

Etherbus®

Industrial 48 VDC Power Supplies

Ideal for Industrial Power over Ethernet (PoE) Systems

These SIXNET industrial power supplies are designed to meet or exceed the requirements of the industrial devices they power. They are ideal for any industrial application where consistent performance and long term reliability are a must.

Field Proven Performance:

- AC input up to 264 VAC at 50/60 Hz
- DC input up to 370 VDC
- 48 VDC output up to 120 Watts (2.5 Amps)
- Fully protected from short circuit, over-load, over-voltage and over-temperature conditions
- DIN rail mounting standard
- Wide operating temperature range
- Certified to perform – see below

Several Models to Choose From:

- **EB-PS-AC48-75 (75 Watts)**
 - Output: 48 VDC @ 1.5 Amps (75 watts)
 - Universal AC input from 85 – 264 VAC
 - Compact size – fits in small enclosures
 - Ideal to power up to 5 PoE devices
- **EB-PS-AC48-120 (120 Watts)**
 - Output: 48 VDC @ 2.5 Amps (120 Watts)
 - Selectable AC input up to 264 VAC
 - Compact size - high power to size ratio
 - Ideal to power up to 8 PoE devices
- **EB-PS-4824-13 (13 Watts)**
 - Ultra-compact DC-DC converter
 - Ideal for 48 VDC (PoE) systems requiring some 24 VDC (other voltages available as special order)
 - Output: 24 VDC @ 540 mA (13 Watts)
 - Input: 45-56 VDC (48 VDC nominal)
 - Slim packaging fits on any DIN rail



EB-PS-AC48-75

75 Watts for up to 5 full power PoE devices

AC Input
48 VDC Output



EB-PS-AC48-120

120 Watts for up to 8 full power PoE devices

AC Input
48 VDC Output



EB-PS-4824-13

Ultra-compact Slim Design!

DC-DC Converter

48 VDC Input
24 VDC Output
13 Watts

Certified to Perform:



