



PS3500 Power Supply Module

PS3500-PM-1.24.15

- N+1 redundancy provides highest reliability
- Diagnostics and fault indication
- Modular and hot swappable
- Automatic load sharing
- Adjustable voltage
- Fanless
- ATEX, IECEx, and cULus approvals for Div 2/Zone 2

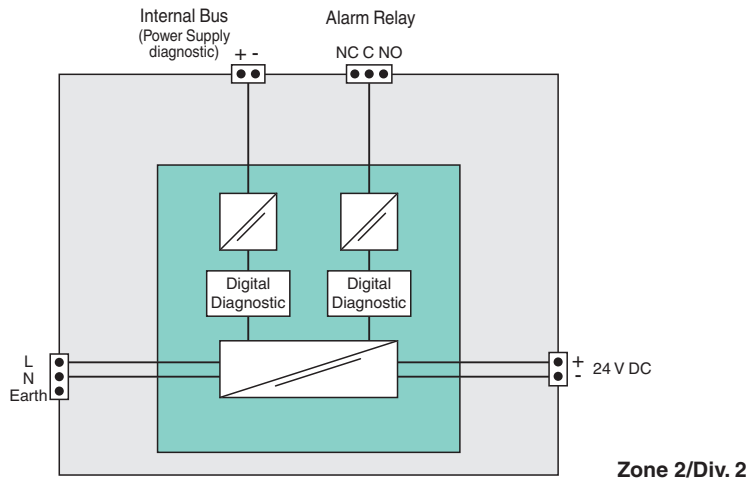
PS3500 power supply module - 24 V DC/15 A



Function

The PS3500-PM-1.24.15 power supply module works with the PS2500/PS3500 series backplanes. The power supply is well suited for emergency shut down systems, fieldbus / HART networks, as well as any general-purpose process applications. Each 24 V, 15 A module plugs directly into a 3- or 6-position backplane allowing a maximum capacity of 45 A or 90 A of uninterrupted power. The output voltage is adjustable from 22.5 V to 30 V DC via potentiometers on the backplane. Universal input power is standard and allows a battery backup, eliminating the need for a UPS connection. The power supply modules are highly efficient (up to 91%) and use natural convection cooling. Each module operates with automatic load sharing, so modules are hot swappable with no effect on the output supply.

Connection



Technical Data

| | |
|------------------|--|
| Interface | |
| Type | diagnostic bus: RS 485 |
| Input | |
| Input current | max 6.5 A |
| Voltage range | 90 ... 250 V AC, 44 ... 66 Hz; 90 ... 300 V DC |
| Inrush current | < 50 A peak for 50 μs |
| Output | |
| Rated voltage | U _r 24 V DC |
| Voltage | 24 V DC ± 1 % (22.5 ... 30 V DC adjustable) |
| Current | 15 A |

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Technical Data

| | |
|--|---|
| Ripple | 35 mV _{rms} (< 100 mV _{pp}) |
| Fault signal | relay 50 V DC @ 0.6A 30 V DC @ 2A |
| Response time | min. hold-up time: ≥ 25 ms at nominal input voltage and output load |
| Short-circuit current | max. 20 A |
| Efficiency | up to 91 % |
| Galvanic isolation | |
| Input/Output | 4.25 kV DC |
| Indicators/settings | |
| Display elements | LED Power, green: power on LED Fault, red: fault indication LED Alarm, red: module shut-down |
| Directive conformity | |
| Electromagnetic compatibility | Refer to DoC for all directives and standards met. |
| Conformity | |
| Galvanic isolation | IEC 61131-2 |
| Electromagnetic compatibility | NE 21:2006 |
| Degree of protection | EN 60529 |
| Shock resistance | EN 60068-2-27 |
| Vibration resistance | EN 60068-2-6 |
| Ambient conditions | |
| Ambient temperature | -25 ... 45 °C (-13 ... 113 °F) , derated: 0,4 A/°C, (from 45 ... 70 °C (113 ... 158 °F)) |
| Storage temperature | -40 ... 85 °C (-40 ... 185 °F) |
| Relative humidity | < 95 % , noncondensing |
| Shock resistance | 15 g , 11 ms |
| Vibration resistance | 1 g , 58 ... 150 Hz |
| Mechanical specifications | |
| Housing material | Powder Coated, 1010 Cold Rolled Steel |
| Degree of protection | IP20 |
| Mass | approx. 1.8 kg (4.125 lbs) |
| Dimensions | 134 x 62 x 268 mm (5.3 x 2.5 x 10.6 inch) |
| Height | 134 mm |
| Width | 62 mm |
| Depth | 268 mm |
| Data for application in connection with hazardous areas | |
| Certificate | DEMKO 12 ATEX 1103387X |
| Marking | Ⓜ II 3 G Ex ec nC IIC T4 Gc |
| Directive conformity | |
| Directive 2014/34/EU | EN IEC 60079-0:2018; EN IEC 60079-7:2015+A12018; EN 60079-15:2019; EN 61010-1 |
| International approvals | |
| UL approval | cULus Listed E230669 E350173 |
| Approved for | Class I/Div 2, ABCD Class I, Zone 2, Grp IIC T4 |
| IECEx approval | IECEx UL 13.0082X Ex ec nC IIC T4 Gc |
| General information | |
| Supplementary information | Statement of Conformity, Declaration of Conformity, Attestation of Conformity and instructions have to be observed where applicable. For information see www.pepperl-fuchs.com . |

