

50W LED Driver Constant current

LS-50-XXX TRIAC LI

■ Approve

SELV CE

■ Features

- Class II, SELV, independent
- Input Voltage 220-240VAC
- Protections: SCP/OLP/OVP
- Power Factor 0.95 ± 0.05
- Efficiency $\geq 87\%$
- Support Leading edge & trailing edge dimmable
- 5 years warranty

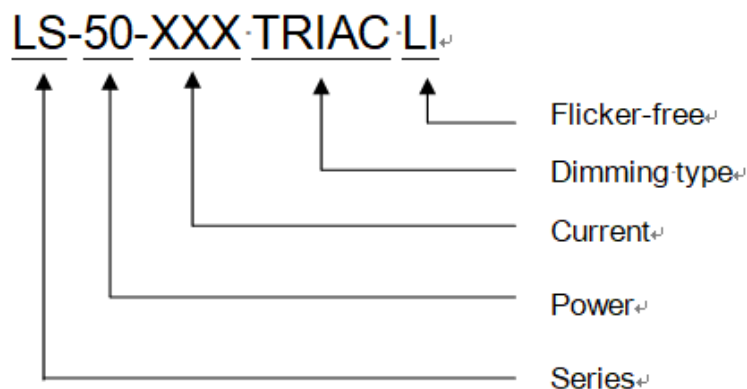
■ Applications(Typ.)

- LED panel
- LED pendant lights
- LED down lights

■ Description

LS-50-XXX TRIAC LI is a 50W constant current LED driver that operates from 198-264Vac input with 600-1200mA output current. With it's compact dimensions from 150 X 45 X 30 mm 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	0.39A MAX. @Full Load,198Vac			
	Start-up time	< 0.5S			
	Unload Power Consumption	≤1W			
	Inrush Current	30A Max. /520µs@230V, Full Load , 50%Ipk-50%Ipk			
	THD	< 15% @Full Load,230VAC			
	Leakage Current	< 0.7mA(240VAC)			
Output	Constant Current Max. *Note.3	600mA	650mA	...	1200mA
	Unload voltage Max. (VDC)	95VDC	90VDC	...	55VDC
	Voltage Range(VDC)	60-80VDC	55-76VDC	...	27-42VDC
	Rated power	48W	49.4W	...	50.4W
	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.)	≥87%			
Dimming	Dimming mode	Triac , Leading edge & trailing edge dimmable			
	Dimming current range	10% ~ 100%			
Protection	Over Load Protection	103-120% Protection type: Auto Resume			
	Over Voltage Protection	>95VDC	>90VDC	...	>55VDC
	Short circuit Protection	Protection type: Auto Resume			
Environment	Operating Temperature	-20°C...+45°C			
	tc	85°C			
	Storage Temperature	-20°C...+60°C			
	Life time	> 30,000h@ta=45°C			
	Humidity	20%-90%RH			
Others	Dimension	150X45X30(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 600mA to 1200mA and increasing in multiples of 50mA. Please see Model list below and contact EAGLERISE for details.				

