



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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■ Features :

- AC input range selected by switch
- Protections: Short circuit/Over load/Over voltage/Over temperature
- Battery under/Over voltage and polarity protections(ESC only)
- Forced air cooling by built-in DC fan(240V only)
- Fixed switching frequency at 25KHz
- 3 color LED loading indicator
- 2 years warranty

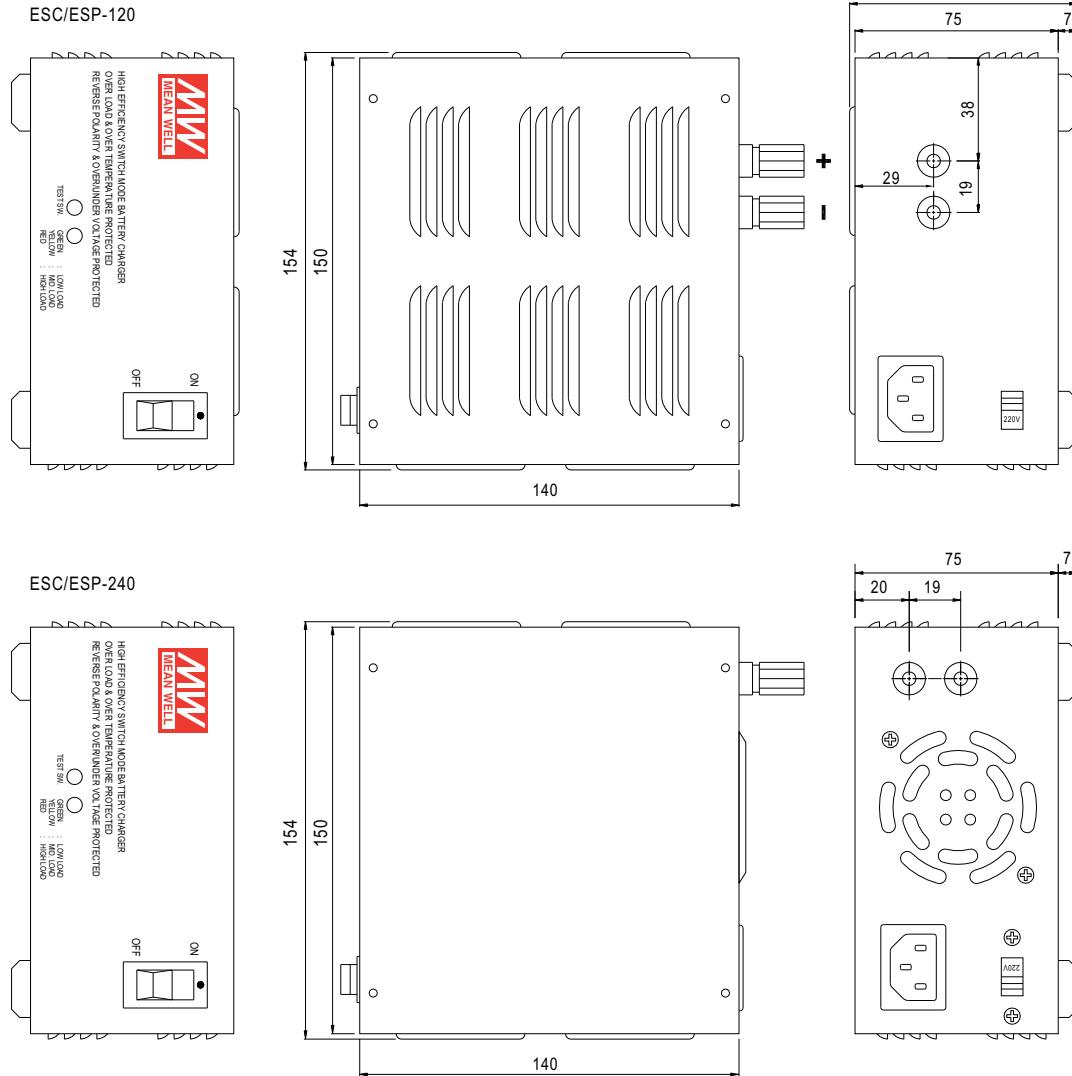


SPECIFICATION

MODEL		ESC/ESP-120			ESC/ESP-240		
OUTPUT	DC VOLTAGE	13.5V	27V	54V	13.5V	27V	54V
	RATED CURRENT	8A	4A	2A	16A	8A	4A
	CURRENT RANGE	0 ~ 8A	0 ~ 4A	0 ~ 2A	0 ~ 16A	0 ~ 8A	0 ~ 4A
	RATED POWER	108W	108W	108W	216W	216W	216W
	RIPPLE & NOISE (max.) Note.2	120mVp-p	150mVp-p	400mVp-p	120mVp-p	150mVp-p	400mVp-p
	VOLTAGE ADJ. RANGE	12 ~ 15V	24 ~ 30V	48 ~ 56V	12 ~ 15V	24 ~ 30V	48 ~ 56V
	VOLTAGE TOLERANCE Note.3	±2.0%	±1.0%	±1.0%	±2.0%	±1.0%	±1.0%
	LINE REGULATION	±0.5%	±0.5%	±0.5%	±1.0%	±0.5%	±0.5%
	LOAD REGULATION	±2.0%	±1.0%	±0.5%	±2.0%	±1.0%	±0.5%
	SETUP, RISE TIME	200ms, 100ms at full load			200ms, 100ms at full load		
HOLD TIME (Typ.)	36ms at full load			30ms at full load			
INPUT	VOLTAGE RANGE	88 ~ 132VAC/176 ~ 264VAC selected by switch			249 ~ 370VDC		
	FREQUENCY RANGE	47 ~ 63Hz					
	EFFICIENCY (Typ.)	81%	83%	84%	81%	84%	85%
	AC CURRENT (Typ.)	3A/115VAC	1.5A/230VAC		4.5A/115VAC	2.5A/230VAC	
	INRUSH CURRENT (Typ.)	COLD START 40A					
	LEAKAGE CURRENT	<3.5mA / 240VAC					
PROTECTION	OVER LOAD	105 ~ 135% rated output power Protection type : Fold back current limiting, recovers automatically after fault condition is removed					
	OVER VOLTAGE	15.5 ~ 18.2V	31 ~ 36.5V	62.1 ~ 72.9V	15.5 ~ 18.2V	31 ~ 36.5V	62.1 ~ 72.9V
