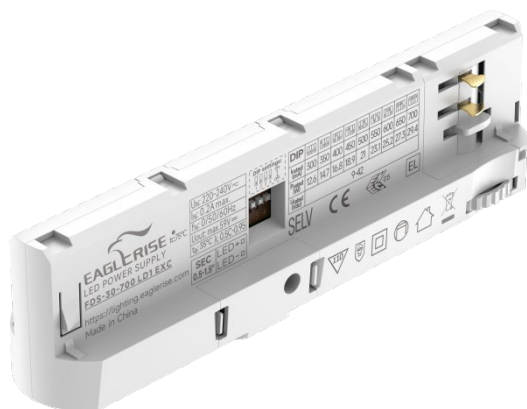




FDS-30-700 LD1 EXC

30W Constant Current

-FDS power supply



■ Approve



Features

- For luminaires of protection Class II, SELV, Built-in
- Input Voltage 220 -240VAC
- Protections: SCP/OLP/OVP /OTP
- Power Factor: ≥ 0.95
- Efficiency : 89%
- Adjustable Output Current with dip -switch
- 5 years warranty

Applications

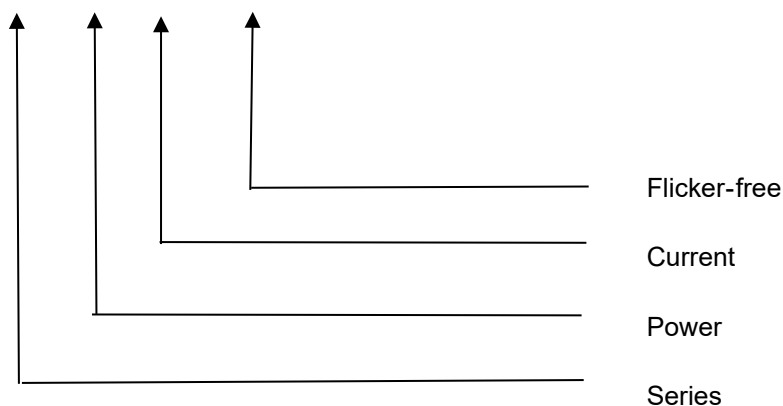
- Track Spot light

◆ Description

FDS-30-700 LD1 EXC is a 30 W constant current LED driver that operates from 198-264Vac input with 300 to 700mA output current and a forward voltage range from 12 to 42Vdc. The output current is adjustable by DIP Switch. With it's compact dimensions from 162x31.1x42.2mm. 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

FDS-30-700 LD1 EXC



◆ Specification

	Constant Current	300mA	350mA	...	700mA
Output	Voltage Range(VDC)	12-42VDC			
	Unload voltage Max.	59VDC			
	Current Accuracy	$\pm 9\%$ @300mA $\pm 7\%$ @350-400mA, $\pm 5\%$ @450-700mA			
	Output HF current ripple($\geq$ KHz)	$\pm 5\%$			
	Output LF current ripple($\leq$	$\pm 5\%$			
	SVM	≤ 0.4			
	P _{st}	≤ 1			
	Efficiency(Typ.)	89%@Full Load@230VAC			
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 input voltage(DC)	176-280VDC			
	Frequency(Hz)	0/50/60 Hz			
	Displacement factor	≥ 0.9			
	Power Factor	≥ 0.95 @230VAC full load			
	Input Current max	0.2A MAX. @Full Load@230VAC			
	Start-up time	< 0.5 S			
	No Load Power	≤ 0.5 W			
	THD (Typ.)	$< 10\%$ @Full Load@230VAC			
Protection	Over Load Protection	103-130%			
		YES/Auto Resume			
	Over Voltage Protection	> 69 VDC			
		YES/Auto Resume			
	Short circuit Protection	YES/Auto Resume			
capability	Over Temperature Protection	YES/Auto Resume			
Surge capability	Surge capability (L -N)	2KV			
	Surge capability (L/N -Ground)	2KV			
Environment	Operating Temperature	$-20^{\circ}\text{C} \sim +35^{\circ}\text{C}$			
	Humidity	10%~90%RH			
	T _c	75°C			
	Storage Temperature	$-40^{\circ}\text{C} \sim +85^{\circ}\text{C}$			
	Life time	> 60000 h @T _c =75°C			
	Noise	≤ 25 dB(A)@20cm			
Surface	Dimension	162x31.1x42.2mm(LXWXH)mm			
	material	PC			
Standards	Safety	IEC61347 1, IEC61347- 13, EN61347 1, EN61347- 13, EN62384			
	EMC	EN55015, EN61000-3-2, EN61000-3-3, EN61547, EN 61000-4-5			
	Energy Efficiency	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. 6.All Eaglerise power supply are complied with EMI regulations . Since they are belong to component and will be installed inside system enclosure . When they are integrated into a system, the EMI characteristics of the system must be re -verified again .	

