

## LEU-20V Series, 20Watt

### FEATURES:

- ✓ Constant voltage output
- ✓ Universal AC input/ Full range
- ✓ Withstand inrush voltage 300Vac within 5 seconds
- ✓ Short circuit, over current, over voltage protections
- ✓ IP67 rated
- ✓ Cooling by free air convection
- ✓ Class II , no FG
- ✓ Class 2 Power
- ✓ Pass LPS (Limited Power Source) Test
- ✓ Application for LED lighting and electronic screen
- ✓ 100% burn-in test
- ✓ High reliability
- ✓ 2 years warranty



Model	Input voltage (Vac)	Output voltage (Vdc)	Output current (mA)		Output power (W)
			Min.	Max.	
LEU20-V5	90-264	5	0	3000	15
LEU20-V12		12	0	1670	20
LEU20-V15		15	0	1330	20
LEU20-V24		24	0	840	20.2

### ELECTRICAL

Input						
Parameters	Symbols	Test Conditions / Comment	Min.	Typ.	Max.	Units
Input voltage	$V_{in}$	---	90	--	264	Vac
Input frequency	$F_{line}$	---	47	--	63	Hz
Input current	$I_{in}$	Full load, $V_{in} = 115Vac$	--	0.55	--	A
		Full load, $V_{in} = 230Vac$	--	0.35	--	A
Inrush current	$I_{inrush}$	Cold start, $V_{in} = 230Vac$	--	70	--	A
Efficiency	$\eta$	Full voltage, full load	--	83	--	%
Leakage current	$I_{leakage}$	$V_{in} = 230Vac$	--	0.25	--	mA

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**ELECTRICAL**
**Output**

Parameters	Symbols	Test Conditions / Comment	Min.	Typ.	Max.	Units
Output current	$I_{out}$	LEU20-V5	0	--	3000	mA
		LEU20-V12	0	--	1670	mA
		LEU20-V15	0	--	1330	mA
		LEU20-V24	0	--	840	mA
Output voltage	$V_{out}$	LEU20-V5	--	5	--	V
		LEU20-V12	--	12	--	V
		LEU20-V15	--	15	--	V
		LEU20-V24	--	24	--	V
Output voltage accuracy	--	---	--	±5	--	%
Line regulation	$I_{out-line}$	---	--	±1.0	--	%
Load regulation	$I_{out-load}$	---	--	±2.0	--	%
Turn-on delay time	$T_{on\_delay}$	Full voltage, full load	--	500	--	ms
Rise time	$T_{on\_rise}$	Full voltage, full load	--	20	--	ms
Hold-on time	--	$V_{in} = 115V_{ac}$ , full load	--	16	--	ms
		$V_{in} = 230V_{ac}$ , full load	--	50	--	ms
Ripple	--	---	--	--	150	mVp-p

**Protection**

Over current	Typical:110-150%; Hiccup mode, it will auto-recover after fault conditions remove					
Over voltage	Typical:110-150%; Protection: turn off output voltage, Diode clamp type					

**Environment**

Storage	$T_{storage}$	Humidity: 5% RH to 95% RH	-40	--	+80	°C
Ambient operating temperature	$T_a$	Startup at rated voltage (Please refer to derating curve)	-30	--	+70	°C
Temperature coefficient	--	---	--	300	--	ppm

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Environment						
Parameters	Symbols	Test Conditions / Comment	Min.	Typ.	Max.	Units
Operating relative humidity	H <sub>a</sub>	Non condensing	10	--	95	%
MTBF	T <sub>MTBF</sub>	Full load, 220Vac input, 25°C ambient temperature	--	786.5	--	kHrs
Dimension(LxWxH)		118x35x26mm				
Weight		220g				

