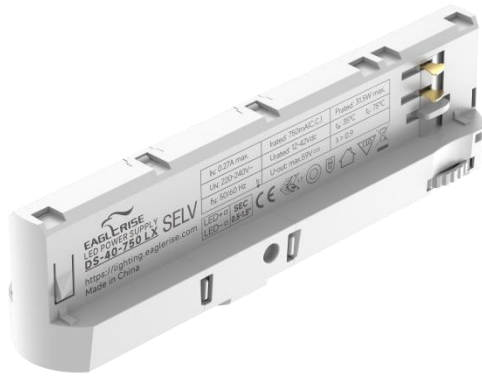


# 40W Constant Current -FDS power supply



### Features

- Class II,SELV,Built-in
- Input Voltage 220-240VAC
- Protections: SCP/OLP/OVP/OTP
- Power Factor: 0.5C-0.95@500-700mA  
0.7C-0.95@750-1050mA
- Efficiency: 89%
- 5 years warranty

### Applications

- Track Spot light

■ Approve

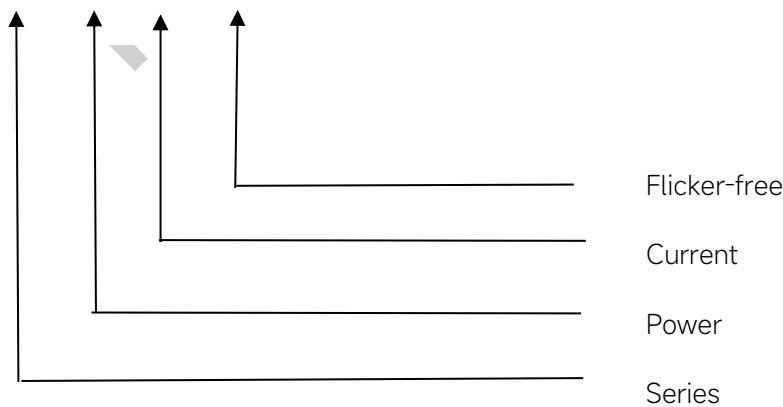


## ◆ Description

DS-40-XXX LX is a 40W constant current LED driver that operates from 198-264Vac input with 500 to 1050mA output current and a forward voltage range from 12 to 42Vdc. With it's compact dimensions from 162x31x42.2mm. It is easy to integrate in track spot light products. To ensure trouble-free operation, protection is provided against output short circuit and over Load.

## ◆ Model code

### DS-40-XXX LX



## ◆ Specification

Output	Constant Current	500mA	600mA	650mA	...	1000mA	1050mA
	Voltage Range(VDC)	12-42VDC	9-42VDC		...	9-40VDC	9-38VDC
	Unload voltage Max.	59VDC					
	Current Accuracy	±5%					
	Output HF current ripple(≥1KHz)	±5%					
	Output LF current ripple(≤120Hz)	±5%					
	SVM	≤0.4					
	P <sub>st</sub>	≤1					
	Efficiency(Typ.)	89%@Full Load,230VAC					
	EOFI	100%					
Input	Rated input voltage	220-240V					
	Range of input voltage	198-264VAC					
	Maximum voltage	300VAC@1 h maximum,unit might not operate in this abnormal condition					
	Range of input voltage(VDC)	176-280VDC					
	Frequency(Hz)	0/50/60 Hz					
	Displacement factor	0.95					
	Power Factor	0.5C-0.95@500-700mA 0.7C-0.95@750-1050mA					
	Input Current max	0.27A MAX. @Full Load,230VAC					
	Start-up time	< 0.5S					
	No Load Power	≤0.5W					
	THD (Typ.)	<10% @Full Load,230VAC					
Protection	Over Load Protection	103-130% YES/Auto Resume					
	Over Voltage Protection	> 59VDC YES/Auto Resume					
	Short circuit Protection	YES/Auto Resume					
	Over Temperature Protection	YES/Auto Resume					
capability	Surge capability (L-N)	1KV					
	Surge capability (L/N-Ground)	2KV					
Environment	Operating Temperature	-20°C~+35°C					
	Humidity	10%-90%RH					
	Tc	75°C@500-850mA 80°C@900-1050mA					
	Storage Temperature	-40°C...+85°C					
	Life time	> 50000h@Tc=75°C					
	Noise	≤25dB(A)@20cm					
Surface	Dimension	162x31x42.2mm(LXWXH)mm					

