



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

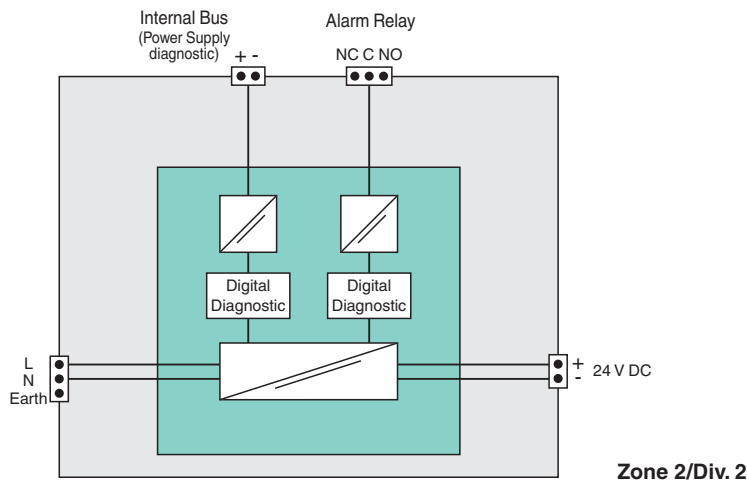
PS3500 N+1 Power Supply for use with series PS2500 and PS3500 3 and 6-position backplanes.



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
Inrush current	< 50 A peak for 50 μs
Voltage	90 ... 250 V AC, 44 ... 66 Hz; 90 ... 300 V DC
Output	
Rated voltage	U _r 24 V DC
Voltage	24 V DC ± 1 % (22.5 ... 30 V DC adjustable)

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

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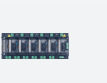
Technical Data

Current	15 A
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)
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



Matching System Components

	<p>PS3500-TB-3</p>	<p>3 position N+1 Power Supply Backplane for use with PS2500 and PS3500 N+1 Power Supplies.</p>
	<p>PS3500-TB-6</p>	<p>6 position N+1 Power Supply Backplane for use with PS2500 and PS3500 N+1 Power Supplies.</p>

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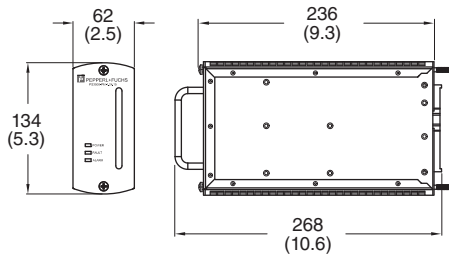
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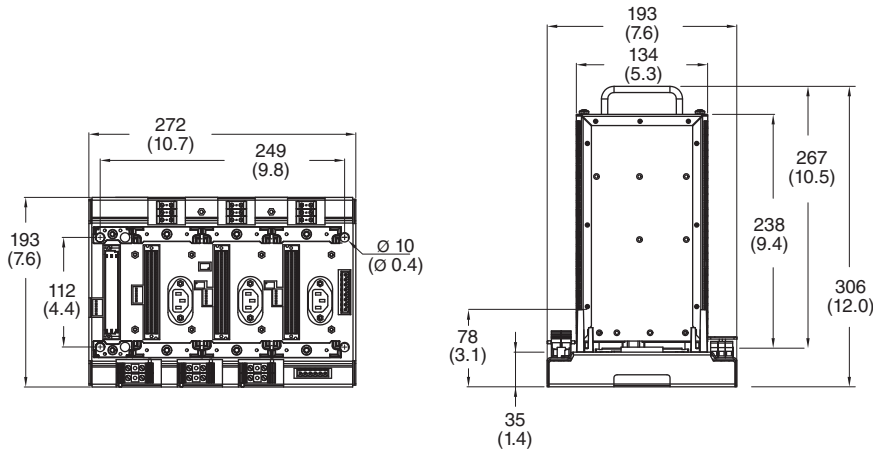
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Dimensions mm (in)

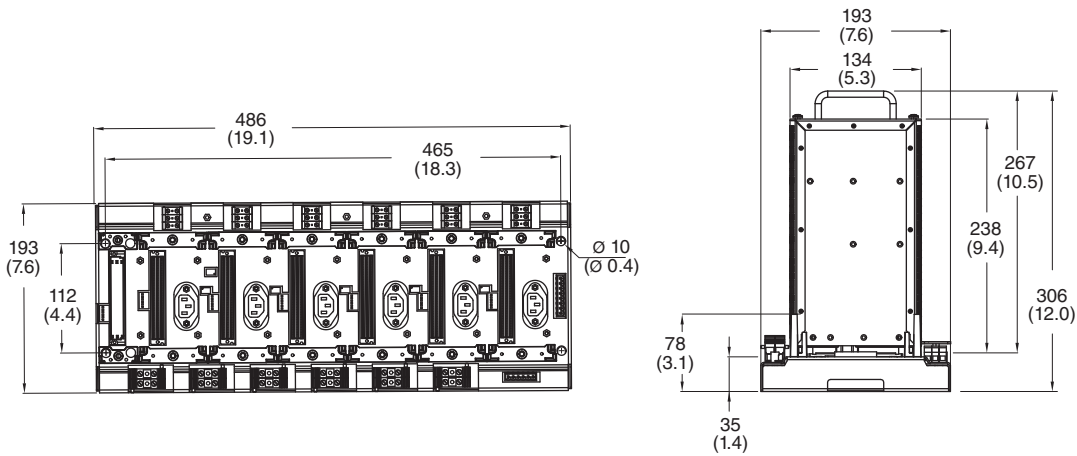


System dimensions mm (in)

PS3500-TB-3

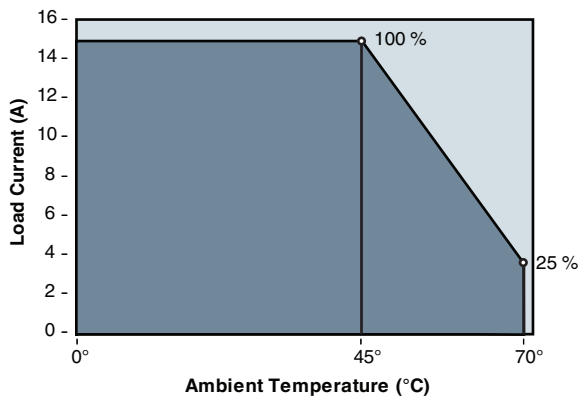


PS3500-TB-6



Characteristic curve

PS3500 Temperature Derating



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