

20W Constant Current -LS Series

LS-20-XXX LI1



■Approve



■Features

- Class II, SELV, independent
- Input Voltage 220-240VAC
- Protections: SCP/OLP/OVP
- Power Factor 0.9C
- Efficiency ≥85%
- 5 years warranty

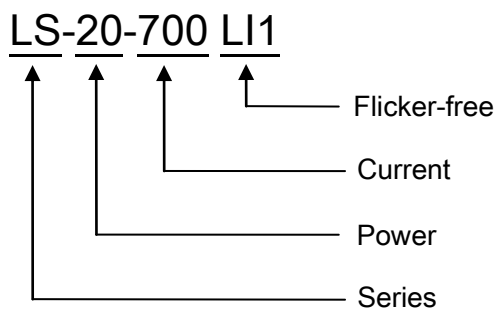
■Applications

- LED panel
- LED spot light
- LED down light

■Description

LS-20-XXX LI1 is a 20W constant current LED driver that operates from 176-264Vac input with 300 to 700mA output current. With it's compact dimensions from 100 x 38 x 25mm it is easy to integrate in LED Panel 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	0.9C@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	300mA	400mA	500mA	...	700mA
	Unload voltage Max.	60VDC	60VDC	50VDC	...	40VDC
	Voltage Range(VDC)	30-50VDC	30-50VDC	25-42VDC	...	18-30VDC
	Rated power	15W Max.	20W 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	> 60VDC	> 50VDC	...	> 40VDC Protection type: Auto Resume
	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	> 50,000h@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 300mA to 700mA and increasing in multiples of 50mA. Please see Model list below and contact EAGLERISE for details.					

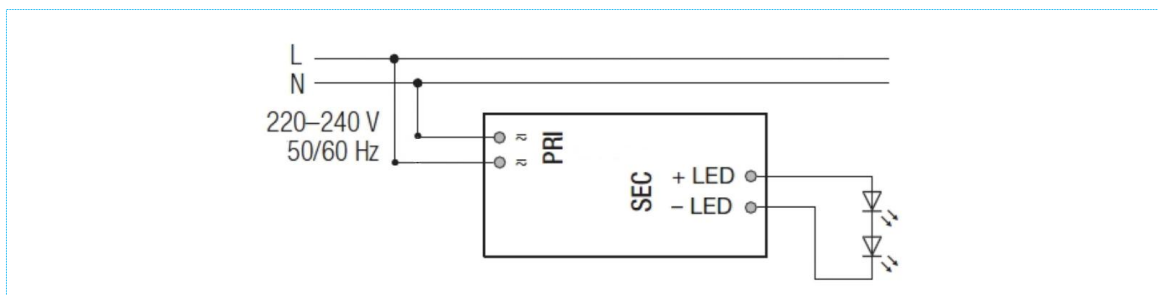
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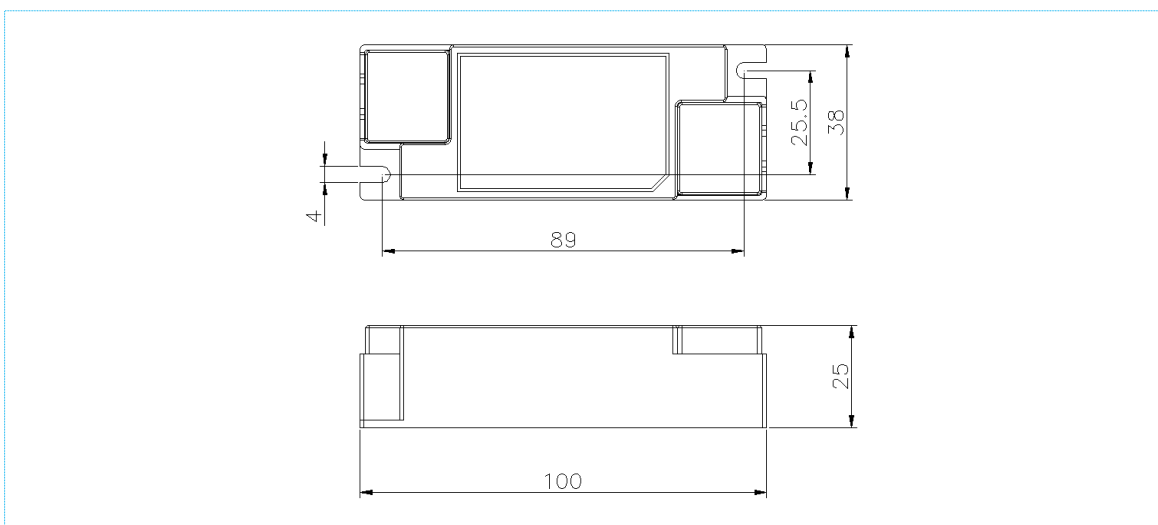
■Model list