ISO9001
Quality



Emissions,
Immunity & Safety



USA/Canada
Safety



International
Safety



USA/Canada
Emissions



European
Safety



Lead and Hazardous
Substance Free

Performance Specifications

| Model | | EB-PS-4824-13 | EB-PS-AC48-75 | EB-PS-AC48-120 | |
|------------------|--------------------------------|--|---|--|--|
| Output | DC voltage | 24 VDC | 48 VDC | 48 VDC | |
| | Rated current | 0.54 Amps | 1.6 Amps | 2.5 Amps | |
| | Current range | 0 – 0.54 Amps | 0 – 1.6 Amps | 0 – 2.5 Amps | |
| | Rated power | 13 Watts | 76.8 Watts | 120 Watts | |
| | Ripple / noise (max.) | 200 mV p-p | 240 mV p-p | 100 mV p-p | |
| | Voltage adjust | - | 48 – 53 VDC | | |
| | Voltage tolerance | +/- 1% | +/- 1% | | |
| | Line regulation | n/a | +/- 0.5% | | |
| | Load regulation | n/a | +/- 1% | | |
| | Setup & rise time | - | 1000 mS & 60 mS @ 230V | 500 mS & 70 mS @ 230V | |
| Hold time (typ.) | - | 12/60 mS @ 115/230 VAC | 32/36 mS @ 115/230 VAC | | |
| Input | AC voltage range | n/a | 85 – 264 VAC | 88 – 132, 176 – 264 VAC | |
| | DC voltage range | 45 – 56 VDC | 120 – 370 VDC | 248 – 370 VDC | |
| | Frequency range | n/a | 47 – 63 Hz | 47 – 63 Hz | |
| | Efficiency (typ.) | 85 % | 81% | 85% | |
| | Current (typ.) | 0.32 Amps @ 48 VDC | 1.6 Amps @ 115 VAC, 0.96 Amp @ 230 VAC | 2.6 Amps @ 115 VAC, 1.6 Amps @ 230 VAC | |
| | Inrush current | - | Cold start 20 Amps @ 115 VAC, 40 Amps @ 230 VAC | | |
| | Leakage current | - | <1 mA @ 240 VAC | <3.5 mA @ 240 VAC | |
| Protection | Over-load | Current limiting with automatic recovery | 105 – 150% rated output, current limiting with automatic recovery | | |
| | Over-voltage | Transient: 15Kw peak; Surge: 5K watts (10x10 uS) | 58 – 65 VDC Shut down output, cycle power to recover | | |
| | Over-temperature | 140°C with auto. recovery | 90°C, shut down output with automatic recovery | | |
| Environmental | Operation temp. | -40 to + 75°C | -20 to +70°C (derate output 3% per °C above 50°C) | | |
| | Operation humidity | 5 to 95% RH (non-cond.) | 20 to 90% RH non-condensing | | |
| | Storage | -40 to + 85°C | -40 to + 85°C @ 10 to 95% RH | | |
| | Temp. coefficient | - | +/-0.03% per °C | | |
| | Vibration, shock and freefall | IEC68-2-6, -27 and -32 | 10 – 500 Hz; 2G 10 min per cycle; 60m period each along X, Y, Z axes | | |
| Standards | Safety | UL508 / CSA C22 (cUL), EN61010-1 | cUL (UL508 / CSA C22.2); TUV EN60950-1 | | |
| | Hazardous locations | UL1604, CSA C22.2/213, Cenelec EN50021 | - | | |
| | Withstand voltage | Input to output: 1500 Vrms | Input to Output: 3KVAC; Input to GND: 1.5KVAC; Output to GND: 0.5KVAC | | |
| | Isolation resistance | - | 100M Ohms @ 500 VDC | | |
| | EMI emissions | FCC part 15, ICES-003, EN55022 | EN55011, EN55022 (CISPR22) Class B | | |
| | EMC immunity | IEC61326-1 | EN61000-4-2, 3, 4, 5, 6, 8, 11; ENV5024; EN50024; EN61000-6-2 (50082-2); heavy industry level, criteria A | | |
| | Harmonic current | n/a | EN61000-3-2, EN61000-3-3 | | |
| Miscellaneous | MTBF | >1,000,000 (estimated) | 123,000 hours per MIL-HDBK-217 @ 25°C | 137,000 hours per MIL-HDBK-217 @ 25°C | |
| | Packaging | Polycarbonate; IP30 | Metal; IP20 | | |
| | Mounting | DIN rail or flat to panel | DIN rail | | |
| | Weight | 0.17 Kg (0.25 lbs) | 0.60 Kg (1.3 lbs) | 0.79 Kg (1.7 lbs) | |
| | Dims (w x h x d) (approximate) | 25 x 101 x 76 mm (1.0 x 4.0 x 3.0 inches) | 56 x 125 x 100 mm (2.2 x 4.9 x 3.9 inches) | 66 x 125 x 100 mm (2.6 x 4.9 x 3.9 inches) | |

Specifications are subject to change. Consult factory for latest information.