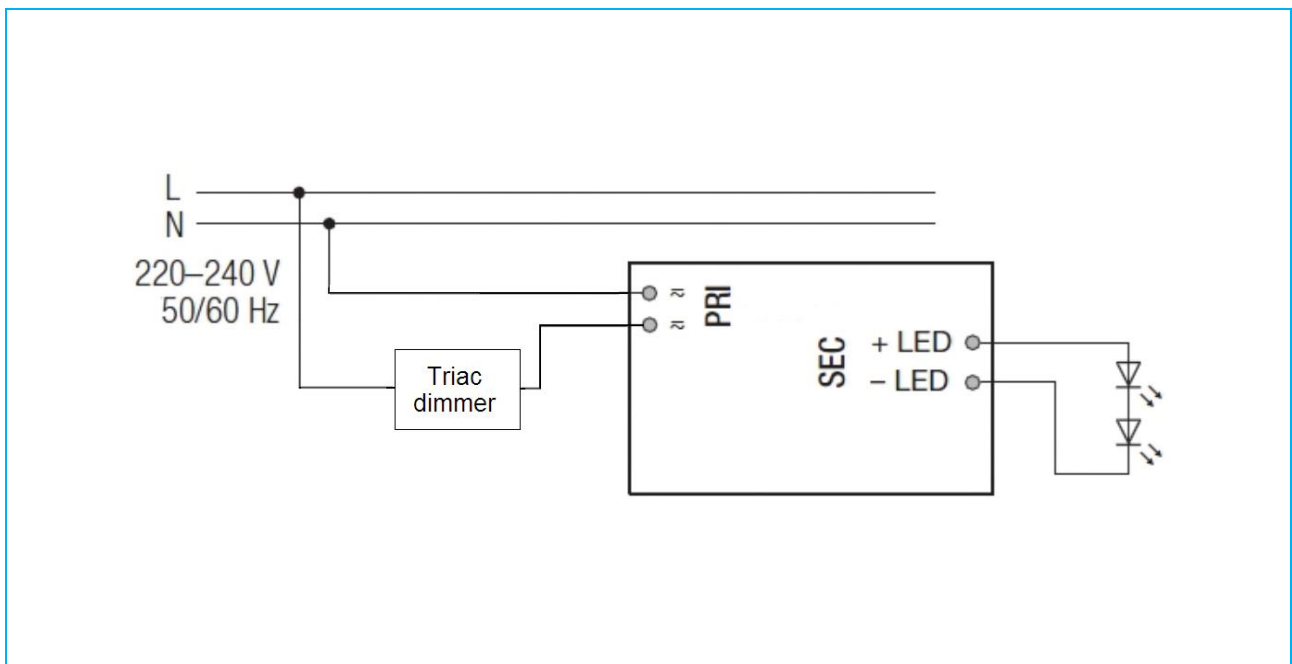
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Model list

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-50-600 TRIAC LI	220-240	0.39	50/60	600	60-80	95	48
2	LS-50-650 TRIAC LI	220-240	0.39	50/60	650	55-76	90	49.4
3	LS-50-700 TRIAC LI	220-240	0.39	50/60	700	48-72	85	50.4
4	LS-50-750 TRIAC LI	220-240	0.39	50/60	750	45-67	80	50.3
5	LS-50-800 TRIAC LI	220-240	0.39	50/60	800	42-63	78	50.4
6	LS-50-850 TRIAC LI	220-240	0.39	50/60	850	40-59	75	50.2
8	LS-50-900 TRIAC LI	220-240	0.39	50/60	900	38-56	70	50.4
9	LS-50-950 TRIAC LI	220-240	0.39	50/60	950	35-52	65	49.4
10	LS-50-1000 TRIAC LI	220-240	0.39	50/60	1000	32-50	62	50
11	LS-50-1050 TRIAC LI	220-240	0.39	50/60	1050	30-48	60	50.4
12	LS-50-1100TRIAC LI	220-240	0.39	50/60	1100	28-45	58	49.5
13	LS-50-1150TRIAC LI	220-240	0.39	50/60	1150	27-42	55	48.3
14	LS-50-1200TRIAC LI	220-240	0.39	50/60	1200	27-42	55	50.4