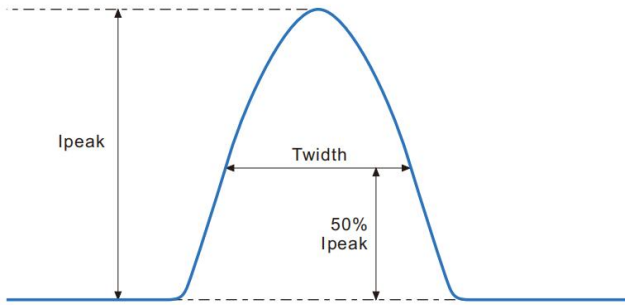
	material	PC
Standards	Safety	IEC61347- 1, IEC61347-2- 13;EN61347- 1, EN61347-2- 13;EN62384
	EMC	EN55015, EN61000-3-2, EN61000-3-3, EN61547;EN61000-4-5
	ErP	Erp2.0 EU 2019/2020
	RoHS	RoHS (2011/65/EU) (EU)2015/863
Note	<p>1.All parameters NOT specially mentioned are measured at 230VAC input , full load and 25°C of ambient temperature.</p> <p>2.Ripple &amp; Noise are measured at 20MHz of bandwidth by using a 300mm twisted pair-wire terminated with a 0.1uF &amp; 47 uF parallel capacitor.</p> <p>3.The DC input for this product is only used for emergency lighting and applies to functional and safety requirements, EMC is not considered.</p> <p>4.EL compatible with IEC 61347-2-13 Annex J, compatible with EN 60598-2-22 emergency lighting fixtures, compatible with EN 50172 central battery system applications.</p> <p>5.Switch and dimmer are not recommended to connect between this product output and luminaries.</p>	

### ◆ Model list

Number	Model number	Output			
		Current (mA)	Voltage (VDC)	Voltage No load (VDC)	Power (W)
1	DS-40-500 LX	500	12-42	59	21
2	DS-40-600 LX	600	9-42		25.2
3	DS-40-650 LX	650			27.3
4	DS-40-700 LX	700			29.4
5	DS-40-750 LX	750			31.5
6	DS-40-800 LX	800			33.6
7	DS-40-850 LX	850			35.7
8	DS-40-900 LX	900			37.8
9	DS-40-950 LX	950			39.9
10	DS-40-1000 LX	1000			9-40
11	DS-40-1050 LX	1050	9-38		39.9

### ◆ Inrush Current

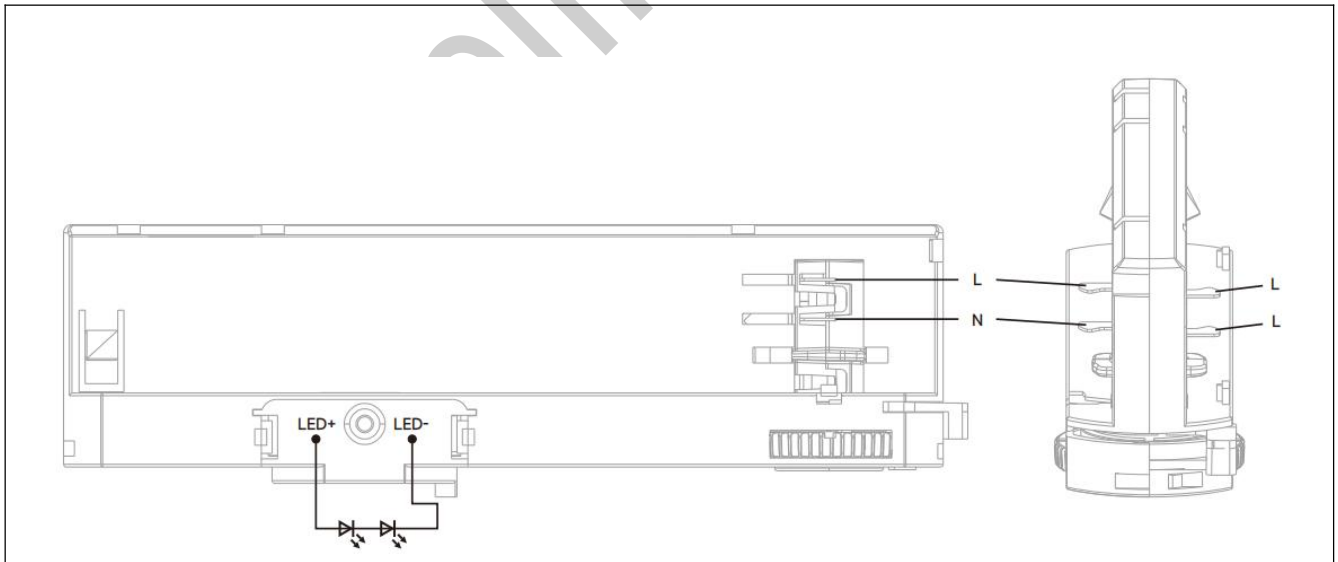
$I_{peak}$	$T_{width}$	B10	B16	B20	C10	C16	C20
17.8A	162 $\mu$ s	28pcs	46pcs	57pcs	29pcs	47pcs	59pcs

