

Econolite

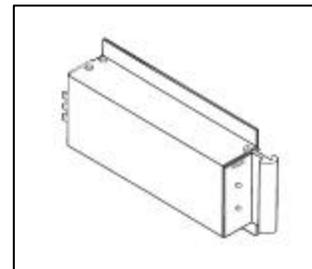
Item: **Traffic Signal Hardware: Electronic Components:Flasher Unit, SSD#204D**

Attachments

PDC 204D SSF87 Flasher.pdf



DATA SHEET: SSF-87



Solid State Flasher With Replaceable Modules:

General Description:

The PDC model SSF-87 is a dual pack, modular, solid state flasher designed specifically to meet NEMA specifications as well as New York "Model 204" specifications. Each flasher contains two individually replaceable modules that are enclosed in a dust resistant, metal enclosure, providing mechanical protection, and excellent heatsinking for the modules. The modules are easily accessible with the use of a crew driver.

Installation:

The flasher intermates with the model 332 cabinet as well as with any NEMA loadbay. It is easily installed or removed by grasping the extruded handle. Connector pinouts are shown in FIG 1. The connector mates with a Beau S-5406-LAB or equivalent.

General Characteristics:

- Load
 - Voltage.....120 VAC
 - Current (max).....15.0 Amps (Tungsten filament load)
- Off State
 - dv/dt.....100V per microsecond
 - Line to load resistance...15k Ohms min.
 - Leakage current.....less than 20 mA
- Surge Current
 - One cycle.....175 Amps RMS min.
 - One second..... 40 Amps RMS min..
- Life
 - Operations.....30 million min.

Flash Rate
50-60 cycles (flashes) per minute.

- Mechanical
 - Length..... 8.40 inches
 - Width..... 1.70 inches
 - Height..... 4.185 inches
 - Weight..... 1.50 Lbs.

Operating Temperature -35 to +74 degrees C
Adjustments: The model SSF-86 flasher has no adjustment controls.
Guaranteed : The flasher is fully guaranteed against all failures due to manufacturing defects for two years.

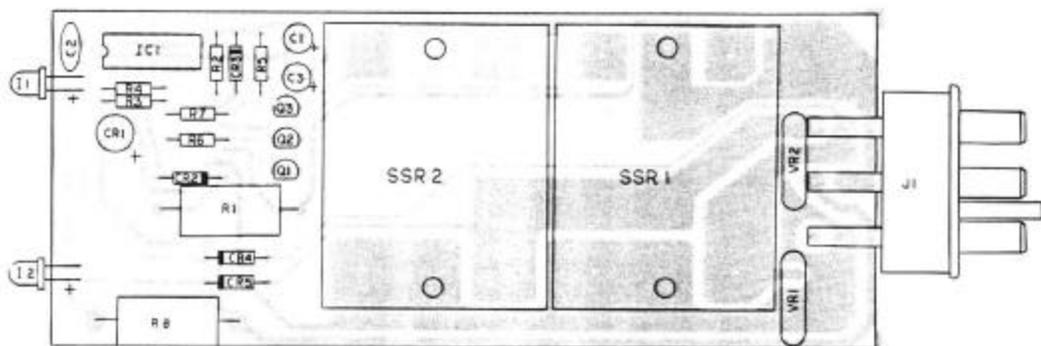
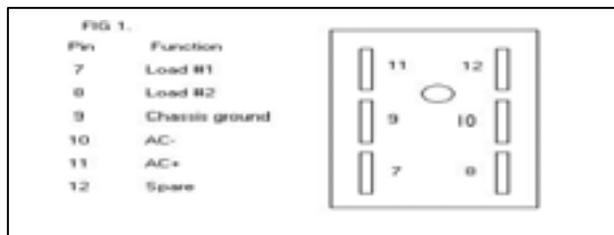


FIG. 2

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Item: Traffic Signal Hardware: Electronic Components:Traffic Signal Hardware: Electronic Components:Loadswitch, cube type with INP indicator, EDI Model 510-E or equal

Attachments

EDI 510 Load Switch.pdf

Model 510 Load Switch



Model 810 Flasher



The commitment to quality and reliability found in EDI Signal Monitors continues with the Model 510 solid state Load Switch and Model 810 solid state Flasher.

The heavy duty extruded aluminum heat sink chassis of the Model 510 / 810 is designed to allow the triac device to operate with the full load current at high temperature (+74°C) without exceeding the manufacturer "Maximum Allowable Case Temperature" triac device specification. This helps ensure long life and reliable operation from the triac device. It can be shown that device reliability is logarithmically related to device operating temperature.

