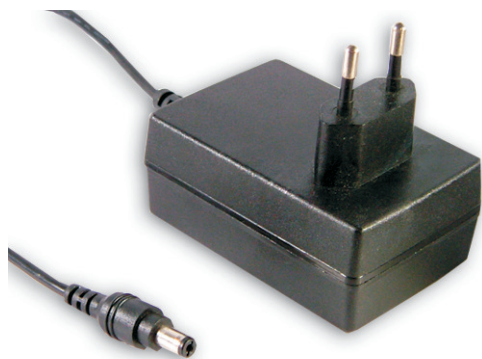




## 20~25W AC-DC Single Output Wall-mounted type

## ES25E series



## ■ Features :

- Universal AC input / Full range
- 2 pole EURO plug
- Class II power (without earth pin)
- Full output 5~48V safety approval
- Protections: Short circuit / Overload / Over voltage
- Fully enclosed plastic case
- PWM 3842 control circuit and regulated
- LED indicator for power on
- Approvals: TUV / CB / CE
- 1 year warranty



## SPECIFICATION

| ORDER NO.                        | ES25E05-P1J  | ES25E07-P1J   | ES25E09-P1J | ES25E12-P1J | ES25E15-P1J | ES25E18-P1J                   | ES25E24-P1J | ES25E28-P1J | ES25E36-P1J | ES25E48-P1J  |              |
|----------------------------------|--|---|-------------|-------------|-------------|-------------------------------|-------------|-------------|-------------|--------------|--------------|
| OUTPUT                           | <b>SAFETY MODEL NO.</b>  | ES25E05-050   | ES25E07-075 | ES25E09-090 | ES25E12-120 | ES25E15-150                   | ES25E18-180 | ES25E24-240 | ES25E30-280 | ES25E36-360  | ES25E48-480  |
|                                  | <b>DC VOLTAGE</b> Note.2   | 5V  | 7.5V        | 9V          | 12V         | 15V                           | 18V         | 24V         | 28V         | 36V          | 48V          |
|                                  | <b>RATED CURRENT</b>   | 4.0A  | 2.93A       | 2.77A       | 2.08A       | 1.66A                         | 1.38A       | 1.04A       | 0.89A       | 0.69A        | 0.52A        |
|                                  | <b>CURRENT RANGE</b>   | 0.4 ~ 4.0A  | 0.3 ~ 2.93A | 0.2 ~ 2.77A | 0.1 ~ 2.08A | 0.1 ~ 1.66A                   | 0.1 ~ 1.38A | 0.1 ~ 1.04A | 0.1 ~ 0.89A | 0.06 ~ 0.69A | 0.05 ~ 0.52A |
|                                  | <b>RATED POWER (max.)</b>  | 20W   | 22W         | 25W         | 25W         | 25W                           | 25W         | 25W         | 25W         | 25W          | 25W          |
|                                  | <b>RIPPLE &amp; NOISE (max.)</b> Note.3  | 50mVp-p   | 80mVp-p     | 80mVp-p     | 80mVp-p     | 100mVp-p                      | 150mVp-p    | 180mVp-p    | 240mVp-p    | 240mVp-p     | 240mVp-p     |
|                                  | <b>VOLTAGE TOLERANCE</b> Note.4  | ±5.0%   | ±5.0%       | ±5.0%       | ±3.0%       | ±3.0%                         | ±3.0%       | ±2.0%       | ±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%       | ±3.0%       | ±3.0%                         | ±3.0%       | ±2.0%       | ±2.0%       | ±2.0%        | ±2.0%        |
| <b>SETUP, RISE, HOLD UP TIME</b> | 600ms, 50ms, 16ms at full load   |   |             |             |             |                               |             |             |             |              |              |
| INPUT                            | <b>VOLTAGE RANGE</b>   | 90 ~ 264VAC 135 ~ 370VDC  |             |             |             |                               |             |             |             |              |              |
|                                  | <b>FREQUENCY RANGE</b>   | 47 ~ 63Hz   |             |             |             |                               |             |             |             |              |              |
|                                  | <b>EFFICIENCY (Typ.)</b>   | 70%   | 72%         | 76%         | 76%         | 78%                           | 80%         | 82%         | 82%         | 82%          | 82%          |
|                                  | <b>AC CURRENT</b>  | 0.7A / 100VAC   |             |             |             |                               |             |             |             |              |              |
|                                  | <b>INRUSH CURRENT (max.)</b>   | 40A / 230VAC  |             |             |             |                               |             |             |             |              |              |
| <b>LEAKAGE CURRENT(max.)</b>     | 0.25mA / 240VAC  |   |             |             |             |                               |             |             |             |              |              |
| PROTECTION                       | <b>OVERLOAD</b>  | 110 ~ 150% rated output power   |             |             |             | 130 ~ 180% rated output power |             |             |             |              |              |
|                                  |  | Protection type : Hiccup mode, recovers automatically after fault condition is removed  |             |             |             |                               |             |             |             |              |              |
|                                  | <b>OVER VOLTAGE</b>  | 105 ~ 135% rated output voltage   |             |             |             |                               |             |             |             |              |              |
|                                  |  | Protection type : Shut down o/p voltage, re-power on to recover   |             |             |             |                               |             |             |             |              |              |
| 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)  |             |             |             |                               |             |             |             |              |              |
|                                  | <b>VIBRATION</b>   | 10 ~ 500Hz, 2G 10min./1cycle, period for 60min. each along X, Y, Z axes   |             |             |             |                               |             |             |             |              |              |
| SAFETY & EMC (Note. 7)           | <b>SAFETY STANDARDS</b>  | TUV EN60950-1 approved  |             |             |             |                               |             |             |             |              |              |
|                                  | <b>WITHSTAND VOLTAGE</b>   | I/P-O/P:3KVAC   |             |             |             |                               |             |             |             |              |              |
|                                  | <b>ISOLATION RESISTANCE</b>  | I/P-O/P:100M Ohms / 500VDC / 25°C / 70% RH  |             |             |             |                               |             |             |             |              |              |
|                                  | <b>EMI CONDUCTION &amp; RADIATION</b>  | Compliance to EN55022 class B   |             |             |             |                               |             |             |             |              |              |
|                                  | <b>HARMONIC CURRENT</b>  | Compliance to EN61000-3-2,3   |             |             |             |                               |             |             |             |              |              |
|                                  | <b>EMS IMMUNITY</b>  | Compliance to EN61000-4-2,3,4,5,6,11, light industry level, criteria A  |             |             |             |                               |             |             |             |              |              |
| OTHERS                           | <b>MTBF</b>  | 500Khrs min. MIL-HDBK-217F(25°C)  |             |             |             |                               |             |             |             |              |              |
|                                  | <b>DIMENSION</b>   | 79*54*33mm (L*W*H)  |             |             |             |                               |             |             |             |              |              |
|                                  | <b>PACKING</b>   | 220g ; 60pcs / 13.5kg / 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                             | 1.All parameters are specified at 230VAC input, rated load, 25°C 70% RH ambient.<br>2.DC voltage: The output voltage set at point measure by plug terminal & 50% load.<br>3.Ripple & noise are measured at 20MHz by using a 12" twisted pair terminated with a 0.1uf & 47uf capacitor.<br>4.Tolerance: includes set up tolerance, line regulation, load regulation.<br>5.Line regulation is measured from low line to high line at rated load.<br>6.Load regulation is measured from 20% to 100% rated load<br>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. |   |             |             |             |                               |             |             |             |              |              |

