

M4916 SERIES

AC/DC POWER SUPPLY



PRODUCT HIGHLIGHTS

- CE MARKING CONFIGURATIONS (IEC 60939-3)
- AC INPUT: 85-265VAC
- SINGLE PHASE
- 50/60/400HZ
- AC OUTPUT: FOLLOWING INPUT
- 10A MAX CURRENT
- HIGH DENSITY
- COMPACT

M4916 SERIES EMI LINE FILTER

Applications

Military (Airborne, Mobile, Ground-Fix), Ruggedized, Telecom, Industrial

Special Features

- Universal AC Input
- Improves EMI performance
- CE Marking Configurations (IEC 60939-3)
- Intended for use with Single-Phase PFC AC/DC power supplies M3916 and M1986.

Electrical Specifications

AC Input

Option 1:

85 to 265 VAC ; 50/60Hz
Single-phase, 10A max

Option 2:

103 to 127 VAC ; 400Hz
Single-phase, 10A max

AC Output

Following input

Isolation

Input to Case: 2500 V_{DC}
Output to Case: 2500 V_{DC}

Environmental Conditions

Designed to Meet MIL-STD-810F

Temperature

Methods 501.4 & 502.4

Operating: -40°C to +85°C (at baseplate)

Storage: -55°C to +125°C (ambient)

Vibration

MIL-STD 810F, Method 514.5, Procedure I, Category 24, General minimum integrity exposure, IAW Figure 514.5C-17, 1 hour per axis

Altitude

Method 500.4

Procedures I – Storage/Air transport:

up to 70,000 ft. (non-operational)

Procedure II – Operation/Air Carriage:

up to 40,000 ft. (operational)

Shock

Method 516.5

Procedure I

Functional shock, 40g, 15-23ms, Terminal peak

Sawtooth shock pulse

Humidity

Method

507.4 Up to

95% RH

Salt Fog

Method 509.4

Reliability

150,000 hours, calculated IAW MIL-HDBK-217F Notice 2 at +85 °C baseplate, Ground Fixed environment.

Environmental Stress Screening (ESS)

Including random vibration and thermal cycles is also available. **Please consult factory for details.**

Safety Requirements

The M4916 EMI Line Filter was subjected to the following tests according to IEC 60939-3.

Group	Subclauses and test
0	4.2, 4.9, 4.3, 4.5, 4.8, 4.7
1A	4.2.4, 4.11, 4.30
2	4.18.5, 4.18.3, 4.19
3A	4.20, 4.21, 4.23

Wire Assignment:

