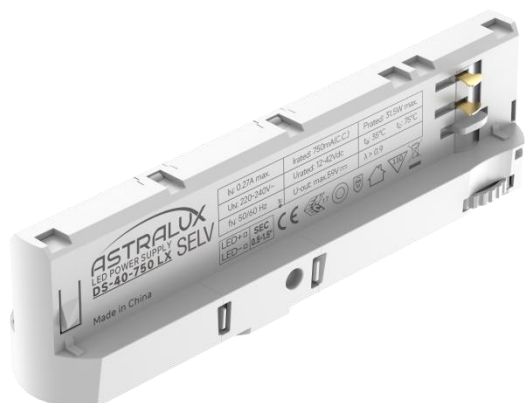


40W Constant Current -FDS power supply



■ Approve

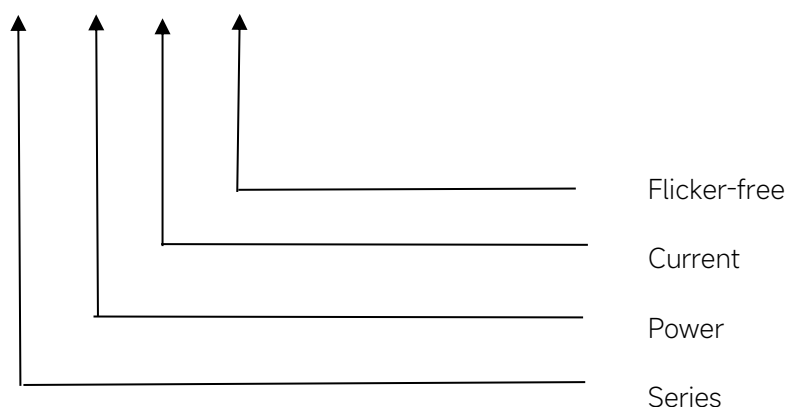
CECB  EL SELV

◆ 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



Features

- For luminaries of protection Class II,SELV
- 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

◆ 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 _{st}	≤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					
capability	Over Temperature Protection	YES/Auto Resume					
	Surge capability (L-N)	1KV					
	Surge capability (L/N-Ground)	2KV					
Environment	Operating Temperature	-20°C~+35°C					
	Humidity	10%-90%RH					
	T _c	75°C@500-850mA					
		80°C@900-1050mA					
	Storage Temperature	-40°C...+85°C					
	Life time	> 50000h@T _c =75°C					
Surface	Noise	≤25dB(A)@20cm					
	Dimension	162x31x42.2mm(LXWXH)mm					
	material	PC					

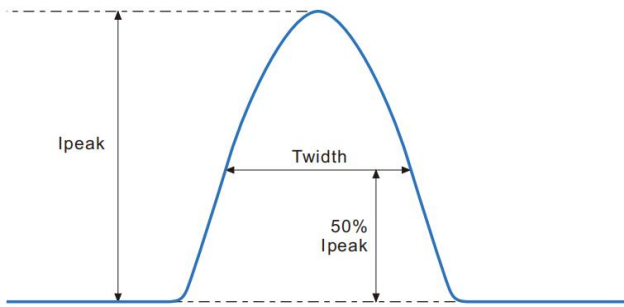
Standards	Safety	IEC61347- 1, IEC61347-2- 13;EN61347- 1, EN61347-2- 13;EN62384
	EMC	EN55015, EN61000-3-2, EN61000-3-3, EN61547;EN61000-4-5
	ErP	Erp2.0 EU 2019/2020
	RoHS	RoHS (2011/65/EU) (EU)2015/863
Note	1.All parameters NOT specially mentioned are measured at 230VAC input , full load and 25°C of ambient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

◆ 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		40
11	DS-40-1050 LX	1050	9-38	39.9	

