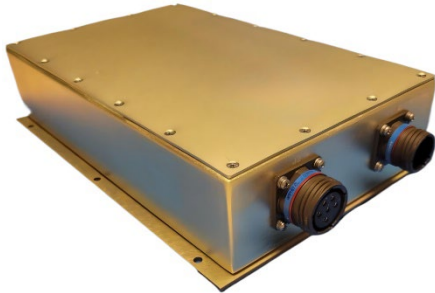




## CH-M1000 Series

## Conduction Cooled AC/DC Power Supply



### FEATURES

- Conduction cooled
- 1000 Watt
- 85~264 VAC input; 50/60/400Hz
- 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)		12A (typical at maximum output power, 115VAC in)
Inrush Current	A		35 A max (peak) at cold start
Power Factor	-		> 0.99 @ full load (115VAC & 220 VAC) Meets Mil-Std 1399 Sec 300 @ 10% load @115 VACin 20% load and higher for 220VACin
Leakage Current	mArms		< 3.3 mArms @ 115 VAC in

		CH-M1000-12	CH-M1000-24	CH-M1000-28	CH-M1000-48	
OUTPUT	Voltage	VDC	12	24	28	48
	Efficiency	%	85	88	89	90
			87	89	90	91
	Current	A	83.4	41.7	35.8	20.84
	Max Power	W	1001	1001	1002	1000
	Regulation	%	+/-1.00	+/-0.50	+/-0.50	+/-0.50
	Ripple/Noise	% 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.



<b>Protection</b>	Overvoltage	Shutdown and latch off; AC recycle to restart
	Overload	Constant Current to Hiccup, Auto recovery
	Over temperature	Output shutoff until base plate temp reaches over 75°C,
	Short Circuit	Auto Recovery
<b>Environment</b>	Operating Temp	-40~85C Ambient (75°C Baseplate)
	Storage Temp	-55 to +105 C
	Operating Humidity	10~95% , non-condensing
	Operating Altitude	15,000 ft max (30,000 ft in pressurized cabin)
	Vibration	MIL-STD810H, Method 514.8, Category 24, Figure 514.8E-1.
	Shock	MIL-STD-810H, Procedure 1, 20G 11ms
	MTBF Telecordia SR-22	>205,000 hrs.@ 40C ambient temp.
<b>Standards</b>	Conducted Emissions <sup>2</sup>	MIL-STD-461F/G: CE 101, CE 102 (10Khz~10Mhz)
	Susceptibility	MIL-STD-461F/G: CS114, CS115
	Radiated Emissions	MIL-STD-461F/G: RE102, RE103
	Immunity <sup>3</sup> Transient	8 kV (contact discharge) or 15 kV (air discharge) electrostatic discharge MIL-STD 704
<b>Size</b>	Inches/lbs	11" x 7.5" x 2.60" / 7.5 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 the customer 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.

