



the firebeam™ protection system

auxiliary fire equipment power supply EN54-4 Boxed PSU (24V 1.5A)

Technical Specification

Power Supply Specification	
Mains supply voltage:	230Vac, 50/60Hz
Max. continuous output current (including charging):	1.5A
Battery charge capacity:	1.0Ahr to 12.0Ahr
Max VRLA battery size/type determined by cabinet size:	up to 3Ahr
Power rating:	$I_{max a} = 1.3A$, or $0.8A$ (if PLK1 link fitted). $I_{max b} = 1.5A$, charging turned off via CONN5 short. $I_{min} = 12mA$ approx.
Maximum internal battery resistance:	$R_i max = 900mohm$
Maximum output voltage:	Max = 30V
Minimum output voltage at battery cut off:	Min = 19.5V
Output ripple voltage (peak-to-peak):	1.2V@30MHz bandwidth, 600mV with a 100nF loading.
Mains supply/battery charger monitored for failure:	YES
Batteries monitored for disconnection and failure:	YES
Fuses	
Mains supply fuse (F1):	1A HRC, 20mm ceramic
Battery fuse (F2):	3.15A F, 20mm glass
Power Supply PCB Connections	
Mains Input (CONN1):	Three mains supply input terminals: Live, Neutral & Earth
Supply Output (CONN3):	24Vdc output for auxiliary equipment at PSU's rated output of 1.5A
Battery Input (CONN3):	Connection to the VRLA batteries
Fault Relay (CONN4):	Isolated relay output rated 1A@50V
Charge Off Input (CONN5):	Disablement of the battery charge, enabling the charge current to be used at the output during heavy load periods, volt-free short to 0V to disable charger.
PLK1:	'Battery Charge Current' link. NOT fitted for 1Ahr to 3.5Ahr (0.2A charge). Fitted for 3.5Ahr to 12Ahr (0.7A charge). Special requests can be catered for, up to 80% of the total PSU output.
PLK2:	'Battery Monitoring' link. Fit link if batteries NOT used.
PL1:	Display connector. 4-way connector for wiring loom from Power Supply PCB to Display Card.
PL2:	High Temperature Output. Operates at approx. 55°C internal box temperature, 30V, 200mA max. current sink. Used for triggering ventilation, etc.
Indicators	
Panel Indicators (LEDs):	SUPPLY PRESENT (Green) - Indicates the supply is present at the output FAULT (Amber) - Indicates a current fault on the PSU. Call the engineer.
AUXILIARY FAULT (Amber):	Indicates a fault with auxiliary unit (user-definable). 10-30V, 6-7mA.
Power Supply PCB (LED):	Hazardous Voltages Present (Red)
Dimensions & Weight	
Physical size:	380mm(w) x 235mm(h) x 96mm(d) approx. (plastic lid and plastic back box)
Weight:	1.55Kg (without batteries)
Accessory Pack	
1 x Instructions – Document No. DFU0360000 (this document); 1 x Allen key (for unfastening/securing the panel lid); 1 x 1A HRC, 20mm ceramic fuse (spare mains supply fuse F1); 1 x 3.15A F, 20mm glass fuse (spare battery fuse F2); 1 x set of links for PLK1 & PLK2; 1 x set of battery connection leads (red lead, black lead, green jump lead) & battery straps.	
Operating Conditions	
The power supply enclosure has an IP30 rating and is designed for indoor use only. The components are selected to operate within their specification when the environmental conditions outside the enclosure comply with class 3k5 of IEC 721-3-3:1978. Temperature range: -5°C to +40°C. Maximum relative humidity: 95%.	

E&OE. No responsibility can be accepted by the manufacturer or distributors of these power supplies for any misinterpretation of this instruction, or for the compliance of the system as a whole. The manufacturers policy is one of continuous improvement and we reserve the right to make changes to product specifications at our discretion and without prior notice.