◆ Inrush Current

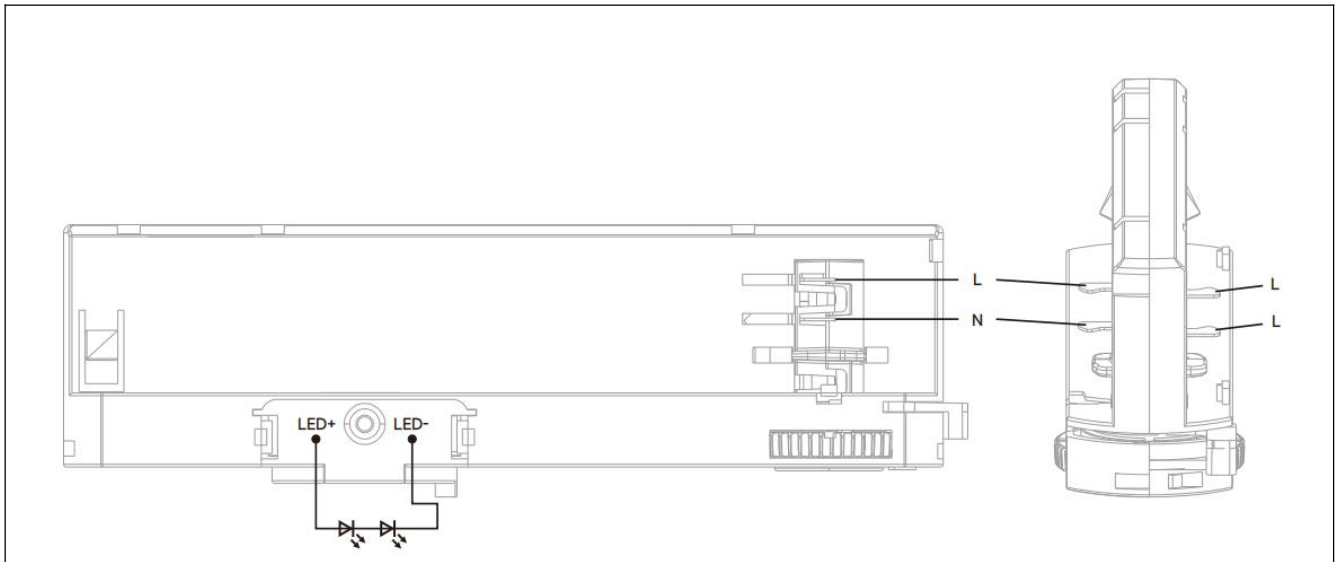
I_{peak}	Twidth	B10	B16	B20	C10	C16	C20
17.8A	162 μ s	28pcs	46pcs	57pcs	29pcs	47pcs	59pcs



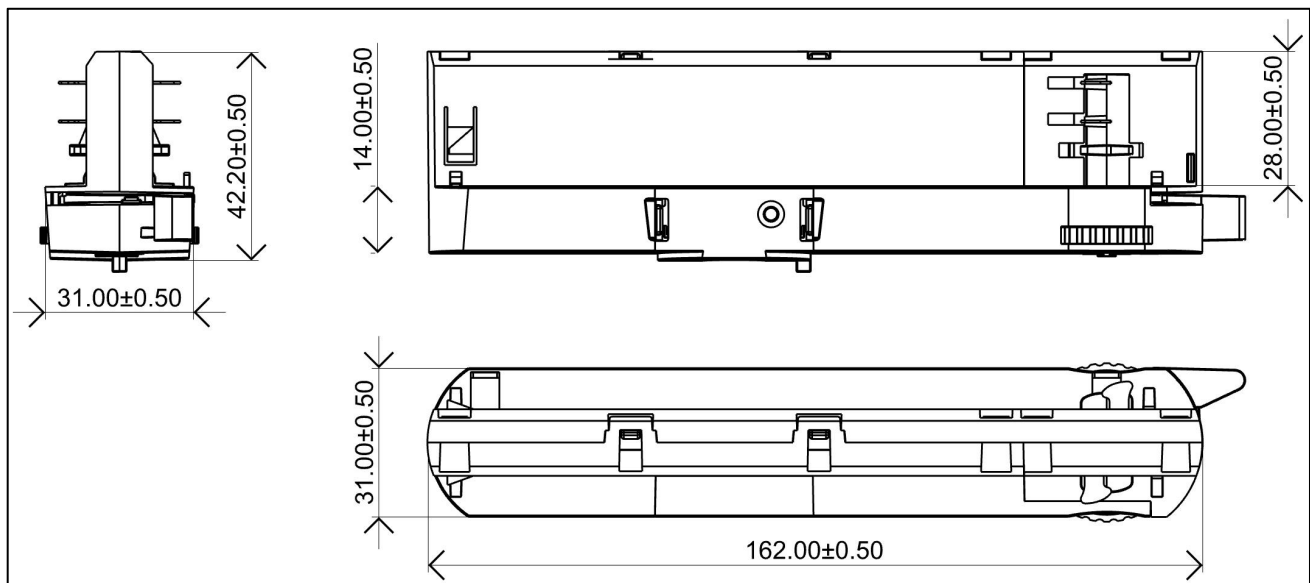
Remarks:

