

ERV-PAC PACKAGED AIRCONDITIONING

XES SWIM POOL UNIT

XES500P3 TECHNICAL DATA



TECHNICAL SPECIFICATIONS

NOMINAL AIRFLOW

| | |
|-----------------------|-----------|
| Supply Air (l/sec) | 300 - 500 |
| Return Air (l/sec) | 300 - 500 |
| Fresh Air (l/sec) | 300 - 500 |
| Condensor Air (l/sec) | 460 |
| Exhaust Air (l/sec) | 960 |

SUPPLY FAN

| | |
|----------------------|-------------|
| Fan Type | EC Plug Fan |
| Motor Power (Watts) | 750 |
| External Static (Pa) | 200 |
| Fan Diameter | 250 |
| Number of Fans | 1 |

EXHAUST FAN

| | |
|----------------------|-------------|
| Fan Type | EC Plug Fan |
| Motor Power (Watts) | 1900 |
| External Static (Pa) | 250 |
| Fan Diameter | 355 |
| Number of Fans | 1 |

ELECTRICAL

| | |
|-------------------------|--------------------|
| Supply Fan FLA (A) | 3.0 |
| Exhaust Fan FLA (A) | 2.6 - 2.6 - 2.6 |
| Compressor Current (A) | 5.0 - 5.0 - 5.0 |
| Nominal Run Current (A) | 10.6 - 7.6 - 7.6 |
| Maximum Full Load (A) | 14.0 - 14.0 - 14.0 |
| Volt/Phase | 415V/3ph |
| Switchboard | Yes |
| Circuit Breakers | Yes |

CONTROLS

| | |
|------------------------|-----------|
| 0-10V DC (Fan Control) | Included |
| 24V AC Control Relays | Included |
| Fan Fault Signal | Included |
| Fan Status | Available |

HEAT EXCHANGER

*RATED AT STANDARD CONDITIONS OF 35.5° db/24.0° wb

| | |
|-------------------------|------------------|
| Sensible Media | Standard |
| Module Size (mm) | 500 x 500 x 400D |
| Number of Modules | 2 |
| Face Velocity (m/sec) | 1.17 |
| Pressure Drop (Pa) | 24.0 |
| Kw Recovered (Heating)* | 8.2 |

CABINET CONSTRUCTION

| | |
|----------------------------|----------------------|
| Casing | 50mm Insulated Panel |
| Finish | Surf Mist Colourbond |
| Insulation Value | R2.0 |
| Side Access Panels | Included |
| Corrosion Resistant Lining | 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) | 740 x 400 |
| Face Velocity (m/sec) | 1.6 |
| Outdoor Coil FL x FH (mm) | 740 x 500 |
| Face Velocity (m/sec) | 2.5 |
| Anti-Corrosion Coil Coating | Included |
| Drain Tray | Stainless Steel |

REFRIGERATION *At standard design temperatures

| | |
|------------------------|------------------|
| Heating Capacity (kW)* | 12 |
| Cooling Capacity (kW)* | 12 |
| Compressor | 1 - Fixed Speed |
| Refrigerant Gas | R407C |
| Expansion Device | TX Biflow Valves |
| Head Pressure Control | Included |

OPTIONS

| | |
|--------------------------|------------------------|
| Economy Cycle | Available (XES500P3EC) |
| Return Air Bypass Damper | Available |

