

20W LED Driver Constant current

LS-20-XXX TRIAC LI



■ Approve



■ Features

- Class II, SELV, independent
- Input Voltage 220-240VAC
- Protections: SCP/OLP/OVP
- Power Factor 0.95±0.05
- Efficiency ≥83%
- Support Leading edge & trailing edge dimmable
- 5 years warranty

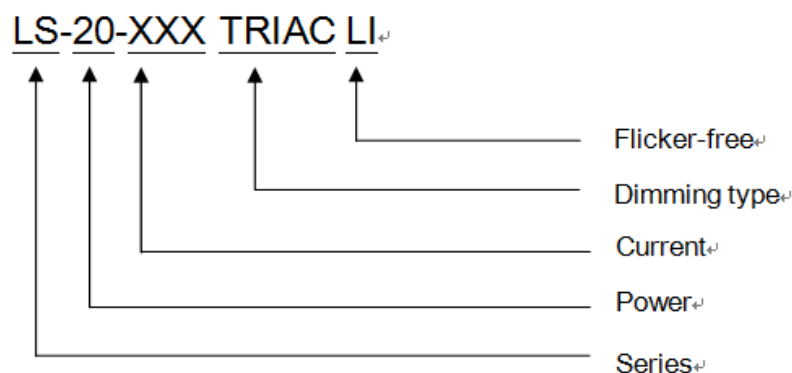
■ Applications(Typ.)

- LED panel
- LED pendant lights
- LED down lights

■ Description

LS-20-XXX TRIAC LI is a 20W constant current LED driver that operates from 198-264Vac input with 300-700mA output current. With it's compact dimensions from 116 x 42.5 x 28mm it is easy to integrate in LED panel, pendant light 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	198-264Vac			
	Frequency(Hz)	50/60 Hz			
	Power Factor	0.95±0.05@230Vac, full load			
	Input Current max	0.16A MAX. @Full Load,198Vac			
	Start-up time	< 0.5S			
	Unload Power Consumption	≤1W			
	Inrush Current	10A Max. /60µs@230V, Full Load , 50%Ipk-50%Ipk			
	THD	< 25% @Full Load,230VAC			
	Leakage Current	< 0.7mA(240VAC)			
Output	Constant Current Max. *Note.3	300mA	350mA	...	700mA
	Unload voltage Max. (VDC)	80V	75V	...	40V
	Voltage Range(VDC)	50-68V	40-60V	...	20-30V
	Rated power	20.4W 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% @Full Load,230VAC			
	Output LF current ripple(<120Hz)	≤±3% @Full Load,230VAC			
	Efficiency(Typ.)	≥83%			
Dimming	Dimming mode	Triac , Leading edge & trailing edge dimmable			
	Dimming current range	10% ~ 100%			
Protection	Over Load Protection	105-120% Protection type: Auto Resume			
	Over Voltage Protection	>80VDC	>75VDC	...	> 40VDC
	Short circuit Protection	Protection type: Auto Resume			
Environment	Operating Temperature	-20°C...+50°C			
	tc	80°C			
	Storage Temperature	-20°C...+60°C			
	Life time	> 30,000h@ta=50°C			
	Humidity	20%-90%RH			
Others	Dimension	116X42.5X28 (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 —L-N: 1KV			
Note	1.All parameters NOT specially mentioned are measured at 230VAC 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 0.1µF & 47 µF 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.				