**Safety / EMC**

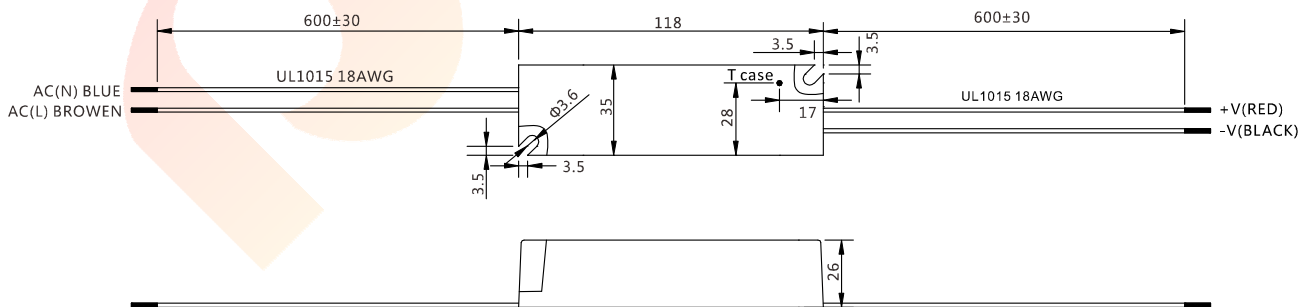
Safety standards	UL879, UL1310, TUV EN60950-1, IP67
Withstand voltage	I/P-O/P:3KVAC
Insulation resistance	I/P-O/P: > 100M Ohms/500VDC/25°C/70%RH
EMC emission	Design to EN55022(CISPR22)Class B, EN61000-3-2 Class A, EN61000-3-3
EMC immunity	Design to EN61000-4-2,3,4,5,6,8,11, EN55024

**Notes: 1.** Unless otherwise specified, all the above parameters are measured at ambient temperature of 25°C and Vin = 230Vac, rated load;

**2.** Ripple & Noise are measured at 20MHZ of bandwidth by using a 12" twisted pair-wire terminated with a 0.1µF & 47µF parallel capacitor;

**3.** Suitable for indoor or outdoor which away from direct sunlight conditions, avoid soaking in water for more than 30 minutes.

**MECHANICAL**

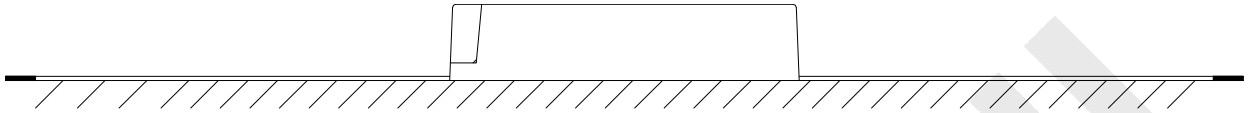


Unit: mm

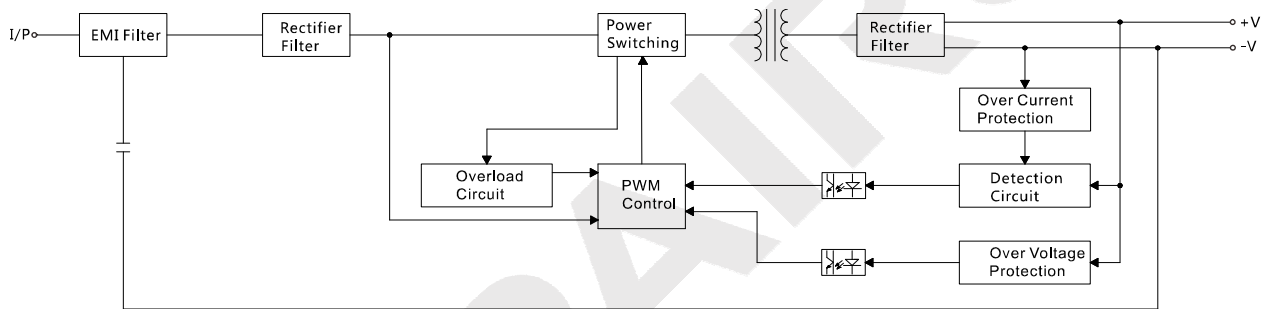
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#### MECHANICAL

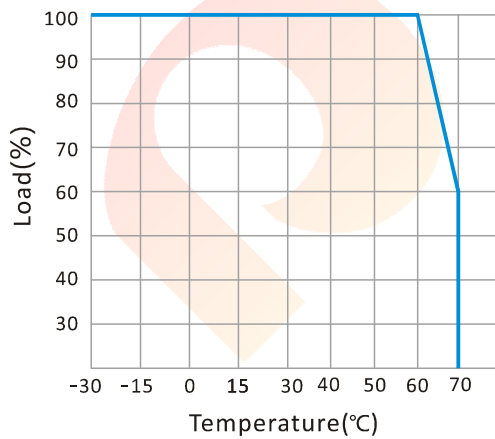
#### RECOMMEND INSTALLATION



#### BLOCK DIAGRAM



#### DERATING CURVE



#### STATIC CHARACTERISTIC CURVE

