

16W Constant Current -LS Series

LS-16-XXX LI1



■ Approve
SELV CE

■ Features

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

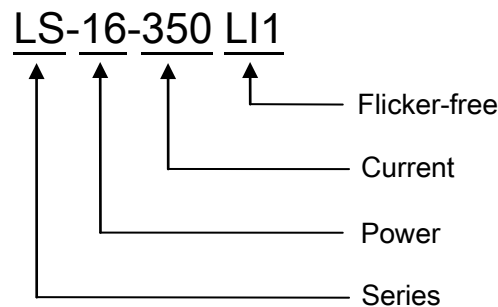
■ Applications

- LED panel
- LED spot lights
- LED down lights
- COB lights

■ Description

LS-16-XXX LI1 is a 16W constant current LED driver 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, spot, down lights and COB lights. 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	> 0.9@Full Load,240VAC				
	Input Current max	0.12A MAX. @Full Load,176VAC				
	Start-up time	< 0.5S				
	Unload Power Consumption	≤0.5W				
	Inrush Current	20A Max.				
	THD	14% Typ.				
Output	Leakage Current	< 0.5mA(240 /AC)				
	Constant Current Max. *Note.3	350mA	400mA	450mA	...	700mA
	Unload voltage Max.	56VDC	50VDC	46VDC	...	33VDC
	Voltage Range(VDC)	20-46VDC	24-42VDC	21.5-36VDC	...	14-23VDC
	Rated power	16.1W Max.	16.8W Max.	16.2W Max.	...	16W Max.
	Current Accuracy	±5%				
	Voltage Regulation	±3% @Full Load				
	Load Regulation	±5%				
	Hold-up Time	1s max.@Full Load				
	Ripple& Noise *Note.2	≤21mAp-p	≤24mAp-p	≤27mAp-p	...	≤42mAp-p
	Efficiency(Typ.)	≥85%				
Protection	Over Load Protection	103-120% Protection type: Auto Resume				
	Over Voltage Protection	> 56VDC	> 50VDC	> 46VDC	...	> 33VDC
	Short circuit Protection	Protection type: Auto Resume				
	Over Temperature protection	NA				
Environment	Operating Temperature	-20°C...+45°C				
	tc	80°C				
	Storage Temperature	-25°C...+60°C				
	Life time	> 30,000h@45°C				
	Humidity	10%-90%RH				
Others	Dimension	100X38X25(LXWXH)mm				
Safety & EMC	Safety standards	EN 61347-1; EN61347-2-13;				
	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 390mA or from 300mA to 700mA and increasing in multiples of 50mA. Please see Model list below and contact EAGLERISE for details.					

