# EATON ExoCab18-Macro 100

## *Outdoor Power & Equipment Enclosure*

Eaton has recently released its latest outdoor power and equipment cabinet designed to house telecommunications and IT equipment in harsh environmental outdoor conditions. The unit is a complete backup power system with environmental control and typical applications include 4G and 5G telecom network base stations, road traffic management electronics, railway signaling systems, and other forms of critical radio and IT infrastructure. Mining, water treatment and electrical utilities can also use the system to house and support communications and control networks that are critical to those industries. The system is designed to work in the harshest of environments.

The system is based on the popular Eaton ExoCab outdoor cabinet range and includes the Eaton APS6 DC power system. The DC power system is modular and can be expanded easily via plug in modules from 2kW to 12kW @ 48VDC. A separate compartment is included in the cabinet to house up to 300Ah of 48V batteries. For example, the DC power system and batteries can support a 5kW load for 3 hours of battery backup. The cabinet and DC system is fully remotely monitored and controlled using the Eaton SC200 system controller. The SC200 includes ethernet, USB and RS232 interfaces and with inbuilt web server, Modbus and SNMP, can be easily managed remotely using Eaton Power Manager or IPM software or other 3rd party NMC software.

Thermal management is a key objective of outdoor enclosures and the ExoCab18-Macro100 does this for you. The upper equipment and power compartment is cooled using a DC powered thermosiphon heat exchanger. Thermosiphon heat exchangers use the principal of liquid coolant in a sealed circuit that without any active pumping removes waste heat from inside the cabinet and transfers it to the outside, whilst at same time maintaining high IP integrity. DC powered fans circulate internal air to the heat exchanger to ensure no hotspots and best cooling efficiency. The DC powered fans are speed controlled to minimise energy consumption and noise output. The Eaton FC100 fan speed controller is integrated with the SC200 system controller to manage internal and external air flows. The lower battery compartment also includes thermal management to maximise battery life by ensuring an optimum

operating environment. The battery compartment includes a DC powered thermoelectric cooler, to pull the internal battery compartment temperature below ambient if needed. The thermoelectric cooler operation is also controlled by the SC200 to ensure that during battery discharge conditions it is temporarily disabled to maximise battery runtime. The cabinet also includes external solar shields that help reduce the heating effect from the sun. The cabinet is designed to operate in Australia's most harsh and hot environments.

The cabinet is manufactured mainly from marine grade aluminium and together with external powder coating will ensure that the cabinet remains corrosion free for many years after deployment. The cabinet doors feature concealed hinges, multi point locking and stainless-steel hardware to resist vandalism and unauthorised entry. Door switches monitor access and will raise an alarm to indicate opening.

Every technical aspect of housing IT&T equipment and power in an outdoor situation has been thought of with the Eaton ExoCab18-Macro 100 cabinet, and it is carried in stock in Australia for rapid deployment.