



## 9~18W AC-DC Single Output Desktop

# ES18A series



### ■ 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 / Overload / Over voltage
- Fully enclosed plastic case
- RCC control circuit and regulated
- LED indicator for power on
- Approvals: UL / CUL / TUV / BSMI / CCC / CB / FCC / CE
- 1 year warranty

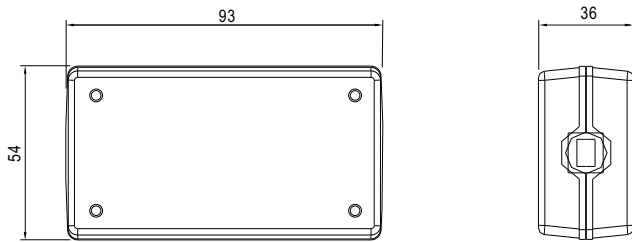
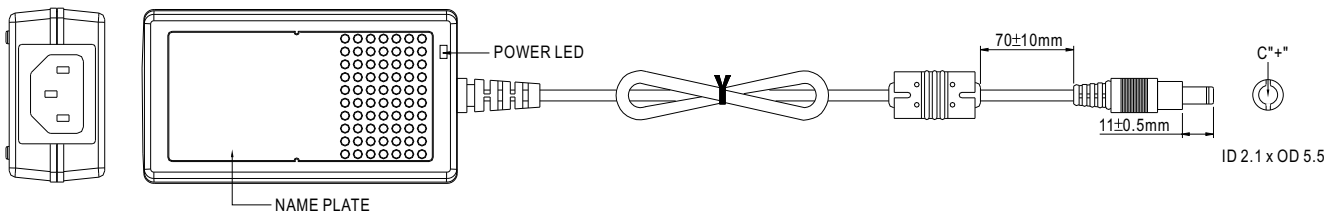
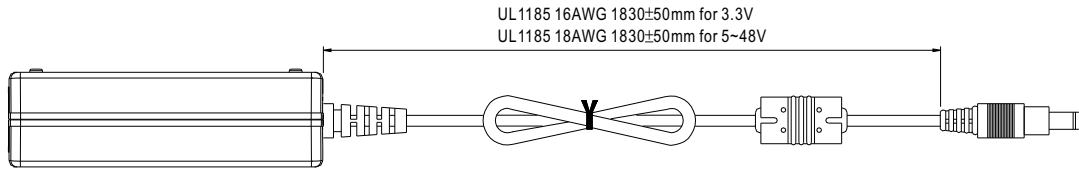


### SPECIFICATION

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> <small>Note.2</small>	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> <small>Note.3</small>	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> <small>Note.4</small>	±5.0%	±5.0%	±5.0%	±5.0%	±3.0%	±3.0%	±3.0%	±2.0%	±2.0%	±2.0%	
	<b>LINE REGULATION</b> <small>Note.5</small>	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%	
	<b>LOAD REGULATION</b> <small>Note.6</small>	±5.0%	±5.0%	±5.0%	±5.0%	±3.0%	±3.0%	±3.0%	±2.0%	±2.0%	±2.0%	
<b>SETUP, RISE, HOLD UP 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%	72%	74%	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>OVERLOAD</b>	110 ~ 200% rated output power					130 ~ 350% 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 : 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)										
	<b>VIBRATION</b>	10 ~ 500Hz, 2G 10min./1cycle, period for 60min. each along X, Y, Z axes										
SAFETY & EMC <small>(Note. 7)</small>	<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 / 25°C / 70% RH										
	<b>EMI CONDUCTION &amp; RADIATION</b>	Compliance to EN55022 class B, FCC PART 15 / CISPR22 class B, CNS13438 class B, GB9254 class B										
	<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 / 15kg / 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	<ol style="list-style-type: none"> <li>1. All parameters are specified at 230VAC input, rated load, 25°C 70% RH ambient.</li> <li>2. DC voltage: The output voltage set at point measure by plug terminal &amp; 50% load.</li> <li>3. Ripple &amp; noise are measured at 20MHz by using a 12" twisted pair terminated with a 0.1uf &amp; 47uf capacitor.</li> <li>4. Tolerance: includes set up tolerance, line regulation, load regulation.</li> <li>5. Line regulation is measured from low line to high line at rated load.</li> <li>6. Load regulation is measured from 20% to 100% rated load</li> <li>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.</li> </ol>											

## Mechanical Specification

Unit:mm

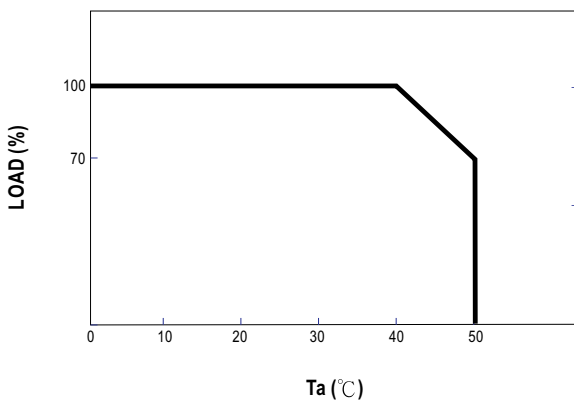


## Plug Assignment

Standard plug: P1J (option)

P1J	
P/N	OUTPUT
CENTER	+

## Derating Curve



## Static Characteristics