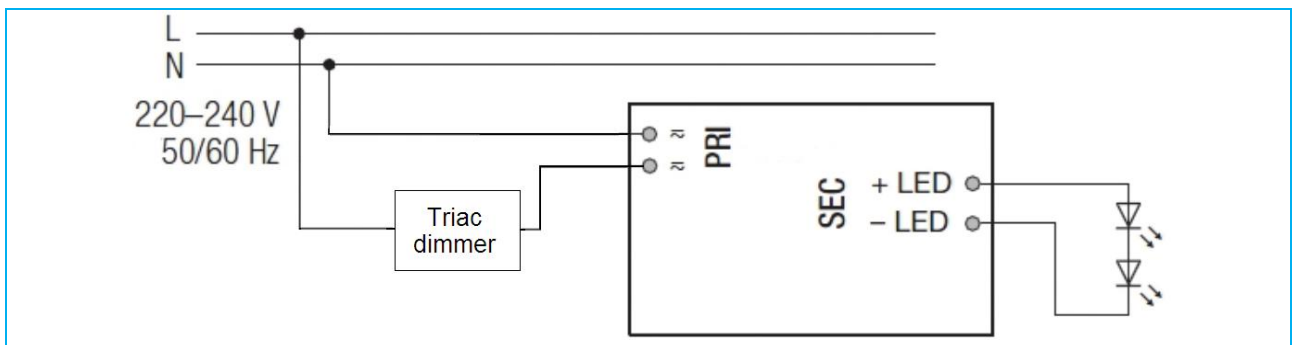
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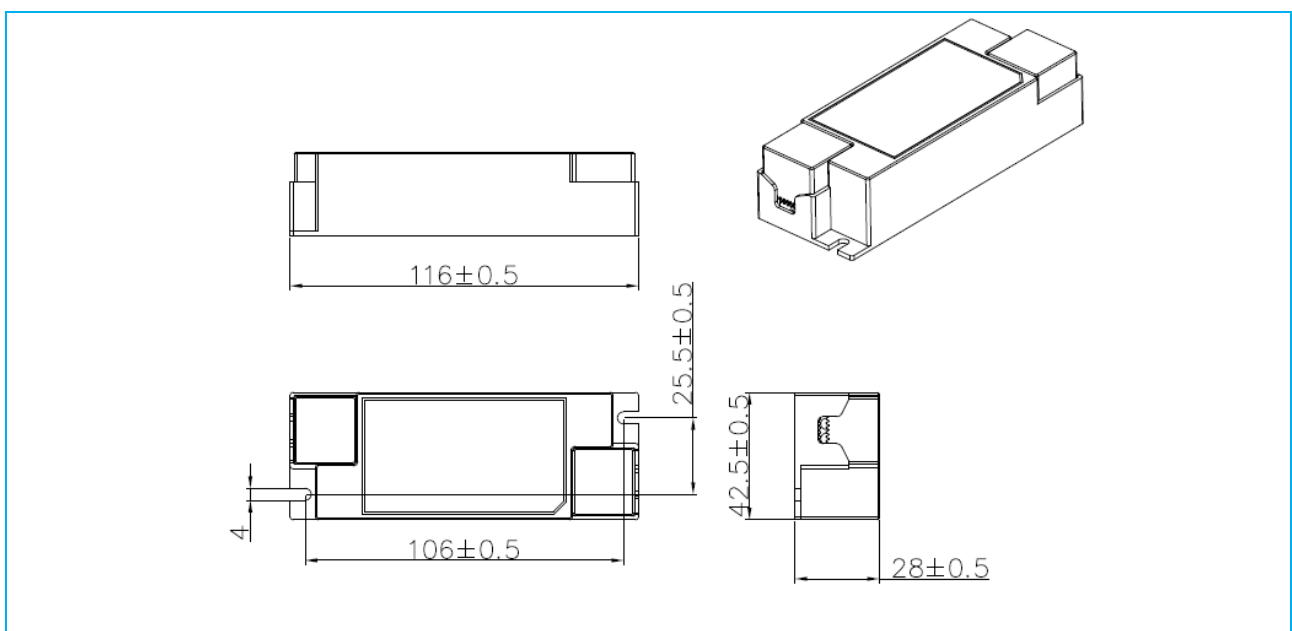
Model list

No	Model number	Input			Output			Max. Prated(W)
		Voltage (VAC)	Max.Current (A)	Frequency (Hz)	Constant current (mA)	Normal working voltage (VDC)	No load working voltage (VDC)	
1	LS-20-300 TRIAC LI	220-240	0.16	50/60	300	50-68	80	20.4
2	LS-20-350 TRIAC LI	220-240	0.16	50/60	350	40-60	75	21
3	LS-20-400 TRIAC LI	220-240	0.16	50/60	400	32-50	59	20
4	LS-20-450 TRIAC LI	220-240	0.16	50/60	450	27-42	53	18.9
5	LS-20-500 TRIAC LI	220-240	0.16	50/60	500	27-42	53	21
6	LS-20-550 TRIAC LI	220-240	0.16	50/60	550	25-38	50	20.9
7	LS-20-600 TRIAC LI	220-240	0.16	50/60	600	22-34	46	20.4
8	LS-20-650 TRIAC LI	220-240	0.16	50/60	650	20-30	40	19.5
9	LS-20-700 TRIAC LI	220-240	0.16	50/60	700	20-30	40	21