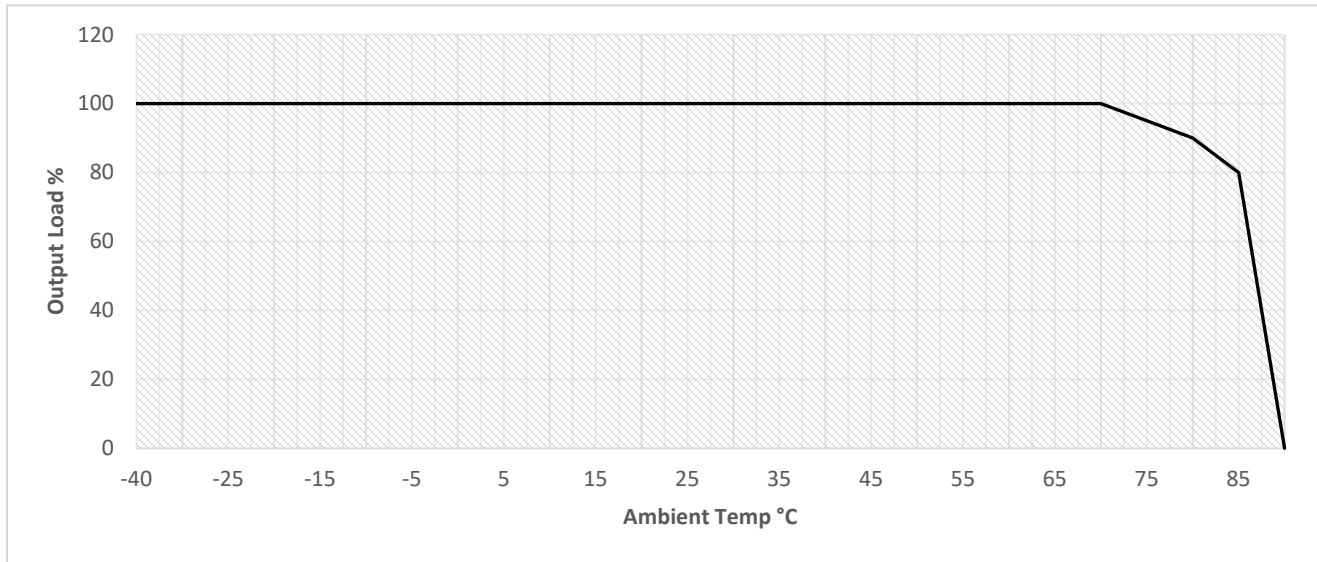
## OPTIONS

<b>Connectors</b>	
Customer may request connector change with MOQ	
•D38999 or equivalent	•MIL/SAE 5015 or equivalent

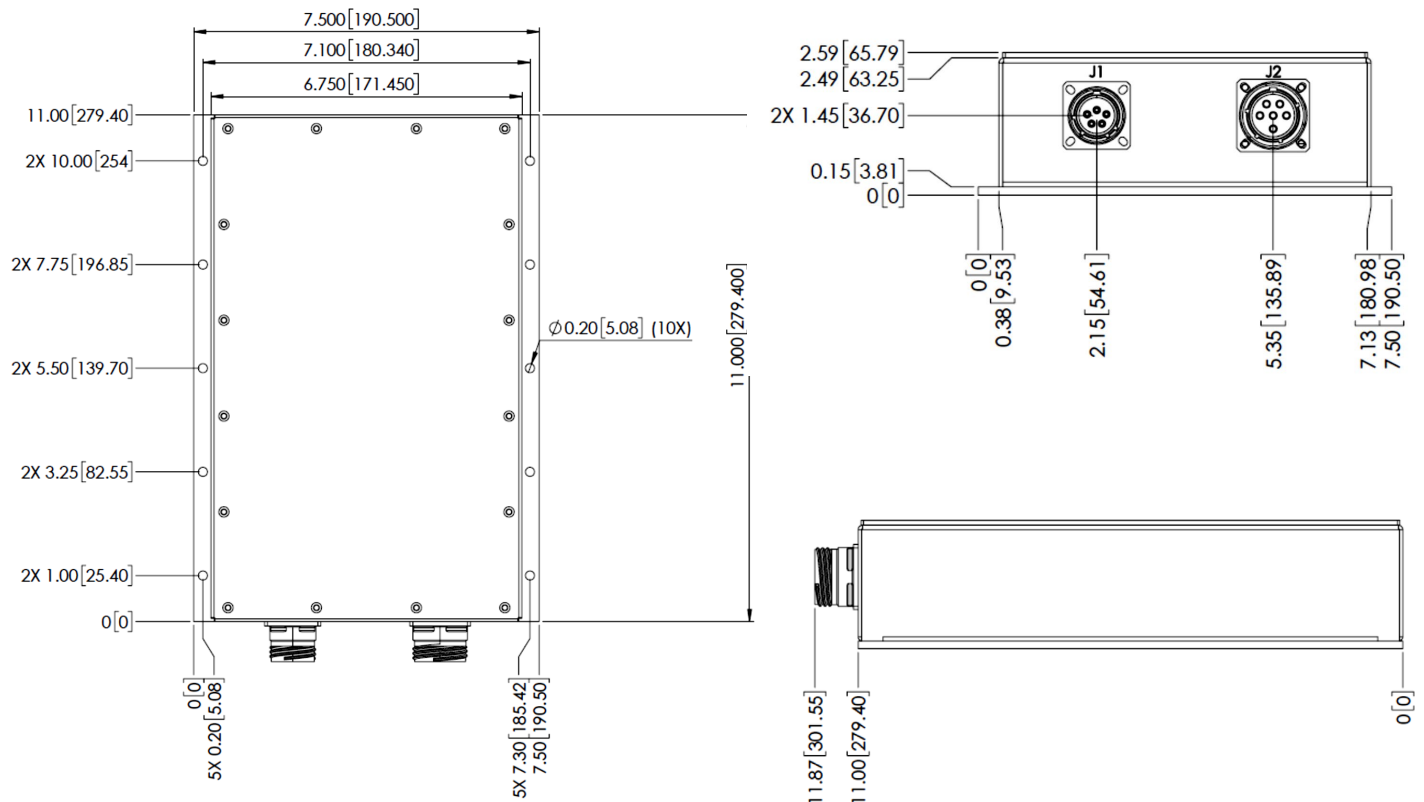
<b>Additional Options</b>	
Three Phase input (50/60 or 400Hz) Non-Standard Voltages (Factory Set 9~55VDC) MIL-DTL-901(E) Grade B shock enclosure Anodized or Power Coat Enclosure Secondary Voltage (5, 12, 15, 24 VDC, 10W max) External potentiometer (Voltage Trim 10~20%) Remote On/Off Status Reporting (I2C-Vout, Iout, Internal Temp)	



