



■ Features :

- Universal AC input / Full range
- 3 pole AC inlet IEC320-C14
- Class I power ( with earth pin)
- Full output 3~48V safety approval
- Protections: Short circuit / Over load / Over voltage
- RCC control circuit and regulated
- Fully enclosed plastic case
- LED for power on
- Approvals: UL/ CUL / TUV / BSMI / CCC / CB / CE / FCC
- 1 year warranty

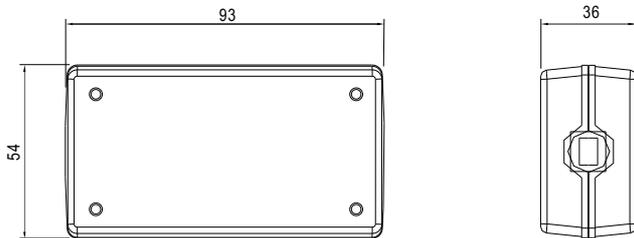
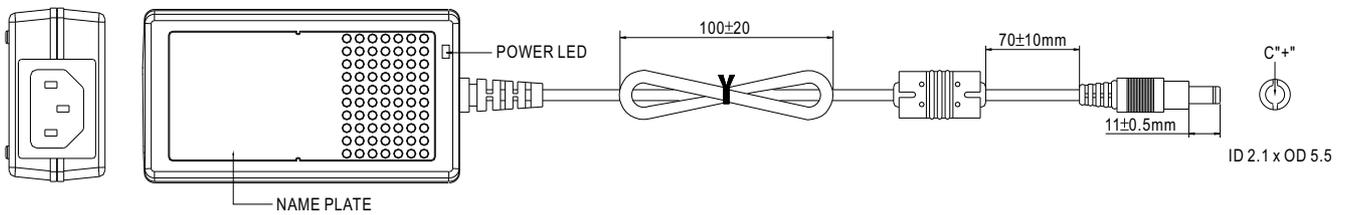
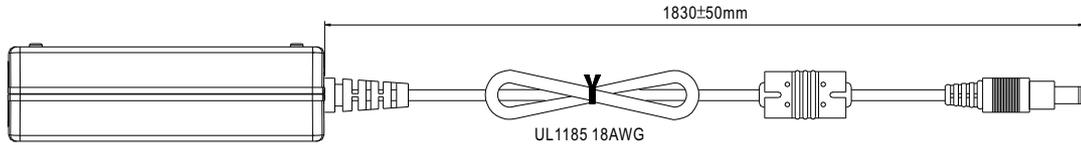


