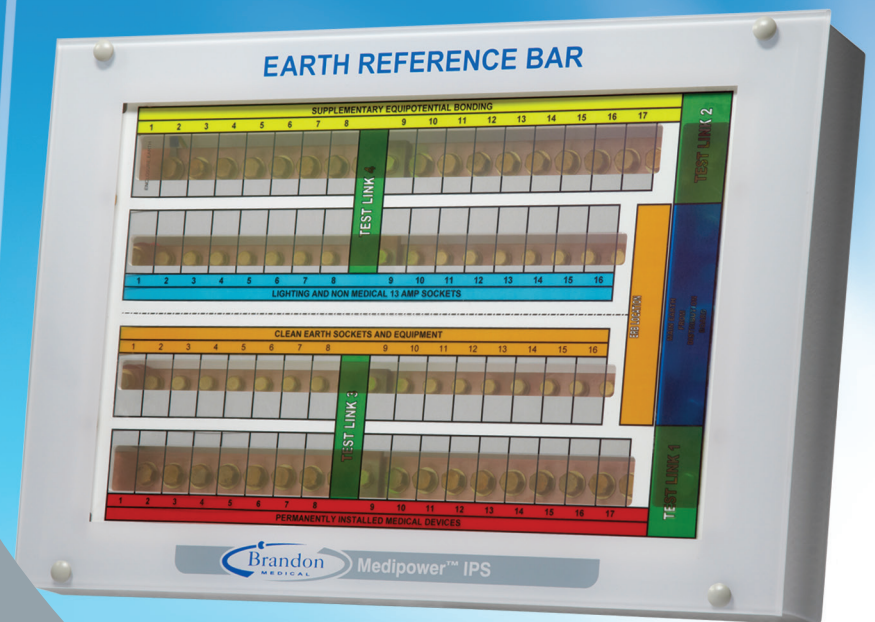


Medical Control & Power Systems



Medical Lighting

Control & Power

Brandon
MEDICAL

Medical Architectural

Medical AV Systems

Uninterruptible Power Supply (UPS)



Disruption to the electrical supply of critical care medical equipment used in operating theatres and intensive care units can put patient's lives at risk. By installing a UPS system, the impact of spurious power failures can be minimised.



Zero Change-Over

A UPS system will continue to supply power in the events of mains failure for a period of typically 15 minutes to 3 hours depending upon the size of the batteries. As the switch over from mains supply to UPS supply is seamless, this makes the UPS an ideal back-up system for critical medical equipment.

Features Include:

- Low Power Consumption
- Simple to Install
- Maximum Reliability and Efficiency
- High Level Battery Reliability
- Sensitive Supply Compatible
- Advanced Communication – multi-platform communication for all networks and operating systems.



Intertek



Isolated Power Supplies (IPS)



The purpose of an IPS is to protect vulnerable patients in Group 2 medical locations from the risks associated with electrical leakage currents.



Medical Locations

Medical locations are designated into Group 0, Group 1 or Group 2 in the International Standard IEC 60364-7-710 and the Institution of Electrical Engineers (IEE) Wiring Regulation Guidance Note 7, Chapter 10. Group 2 locations include operating theatres, intensive care units, special care baby units and recovery rooms.

Monitoring

In an IPS unit the outgoing electrical circuits supplying critical care and life support equipment are constantly monitored for short circuits or earth leakage faults. Any fault will result in an audio and visual alarm being raised so that remedial action can be taken by the Maintenance Technicians before unexpected loss of electrical power occurs.

Sizes

IPS units can be supplied in 3.15, 4, 5, 6.3, 8 and 10 kVA sizes and these can be single (SIPS), double (DIPS), triple (TIPS) or quadruple (QIPS) in one enclosure.

Automatic Electrical Supply

It is also a requirement of the standards that Group 2 Medical Locations shall have an automatic electrical supply available within 0.5 seconds in the event of power failure. In the UK it is common practice to support the IPS system with an upstream Uninterruptible Power Supply (UPS) in order to meet the 0.5 second requirement. In other parts of the world, this may be achieved by switching to an alternative source of supply.



Scan the QR code to start the IPS planning tool to determine the number, size and versions of the IPS system distribution boards for ICU and Operating Theatres.

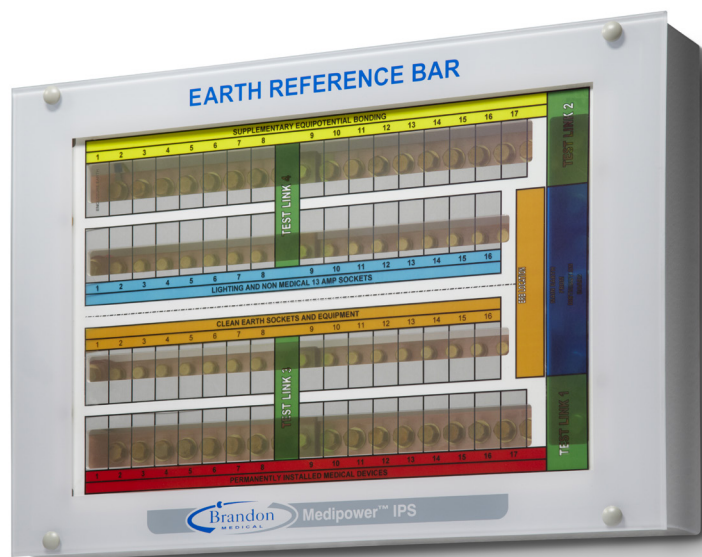
Earth Reference Bar (ERB)

Equipotential bonding is a necessary precaution in the clinical environment to avoid significant touch voltages to the patient. Accordingly, the MEIGaN document suggests that an ERB should be provided for all Group 1 and Group 2 locations, as detailed in BS7671, Guidance Note 7, Chapter 10.

