POWERMASTER

Wall Mount Switch Mode Power Supplies

32G Series T2412-21G





FEATURES

Wall mounted light weight and compact Switch Mode Power Supply Units with a wide 90V-264V AC input voltage range. Insulated active and neutral pins meet AS/NZS3112 for improved electrical safety. Electrical Safety Authority Approved. Popular models are shown in the table below. Other voltages and choice of output plug can be custom made upon request.

OUTPUT

Output Voltage	+24V
Rated Load Current	1.2A
Minimum Load Current	0.05A
Rated Output Power	28.8W
Over-voltage Protection	The output voltage shall be clamped.
Over-current Protection	Adaptor protected from 110-200% of rated DC output.
Line Regulation	<±5% at rated load with ±10% of input voltage change
Load Regulation	<±5% from 10% to 100% of rated load (for +24V)
Short-circuit Protection	The adaptor shall not be damaged by shorting the DC output to Ground with auto recovery functioning correctly.
Ripple and Noise	Add 0.1uF/50V ceramic capacitor and 10uF/50V aluminium electrolytic capacitir across the output terminal. Measured with 20MHz Bandwidth Oscilloscope.
Hold-up Time (min)	10mS minimum at nominal input AC voltage and full load
Output over-shoot	<7% of nominal voltage value and full load
Temperature coefficient	Output voltage temperature coefficient ±0.05%/°C
Turn-on Delay (max)	3 Seconds at nominal input AC voltage and full load
Rise Time	Start-up rise time of <40mS to rise to within regulation limits
Switching Efficiency	80.2% minimum at normal input voltage, 115V/60Hz and 230V/50Hz output current from 100%, 75%,50% and 25%.

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///////////////INPUT

	MINIMUM	RATED	MAXIMUM
Input Voltage	90V AC	100 – 240V AC	264V AC
Input Frequency	-3 Hz	50 / 60 Hz	63 Hz
Input Current - 230V AC			0.9A
Input Power			36.42W
Inrush Current	no damage shall be occurred and the input fuse shall not be blown up nominal input voltage full load 25°C cold start.		
Primary current protection	An adequare internal fuse on	the AC input line is provided.	
Configuration	Wall mount, AU-pin, 2-conductors		

POWER CONSUMPTION AT NO LOAD

Input current	≤25mA
Power consumption (no load)	0.3W max

ENVIRONMENTAL

	OPERATING	STORAGE	
Temperature	0°C to +40°C	-20°C to +80°C	
Relative Humidity	$10 \sim 90$ % RH. Non-condensing	$10 \sim 90 \%$ RH. Non-condensing	
Cooling	Natural convection		

MECHANICAL

Dimensions	96.0(L) x 47.0(W) x 34.2(D)mm.
Weight	196g maximum.
Plastic Case	UL94V-1
Input Plug Type	Wall type, SAA 2-pin AS/NZS3112:2000
Output Cord	22AWG/2C, 1.8m, VW-1, 80 °C, 300V, 3.0Q, black (PAHS+REACH+ROHS)
Output Plug	dc plug type 5.5 x 2.1 x 11mm (FORK AND GROOVE)
Polarity	Center Positive

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■ RELIABILITY

Mean Time Between Failure (MTBF)

The power supply is designed to have a MTBF of 50,000 hours.

SAFETY

Dielectric withstanding voltage test (Hi-pot test) input to output	3000V AC 10mA for 1 minute.
Insulation Resistance	$10 M\Omega$ at $500 V$ DC between Input to Output
Leakage Current	0.25mA maximum at normal AC input voltage and frequency