

## 20W Constant Current -LS Series

LS-20-XXX LI4

■ Approve

SELV CE

### ■ Features

- Class II, SELV, independent
- Input Voltage 220-240VAC
- Protections: SCP/OLP/OVP
- Power Factor  $\lambda$ : 0.95
- Efficiency  $\geq 85\%$
- 5 years warranty

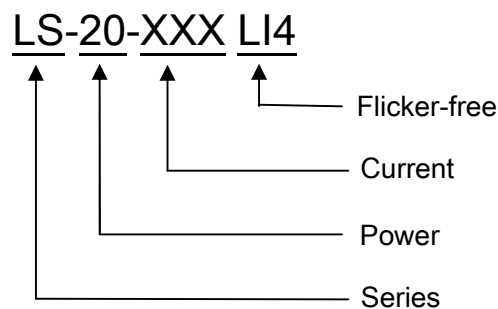
### ■ Applications

- LED panel
- LED spot lights
- LED down lights

### ■ Description

LS-20-XXX LI4 is a 20W constant current LED driver that operates from 176-264Vac input with 350mA to 700mA output current. With it's compact dimensions from 100 x 38 x 25mm it is easy to integrate in LED Panel, spot and down light products. To ensure trouble-free operation, protection is provided against output short circuit and over Load.

### ■ Model code



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### ■ Specification

Input	Rated input voltage	220-240VAC				
	Range of input voltage	176-264VAC				
	DC voltage range	176-280V				
	Frequency(Hz)	0/50/60 Hz				
	Power Factor	$\lambda$ : 0.95@Full Load,240VAC				
	Input Current max	0.16A MAX. @Full Load,176VAC				
	Start-up time	< 0.5S				
	Unload Power Consumption	≤0.5W				
	Inrush Current	20A Max.				
	THD	< 20% @Full Load,240VAC				
	Leakage Current	< 0.7mA(240VAC)				
Output	Constant Current Max. *Note.3	350mA	450mA	500mA	...	700mA
	Unload voltage Max.	60VDC	57VDC	50VDC	...	40VDC
	Voltage Range(VDC)	30-50VDC	28-46.5VDC	25-42VDC	...	18-30VDC
	Rated power	17.5W Max.	21W Max.	21W Max.	...	21W Max.
	Current Accuracy	±5%@220-240VAC				
	Voltage Regulation	±5% @Full Load, 220-240VAC				
	Load Regulation	±5%@220-240VAC				
	Hold-up Time	1s max.@Full Load				
	Ripple& Noise *Note.2	≤±3%				
	Efficiency(Typ.)	≥85%				
Protection	Over Load Protection	103-120% Protection type: Auto Resume				
	Over Voltage Protection	> 60VDC	> 57VDC	> 50VDC	...	> 40VDC
	Short circuit Protection	Protection type: Auto Resume				
Environment	Operating Temperature	-20°C...+45°C				
	tc	80°C				
	Storage Temperature	-25°C...+60°C				
	Life time	> 30,000h@Ta=45°C				
	Humidity	20%-90%RH				
Others	Dimension	100X38X25(LXWXH)mm				
Safety & EMC	Safety standards	EN 61347-1; EN61347-2-13; EN62384				
	Withstand voltage	Input-Output : 3750V/5mA/1min				
	Isolation resistance	Input-Output : ≥4MΩ@500VDC				
	EMI	EN55015; EN61000-3-2 Class C; EN61000-3-3				
	EMS	EN 61547; EN 61000-4-2; EN 61000-4-5 —1000V;				
Note	1.All parameters NOT specially mentioned are measured at 240VAC input , full load and 25°C of ambient temperature. 2.Ripple & Noise are measured at 20MHz of bandwidth by using a 300mm twisted pair-wire terminated with a 0.1uF & 47 uF parallel capacitor. 3.Output current can be from 350mA to 700mA. Please see Model list below and contact EAGLERISE for details.					

