



108W/216W Desktop Power Supply or Charger

ESC/ESP-120/240 series

■ Features :

- AC input range selected by switch
- Protections: Short circuit / Overload / Over voltage / Over temperature
- Battery under/Over voltage and polarity protections(ESC only)
- Forced air cooling by built-in DC fan(240W 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 UP 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 | OVERLOAD | 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 & EMC (Note 4) | SAFETY STANDARDS | CSA1010.1(UL3101-1,IEC1010-1,EN61010-1) approved | | | | |
| 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 | | | | | |
| OTHERS | 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) | |
| | 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. | | | | | | |



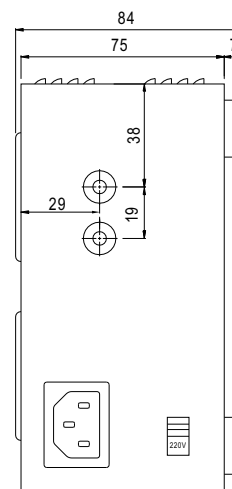
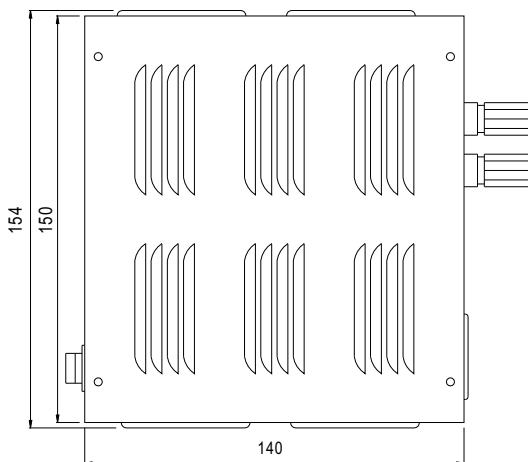
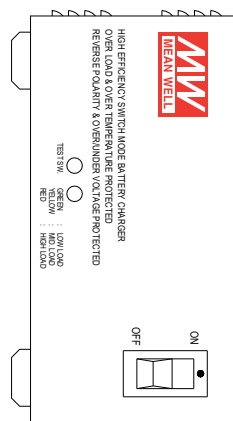
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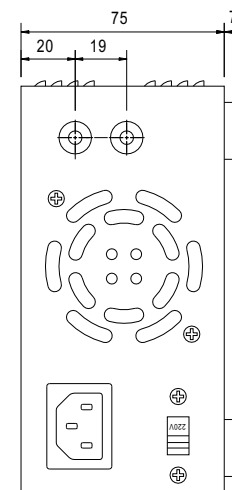
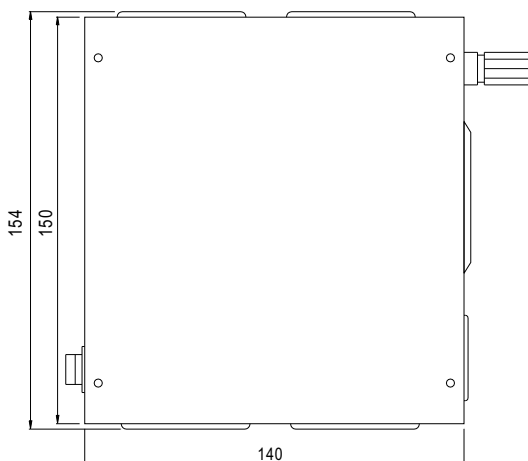
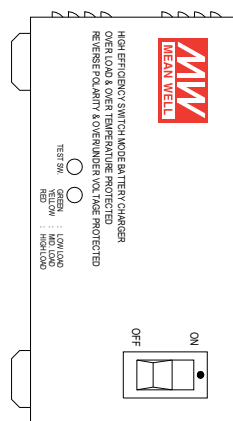
Mechanical Specification

Case No. 909E Unit:mm

ESC/ESP-120

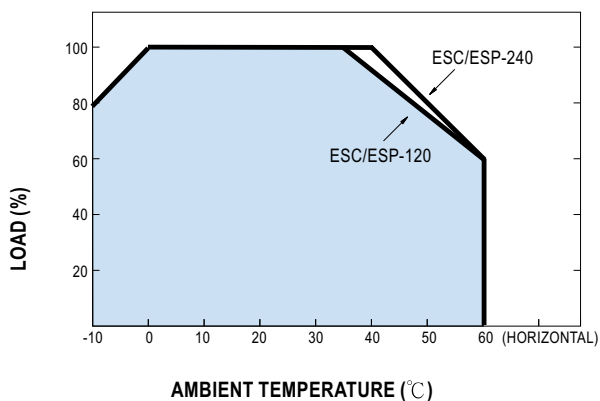


ESC/ESP-240

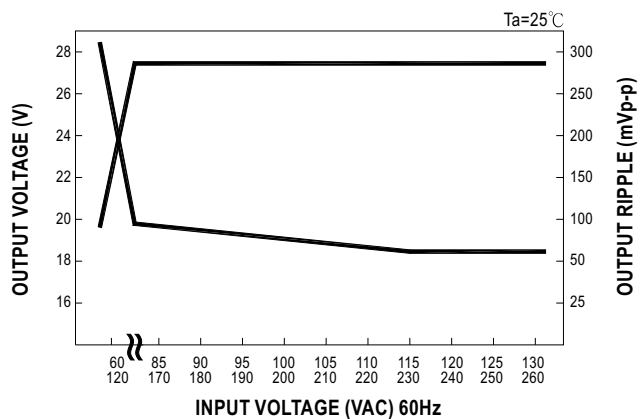


※PIN+: DC OUTPUT +V
 ※PIN-: DC OUTPUT COM

Derating Curve



Static Characteristics (ESP-120-27.6)



File Name:ESC/ESP-120/240-SPEC 2007-07-30