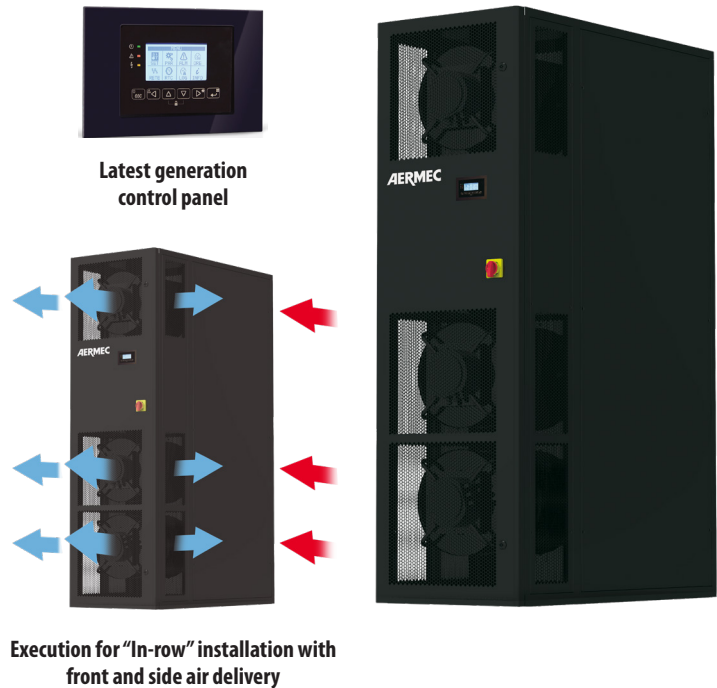


R 40-361

Precision air conditioners installation type In Rack A: direct air or water condensate expansion U: cooled water

Cooling capacity 20 ÷ 35 kW

- Exploit the empty spaces left by the racks to ensure better cooling for the server.
- Rear intake from warm corridor
- Front delivery towards cold corridor with horizontal flow; this reduces internal pressure drops, with consequent reduction of the power absorbed by the fans.
- Easy front and rear access for simplified maintenance.
- Cooling, hydraulic and electrical connections from top or bottom.



Precision air conditioners in the R Series have build features and dimensions suitable for installation next to data centre racks.

CONFIGURATIONS

RXA: air conditioners with delivery downwards and direct expansion with air or water condensation.

RXU: air conditioners with air delivery horizontal with cooled water.

CHARACTERISTICS

Precision air conditioners in the R series are designed and built to have the same dimensions as the racks, rear intake from the warm corridor and front delivery towards the cold corridor.

The range has been designed and optimised for operation with ozone benign refrigerant R410A.

STRUCTURE

The set-up comprises a dark grey (RAL7024) epoxy powder painted steel frame ensuring a long-lasting finish. Self-extinguishing thermal-acoustic insulation panels finished with anti-friction film. The ventilation sub-base is supplied separately and must be connected electrically on site or in loco.

COILS

Coils with large surface area installed in ideal positions to optimise air flow and heat transfer; in refrigeration-quality copper piping with mechanically mounted aluminium fins, equipped as standard with 3-way motor-driven valves (also available as 2-way version in the selection stage).

COMPRESSORS

Brushless DC compressors with inverter adjustment, high yield and low electrical power consumption. FANS

Centrifugal fans with backwards curved blades (plug-fan) and EC motor directly coupled to the electronic control to minimise electricity consumption and noise levels.

FILTERS

Undulated filters, single-use, self-extinguishing, efficiency class G4 (according to EN 779).

differential pressure switch (AS STANDARD) to signal 'filter dirty' status.

ELECTRONIC ADJUSTMENT

Thanks to control through the Modbus® Master protocol. all the main components in the unit are constantly supervised, with more than 50 different variables to ensure real-time monitoring of all operating cycles.

Thanks to specific functions dedicated to energy saving and optimised management of all the unit's operating cycles, with direct expansion and cooled water alike.

Thanks to the built-in RS485 Modbus® card and the BACnet, LonWorks and SNMP interface gateway, hadst and easy interfacing is possible with monitoring devices and BMS (Building Management System).

Display of all operating parameters in 8 languages.

ACCESSORIES

DIRECT EXPANSION

- Power supply line for remote condenser
- Power supply line for remote condenser speed adjuster
- Condenser adjustment with 0-10V signal remote condenser with EC fans
- “Kit LT” for operating with low outside air temperature with the remote condenser
- Oversized liquid receiver tank
- Non-return valves on the delivery and liquid lines
- Water condenser
- Water condenser with condensing temperature adjustment valve

COOLED WATER

- Modulating 2-way valves
- Water temperature probes on inlet & outlet
- “Power valve” kit

HEATING

- Electrical coils with low thermal inertia and adjustment over differential stages

HUMIDIFICATION

- Ambient humidity probe
- Delivery humidity probe
- Immersed electrode humidifier

■ For further information refer to the selection program.

