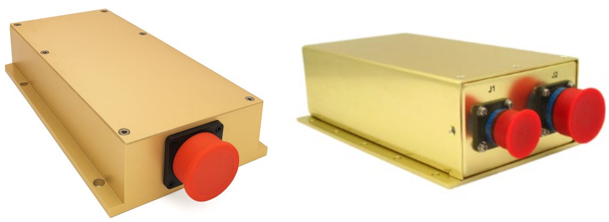
ETA-USA
THE MILITARY POWER PROFESSIONALS

MDC150 Series

Conduction Cooled DC/DC Power Supply



FEATURES

- 150W Conduction cooled DC/DC
- Ultra Wide 8:1 Input Voltage
- MS5015 threaded Connectors Standard
- Conformal Coated
- Aluminum Enclosure-Conductive Chromate Finish
- Mil-Std 461, 704F, 810H, 1275E, Compliant
- Operates through cranking voltage per 1275E

How to Order

SERIES	-	OUTPUT	No. OF OUTPUTS	INPUT VOLTAGE	-	I/O INTERFACE	ENCLOSURE L x W x H	-	FINISH
MDC150		12 = 12V 24 = 24V 28 = 28V 48 = 48V	SC= Single Output	48= 9~75		221=Standard 389 426 565	W= 6.00 x 6.00 x 2.55 L= 4.25 x 8.5 x 2.10		Blank= Gold Chromate F1 = Clear Chromate F10 = Gold Anodize F11= Black Anodize

1. *Finish F1, F10, F11 are RoHS compliant, for full RoHS compliant product contact factory for configuration options*

			MDC150-xxSC48
INPUT	Voltage/	VDC	9~75
	Current (Max)	A	19
	Inrush Current	A	40 A max @ 9 Vin
	Turn on Threshold	VDC	8~8.8
	Turn off Threshold	VDC	7.6~8.1
	Lockout Hysteresis	VDC	0.7
	No load input	mA	80~100

		Unit	MDC150-12SC	MDC150-24SC	MDC150-28SC	MDC150-48SC
OUTPUT	Voltage	VDC	12	24	28	48
	Efficiency	%	90	89	89	89
	Current	A	12.5	21	12.5	6.25
	Max Power	W	150	300	300	300
	Regulation	%	+/-1.00	+/-1.00	+/-0.5	+/-0.5
	Ripple/Noise (Max)	% Pk-Pk	1.00	1.00	1.00	1.00
	Hold-up Time	mS	>16mS @ full load, 16 VDCin			
	Insulation And Dielectric	Primary-Secondary	3000 VDC; 1 minute			
		Primary to Ground/Case	>1500 VDC; 1 minute			
		Output to Ground/Case	>500 VDC; 1 minute			

Protection	Overvoltage	Output shut off, power cycle to restart
	Overload	110~140% max current; Hiccup to Auto recovery when condition removed
	Over temperature	Output shutoff when base plate reaches 85°C, recovers at 75°C
	Short Circuit	Hiccup, 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 (40,000 ft at 8 kPa)
	Vibration	MIL-STD-810F Table 514.5C-VIII Figure 514.5C-6; Random Vibration
	Shock	MIL-STD-810F 516.5, Table 516.5-I; Crash Hazard for Ground Equipment
	MTBF Telecordia SR-22	>205,000 hrs.@ 25C ambient temp.
Standards	Conducted Emissions[2] Susceptibility Radiated Emissions Immunity[3] Transient Surge/Spike	MIL-STD-461F/G: CE 102 MIL-STD-461F/G: CS101, CS114, CS115, CS116 MIL-STD-461F/G: RE102, 8 kV (contact discharge) or 15 kV (air discharge) electrostatic discharge MIL-STD 704F, MIL-STD 1275E MIL-STD 1275E
Size	Inches/lbs	Refer to How to Order Sheet / -W=3.0 lbs / -L=4.25 lbs