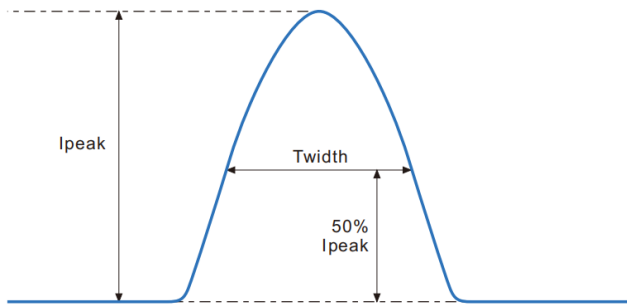
◆ Parameter

Number	Output				Switch position			
	Current (mA)	Voltage (VDC)	Voltage No load (VDC)	Power (W)	1	2	3	4
1	300mA	12-42VDC	59V	12.6	—	—	—	—
2	350mA			14.7	ON	—	—	—
3	400mA			16.8	—	ON	—	—
4	450mA			18.9	ON	ON	—	—
5	500mA			21	—	—	ON	—
6	550mA			23.1	ON	—	ON	—
7	600mA			25.2	—	ON	ON	—
8	650mA			27.3	ON	ON	ON	—
*9	700mA			29.4	ON	ON	ON	ON

* Factory default

◆ Inrush Current

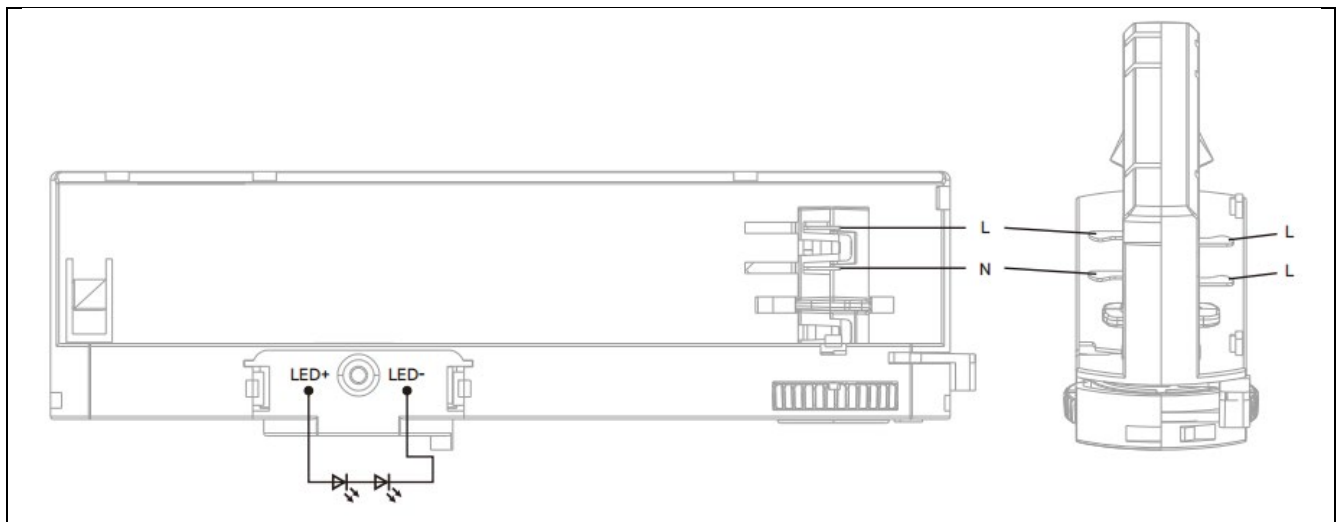
I_{peak}	Twidth	B10	B16	B20	C10	C16	C20
15.9A	129.6 μ s	40pcs	64pcs	80pcs	40pcs	64pcs	80pcs



