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General Product Specifications:

TM101 and TM151 Model Series

100W-150W, Single Output Power Supplies

-AC Input-

Voltage/Current..... AC 90-264V, 47-63Hz, 1 Phase.
TM151: 2.5A max @ 100V, full load.
TM101: 1.6A max @ 100V, full load.

Fusing ..... AC, 3.15A 250V internal line fuse provided, non-user serviceable.

Power Factor ..... >0.99 typical at AC 115V, full load.

Inrush Current ..... Thermistor soft start (~25ºC cold start).
30Apk @ AC 115V, 60Apk @ AC 230V.

Efficiency ..... TM151: >80% average at AC 115V.
TM101: >75% average at AC 115V.

Touch Current..... 1.2mA max at 254V AC per UL 60950 test procedures (Sec. 5.0).

-EMC and Immunity-

Note: Meets stated EMC specifications with option B shield installed. Alternately, user shall provide a low impedance connection between mounting holes via a ground plane.

EMI Filtering..... Meets CISPR22B Level B, EN55022 Level B, and FCC Part 15, Level B, for conducted emissions.

Immunity ..... EN 61000-4-2 Level 4, ESD 8kV direct, 15kV air discharge;
EN 61000-4-3 Level 3, radiated EMI field;
EN 61000-4-4 Level 3, EFT/B;
EN 61000-4-5 Level 3, differential / common mode voltage surge;
EN 61000-4-6 Level 3, conducted susceptibility.

Harmonics..... Meets EN 61000-3 (harmonics and voltage fluctuations).

-DC Outputs-

Output (V1) Voltage/Current (V/A)

TM101-1	5.0V / 20.0A (100W)	**TM151-6**	28.0V / 5.36A;
TM151-2	12.0V / 12.5A;	**TM151-8**	48.0V / 3.12A;
TM151-3	15.0V / 10.0A;	**TM151-9**	54.0V / 2.78A;
TM151-5	24.0V / 6.25A;		

Standby / Fan Drive Output..... Floating +12.0V, 500mA max, referenced to output return. Output is protected against overload, short circuit. External fault will not affect internal housekeeping voltage.

Output Voltage Setpoint.. Factory preset within ±1.0% of nominal voltage.

Line Regulation ..... <±0.5% at the sense point over full AC input range and 0 – 100% output loading, sense leads connected.

Load Regulation ..... <±0.5% at the sense point from no load to full load, sense leads connected.

Minimum Loading ..... None required.

Output Turn-on Delay ..... <2 sec from AC turn on.
<100 msec from remote enable.

Over/Under Shoot ..... None at turn-on or turn-off, single unit.

Stability..... Output drift <±0.2% after 20 min. warm-up.

Temp. Coefficient..... <±0.02%/ºC, 0-50ºC, after 20 min. warm-up.

Dynamic Response ..... Less than 5% deviation with a 50% load change at 1A/μsec. Output recovers to within 1% in less than 300μsec.

Remote Sense ..... Output compensates for up to 0.5V total line drop in the load cables. Output internally sensed (<5% change) if leads are opened.

Output Polarity..... Floating.

Ripple & Noise (PARD)..... 50mV max or <1% peak-to-peak nominal, whichever is greater, at the output terminals with a 20 Mhz bandwidth limit. May be measured with 0.1μF ceramic capacitor in parallel with a 22μF tantalum.

Hold-up Time..... Output remains in regulation >20msec minimum following loss of AC power at low line, full load.

Over Voltage Protection .. Non-crowbar type. Output exceeding 25%±10% of nominal Vout will cause the output to latch off. Remote enable or AC input recycle required to reset.

Over Temperature Protection ..... Internal temperature sensing. Automatic recovery.

Over Current/Short Circuit Protection ..... Protected against overload and short-circuit faults. Automatic recovery when overload is removed.

-Signals, Indicators and Controls-

Remote Enable ..... Enabled by open circuit or TTL logic 1. Disabled by closed circuit or TTL logic 0. Referenced to (-) sense.

DC-OK Signal..... Open collector signal. High when V-out is within 5% of nominal voltage. Signal goes low when V-out drops below 92% to 95% of nominal. Referenced to (-) sense.

Power Fail Warning..... Loss of input AC causes an open collector signal to go high >4msec prior to the output dropping out of regulation. Referenced to (-) sense.

-Interconnect-

Note: All board mounted connectors are products of Molex, Inc. Use of the specified mating connectors and terminals or user verified compatible equivalents is recommended to maintain safe operation. All headers and housings are glass-filled polyester, rated UL94V-0.

AC Input Connector ..... Series 41791, 26-60-4030, 3 position vertical friction lock header, center pin removed. Mates with Series 41695, 09-50-8033 polarized (recommended) or 09-50-8031 housing.