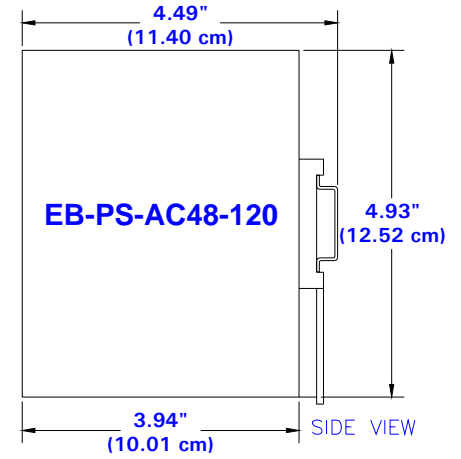
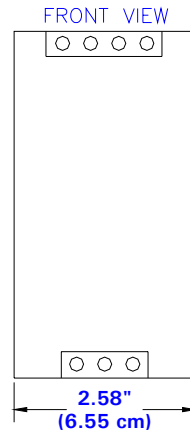
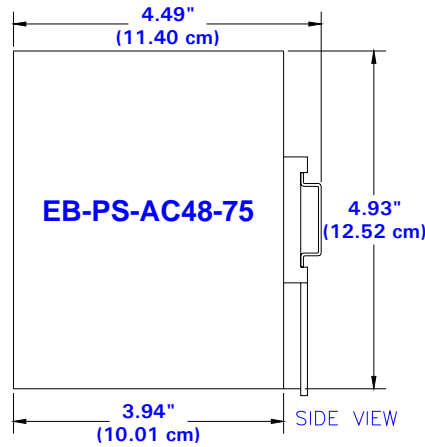
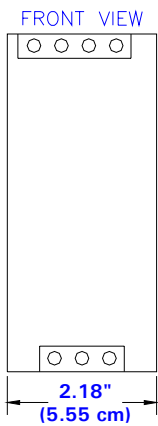
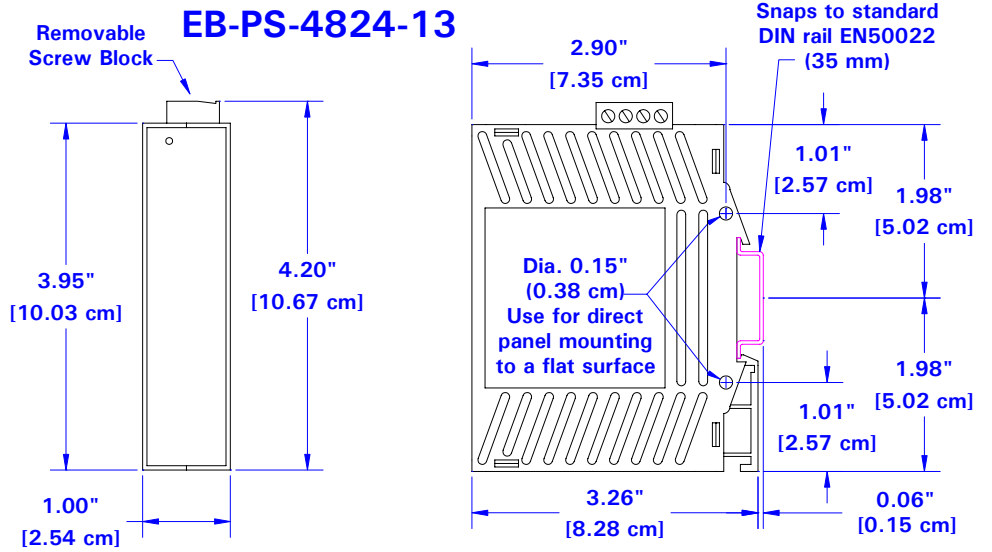
Ordering Guide

| | |
|-----------------------|---|
| EB-PS-AC48-75 | AC to 48 VDC power supply; 75 Watts (1.5 Amp) |
| EB-PS-AC48-120 | AC to 48 VDC power supply; 120 Watts (2.5 Amps) |
| EB-PS-4824-13 | 48 VDC to 24 VDC power supply; 13 Watts (0.540 Amps) (Other voltages available as special order – Contact SIXNET) |

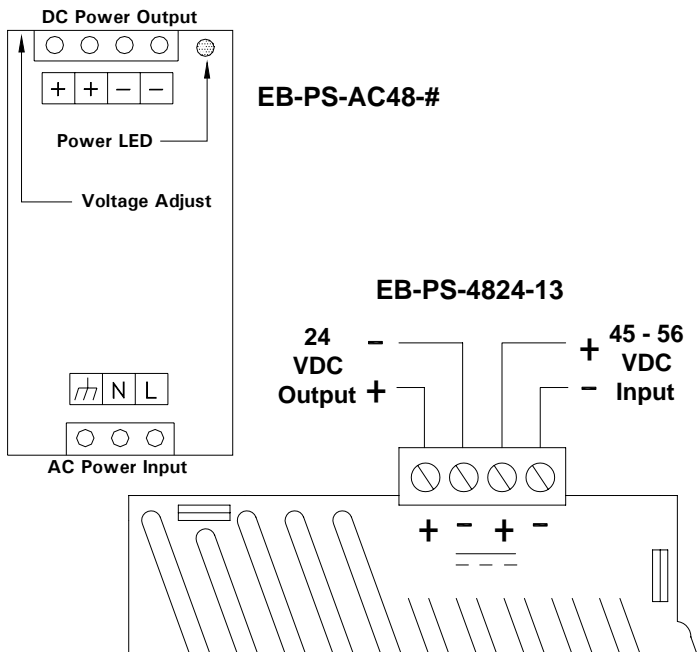
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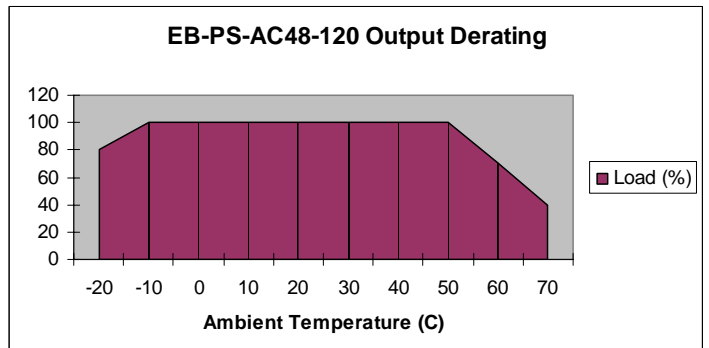
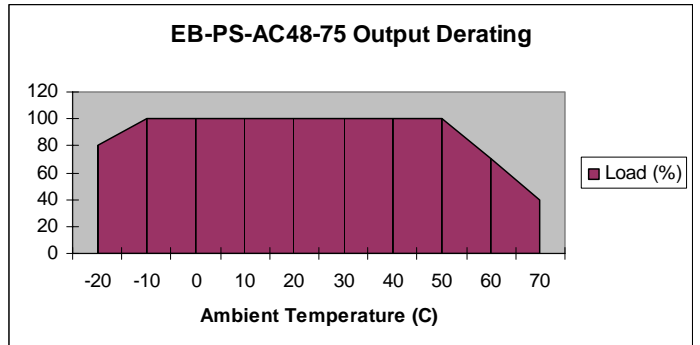
Mechanical Dimensions