SPECIFICATION

| ORDER NO.                     | ES18A03-P1J   | ES18A05-P1J   | ES18A07-P1J | ES18A09-P1J | ES18A12-P1J | ES18A15-P1J  | ES18A18-P1J                   | ES18A24-P1J | ES18A28-P1J | ES18A48-P1J  |               |
|-------------------------------|---|---|-------------|-------------|-------------|--------------|-------------------------------|-------------|-------------|--------------|---------------|
| OUTPUT                        | <b>SAFETY MODEL NO.</b>   | ES18A03   | ES18A05     | ES18A07     | ES18A09     | ES18A12      | ES18A15                       | ES18A18     | ES18A24     | ES18A28      | ES18A48       |
|                               | <b>DC VOLTAGE</b> Note.2  | 3.3V  | 5V          | 7.5V        | 9V          | 12V          | 15V                           | 18V         | 24V         | 28V          | 48V           |
|                               | <b>RATED CURRENT</b>  | 2.72A   | 3.0A        | 2.0A        | 2.0A        | 1.50A        | 1.20A                         | 1.0A        | 0.75A       | 0.64A        | 0.375A        |
|                               | <b>CURRENT RANGE</b>  | 0.3 ~ 2.72A   | 0.3 ~ 3.0A  | 0.3 ~ 2.0A  | 0.2 ~ 2.0A  | 0.15 ~ 1.50A | 0.1 ~ 1.20A                   | 0.1 ~ 1.0A  | 0.1 ~ 0.75A | 0.06 ~ 0.64A | 0.05 ~ 0.375A |
|                               | <b>RATED POWER (max.)</b>   | 9W  | 15W         | 15W         | 18W         | 18W          | 18W                           | 18W         | 18W         | 18W          | 18W           |
|                               | <b>RIPPLE &amp; NOISE (max.)</b> Note.3   | 50mVp-p   | 50mVp-p     | 80mVp-p     | 80mVp-p     | 80mVp-p      | 100mVp-p                      | 150mVp-p    | 180mVp-p    | 240mVp-p     | 240mVp-p      |
|                               | <b>VOLTAGE ADJ. RANGE</b>   | Fixed   |             |             |             |              |                               |             |             |              |               |
|                               | <b>VOLTAGE TOLERANCE</b> Note.4   | ±5.0%   | ±5.0%       | ±5.0%       | ±5.0%       | ±3.0%        | ±3.0%                         | ±3.0%       | ±2.0%       | ±2.0%        | ±2.0%         |
|                               | <b>LINE REGULATION</b> Note.5   | ±1.0%   | ±1.0%       | ±1.0%       | ±1.0%       | ±1.0%        | ±1.0%                         | ±1.0%       | ±1.0%       | ±1.0%        | ±1.0%         |
|                               | <b>LOAD REGULATION</b> Note.6   | ±5.0%   | ±5.0%       | ±5.0%       | ±5.0%       | ±3.0%        | ±3.0%                         | ±3.0%       | ±2.0%       | ±2.0%        | ±2.0%         |
| <b>SETUP, RISE, HOLD TIME</b> | 300ms, 100ms, 16ms at full load   |   |             |             |             |              |                               |             |             |              |               |
| INPUT                         | <b>VOLTAGE RANGE</b>  | 90 ~ 264VAC 135 ~ 370VDC  |             |             |             |              |                               |             |             |              |               |
|                               | <b>FREQUENCY RANGE</b>  | 47 ~ 63Hz   |             |             |             |              |                               |             |             |              |               |
|                               | <b>EFFICIENCY (Typ.)</b>  | 55%   | 70%         | 72%         | 74%         | 76%          | 77%                           | 78%         | 80%         | 81%          | 82%           |
|                               | <b>AC CURRENT</b>   | 0.5A / 100VAC   |             |             |             |              |                               |             |             |              |               |
|                               | <b>INRUSH CURRENT (max.)</b>  | 40A / 230VAC  |             |             |             |              |                               |             |             |              |               |
| <b>LEAKAGE CURRENT(max.)</b>  | 0.75mA / 240VAC   |   |             |             |             |              |                               |             |             |              |               |
| PROTECTION                    | <b>OVER LOAD</b>  | 110 ~ 200% rated output power   |             |             |             |              | 130 ~ 350% rated output power |             |             |              |               |
|                               |   | Protection type : Hiccup mode, recovers automatically after fault condition is removed  |             |             |             |              |                               |             |             |              |               |
| PROTECTION                    | <b>OVER VOLTAGE</b>   | 105 ~ 135% rated output voltage   |             |             |             |              |                               |             |             |              |               |
|                               |   | Protection type : Clamp by zener diode, output short  |             |             |             |              |                               |             |             |              |               |
