool water(4)	mWC	0.9	1.2
	Total cooling capacity in cooling cycle (3)	kW	19.4	22.3
	Number of independent refrigeration circuits	u	1	1
ELECTRICS	Total installed electrical machine power (standard)(1)	kW	20.7	21.26
	Total rated/starting current (standard) (1)	A	32.7/98.8	36.7/122.8
FANS	**SUPPLY AIR**			
	Quantity of fans	u	2	2
	Installed capacity	kW	6.8	6.8
	Power consumption at 250 Pa available at supply air	kW	1.8	2.7
	RETURN			
	Quantity of fans	u	2	2
	Installed capacity	kW	6.8	6.8
	Power consumption at 250 Pa available for recovery	kW	1.9	3.0
	Average sound pressure at 10m ref. 2 x 10^{-5} in free field conditions	dB(A)	34	37
GENERAL INFORMATION	Weight of ETT unit without option	kg	1,258	1,258

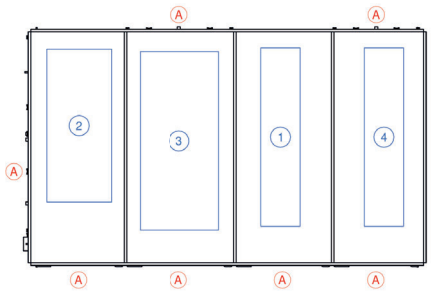
Three-phase power supply 400V-50Hz + earth without neutral.

(1) Excluding auxiliaries.
(2) Conditions : Return 28°C/65% RH; Outside -7°C/95% RH.
(3) Conditions : Return 29°C/70% RH; Outside +35°C/40% RH.
(4) Conditions : Pool water 28°C; Return 28°C/65 RH.
(5) Conditions : Return 28°C/67% RH; Outside 32°C/40% RH.
(6) Dehumidification efficiency including electricity consumption of fans and compressors
FA: Fresh air

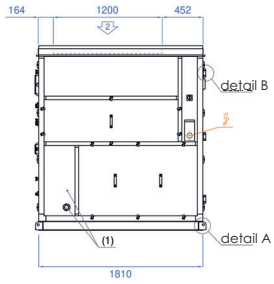
Front view:



Top view:



Side view (return):

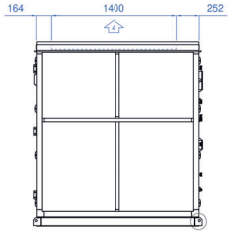


hinge thickness = 32

contact area = 65

(1): Mixing fan and sleeved valve outlet

Side view (exhaust):



① Fresh air
② Return air
③ Supply air
④ Extracted air
Ⓐ Access
⚡ Power supply
Ⓒ Technical compartment

	Length	Width	Height
Dimensions of assembled casing (mm)	3,100	1,810	2,054
Overall dimensions for transport (mm)	3,163	1,885	2,054

Note: Allow for a minimum 200 mm support under the unit for connection of condensate traps.

