

NT360-12/E (12 V DC, 2 A) - INSTALLATION INSTRUCTIONS

Power Supply Unit (PSU) to EN54-4 and VdS2115 with finger protective cage

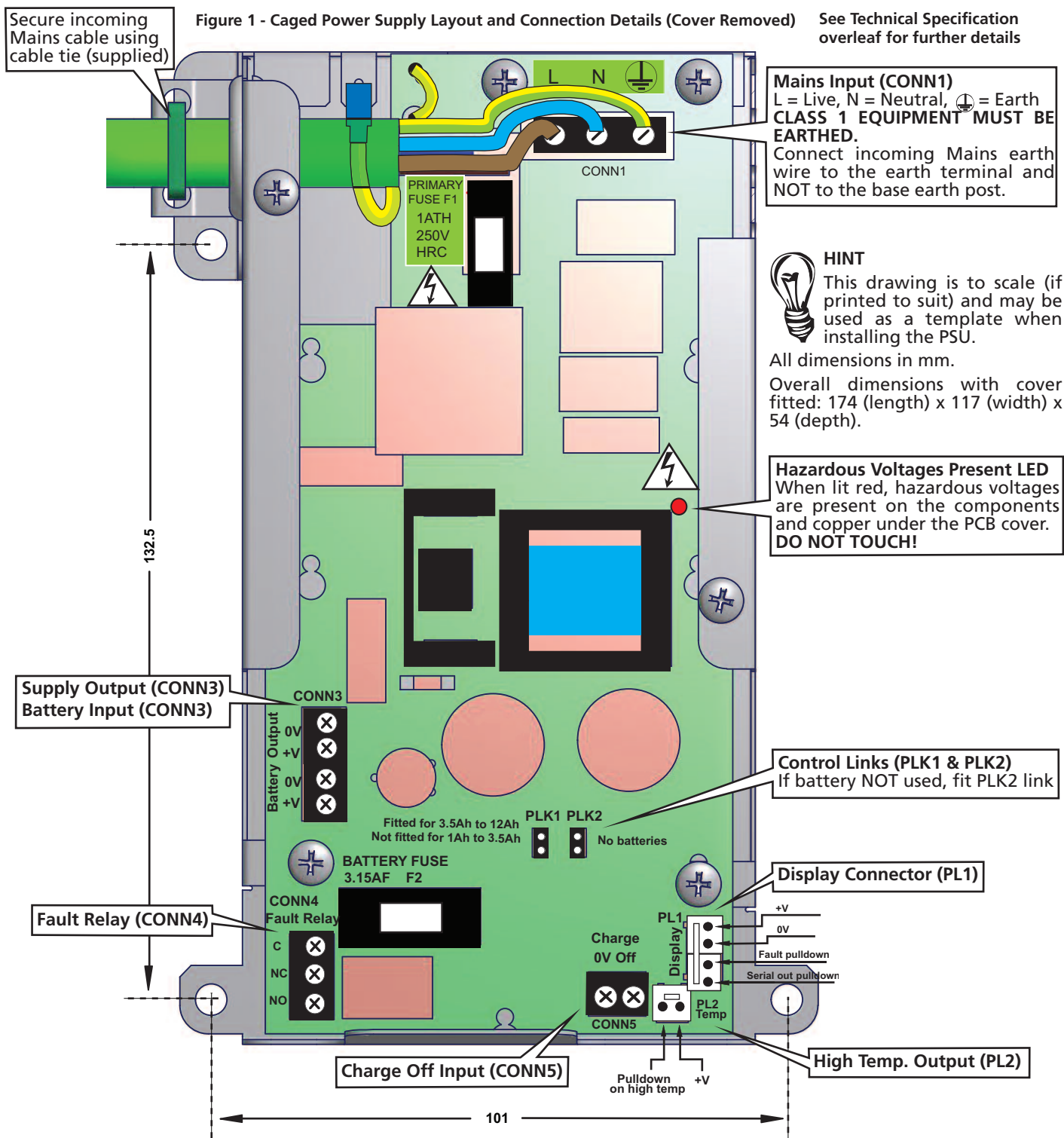


THIS EQUIPMENT MUST ONLY BE INSTALLED AND MAINTAINED BY A SUITABLY SKILLED AND TECHNICALLY COMPETENT PERSON. THE POWER SUPPLY PCB IS CLASS 1 EQUIPMENT AND MUST BE EARTHED.

The NT360-12/E is a Mains to regulated DC power supply providing 2 A @ 12 V DC and has a finger protective cage to VDE 0100-410. Combining the functions of a power supply unit, battery charging unit and battery monitoring unit, it is designed and intended for use in OEM equipment. The NT360-12/E fulfills all relevant standards and directives for fire alarm and intruder alarm systems when installed in a suitable enclosure.

The system designer must assure the compatibility to all relevant standards for the PSU within the installed enclosure.

Specific parts of the relevant standards are EN54-4, EN50131-1 and -6, EN60950-1, VdS2115, Guidelines 89/106EG, 2004/108EG, 2006/95EG.



INSTALLATION

Important Note: The caged power supply must be installed inside an enclosure. The mechanical construction of the enclosure must be sturdy enough to withstand the operating conditions of the caged power supply. Adequate ventilation must be allowed for and component temperature limits must not be exceeded, even with an ambient temperature of 40 °C.