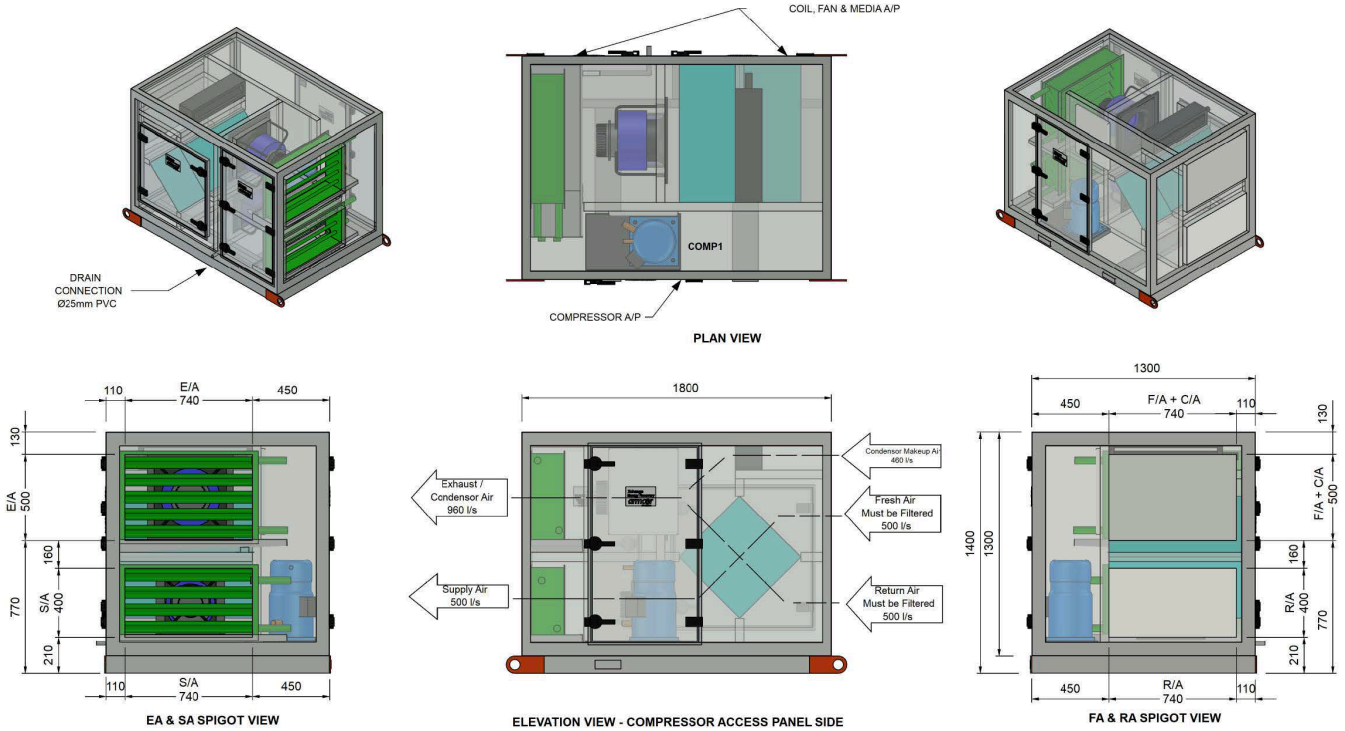
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TECHNICAL DRAWINGS - XES 500P3



| DIMENSION | |
|-----------------------|---------------------------|
| Height (mm) | 1400 |
| Width (mm) | 1300 |
| Length (mm) | 1800 |
| Weight (Kg) | 490 |
| Access Clearance (mm) | 900 (Fan & Media Access) |
| Access Clearance (mm) | 900 (Electrical Controls) |

| DUCT SIZES | |
|---------------------------------|-----------|
| Supply Air (mm) | 740 x 400 |
| Return Air (mm) | 740 x 400 |
| Fresh Air/Condensor Air Inlet | 740 x 500 |
| Exhaust/Condensor Air | 740 x 500 |
| Recommended min F/A Filter size | 740 x 300 |

COMPRESSOR PERFORMANCE DATA

COMPRESSOR CAPACITY (KW) - COOLING

| RETURN AIR TEMPERATURES | OUTDOOR COIL ENTERING AIR TEMPERATURE (E.A.T) °C db | | | | | | | | | | | |
|-------------------------|---|-------|-------|-------|-------|-------|-----------|------------|-------|-------|-------|-------|
| | 23 | | 27 | | 31 | | 35 | | 39 | | 43 | |
| 24°C/17°C db/wb | Total | Sens. | Total | Sens. | Total | Sens. | Total | Sens. | Total | Sens. | Total | Sens. |
| | 13 | 10 | 12.7 | 10 | 12.5 | 9.9 | 12 | 9.6 | 11.2 | 9.1 | 10.3 | 7 |

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 | 9.2 | 9.8 | 10.4 | 11.3 | 12 | 12.5 | | | | | | |

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.