File Name:ES25E-SPEC 2008-05-08

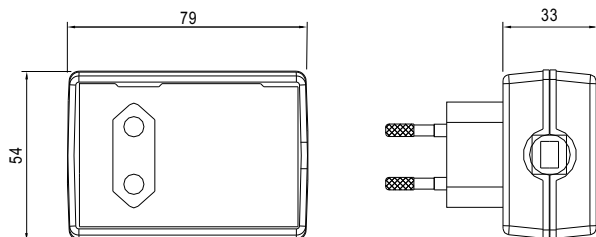
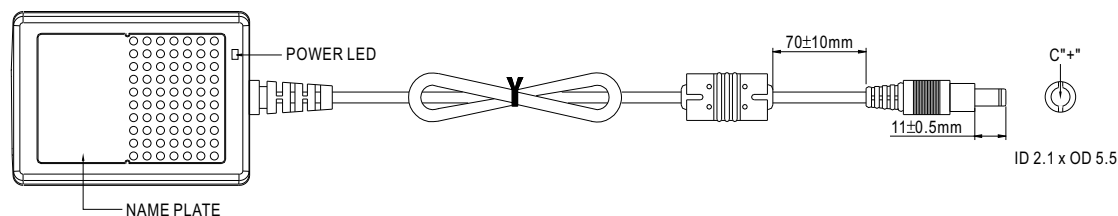
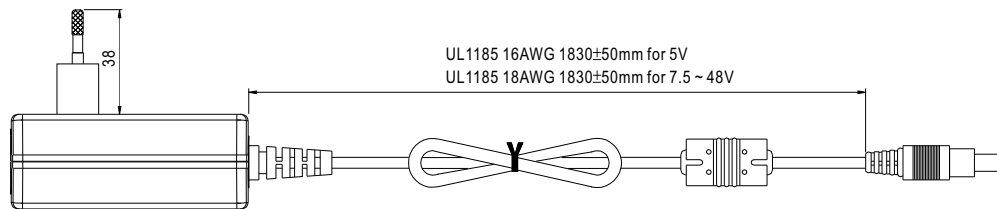


20~25W AC-DC Single Output Wall-mounted type

**ES25E series**

**Mechanical Specification**

Unit:mm

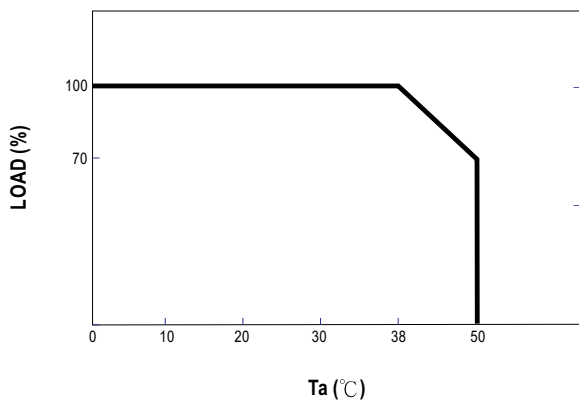


**Plug Assignment**

Standard plug: P1J (option)

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

**Derating Curve**



**Static Characteristics**