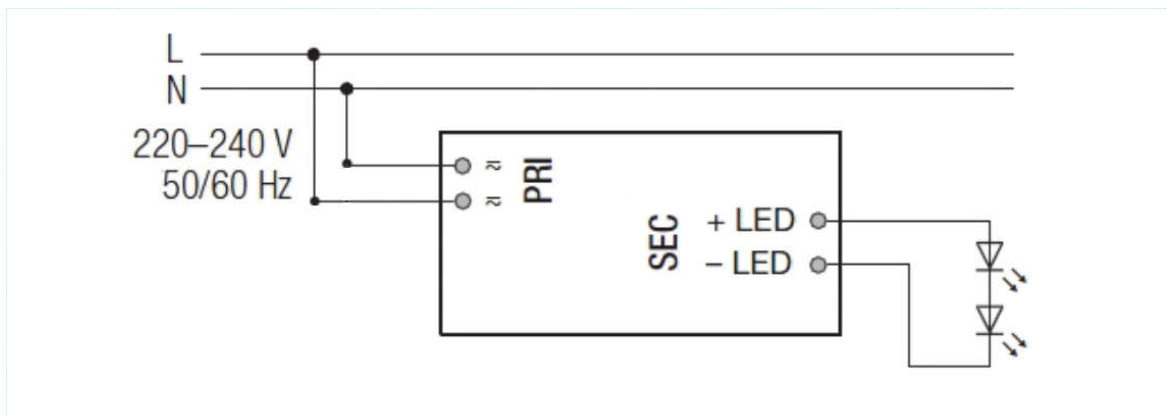
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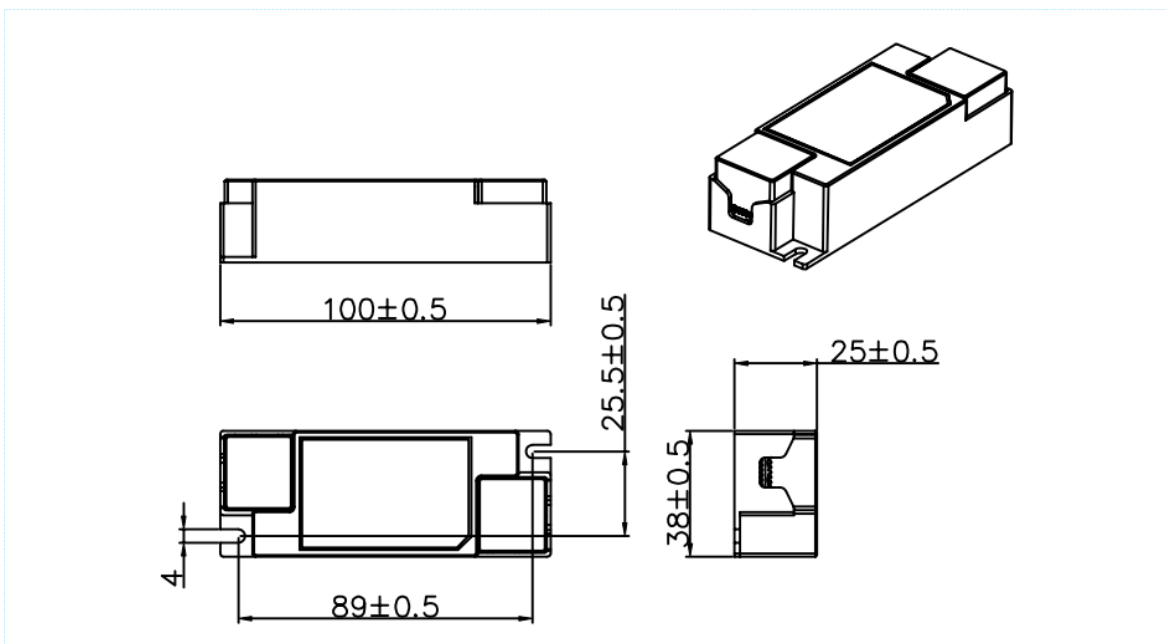
### Model list

NO.	Model number	Input			Output			Max. Prated(W)
		Voltage (VAC)	Current (A)	Frequency (Hz)	Constant current (mA)	Normal working voltage (VDC)	No load working voltage (VDC)	
1	LS-20-350 LI4	220-240	0.16	50/60	350	30-50	60	17.5
2	LS-20-450 LI4	220-240	0.16	50/60	450	28-46.5	57	21
3	LS-20-500 LI4	220-240	0.16	50/60	500	25-42	50	21
4	LS-20-550 LI4	220-240	0.16	50/60	550	23-38	50	21
5	LS-20-600 LI4	220-240	0.16	50/60	600	21-35	45	21
6	LS-20-700 LI4	220-240	0.16	50/60	700	18-30	40	21