- 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

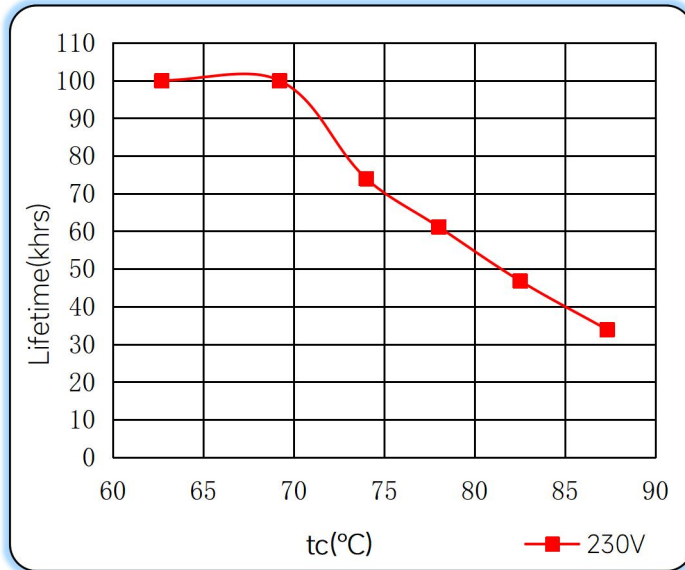
	Specification item	Value (Unit)
Output	Output wire cross-section	0.5...1.5 mm ²
	Output wire gauge.	16...20 AWG
	Output wire strip length	8...9mm

◆ Matching brand

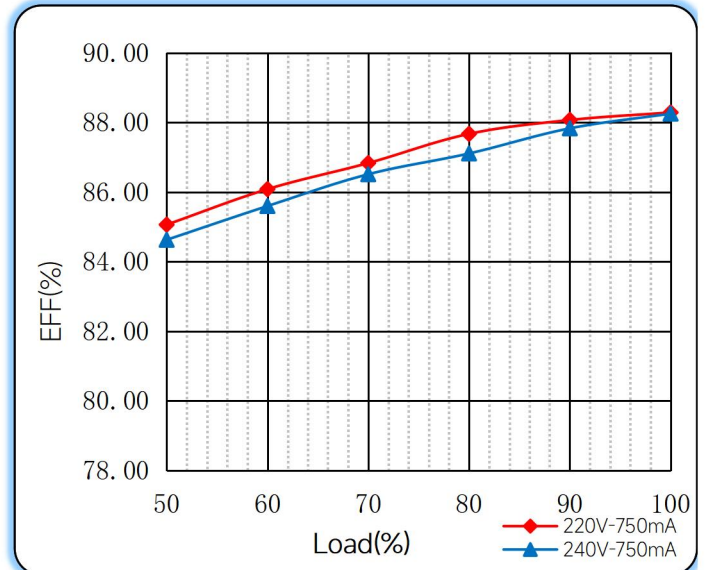
Manufacturer	Type	System	Intrack casing colour
EUTRAC	25-XX-XX/26-XX-XX	3P	Black, white, gray
IVELA	7501/7511/7512	3P	Black, white, gray
LUMISYS UNIPRO	T32/T33/34	3P	Black, white, gray
LUMISYS UNIPRO	T32F/T33F/34F	3P	Black, white, gray
NORDIC ALUMINIUM	GLOBAL Trac Pro XTS 4XXX	3P	Black, white, gray
NORDIC ALUMINIUM	GLOBAL Trac Pro XTSF 4XXX	3P	Black, white, gray
ERCO	783..	3P	Black, white, gray
SIDE	25101	3P	Black, white, gray
PHILIPS	RCS350 3C	3P	Black, white, gray
Stucchi	One track	3P	Black, white, gray
Powergear	PRO-0610	3P	Black, white, gray
Unipro	T32W	3P	Black, white, gray
ZUMTOBEL	280 174	3P	Black, white, gray