Mounting

Use the power supply's mounting holes (3 available) to secure it into its enclosure. Use suitable screw fixings. The mounting holes are suitable for use with M5 fixing screws. Care must be taken not to damage any wiring, or components and all safety standards are maintained.

Wiring and Cable Entry

All wiring should be installed in accordance with the current edition of EN60950, or the relevant national standards. The requirement for the Mains supply is fixed wiring, using 3-core cable (no less than 1 mm² and no greater than 2.5 mm²). Local guidelines and directives for the installation must be observed.

WARNING: DO NOT ATTEMPT TO CONNECT THE MAINS SUPPLY TO THE POWER SUPPLY UNLESS ALL COMPONENTS ARE SECURELY INSTALLED IN ITS ENCLOSURE!

Remove the cover of the caged power supply and feed the Mains cable through the base's 20 mm grommet. Terminate the Mains cable at the power supply PCB connector block CONN1 (see Figure 1, overleaf). Refit and secure the cover.

Interface - Access to the C-TEC Data Protocol

The C-TEC data protocol is accessible via the interface connection PL1. To fulfill the relevant standards for the Intruder Alarm System the protocol must be read and conditioned to indicate the differential fault of Mains and/or battery failure as well as 25% overvoltage above the nominal figure. The protocol specifications are available by the relevant datasheet for the specific OEM version.

Batteries

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

For the emergency standby power supply, only use a good quality sealed VRLA battery 1 x 12 V. Battery connection leads are supplied. **Note:** On a standard 'as-supplied' unit, PLK2 ('Battery Monitoring' link) is NOT fitted and a fault will occur on initial power-up if a fully charged battery is NOT connected.

NT360-12/E TECHNICAL SPECIFICATIONS

SPECIFICATIONS - SWITCH MODE POWER SUPPLY CHARGING UNIT WITH FINGER PROTECTION CAGE TO VDE0100			
Mains supply voltage / Rated current / VA:		230 Vac, 50/60 Hz / 350 mA / 80.5 VA	
Max. continuous output current (including charging):		2 A	
Battery charge capacity:		2 Ah to 12 Ah	
Power rating:		I max a = 1.8 A or 1.3 A (if PLK1 link fitted). I max b = 2 A charging turned off via CONN5 short. I min = 12 mA approx.	
Maximum internal battery resistance:		Ri max = 720 mΩ	
Maximum output voltage:		V max = 15 V	
Minimum output voltage at battery cut off:		V min = 9 V	
Output ripple voltage (peak-to-peak):		<100 mV over the full input and output range of the power supply	
Mains supply/battery charger monitored for failure:		YES	
Battery monitored for disconnection and failure:		YES	
Mains-, battery- and / or 25% overvoltage fault indication:		YES via the interface (PL1) and the C-TEC data protocol.	
FUSES			
Mains fuse (F1):	1 A, T, HRC, 20 mm ceramic (T = Timed Delay; HRC= High Rupture Current <equivalent> HBC=High Breaking Capacity)		
Battery fuse (F2):	3.15 A, F, 20 mm glass (F = Fast Acting)		
POWER SUPPLY PCB CONNECTIONS			
Mains Input (CONN1):	Three Mains supply input terminals; Live, Neutral & Earth		
Supply Output (CONN3):	12 V DC output for auxiliary equipment at PSU's rated output of 2 A		
Battery Input (CONN3):	Connection to the VRLA battery (Valve Regulated Lead Acid)		
Fault Relay (CONN4):	Isolated relay output rated 1 A @ 50 V		
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 0 V to disable charger. Maximum cable length = 2.5 metre.		
PL1:	4-way connector (Molex KK22-27-2041 2.54 mm spacing) for wiring loom from Power Supply PCB to a display card, or OEM equipment for the transmission of the C-TEC data protocol.		
PL2:	High Temperature Output. Operates at 55 °C internal box temperature, 30 V, 200 mA max. current sink, e.g. for cooling ventilator.		
PLK1:	'Battery Charge Current' link. Fitted for 3.5 Ah to 12 Ah (0.7 A charge current). NOT fitted for 2 Ah to 3.5 Ah (0.2 A charge current) Only on Enquiry: Special requests can be catered for up to 80% of the total PSU output.		
PLK2:	'Battery Monitoring' link. Fit link if battery NOT used.		
INDICATOR			
Power Supply PCB (LED):	Hazardous Voltages Present (Red LED)		
PHYSICAL			
Dimensions (L x W x D):	174 x 117 x 54 mm	Weight	440 g
Relative Humidity:	95% non-condensing	Cage Material:	Zintec
Clearance:	Create adequate ventilation to ensure power supply components do not overheat.		
VdS APPROVAL and TEST REPORTS			
EN54-4 Part 4 : A2	Reports by BF360-12 with G208155		
ACCESSORY PACK			
1 x Installation Instructions – DFU0360026 (this document); 1 x 1 A, T, HRC, 20 mm ceramic fuse (spare Mains fuse F1); 1 x 3.15 A, F, 20 mm glass fuse (spare battery fuse F2); 1 x set of PLK1 & PLK2 links; 1 x battery connection kit. 1 x cable tie.			

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