AC Input Wires

Wire Name	Color*	AWG#
PHASE	●	16
NEUTRAL	●	16
CHASSIS	●	16

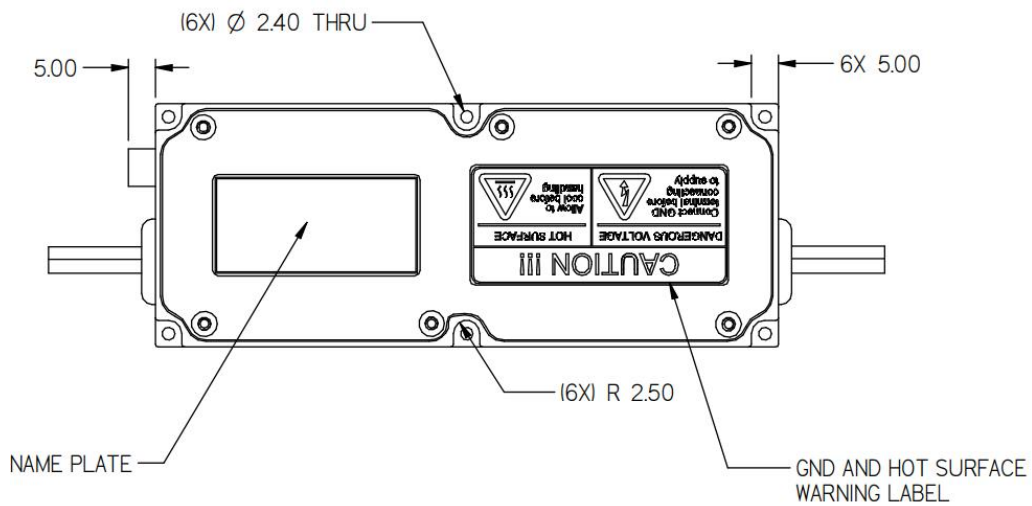
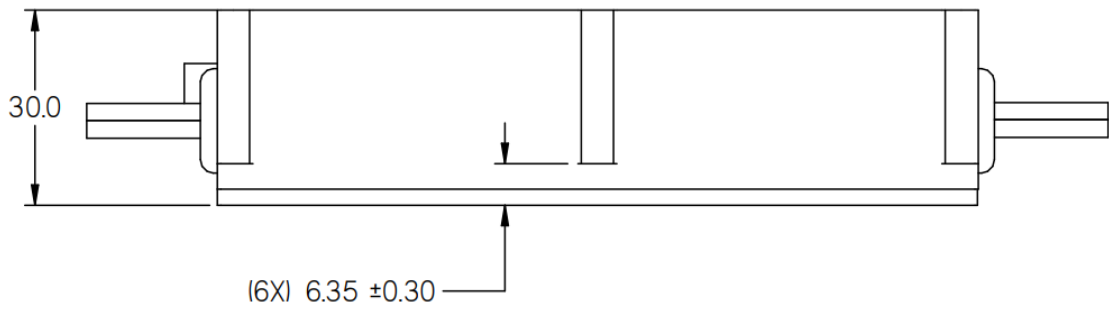
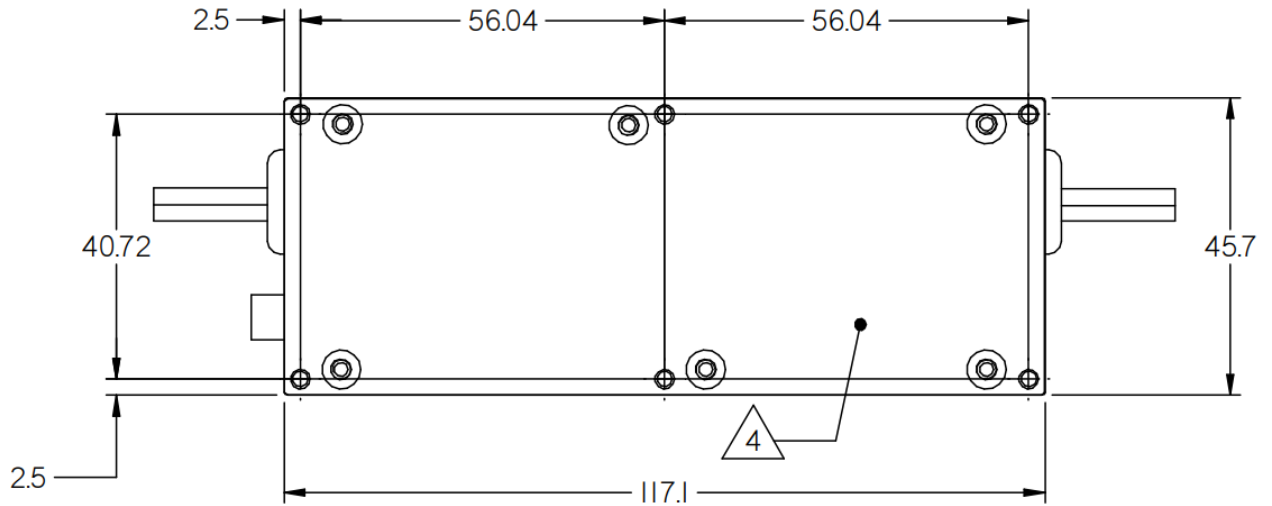
AC Output Wires

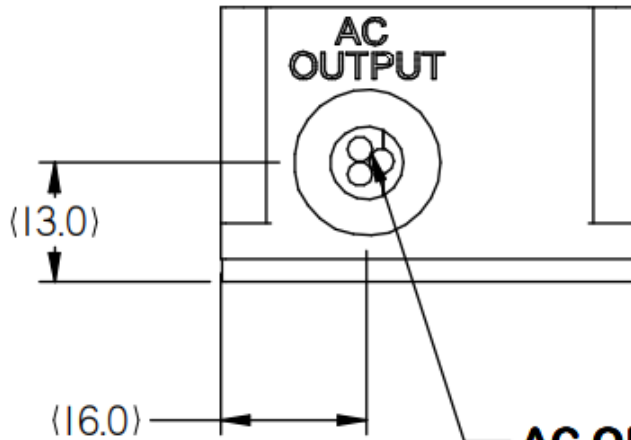
Wire Name	Color*	AWG#
PHASE	●	16
NEUTRAL	●	16
CHASSIS	●	16

*Or equivalent color according to the outline drawing.