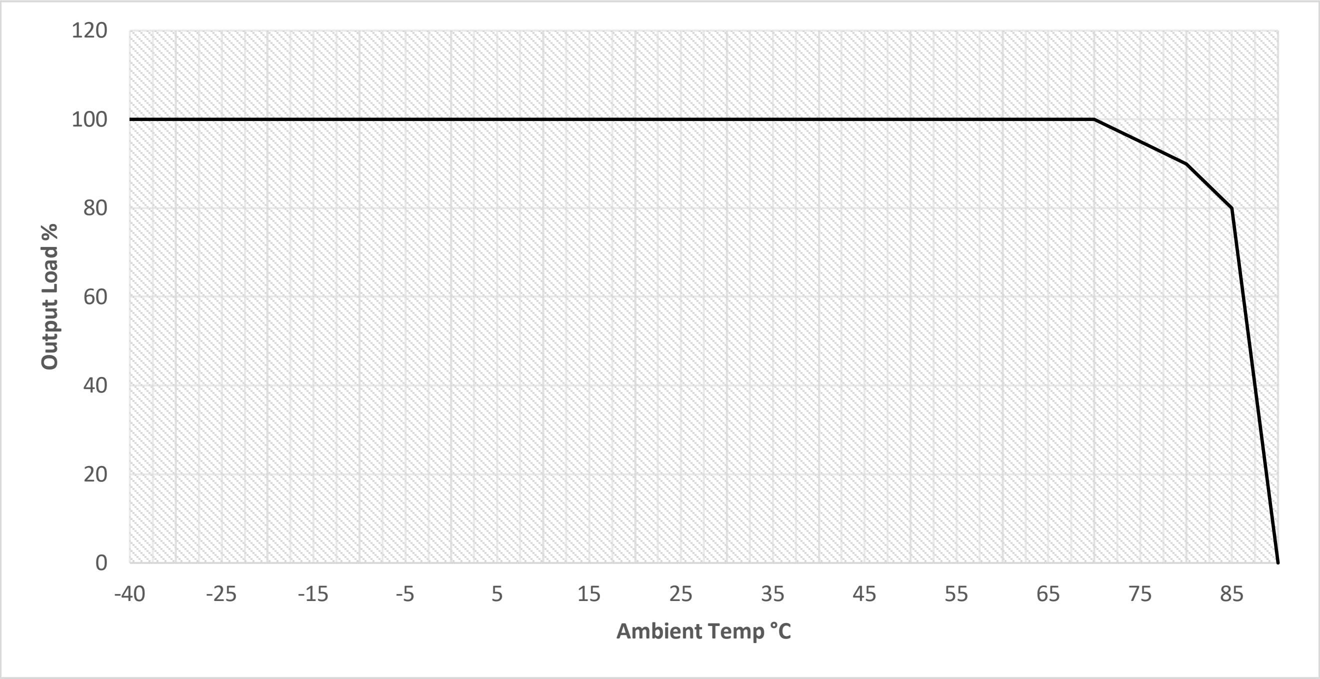
1. Ripple and noise are measured at oscilloscope 20MHz bandwidth by a 10uF electrolytic capacitor and a 0.1uF ceramic capacitor in parallel at output connector.
2. Standards: Unit has been designed to meet the standards listed. It is the responsibility of vendor to test in system. Conducted emissions (CE101, C102) using shielded 3 conductor cable (+Vin, -Vin, Shield/Gnd) with unit mounted to chassis ground. Shielded cables on input and output for RE102/RE103
3. Contact factory for test conditions.
4. Additional performance data available upon request