Technical features

X-POOL+ R290 5-11000 / 5-13000 / 5-15000

	DESCRIPTION	Unit	5-11000	5-13000	5-15000
FEATURES	Nominal supply air flow	m3/h	11,000	13,000	15,000
	Min./max. nominal supply air flow	m3/h	10,000/13,000	12,000/15,000	14,000/15,000
	Dehumidified air flow rate	m3/h	11,000	13,000	15,000
	Min./max. treated air flow	m3/h	10,000/12,000	12,000/14,000	14,000/15,000
	100% FA cooling-based dehumidification capacity (5)	kg/h	54.4	64.3	74.2
	100% recirculation heating-based dehumidification capacity (2)	kg/h	29.5	34.3	38.6
	20% FA heating-based dehumidification capacity (2)	kg/h	77.9	91.5	105.0
	50% FA heating-based dehumidification capacity (2)	kg/h	133.4	157.4	181.4
	Thermodynamic COP in heating base (2)	kW/kW	5.4	5.2	4.9
	Overall heating efficiency (2)(6)	kW/kW	9.4	9.0	7.8
	Plate heat exchanger recovery capacity (2)	kW	25.7	30.6	35.1
	Heat recovery efficiency with 100% fresh air (ErP 2021 / EN308)	%	74%	75%	75%
	Air-cooled condenser recovery capacity (2)	kW	36.2	42.1	48.7
	Water condenser recovery power, pool recovery (4)	kW	37.1	43.3	50.1
	Recommended total water flow rate per water-cooled condenser, pool recovery (4)	m3/h	6.4	7.5	8.7
	Pressure drop, with water-cooled condenser, for recovery on pool water(4)	mWC	1.9	2.4	3.1
	Total cooling capacity in cooling cycle (3)	kW	29.2	33.6	38.4
	Number of independent refrigeration circuits	u	1	1	1
ELECTRICS	Total installed electrical machine power (standard)(1)	kW	28.19	30.04	33.04
	Total rated/starting current (standard) (1)	A	49.2/174.2	52.2/174.2	58.2/174.2
FANS	**SUPPLY AIR**				
	Quantity of fans	u	2	2	2
	Installed capacity	kW	6.8	6.8	8.9
	Power consumption at 250 Pa available at supply air	kW	2.9	3.5	4.9
	RETURN				
	Quantity of fans	u	2	2	2
	Installed capacity	kW	6.8	6.8	8.9
	Power consumption at 250 Pa available for recovery	kW	3.0	3.8	5.4
	Average sound pressure at 10m ref. 2 x 10^{-5} in free field conditions	dB(A)	39	40	43
GENERAL INFORMATION	Weight of ETT unit without option	kg	1,576	1,576	1,576

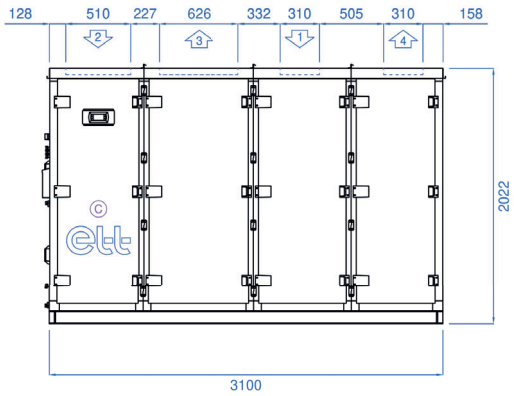
Three-phase power supply 400V-50Hz + earth without neutral.

(1) Excluding auxiliaries.
(2) Conditions : Return 28°C/65% RH; Outside -7°C/95% RH.
(3) Conditions : Return 29°C/70% RH; Outside +35°C/40% RH.
(4) Conditions : Pool water 28°C; Return 28°C/65 RH.
(5) Conditions : Return 28°C/67% RH; Outside 32°C/40% RH.
(6) Dehumidification efficiency including electricity consumption of fans and compressors
FA: Fresh air

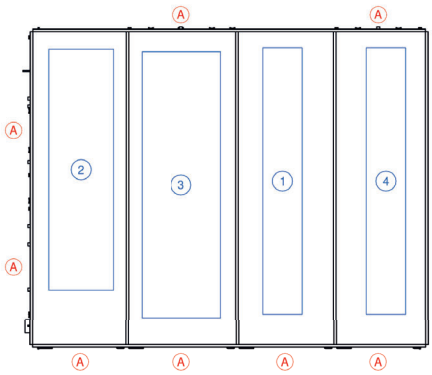
Dimensions and connections

X-POOL+ R290 5-11000 / 5-13000 / 5-15000

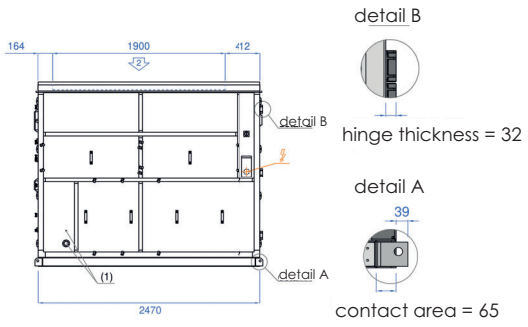
Front view:



Top view:

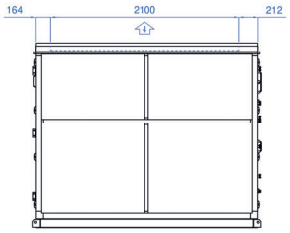


Side view (return):



(1): Mixing fan and sleeved valve outlet

Side view (exhaust):



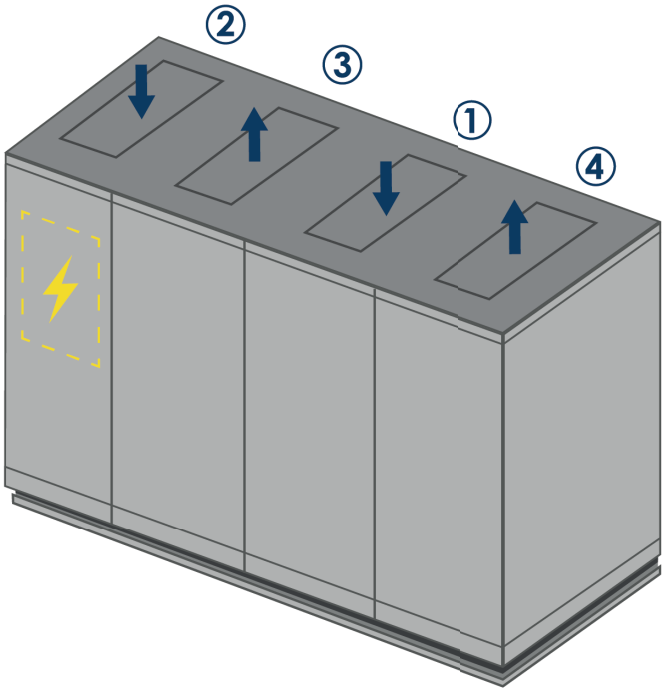
① Fresh air
② Return air
③ Supply air
④ Extracted air
Ⓐ Access
⚡ Power supply
Ⓒ Technical compartment

	Length	Width	Height
Dimensions of assembled casing (mm)	3,100	2,470	2,054
Overall dimensions for transport (mm)	3,163	2,545	2,054

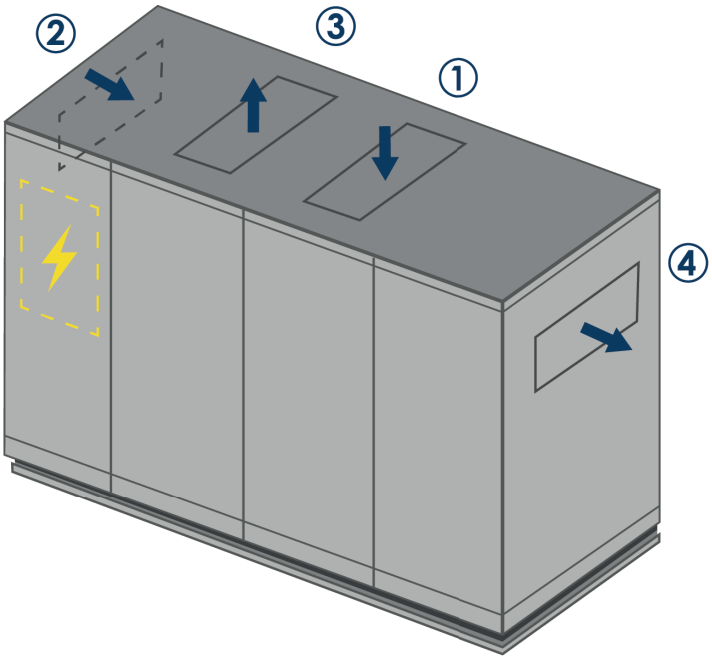
Note: Allow for a minimum 200 mm support under the unit for connection of condensate traps.

