

# MEAN WELL

*See full Datasheet below...*

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## 20~25W AC-DC Single Output Desktop

# ES25B series



### ■ Features :

- Universal AC input / Full range
- 2 pole AC inlet IEC320-C8
- 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: UL / CUL / BSMI / CB / FCC
- 1 year warranty

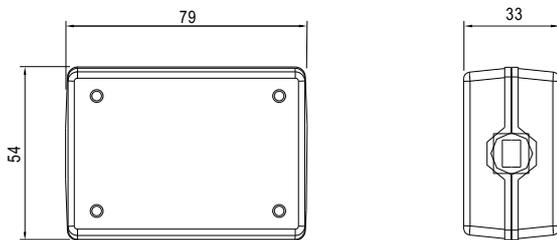
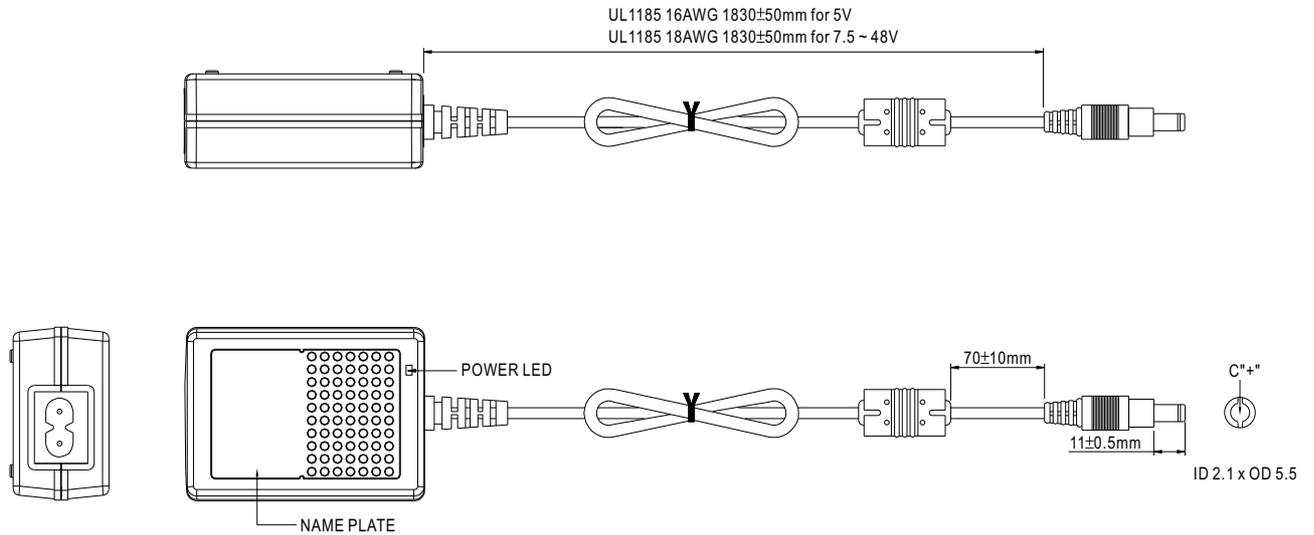


### SPECIFICATION

ORDER NO.	ES25B05-P1J	ES25B07-P1J	ES25B09-P1J	ES25B12-P1J	ES25B15-P1J	ES25B18-P1J	ES25B24-P1J	ES25B28-P1J	ES25B36-P1J	ES25B48-P1J	
OUTPUT	<b>SAFETY MODEL NO.</b>	ES25B05-050	ES25B07-075	ES25B09-090	ES25B12-120	ES25B15-150	ES25B18-180	ES25B24-240	ES25B30-280	ES25B36-360	ES25B48-480
	<b>DC VOLTAGE</b> <small>Note.2</small>	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> <small>Note.3</small>	50mVp-p	80mVp-p	80mVp-p	80mVp-p	100mVp-p	150mVp-p	180mVp-p	240mVp-p	240mVp-p	240mVp-p
	<b>VOLTAGE TOLERANCE</b> <small>Note.4</small>	±5.0%	±5.0%	±5.0%	±3.0%	±3.0%	±3.0%	±2.0%	±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%	±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 <small>(Note. 7)</small>	<b>SAFETY STANDARDS</b>	UL60950-1, CSA C22.2, BSMI CNS14336 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, FCC PART 15 / CISPR22 class B, CNS13438 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	<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 as an independent unit, but the final equipment still need to re-confirm that the whole system complies with the EMC directives.</li> </ol>										

■ Mechanical Specification

Unit:mm

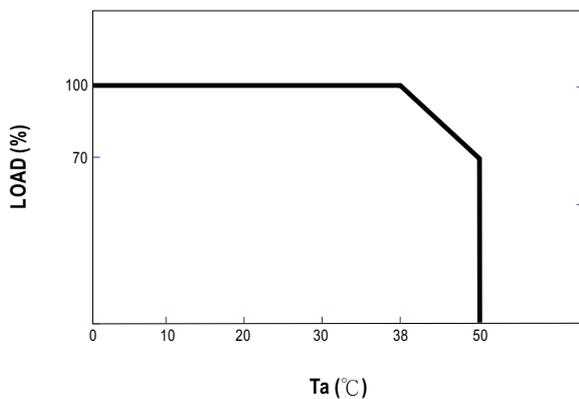


■ Plug Assignment

Standard plug: P1J (option)

P1J	
P/N	OUTPUT
CENTER	+

■ Derating Curve



■ Static Characteristics