OPTIONS

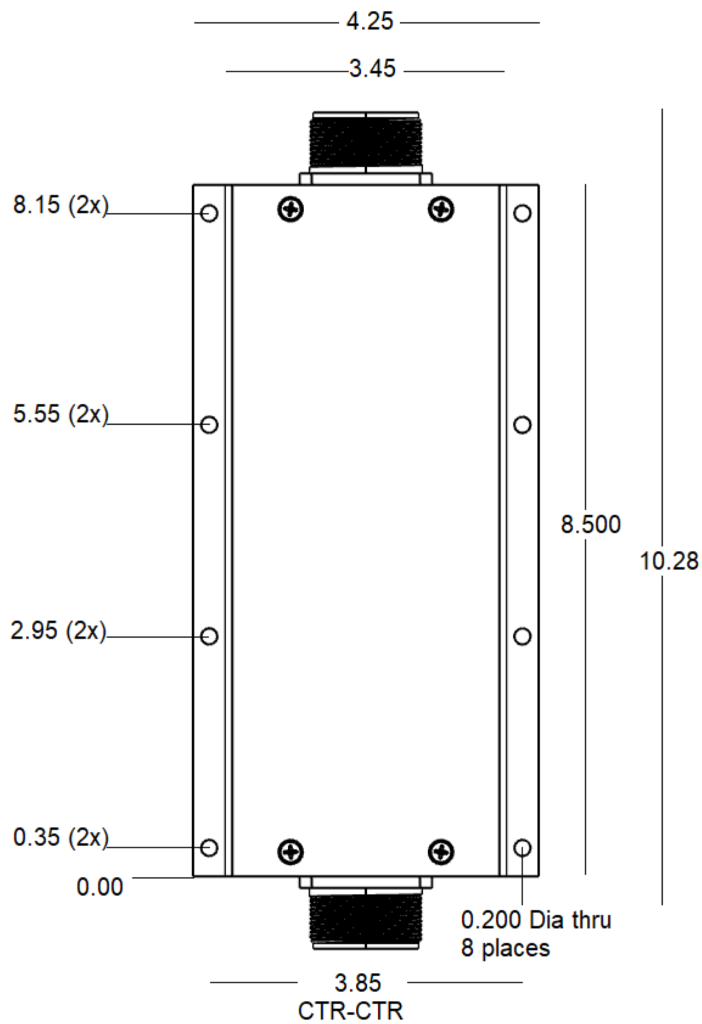
Connectors
Customer may request connector change with MOQ, D38999 or equivalent MIL/SAE 5015 or equivalent Terminal Barrier Block

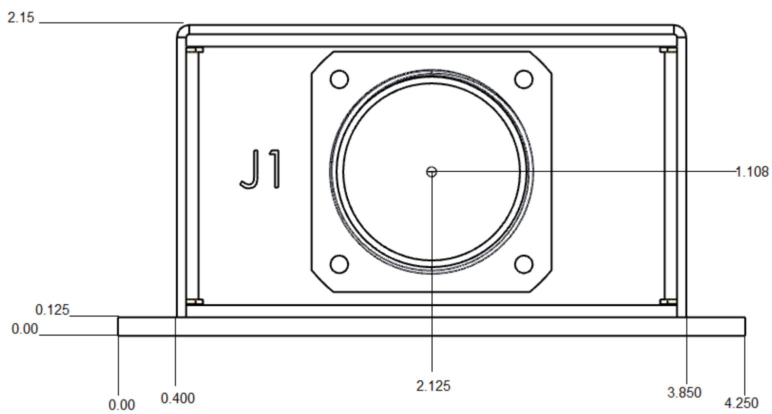
Additional Options
MIL-DTL-901(E) Grade B shock enclosure Anodized Enclosure Powder coat painted External potentiometer (Voltage Trim) Heatsink mounted IP-66 Sealing

DERATING


120
100
80
60
40
20
0
Output Load %
-40
-25
-15
-5
5
15
25
35
45
55
65
75
85
Ambient Temp °C