DC Output Connector ..... Series 41791, 26-60-4060, 6 position vertical friction lock header. Header rated 7.0A max DC capacity per pin. Actual capacity may derate depending on user selected connecting terminal type and wire gauge. Mates with Series 41695, 09-50-8063 polarized (recommended) or 09-50-8061 housing.

Wire Terminals..... Series 2478 or 6838 for 18-20AWG wire,
08-52-0072, std, phos/bnz, or
08-50-0106, std, tin/brass, or
08-52-0113, Trifurcon, phos/bnz, or
08-52-0189, Trifurcon, tin/brass.

Per Contact Rating ..... Phos/Bnz, 18AWG: 7.00A; 20AWG: 6.25A.
Tin/Brass, 18AWG: 5.00A; 20AWG: 4.75A.
Multiple contact point Trifurcon type recommended for high shock or vibration applications. Phosphor/bronze required for +50°C/+70°C operational applications.

Signal Connector ..... Series 6373, 22-23-2061, 6 position vertical friction lock header.
Mates with Series 2695, 22-01-3067 polarized (recommended) or 22-01-2067 housing.

Standby/Fan Drive Output Connector..... Series 6373, 22-23-2021, 2 position vertical friction lock header.
Mates with Series 2695, 22-01-3027 polarized (recommended) or 22-01-2027 housing.

Signal/Fan Wire Terminals..... Series 2759 or 6459 for 22-30AWG wire,
08-52-0123, phos/bnz (4.0A max), or
08-50-0114, tin/brass (2.5A max).

-Output Connector Function ID-

CN1: AC Input Connector

PIN 1	NEUTRAL (ACC)
PIN 2	NO PIN
PIN 3	LINE (AC)

CON1: DC Output Connector

PIN 1	+VOUT
PIN 2	+VOUT
PIN 3	+VOUT
PIN 4	RTN
PIN 5	RTN
PIN 6	RTN

CON3: Signal Connector

PIN 1	RTN
PIN 2	- SENSE
PIN 3	+ SENSE
PIN 4	REMOTE ON/OFF
PIN 5	POWER FAIL
PIN 6	DC-OK

CON2: Standby/Fan Output Connector

PIN 1	+ 12V
PIN 2	+12V RTN

-Operating Environment-

Operating Temperature ... Oº – 50ºC ambient at full load, with specified airflow. Derate linearly to 50% of full load at 70ºC.

Cooling ..... A minimum of 6.5 CFM direct airflow required to achieve full rated power and specified MTBF. Std airflow direction from output end toward input end. Consult factory for derating guidelines with reduced or alternate direction airflow.

Operating Vibration..... 0.75G peak, 5 – 500Hz along three orthogonal axis.

Relative Humidity..... Up to 90% RH, non-condensing.

Storage Temperature..... -40º to 85ºC.

Altitude ..... Operating to 10,000 ft [3048m]. Storage to 30,000 ft [9144m].

MTBF ..... Designed for 150,000 hours at 25ºC.

-Environmental Considerations-

All materials, processes and packaging used in the assembly and shipping of this product comply with the requirements of the Report on Hazardous Substances (RoHS). A Certificate of Compliance is available on request. Contact the factory.

