

A-CUBE-PSU

Features

- Universal AC input / full range
- 3 pole AC inlet IEC320-C14, class I power unit
- No load power consumption <0.3 W
- Energy efficiency level VI
- Comply with EISA 200//DoE
- Protections: Short circuit / overload / over voltage
- Fully enclosed plastic case
- -20 ~ +70 °C working temperature
- LED indicator for power on
- Dual output available (optional)



Specification

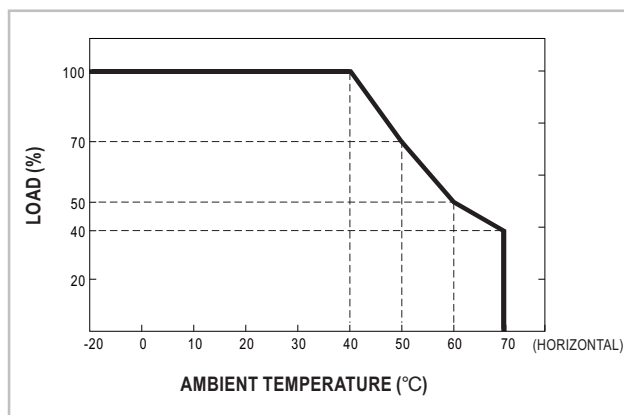
Order no.	A-CUBE-PSU		
Safety model no.	GP25A13D		
Dc voltage note.2	5 V	12 V	-12 V
Rated set current	2.5 A	1 A	0.3 A
Current range	0.5 ~ 2.5 A	0.2 ~ 1 A	0.1 ~ 0.3 A
Rated power	28 W		
Output			
Ripple & noise (max.) note.3	60 mVpp	120 mVpp	50 mVpp
Voltage tolerance note.4	±5.0%	-5.0% ~ +5.0%	±3.0%
Line regulation note.5	±1.0%	±1.0%	±1.0%
Load regulation note.6	±5.0%	±5.0%	±3.0%
Setup, rise, hold up time	800 ms, 50 ms, 20 ms / 30 VAC 1200 ms, 50 ms, 16 ms / 115 VAC at full load		
Input			
Voltage range note.7	90 ~ 264 VAC 135 ~ 370 VDC		
Frequency range	47 ~ 63 Hz		
Efficiency (typ.)	80%		
AC current	0.8 A / 100 VAC 0.4 A / 230 VAC		
Inrush current (max.)	cold start 30 A / 115 VAC 60 A / 230 VAC		
Leakage current (max.)	0.75 mA / 240 VAC		

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Protection	Overload	110 ~ 160% rated output power Protection type: Hiccup mode, recovers automatically after fault condition is removed		
	Over voltage	110 ~ 140% rated output voltage Protection type: clamp by zener diode (5 V only), output short		
Environment	Working temp.	-20 ~ +70°C (Refer to "Derating curve")		
	Working humidity	20% ~ 90% RH non-condensing		
	Storage temp., humidity	-20 ~ +85°C, 10 ~ 95% RH non-condensing		
	Temp. coefficient	±0.03% / °C (-20 ~ 40°C)		
	Vibration	10 ~ 500 Hz, 2 G 10 min./1cycle, period for 60 min. each along X, Y, Z axes		
Safety & EMC (Note. 8)	Safety standards	IEC60950-1, UL60950-1, CSA22.2, EN60950-1 approved		
	Withstand voltage	I/P-O/P:4242VDC , I/P-FG:2121VDC		
	Isolation resistance	I/P-O/P,I/P-FG:100 M Ohms / 500 VDC / 25°C/ 70% RH		
	EMC emission	Parameter	Standard	Test Level / Note
		Conducted emission	EN55032 (CISPR32), FCC PART 15/ CISPR22, CAN ICES-3(B)/NMB-3(B)	Class B
		Radiated emission	EN55032 (CISPR32), FCC PART 15/ CISPR22, CAN ICES-3(B)/NMB-3(B)	Class B
		Harmonic current	EN61000-3-2	Class A
		Voltage flicker	EN61000-3-3	—
	Emc immunity	Parameter	Standard	Test Level / Note
		ESD	EN61000-4-2	Level 3, 8 KV air; Level 2, 4 KV contact
RF field susceptibility		EN61000-4-3	Level 2, 3 V/m	
EFT bursts		EN61000-4-4	Level 2, 1 KV	
Surge susceptibility		EN61000-4-5	Level 3, 1 KV/L-N, 2 KV/L, N-PE	
Conducted susceptibility		EN61000-4-6	Level 2, 3 V	
Voltage dips, interruption		EN61000-4-11	>95% dip 0.5 periods, 30% dip 25 periods, >95% interruptions 250 periods	

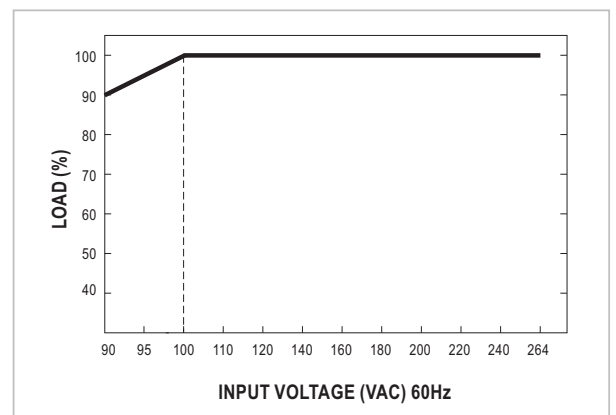
Order no.	A-CUBE-PSU	
Others	Life	3 years : 100% load 40°C, 8 hours /day
	MTBF	620 K hrs min. MIL-HDBK-217F (25°C)
	Dimension	107.5*67*36 mm (L*W*H)
	Packing	0.3 kg ; 54 pcs/ 20 kg / carton
Connector	Plug	see page 4
	Cable	see page 4