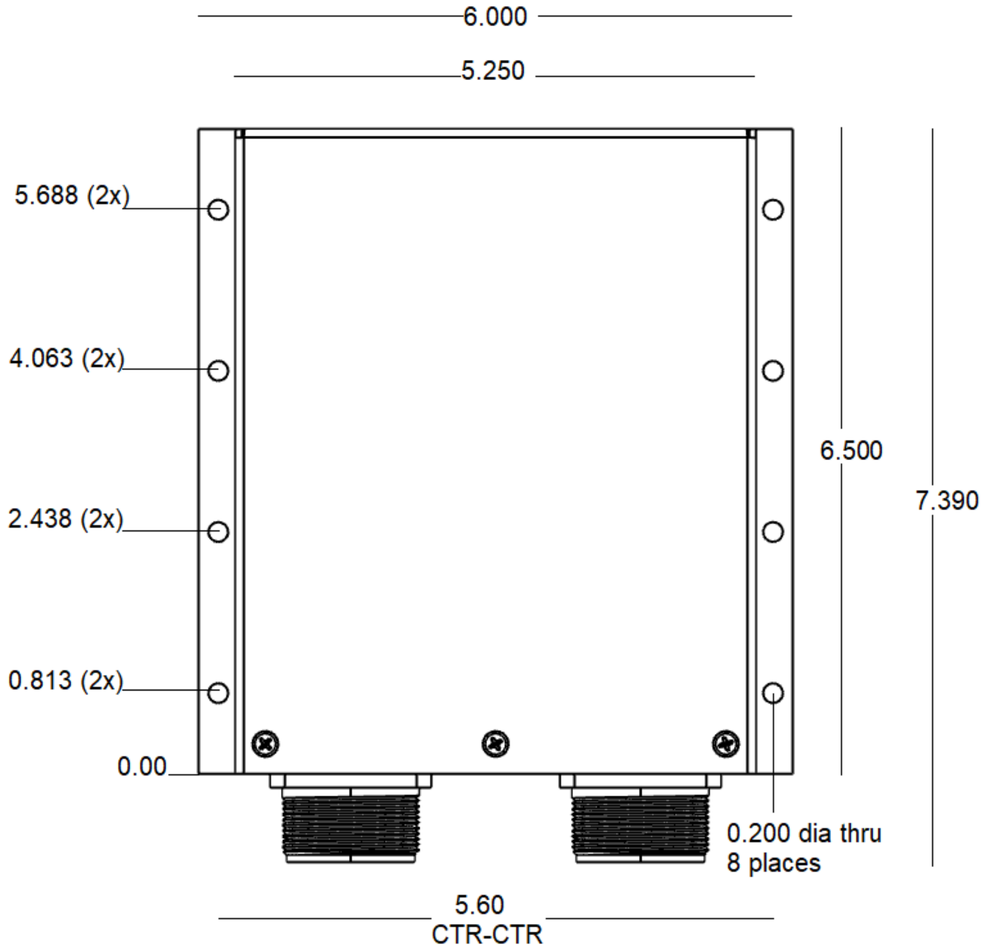
DIMENSIONAL DRAWING- TYPE L

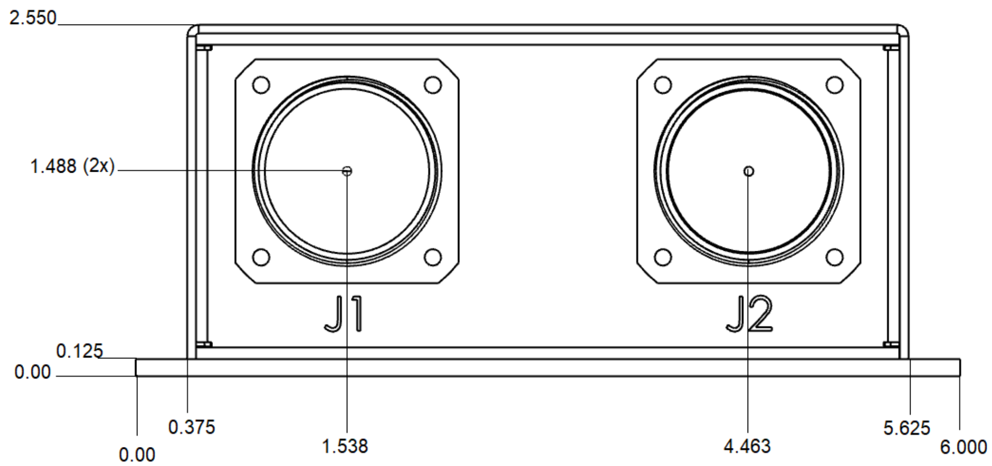




Dimensions shown in inches

DIMENSIONAL DRAWING- TYPE W

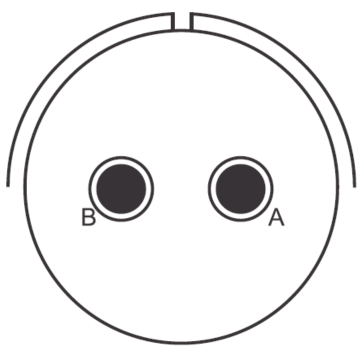


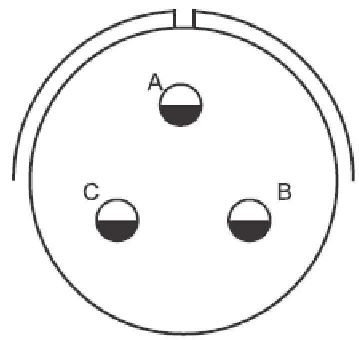


Dimensions shown in inches

Interface

-221 (STANDARD CONNECTOR)



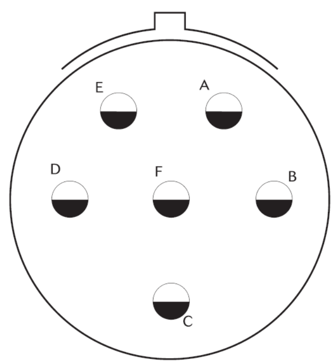


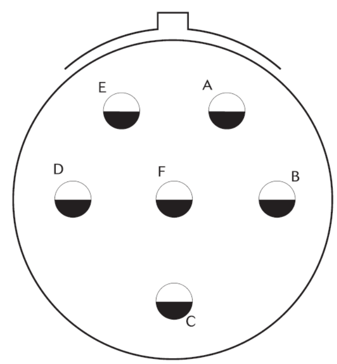
Standard Connector

J1: MS3102E-22-1P
J1-A: +VIN
J1-B: -VIN

J2: MS3102E-22-9S
J2-A: +VOUT
J2-B: RTN
J2-C: CHASSIS GND

-389 (D38999 STYLE CONNECTOR)

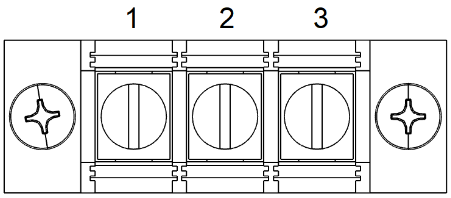


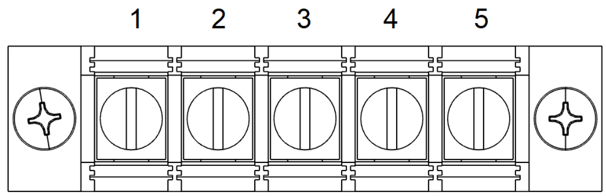


J1: D38999/20WE6PN
J1-A: +VIN
J1-B: +VIN
J1-C: +VIN
J1-D: -VIN
