



E-Star Power Development Co., Ltd. (E-STAR)  
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**155W Battery Charger Power supply > AD-155**



- Features :
- Universal AC input / Full range
- Protections: Short circuit / Overload / Over voltage
- Battery low and battery polarity protection
- Cooling by free air convection
- 100% full load burn-in test
- Fixed switching frequency at PFC 67KHz, PWM 134KHz
- 2 years warranty



**SPECIFICATION**

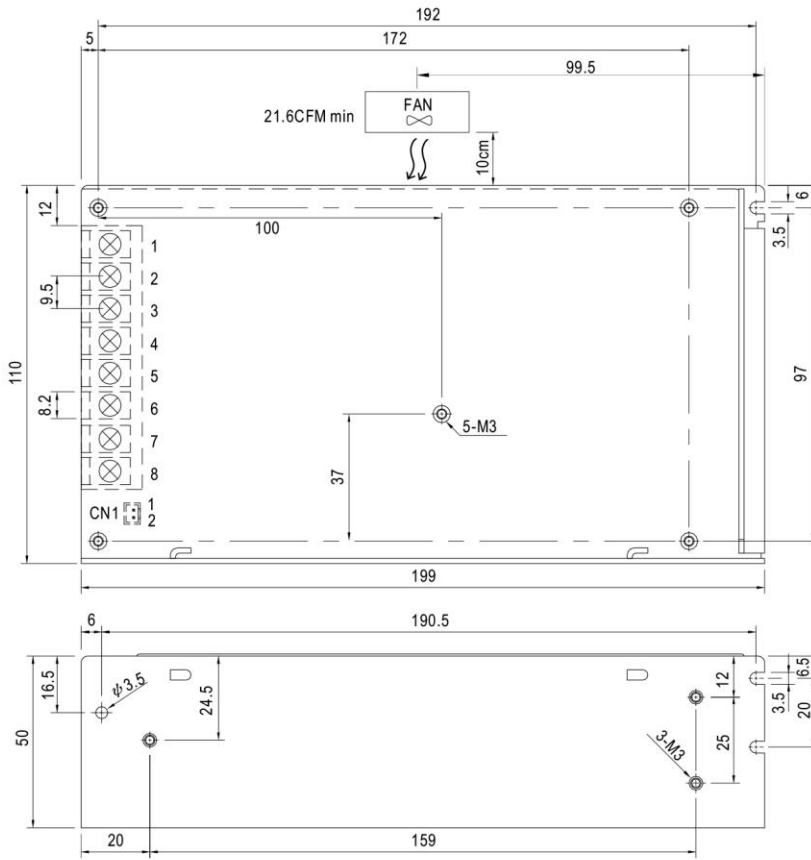
MODEL	AD-155A		AD-155B		AD-155C		
OUTPUT	OUTPUT NUMBER	CH1	CH2	CH1	CH2	CH1	CH2
	DC VOLTAGE	13.8V	13.3V	27.6V	27.1V	54V	53.5V
	RATED CURRENT	10.5A	0.5A	5A	0.5A	2.7A	0.2A
	CURRENT RANGE	0 ~ 11.5A	0 ~ 0.5A	0 ~ 5.5A	0 ~ 0.5A	0 ~ 2.7A	0 ~ 0.5A
	RATED POWER	151.55W		151.55W		156.5W	
	RIPPLE & NOISE (max.) Note.2	150mVp-p	-----	150mVp-p	-----	240mVp-p	-----
	VOLTAGE ADJ. RANGE	CH1: 12 ~ 14.5V		CH1: 24 ~ 29V		CH1: 48 ~ 58V	
	VOLTAGE TOLERANCE Note.3	±2.0%	-----	±1.0%	-----	±1.0%	-----
	LINE REGULATION	±0.5%	-----	±0.5%	-----	±0.5%	-----
	LOAD REGULATION	±0.5%	-----	±0.5%	-----	±0.5%	-----
SETUP, RISE TIME	1000ms, 90ms/230VAC		2000ms, 90ms/115VAC at full load				
HOLD UP TIME (Typ.)	24ms/230VAC	20ms/115VAC at full load					
INPUT	VOLTAGE RANGE	88 ~ 264VAC	124 ~ 370VDC				
	FREQUENCY RANGE	47 ~ 63Hz					
	POWER FACTOR (Typ.)	PF>0.92 at full load					
	EFFICIENCY (Typ.)	80%		84%		84%	
	AC CURRENT (Typ.)	2.5A/115VAC	1.5A/230VAC				
	INRUSH CURRENT (Typ.)	COLD START 23A/115VAC	45A/230VAC				
LEAKAGE CURRENT	<1mA / 240VAC						
PROTECTION	OVERLOAD	CH1:105 ~ 135% CH2:0.51 ~ 0.9A rated output power Protection type : AC Charging Mode : Constant current limiting, 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		CH1:62.1 ~ 72.9V	
	BATTERY LOW	10V±0.8V		19.5V(+1.5V,-1V)		39V±2V	
ENVIRONMENT	WORKING TEMP.	-10 ~ +60°C (Refer to "Derating Curve")					
	WORKING HUMIDITY	20 ~ 90% RH non-condensing					
	STORAGE TEMP., HUMIDITY	-20 ~ +85°C, 10 ~ 95% RH					
	TEMP. COEFFICIENT	±0.03%/°C (0 ~ 50°C)					
	VIBRATION	10 ~ 500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes					
SAFETY & EMC (Note 4)	SAFETY STANDARDS	UL62368-1, TUV EN62368-1, 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					
OTHERS	EMC IMMUNITY	Compliance to EN61000-4-2,3,4,5,6,8,11, EN55024, light industry level, criteria A, EAC TP TC 020					
	MTBF	183.3K hrs min. MIL-HDBK-217F (25°C)					
OTHERS	DIMENSION	199*110*50mm (L*W*H)					
	PACKING	0.88Kg; 16pcs/15Kg/0.95CUFT					
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. 906B Unit:mm