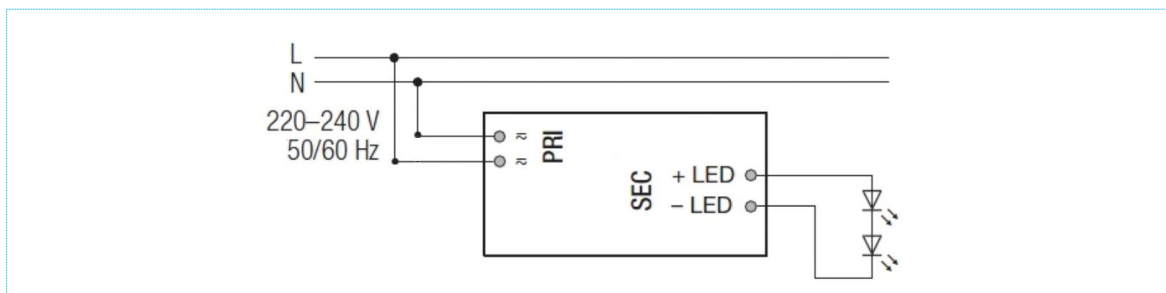
16W Constant Current -LS Series

LS-16-XXX LI1

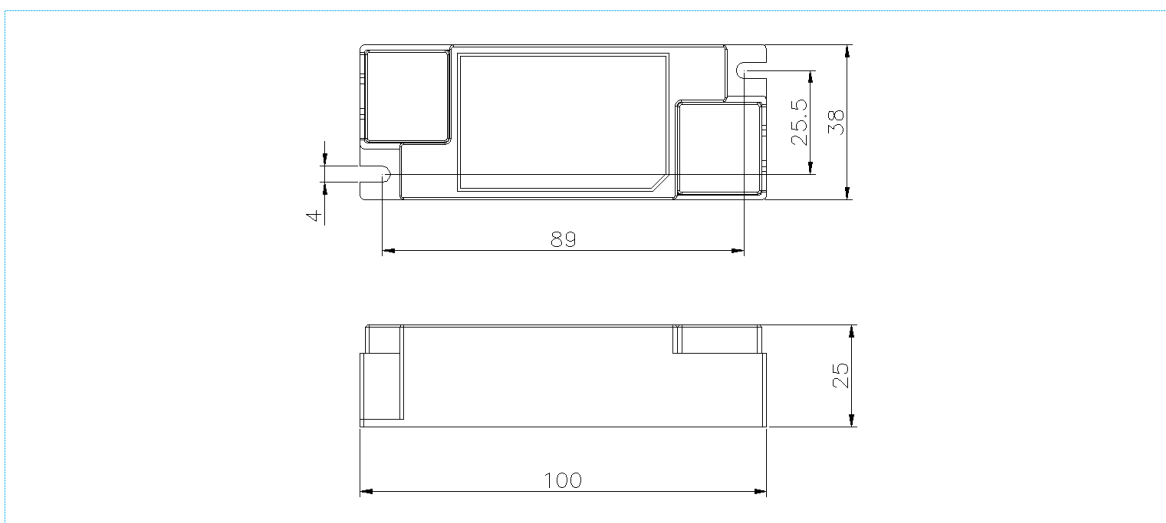
Model list

No.	Model number	Input			Output			P(W)
		Voltage (VAC)	Current (A)	Frequency (Hz)	Constant current (mA)	Normal working voltage (VDC)	No load working voltage (VDC)	
1	LS-16-300 LI1	220-240	0.12	50/60	300	20-46	56	13.8
2	LS-16-350 LI1	220-240	0.12	50/60	350	20-46	56	16.1
3	LS-16-390 LI1	220-240	0.12	50/60	390	24-42	50	16.4
4	LS-16-400 LI1	220-240	0.12	50/60	400	24-42	50	16.8
5	LS-16-450 LI1	220-240	0.12	50/60	450	21.5-36	46	16.2
6	LS-16-500 LI1	220-240	0.12	50/60	500	19-32	42	16
7	LS-16-550 LI1	220-240	0.12	50/60	550	18-30	40	16.5
8	LS-16-600 LI1	220-240	0.12	50/60	600	16-27	37	16.2
9	LS-16-650 LI1	220-240	0.12	50/60	650	15-25	35	16.3
10	LS-16-700 LI1	220-240	0.12	50/60	700	14-23	33	16.1