## DERATING



## DIMENSIONAL DRAWING



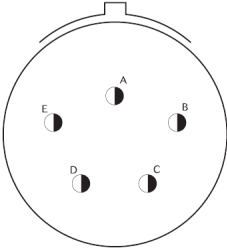
\* Dimensions shown in inches [millimeters]



## DIMENSIONAL DRAWING-INTERFACE CONNECTORS

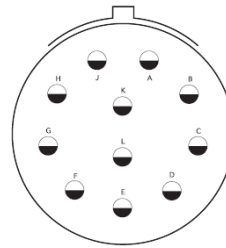
### -411 Option

Standard Connector for CH-M1000-12; for -24, -28, -48 with Secondary Output Voltage



**J1: D38999/20WD5PN**

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

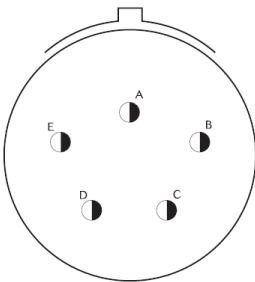


**J2: D38999/20WF11SN**

J2-A: +Vout  
 J2-B: +Vout  
 J2-C: +Vout  
 J2-D: +Vout  
 J2-E: N/C  
 J2-F: Vout RTN  
 J2-G: Vout RTN  
 J2-H: Vout RTN  
 J2-I: Vout RTN  
 J2-K: +Vout (Secondary) or N/C  
 J2-L: Vout RTN (Secondary) or N/C

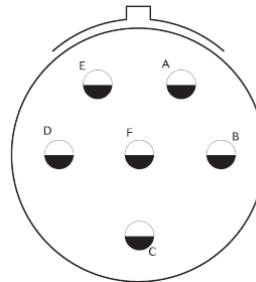
### -420 Option

Standard Connector for CH-M1000-24, -28, -48 Single DC Output



**J1: D38999/20WC04PN**

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



**J2: D38999/20WE6SN (24~48Vout)**

J2-A: +Vout  
 J2-B: +Vout  
 J2-C: +Vout  
 J2-D: Vout RTN  
 J2-E: Vout RTN  
 J2-F: Vout RTN

*Specification subject to change without notification*