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-20-300 LI1	220-240	0.16	50/60	300	30-50	60	15
2	LS-20-350 LI1	220-240	0.16	50/60	350	30-50	60	17.5
3	LS-20-400 LI1	220-240	0.16	50/60	400	30-50	60	20
4	LS-20-450 LI1	220-240	0.16	50/60	450	28-46.5	57	21
5	LS-20-500 LI1	220-240	0.16	50/60	500	25-42	50	21
6	LS-20-550 LI1	220-240	0.16	50/60	550	23-38	50	21
7	LS-20-600 LI1	220-240	0.16	50/60	600	21-35	45	21
8	LS-20-650 LI1	220-240	0.16	50/60	650	19.5-32	42	21
9	LS-20-700 LI1	220-240	0.16	50/60	700	18-30	40	21

■Connection diagram



■2D diagram

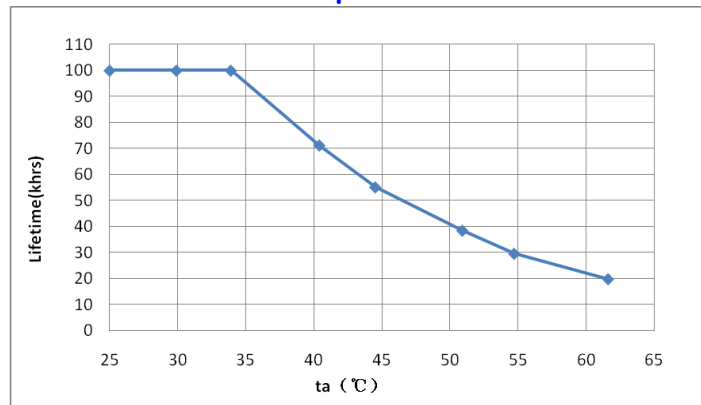


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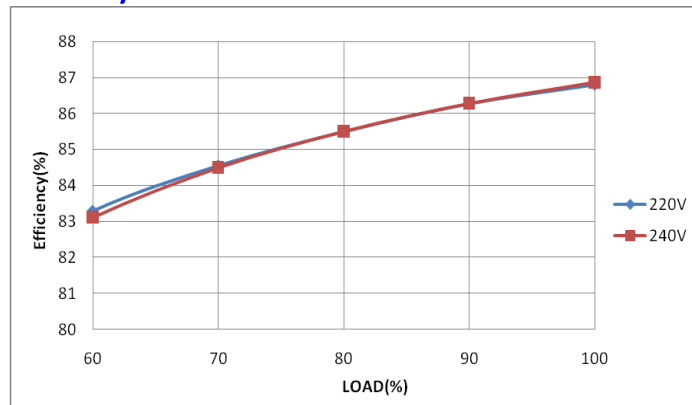
LS-20-XXX LI1

■Curve for LS-20-700 LI1

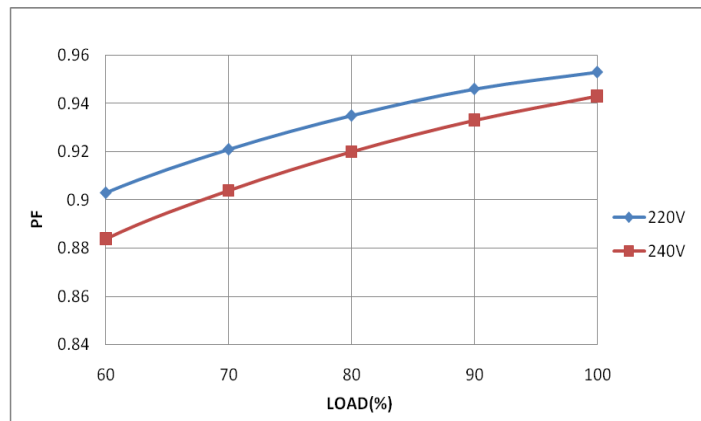
Lifetime vs. Ambient Temperature Curve



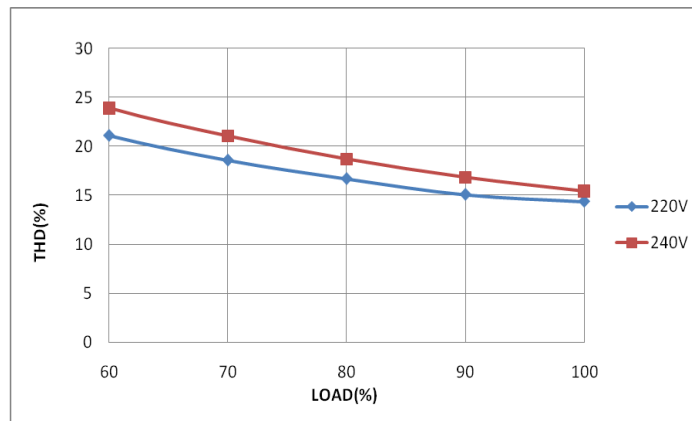
Efficiency vs. Load



Power Factor Characteristics



THD vs. Load



■Operating window

