



E-Star Power Development Co., Ltd. (E-STAR)
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55W Battery Charger Power supply > AD-55



- Features :
 - Universal AC input / Full range
 - Protections: Short circuit / Overload / Over voltage
 - Battery low protections
 - Cooling by free air convection
 - 100% full load burn-in test
 - Fixed switching frequency at 45KHz
 - 2 years warranty



SPECIFICATION

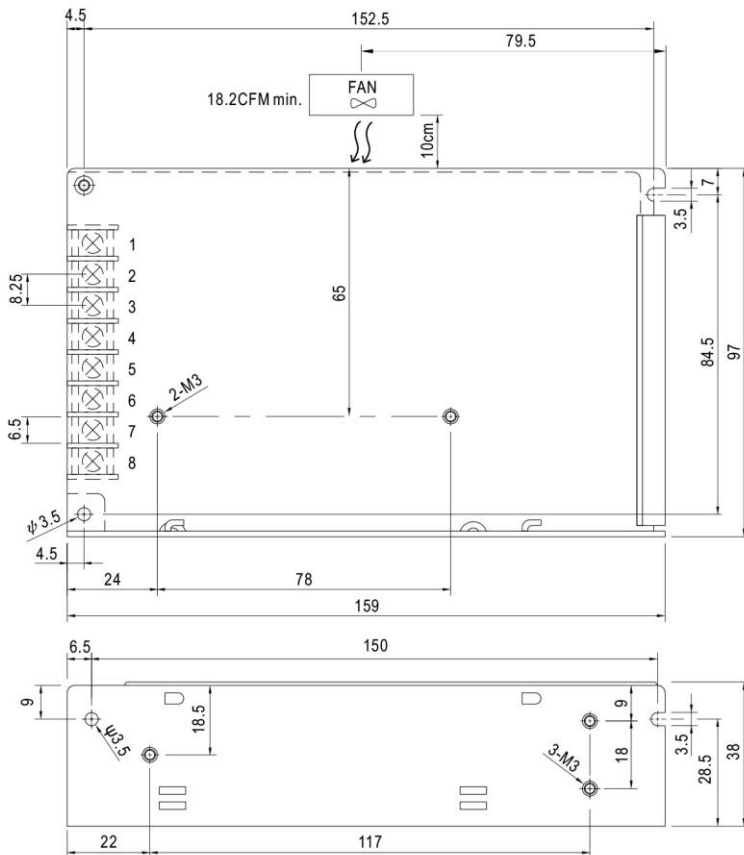
MODEL		AD-55A		AD-55B	
OUTPUT	OUTPUT NUMBER	CH1	CH2	CH1	CH2
	DC VOLTAGE	13.8V	13.4V	27.6V	26.5V
	RATED CURRENT	3.5A	0.23A	1.8A	0.16A
	CURRENT RANGE	0 ~ 4A	-----	0 ~ 2A	-----
	RATED POWER	51.38W		53.92W	
	RIPPLE & NOISE (max.) Note.2	100mVp-p		100mVp-p	
	VOLTAGE ADJ. RANGE	CH1: 12 ~ 14.5V		CH1: 24 ~ 29V	
	VOLTAGE TOLERANCE Note.3	±1.0%		±1.0%	
	LINE REGULATION	±0.5%		±0.5%	
	LOAD REGULATION	±0.5%		±0.5%	
INPUT	SETUP, RISE TIME	800ms, 50ms/230VAC 1600ms, 50ms/115VAC at full load			
	HOLD UP TIME (Typ.)	80ms/230VAC 16ms/115VAC at full load			
	VOLTAGE RANGE	88 ~ 264VAC 124 ~ 370VDC			
	FREQUENCY RANGE	47 ~ 63Hz			
	EFFICIENCY (Typ.)	71%		74%	
	AC CURRENT (Typ.)	1.6A/115VAC 1A/230VAC			
PROTECTION	INRUSH CURRENT (Typ.)	COLD START 20A/115VAC 40A/230VAC			
	LEAKAGE CURRENT	<1mA / 240VAC			
	OVERLOAD	105 ~ 150% rated output power Protection type : AC Charging Mode : Hiccup mode, recovers automatically after fault condition is removed UPS Mode : Protected by internal fuse			
OVER VOLTAGE	CH1:15.87 ~ 18.63V		CH1:31.74 ~ 37.26V		
	Protection type : Hiccup mode, recovers automatically after fault condition is removed				
BATTERY LOW	9.5 ~ 11V		20 ~ 22V		
FUNCTION	DC ALARM SIGNAL(OPTIONAL)	AC fail CN1 PIN2 Battery low under charge voltage 82.5%±2% CN1 PIN1 Normal 0.8V max. Abnormal 5V±0.5V			
	WORKING TEMP.	-10 ~ +60°C (Refer to "Derating Curve")			
	WORKING HUMIDITY	20 ~ 90% RH non-condensing			
ENVIRONMENT	STORAGE TEMP., HUMIDITY	-20 ~ +85°C, 10 ~ 95% RH			
	TEMP. COEFFICIENT	±0.03%/°C (0~50°C) on CH1 output			
	VIBRATION	10 ~ 500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes			
SAFETY & EMC (Note 4)	SAFETY STANDARDS	UL62368-1, TUV EN62368-1, AS/NZS 62368.1, EAC TP TC 004 approved			
	WITHSTAND VOLTAGE	I/P-O/P:3KVAC I/P-FG:2KVAC O/P-FG:0.5KVAC			
	ISOLATION RESISTANCE	I/P-O/P, I/P-FG, O/P-FG:100M Ohms / 500VDC / 25°C/ 70% RH			
	EMC EMISSION	Compliance to EN55032 (CISPR32) Class B, EN61000-3-2,-3, EAC TP TC 020			
	EMC IMMUNITY	Compliance to EN61000-4-2,3,4,5,6,8,11, EN55024, light industry level, criteria A, EAC TP TC 020			
OTHERS	MTBF	304.3K hrs min. MIL-HDBK-217F (25°C)			
	DIMENSION	159*97*38mm (L*W*H)			
PACKING	0.5Kg; 24pcs/12.6Kg/0.83CUFT				
NOTE	1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature. 2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor. 3. Tolerance : includes set up tolerance, line regulation and load regulation. 4. The power supply is considered a component which will be installed into a final equipment. All the EMC tests are been executed by mounting the unit on a 360mm*360mm metal plate with 1mm of thickness. The final equipment must be re-confirmed that it still meets EMC directives. For guidance on how to perform these EMC tests, please refer to "EMI testing of component power supplies." 5. The ambient temperature derating of 3.5°C/1000m with fanless models and of 5°C/1000m with fan models for operating altitude higher than 2000m(6500ft).				



