EMP/HEMP Filter

Designed to protect sensitive electronics equipment during hazardous transient conditions.

Features

- Meet MIL-STD-188-125, E1 and E2 pulse test requirements
- Insulation resistance, DWV tested prior to discharge resistor and MOV installation
- Temperature rise, less than 25°C
- Filters rated for 16A and 30A additionally meet modified E3 Pulse test
- Custom designs available

Electromagnetic Pulse (EMP) Effect: energy that passes through an I/O or aperture/opening and disrupts or destroys integrated circuits

High Altitude Electromagnetic (HEMP) Effect: created by a nuclear detonation

IEMI: intentional malicious generation of electromagnetic energy introducing noise or signals into electric and electronic systems, disrupting, confusing, or damaging these systems for terrorist or criminal purposes

High Power Electromagnetics (HPEM): transients in electromagnetic environments where peak electric and magnetic fields are very high; lightning strike, electrostatic discharge, arcing events, electromagnetic field created by a radar system, EMP burst, HEMP burst, IEMI, high power microwave (HPM)

Applications

EMP/HEMP applications are divided between fixed facility and mobile. All systems have integrated circuit content that could be affected by an EMP/HEMP event.

Mobile

- Vehicles
- Radar
- Aerospace
- Mobile shelters
- Electronic warfare / countermeasures
- Communication / command / control circuits
- Detection systems
- Safety systems
- Mobile power sources

Facility

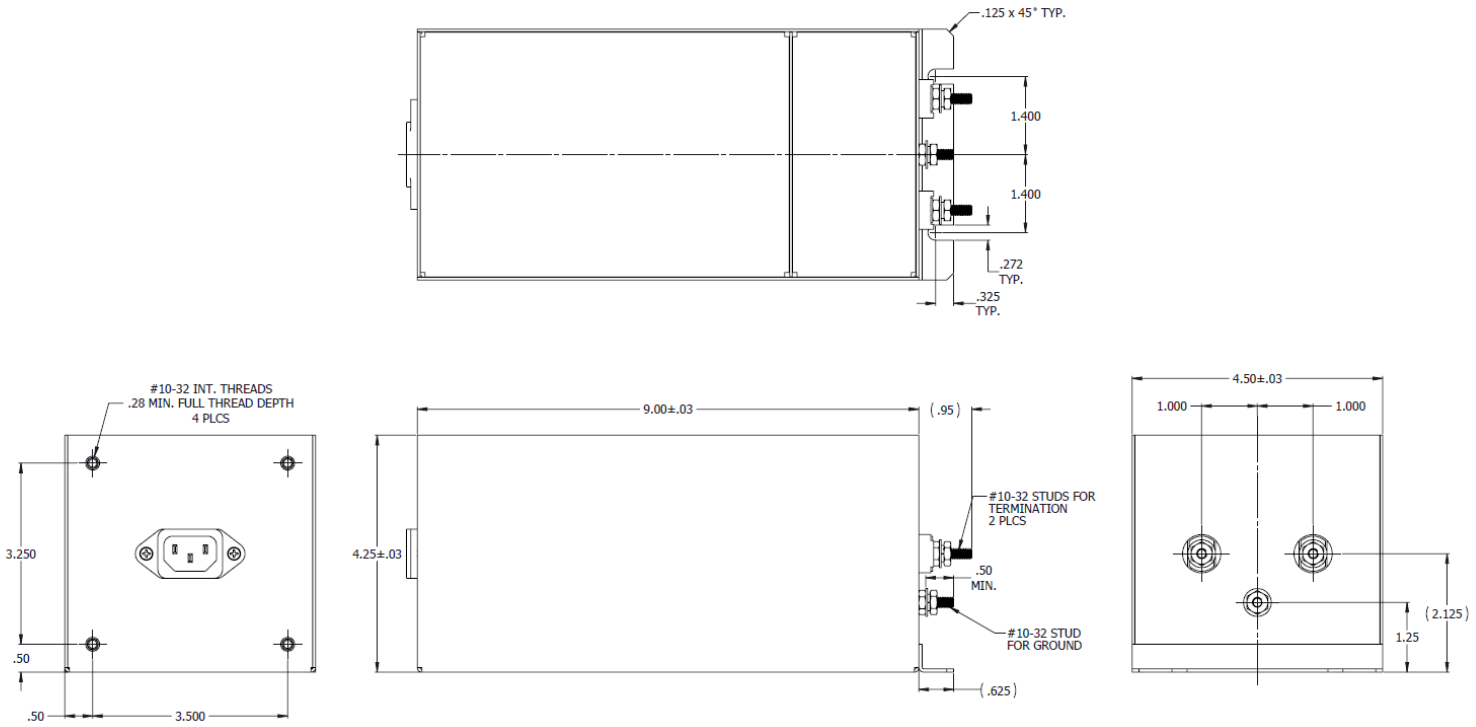
- Power stations
- Data storage
- Fixed communications
- Air traffic
- Government security
  - Embassy
  - Secure Facilities

