

Power Supply Unit BPS-405, 24V/5A

AutoSafe Interactive Fire Detection System, Release 4
Product Datasheet

Features

- 24V/5A 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 supply 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-405 | BPS-405 PSU 24V/5A |

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

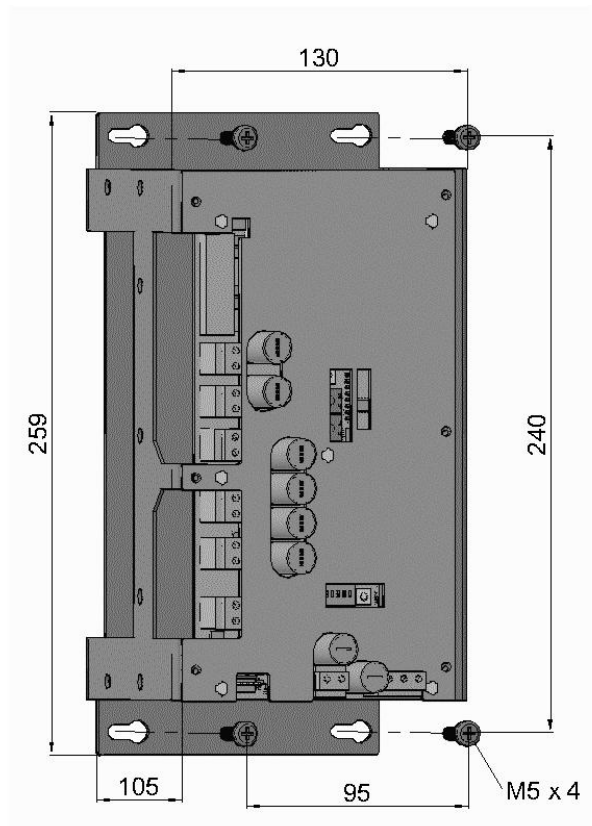
| Part Number | Description |
|-------------------|--------------------------|
| 116-BPS-405/BOXED | BPS-405 PSU 24V/5A BOXED |

| Technical specifications | | | | | |
|--------------------------------------|------------------------------------|-----------------|------|------|------------------|
| Dimensions (mm) | 130x259x105 | | | | |
| Weight (kg) | 1,9 kg | | | | |
| Mounting | Surface mounting | | | | |
| Material | Steel bracket | | | | |
| Protection class | Determined by the outer enclosure. | | | | |
| Operating Temperature | -15°C to +70°C ¹ | | | | |
| Storage Temperature | -40°C to +70°C | | | | |
| Current | 115V 3,2A / 230V 1,6A | | | | |
| Humidity | Up to 95% non-condensing | | | | |
| Inrush current | < 35A in 10ms | | | | |
| Input voltage range | | | | | |
| 115V range | 230V range | | | | |
| 94 – 132 VAC | 184 – 264 VAC | | | | |
| 47 – 63 Hz | | | | | |
| Output | | | | | |
| Max load | Max load without battery | | | | |
| 3,5A | 5A | | | | |
| Min battery size | Max battery size | | | | |
| 7,2Ah | 18Ah | | | | |
| Accuracy ¹ | | | | | |
| <170mV _{RMS} | | | | | |
| Efficiency | | | | | |
| >86% | | | | | |
| Voltage output | | | | | |
| 19-32V | | | | | |
| Overload protection | | | | | |
| 7,5A | | | | | |
| 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 | Meanwell Power Supply (BPS-405) | ON | | | |
| 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 AutroSafe if the Power Board BSF-400 is connected through AutroFieldBus.
⁴ Cooling is strongly recommended if the unit is placed in environments where the temperature during normal operation is likely to exceed +55°C (and up to +70°C) for long periods of time. Note that batteries placed in high temperatures will have reduced lifetime and need to be replaced more often.

| 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 |

Mounting / Dimensions



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