| ENVIRONMENT                   | <b>WORKING TEMP.</b>  | 0 ~ +50°C (Refer to output load derating curve)   |             |             |             |              |                               |             |             |              |               |
|                               | <b>WORKING HUMIDITY</b>   | 20% ~ 90% RH non-condensing   |             |             |             |              |                               |             |             |              |               |
|                               | <b>STORAGE TEMP., HUMIDITY</b>  | -20 ~ +85°C, 10 ~ 95% RH  |             |             |             |              |                               |             |             |              |               |
|                               | <b>TEMP. COEFFICIENT</b>  | ±0.03% / °C (0 ~ 50°C)  |             |             |             |              |                               |             |             |              |               |
| SAFETY & EMC (Note. 7)        | <b>WORKING VIBRATION</b>  | 10 ~ 500Hz, 2G 10min./1cycle, period for 60min. each along X, Y, Z axes   |             |             |             |              |                               |             |             |              |               |
|                               | <b>SAFETY STANDARDS</b>   | UL60950-1, CSA C22.2, TUV EN60950-1, BSMI CNS14336, CCC GB4943 Approved   |             |             |             |              |                               |             |             |              |               |
|                               | <b>WITHSTAND VOLTAGE</b>  | I/P-O/P:3KVAC , I/P-FG:1.5KVAC  |             |             |             |              |                               |             |             |              |               |
|                               | <b>ISOLATION RESISTANCE</b>   | I/P-O/P, I/P-FG:100M Ohms / 500VDC  |             |             |             |              |                               |             |             |              |               |
|                               | <b>EMI CONDUCTION &amp; RADIATION</b>   | Compliance to EN55022 class B, FCC PART 15 / CISPR22 class B, CNS13438 class B, GB9254 class B                                  |             |             |             |              |                               |             |             |              |               |
| SAFETY & EMC (Note. 7)        | <b>HARMONIC CURRENT</b>   | Compliance to EN61000-3-2,3, GB17625.1  |             |             |             |              |                               |             |             |              |               |
|                               | <b>EMS IMMUNITY</b>   | Compliance to EN61000-4-2,3,4,5,6,8,11, Light industry level, criteria A  |             |             |             |              |                               |             |             |              |               |
| OTHERS                        | <b>MTBF</b>   | 500Khrs min. MIL-HDBK-217F(25°C)  |             |             |             |              |                               |             |             |              |               |
|                               | <b>DIMENSION</b>  | 93*54*36mm (L*W*H)  |             |             |             |              |                               |             |             |              |               |
|                               | <b>PACKING</b>  | 250g ; 60pcs / 16kg / CARTON  |             |             |             |              |                               |             |             |              |               |
| CONNECTOR                     | <b>PLUG</b>   | Standard type P1J: 2.1φ * 5.5φ * 11mm, tuning fork type, center positive for stock ; Other type available by customer requested |             |             |             |              |                               |             |             |              |               |
|                               | <b>CABLE</b>  | Standard type UL1185 6ft (with ferrite core) for stock ; Other type available by customer requested                             |             |             |             |              |                               |             |             |              |               |
| NOTE                          | <p>1. All parameters are specified at 230VAC input, rated load, 25°C 70% RH. Ambient.</p> <p>2. DC voltage: The output voltage set at point measure by plug terminal &amp; 50% load.</p> <p>3. Ripple &amp; noise are measured at 20MHz by using a 12" twisted pair terminated with a 0.1uf &amp; 47uf capacitor.</p> <p>4. Tolerance: includes set up tolerance, line regulation, load regulation.</p> <p>5. Line regulation is measured from low line to high line at rated load.</p> <p>6. Load regulation is measured from 20% to 100% rated load</p> <p>7. 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.</p> |   |             |             |             |              |                               |             |             |              |               |

**Mechanical Specification**

Unit:mm

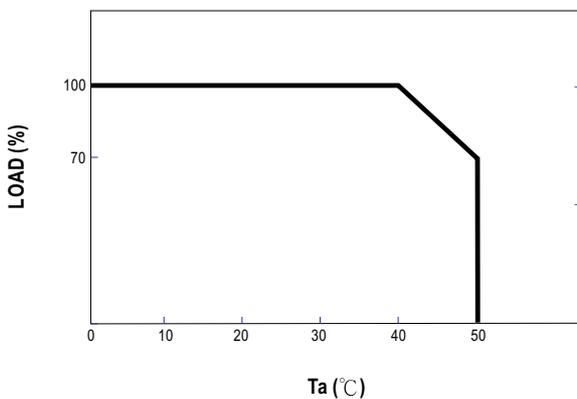


**Plug Assignment**

Standard plug: P1J (option)

| P1J    |        |
|--------|--------|
| P/N    | OUTPUT |
| CENTER | +      |

**Derating Curve**



**Static Characteristics**

