

Mini Shelter

Outdoor Power & Equipment Enclosure



Enclosure External View

The Mini Shelter is designed to provide a secure and clean environment to back-up power, communications, IT, or industrial equipment in a harsh or outdoor situation. Typical applications include cellular BTS (base station transceivers), road & rail traffic measurement, data and metrological equipment, and industrial process control. It is suited to any application where sensitive equipment and/or back-up power are required to be stationed in an environmentally harsh location.

The enclosure is designed to resist the rigours of the environment, and is made from insulated steel panels and proprietary aluminium extrusions. The insulated skin design ensures heating from solar insolation is minimised and a secure 3 point locking system together with an embedded door and concealed hinges keep vandals from gaining access to the equipment within.

A 48V DC powered and electronically controlled heat exchanger removes waste heat through a sealed radiator using high reliability speed controlled fans. The enclosure and heat exchanger will ensure rain, moisture, dust and vermin is kept well away from the equipment inside. An AC 240V heater can maintain the internal environment in sub-zero situations.

A battery compartment in the lower half of the cabinet is thermally isolated from the upper hot zone, ensuring best possible life time for the critical batteries. Options exist for further cooling or heating of the battery zone.

When using Eaton's latest technology APS-3G (Access Power System) with hot-swappable Energy Saver APR48-ES rectifier modules and SC200 controller, you can provide a highly reliable DC power source for your equipment. When combined with Eaton's PW range SLA batteries you have a fully un-interruptible power system to support and run the cabinet and its enclosed equipment.



Enclosure Internal View

Features

- Steel sandwich panel construction
- Polyurethane insulation
- Attractive powder coat finish
- Vandal resistant 3 point locking
- Galvanised steel base
- 48V DC Heat Exchanger for heat removal
- Filtered air inlet/outlet to battery compartment
- 240V AC Heater
- DC Power System options to 48V 10,800W, 225A
- Suits 450Ah (48V) battery capacity
- Remote monitoring and control of DC Power System
- AC Surge Protection, 48V Internal Service Light
- Options for 24Vdc, 110Vdc or even 240Vac output
- Options for battery or equipment expansion

Technical Specifications

Brief Technical Specifications

Mechanical

Dimensions	905(w) x 2100(h) x 905(d) mm
Weight	225 kg (excluding DC power & batteries)
Capacity – Battery (typ)	48V x 450Ah (2 shelves of 6 x 12V 150Ah FT)
Capacity – Rectifier (typ)	48V x 10.8kW, 225A, (6 x rectifier modules, APR48-3G)
Panel Materials	Mild steel, poly urethane sandwich panel
Colour & Finish	Grey powder-coat to all external surfaces
Base	MS hot dipped galvanised
Locking Mechanism	3 point stainless steel, key locked handle with padlock hasp.
Cooling Fan's	RG175, 48V radial, speed controlled (1 x Ext, 1 x Int)
Protection Level	Designed to comply with IP55 in main (upper) equipment space

Electrical (With optional DC Power System)

DC Power System	APS6-3G series, 225A, 48V (10,800W)
AC Input	1Ph 220/240V 50/60Hz nominal (see APS spec for more detail)
Efficiency	Greater than 96% for full load with -ES rectifiers
Alarms	6 x volt free c/o relays or RS232, Ethernet TCP/IP, Web
Standard Extras	Low Volts Disconnect, AC switch board
Charging	Temperature compensation, Fast charge, Equalize, Battery test
Meters and Adjustments	Colour LCD and keypad. Also DC Tools software
Service Light	48V LED service light panel

Environment

Cooling	Fan forced DC heat exchanger, 80W/°K (requires DC system)
Operating temperature	-10°C to 55 °C
Internal temperature - equipment	+10°C above ambient for 800W internal heat load
Internal temperature – battery	+4°C above ambient
EMC	AS3548, CISPR 22 class B

Accessories

IPN

APS3-321	3G Access power System, 3U 19 », 3 x rect bays' SC200	121051
APS6-321	3G Access power System, 6U 19 », 6 x rect bays' SC200	121060
APR48-3G	Rectifier Module, 48V 37.5A, 1800W, 92% eff	120890
APR48-ES	Rectifier Module, 48V 42A, 2000W, Energy Saver, 96% eff	61226207
Blank	Blank Rectifier Panel	121074
PWTC12F150FR	Battery 12V 150Ah, Front Terminal, SLA	115425
PWTC12FG50FR	Battery 12V 50Ah, Front Terminal, SLA, GEL	61237831