

PSS Series



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PSS Series

Product Description

Eaton's PSS Series of power supplies is designed to work in a variety of applications. They also work in most control applications that require 24 Vdc. All of the PSS power supplies are designed to provide the highest "outrush" current in the industry for units of their size.

Application Description

The PSS line of power supplies is specifically designed to work with the S801 and S811 solid-state reduced voltage starters. They can also serve in a variety of other applications, including support of sensors, operator interfaces, PLCs, communication networks, heaters and lights, and in many other industrial applications where 24 Vdc power supplies are required.

Features

- High current outrush capability in all units
- Semiconductor F47 approved
- Long ride-through capability designed in
- Wide operating temperature range
- Multiple 24 Vdc terminals for easy wiring
- Removable terminal connections
- IP20 fingerproof design

Benefits

- 24 Vdc control enhances personnel and equipment safety
- IP20 design improves personnel safety
- Removable terminal connectors make installation and repair quick and easy
- High current outrush capability allows use of smaller power supplies in many applications and ensures stable output during high power demand cycles
- Due to long ride-through time, the power supply can maintain the control power system during brownout and blackout conditions

Standards and Certifications

- cCSAus
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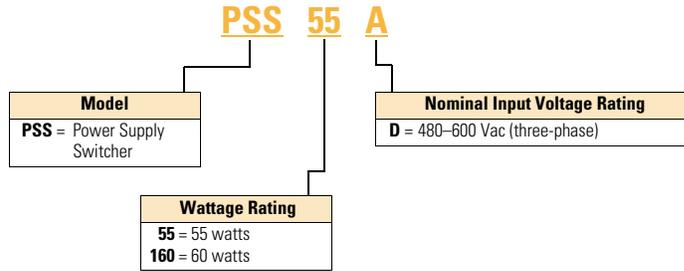
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Power Supplies

General-Purpose and Sensor Power Supplies

Catalog Number Selection

PSS Series Power Supply



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Product Selection

PSS55D



PSS Series Power Supply

Steady-State Current (Amps)	Steady-State Wattage	Input Voltage	Catalog Number
2.3	55 W	480-600	PSS55D
6.7	160 W	480-600	PSS160D

Technical Data and Specifications**PSS Series, PSS10E–PSS55D**

Capacity	PSS55D 55 W	PSS160D 160 W
Input		
Voltage	480–600 Vac three-phase	480–600 Vac three-phase
Input current (rms)	0.07 A/phase	0.66 A/phase
Frequency	47–63 Hz	47–63 Hz
Voltage range	± 10%	± 10%
Inrush current	15 A	5.9 A
Overvoltage	Varistor	Varistor
Internal input fuse	(3)KTK-R-3/4, 600 V	(3)KTK-R-3/4, 600 V
External fusing	Not required	Not required
Output		
Voltage nominal	24 Vdc	24 Vdc
Voltage regulation	± 3.5%	± 0.5%
Current nominal	2.3 A	6.7 A
Voltage adj. range	None	None
Current surge	10 A	20 A
Current surge time	180 ms	1 sec
Hold up time	30 ms	30 ms
Max. load capacitance	10,000 µF	10,000 µF
Switching frequency	61 kHz	61 kHz
Efficiency at max. load	85%	88%
Output ripple	± 1%	± 1%
Protection		
Short circuit	Auto restart	Auto restart
Overvoltage	No	No
Undervoltage	No	No
Overtemperature	None. Software in micro controller	None. Software in micro controller
Overcurrent	10 A typical 24 V for >300 ms	13 A typical 24 V for >1 s
Galvanic Isolation		
Input to output	4 kV	4 kV
Input/output to rail	4 kV	4 kV
Input to ground	2.0 kV	2.0 kV
Output to ground	250 V	250 V
Special Features		
Cooling	Convection	Convection
Load sharing	Maximum 5 units	Maximum 5 units
Redundancy	Maximum 2 units	Maximum 2 units
Analog outputs	None	None
Fault relay	Form C, 12 A at 125 Vac / 24 Vdc	Form C, 12 A at 125 Vac / 24 Vdc

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Power Supplies

General-Purpose and Sensor Power Supplies

PSS Series, PSS10E–PSS55D, continued

Capacity	PSS55D 55 W	PSS160D 160 W
Wire Size		
Input	20–14 AWG	20–14 AWG
Output	20–14 AWG	20–14 AWG
I/O	None	None
Indications		
Indicators	Green LED (DC on)	Green LED (DC on)
Physical Data		
Dimensions		
Length x Width x Depth in Inches (mm)	2.32 x 6.19 x 6.00 (59 x 157 x 154)	5.44 x 2.5 x 6.68 (138 x 63 x 170)
Weight (kg)	2.45 (1.1)	2.6 (1.18)
Mounting and recommended clearance	TS35 rail with optional PSSDIN Kit or chassis; leave 4 in. (10 cm) free space on venting sides.	TS35 rail with optional PSSDIN Kit or chassis; leave 4 in. (10 cm) free space on venting sides.
Environmental Performance		
Storage temperature	–40 to +85 °C	–40 to +85 °C
Operating temperature	–25 to +50 °C	–25 to +50 °C
Storage humidity	5 to 95%	5 to 95%
Operating humidity	20 to 85% noncondensing	20 to 85% noncondensing
Approvals/Certifications		
	cCSAus	cCSAus