	OVER TEMPERATURE	RTH5 ≥ 80°C Detect on heatsink of Q1,Q2 power transistor			RTH5 ≥ 85°C Detect on heatsink of Q1,Q2 power transistor		
	BATTERY	ESC series with bat. polarity, bat. Under voltage, bat. Over voltage protection					
FUNCTION	FAN CONTROL	NO FAN			RTH5 ≥ 60°C FAN ON, ≤ 50°C FAN OFF		
	WORKING TEMP.	-10 ~ +60°C (Refer to output load derating curve)					
ENVIRONMENT	WORKING HUMIDITY	20 ~ 90% RH non-condensing					
	STORAGE TEMP., HUMIDITY	-20 ~ +85°C, 10 ~ 95% RH					
	VIBRATION	10 ~ 500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes					
	SAFETY STANDARDS	CSA60950-1(UL3101-1,IEC1010-1,EN61010-1) Approved					
SAFETY & EMC (Note 4)	WITHSTAND VOLTAGE	I/P-O/P:3KVAC I/P-FG:1.5KVAC O/P-FG:0.5KVAC					
	ISOLATION RESISTANCE	I/P-O/P, I/P-FG, O/P-FG:100M Ohms/500VDC					
	EMI CONDUCTION & RADIATION	Compliance to EN55022 (CISPR22) Class B					
	HARMONIC CURRENT	Compliance to EN61000-3-2,-3					
	EMS IMMUNITY	Compliance to EN61000-4-2,3,4; ENV50204, Light industry level, criteria A					
	MTBF	215.8K hrs min.(ESC-120) 200.6K hrs min.(ESC-240) 250.9K Hrs min.(ESP-120) 226.6K Hrs min.(ESP-240) MIL-HDBK-217F (25°C)					
OTHERS	DIMENSION	150*140*86mm (L*W*H)					
	PACKING	1.38Kg; 8pcs/12Kg/1.1CUFT(ESC-120)			1.5Kg; 8pcs/13Kg/1.1CUFT(ESC-240)		
	NOTE	<ol style="list-style-type: none"> 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. The final equipment must be re-confirmed that it still meets EMC directives. 					

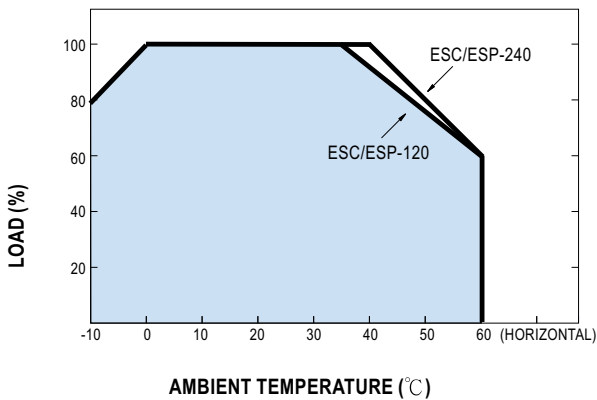
Mechanical Specification

Case No. 909E Unit:mm



※PIN+: DC OUTPUT +V
 ※PIN-: DC OUTPUT COM

Derating Curve



Static Characteristics (ESP-120-27.6)