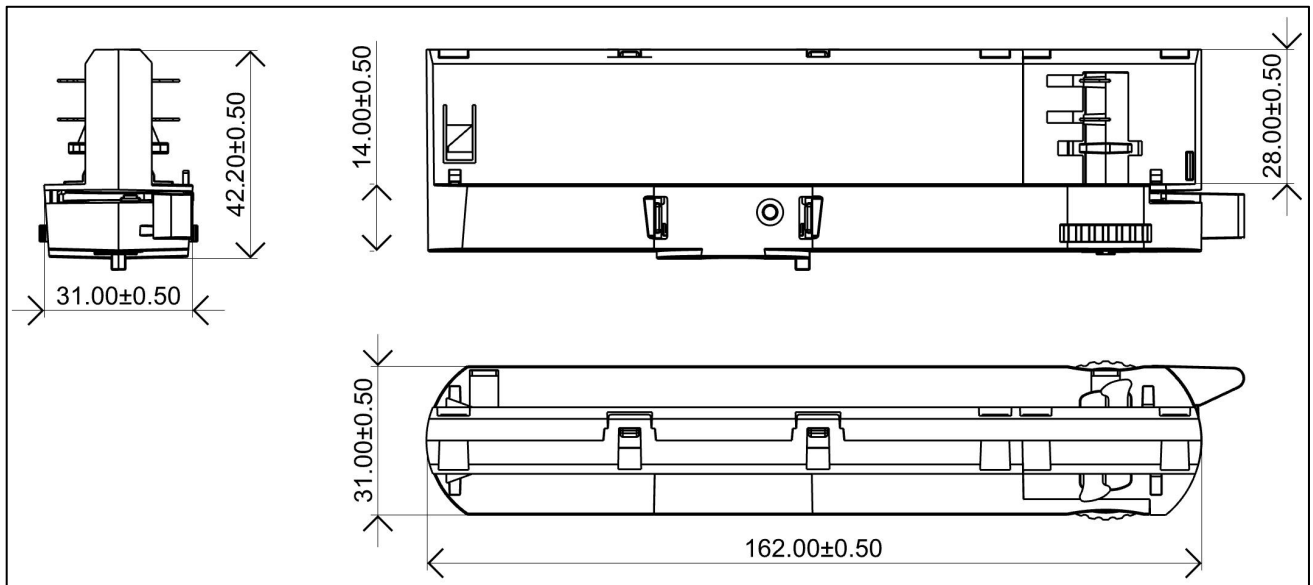


Remarks:

- 1.The number of drives mounted under different MCBs in the table is the maximum value. Please do not exceed this number during installation.
- 2.Different brands and models of miniature circuit breakers, the number of drives mounted will be slightly different.