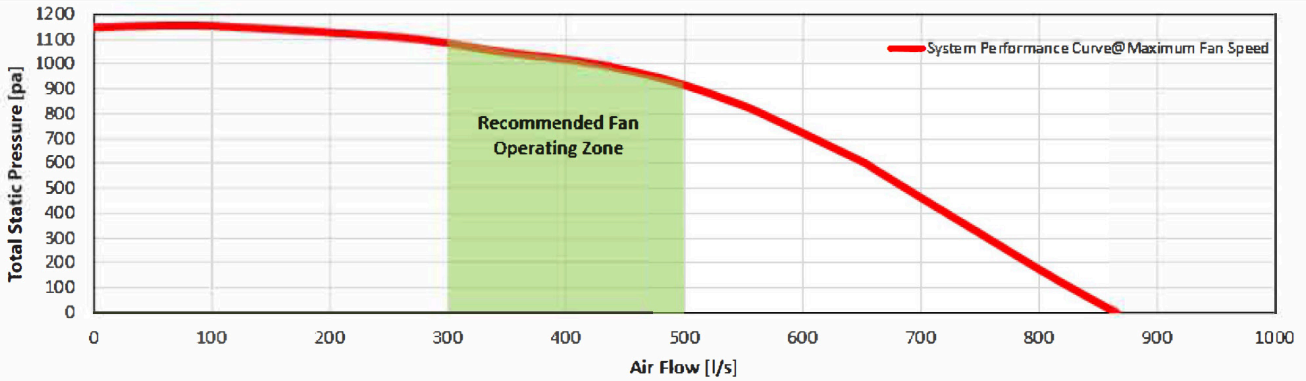
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FAN PERFORMANCE DATA

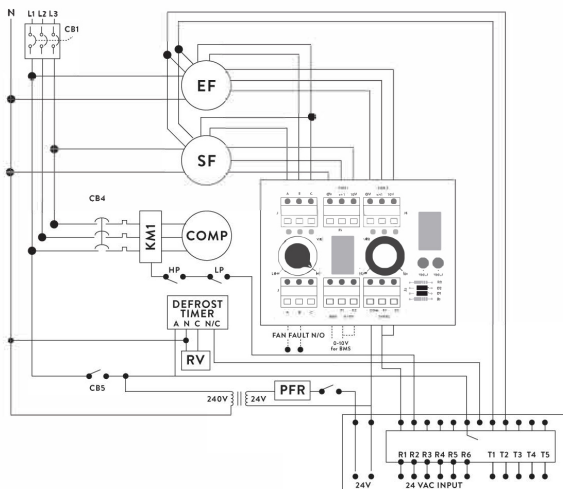


SOUND POWER LEVELS*

| INLET RATING dB | | OUTLET RATING dB | |
|-----------------|------|------------------|------|
| 63 Hz | 65.1 | 63 Hz | 67.7 |
| 125 Hz | 63.7 | 125 Hz | 65.8 |
| 250 Hz | 66.9 | 250 Hz | 67.7 |
| 500 Hz | 71.2 | 500 Hz | 72.2 |
| 1 K Hz | 68.2 | 1K Hz | 74.1 |
| 2K Hz | 68.1 | 2K Hz | 76.1 |
| 4K Hz | 68.2 | 4K Hz | 73.7 |
| 8K Hz | 65.5 | 8K Hz | 70.5 |
| LwA | 74.2 | LwA | 81 |

* Sound Power Levels @600 Pa Total Static Pressure and 500 l/s Total Air Volume.

WIRING DIAGRAM



FAN CONTROLLER

0-10V DC
24V AC
BMS CONNECTION or
FAN SPEED VIA POTS

STANDARD INCLUSIONS

CB CIRCUIT BREAKERS
R1 TIME DELAY RELAY
PFR PHASE FAILURE RELAY
RV REVERSING VALVE
HP HIGH PRESSURE
LP LOW PRESSURE
MCB COMPRESSOR OVERLOAD
CCH COMP. SUMP HEATER

OPTIONS

CSR CURRENT SENSING RELAY (T1 T2)
T3 T4 0-10V DIGITAL COMP.

Designed and manufactured in Australia

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