Airflow layouts

Layout A



Layout B



① Fresh air ② Return air ③ Supply air ④ Exhaust air

TWIN regulation Option

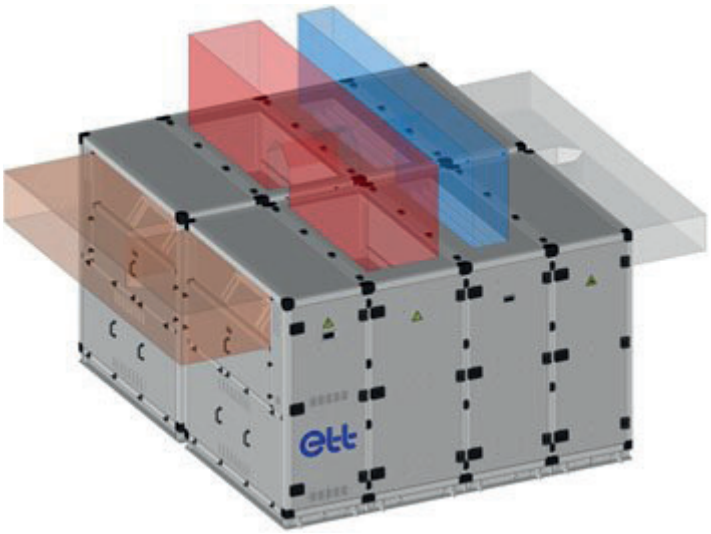
The X-POOL+ R290 units have the unique feature of being able to be coupled together.

This process allows for:

- ✓ Doubling the treated air flow rates
- ✓ Adapting to specific installation constraints

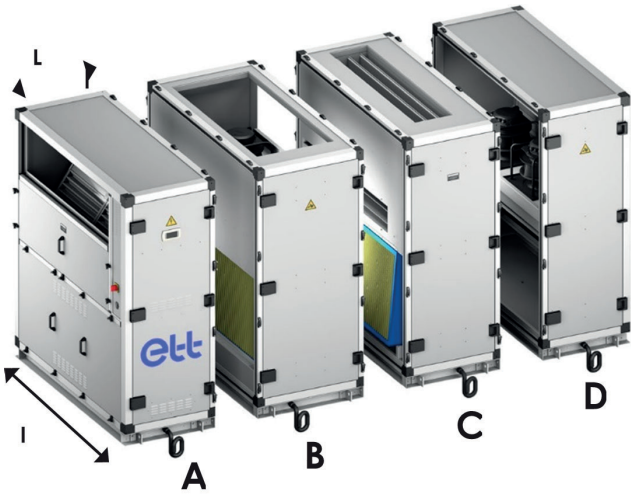
The machines can be positioned back-to-back or separately.

The operation of the machines is controlled through the installation of a master PLC.



Multiblock option

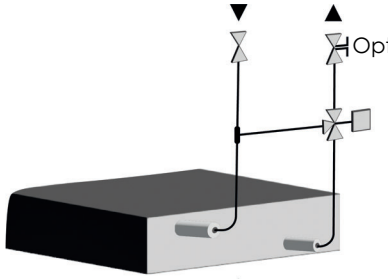
The X-POOL+ R290 can be delivered in multiblock configurations for casing sizes 3, 4, and 5 to facilitate installation in confined technical spaces.