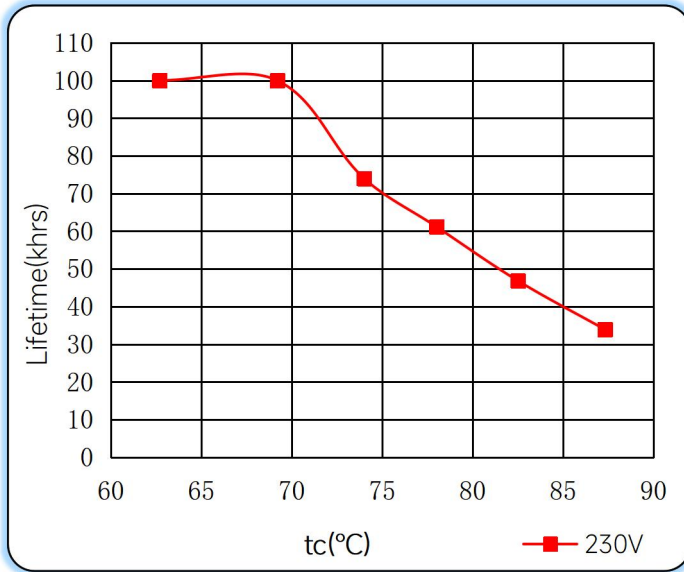
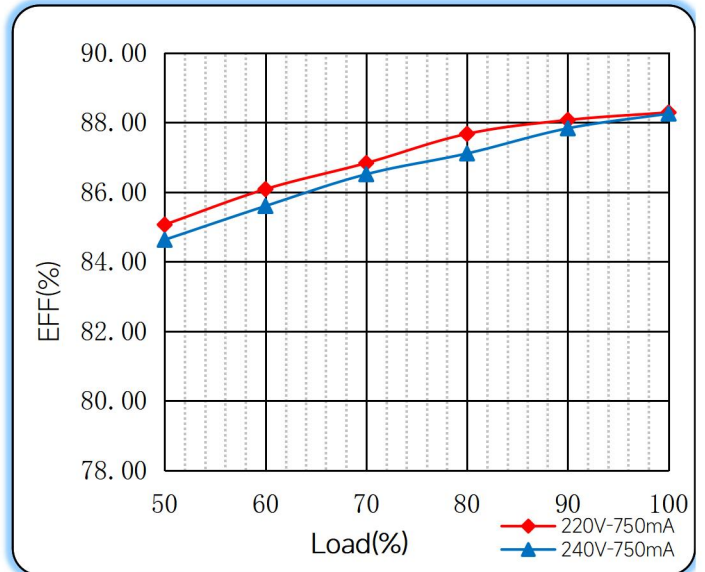
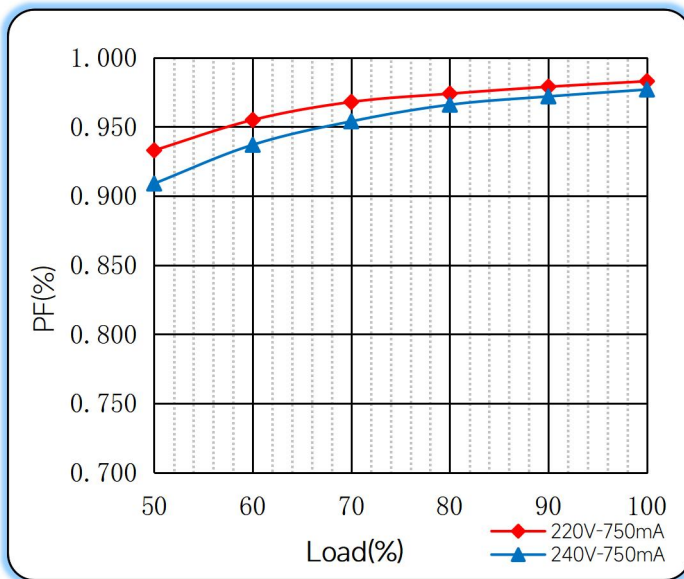
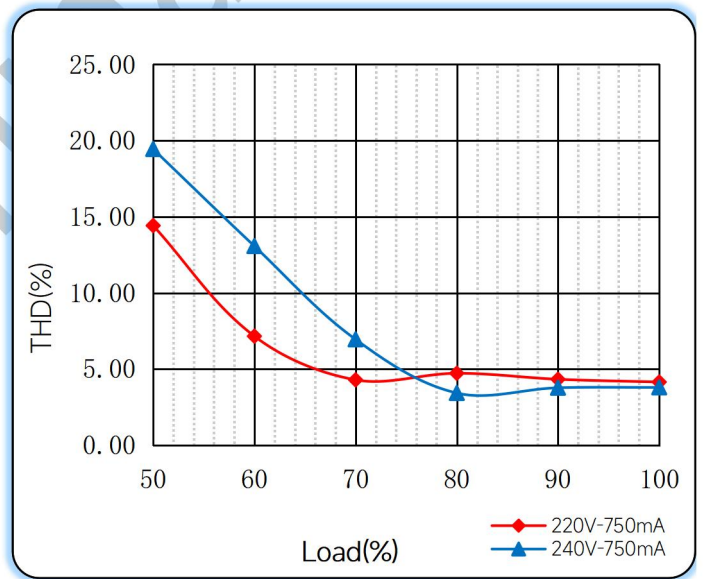
### ◆ Wiring diagram



