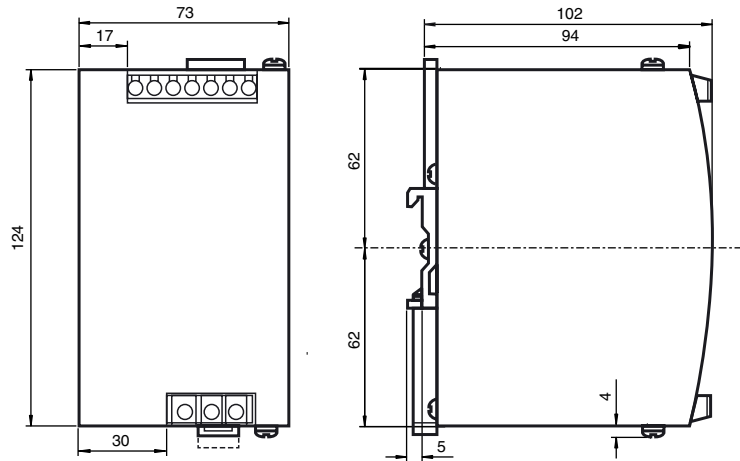
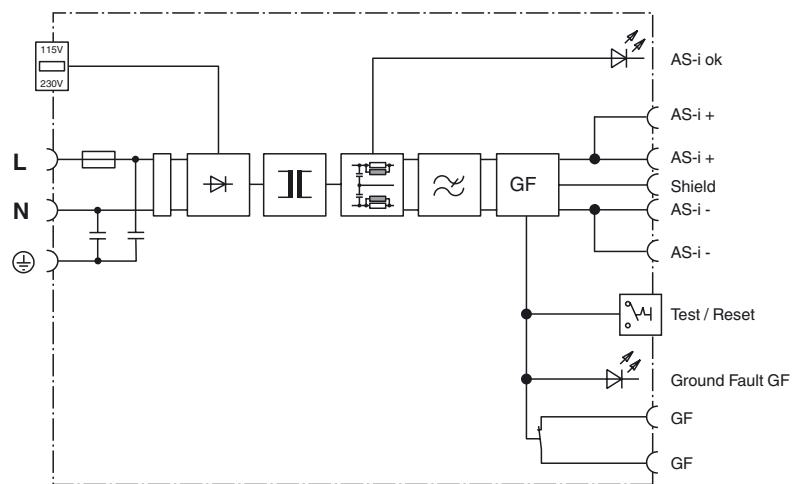




Dimensions



Electrical connection



Model number

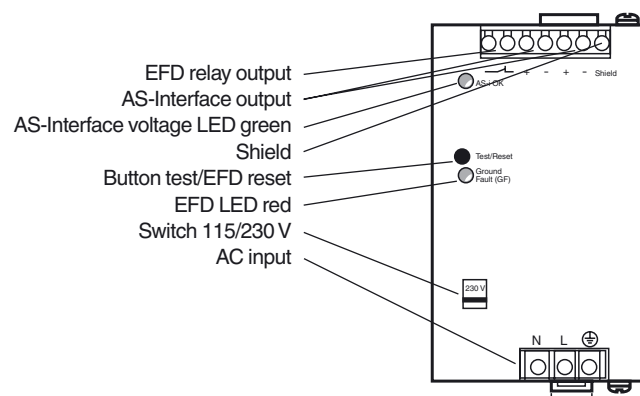
VAN-115/230AC-K27

AS-Interface power supply, data decoupling, 4 A

Features

- Up to 4 A output load
- LED operating display
- 100 V AC up to 240 V AC
- AS-Interface filter integrated
- Earth fault detection

Indicating / Operating means



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Refer to "General Notes Relating to Pepperl+Fuchs Product Information".