Connection diagram



2D diagram

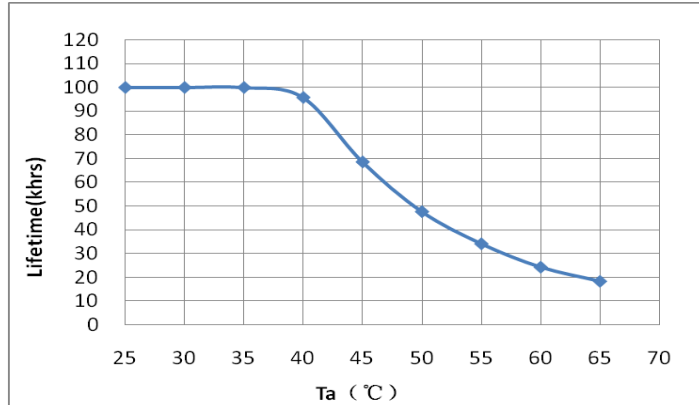


16W Constant Current -LS Series

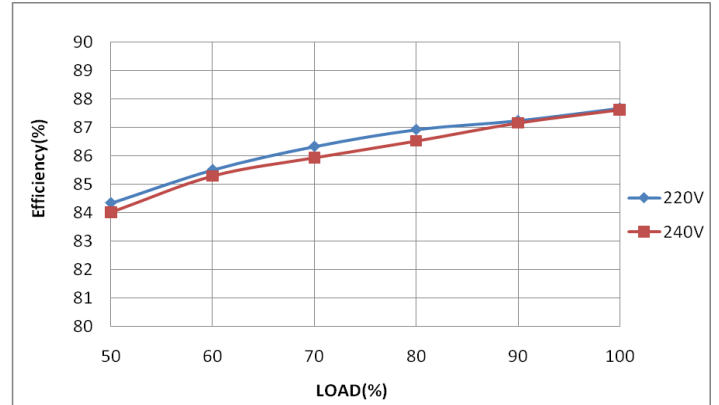
LS-16-XXX LI1

■Curve for LS-16-350 LI1

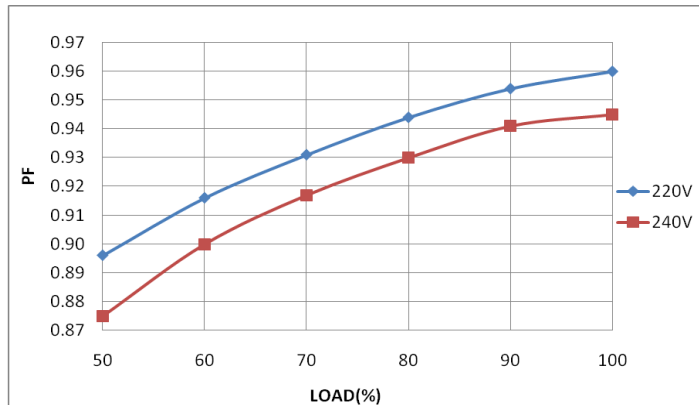
Lifetime vs. Ambient Temperature Curve



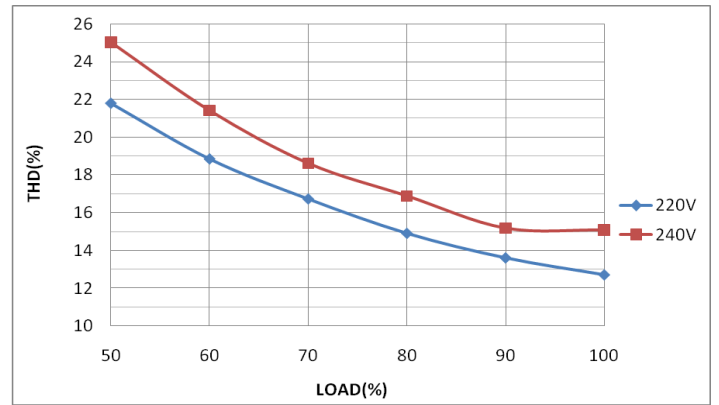
Efficiency vs. Load



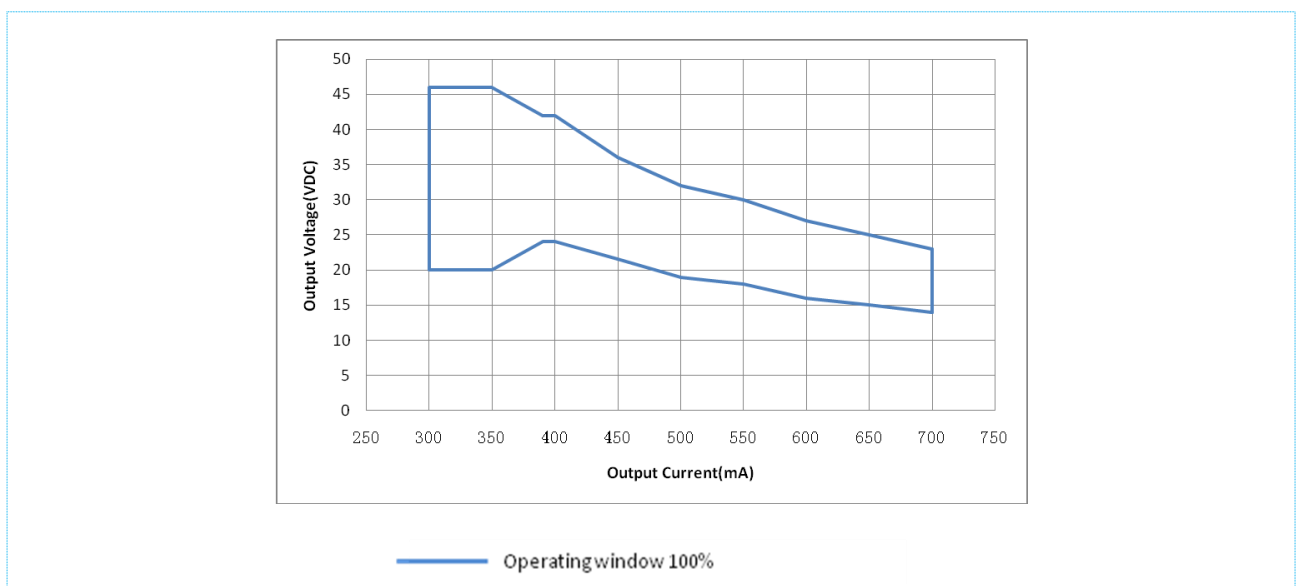
Power Factor Characteristics



THD vs. Load



■Operating window



ATTESTATION OF CONFORMITY



Issued to: EAGLERISE ELECTRIC & ELECTRONIC (CHINA) CO., LTD
No.A3, Guicheng Sci-Tech Industrial Park, Jianping Road, Nanhai District, Foshan
City, Guangdong Province, China

For the product: LED power supply

Trade name:



Type/Model: LS-16-300 LI1, **LS-16-350 LI1**, LS-16-390 LI1, LS-16-400 LI1, LS-16-450 LI1,
LS-16-500 LI1, LS-16-550 LI1, LS-16-600 LI1, LS-16-650 LI1, LS-16-700 LI1

Ratings: 220-240 Vac, 50/60 Hz (Details refer to table 1 of test report)

Manufactured by: EAGLERISE ELECTRIC & ELECTRONIC (CHINA) CO., LTD. Beijiao Branch
No.4, East Huanzhen Road, Beijiao Shunde, Foshan, Guangdong 528000, China

Requirements:

EN 55015:2013 + A1:2015
EN 61547:2009
EN 61000-3-2:2014
EN 61000-3-3:2013

This Attestation is granted on account of an examination by DEKRA, the results of which are laid down in a confidential file no. 4351400.50.

