

EMO

Wall-mount air conditioners for outdoor applications

The solution for outdoor installations; a coupling system to the electrical cabinet which guarantees maximum protection even under the most demanding environmental conditions.



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WIDE RANGE OF POWER OUTPUTS

The available power outputs range from 400 to 9400 W, covering most electrical cabinet cooling requirements in an extremely compact size.

REGULATION AND SAFETY DEVICES

EMO air conditioning systems are equipped with electromechanical thermostatic regulation which guarantees maximum reliability even in extreme conditions. The refrigeration circuit is protected by low- and high-pressure safety pressure switches with automatic rearming. A fixed calibration pressure switch with ON/OFF contact manages the condensing fan.

QUICK INSTALLATION

Installation is very quick by simply drilling the cabinet panel and fastening systems which are included in the air conditioner package. This features provisions for the electrical connections to be made quickly and safely using fast connectors inserted in the rear of the unit.

IDEAL COOLING FOR THE UNIT

The air inside the cabinet is taken in from the upper part of the cabinet, cooled inside the air conditioner and directed back into the cabinet with a high-speed flow directed towards the bottom. This ensures both optimum cooling of the entire cabinet and the prevention of hot points in the electronic components.

REDUCED MAINTENANCE

All units are equipped with heat exchange surfaces designed to prevent clogging by solid contaminants present in the ambient air. The condensing coils are protected by a cataphoresis treatment which prevents fouling and corrosion. They maintain high levels of efficiency even in demanding environmental conditions, drastically reducing maintenance requirements and thus allowing the air conditioner to operate without an external air filter.

IP55 CABINET INGRESS PROTECTION

Thanks to the special internal configuration, which separates the external and internal air flows in a sealed manner, and the new self-adhesive coupling gasket, EMO air conditioners (from the EMO 04 model to the EMO 40 model) allow the cabinet to retain an IP55 rating.

RESPECT FOR THE ENVIRONMENT

Reduction of noise levels is a precise criterion aimed for when developing EMO air conditioners. They have been designed to minimise disturbance from noise. To help protect the environment, these air conditioners use R134a or R407C CFC-free refrigerant, which do not damage the ozone layer.

SUPPLY VOLTAGE

EMO air conditioners are available for the most common AC voltages: 230V single phase, 400-440V two phase (for concatenated voltage power supply when neutral is not present), 115V single phase, 400V three phase, all in 50-60 Hz dual frequency versions, and 400V and 460V three phase single frequency (50 or 60 Hz) versions. On request, versions for voltages not present in the catalogue can be produced for orders of sufficient quantities.

FRAMEWORK AND COATING

The framework is made of coated steel sheet. The coating is epoxy powder coating. The standard colour is RAL 7035 textured. Non-standard colours and stainless-steel versions are available on request. Rubber grommets and heatshrink sleeves protect the external electrical connections, making them suitable for outdoor use. The exterior electrical connections all have an IP54 rating.

OPERATING TEMPERATURE

The possible operating temperatures range from -20 to +55°C. The temperature inside the cabinet can be adjusted from +20 to +46°C (the air conditioner is factory set to +35°C).

OPTIONAL ACCESSORIES

EMO air conditioners offer various optional accessories:

- Stainless-steel framework
- Evaporating fan with separate 48VDC power supply
- Tamper-resistant screw kit for front casing closure
- High temperature alarm warning
- Common high/low pressure alarm



Application tips

- When choosing an air conditioner, keep a margin of safety of at least 10% for the power output, taking the most demanding conditions of operation into account.
- Seal the cabinet well. Any cracks or other openings would significantly reduce the efficiency of the air conditioner and produce excessive amounts of condensate.
- The air conditioner may be installed on the door or the wall, but always in the highest possible position in order to ensure that air is taken in from the top part of the cabinet, where there is a high temperature area.
- The air conditioner is factory set to 35°C, the optimum temperature for most applications. Unless strictly necessary, avoiding lowering this temperature because it would reduce the efficiency of the air conditioner and cause excessive condensate production.
- Try to facilitate the air flow inside the electrical cabinet when designing the layout of the components. Avoid blocking the air inlet or outlet with components installed too close together. Any components with internal ventilation of their own must have their air flow arranged so as to not impede the air flow of the air conditioner.
- Disable the air conditioner if the cabinet doors are opened to prevent excessive condensate production. Install a limit switch on the door for this purpose.
- The air conditioner power supply line must be protected with a time delay fuse or circuit breaker of suitable size on the basis of the unit's technical data.