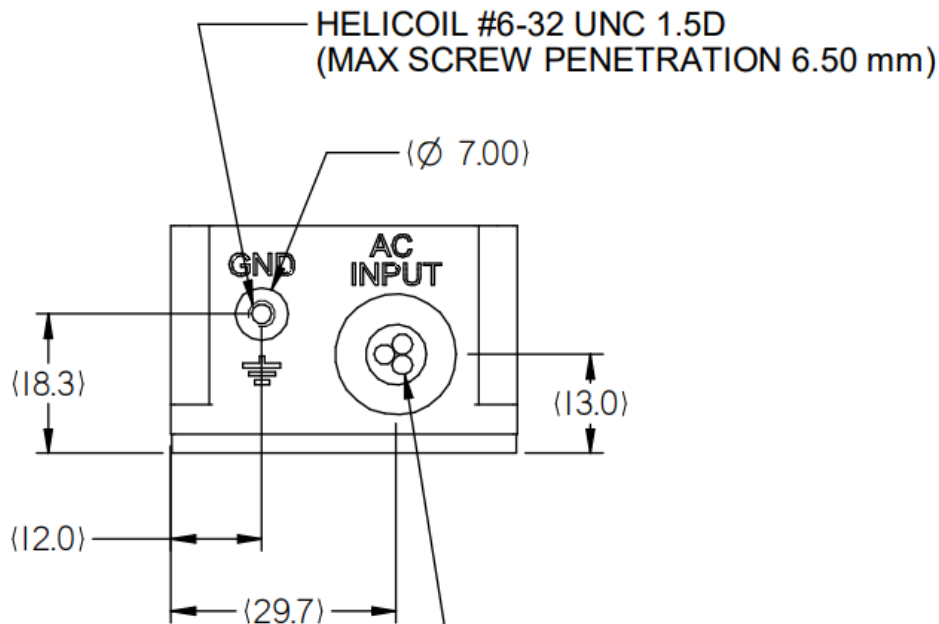
M4916 SERIES EMI LINE FILTER

Outline Drawing





AC OUTPUT WIRES 3X #16
PHASE: BROWN OR RED
NEUTRAL: BLUE OR BLACK
CHASSIS: YELLOW OR GREEN



AC INPUT WIRES 3X #16
PHASE: BROWN OR RED
NEUTRAL: BLUE OR BLACK
CHASSIS: YELLOW OR GREEN

NOTES :

1. WORKMANSHIP SHALL BE MIL-STD-454, REQT. 9
2. MTL. AL 6061-T651& AL 5052-H32
3. CHROMATE CONVERSION COATING PER MIL -DTL-554IF,TYPE 2 CLASS 1A
4. HEAT DISSIPATION AREA: 5,100 mm²
5. ENGRAVING:
CHARACTERS HEIGHT: 3 (mm), DEPTH: 0.4 (mm).
ENGRAVING FILLED WITH BLACK COLOR.

Notes

1. Dimensions are in inches [mm]
2. Tolerance is:
.X ± .3 in
.XX ± .15 in
3. Weight: Typical 230 gram

Standard Configurations

Part number	Input		Output
	Voltage range	Frequency	
M4916-800	Single-phase, 85 to 265 V _{AC}	50/60/400 Hz	Following Input Up to 500W
M4916-100	Single-phase, 85 to 265 V _{AC}	50/60/400 Hz	Following Input Up to 500W

Special Features for M4916-800:

- Intended to work in front of M3916 CE Marking (IEC 62368-1) AC/DC converter. **Please consult factory for details.**
- This Product is REACH Compliant.
- The aluminum parts comprising this converter are chromate conversion coated per MIL-DTL-5541F, Type II CLASS 1A or eq
- This configuration is CE certified.

Special Features for M4916-100:

- Intended to work in front of M3916 AC/DC converter. **Please consult factory for details.**
- This Product is REACH Compliant.
- The aluminum parts comprising this converter are chromate conversion coated per MIL-DTL-5541F, Type II CLASS 1A or eq

Additional standard configurations available. Consult factory for details

Note: Specifications are subject to change without prior notice by the manufacturer