Model 510 Operational Features

- ✓ Meets NEMA TS1-1994 & NEMA TS2-2003 requirements.
- ✓ 10 Amp RMS Maximum Load Current over full NEMA temperature range of -34°C to +74°C
- ✓ Operating Voltage Range: 60 to 135 VAC
- ✓ Zero crossing: Less than 5 degrees of zero voltage point
- ✓ Isolation greater than 2000 volts
- ✓ Off state leakage less than 10 mA peak
- ✓ Maximum input current less than 20 mA
- ✓ Peak Inverse Voltage: 600V
- ✓ One cycle surge: 250 A peak.
- ✓ Noise rejection is greater than ±300V peak
- ✓ Three electrically independent circuits
- ✓ Dimensions: L = 8.025" x H = 4.170" x W = 1.475"

Model 810 Operational Features

- ✓ Meets NEMA TS1-1994 & NEMA TS2-2003 requirements.
- ✓ 15 Amp RMS per circuit Maximum Load Current over full NEMA temperature range of -34°C to +74°C
- ✓ Operating Voltage Range: 60 to 135 VAC
- ✓ Zero crossing: Less than 5 degrees of zero voltage point
- ✓ Isolation greater than 2000 volts
- ✓ 56 Flashes/Minute, Dual Circuit
- ✓ Maximum input current less than 20 mA
- ✓ Peak Inverse Voltage: 600V
- ✓ One cycle surge: 250 A peak.
- ✓ Noise rejection is greater than ±300V peak
- ✓ Three electrically independent circuits
- ✓ Dimensions: L = 8.025" x H = 4.170" x W = 1.475"

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Item: **Traffic Signal Hardware: Electronic Components:Traffic Signal Hardware: Electronic Components:Traffic Signal Hardware: Electronic Components:TS2 Cabinet Power Supply, EDI #PS200 or equal**

Attachments

PS200_Catalog_Sheet.pdf



PS-200

NEMA TS-2 CABINET POWER SUPPLY

The PS-200 Cabinet Power Supply is a shelf mounted unit which supplies regulated DC power, unregulated AC power, and a line frequency reference for the Detector Rack, BIUs, load switches, and other auxiliary equipment. The PS-200 meets all requirements of the NEMA TS2-2003 Standard.

All TS-2 Type 1 cabinet assemblies require the use of this unit as well as any TS-2 Type 2 cabinet assemblies that utilize Bus Interface Units (BIU).

Each EDI PS-200 Cabinet Power Supply is put through a rigorous three part Total Quality Assurance program and tested under the extreme environmental conditions experienced on the street. It is this commitment to quality and performance that EDI products are known for, providing years of trouble free operation.

PS-200 OPERATIONAL FEATURES

Basic Functions: The PS-200 provides four outputs rated over the full -30°F to 165°F (-34°C to +74°C) Nema operating temperature range:

- +12 VDC rated at 2 Amps
- +24 VDC rated at 2 Amps
- 12 VAC rated at 0.25 Amps
- 60 Hz Line Frequency Reference rated at 50 mAmps
- Input Voltage Operating Range is 89 Vac to 135 Vac at 60 Hz

Display Indicators: A separate LED indicator is provided to display output status and fuse integrity for the three supply outputs. The Line Frequency Reference LED indicator pulses to show 60 Hz activity.

Input / Output Pins:

Pin	Function
A	AC Neutral
B	Line Frequency Reference Output
C	AC Line Input
D	+12 VDC Output
E	+24 VDC Output
F	Reserved
G	Logic Ground
H	Earth Ground
I	12 VAC Output
J	Reserved

Test Points: Individual test jacks are provided for the +12 VDC output, +24 VDC output, and Logic Ground reference.

Output Protection: The +12 VDC, +24VDC, and 12 VAC outputs are fused for over-current protection. Each output is protected against voltage transients by a 1500 Watt suppressor.

Dimensions: 5.3" High x 4.0" Wide x 8.3" Deep

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Item: Traffic Signal Hardware: Electronic Components:Traffic Signal Hardware: Electronic Components:Traffic Signal Hardware: Electronic Components:Traffic Signal Hardware: Electronic Components:Surge Arrestor, EDCO #SHA1210-IRS or equal

Attachments

EDCO SHA_1210.pdf

Edco SHA 1210

120 VAC Single Phase

■ Surge Protection
For *Business-Critical Continuity™*

The Edco SHA-1210 filtering surge protector absorbs power line noise and switching transients that other suppressors and RFI filters pass through. The Edco SHA-1210 can replace the RFI filter when high attenuation of noise above 25 MHz is not required.

