

21W Constant Current -LS Series

LS-21-XXX MI

■ Approve

SELV CE

■ Features

- Class II, SELV, independent
- Input Voltage 220-240VAC
- Protections: SCP/OLP/OVP
- Power Factor: 0.85C
- Efficiency $\geq 85\%$
- 5 years warranty

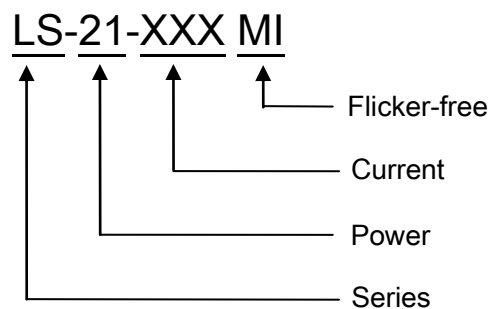
■ Applications

- LED panel
- LED spot light
- LED down light
- COB light

■ Description

LS-21-XXX MI is a 21W constant current LED driver with 300mA to 700mA output current. With its compact dimensions from 100 x 38 x 25mm it is easy to integrate in LED Panel, spot, down light and COB 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	0.85C@Full Load,240VAC			
	Input Current max	0.18A MAX. @Full Load,198VAC(Please see Model list below for details.)			
	Start-up time	< 0.5S			
	Unload Power Consumption	≤0.5W			
	Inrush Current	10A Max.			
	THD	<70% @Full Load,230VAC			
	Leakage Current	< 0.7mA(240VAC)			
Output	Constant Current	300mA	500mA	...	700mA
	Unload voltage Max.	80VDC	53VDC	...	40VDC
	Voltage Range(VDC)	42-70VDC	24-42VDC	...	18-30VDC
	Rated power	21W Max.	21 W 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	≤±5% @Full Load , 230VAC			
	Efficiency(Typ.)	≥85%			
Protecti- on	Over Load Protection	103-120% Protection type: Auto Resume			
	Over Voltage Protection	> 80VDC	>53VDC	...	>40VDC
	Short circuit Protection	Protection type: Auto Resume			
Environ- ment	Operating Temperature	-20°C...+45°C			
	tc	75°C			
	Storage Temperature	-25°C...+60°C			
	Life time	> 30,000h@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.				

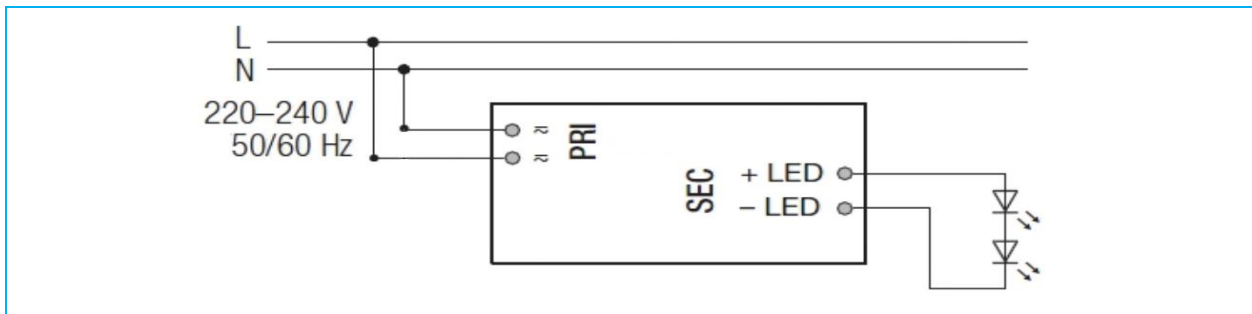
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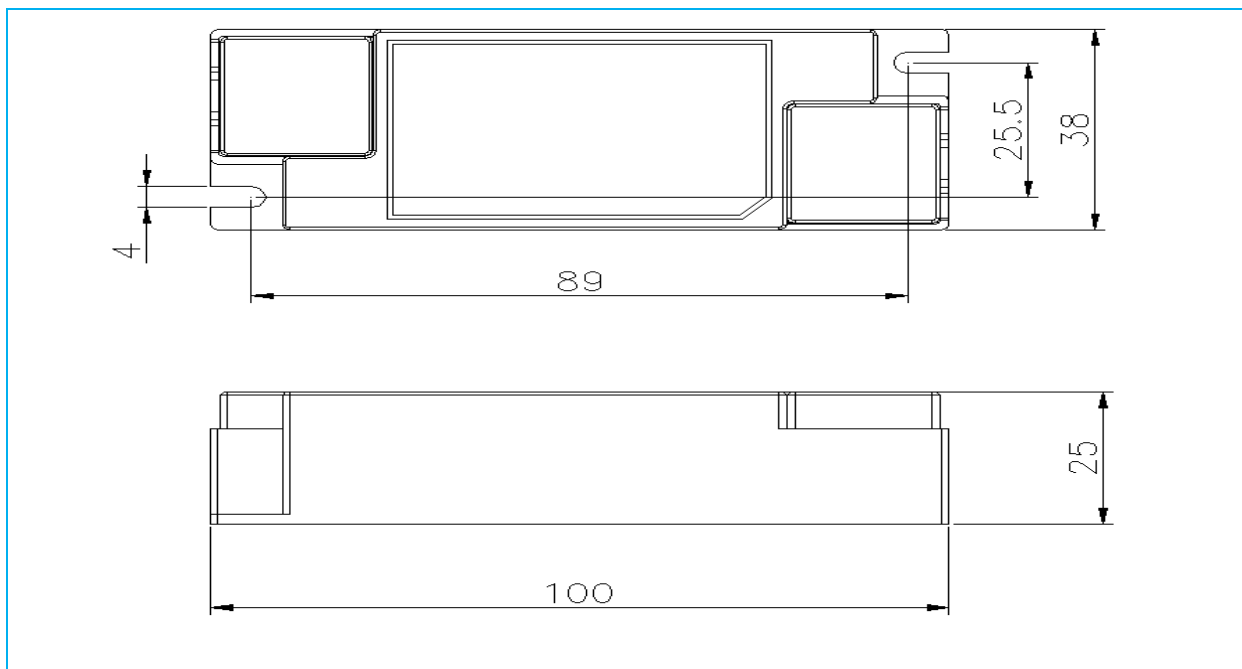
Model list