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Mechanical Specification

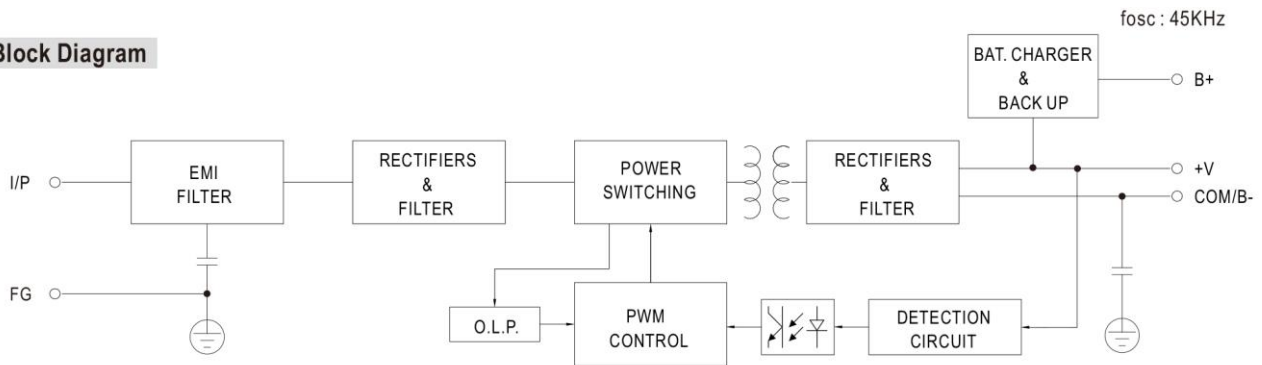
Case No. 901 Unit:mm



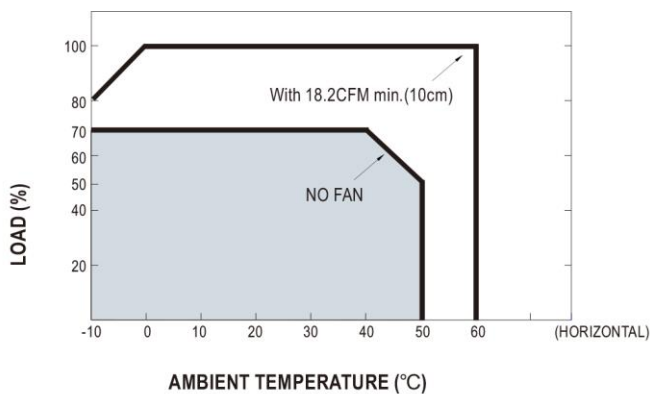
Terminal Pin No. Assignment :

Pin No.	Assignment	Pin No.	Assignment
1	AC/L	5	DC OUTPUT +V
2	AC/N	6	BAT. +
3	FG	7	BAT.-/COM
4	DC OUTPUT COM	8	NC

Block Diagram



Derating Curve



Static Characteristics (A)