This Attestation implies that the examined types are in accordance with the standards designated under the Electromagnetic Compatibility Directive (EMC) 2014/30/EU.

The examination has been carried out on one single specimen or several specimens of the product, submitted by the manufacturer. The Attestation does not include an assessment of the manufacturer's production. Conformity of his production with the specimen tested by DEKRA is not the responsibility of DEKRA.

The CE marking may be affixed on the product if all relevant and effective EC directives are complied with.

Arnhem, 11 January 2019

Number: 4351400.01AOC

DEKRA Testing and Certification (Shanghai) Ltd.,
Guangzhou Branch

Miranda Zhou
Certification Manager

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CERTIFICATE

Issued to:
Applicant:
Eaglerise Electric & Electronic (China) Co., Ltd.
No. A3, Guicheng Sci-Tech Industrial Park,
Jianping Road, Nanhai District,
Foshan City, Guangdong Province, China

Licensee:
Eaglerise Electric & Electronic (China) Co., Ltd.
Beijiao Branch
No.4, East Huanzhen Road,
Beijiao Shunde,
528000 Foshan, Guangdong, China

Product : LED drivers
Trade name(s) : **EAGLERISE**
Type(s)/model(s) : **LS-16-xxx LI1** LS-16-390 LI1

The product and any acceptable variation thereto is specified in the Annex to this certificate and the documents therein referred to.