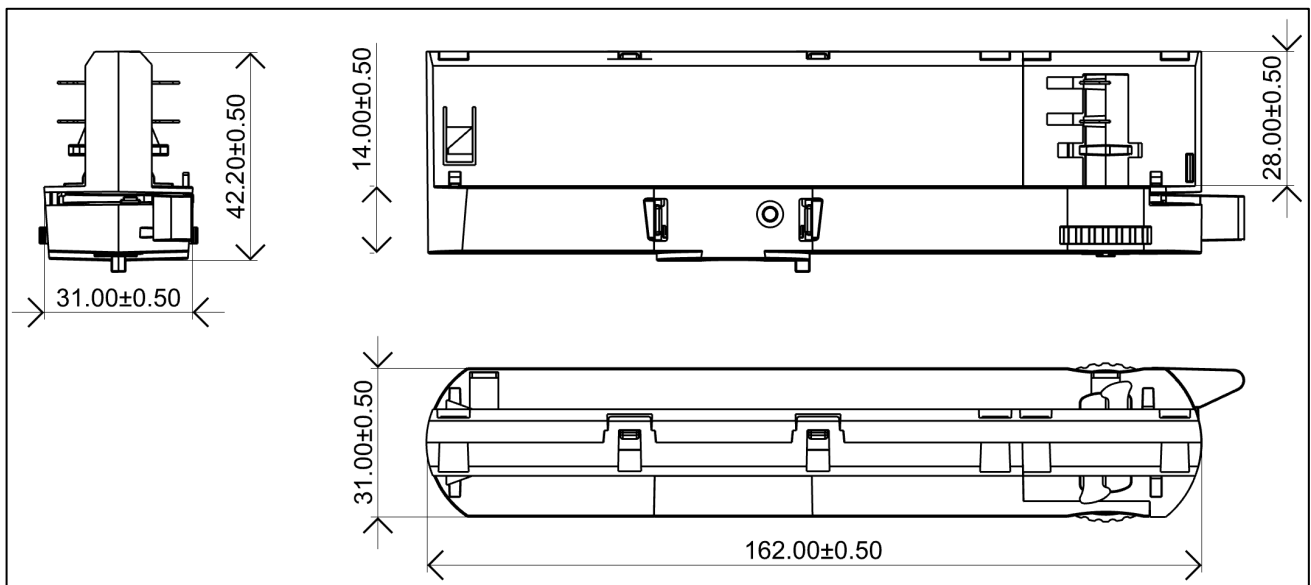
Remarks:

- 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

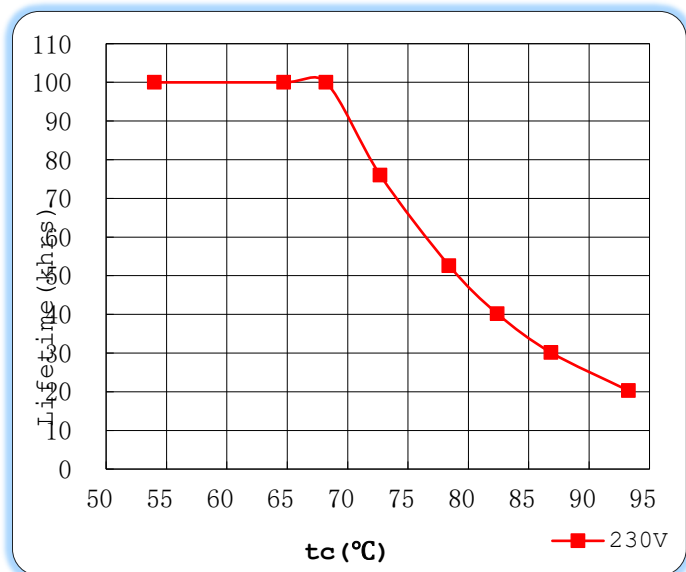
Specification item		Value (Unit)
Output	Output wire cross -section	0.5...1.5mm ²
	Output wire gauge.	16...20 AWG
	Output wire strip length	8...9mm