### Connection diagram



### 2D diagram

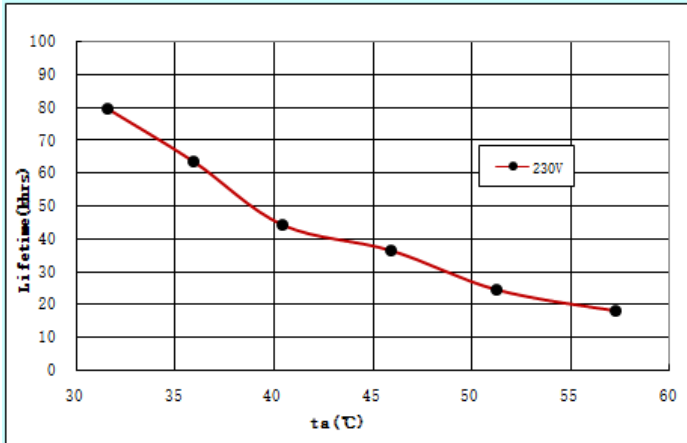


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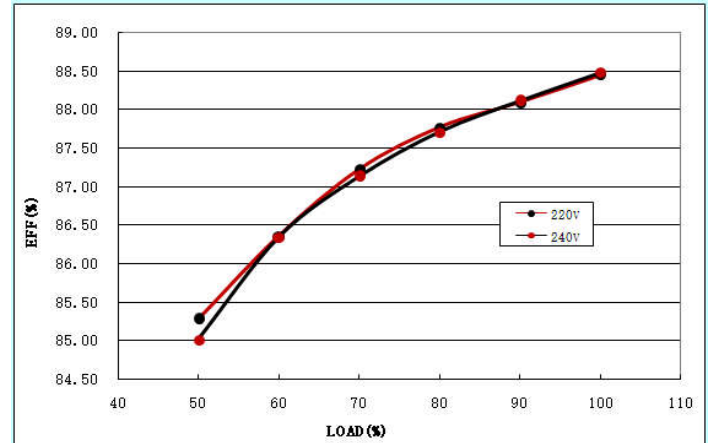
LS-20-XXX LI4

### ■Curve for LS-20-500 LI4

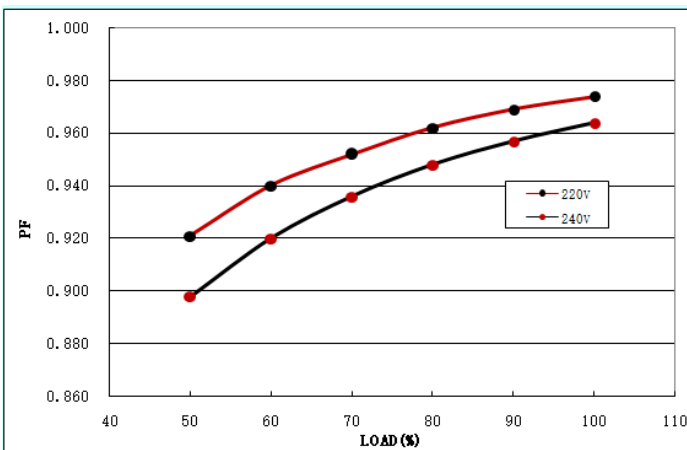
**Lifetime vs. Ambient Temperature Curve**



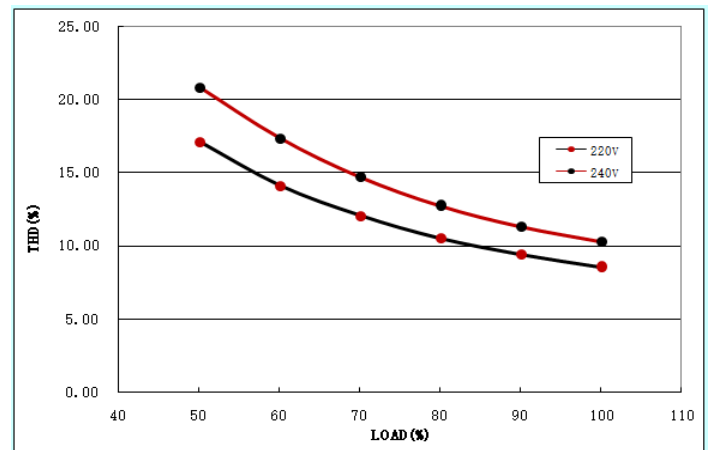
**Efficiency vs. Load**



**Power Factor Characteristics**



**THD vs. Load**



### ■Operating window