If random time-base, memory loss, or other problems are affecting some of your intersections, this state-of-the-art protector can be of great benefit when properly installed.



General Technical Specifications

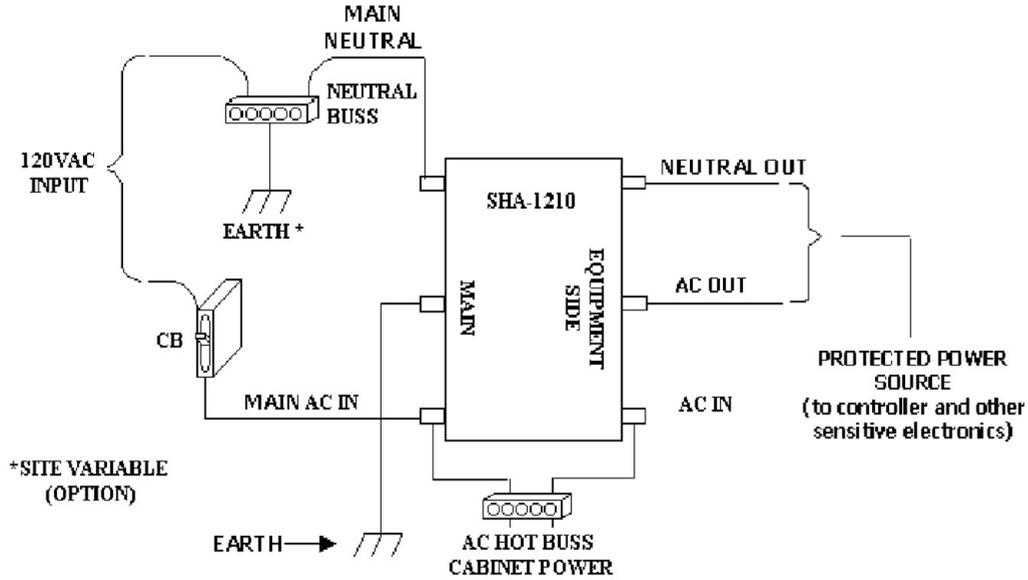
Operating Voltage	120VAC
Clamping Voltage	395VAC
Operating Current	10A
Peak Surge Current	32.5 kA/Mode, 39 kA/Phase, 65 kA/Total
Operating frequency	47-63Hz
EMI Attenuation	60 dB typ
SPD Technology	MOVs w/L-C Filter
Modes of Protection	L-N, L-G, N-G
Connection Type	1/4-20 Stainless Steel Stud
Operation Temperature	-40°C to +85°C
Dimensions (Inches)	2.375H x 3.125W x 7.125L
Weight	2 lbs.

Features

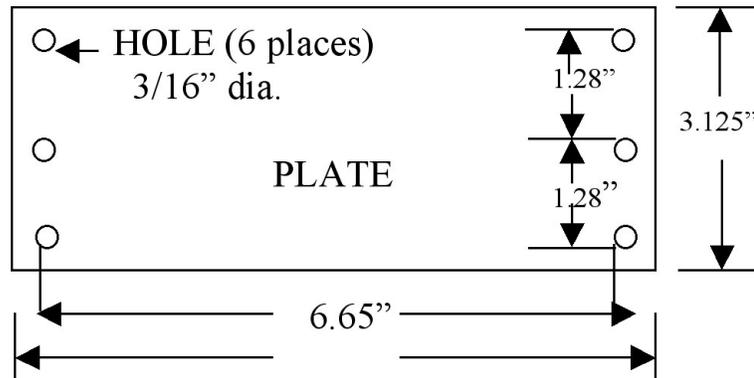
- Multi-stage hybrid design
- 60 dB maximum noise filtering
- Nanosecond response time
- Incorporates series choke
- 5 Year Warranty



Installation



Mounting



Emerson Network Power.
The global leader in enabling *Business-Critical Continuity™*.

- AC Power
- Embedded Computing
- Outside Plant
- Racks and Integrated Cabinets
- Connectivity
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- Power Switching & Control
- Services
- DC Power
- Monitoring
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- Surge Protection

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