

Batteries

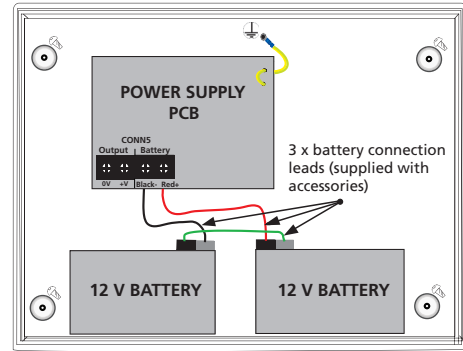
CAUTION: There is a risk of explosion if incorrect batteries are used. Always dispose of used batteries in accordance with the battery manufacturers instructions.

The power supply is designed for use with good quality, sealed, VRLA batteries with the following characteristics:

24 V (12 cell) System	
Final Voltage @ Discharge Current:	$\leq 21.0 \text{ V @ } (0.1 \times \text{capacity}) \text{ A}$
Float Charge Voltage:	27.3 V @ 20 °C, charging deviation $\pm 0.3 \text{ V}$
Battery Temp. Compensation:	-3 mV/cell/°K rise

Position and connect 2 x 12 V batteries, shown in diagram (right).

Note: On a standard 'as-supplied' unit, PLK1 ('Battery Monitoring' link) is NOT fitted and a fault will occur on initial power-up if fully charged batteries are NOT connected.



LOCATION OF 2 x 12 V BATTERIES AND CONNECTION OF BATTERY LEADS TO POWER SUPPLY PCB

TECHNICAL SPECIFICATION

POWER SUPPLY SPECIFICATION		BF362-5 (24 V DC, 5 A)
Mains supply voltage / Rated current / VA:	230 Vac, 50/60 Hz / 1.35 A / 310 VA	
Max. continuous output current (including charging):	5 A. Efficiency at full load = 83%.	
Battery charge capacity (C):	7 Ah to 18 Ah	
Max VRLA battery size/type determined by cabinet size: (various models listed)	BF360 range = up to 3 Ah (Note: BF360-12 without STU plate = 7 Ah) BF362 range = up to 19 Ah	
Power rating:	I max a = 4.6 A or 4.0 A (if PLK2 link fitted) I max b = 5 A, charging turned off via CONN4 short I min = 12 mA approx.	
Maximum internal battery resistance:	Ri max = 600 mohm	
Maximum output voltage (Mains on):	V max = 30 V	
Minimum output voltage (with Mains off):	V min = 19.2 V	
Output ripple voltage (peak-to-peak):	450 mV @ 30 MHz bandwidth, 350 mV with a 100 nF loading.	
Mains supply/battery charger monitored for failure:	YES	
Batteries monitored for disconnection and failure:	YES	
FUSES		
Mains supply fuse (F1):	2 A, T, HRC, 20 mm ceramic (T=Timed Delay; HRC= High Rupture Current <equivalent> HBC=High Breaking Capacity)	
Battery fuse (F2):	5 A, F HRC, 20 mm ceramic (F = Fast Acting)	
POWER SUPPLY PCB CONNECTIONS		
Mains Input (CONN1):	Three Mains supply input terminals: Live, Neutral & Earth	
Fault Relay (CONN3):	Isolated relay output rated 1 A @ 50 V	
Charge Off Input (CONN4):	Disablement of the battery charge, enabling the charge current to be used at the output during heavy load periods, volt-free short to 0 V to disable charger. Maximum cable length = 2.5 m.	
Supply Output (CONN5):	24 Vdc output for auxiliary equipment at PSU's rated output of 5 A	
Battery Input (CONN5):	Connection to the Valve Regulated Lead Acid (VRLA) batteries	
PL1:	Connector to a display card or OEM equipment. Uses C-TEC serial data protocol (Document No. DFU0003631).	
PL2:	High Temperature Output. Operates at approx. 55 °C internal box temperature, 30 V, 200 mA max. current sink.	
PLK1:	'Battery Monitoring' link. Fit link if batteries NOT used.	
PLK2:	'Battery Charge Current' link. Fitted for 7 Ah to 18 Ah (1 A charge). Only on Enquiry: Special requests can be catered for, up to 60% of the total PSU output.	
INDICATORS		
Panel indicators (LEDs):	SUPPLY PRESENT (Green) – Indicates the supply is present at the output. GENERAL FAULT (Amber) – Indicates a fault is present on the PSU. Call the engineer. AUXILIARY FAULT (Amber) – Indicates a fault with an auxiliary unit (user-definable). 19 to 30 V, 3.5 to 6 mA.	
Power Supply PCB (LED):	Hazardous Voltages Present (Red)	
PHYSICAL ATTRIBUTES		
Dimensions:	404 mm (width) x 404 mm (height) x 110 mm (depth)	
Weight / Construction:	5.25 Kg (without batteries) / Metal lid and base	
Enclosure finish:	RAL7035 textured	
ACCESSORY PACK		
1 x Instructions – Document No. DFU0003611 (this document); 1 x 2 A T HRC, 20 mm ceramic fuse (spare Mains fuse F1); 1 x 5 A F HRC, 20 mm ceramic fuse (spare battery fuse F2); 1 x link for PLK1 or PLK2; 1 x battery connection kit.		
OPERATING CONDITIONS		
The power supply enclosure has an IP30 rating (to EN60529:1992) 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 the latest edition of IEC 721-3-3:1978. Temperature range: -5 °C to +40 °C. Maximum relative humidity: 95%.		
CERTIFICATES & DECLARATION OF PERFORMANCE to (EU) No. 305/2011, CPR (Certificates and DoPs are available for download on C-TEC's website)		
VdS Approval No.: G209197	CE Cert. No.: 0786-CPR-20892	Declaration of Performance: DOP0000006

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.