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Technical data**General specifications**

| | |
|----------------|---------|
| UL File Number | E223176 |
| MTBF | 100 a |

Indicators/operating means

| | |
|--------------------------|---|
| Reset push-button switch | earth fault simulation/reset of earth fault display |
| LED EFD | earth fault display; LED red |
| LED AS-i ok | LED green: ON: AS-Interface voltage OK OFF: overload or no supply voltage |

Electrical specifications

| | |
|-------------------------|---|
| Fusing | T3A 15/250 V HBC (not accessible) |
| Rated operating voltage | U_e 85 ... 132 V _{AC} 184 ... 264 V _{AC} 240 ... 300 V _{DC} |
| Rated operating current | I_e 2.7 A at 115 V _{AC} 1.3 A at 230 V _{AC} |
| Supply frequency | 47 ... 63 Hz (alternatively, DC possible) |
| Efficiency | typ. 90 % (230 V _{AC} , 4 A) |
| Galvanic isolation | SELV/PELV |
| Peak inrush current | I_{pt} < 3.7 A ² s (120 V _{AC}) < 4.6 A ² s (132 V _{AC}) < 2.5 A ² s (230 V _{AC}) < 3.3 A ² s (264 V _{AC}) |

Output

| | |
|-----------------------------------|--|
| Short-circuit protection/overload | > 4.2 A < 6.5 A |
| Current limit | starts at > 4.2 A |
| Voltage | 30.5 V _{DC} ±3 % fixed |
| Current | 4 A |
| Residual ripple | < 50 mV _{SS} (500 kHz bandwidth, 50 Ω measurement, with resistive load) |
| Overvoltage protected | limited to max. 55 V |

Ambient conditions

| | |
|-----------------------------|--|
| Ambient temperature | -10 ... 70 °C (14 ... 158 °F) Note derating |
| Storage temperature | -25 ... 85 °C (-13 ... 185 °F) |
| Shock and impact resistance | 15g/6 ms 10g/11 ms |
| Vibration resistance | Sine 2 - 17.8 Hz: ± 1.6 mm Sine 17.8 ... 500 Hz: 2 g Random 2 ... 500 Hz: 0.5 m ² (s ³) |
| Pollution degree | 2 |

Mechanical specifications

| | |
|----------------------|--|
| Degree of protection | IP20 |
| Protection class | 1 (IEC 60536); Protective conductor connection necessary |
| Connection | Connection terminals, max. conductor cross-section Flexible cable: 0.5 ... 4 mm ² Rigid cable: 0.5 ... 6 mm ² Stripping length 7 mm |
| Mass | 650 g |
| Mounting | DIN mounting rail |

Compliance with standards and directives

| | |
|-----------------------------|--|
| Directive conformity | |
| EMC Directive 2004/108/EC | EN 55022:2006, EN 55011:2009 Class B EN 61000-6-3:2001, EN 61204-3:2001 |
| Standard conformity | |
| Noise immunity | EN 61000-6-2:2005 |
| Emitted interference | EN 61000-6-3:2007 EN 61000-3-2:2010 EN 61000-3-3:2009 |
| Galvanic isolation | IEC 60364-4-41:2005 (PELV) IEC 60950:1999 (SELV) |
| Degree of protection | IEC 60529:2001 |
| Pollution degree | EN 50178:1997 |
| Mech. capacity | EN 60068-2-6:2008 (Sinus) EN 60068-2-64:2009 (Random) |
| Shock and impact resistance | EN 60068-2-27:1995 |

Notes

In an AS-Interface network only one device can be operated earth fault detection. If there are many devices in an AS-Interface network, this can lead to the earth fault monitoring response threshold becoming less sensitive.

Function

The primary switched-mode power supply was designed for fieldbus applications that transfer energy and data together via a two-wire cable

(AS-Interface concept). It supplies a fully extended AS-Interface system with a maximum output current of 4.0 A. Due to the sinusoidal current consumption of the network, harmonics are avoided.

The power supply assumes the function of supplying power, data decoupling for the power source and balancing both output lines (AS-Interface + and AS-Interface -) with respect to the machine ground (shielded connection). The transformer allows the use of unshielded load cables. The power supply is protected by an internal fuse that eliminates the need for additional device protection measures.

Ground fault monitor GF:

The switch output of the ground fault monitor evaluates any short circuits detected in the AS-Interface system. With the potential-free transistor output, the system can be shut down using the control program. The output is normally closed, but opens when a ground fault is detected. The "GF" LED also signals the presence of a ground fault. This output will close when the power supply is restarted or the reset button is pressed for (> 2 seconds). It is essential to connect the shield to PE or the machine ground to guarantee proper operation.

Checking the ground fault monitor: Pressing the reset button briefly (< 2 seconds) simulates a ground fault in the device. Detection, evaluation and signaling of a ground fault and the switch output can be tested at suitable intervals. A ground fault generated in this way can be reset by pressing the reset button for (> 2 seconds).

Accessories**AS-Interface Power Calculator**

AS-Interface Power supply and network checking utility