Power Wiring



Output Derating



SIXNET

A Complete Family of Etherbus® Solutions

Etherbus® Industrial Ethernet PoE Switch

The EB-5ES-PSE combines the ultra-reliability of a five port EtherTRAK Real-time Switch with four industrial PoE sourcing outputs. Simply power this switch with 48 VDC to source the PoE lines. The four PoE ports automatically sense and support both PoE and non-PoE (traditional) Ethernet devices. Or power this switch with 10-30 VDC and it functions as a robust industrial switch that is PoE future-ready. **Check out the separate datasheet for more details.**

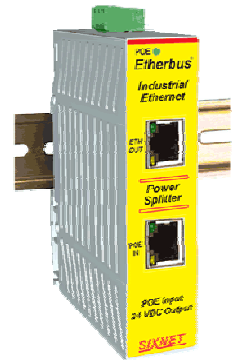


Etherbus® Industrial Power Injectors

These space saving industrial PoE injectors convert any standard Ethernet cable into a PoE (Etherbus) channel. Now you do not have to run a separate power cable to your remote devices. The one cable supplies both power and data to your PoE-enabled, non-PoE or even non-Ethernet devices (see the PoE splitter below). The EB-PSE-48V-2 model runs on 48 VDC and can source two PoE channels. The EB-PSE-24V-1 model runs directly on your 24 VDC (no extra supply needed) and can source one PoE channel. Stack these slim units on your DIN rail to create multiple PoE sourcing cables. **Check out the separate datasheet for more details.**

Etherbus® Industrial Power Splitters

These space saving industrial PoE splitters give you all the benefits of Power over Ethernet (PoE) without needing to upgrade your existing non-PoE Ethernet devices. These splitters generate isolated 24 VDC power for your non-PoE or even non-Ethernet devices. Think of this splitter as an industrial 24 VDC power supply that is powered by your incoming PoE (Etherbus) cable. The Ethernet output can be connected to any traditional (non-PoE) Ethernet device. **Check out the separate datasheet for more details.**



Etherbus® Industrial Ethernet Cabling

The trademarked Etherbus® cable is the toughest Ethernet cable in the world. Ensure the reliability of your industrial Ethernet systems (indoors or outdoors) with this ultra-rugged Kevlar-reinforced Etherbus cable. This Cat 5E cable is double shielded for best noise immunity and has excellent temperature, UV, hydrolysis and microbial resistance. You can install it anywhere with confidence that it will keep working for the long haul. **Check out the separate datasheet for more details.**



Etherbus® Industrial Ethernet Connectors

Etherbus features the Amphenol RJField reverse-bayonet quick latching (1/4 turn) connector system. These IP67 rated connectors and plugs are water and corrosion proof. The bulk-head connector allows you to interface between standard Ethernet wiring inside a cabinet to industrial cabling outside. The mating plugs can be easily field installed around an existing Ethernet cable without the need for tools. **Check out the separate datasheet for more details.**

**Request Your
FREE Product CD at
<http://www.etherbus.com>**



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