



## Intelligent Battery Emergency Power for Operating Lights

Surgical luminaries are one of the critical systems within the OR and require the highest level of power supply resilience. To ensure this each luminaire should have its own primary (mains) and secondary (battery backup) supply. In accordance with HD60364-7-710, BS7671-2018 (18th edition) and HTM06-01:2017, the surgical operating light must have a back up of 3 hours.

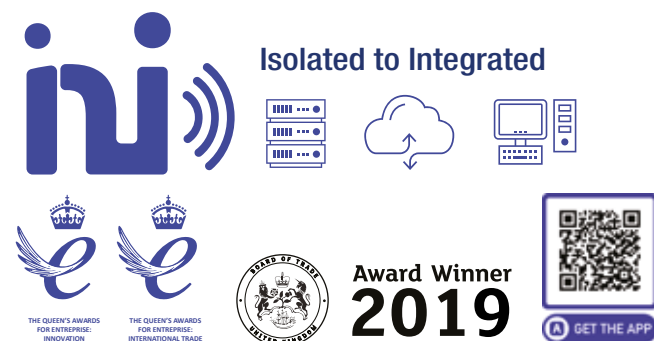
- Time and cost saving via automated test and battery maintenance.
- HTM 06-01 compliant.
- Modbus communication.
- Intelligent theatre control panel (iTCP) connection.
- Easy to monitor and configure with Near Field Communication (NFC).
- Collects data for secure reports via Android app.

Brandon Medical's iBEPU system consists of:

- An integrated power supply unit (PSU).
- A separate battery charger.
- 10-year design life batteries.
- High speed (static switch) changeover unit.
- Modbus communication to iTCP.

The primary supply unit (PSU) will provide the lamp with power under normal operating conditions. Should the primary supply suffer a mains failure or a catastrophic component failure, then the iBEPU will switch over to its own battery supply.

Through its associated app engineers can configure, maintain and provide reporting on the battery system.

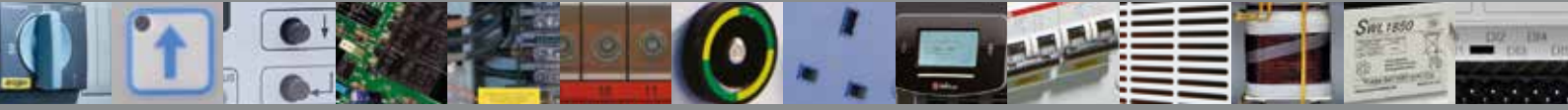


**ini** Isolated to Integrated

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Mechanical Sizes and Weights Specification	
iBEPU0300L Enclosure Size	400 x 400 x 200mm
Enclosure Material	Steel
Painted	RAL9010
Weight without batteries	11kg
18Ah Battery Size L x W x H	180 x 76 x 167mm (Part No. EBL13847-1218)
Colour Rendition Index (Ra)	>95
Colour Rendition Index Red Colour (Rg)	>95
iBEPU Electrical Specification	
Input Voltage VDC	85 to 265 VAC
Output Voltage VDC	20 to 28.5 VDC
Max Output Current	4A
Wattage (VA)	125VA
Max Discharge Current	30 Amps Max
Battery Autonomy (Based on 1 x QE60)	3 Hours @21°C
Isolation Voltage	Input to Output 2k VAC
Isolation Resistance	100 MΩ
Ambient Temperature	15 to +30°C
Storage Temperature	-40 to +70°C
Relative Humidity	20 to 95% RH
Installation Position	Vertical
Pollution Degree	II
Degree of Protection	IP20
UPS Current Consumption (No Load)	0.2 Amps
UPS Current Consumption (Charging)	3.5 Amps
Battery Voltage Range	19.2 - 28.5 VDC
Cooling Method	Free Air Convection
Battery Reverse Voltage	28.5 VDC
Battery Output Fuse	10 Amps
Recommended Batteries	2 x 12 V 18Ah in Series
Nominal Charge Voltage	27.2 V
Battery Low Voltage Cut-Out Setting	19.2 V
Diagnostic PCB	
Volt Free Contact Rating	2A @ 30 VDC
Voltage Measurement Range	0 - 30 V ±2%
Temperature Measurement Range	0 to 70°C ±3°C
Current Measurement Range	0 to 3A ±10mA
Local Indicators	Mains Healthy, Battery In Use, Battery Fail
Configurable	Via NFC Interface
Communications	4-Wire RS485
Protocols	Modbus RTU Slave
Approvals and Standards	
EMC	EN60601-1-2:2015
Safety	EN60601-1:2006+A12:2014
Other	HTM06-01 Compliant
Recommended Electrical Installation Circuit Breakers and Cables	
Incoming Mains Cable	2.5mm sq protected by single 6 amps "B" type MCB
Outgoing Operating Lamp Cables	6mm run no greater than 25m, protection single 6 amps "C" type MCB
Eaearth Cable	6mm sq

## Exceeding Standards

Brandon Medical is certified as an ISO 13485 and ISO 9001 manufacturer, the global standard for medical device manufacturers. Brandon Medical Astralite® conforms to IEC 60601-1, IEC 60601-1-2 and IEC 60601-2-41



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