Behlman Power Products

COTS POWER SUPPLY

DCA1800T-6-(12,128)-(5,40)-(3.3,8)

Behlman's DCA series of COTS power supplies are highly reliable, switch mode units built for high-end industrial or MIL applications. The DCA series accepts three phase wye or delta inputs and can supply a variety of DC from 3.3 VDC to 100 VDC outputs. Output power levels range from 1500 W to 3000 W depending on exact input and output configuration. These rugged power supplies are built to support the rigor of airborne, shipboard and mobile applications and designed to meet the input power requirements of MIL-STD-704, MIL-STD-1399 and RTCA-DO160. Units are Fan cooled.

OUTPUT POWER 1800 W (maximum concurrent power from all three outputs)

INPUT/SOURCE

-6: 115/200 VAC, 3-Phase Wye, 47-440 Hz, IAW MIL-STD-704A including transients

OUTPUTS: Triple (T)

Voltage/Current 12 VDC @ 128A

5 VDC @ 40A 3.3 VDC @ 8A

Load Regulation +/-0.25% maximum (0-100%)

Line Regulation +/-0.25% maximum

PARD-Ripple & Noise 1% maximum (12V & 5V); 1.5% maximum (3.3V)

Overcurrent Protection 115% typical; auto-recovery Overvoltage Protection 125% typical (latching)

Overtemp Warning Asserted when low; auto-recovery Overtemp Shutdown Output shutdown; auto-recovery

Efficiency: 73% minimum

Remote Sense 0.5V compliance (all outputs)

Output Enable Control Asserted when low LED Indicators ACOK, DCOK

GENERAL CHARACTERISTICS

Isolation

Input to Output
Input to Chassis
Output to Chassis
Output to Output
10 Megohms minimum @ 500V
10 Megohms minimum @ 500V
10 Megohms minimum @ 100V
10 Megohms minimum @ 100V

Dimensional Data 9.5" H, 6.25" W, 10.5" D

Weight 21 lbs max.

Input Connection (J1) 6 Contact Circular Connector (RNJ27T1706PN023)

Output Connections

12V (J3, J4) High Current Bus Bars (2 x TE Connectivity 538-17-00100) 5V, 3.3V (J2) 43 Contact Circular Connector (RNJ27T2543SN023)



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ENVIRONMENTAL:

Cooling Method Forced Air via 2 x Pressurized Internal Heat Exchangers

Operating Temperature

Ambient Temp -40°C to +55°C Coolant Temp -34°C to +38°C

Mass Flow Rate 2.4 lbs per minute maximum at 21.1°C, 1.0" H₂O max pressure drop

Storage Temperature -40 to + 100 degrees C

Designed to meet

Shock (Operating) MIL-STD-810E, Method 514.6, 30g / 11msec Shock (Non-Operating) MIL-STD-810E, Method 514.6, 40g / 11msec

Vibration MIL-STD-810E, Method 514.4 Humidity Up to 100% (condensing)

Fungus Non-Nutrient Design and Construction
Sand and Dust MIL-STD-810E, Method 509, Procedure I
Salt Fog MIL-STD-810E, Method 510, Procedure I
Explosive Atmosphere MIL-STD-810G, Method 511.4, Procedure I

EMI/EMC: MIL-STD-461F, CE102, CS101, CS114, CS115 & CS116 w/external filter



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