# Wall Mount Switch Mode Power Supply Unit T0530-25J 18J Series



#### **FEATURES**

Wall mounted light weight and compact Switch Mode Power Supply Units with a wide 90V-264V AC input voltage range to suit travel product applications.

The narrow width allows two adaptors to be used in a standard double power outlet. Insulated active and neutral pins meet AS/NZS3112 for improved electrical safety.

Electrical Safety Authority Approved. Other voltages and choice of output plug can be custom made upon request.

#### **OUTPUT**

Output Voltage	5.0V DC Nominal ( Min. 4.75V DC - Max. 5.6V DC )
Maximum Load Current	3.0A ( Max )
Rated Output Power	15W
Ripple and Noise Voltage measured p-p with a 20MHz bandwidth oscilloscope. The output is paralleled with a 10uF low ESR electrolytic capacitor and a 0.1uF ceramic capacitor to ground at rated input and full load condition.	250mV
Output overshoot When power is switched on and off at full load condition.	20% ( Max )
Turn-on Delay (Max)	5 Seconds ( Max )
Hold-up Time (Min) At 230V AC 50Hz and maximum load.	10mS ( Min )
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 $0.5A/\mu s$ rise up or drop down tested at output terminals.



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#### /////////INPUT

	MINIMUM	RATED	MAXIMUM
Input Voltage	90V AC	100 – 240V AC	264V AC
Input Frequency	47 Hz	50 / 60 Hz	63 Hz
Input Current At 240v AC Maximum Load			450mA
At full load cold start	The inrush current will not exceed 60A, do not result any damage and the input fuse shall not be blown up.		

#### **MECHANICAL**

Weight	125g ± 10g		
Input Plug Type	Wall type, AU-Pin, 2 Conductors, < Active, Neutral >		
Output Cord	UL1185, 18AWG * 2C, Black		
Output Plug Dimensions	11.0(L) x 5.5(D) x 2.5(ID)mm		
Drop Test	A sample is to be subjected to three impact tests by dropping from a height of 1000mm ±10mm onto a horizontal surface in positions most likely to produce the most adverse results. The horizontal surface consists of hardwood at least 13mm thick, mounted on two layers of plywood each 19mm to 20mm thick, all supported on a concrete or equivalent non-resilient floor. The sample shall subsequently pass an electrical functional test and the case shall not be cracked.		

#### **ENVIRONMENTAL**

Cooling	Natural convection
Operating Temperature	0°C to +40°C
Storage Temperature	-30°C to +70°C
Operating Humidity	10 ~ 90 % Non-condensing
Storage Humidity	10 ~ 90 % Non-condensing
Altitude	Sea Level to 2,000m
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 MIL-STD_810D method 514 and procedures X, as it is mounted in the chasis assembly and packed for shipping.



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#### **PROTECTION**

#### Over-current Protection \*

The output voltage will drop when an over-current condition is applied to the output and there shall be self-recovery to the normal state when the over-current condition is removed (auto recovery).

> 3.2A and  $\leq$  5.2A (Trip range at 240V AC 50Hz)

**Short-circuit Protection** 

The adaptor's input power shall decrease when the output is short circuited and it shall be able to withstand this condition continuously without damage. There shall be self-recovery to the normal state when the fault condition is removed.

#### RELIABILITY

Mean Time Between Failure (MTBF)	When the power supply is operating within the limits of this specification the MTBF shall be at least 20,000 at 25°C (MIL_HDBK-217F).
Burn-in Test	The power supply shall withstand a minimum of 4 hours burn-in testing under full load at $35^{\circ}$ C $\sim 40^{\circ}$ 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	4242V DC 5mA for 1 minute (sample) or for 3 seconds (production)
Leakage Current	< 0.25mA for Class II at maximum input voltage

#### **ENERGY EFFICIENCY**

Compliance	MEPS: AS/NZS 4665.1, AS/NZS 4665.2
International Efficiency Level	V
No Load Power Consumption ( 230V AC 50Hz )	0.3W Max
Average Active Mode Efficiency This measurement should be after the UUT working in a stable state and the average efficiency should be measured at four active loads: 25%, 50%, 75% and 100% of the rated load	>76.4 %

To view Access' extensive ranges go to: www.accesscomms.com.au



## **Wall Mount Switch Mode** Power Supply Unit

#### **EMC COMPLIANCE**

#### **COMPLIANCE STANDARD**

#### **AS / NZS CISPR22**

The power supply shall meet the following EMS Standards:

EN61000-4-2 Electrostatic discharge (ESD) Immunity

Severity Level: Level 3, Air Discharge: ±8KV Severity level 2, Contact Discharge: ±4KV

Performance Criterion: B

EN61000-4-3 RF field strength immunity

Radio-frequency Electromagnetic Field Susceptibility Test (RS), 80-1000MHz,

Severity Level: Level2, 3V/M Performance Criterion: A

EN61000-4-4 Electrical Fast Transient / Burst (EFT) Immunity

Severity Level: Level 2, line to line: 1.0KV

Performance Criterion: B

EN61000-4-5 Surge Immunity

Severity Level: Level 2, line to line: 1.0KV Severity Level: Level 3, line to earth: 2.0KV

Performance Criterion: B

EN61000-4-6 Conducted Disturbances Immunity

Conducted Radio Frequency Disturbances Test (CS), 0.15-80MHz, Severity Level: Level 2, 3V(rms), Modulation signal 1kHz 80% AM

Performance Criterion: A

EN61000-4-8 Magnetic Field Immunity

Severity level: level1, 1A/M Performance Criterion: A

EN61000-4-11 Voltage Dips and Short Interruption Immunity

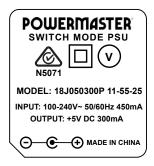
Voltage Dips and Short Interruption: 30%, 60%, >95%

Performance Criterion: B & C



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#### **RATING PLATE**



#### HAZARDOUS SUBSTANCES

All components and materials used shall be in compliance with:

EU Directive 2002/95/EC "RoHS"

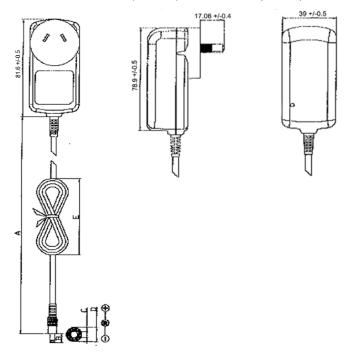
EU Directive "REACH"

EU Directive "205/84/EC "PHTs 16P"

For all plastic materials that can be touched by human skin

#### PRODUCT DRAWING

Mechanical Dimension (Unit: mm) Tolerance of unspecified parts ±1mm



	A	В	C	D	E
DIMENSION	1830	11	2.5	5.5	80
TOLERANCE	+ 100 / - 0	± 0.5	± 0.1	± 0.1	± 10
DC CORD SPEC.	18 AWG*2C, Black				