Since these units need to be on view and in an accessible position, Brandon Medical's earth reference bars (ERB) are aesthetically pleasing and designed for easy compliance with MEIGaN, as below:

- 1 The mains supply protective conductor entering the location shall be terminated at the ERB.
- 2 The ERB shall be installed in an accessible position to facilitate easy visual inspection and testing. Installation shall be no higher than 1.8m and not lower than 1m measured from the floor.
- 3 The ERB shall be installed in a dedicated enclosure, with a cover that requires a tool to open it and is permanently marked 'Earth Reference Bar'.
- 4 The ERB shall contain copper connection bars insulated from the building earth. The connection bars shall be connected to the incoming earth conductor by means of a flexible removable links to facilitate the use of a current measuring probe.
- 5 Additional smaller connection bars shall be provided to accommodate protective earth and equipotential bonding conductors from the socket outlets.
- 6 All circuit protective conductors shall be identified, and a list of connections made, a copy of which shall be available in the ERB cabinet.

The Brandon Medical MEIGaN ERB is supplied with a removable legend sheet for easy hand marking up of the connected earth connections. Alternatively, software is provided to generate a professionally presented printed legend on the printable acetate sheets using your normal office printer.



Part Number

MODEL	DESCRIPTION
OTMPERB320FF	OT Medipower MEIGaN 320A Earth Reference Bar for 32A supplies. Ferrous, Flush Fit
OTMPERB320FS	OT Medipower MEIGaN 320A Earth Reference Bar for 32A supplies. Ferrous, Surface Fit
OTMPERB630FF	OT Medipower MEIGaN 630A Earth Reference Bar for 63A supplies. Ferrous, Flush Fit
OTMPERB630FS	OT Medipower MEIGaN 63A Earth Reference Bar for 63A supplies. Ferrous, Surface Fit



Scan the QR code to view the ERB Selection Chart

Emergency Power Unit (EPU)



Brandon Medical's purpose designed EPU is designed to provide a robust and cost effective solution and can incorporate the operating theatre light PSU's to provide a single integrated power solution. It uses a medical approved power supplies and chargers and provides for all normal indicators, warnings and BMS integration.

Extremely Reliable

Brandon Medical EPU systems are very reliable and are tested to the highest safety standards. They require little servicing or maintenance, have a long life span and use 10 year sealed-for-life lead-acid batteries as standard.

Quick "Switch-Over" Time

The design of the EPU is such that the operating theatre light can continue to run in the event of mains failure. The switch-over time is approximately 0.15 seconds. In combination with Brandon lights, this guarantees that you never see an interruption in the operating theatre light's performance because the lights are designed with sufficient on board storage to absorb brief power interruptions without loss of performance or function.

Integrated into Surgeons Control Panel (option)

EPU systems can be integrated into surgeons control panels (also manufactured by Brandon Medical). Having the EPU integrated into the surgeons control panel saves on external wiring and space in the corridor or near by plant room.



Part Number

MODEL	DESCRIPTION	
BEPU0100L	Offline UPS Emergency power unit to suit Astralite Series	
BEPU0100L48	Offline UPS Emergency power unit to suit Astralite ALED Series with integral 48V PSU	
BEPU0550B	Emergency power unit 600 Watt/hour. Lead acid batteries	Built into Control Panel
BEPU0550L	Emergency power unit 600 Watt/hour. Lead acid batteries	Stand alone unit
BEPU0550S48	Emergency power unit 600 Watt/hour. Lead acid batteries	Stand alone with single 48V PSU
BEPU0550D48	Emergency power unit 600 Watt/hour. Lead acid batteries	Stand alone with double 48V PSU
BEPU0550T48	Emergency power unit 600 Watt/hour. Lead acid batteries	Stand alone with triple 48V PSU
BEPU0750B	Emergency power unit 800 Watt/hour. Lead acid batteries	Built into Control Panel
BEPU0750L	Emergency power unit 800 Watt/hour. Lead acid batteries	Stand alone unit
BEPU0750S48	Emergency power unit 800 Watt/hour. Lead acid batteries	Stand alone with single 48V PSU
BEPU0750D48	Emergency power unit 800 Watt/hour. Lead acid batteries	Stand alone with double 48V PSU
BEPU0750T48	Emergency power unit 800 Watt/hour. Lead acid batteries	Stand alone with triple 48V PSU
BEPU1100B	Emergency power unit 1350 Watt/hour. Lead acid batteries	Built into Control Panel
BEPU1100L	Emergency power unit 1350 Watt/hour. Lead acid batteries	Stand alone unit
BEPU1100S48	Emergency power unit 1350 Watt/hour. Lead acid batteries	Stand alone with single 48V PSU
BEPU1100D48	Emergency power unit 1350 Watt/hour. Lead acid batteries	Stand alone with double 48V PSU
BEPU1100T48	Emergency power unit 1350 Watt/hour. Lead acid batteries	Stand alone with triple 48V PSU



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