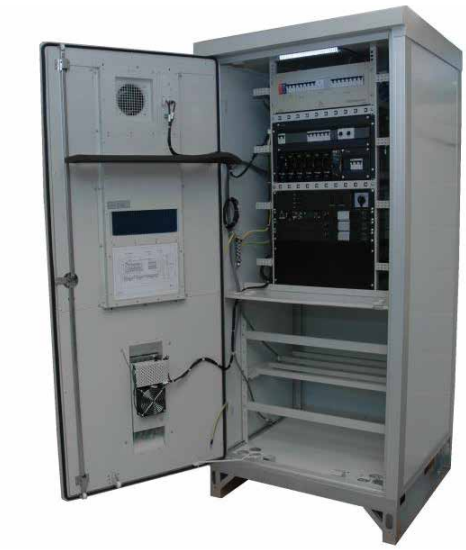
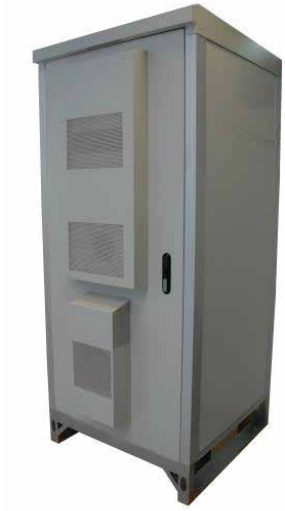
SheltR Outdoor Enclosure





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 powercoated 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 a sealed air-to-air heat exchanger (HEX) 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 HEX fans are DC powered to ensure that the cooling can be maintained during a power outage*. The internal environment of the enclosure is further protected during sub-zero temperatures by the standard inclusion of a 240VAC heater.

The lower battery compartment is thermally isolated from the hot equipment compartment.

For temperate climates battery cooling is provided by ventilation to the ambient, thereby benefitting from the average ambient temperature. For hotter climates, or where precision cooling is needed, an optional active cooling module is available that utilises a Peltier cooling element.

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 SC300 system controller providing: voltfree contact alarms, Modbus RTU/TCP, SNMP v1/v2/v3, and web access.

(requires a DC backup power solution)*

Typical Application

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

Features

- Aluminium frame, roof, and HEX/Peltier covers
- Steel sandwich panel construction
- Attractive powder coat finish
- Polyurethane insulation
- Vandal resistant 3 point locking
- Galvanised steel base
- 48V DC Heat Exchanger for heat removal
- Filtered air inlet/outlet for battery compartment (standard)
- 240V AC Heater
- Accommodates up to 400-450Ah (48V) of battery

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Technical Specifications

Environment: Power Compartment	
Protection	IP55
Cooling	HEX-based system
Cooling Capacity	80W/K equipment compartment
Operating temperature	+9°C above ambient at 800 watt internal heat load
Cooling Fans	RG175. 48V radial, speed controlled (1x external, 1x internal)
Heater	1000 watt, 230VAC

Environment: Battery Compartment	
Protection	IP55 (when fitted with the optional Peltier cooling)
Cooling – standard	Filtered ventilation to the ambient
Cooling – option	Optional Peltier-based precision cooling system
Cooling Capacity	22W/K equipment compartment (option)
Operating temperature	+5°C above ambient at 100Watt internal heat load (option)

Input	
AC Supply	187 – 276V, 50 – 60Hz (nominal)

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 Compartment	21U, 19" (450mm), 548mm
Battery Compartment H,W,D	340mm, 745mm, 620mm, per shelf. 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, 997mm
Weight	225kg (excluding DC power and batteries or customer equipment)
Finish	Powder coating
Base	Hot dipped galvanised (200mm height)

Part Numbers	
SheltR-FC	SheltR enclosure with HEX cooling, and ambient cooling for the battery compartment
SheltR-TEC	SheltR enclosure with HEX cooling, and Peltier cooling for the battery compartment

Options	
TEC200	Peltier based cooling module for battery compartment – 200Watt cooling capacity (nominal). Factory fit.

Certifications	
Europe	CE

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

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