

# SheltR-AIR Outdoor Enclosure



The **Eaton® SheltR Outdoor Enclosure** is designed to provide a secure and clean environment for equipment in harsh or outdoor environments. Typical applications may include communication and telecommunication installations, the housing of data and control equipment, or the support of industrial and process equipment. The SheltR enclosure can accommodate the application equipment, DC or AC backup power, and batteries.

The enclosure is designed to resist harsh environments by employing a combination of extruded aluminium framework, together with power-coated steel panels and aluminium cowlings. The performance is assured by internal insulation to reduce the heating effects from solar gain.

Cooling of the upper equipment compartment is provided by air-conditioning (aircon) units to ensure that moisture, pollutants and vermin are kept away from the equipment to be protected, something that cannot generally be achieved by inferior free-air cooled solutions. The electronically controlled aircon fans and compressor are DC powered to ensure that the cooling can be maintained during a power outage\*.

The lower battery compartment shares the same cooling space as the equipment compartment, to ensure batteries

are maintained at a reliable temperature.

The air-conditioned version of the SheltR enclosure is intended for hotter climates where active cooling is essential to protect the installed equipment and batteries from high ambient temperatures.

The SheltR enclosure can be preconfigured at the factory with any combination of DC system including: rectifiers, DC distribution, AC distribution, inverters, battery configuration, and control.

For sites that are off grid or connected to an unreliable AC network the enclosure can be preconfigured with a DC system, solar converters, and hybrid control in order to harness energy from sun all-the-while managing the run time of a generator.

Finally remote communications and alarming can be achieved using Eaton's advanced SC200 system controller providing: volt-free contact alarms, Modbus RTU/TCP, SNMP v1/v2/v3, and web access.

## Typical Applications:

- Solar based installations
- Wireless cell sites & switches
- Transmission terminals
- Data and Control
- Transportation

*(\* requires a DC backup power solution)*

## Features

- Aluminium frame, roof, and air-conditioning unit cover
- Steel sandwich panel construction
- Attractive powder coat finish
- Polyurethane insulation
- Vandal resistant 3 point locking
- Galvanised steel base
- 48V DC Air-conditioning unit for heat removal
- Accommodates up to 400-450Ah (48V) of battery



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# Technical Specification

| Environment:          | Compartment   |
|-----------------------|---|
| Protection            | IP55  |
| Cooling               | DC powered air-conditioner                                      |
| Cooling Capacity      | CE: 500Watt, 1500Watt (pending)<br>Non-CE: 1000, 2000, 3000Watt |
|                       | $T_{Ambient} = 35^{\circ}C$ , $T_{Internal} = 35^{\circ}C$      |
| Operating temperature | -15°C to +55°C  |
| Cooling Fans          | 48V speed controlled (1x external, 1x internal)                 |
| Refrigerant           | R134a   |
| Noise Level           | 60-65dB(A)  |

## Input - Aircon

|            |  |
|------------|--|
| DC Supply  | 44 to 58VDC, 48VDC nominal   |
| DC Current | 500Watt (3.34Amp), 1500Watt (9Amps),<br>1000Watt (6.90Amp), 2000Watt (12.0Amps),<br>3000Watt (18Amps), 48VDC |

## Security

|              |  |
|--------------|--|
| Locking      | 3 point lock mechanism, key locked handle with security panel and padlock clasp. |
| Hinges       | Concealed  |
| Cable Glands | 12 cables glands accepting cables of 15mm, as standard                           |

## Equipment Space

|                   |   |
|-------------------|---|
| Power             | 21U, 19" (450mm), 548mm   |
| Compartment       |   |
| Battery           | 340mm, 745mm, 620mm, per shelf.   |
| Compartment H,W,D | Two shelves.  |
| Batteries         | Space for 48V, 400-450Ah (2 shelves, 6 x 12V 100-150Ah front terminal blocks) |

## Mechanical

|                  |  |
|------------------|--|
| Dimensions H,W,D | 2100mm, 905mm, 1040mm  |
| Weight           | 225kg (excluding DC power and batteries or customer equipment) |
| Finish           | Powder coating   |
| Base             | Hot dipped galvanised (200mm height)                           |

## Part Numbers

|                  |   |
|------------------|---|
| Sheltr-AIR-A05CE | Sheltr-AIR enclosure with Air-conditioning-based cooling (500Watt) for power and battery compartment. CE compliant DC-powered aircon unit. Not included: DC power, batteries, AC and DC distribution, or cabling. |
| Sheltr-AIR-A15CE | As per Sheltr-AIR-A05CE, but with 1500Watt CE compliant air-conditioning-based cooling  |
| Sheltr-AIR-A10   | Sheltr-AIR enclosure with Air-conditioning-based cooling (1000Watt) for power and battery compartment. DC-powered aircon unit. Not included: DC power, batteries, AC and DC distribution, or cabling.             |
| Sheltr-AIR-A20   | As per Sheltr-AIR-A10, but with 2000Watt Air-conditioning-based cooling.  |
| Sheltr-AIR-A30   | As per Sheltr-AIR-A10, but with 3000Watt Air-conditioning-based cooling   |

## Options

|                |                        |
|----------------|------------------------|
| Smoke Detector | Optical smoke detector |
| Door Switch    | Switch for door alarm  |

## Certifications

|        |    |
|--------|----|
| Europe | CE |
|--------|----|

In the interests of continual product improvement all specifications are subject to change without notice.