-Safety-

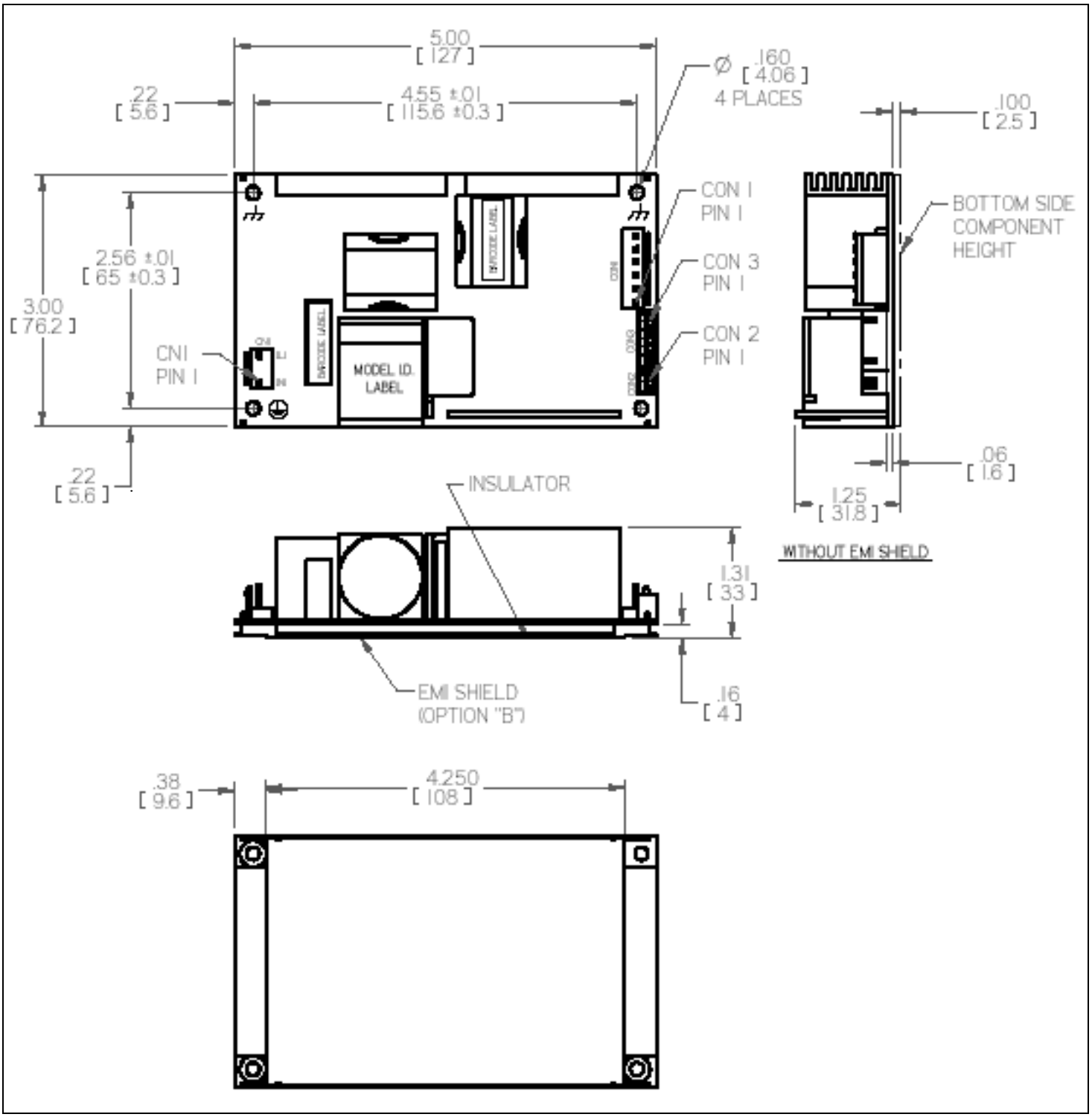
Recognized to U.S. and Canadian Bi-National Standard UL 60950-1, 1st. Ed., 2007, and CSA C22.2 No. 60950-1-03, 2007 (cULus Mark).
Category Code QQGQ2/QQGQ8, File E132056;
Certified by TÜV SÜD (Product Services) to EN 60950-1:2006.
Certificate No.: B 09 08 37295 039.
CE Marked.

-LIMITED WARRANTY POLICY-

All Jasper Electronics (JE) standard model power supplies and products are guaranteed to be free of defects in workmanship and materials for a minimum of two (2) years from the date of original shipment, when operated within specification. This warranty applies only to defects that result in a failure to perform to published specifications. Non-standard (custom) power supplies and products may be warranted on an individual basis. The unused portion of this warranty is fully transferable with the original equipment in which the power supply is installed.

Mechanical Outline

(Dimensions in inches[millimeters]. Not to scale.)



ORDERING INFORMATION:

1	2	3	4	5
TM151	-___	-B	-MXXXX	G
Base Model, 151: 150W 101: 100W Output Power.	Output Voltage Required - Select Code from Chart Under "Output".	Optional Shield.	Custom Configuration Code.	RoHS Compliant Model.

3) -B: Optional shield. Leave blank if not required.

4) -MXXXX: Custom Configuration Code.
Modified, where XXXX is a factory assigned 4-digit number to identify a unique, user specified configuration. Such models may include special or non-standard features and/or options, or be in a configuration differing sufficiently from the design of the approved similar standard model from which it is derived to require re-evaluation of all or part of the design to insure continuing compliance with all safety requirements. Consult the factory for exact requirements.

5) G: RoHS Compliant.
Jasper products that are fully compliant with the requirements of Directive 2002/95/EC Report On Hazardous Substances (RoHS-6) are identified with the letter code "G" adjacent to the model description on the unit labels and related documents (sales orders, etc). All materials, processes and packaging used in the assembly and shipping of this product comply. A Certificate of Compliance is available on request. Contact the factory.

Examples: TM151-5G 24.0V@6.25A (150W) output.
TM101-1-BG 5.0V@20.0A (100w) output, with option B shield.