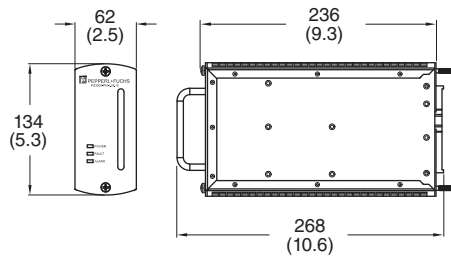
Assembly



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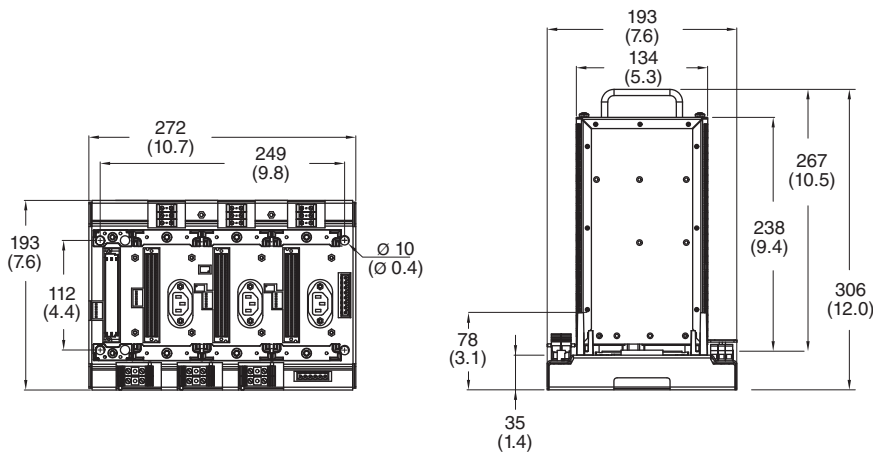
Additional Information

Dimensions mm (in)

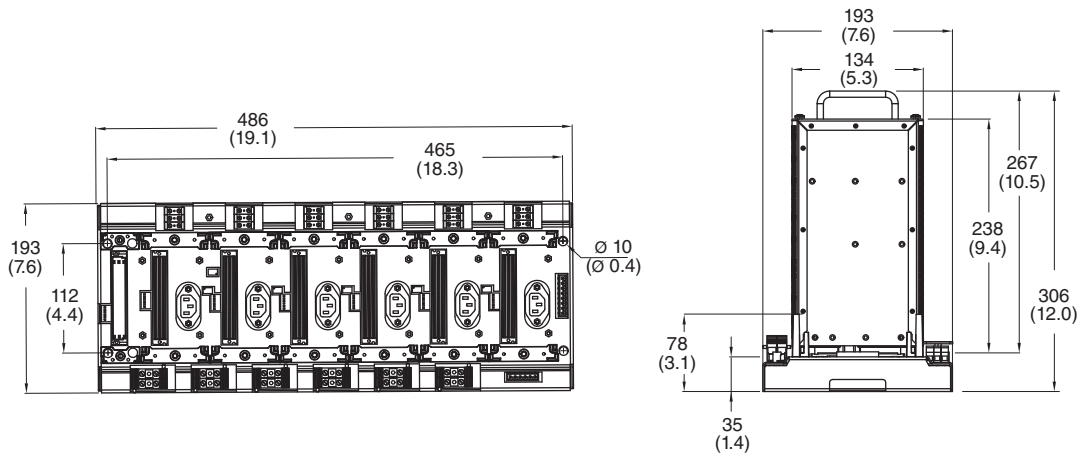


System dimensions mm (in)

PS3500-TB-3

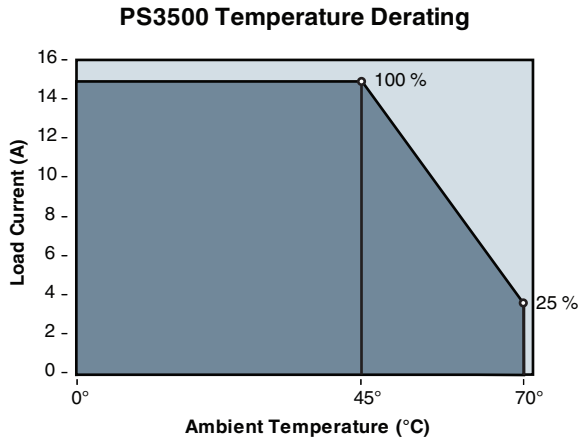


PS3500-TB-6



Characteristic curve

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