

# High-Performance, High-Quality



## Introduction

Eaton's PSG Series of power supplies is designed to be a high-performance, high-quality line of products covering the majority of 24 Vdc control applications. With global certifications, compact size and an impressive operating temperature range, the PSG series fits a wide variety of applications at a competitive price.

The PSG family includes eight DIN-rail mounted power supplies with varying input and output ratings:

### 85 – 264 Vac Input Models:

- PSG60E — 2.5 amperes
- PSG120E — 5 amperes
- PSG240E — 10 amperes
- PSG480E — 20 amperes

### 320 – 575 Vac Input Models:

- PSG60F — 2.5 amperes
- PSG120F — 5 amperes
- PSG240F — 10 amperes
- PSG480F — 20 amperes

These products are the perfect complement to Eaton's other power supply products, which include the PSS series, ELC, EZ and sensor power supplies.

### What's Important to You?

The PSG series was designed with your needs in mind. With comprehensive safety features, high reliability and a small footprint, the PSG is sure to give you a competitive advantage in your markets.

## Safety

Eaton is committed to providing a safe power source for everyone that installs, operates and repairs equipment. Some of the many safety features included in the design of the PSG are:

- Class I, Division II protection ensures the product won't spark when flammable materials are present.

- Large screw terminals with a finger-safe protective cover allow easy access when wiring the unit without the need for special tools and tiny screwdrivers. Finger protection is maintained during operation.
- Surge protection against transient and internal surges prevents fires from lightning strikes and other voltage disruptions.



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## Uptime and Reliability

Many standard features in the PSG allow for increased equipment uptime.

- Mean Time Between Failures (MTBF) of up to 800,000 hours minimize field maintenance and replacement.
- Wide operating temperature range means you'll have clean power even in harsh environments.
- LED indicator reduces troubleshooting time and gets you back online faster.
- Rugged, all-metal housing reduces potential for damage to the internal electronics.
- Power boost (outrush/current surge) of 1.5 times nominal current for 1 second allows start-up of tough loads and increases system uptime when downstream supplemental protection is used.

## Environmental Responsibility

Eaton's commitment to the environment and sustainability of resources is a fundamental business philosophy. The PSG series is no exception.

- RoHS compliance eliminates hazardous substances and improves the ability to recycle our products.
- High efficiencies ensure the incoming power is effectively utilized and waste is minimal.
- Small footprint reduces space requirements and allows use of smaller panels and fewer raw materials.



## PSG SPECIFICATIONS

Description	Specification
Input Voltage Range	Single-phase units ("E" suffix): 85 – 264 Vac/ 120 – 375 Vdc Three-phase units ("F" suffix): 320 – 575 Vac/450 – 800 Vdc
Input Frequency	47 – 63 Hz (0 Hz at dc input)
Input Fusing	All units are protected with internal fuse
Nominal Output Voltage	24 Vdc ±2%
Output Voltage Adjustment	22 – 28 Vdc
Efficiency	>84% all models
Power Boost (Outrush/Current Surge)	150% of nominal current
Power Boost Time/Cycle	1 second @ 10-second intervals
Residual Ripple	<50 mV
Parallel Operation	Allowed with external ORing diode protection
Galvanic Isolation	Input/output, input/ground, output/ground
Housing Material	Aluminum (Al5052)
Signals	Green LED of dc OK
Operating Temperature	-20°C to +75°C (>50°C derating), <95% non-condensing RH
Certifications & Standards	UL®/cUL® listed-UL508, cURus-UL60950-1, CSA®, CE, IEC, German Safety, RoHS, EN 60204, EN 50178, PELV (EN 60204), SELV (EN 60950), DIN 57100-410, EN 610003-2, EN 61000-6-2, EN 61000-4-2...EN 61000-406, EN 61000-4-11, EN 61000-6-3



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