CH-M500 Series

Conduction Cooled AC/DC Power Supply

FEATURES

- Conduction cooled
- 85~245 VAC input; 50/60-400 Hz
- D38999 connectors
- Conformal Coated
- 20 msec holdup time
- Aluminum Enclosure-Conductive Chromate treated
- Mil-Std 461, 704, 810, 1275, 1399 Compliant

INPUT	Voltage/ Freq	Vrms	AC 85~264/ 47~440Hz,
	Current	A(rms)	6A (typical at maximum output power, 115VAC in)
	Inrush Current	A	25 A max at cold start
	Power Factor	-	> .99 @ 115vac; > .97@230vac @ full load (Meets Mil-Std 1399 Sec 300)
	Leakage Current	mArms	< 3.3 mArms @ 115 VAC in

		Unit	CH-M500-12	CH-M500-24	CH-M500-28	CH-M500-48
OUTPUT	Voltage	VDC	12	24	28	48
	Efficiency 110 VAC 220 VAC	%	 84 85	 88 89	 88 89	 88 90
	Current	A	41.6	20.5	18	10.42
	Max Power	W	500	500	500	500
	Regulation	%	+/-1.00	+/-0.5	+/-0.5	+/-0.5
	Ripple/Noise (Max)	% Pk-Pk	1.00	1.00	1.00	1.00
	Hold-up Time	mS	>20mS @ full load, 115 VAC			
	Insulation And Dielectric	Primary-Secondary	4242 VDC (3000 VAC)			
		Primary to Ground (Mounting holes or chassis)	>1500 VDC for 30 seconds			
		Output to Ground	>100MΩ at 25°C, 40%RH & 500VDC			

Note: Full performance data information available upon request.

Protection	Overvoltage	Shutdown and latch off; AC recycle to restart
	Overload	Hiccup, Auto recovery
	Over temperature	Output shutoff until base plate temp reaches over 75°C,
	Short Circuit	Auto Recovery
Environment	Operating Temp	-40~85°C Ambient (Maximum Base plate 75°C)
	Storage Temp	-55 to +100 °C
	Operating Humidity	10~95% , non-condensing
	Operating Altitude	15,000 ft max
	Vibration	MIL-STD810H, Method 514.8, Category 24, Figure 514.8E-1.
	Shock	MIL-STD-810H, Procedure 1, 20G 11ms
	MTBF Telecordia SR-22	 >158,000 hrs.@ 40C ambient temp.
Standards	Conducted Emissions[2] Susceptibility Radiated Emissions Immunity[3] Transient	MIL-STD-461F/G: CE 101, CE 102 (10Khz~10Mhz) MIL-STD-461F/G: CS114, CS115 MIL-STD-461F/G: RE102, RE103 8 kV (contact discharge) or 15 kV (air discharge) electrostatic discharge MIL-STD 704
Size	Inches/lbs	8" x 5" x 2.60” / 4.9 lbs

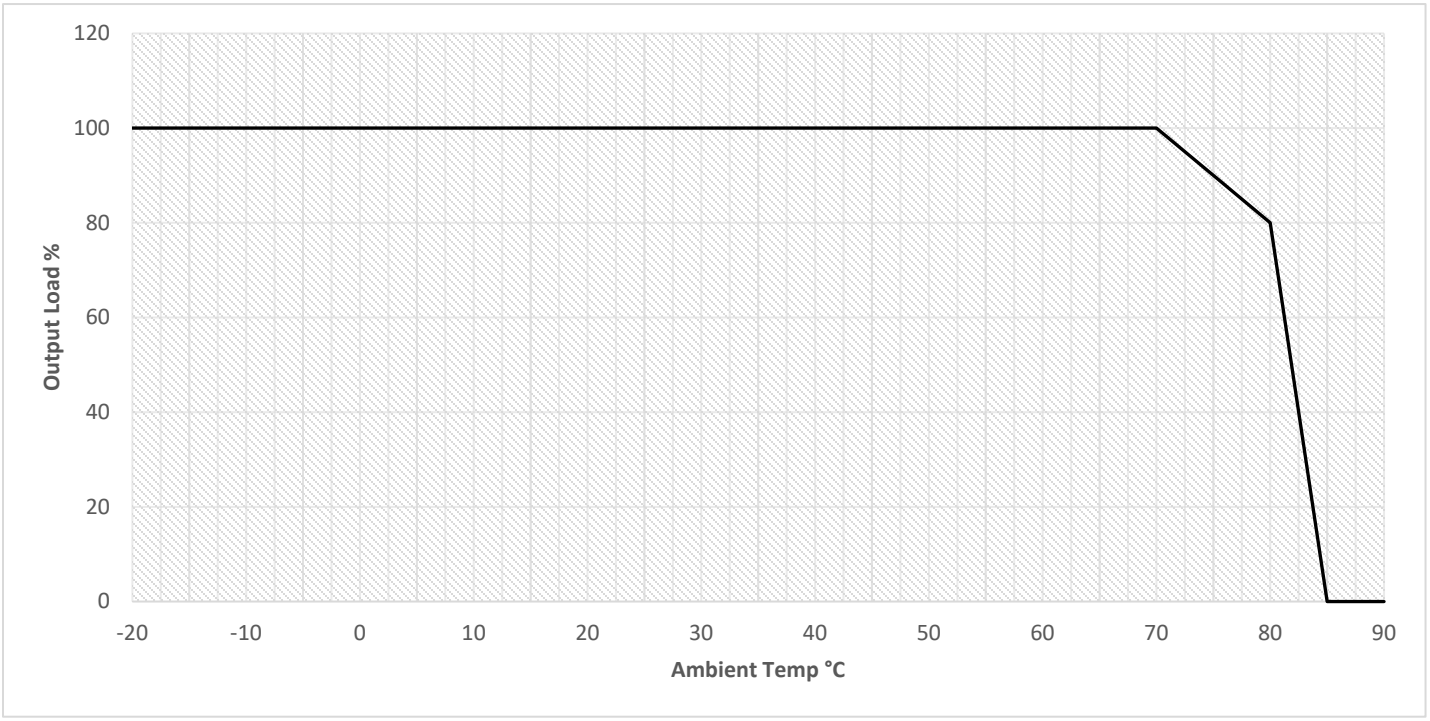
1. Ripple and noise are measured at oscilloscope 20MHz bandwidth by a 10uF electrolytic capacitor and a 0.1uF ceramic capacitor in parallel at output connector.
2. Standards: Unit has been designed to meet the standards listed. It is the responsibility of vendor to test in system. Conducted emissions (CE101, C102) using shielded 3 conductor cable (L,N,G) with unit mounted to chassis ground.
3. Contact factory for test conditions.