BLOCK	Unit	Length (l)			Width (w)	Height (h)
		T3	T4	T5	T3 / T4 / T5	
A	mm	1,389	1,889	2,549	780	2,040
B					870	
C					838	
D					743	

Auxiliaries: Hot water coils

Piping diagram



Connections and weight

	Unit	1-2000	2-3000	2-4000	3-5000	3-6000	4-7000
Customer connection diameter	mm	20x27	26x34	26x34	33x42	33x42	33x42
Coil weight + 3WV with water	kg	20.4	22.1	22.1	33.5	33.5	48.6

	Unit	4-9000	5-11000	5-13000	5-15000
Customer connection diameter	mm	33x42	40x49	40x49	40x49
Coil weight + 3WV with water	kg	48.6	69.6	69.6	69.6

Power ratings and load losses for an air inlet temperature to the coils of + 10°C

		Unit	1-2000	2-3000	2-4000	3-5000	3-6000	4-7000
Water regime 80/60°C	Max. power	kW	24.6	36.1	48.1	63.0	75.6	87.0
	Max. flow rate	m³/h	1.1	1.6	2.1	2.8	3.3	3.8
	Coil + 3WV pressure drop	mWC	2.2	1.3	2.1	2.6	3.4	1.4
Water regime 50/40°C	Max. power	kW	14.3	20.9	27.8	36.5	43.8	50.4
	Max. flow rate	m³/h	1.2	1.8	2.4	3.2	3.8	4.4
	Coil + 3WV pressure drop	mWC	2.6	1.8	2.8	3.6	4.5	1.8

		Unit	4-9000	5-11000	5-13000	5-15000
Water regime 80/60°C	Max. power	kW	111.9	132.5	156.6	180.7
	Max. flow rate	m³/h	4.9	5.8	6.9	8.0
	Coil + 3WV pressure drop	mWC	2.0	1.6	2.0	2.4
Water regime 50/40°C	Max. power	kW	64.8	76.9	90.9	104.8
	Max. flow rate	m³/h	5.7	6.7	7.9	9.2
	Coil + 3WV pressure drop	mWC	2.6	2.2	2.8	3.4

Optional: shut-off valve on Flow and TA control valve on Return

		Unit	1-2000	2-3000	2-4000	3-5000	3-6000	4-7000
Water regime 80/60°C	Pressure drop on shut-off valve and TA valve, 3-turn opening	mWC	0.9	0.6	1.0	0.8	1.2	1.5
Water regime 50/40°C	Pressure drop on shut-off valve and TA valve, 3-turn opening	mWC	1.1	0.8	1.4	1.1	1.5	2.0

		Unit	4-9000	5-11000	5-13000	5-15000
Water regime 80/60°C	Pressure drop on shut-off valve and TA valve, 3-turn opening	mWC	2.6	2.1	2.9	3.9
Water regime 50/40°C	Pressure drop on shut-off valve and TA valve, 3-turn opening	mWC	3.4	2.8	3.9	5.2

Auxiliaries: Hot water coils

Power ratings and load losses for an air inlet temperature to the coils of + 20°C

		Unit	1-2000	2-3000	2-4000	3-5000	3-6000	4-7000
Water regime 80/60°C	Max. power	kW	19.9	29.2	38.9	51.2	61.5	70.6
	Max. flow rate	m³/h	0.9	1.3	1.7	2.3	2.7	3.1
	Coil + 3WV pressure drop	mWC	1.4	1.1	1.7	2.0	2.6	1.1
Water regime 50/40°C	Max. power	kW	9.8	14.3	19.0	25.3	30.4	34.7
	Max. flow rate	m³/h	0.9	1.2	1.7	2.2	2.7	3.0
	Coil + 3WV pressure drop	mWC	1.5	1.2	1.7	2.1	2.6	1.1

		Unit	4-9000	5-11000	5-13000	5-15000
Water regime 80/60°C	Max. power	kW	90.8	107.6	127.2	146.7
	Max. flow rate	m³/h	4.0	4.7	5.6	6.5
	Coil + 3WV pressure drop	mWC	1.5	1.3	1.6	1.9
Water regime 50/40°C	Max. power	kW	44.6	53.0	62.7	72.3
	Max. flow rate	m³/h	3.9	4.6	5.5	6.3
	Coil + 3WV pressure drop	mWC	1.5	1.2	1.5	1.9

