

## REFRIGERATION & AIR CONDITIONING SPECIALISTS

### AR-050 Zone 1 Evaporator



Tradewinds's explosion-safe AR-050 air handler / evaporator units are designed to maintain the correct temperature in areas intended for the storage of chemicals, flammable substances or for charging lead batteries of forklift trucks or UPS systems (uninterruptable power supplies).

The compact design ensures maximum availability of the storage space. The units are equipped with highly efficient coils made from inner grooved copper tubing and aluminium fins, reducing the inner volume and refrigerant use.

The units are provided with an explosion-safe fan with aluminium fan blades, a flameproof electric motor and an anti-static mounting plate. The room air thermostat is part of an intrinsically safe circuit which can be connected to the air handler's junction box. This junction box also holds the power connections to the fan motor.

The units are designed for use of the non-flammable, non-toxic A1 refrigerant R513A. Other refrigerants can be applied on request.

An air conditioner outdoor / condenser unit provided with a control box that holds the necessary safety features and barriers for the intrinsically-safe circuits to the air handler / evaporator unit is available as an option. Also an explosion-safe version suitable for use in zone 2 is available.

The AR-050 air handlers / evaporator units are explosion-safe and meet the requirements of European Directive 2014/34/EU (ATEX 114), product category II 2G, gas group IIC and temperature class T4. The units are CE marked.



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### Features

- Capacities up to 14 kW
- Suitable for hazardous environments in which gas, vapor or mist is present, classified as Zone 1
- ATEX EU Type Examination Certificate
- Robust axial fan with aluminium impeller
- Intrinsically safe room air thermostat
- For ambient temperatures up to 55 °C
- Refrigerant R513A
- Increased safe junction box for easy installation
- 230 VAC, 50 / 60 Hz

### Technical properties

- Nominal capacity: 2 up to 14 kW
- Explosion safety: II 2 G Ex db eb h ia IIC T4 Gb
- Conformity: European directive 2014/34/EU (ATEX 114)
- Applied standards: EN 60079-0:2012 / A11:2013, EN 60079-1:2014, EN 60079-7:2015 / A1:2018, EN 60079-11:2012, EN 80079-36:2016 and EN 80079-37:2016
- Certificate: EU Type Examination Certificate No. KIWA 19ATEX0049X
- Ambient temperature: -20 °C up to +55 °C
- Fan(s): 230 VAC, 50 / 60 Hz single phase or 400 VAC, 50 / 60 Hz three phase  
Diameter(s): 250, 300, 350, 400, 450 or 500 mm
- No. of fans: Up to 3
- Fan properties: Short cased 4-pole axial fan with aluminium impeller
- Power supply: 220 – 240 VAC, 50 Hz (400 VAC, 3 phase, 50 Hz on request)
- Fin spacing: 4 or 6 mm
- Electric heating: Not available
- Refrigerant: R513A

Please contact us for more information or a detailed quotation for your specific application.  
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