DEKRA hereby declares that the above-mentioned product has been certified on the basis of:

- a type test according to the standard EN 61347-2-13:2014, EN 61347-2-13:2014/A1:2017, EN 61347-1:2015, EN 62384:2006 and EN 62384:2006/A1:2009
- an inspection of the production location according to CENELEC Operational Document CIG 021
- a certification agreement with the number 2178893

DEKRA hereby grants the right to use the ENEC certification mark.

The ENEC certification mark may be applied to the product as specified in this certificate for the duration of the ENEC certification agreement and under the conditions of the ENEC certification agreement.

This certificate is issued on 22 November 2018 and expires upon withdrawal of one of the above mentioned standards.

Certificate number: 35-106431

DEKRA Certification B.V.



drs. G.J. Zoetbrood
Managing Director



Kate Xu
Certification Manager

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ACCREDITED BY THE
DUTCH ACCREDITATION
COUNCIL



SPECIFICATION OF THE CERTIFIED PRODUCT**Product data**

Product	: LED drivers
Trade name(s)	: EAGLERISE
Type(s)/model(s)	: LS-16-300 LI1, LS-16-350 LI1 , LS-16-390 LI1, LS-16-400 LI1, LS-16-450 LI1, LS-16-500 LI1, LS-16-550 LI1, LS-16-600 LI1, LS-16-650 LI1 and LS-16-700 LI1
Rated input voltage	: 220-240 Vac
Rated input current	: 0,12 A Max.
Rated frequency	: 50/60 Hz
Class of insulation	: Class II
Degree of protection	: IP20
Ambient temperature (ta)	: 45 °C
Max. case temperature (tc)	: 80 °C

Product data – type LS-16-300 LI1

Output current	: 300 mA
Output voltage	: 20-46 Vdc, Max. 56 Vdc
Output Wattage	: 13,8 W Max.

Product data – type LS-16-350 LI1

Output current	: 350 mA
Output voltage	: 20-46 Vdc, Max. 56 Vdc
Output Wattage	: 16,1 W Max.

Product data – type LS-16-390 LI1

Output current	: 390 mA
Output voltage	: 24-42 Vdc, Max. 50 Vdc
Output Wattage	: 16,4 W Max.

Product data – type LS-16-400 LI1

Output current	: 400 mA
Output voltage	: 24-42 Vdc, Max. 50 Vdc
Output Wattage	: 16,8 W Max.

Product data – type LS-16-450 LI1

Output current	: 450 mA
Output voltage	: 21.5-36 Vdc, Max. 46 Vdc
Output Wattage	: 16,2 W Max.

Product data – type LS-16-500 LI1

Output current	: 500 mA
Output voltage	: 19-32 Vdc, Max. 42 Vdc
Output Wattage	: 16 W Max.

Product data – type LS-16-550 LI1

Output current	: 550 mA
Output voltage	: 18-30 Vdc, Max. 40 Vdc
Output Wattage	: 16,5 W Max.

Product data – type LS-16-600 LI1

Output current : 600 mA
Output voltage : 16-27 Vdc, Max. 37 Vdc
Output Wattage : 16,2 W Max.

Product data – type LS-16-650 LI1

Output current : 650 mA
Output voltage : 15-25 Vdc, Max. 35 Vdc
Output Wattage : 16,3 W Max.

Product data – type LS-16-700 LI1

Output current : 700 mA
Output voltage : 14-23 Vdc, Max. 33 Vdc
Output Wattage : 16,1 W Max.

TESTS**Test requirements**

EN 61347-2-13:2014
EN 61347-2-13:2014/A1:2017
EN 61347-1:2015
EN 62384:2006
EN 62384:2006/A1:2009

Test result

The test results are laid down in DEKRA test file 434908900.

Additional information

Model/Type reference:
LS-16-xxx LI1

“xxx” is for the output current and represents the number from 300 to 700 increasing in multiples of 50, for example, 700 means the output current is 700 mA.

The list of components is laid down at test report 4349089.50, 4349089.51.

Conclusion

The examination proved that all requirements were met.

Factory location

Eaglerise Electric & Electronic (China) Co., Ltd. Beijiao Branch
No.4, East Huanzhen Road,
Beijiao Shunde,
528000 Foshan, Guangdong, China

Trade name : EAGLERISE stands for
