

ERV-PAC Packaged Airconditioning



XEP Packaged Airconditioning Unit With Economy Cycle

XEP4500P3-E Technical Data

Technical Specifications

Nominal Airflow

Supply Air (l/sec)	4100 - 4500
Return Air (l/sec)	4100 - 4500
Fresh Air (l/sec)	4100 - 4500
Condensor Air (l/sec)	2540
Exhaust Air (l/sec)	7040

Supply Fan

Fan Type	EC Plug Fan
Motor Power (Watts)	4450
External Static (Pa)	250
Fan Diameter	450
Number of Fans	2

Exhaust Fan

Fan Type	EC Plug Fan
Motor Power (Watts)	4450
External Static (Pa)	250
Fan Diameter	450
Number of Fans	3

Electrical

*Cable sized to maximum FLA. Data presented for airflow at 4500 L/s

Compressor Type	Fixed Speed	Inverter
Supply Fan Run Current (A)	8.7 - 8.7 - 8.7	8.7 - 8.7 - 8.7
Exhaust Fan Run Current (A)	14.3 - 14.3 - 14.3	14.3 - 14.3 - 14.3
Compressor Run Current (A)	46.2 - 46.2 - 46.2	42.6 - 42.6 - 42.6
Total Run Current (A)	69.2 - 69.2 - 69.2	65.6 - 65.6 - 65.6
Maximum Full Load (A)	135.2 - 135.2 - 135.2	134.2 - 134.2 - 134.2
Power Supply (V/Ph/Hz)	415/3/50	415/3/50

Controls

0-10V DC (Fan Control)	Included
24V AC Control Relays	Included
Fan Fault Signal	Included
Fan Status	Available
Switchboard	Yes
Circuit Breakers	Yes

Heat Exchanger

*Rated at standard conditions of 35.5° db/24.0° wb

Enthalpy Media	Standard
Sensible Media	Available
Corrosion Resistant Media	Available
Face Velocity (m/sec)	1.8
Pressure Drop (Pa)	143.0
Kw Recovered (Cooling)*	68.6
Kw Recovered (Heating)*	77.1

Cabinet Construction

Casing	50mm Insulated Panel
Finish	Surf Mist Colourbond
Insulation Value	R2.0
Side Access Panels	Included

Design Temperatures

Ambient (DB/WB) Summer	35°C/24°C
Return Air (DB/WB) Summer	24°C/17°C
Ambient Winter	7°C
Return Air Winter	21°C

Coil Selection

Indoor Coil FL x FH (mm)	3040 x 635
Face Velocity (m/sec)	2.3
Outdoor Coil FL x FH (mm)	3051 x 865
Face Velocity (m/sec)	2.7
Anti-Corrosion Coil Coating	Included
Drain Tray	Stainless Steel

Refrigeration

*At standard design temperatures

Heating Capacity (kW)*	88.0
Cooling Capacity (kW)*	88.0
Fixed Speed Compressor	Standard - x2 - R407C
Inverter Compressor	Available - x2 - R410A
Expansion Device	TX Biflow Valves
Head Pressure Control	Included