◆ Matching brand

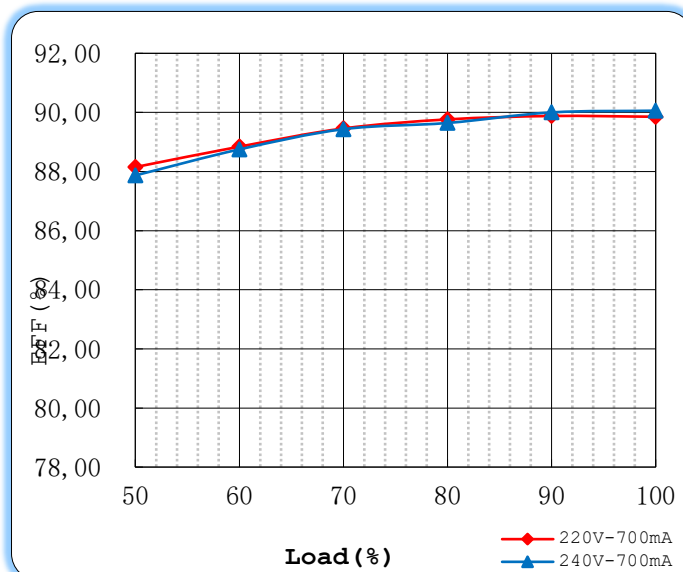
Manufacturer	Type	System	Intrack casing colour
EUTRAC	25-XX-XX/26-XX-XX	3P	Black, white, gray
IVELA	750 I/75 II/75 I2	3P	Black, white, gray
LUMISYS UNIPRO	T32/T33/34	3P	Black, white, gray
LUMISYS UNIPRO	T32F/T33F/34F	3P	Black, white, gray
NORDIC ALUMINIUM	GLOBAL Trac Pro XTS 4XXX	3P	Black, white, gray
NORDIC ALUMINIUM	GLOBAL Trac Pro XTSF 4XXX	3P	Black, white, gray
ERCO	783..	3P	Black, white, gray
SIDE	25 I01	3P	Black, white, gray
PHILIPS	RCS350 3C	3P	Black, white, gray
Stucchi	One track	3P	Black, white, gray
Powergear	PRO-06 I0	3P	Black, white, gray
Unipro	T32W	3P	Black, white, gray
ZUMTOBEL	280 I74	3P	Black, white, gray

