

Power Supply Unit BPS-410, 24V/10A

AutoSafe Interactive Fire Detection System, Release 4
Product Datasheet

Features

- 24V/10A power supply
- Power Board BSF-400, including:
 - AutoFieldBus interface
 - 115VAC /230VAC input
 - 6 outputs 24VDC (max. 2A each)
 - 1 fault relay output
- Transient protection
- Battery charging temperature compensated
- Electronic current limitation
- Conforms to CE standards
- Designed to meet IEC-61508 SIL2 requirements, C.E.N. EN 54-2, EN 54-4 and EN 54-13 regulations, FM regulations (Factory Mutual) and the maritime SOLAS requirements (Safety Of Life At Sea)

Description/Application

The power supply unit is prepared for decentralized power distribution via the AutoFieldBus to panels/units in the AutoSafe Interactive Fire Detection System, release 4 or later. Note that AutoFieldBus connections require shielded cable.

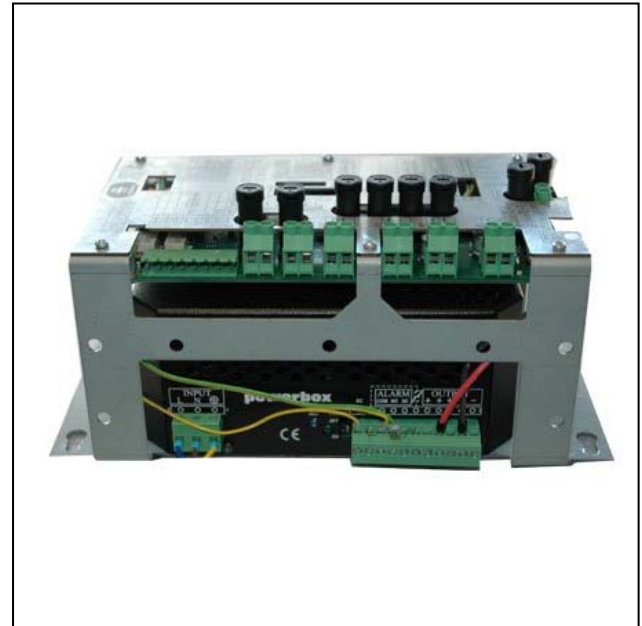
The unit can be mounted inside a 19" rack or consol.

Note that, when connecting the power unit to an AutoSafe panel (BS-420) via AutoFieldBus, the panel will turn OFF the power on port C for a period of 3 seconds when the initialization starts.

Dipswitch Settings

Dipswitch settings for dipswitch S6 on Power Board BSF-400.

Dip-switch	Name	Description
S6-1	Earth Fault	ON: Earth fault monitoring activated OFF: Earth fault monitoring deactivated
S6-2	NA	Must be set to OFF (default)
S6-3	AutoFieldBus	ON: AutoFieldBus connected OFF: AutoFieldBus not connected
S6-4	NA	-
S6-5	Battery	ON: Battery connected OFF: Battery not connected
S6-6	Power Unit Type	ON: BPS-405 OFF: BPS-410



Part numbers to be used when mounted and delivered with other equipment

Part Number	Description
116-BPS-410	BPS-410 PSU 24V/10A
116-BPS-410/115	BPS-410 PSU 24V/10A 115VAC

Part numbers to be used when boxed and delivered as a separate unit:

Part Number	Description
116-BPS-410/BOXED	BPS-410 PSU 24V/10A BOXED
116-BPS-410/115/BOXED	BPS-410 PSU 24V/10A 115VAC BOX

Technical specifications					
Dimensions (mm)	130x259x105				
Weight (kg)	2,6kg				
Mounting	Surface mounting				
Material	Steel bracket				
Protection class	Determined by the outer enclosure.				
Operating Temperature	-5°C to +60°C ⁵				
Storage Temperature	-40°C to +70°C				
Humidity	Up to 95% non-condensing				
Current	115V 4,5A / 230V 1,9A				
Inrush current	< 35A in 10ms				
Input voltage range					
115V range	230V range				
94 – 132 VAC	184 – 264 VAC				
45 – 66 Hz					
Output					
Max load	Max load without battery				
8A	10A				
Min battery size	Max battery size				
12Ah	18Ah				
Accuracy ¹					
<10mV _{RMS}					
Efficiency					
>89% at 230VAC, 100% load					
Voltage out					
19-32V ⁴					
Overload protection					
15A					
Shutdown o/p, re-power on to recover					
Fuses					
Battery ² Fuse Name F7	Charger ² Fuse Name F8				
10A	10A				
Dipswitch, S6					
Number	Description	Condition			
S6.1	Earth fault sense	ON/OFF			
S6.2	NA	OFF (default)			
S6.3	AutroFieldBus	ON/OFF			
S6.4	NA	-			
S6.5	Battery present	ON			
S6.6	Powernet Power Supply (BPS-410)	OFF			
Common data					
Fuses					
Name	Location	Electronic fuse	Fuse	Type	Special function
F1	A1	Yes, 7A	2A	Fast	
F2	A2	Yes, 7A	2A	Fast	
F3	B1	Yes, 7A	2A	Fast	
F4	B2	Yes, 7A	2A	Fast	
F5	C1	Yes, 7A	2A	Fast	³
F6	C2	Yes, 7A	2A	Fast	³

- ¹ The value is given in Volt peak to peak and this is converted to RMS.
² Miniblade fuses.
³ This port turns OFF for 3 seconds during initialization of AutoSafe if the Power Board BSF-400 is connected through AutoFieldBus.
⁴ If the battery port is short-circuited and the input AC voltage is 15% lower than the nominal voltage while maximum load is present, the DC voltage out may decrease to 14V for a period of 50ms.
⁵ **Cooling is strongly recommended if the unit is placed in environments where the temperature during normal operation is likely to exceed +55°C for long periods of time. Note that batteries placed in high temperatures will have reduced lifetime and need to be replaced more often.**

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Technical specifications	
Cable parameters	
Output name	Cable size max.
A1	Single thread 6mm ² (10 AWG) Multi thread 4mm ² (12 AWG) Minimum thread 0,2mm ² (24 AWG)
A2	
B1	
B2	
C1	
C2	
Battery	
Charger	
AutroFieldBus	Minimum Cat 5, shielded cable
Dipswitch S5, AutroFieldBus earth fault sense	
S5.1	ON = earth sense to AFB CT A
S5.2	ON = earth sense to AFB CT B
S5.3	ON = earth sense enable
BSF-400	
Current consumption	85mA