OPTIONS

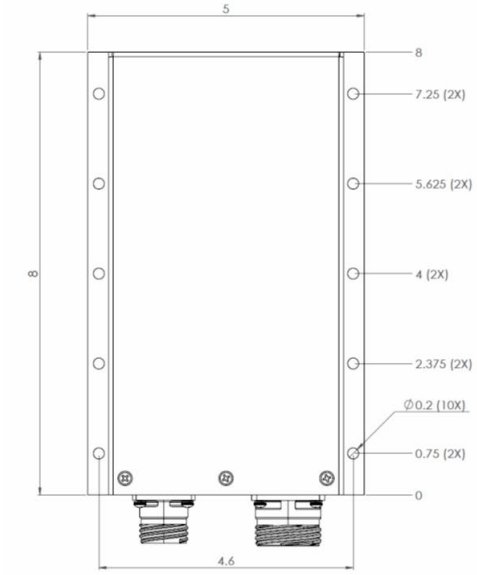
Connectors
Customer may request connector change with MOQ, D38999 or equivalent MIL/SAE 5015 or equivalent

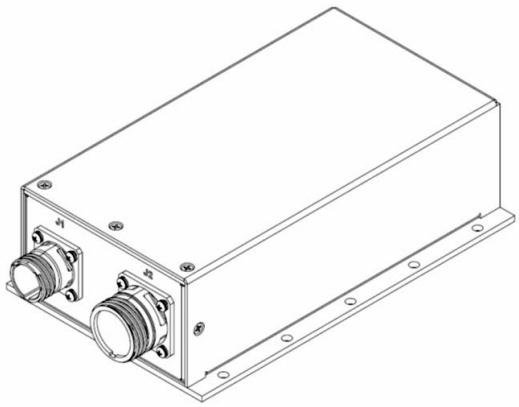
Additional Options
Non-Standard Voltages MIL-DTL-901(E) Grade B shock enclosure Anodized Enclosure Powder coat painted External potentiometer (Voltage Trim)

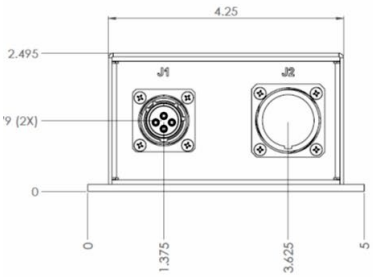
DERATING

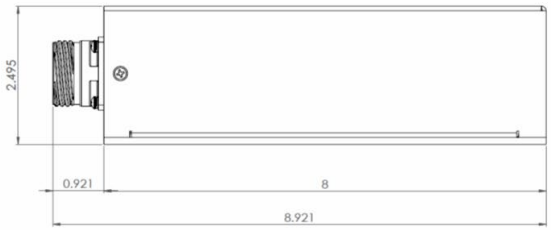

120
100
80
60
40
20
0
Output Load %
-20
-10
0
10
20
30
40
50
60
70
80
90
Ambient Temp °C

DIMENSIONAL DRAWING

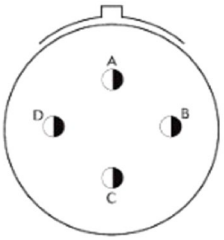




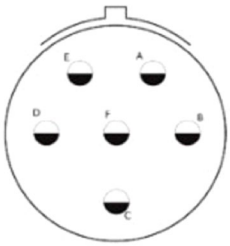




J1: D38999/20WC04PN



J2: D38999/20WE6SN



Standard Connector

J1: D38999/20WC04PN
J1-A: Line
J1-B: Neutral
J1-C: Ground
J1-D: N/C

J2: D38999/20WE6SN
J2-A: +Vout
J2-B: +Vout
J2-C: +Vout
J2-D: Vout RTN
J2-E: Vout RTN
J2-F: Vout RTN