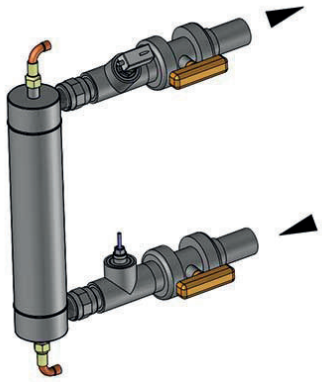
Optional: shut-off valve on Flow and TA control valve on Return

		Unit	1-2000	2-3000	2-4000	3-5000	3-6000	4-7000
Water regime 80/60°C	Pressure drop on shut-off valve and TA valve, 3-turn opening	mWC	0.6	0.4	0.7	0.5	0.8	1.0
Water regime 50/40°C	Pressure drop on shut-off valve and TA valve, 3-turn opening	mWC	0.5	0.4	0.6	0.5	0.7	1.0

		Unit	4-9000	5-11000	5-13000	5-15000
Water regime 80/60°C	Pressure drop on shut-off valve and TA valve, 3-turn opening	mWC	1.7	1.4	1.9	2.6
Water regime 50/40°C	Pressure drop on shut-off valve and TA valve, 3-turn opening	mWC	1.6	1.3	1.8	2.4

Water condenser

Piping diagram



This equipment releases heat to the water in the pool when the ambient temperature is reached. The water-cooled condenser is made of 316 L stainless steel with a 3-way refrigerant valve, including an automatic reset water flow controller (only for chlorine water treatment).

If the water treatment is different, use a titanium exchanger.

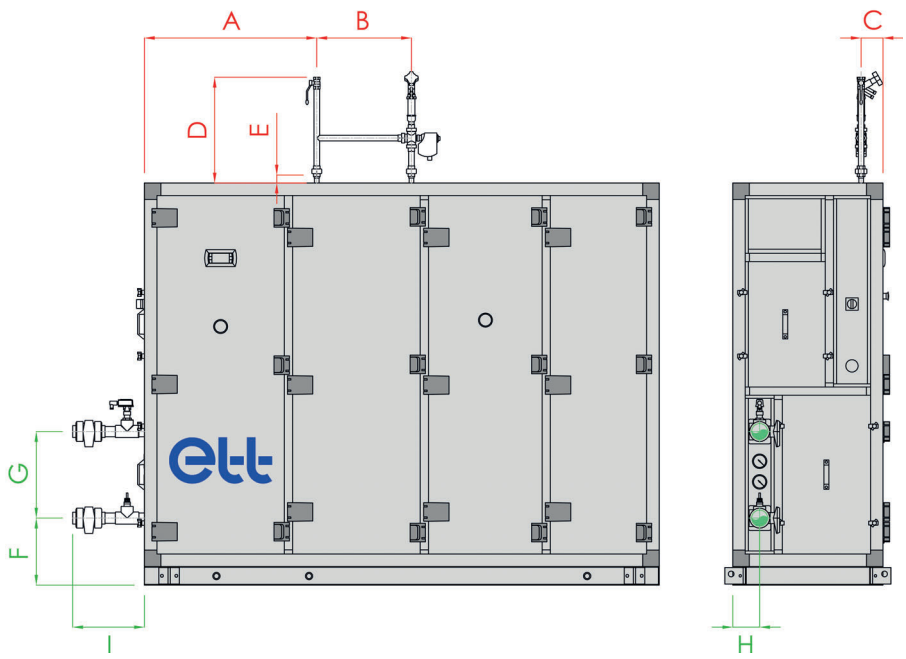
Shut-off valves are available as an option.