Model number	Input			Output			P(W)
	Voltage (VAC)	Current (A)	Frequency (Hz)	Constant current (mA)	Normal working voltage (VDC)	No load working voltage (VDC)	
LS-21-300 MI	220-240	0.18	50/60	300	42-70	80	21
LS-21-350 MI	220-240	0.18	50/60	350	36-60	70	21
LS-21-400 MI	220-240	0.18	50/60	400	30-50	60	20
LS-21-450 MI	220-240	0.18	50/60	450	27-46	58	20.7
LS-21-500 MI	220-240	0.18	50/60	500	24-42	53	21
LS-21-550 MI	220-240	0.18	50/60	550	23-38	50	20.9
LS-21-600 MI	220-240	0.18	50/60	600	21-35	45	21
LS-21-650 MI	220-240	0.18	50/60	650	20-32	42	20.8
LS-21-700 MI	220-240	0.18	50/60	700	18-30	40	21

Wiring diagram



2D diagram

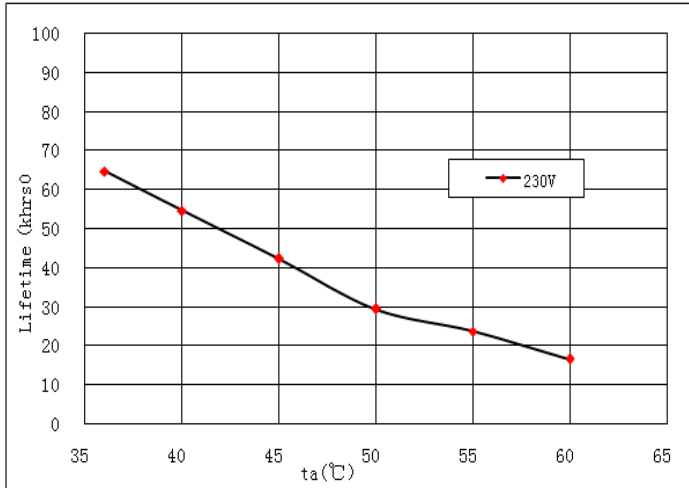


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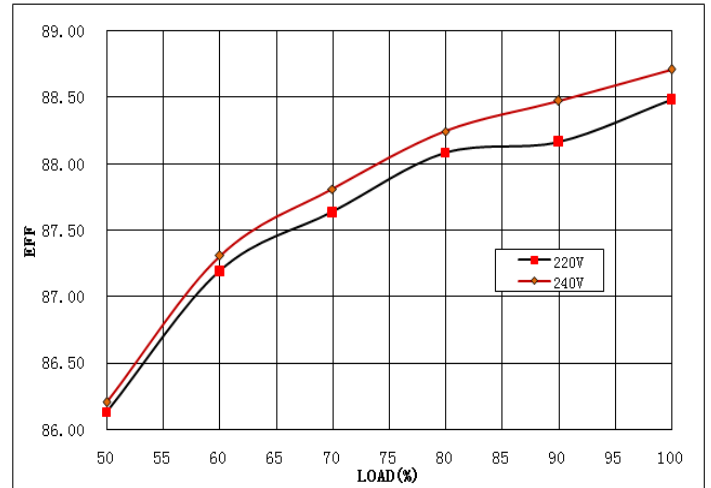
LS-21-XXX MI