MECHANICAL AND STRUCTURAL

- Condensate discharge pump
- Air filter on intake, efficiency M5 (EU5)
- Closed front panel for side delivery
- Closed side panels for front delivery
- Handling wheels

ELECTRICAL

- Alternative voltages available: 460V/3ph/60Hz - 380V/3ph/60Hz - 230V/3ph/60Hz
- Power supply line without neutral
- Automatic line selector switch (ATS) - “Basic” version
- Automatic line selector switch (ATS) - “Advanced” version

REGULATION

- Ventilation adjustment at constant capacity
- Ventilation adjustment at constant pressure
- Setting and cable for local network connection
- User terminal for remote installation
- Flooding detection system

SMARTNET

The innovative **SMARTNET** system revolutionises the local network concept.

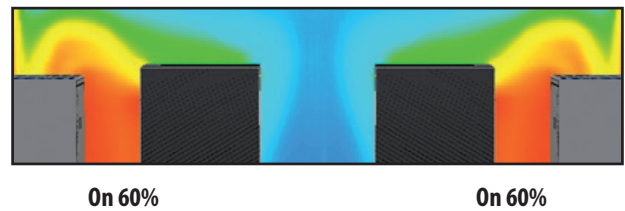
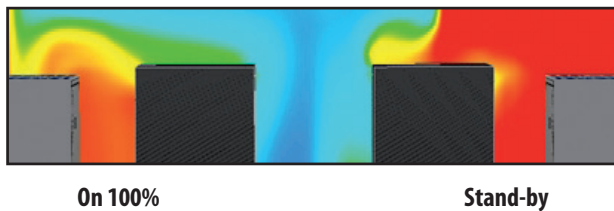
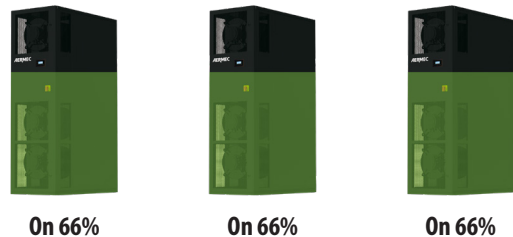
This system exploits the modulating capacities of the components to actively divide the work load between all units present in the local network.

Compared to the Duty Stand-by latent redundancy system (n+1 or n+n), where the backup units were on hold waiting for a problem to arise, the **SMARTNET** system means that **the units connected in the network are always active.**

DUTY / STAND-BY



SMARTNET



TECHNICAL DATA

RXA: horizontal air delivery - direct expansion with air or water condensation

Sizes			231	361
Total cooling capacity	(1)	kW	20,4	28,2
Sensible cooling capacity	(1)	kW	19,7	21,7
EER	(2)		3,29	2,95
Fans			type Plug fan EC	
Air flow rate		m ³ /h	6000	7500
Sound data				
Sound pressure	(3)	dB(A)	56	56
Possible configurations				
Free Cooling			•	
Two Sources			•	

RXU: horizontal air delivery - cooled water

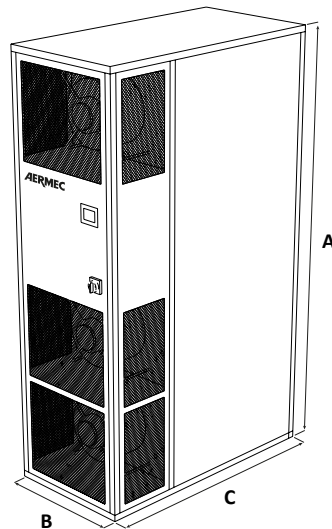
Sizes			40	
Total cooling capacity	(1)	kW	35,4	
Sensible cooling capacity	(1)	kW	33,5	
EER	(2)		27,65	
Fans			type Plug fan EC	
Air flow rate		m ³ /h	9000	
Sound data				
Sound pressure	(3)	dB(A)	61	
Possible configurations				
Two Sources			•	

(1) Cooling: condensing temperature 45°C incoming air 24°C-45%; incoming air 24°C-45%; water 7/12°C; static external pressure: 30Pa. The stated performance levels do not take into account the heat generated by the fans, that should be added to the thermal impact of the installation.

(2) EER: Energy Efficiency Ratio; total cooling capacity / input power from compressors + fans (air condensers excluded).

(3) Sound pressure declared data at a distance of 2m in a free field in accordance with UNI EN ISO 3744:2010

DIMENSIONS



Dimensional data RXA			231	361
Height	A	mm	2000	2000
Width	B	mm	600	600
Depth	C	mm	1180	1180
Weight		kg	215	215

Dimensional data RXU			40	
Height	A	mm	2000	
Width	B	mm	600	
Depth	C	mm	1180	
Weight		kg	190	

Aermec reserves the right to make any modifications deemed necessary.
All data is subject to change without notice. Aermec does not assume responsibility or liability for errors or omissions.

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