Economy Cycle

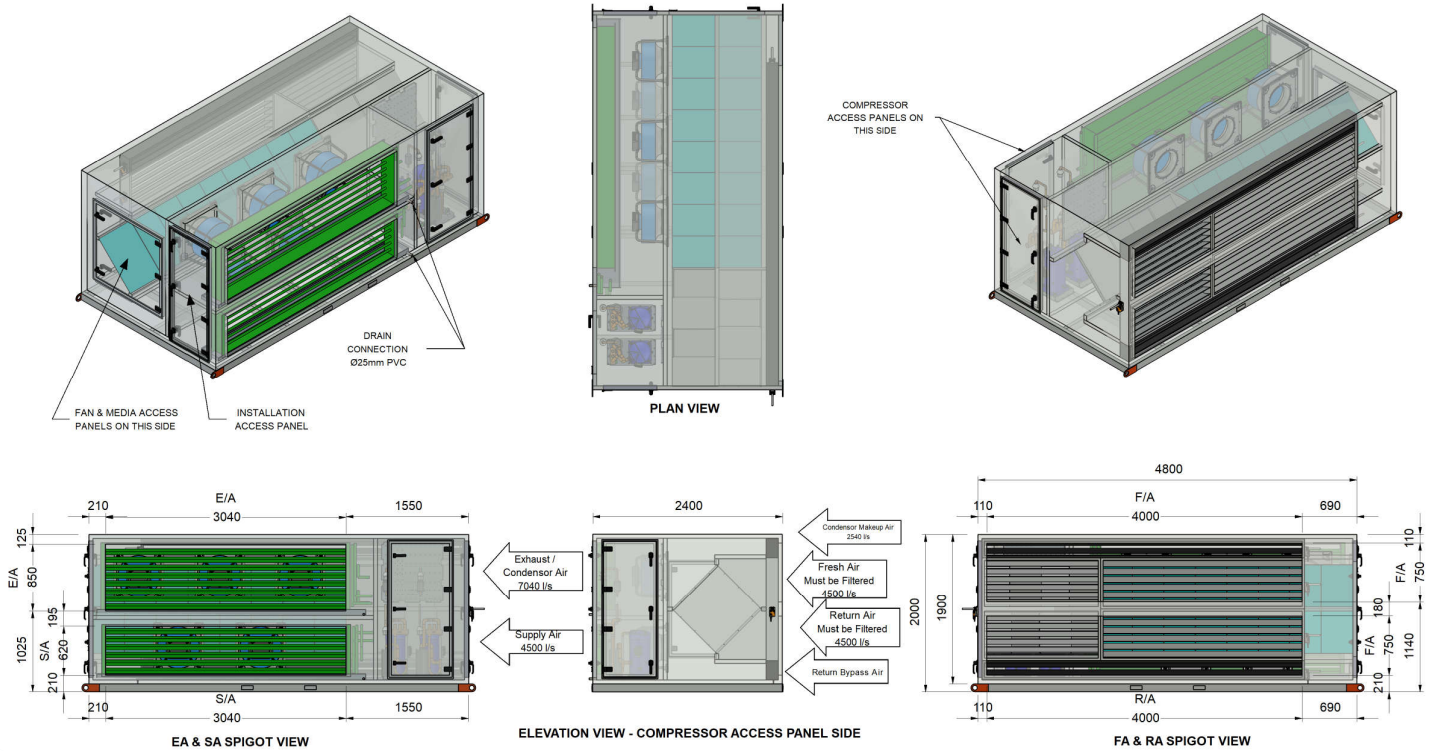
Economy Cycle Dampers/Motors	Included 0 - 10V
Return Air Bypass Damper/Motor	Included 0 - 10V

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Technical Drawings – XEP4500P3-E



Dimension	
Height (mm)	2000
Width (mm)	4800
Length (mm)	2400
Weight (kg)	1850
Access Clearance (mm)	1200 (Fan & Media Access)
Access Clearance (mm)	1200 (Electrical Controls)

Duct Sizes	
Supply Air (mm)	3040 x 620
Return Air (mm)	4000 x 750
Fresh Air/Condensor Air Inlet	4000 x 750
Exhaust/Condensor Air	3040 x 850
Recommended min F/A Filter Size	3600 x 600

Compressor Performance Data

Compressor Capacity (KW) – Cooling

Return Air Temperatures	Outdoor Coil Entering Air Temperature (E.A.T) °C db													
	24°C/17°C db/wb		23		27		31		35		39		43	
	Total	Sens.	Total	Sens.	Total	Sens.	Total	Sens.	Total	Sens.	Total	Sens.	Total	Sens.
	95.0	78.0	93.3	78.0	91.5	77.3	88.0	75.0	81.8	71.3	75.7	54.8		

Compressor Capacity (KW) – Heating

Return Air Temperatures	Outdoor Coil Entering Air Temperature (E.A.T) °C db					
	-1	1	3	5	7	9
22°C	67.8	72.2	76.6	82.7	88.0	91.5

For winter operation the air on to the DX coil must be a minimum of 15°C. If this cannot be achieved, we recommend using a EDH or hot water coil to maintain the correct temperature onto the DX coil.