	Unit	1-2000	2-3000	2-4000	3-5000	3-6000	4-7000
Quantity		1	1	1	1	1	1
Total heat output	**kW**	6.6	10.7	12.9	18.1	21.3	24.0
Total flow rate	**m³/h**	1.5	2.2	2.7	3.9	4.4	5.0
Inlet temp.	**°C**	28	28	28	28	28	28
Outlet temp.	**°C**	33	33	33	33	33	33
Exchanger pressure drop, per condenser	**mWC**	0.4	0.5	0.8	1.5	1.9	2.0
Total weight	**kg**	18.8	18.8	18.8	18.8	18.8	26
Connection diameter	**DN**	50	50	50	50	50	63

	Unit	4-9000	5-11000	5-13000	5-15000
Quantity		1	1	1	1
Total heat output	**kW**	27.7	37.1	43.3	50.1
Total flow rate	**m³/h**	6.4	7.8	9.2	10.6
Inlet temp.	**°C**	28	28	28	28
Outlet temp.	**°C**	33	33	33	33
Exchanger pressure drop, per condenser	**mWC**	2.6	3.2	3.9	4.4
Total weight	**kg**	26	26	26	26
Connection diameter	**DN**	63	63	63	63

Connections: Hot water coil & water condenser

Block diagram - Front view



Connection interface auxiliary: hot water coil» // Connection interface: Water condenser

	Unit	1-2000	2-3000	2-4000	3-5000	3-6000	4-7000
A	mm	838	834	834	866	866	866
B	mm	460	617	617	617	617	617
C	mm	106	103	103	129	129	129
D	mm	514	521	521	605	605	566
E	mm	44	46	46	41	41	41
F	mm	325	343	343	330	330	285
G	mm	424	424	424	424	424	544
H	mm	131	131	131	131	131	138
I	mm	349	355	355	355	355	374

	Unit	4-9000	5-11000	5-13000	5-15000
A	mm	866	866	866	866
B	mm	617	617	617	617
C	mm	129	129	129	129
D	mm	566	636	636	636
E	mm	41	41	41	41
F	mm	285	280	280	280
G	mm	544	544	544	544
H	mm	138	138	138	138
I	mm	374	374	374	374

Noise level* supply air/exhaust air
Spectrum by frequency band

At unit supply air

	FREQUENCY BANDS Hz ►		63	125	250	500	1000	2000	4000	8000	Overall level Lw (dB(A))
	Supply air flow rate (m^3/h) ▼	Processed air flow rate (m^3/h) ▼									
1-2000	2,000	2,000	45	55	68	70	78	78	74	62	82
2-3000	3,000	3,000	45	54	70	70	72	70	64	55	77
2-4000	4,000	4,000	49	58	70	74	76	74	69	63	80
3-5000	5,000	5,000	51	59	68	74	77	76	71	69	81
3-6000	6,000	6,000	53	62	71	78	81	79	75	75	85
4-7000	7,000	7,000	50	58	70	74	76	74	69	62	80
4-9000	9,000	9,000	54	62	72	77	80	78	74	69	84
5-11000	11,000	11,000	55	63	72	78	82	80	76	75	86
5-13000	13,000	13,000	51	65	70	76	81	81	80	72	86
5-15000	15,000	15,000	52	67	73	79	84	85	82	78	89

At unit exhaust air

	FREQUENCY BANDS Hz ►		63	125	250	500	1000	2000	4000	8000	Overall level Lw (dB(A))
	Supply air flow rate (m^3/h) ▼	Processed air flow rate (m^3/h) ▼									
1-2000	2,000	2,000	46	55	71	72	79	79	76	63	83
2-3000	3,000	3,000	46	56	73	72	73	70	65	55	78
2-4000	4,000	4,000	49	58	74	75	77	75	70	62	82
3-5000	5,000	5,000	50	58	68	74	77	75	70	66	81
3-6000	6,000	6,000	53	61	71	77	80	78	75	72	84
4-7000	7,000	7,000	50	58	73	75	76	74	68	60	81
4-9000	9,000	9,000	53	62	73	78	80	78	74	67	84
5-11000	11,000	11,000	54	62	71	78	81	79	75	72	85
5-13000	13,000	13,000	52	64	69	77	81	81	79	70	86
5-15000	15,000	15,000	53	66	73	80	83	85	82	74	89

*Lw: sound power level (dB(A))