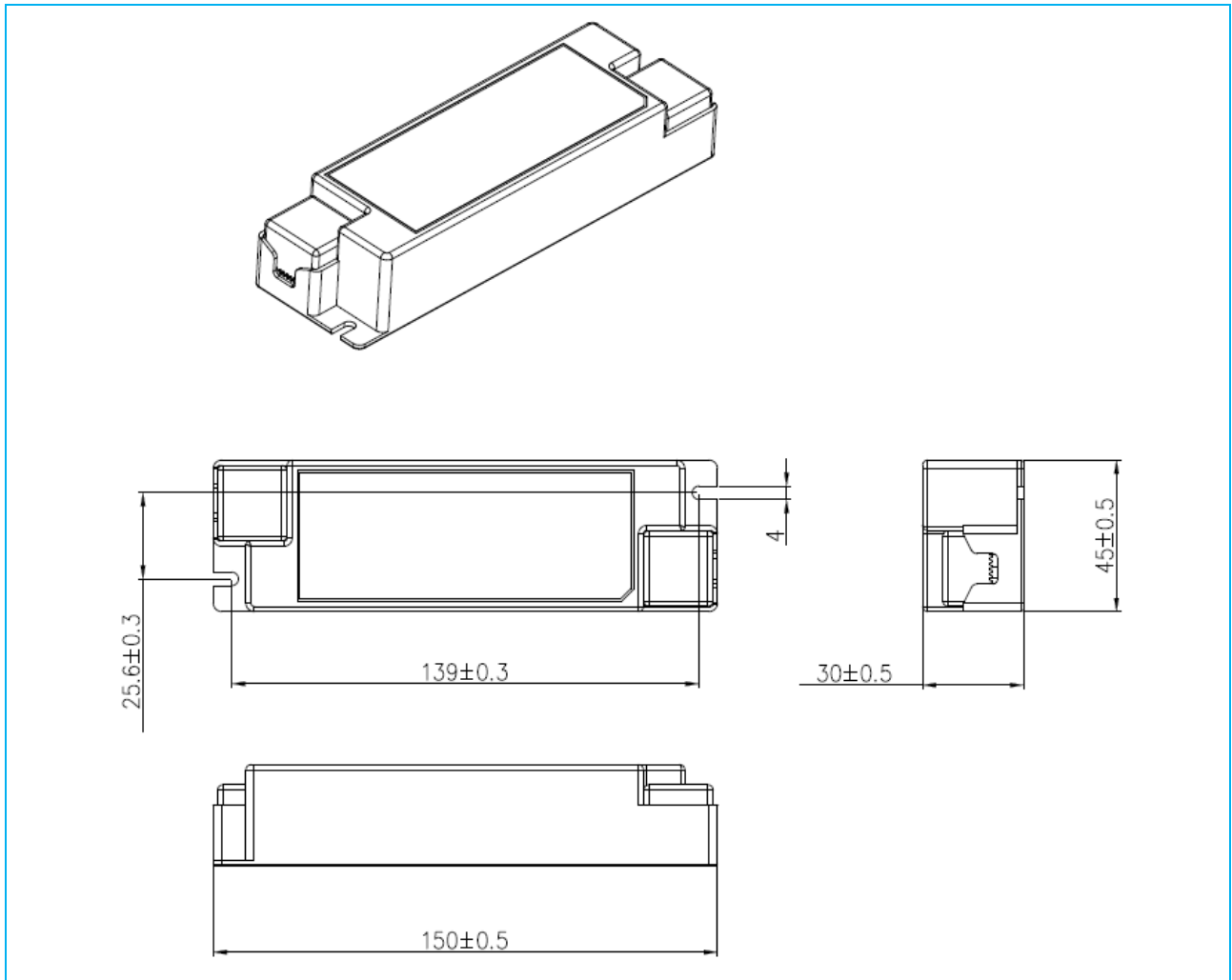
Wiring diagram



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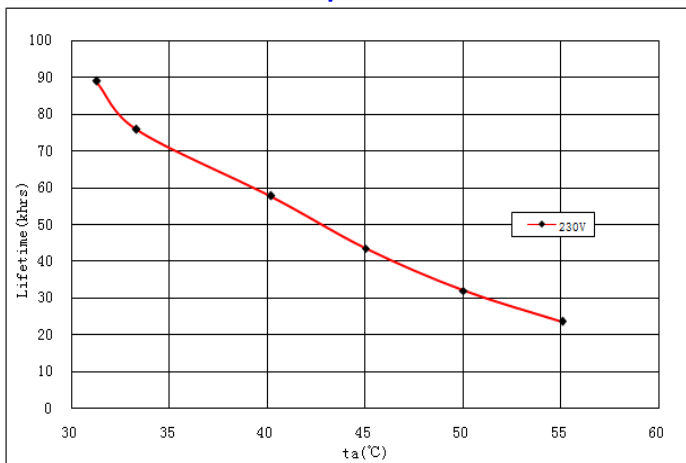
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■ 2D diagram