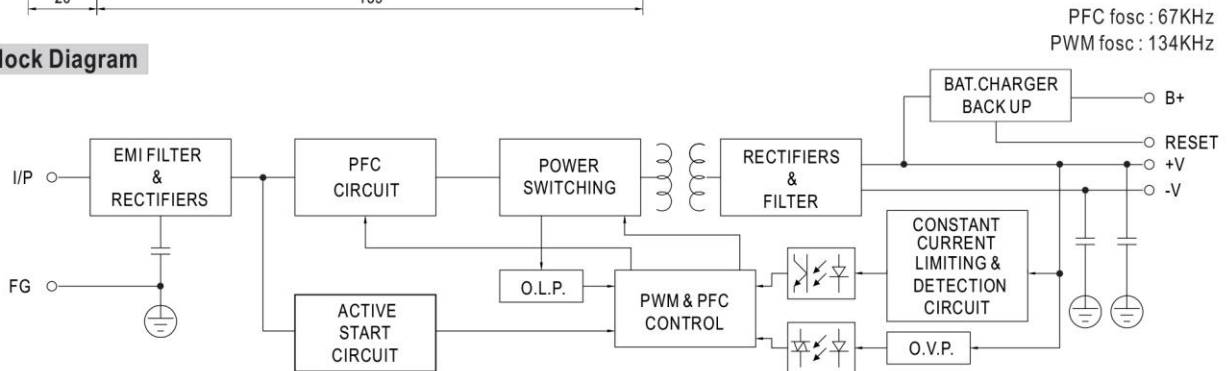
**Terminal Pin No. Assignment**

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

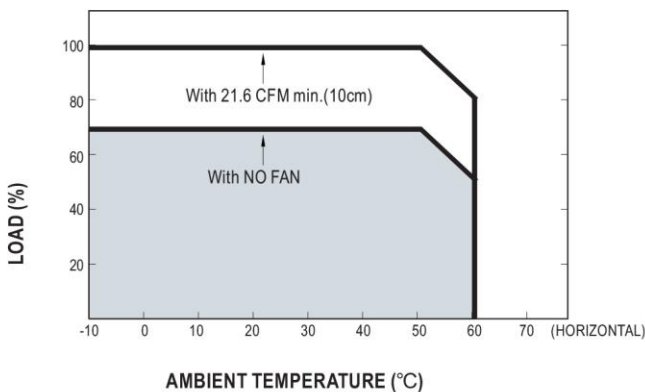
**CN1 Pin No. Assignment :JST B2B-XH or equivalent**

Pin No.	Assignment	Mating Housing	Terminal
1	RESET SW	JST XHP or equivalent	JST SXH-001T-P0.6
2			or equivalent

**Block Diagram**



**Derating Curve**



**Output Derating VS Input Voltage (A)**