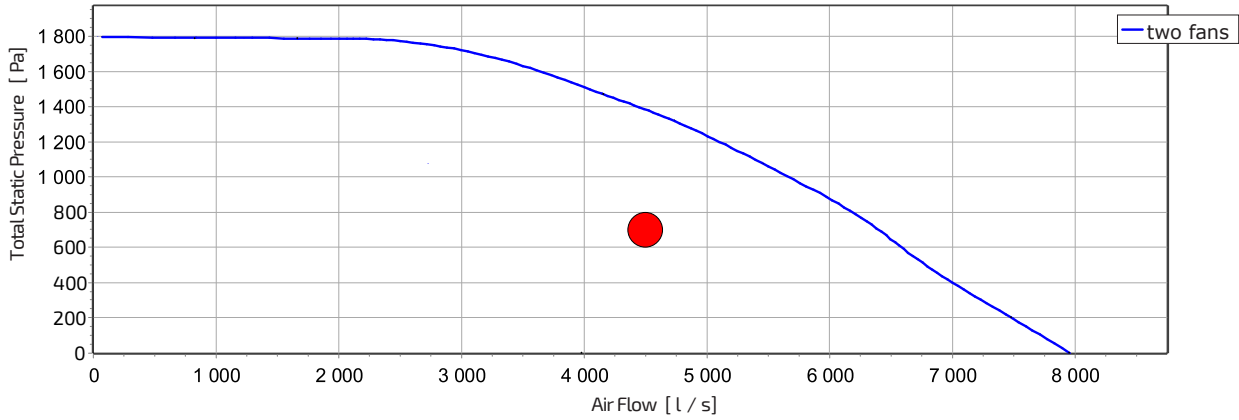
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Fan Performance Data

*Duty point - 4500 L/s at 700 Pa Total Static Pressure (250Pa External Static Pressure)

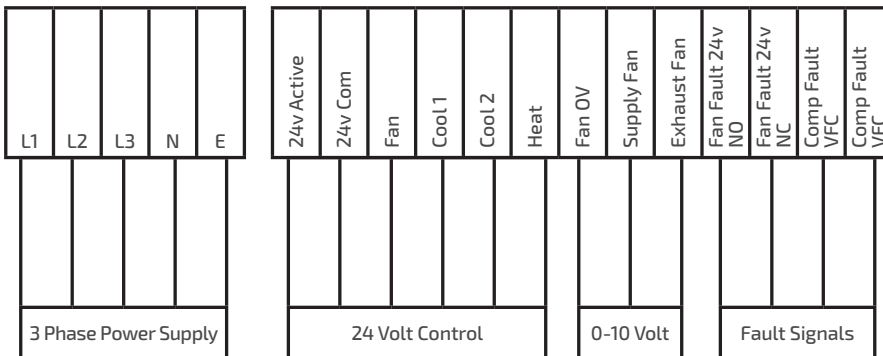


Sound Power Levels

*Sound power levels at 700 Pa Total Static Pressure and 4500 L/s Total Air Volume

Inlet Rating dB		Outlet Rating dB	
63 Hz	49.3	63 Hz	51.4
125 Hz	65.6	125 Hz	66.8
250 Hz	72.7	250 Hz	72.7
500 Hz	74.6	500 Hz	78.8
1 K Hz	75.6	1K Hz	83.6
2K Hz	76.7	2K Hz	84.7
4K Hz	79.7	4K Hz	82.5
8K Hz	73.9	8K Hz	77.4
LwA	84.0	LwA	89.3

Wiring Diagram



STANDARD INCLUSIONS

- Fan Speed Controller
0-10v DC - BMS Connection, **OR**
24v AC - Fan Speed Control via Pots
- Circuit Breakers
- Time Delay Relay
- Phase Fail Relay
- Reversing Valve
- High Pressure Cutout
- Low Pressure Cutout
- Compressor Overload

OPTIONS

- Compressor Sump Heater
- Current Sensing Relay



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