

Mission-ready HEMP (EMP) protection, optimized for vehicles, transportable shelters, and expeditionary systems. Designed to deliver fixed-facility-level survivability in deployable platforms.

Features

- MIL-STD-188-125-1A (E1/E2) compliant
- Compact, lightweight, optimized design
- Integrated EMI filtering plus high-energy HEMP (EMP) suppression
- Industry-standard I/O for rapid integration



Designed for Mobility

- Compact, lightweight construction compared to traditional HEMP solutions
- Optimized for installation in vehicles, shelters, and mobile power architectures

Fast Integration & Retrofit

- Industry-standard IEC and NEMA power interfaces
- Minimal system redesign required for upgrades or retrofits

Mission Continuity

- Protects sensitive electronics from E1 and E2 pulse effects
- Supports continued operation during and after transient events

Lower Program Risk

- Compliance with MIL-STD-188-125-1A reduces certification and integration risk
- Proven architecture aligned with DoD survivability requirements

Applications

EMP/HEMP applications are typically divided between fixed facility and transportable. All systems have integrated circuit content that could be affected by an EMP/HEMP event. Based on mechanical form factor, Spectrum Control's offerings are primarily focused on transportable applications, however, they meet the more stringent -1A fixed facility requirements.

- Tactical and ground vehicles
- Expeditionary command, and communication (C3) systems
- Mobile and temporary power generation units
- Radar
- Transportable and relocatable shelters
- Electronic warfare, countermeasures
- Detection systems
- Aerospace

PulseShield™ transportable-focused HEMP filters combine broadband EMI filtering with high-energy transient suppression in a single, compact assembly. Mechanically optimized for mobile use, these filters meet **MIL-STD-188-125-1A** pulse requirements for **E1 and E2** and provide integrated common-mode and differential-mode filtering.

How It Works: Under normal operating conditions, the suppressor circuitry remains in a high-impedance state and appears transparent to the protected circuits. When a transient exceeds the clamping threshold, the suppressor rapidly transitions to a low-impedance state, diverts destructive energy away from sensitive electronics, and automatically resets once conditions return to safe levels.

Electrical

Part Number	Rated Current (A)	Rated Voltage	Clamping Voltage (VDC)	Peak Pulse Current* (A)	Max Leakage Current (mA)	Insulation Resistance	DWV** (VDC)	Voltage Drop (%)	Operating Temp (°C)	Storage Temp (°C)
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PulseShield™ AC Power HEMP Filters

Applications: portable shelters, facility-on-wheels, generators, mobile power distribution

52-1700-402	6	125 VAC, 60 Hz	340	70000	700	1 GOhm min @ 100VDC	2250	< 1	-40 to +50	-40 to +105
52-1700-404	16									
52-1700-406	30									
52-1700-602	6	277 VAC, 60 Hz	710	1400	700	1 GOhm min @ 100VDC	2500	< 1	-40 to +50	-40 to +105
52-1700-604	16									
52-1700-606	30									

PulseShield™ DC / Vehicle HEMP Filters

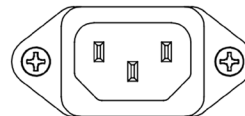
Applications: tactical vehicles, mission electronics, C2 systems, battery-backed subsystems

52-1700-301	6	72 VDC	220	25000	700	1 GOhm min @ 100VDC	2250	< 1	-40 to +50	-40 to +105
52-1700-302	16									
52-1700-303	30									

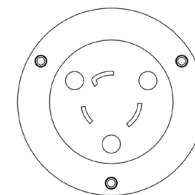
*Peak pulse current rated for 8/20uS waveform

**DWV tested prior to MOV installation

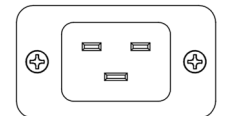
Current (A)	Length	Height	Input	Output
6	9	4.5	IEC 320-C14	10-32
16	9	4.5	IEC C20	10-32
30	12.25	5.0	NEMA L6-30P Twist Lock	10-32



IEC 320-C14

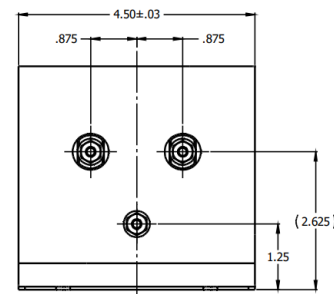
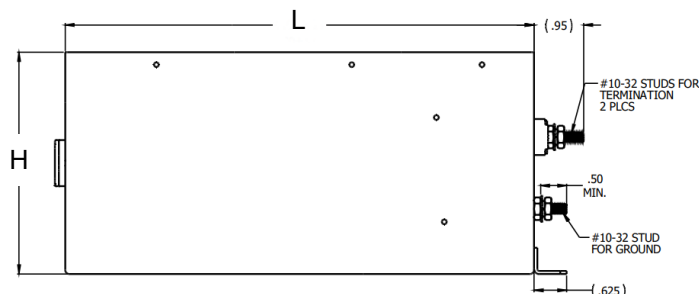
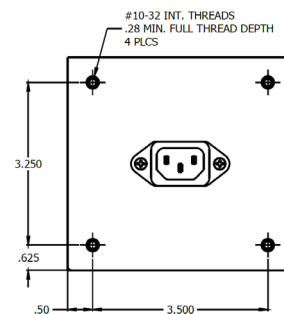
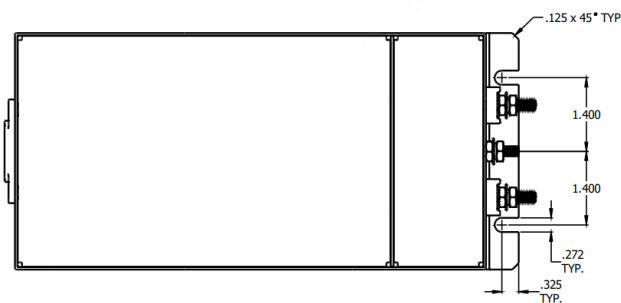


NEMA L6-30P



IEC C20

Mechanical



Typical Insertion Loss