Sound level* at fresh air intake/return
Spectrum by frequency band

At unit fresh air intake

	FREQUENCY BANDS Hz ►		63	125	250	500	1000	2000	4000	8000	Overall level Lw (dB(A))
	Supply air flow rate (m^3/h) ▼	Processed air flow rate (m^3/h) ▼									
1-2000	2,000	2,000	46	54	70	71	77	77	74	61	82
2-3000	3,000	3,000	46	55	72	71	71	69	63	53	77
2-4000	4,000	4,000	50	58	73	75	75	73	69	60	80
3-5000	5,000	5,000	51	59	67	73	75	73	69	64	80
3-6000	6,000	6,000	54	61	70	76	79	77	73	70	83
4-7000	7,000	7,000	50	57	71	74	75	72	67	58	80
4-9000	9,000	9,000	54	62	72	77	80	78	74	69	84
5-11000	11,000	11,000	55	63	72	78	82	80	76	75	86
5-13000	13,000	13,000	52	63	69	76	80	79	77	67	85
5-15000	15,000	15,000	55	66	72	79	82	83	80	72	88

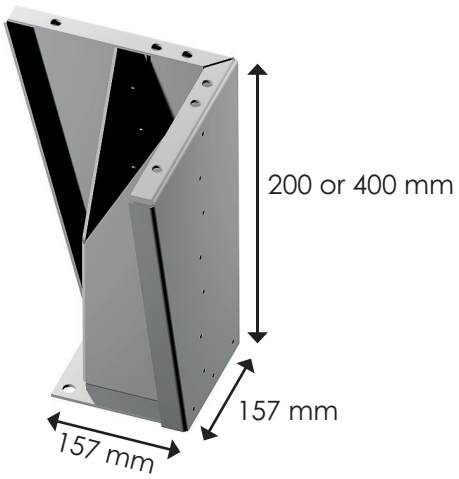
At unit return air

	FREQUENCY BANDS Hz ►		63	125	250	500	1000	2000	4000	8000	Overall level Lw (dB(A))
	Supply air flow rate (m^3/h) ▼	Processed air flow rate (m^3/h) ▼									
1-2000	2,000	2,000	44	53	69	68	68	66	61	55	74
2-3000	3,000	3,000	45	54	69	66	64	62	57	50	72
2-4000	4,000	4,000	48	57	69	70	68	66	63	59	75
3-5000	5,000	5,000	50	58	67	72	69	68	65	66	76
3-6000	6,000	6,000	53	61	71	76	72	72	69	73	80
4-7000	7,000	7,000	49	58	69	70	68	66	62	57	75
4-9000	9,000	9,000	52	61	71	74	72	70	68	65	79
5-11000	11,000	11,000	54	63	72	77	73	72	70	73	81
5-13000	13,000	13,000	51	63	69	71	73	73	75	66	80
5-15000	15,000	15,000	51	65	72	74	75	76	79	73	83

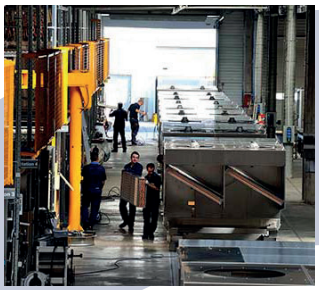
*Lw: sound power level (dB(A))

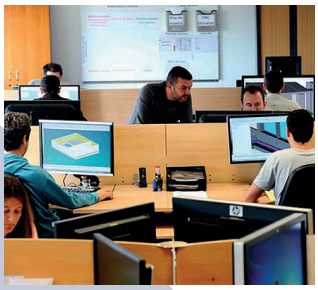
Accessories for installation : Feet

Fixed aluminium foot
Unit weight: 1 kg



Unit	1-2000	2-3000	2-4000	3-5000	3-6000	4-7000	4-9000	5-11000	5-13000	5-15000
Number of feet (Packaged unit)	4	4	4	4	4	6	6	6	6	6
Number of feet (Multiblock)	-	-	-	16	16	16	16	16	16	16





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