■ Curve for LS-21-700 MI

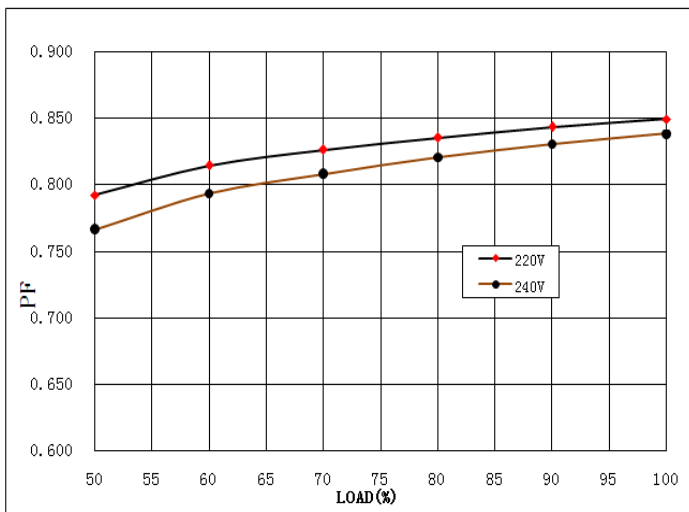
Lifetime vs. Ambient Temperature Curve



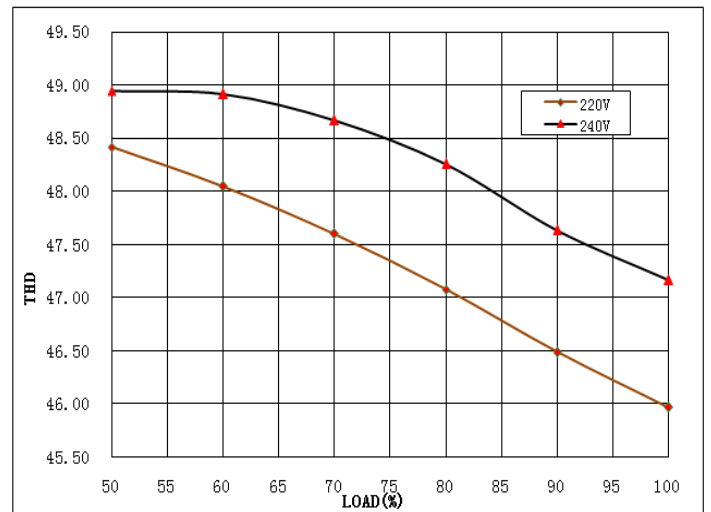
Efficiency vs. Load



Power Factor Characteristics



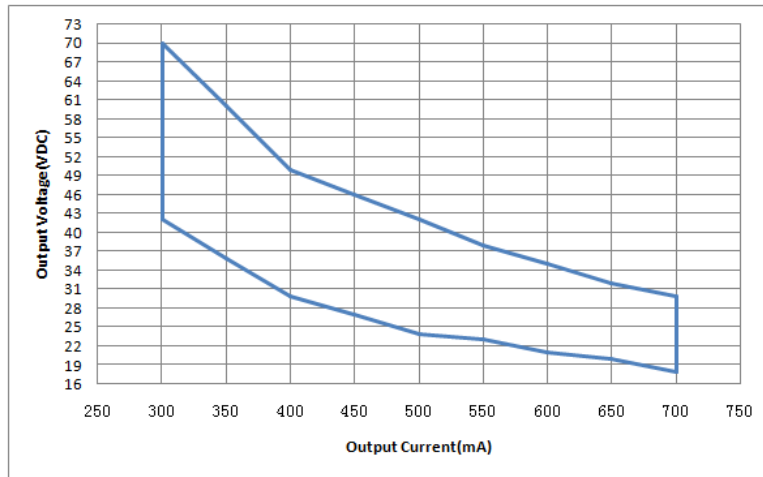
THD vs. Load



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■ Operating window



— Operating window 100%