POWERMASTER

In-line Switch Mode Power Supply Unit T2425-025 - 60J Series



FEATURES

- In-line light weight compact Switch Mode Power Supply Units with a wide 96V-264V AC input voltage range to suit travel product applications.
- Standard IEC-C14 inlet allows the correct IEC-C13 power cord to be selected for different countries.
- Electrical Safety Authority Approved.
- Other voltages and choice of output plug can be custom made upon request.

OUTPUT

Output Voltage	24V DC Nominal (Min 22.8V DC - Max 25.2V DC)
Maximum Load Current	2.5A (Max)
Maximum Output Power	41.6W
Ripple and Noise*	240mV p-p
Output overshoot/undershoot**	+/- 5%
Turn-on Delay	5 Seconds (Max)
Hold-up Time ***	10mS (Min) at 230Vac/50Hz
Dynamic Response	The power supply shall maintain output transient response time within 10ms with a loading current change from 20% to 80% of maximum current and 0.5A/μs rise up or drop down tested at output terminals.

^{*} At 240v ac, maximum load.

INPUT

	MINIMUM	RATED	MAXIMUM
Input Voltage	90V AC	100 – 240V AC	264V AC
Input Frequency	47 Hz	50 / 60 Hz	63 Hz
Maximum Input Current*			1500mA

^{**} At full-load, 25°C, cold start. There shall not be any damage and the input fuse shall not blow.

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PROTECTION

Over-current Protection	>3A and ≤5A with auto-recovery function
Over-Voltage Protection	25.2V maximum
Short-circuit Protection	The adapter shall not be damaged by short the DC output to Ground.
Open-circuit Protection	When primary power is applied with no load on any output level, no components damaged or hazardous conditions should be occurred.

ENVIRONMENTAL

	OPERATING	STORAGE
Temperature	0°C to +40°C	-30°C to +70°C
Relative Humidity	10 ~ 90 % RH. Non-condensing	10 ~ 90 % RH. Non-condensing
Altitude	Sea Level to 2,000 m	Sea Level to 2,000 m
Vibration and Shock	1.0mm, 10-55Hz, 15 minutes per cycle for each axis (X, Y, Z)	The power supply shall be designed to withstand normal transportation vibration per MILSTD_ 810D, method 514 and procedures X, as it is mounted in the chassis assembly and packed for shipping.
Cooling	Natural convection	

ENERGY EFFICIENCY

No Load Power Consumption (230V AC 50Hz)	0.5W max
Average active mode efficiency *	85.00% at 230Vac/50Hz
International e Efficiency Level	IV
MEPS Compliance	AS/NZS 4665.1 + .2

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MECHANICAL

Dimensions	124.5(L) × 51.0(W) × 34.00(H)mm
Input Plug Type	Desk-type, IEC60320 (C14) 3 Blade Receptacle
Output Cord	18AWG/2C SPT-1, 1828mm
Output Plug	DC PLUG 11 x 5.5 x 2.5 mm
Drop Test	With half cycle input voltage drop-out, the unit shall operate within the prescribed voltages with a drop-out pulse repetition rate of 500mS. Conditions: Full load and nominal input AC voltage Limits: Meet the regulation requirement

RELIABILITY

Mean Time Between failure (MTBF)	The power supply shall be designed and Prediction to have a mean time between failures (MTBF) of 50000 operating hours minimum and conditions: 25°C, MTBF MIL-HDBK-217F
Burn-in Test	The power supply shall withstand a minimum of 4 hours burn-in testing under full load at 35°C $\sim 40^{\circ}C$ +/- 5°C room temperature. After the test, the product shall operate normally.

SAFETY

Compliance Standard	AS/NZS60950
Insulation Resistance	>10MΩ at 500V DC.
Dielectric withstanding voltage test (Hi-pot test) Primary to Secondary	1500VAC 10mA for 1 minute
Leakage Current	3.5mA at nominal AC input voltage and frequency for class 1

HAZARDOUS SUBSTANCES

All components and materials used shall be in compliance with:

- EU Directive 2002/95/EC "RoHS"
- EU Directive "REACH"

EMC COMPLIANCE

AS/NZS CISPR22 **Compliance Standard**

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