◆ Curve for DS-40-XXX LX, $I_o=750\text{mA}$

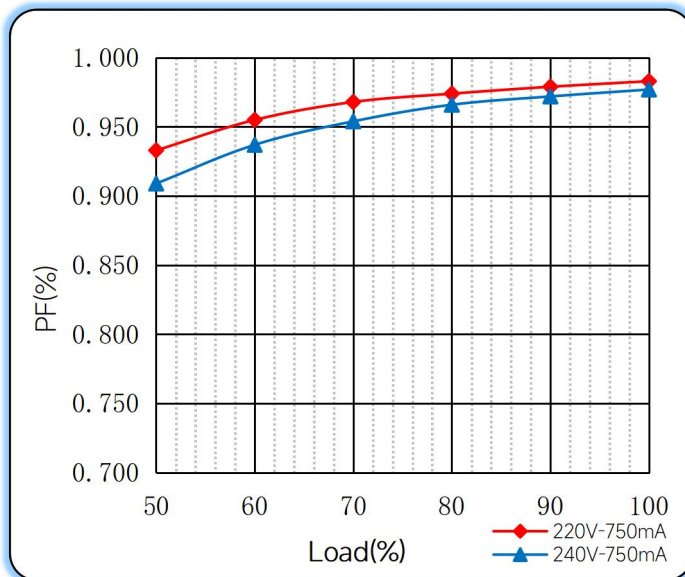
Lifetime vs. Temperature Curve



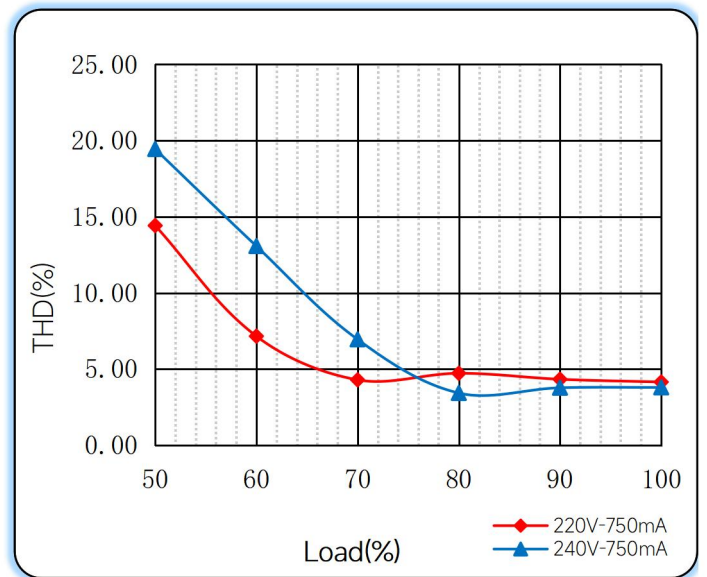
Efficiency vs. Load



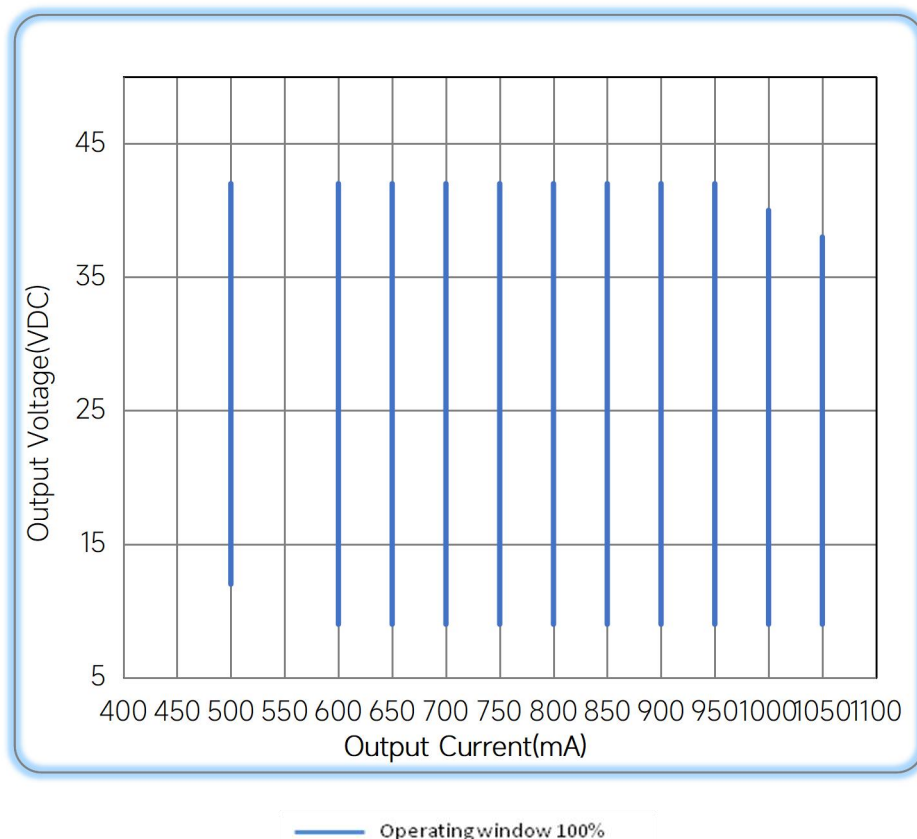
Power Factor Characteristics



THD vs. Load



◆ Operating window



◆ Revision Updates

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

Remark: The final interpretation of the contents of the specification belongs to Astralux.

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