J1-E: -VIN
J1-F: -VIN

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

-426 (TERMINAL BLOCK FOR -L MODEL)



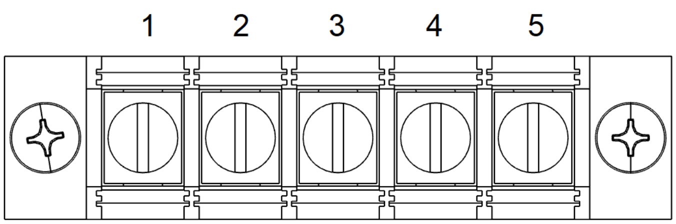


Terminal Block- 6-32 Screw, 0.375” Pitch Ctr-Ctr
(Buchanan Style A2 Series)

J1: INPUT
J1-TB1: +VIN
J1-TB2: -VIN
J1-TB3: CHASSIS/GND

J2: OUTPUT
J2-TB1: +VOUT
J2-TB2: +VOUT
J2-TB3: RTN
J2-TB4: RTN
J2-TB4: CHASSIS/GND

-565 (TERMINAL BLOCK FOR -W MODEL)



Terminal Block- 6-32 Screw, 0.375” Pitch Ctr-Ctr
(Buchanan Style A2 Series)

TB1: +VIN
TB2: +VIN
TB3: CHASSIS GND
TB4: +VOUT
TB5: RTN

**Note- For Models using Terminal Blocks: 30A Max. with 12 AWG wire terminated with ring or fork Terminal*

Specification subject to change without notification