- Note
1. All parameters are specified at 230 VAC input, rated load, 25°C 70% RH ambient.
 2. DC voltage: the output voltage set at point measure by plug terminal & 50% load.
 3. Ripple & noise are measured at 20 MHz by using a 12" twisted pair terminated with a 0.1µf & 47µf capacitor.
 4. Tolerance: includes set up tolerance, line regulation, load regulation.
 5. Line regulation is measured from low line to high line at rated load.
 6. When measured between the light load (20% of rated load) and full load, the load regulation is within ±5% whereas the cross regulation is within ±15%.
 7. Derating may be needed under low input voltages. Please check the static characteristics for more details.
 8. The power supply is considered as an independent unit, but the final equipment still need to re-confirm that the whole system complies with the EMC directives. For guidance on how to perform these EMC tests, please refer to "EMI testing of component power supplies".

Derating Curve

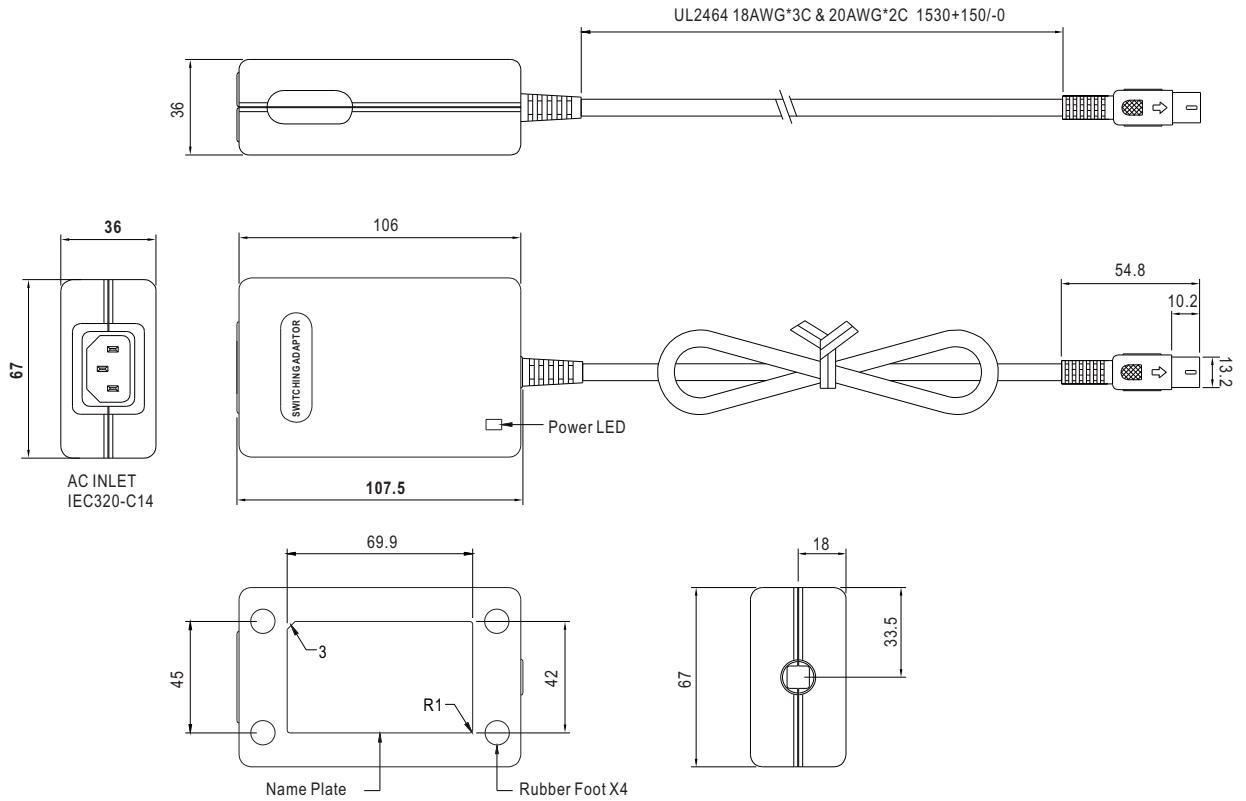


Static Characteristics



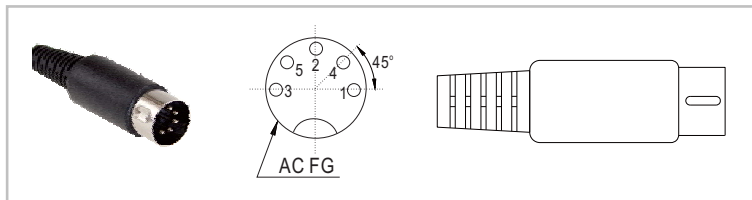
Mechanical Specification

Unit:mm



DC Output Plug

DIN 5 Pin (male)



Standard plug: R1B

Pin Assignment

PIN No.	Output
1	COM
2	COM
3	+5 VDC
4	-Vout
5	+Vout