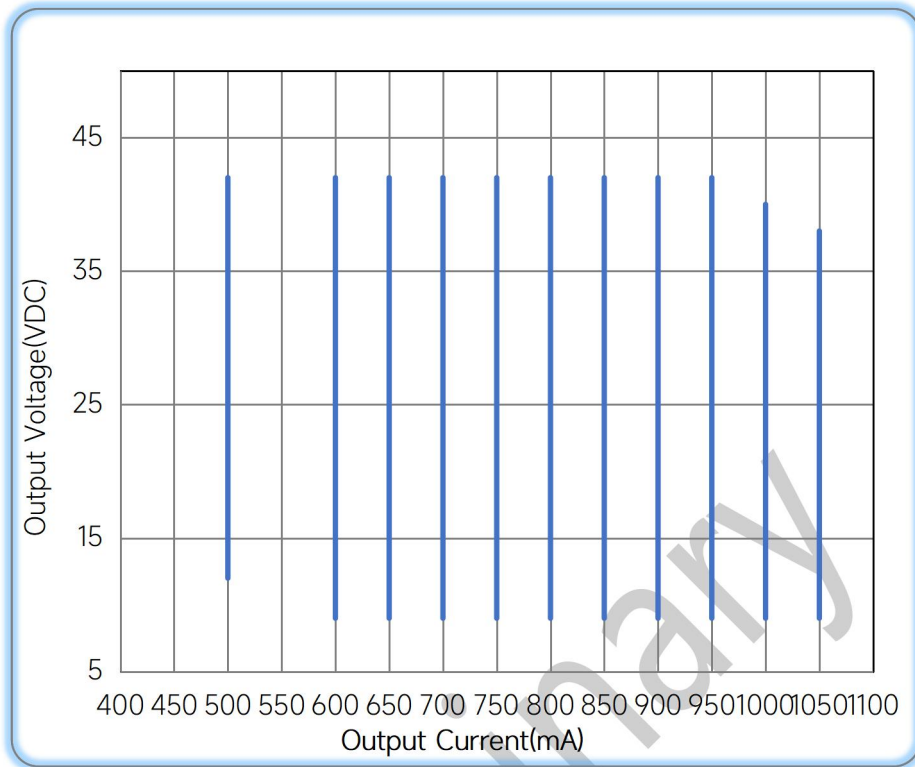
**◆ 2D diagram**

**◆ Wiring & Connections**

	Specification item	Value (Unit )
Output	Output wire cross-section	0.5...1.5 mm <sup>2</sup>
	Output wire gauge.	16...20 AWG
	Output wire strip length	8...9mm

### ◆ Curve for DS-40-XXX LX, $I_o=750mA$

**Lifetime vs. Temperature Curve**

**Efficiency vs. Load**

**Power Factor Characteristics**

**THD vs. Load**


◆ **Operating window**



— Operating window 100%

◆ **Revision Updates**

ITEM	BEFORE	AFTER	VERSION	DATE
Initial			A	2023/09/12

Remark: The final interpretation of the contents of the specification belongs to Eaglerise Electric & Electronic (China) Co., Ltd.

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