◆ Curve for FDS-30-700 LD1 EXC, $I_o = 700\text{ mA}$

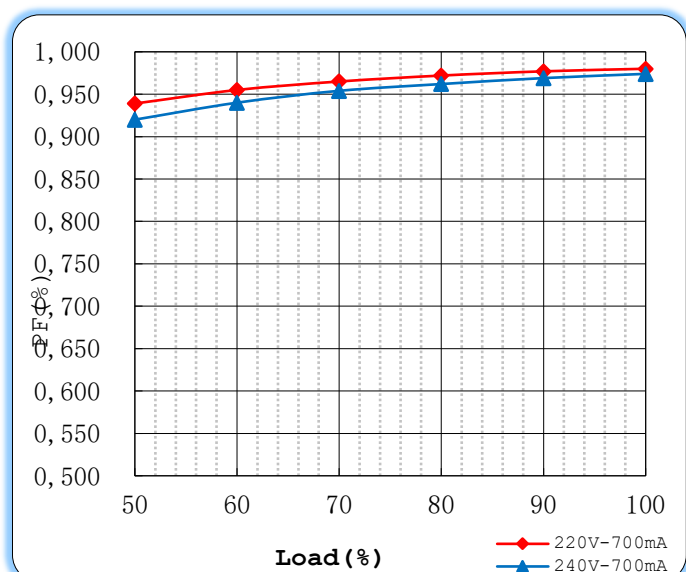
Lifetime vs. Temperature Curve



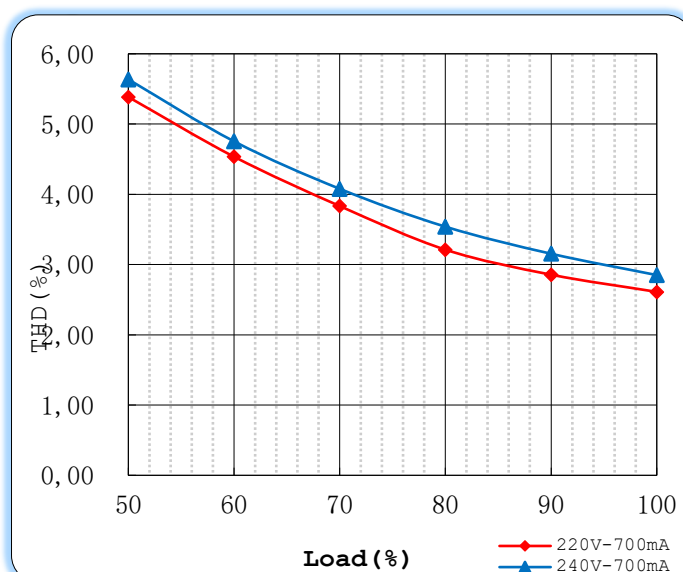
Efficiency vs. Load



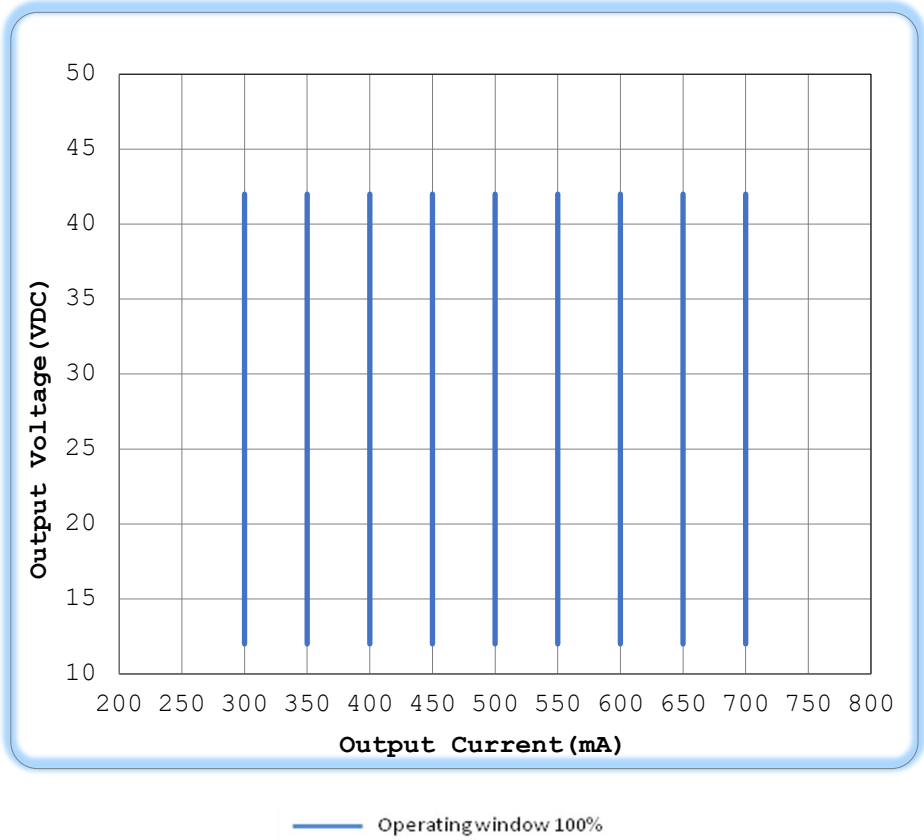
Power Factor Characteristics



THD vs. Load



◆ Operating window



◆ Revision Updates

ITEM	BEFORE	AFTER	VERSION	DATE
Initial			A	2023/12/22
Voltage Range(VDC)	9-42	12-42	B	2024/04/25
Current Accuracy	±5%	±7% Ⓢ 300-400mA, ±5% Ⓢ 450-700mA	C	2024/06/03



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