Designed to protect sensitive electronics equipment during hazardous transient conditions. Filters are employed to absorb a potentially destructive overshoot voltage.

Under normal operating conditions, the suppressor circuit exhibits high off state impedance that appears transparent to the circuits they protect. If a voltage exceeding the switching voltage is applied to the circuit, the suppressor circuit switches to very low impedance effectively shorting out the high voltage. The suppressor circuit will remain in the low impedance state until the current flowing through the suppressor is either interrupted or drops to a safe level. Once this occurs, the suppressor resets and returns to a high off-state impedance.

sales.eis@am.spectrumcontrol.com | +1 814-474-1571
Approved for Release: August 2023/Brown

*Outline Drawing



Current (A)	Length	Width	Height	Input	Output
6	9	4.5	4.25	IEC 320-C14	10-32
16	9	4.5	4.25	IEC C20	10-32
30	10	4.5	4.25	NEMA L6-30P	10-32

Part Number	Voltage (AC, 50/60 Hz)	Current (A)	Leak (ma)	IR	DWV (VDC)	VD	Operating Temp	Storage Temp	Pass thru (A)
52-1700-101	24 VDC	6	0	1 G	2250	< 1%	-40 / + 50C	-40 / +105C	<2A
52-1700-102	24 VDC	16	0	1 G	2250	< 1%	-40 / + 50C	-40 / +105C	<2A
52-1700-103	24 VDC	30	0	1 G	2250	< 1%	-40 / + 50C	-40 / +105C	<6A
52-1700-201	48 VDC	6	0	1 G	2250	< 1%	-40 / + 50C	-40 / +105C	<2A
52-1700-202	48 VDC	16	0	1 G	2250	< 1%	-40 / + 50C	-40 / +105C	<2A
52-1700-203	48 VDC	30	0	1 G	2250	< 1%	-40 / + 50C	-40 / +105C	<6A
*52-1700-301	72 VDC	6	0	1 G	2250	< 1%	-40 / + 50C	-40 / +105C	<2A
52-1700-302	72 VDC	16	0	1 G	2250	< 1%	-40 / + 50C	-40 / +105C	<2A
52-1700-303	72 VDC	30	0	1 G	2250	< 1%	-40 / + 50C	-40 / +105C	<6A
52-1700-402	125 VAC	6	700	1 G	2250	< 1%	-40 / + 50C	-40 / +105C	<2A
52-1700-404	125 VAC	16	700	1 G	2250	< 1%	-40 / + 50C	-40 / +105C	<2A
52-1700-406	125 VAC	30	700	1 G	2250	< 1%	-40 / + 50C	-40 / +105C	<6A
52-1700-502	250 VAC	6	1400	1 G	2250	< 1%	-40 / + 50C	-40 / +105C	<2A
52-1700-504	250 VAC	16	1400	1 G	2250	< 1%	-40 / + 50C	-40 / +105C	<6A

sales.eis@am.spectrumcontrol.com | +1 814-474-1571
Approved for Release: August 2023/Brown