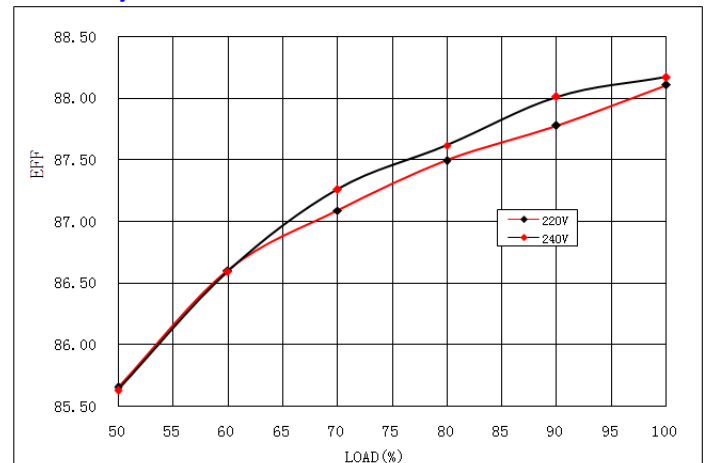


■ Curve for LS-50-1200 TRIAC LI

Lifetime vs. Ambient Temperature Curve



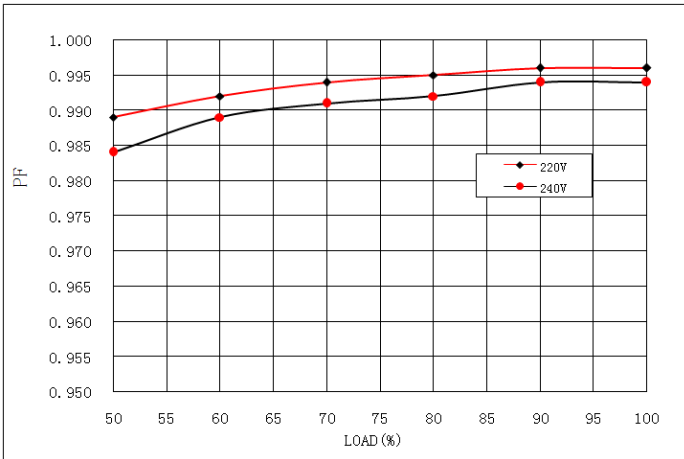
Efficiency vs. Load



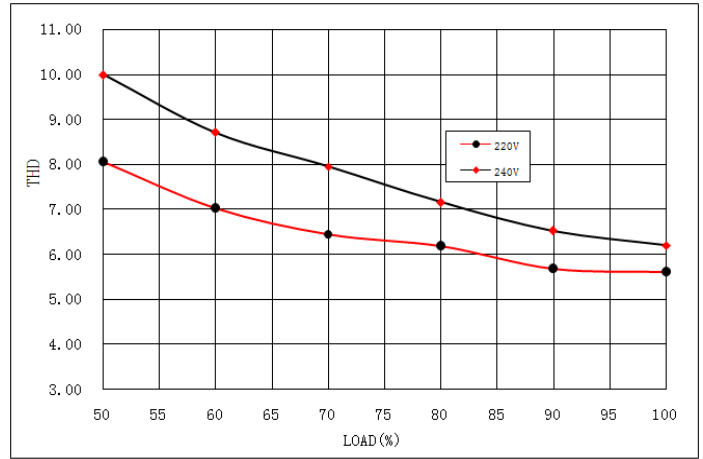
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Power Factor Characteristics



THD vs. Load



■ Operating window

