

Features

- 20 watt output power
- Independently regulated outputs
- Open-frame design
- 85 % efficiency
- 500 V isolation
- Overvoltage protection
- Fast transient response
- Short-circuit protection
- Remote enable
- Industry-standard pin-out
- UL 1950
- Bellcore 1089
- CISPR 22 Class A
- EN60950

M20W Series – Power Module

Electrical Specifications

Nominal Input.....48 V
 Output Voltage.....5 & 3.3 V
 Output Current.....3.5 & 5.5 A
 Ripple + Noise (mV pkpk) typ.30 & 20
 Efficiency (typ.)87 %

Input Specifications

Voltage36 VDC Min.
 48 VDC Nom.
 75 VDC Max.
 40 V at Startup
 Undervoltage Lockout35 VDC
 Inrush Current1 A @ 75 Vin Max.
 Remote Enable
 High = Enable.....2 VDC Min.
 Low = Disable1 VDC Max.
 E/D Current1 mA
 Isolation Voltage500 V Input to Output

Output Specifications

Power0 to 20 W
 Current
 3.3 V0.9 to 4.5 A
 5 V0.6 to 3 A
 OCP Trip Point150 % I_{max}
 Voltage Setpoint Accuracy.....±2 % V_{nom}
 Line Regulation±0.1 % V_{nom}
 Load Regulation
 ±0.1 % V_{nom} (3.3 V_{out})
 ±0.6 % V_{nom} (5 V_{out})
 Dynamic Response
 3.3 V Output, ±1.5 A step
 50 mV (Di/Dt = 1 A/μs)
 60 μs (Di/Dt = 1 A/μs)
 5 V output, ±1 A step
 50 mV (Di/Dt = 1 A/μs)
 300 μs (Di/Dt = 1 A/μs)
 Temperature Regulation.....±0.2 % V_{out}/°C

General Specifications

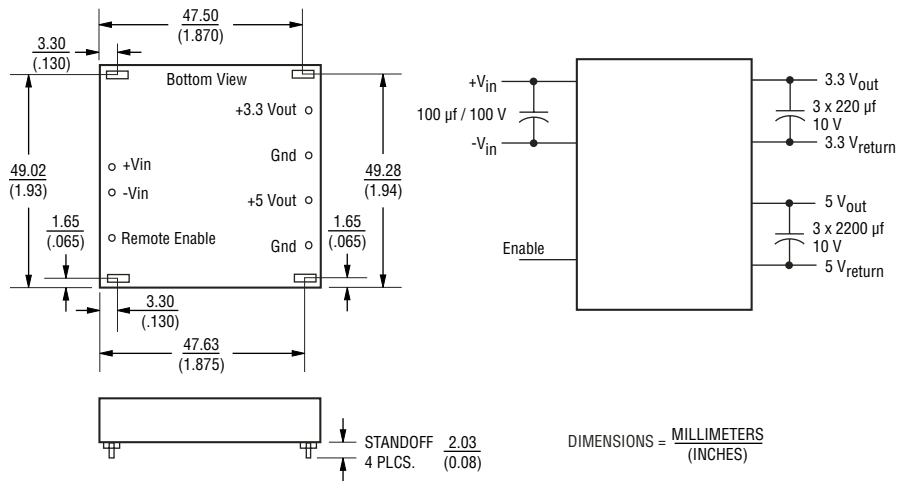
MTBF3,400 kHrs Full Power, 40 °C
 Operating Temperature.....-40 to +85 °C
 Full Power, 200 LFM
 Storage Temperature.....-55 to +125 °C
 Switching Frequency300 kHz
 Weight26 gm

General Information

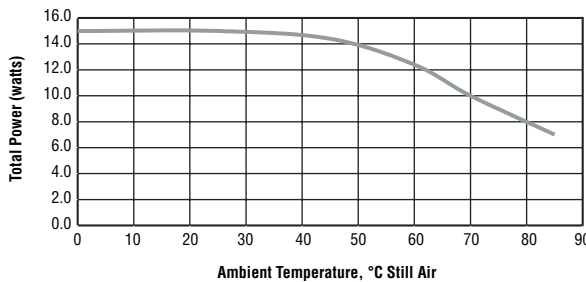
The M20W power module is a member of Bourns industrial temperature range, dual-output family. The system designer obtains flexibility in choosing 5 V and 3.3 V components based on the ability of the module to supply either voltage over a wide power range to the load. The output voltages are tightly and independently

regulated, thus eliminating the common problem of cross regulation errors between the outputs. The M20W is capable of 20 W combined output power. The module is designed with Bourns' resonant primary and synchronous secondary topology for enhanced reliability and high efficiency, allowing high-temperature operation.

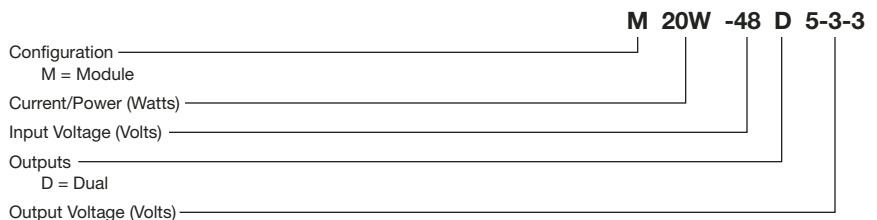
Product Dimensions



Temperature Derating



How to Order



Specifications are subject to change without notice.
 Customers should verify actual device performance in their specific applications.



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