Ampac

Fire detection and evacuation solutions that save lives.

EvacU^{Elite} Power Supply Units

1. Description

The EvacU^{Elite} Power Supply Unit (PSU) is modular in architecture. It comes in two forms :

- **Primary PSU** – Item No **6350**-PSUM-CSO

  which plugs into the PDB (Power distribution board) nearest to the primary universal rack.

- **Secondary PSU** – Item No **6350**-PSUS-CSO

  which plugs into two PDB slots below the primary.

There are 3 modular sizes of power supply. All PSU modules plug into the common power distribution board which provides a power bus for all universal rack frames fitted in the system. The image below shows the **3X**
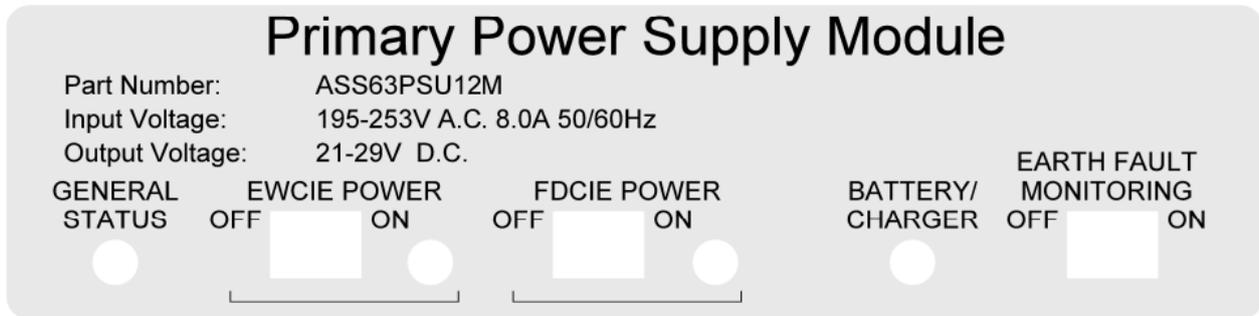
- **PSU1X** = One Primary PSU (Top Module)

  Used when one universal rack is fitted **6.5 Amps @ 230V ac**

- **PSU2X** =One Primary and One Secondary (Top and Middle Modules)

  Used when Two or Three universal racks are fitted **13Amps @ 230V ac**

- **PSU3X** =One Primary and Two Secondary PSUs (Top Middle and Bottom Module)

  Used when Four or Five universal racks are fitted **19 Amps @ 230V ac**

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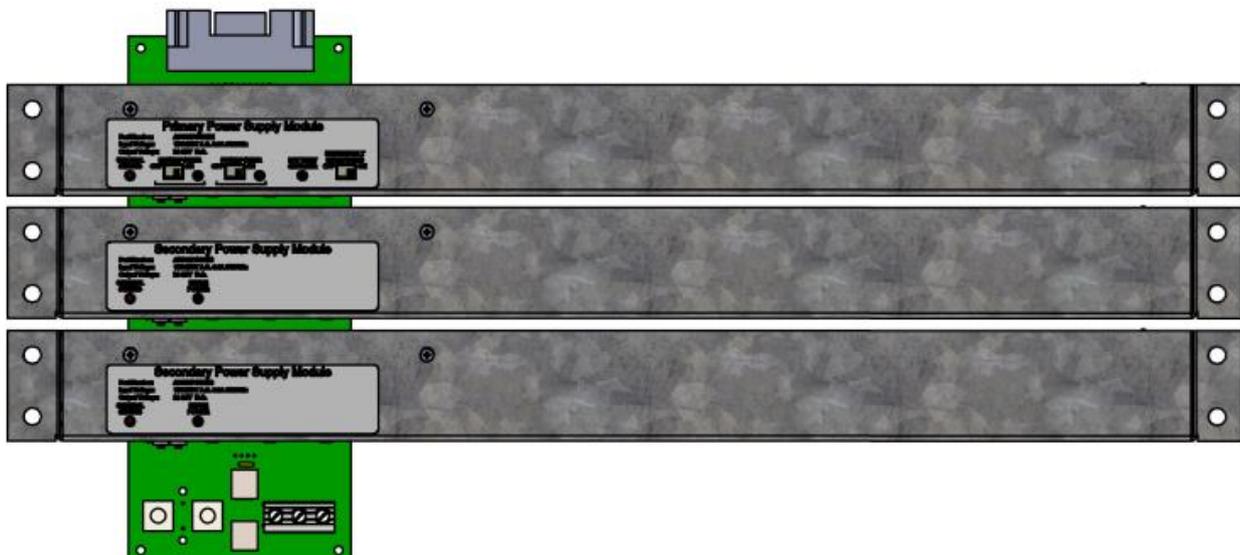
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2. Primary PSU Controls and Indicators