Wiring diagram



2D diagram

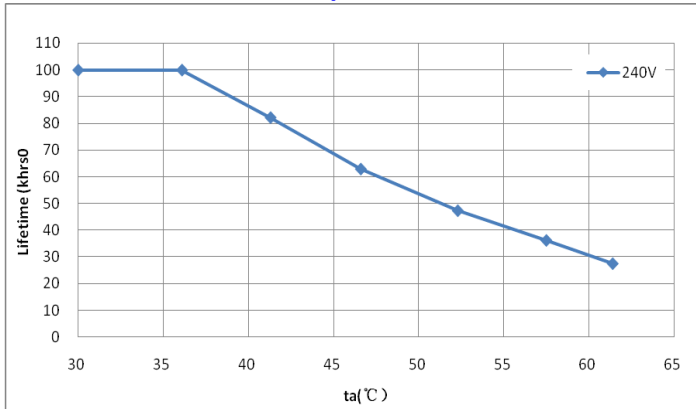


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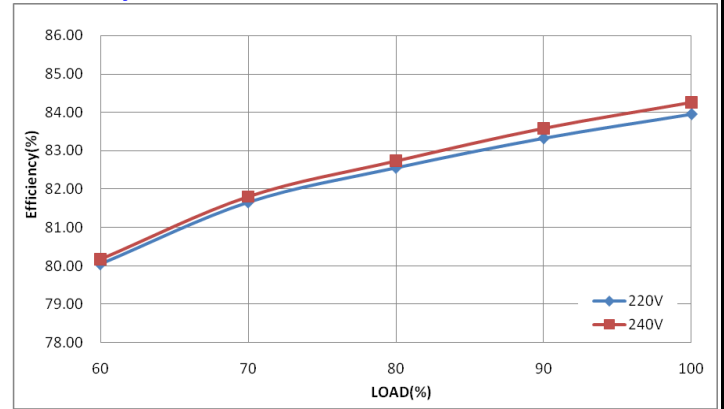
LS-20-XXX TRIAC LI

Curve for LS-20-700 TRIAC LI

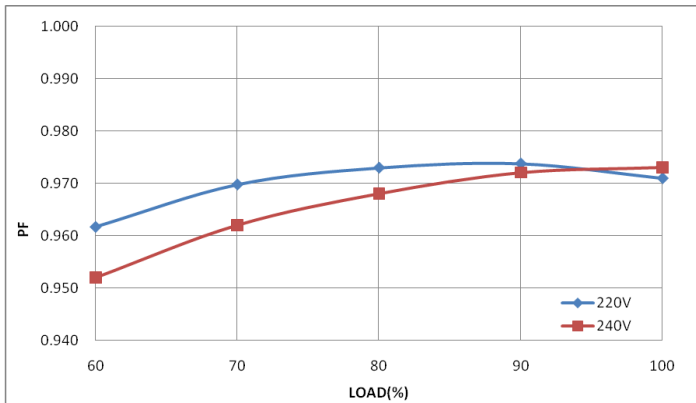
Lifetime vs. Ambient Temperature Curve



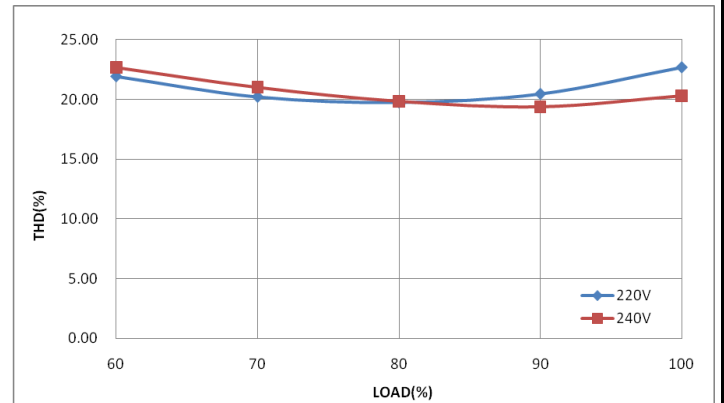
Efficiency vs. Load



Power Factor Characteristics



THD vs. Load



Operating window