Labelling on the primary power supply module

Primary Power Supply Module

Part Number: ASS63PSU12M
Input Voltage: 195-253V A.C. 8.0A 50/60Hz
Output Voltage: 21-29V D.C.

| GENERAL STATUS | EWCIE POWER OFF — ON | FDCIE POWER OFF — ON | BATTERY/ CHARGER | EARTH FAULT MONITORING OFF — ON |

*Primary power supply – Contains Various **Isolators and indicators***

EWCIE Power – controls the power to the EvacU^{Elite} Indicator lit when power is available.

FDCIE Power – controls the power to the FireFinder^{PLUS} Indicator is lit when power is available.

Earth fault monitoring – enables/disables the earth fault monitoring.

3. General Status Indicators

Applies to primary and secondary PSU Modules:

LED Indication	Condition
Off	No power
Green Steady	Normal – mains available
Green Flashing	Mains is off – running from the standby power source
Yellow Flashing	Fault – for example blown fuse, incorrect checksum, PSU fault, bus fault, charger damage

4. Battery / Charger Indicators

LED Indication	Condition
Off	On batteries or no power
Green Steady	Battery is charged (greater than 80%)
Green Flashing	Battery is charging
Yellow Flashing	If mains on – charger has failed. If mains off, battery has failed (voltage < disconnect voltage)
Yellow Fast Flash	Battery is reversed
Yellow Steady	Battery is isolated or missing and mains is on

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5. Secondary PSU Indicators

Secondary Power Supply Module

Part Number: ASS63PSU12S
Input Voltage: 195-253V A.C. 8.0A 50/60Hz
Output Voltage: 21-29V D.C.

GENERAL   EWCIE
STATUS   POWER

Secondary power supply labelling and indicators

EWCIE Power – indicator lit when power is available to the EWCIE

See General status indicator explanation on previous page

6. Specification

Power Supply

	24U Floor Mount Enclosure	13U Wall / Floor Mount Enclosure
Mains Voltage	253-195.5 V AC	253-195.5 V AC
Power	1200 to 3600 Watt in 1200 Watt increments	1200 to 2400 Watt in 1200 Watt increments
$P_{a\,max}$ (900W per PSU)	3 x PSU max = 2700 Watt	2 x PSU max = 1800 Watt
$P_{b\,max}$ (1200W per PSU)	3 x PSU max = 3600Watt	2 x PSU max = 2400 Watt
P_{min}	0 Watt	0 Watt
Max battery capacity	190 Amp Hr	100 Amp Hr
Min battery capacity	24 Amp Hr	24 Amp Hr
Max current draw from battery	57 Amp (1200W), 114 (2400W), 171 (3600W)	57 Amp (1200W), 114 (2400W)
Max battery resistance	60 mΩ (1200W), 30mΩ (2400W), 20mΩ (3600W)	60 mΩ (1200W), 30mΩ (2400W)
Main current	19.5 Amps	13 Amps

Important

During production design the Power supply size fitted in the factory also determines the specification of

- Battery isolator size,
- Battery cables & lug type fitted
- Battery size Calculation to suit overall load expectations

If you upgrade a PSU (adding extra PSU modules) the correct isolator kits outlined below should be installed

Item Numbers **6350-MCB120A (suit 2 modules) 6350-MCB175A suit 3 Modules** respectively

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7. Installation

a. Turn power OFF inside the panel at the Mains Circuit Breaker MCB.

b. Isolate battery power supply via the battery isolator inside the panel.

c. Observing anti-static precautions, install the PSU Modules in the panel.

d. Each PSU Module fitted in the panel needs to be configured (if they are not already*).

e. Ensure the Battery isolator installed is the correct rating 1PSU Module = 60Amp , 2 =120Amp , 3 = 175Amp

f. Turn power ON from the MCB and battery isolator. Use **EWCIE Power switch** on the Primary PSU.

g. Using the **Menu / Node** screen on the primary GUI check the **PSU module status**.

h. Test the functionality.

*For Item D Please refer to the **Programming Manual** MAN3142

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