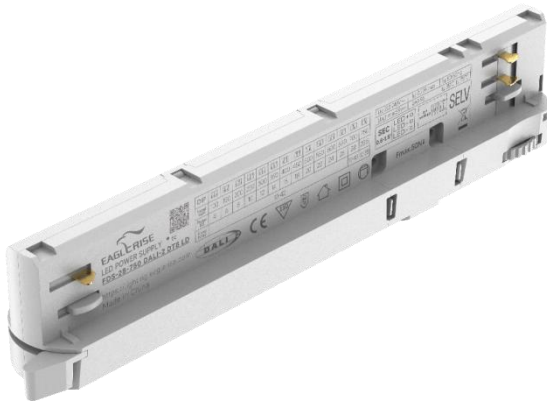


28W Constant Current in-track driver



Features

- For luminaires of protection Class II,SELV
- Input Voltage 220-240VAC
- Protections: SCP/OLP/OTP
- Power Factor: 0.95
- Efficiency: 86%
- Support DALI-2
- Adjustable Output Current with dip-switch
- EOFI=15%
- 5 years warranty

Applications

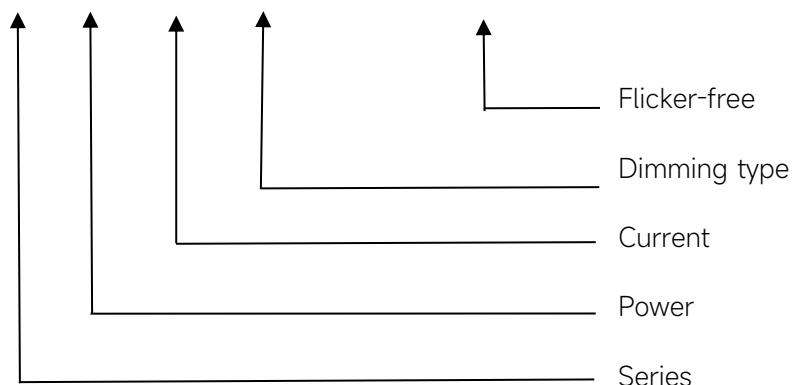
- Track Spot light

◆ Description

FDS-28-750 DALI-2 DT8 LD is a 28W constant current LED driver that operates from 198-264Vac input with 100 to 750mA output current and a forward voltage range from 10 to 42Vdc. The output current is adjustable by DIP Switch. With it's compact dimensions from 217.8x31.1x42.2mm. 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-28-750 DALI-2 DT8 LD



◆ Specification

Output	Constant Current	100mA	...	650mA	700mA	750mA
	Voltage Range(VDC)	10-42VDC			10-40VDC	10-38VDC
	Unload voltage Max.	59VDC				
	Output channels	2				
	Current Accuracy	±5%				
	Output HF current ripple(≥1KHz)	±5%				
	Output LF current ripple(≤120Hz)	±3%				
	SVM	≤0.4				
	P _{st}	≤1				
	Efficiency(Typ.)	86% @500-750mA				
	EOFI	15%				
Input	Rated input voltage	220-240V				
	Range of input voltage	198-264VAC				
	Range of DC input voltage	176-280VDC				
	Maximum voltage	300VAC@1 h maximum,unit might not operate in this abnormal condition				
	Frequency(Hz)	0/50/60 Hz				
	Displacement factor	≥0.9				
	Power Factor	≥0.95 @Full Load,230VAC				
	Input Current max	0.17A MAX. @Full Load,230VAC				
	Start-up time	< 0.7S				
	Standby Power	≤0.5W				
	THD (Typ.)	<15% @Full Load,230VAC				
Dimming	Dimming	YES				
	Dimming mode	DALI-2 (IEC 62386-101,102,207,251,252,253) &Push Dimming (Corridor Function)				
	Dimming depth	6mA@100-550mA, 1%@600-750mA				
	Dimming current range	1~100%				
Protection	Over Load Protection	103-130%				
		YES/Auto Resume				
	No-load Protection	YES/Auto Resume				
capability	Short circuit Protection	YES/Auto Resume				
	Surge capability (L-N)	1KV				
Environment	Surge capability (L/N-Ground)	NA				
	Operating Temperature	-25°C~+35°C				
	Humidity	10%-90%RH				
	Tc	80°C				
	Storage Temperature	-25°C...+80°C				
	Life time	> 50000h@Tc=80°C				

	Noise	≤25dB(A)@20cm
Surface	Dimension	217.8x31.1x42.2mm(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
	Energy Efficiency	Erp2.0 EU 2019/2020
	RoHS	RoHS (2011/65/EU) (EU)2015/863
DALI performance	EN 62386-101 (DALI-2) EN 62386-102 (DALI-2) EN 62386-207 (DALI-2,including part251,252,253)	
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.The over-temperature protection of the product is provided by the IC. 7.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

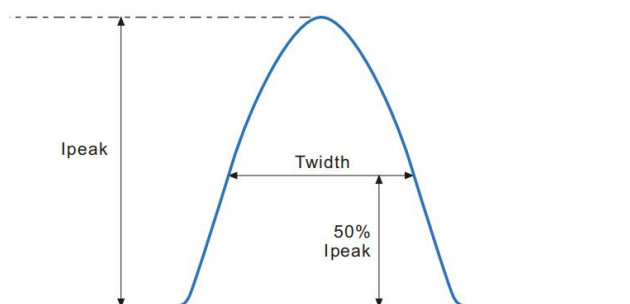
Number	Output				Switch position			
	Current (mA)	Voltage (VDC)	Voltage No load (VDC)	1	2	3	4	Power (W)
1	100mA	10-42VDC	59V	--	--	--	--	4.2
2	150mA			--	--	--	ON	6.3
3	200mA			--	--	ON	--	8.4
4	250mA			--	--	ON	ON	10.5
5	300mA			--	ON	--	--	12.6
6	350mA			--	ON	--	ON	14.7
7	400mA			--	ON	ON	--	16.8
8	450mA			--	ON	ON	ON	18.9
9	500mA			ON	--	--	--	21.0
10	550mA			ON	--	--	ON	23.1

11	600mA		ON	--	ON	--	25.2
12	650mA	10-42VDC	ON	--	ON	ON	27.3
13	700mA	10-40VDC	ON	ON	--	--	28.0
14*	750mA	10-38VDC	ON	ON	--	ON	28.5

* Factory default

◆ Inrush Current

I _{peak}	T _{width}	B10	B16	B20	C10	C16	C20
8.5A	16μs	36pcs	58pcs	73pcs	58pcs	94pcs	117pcs

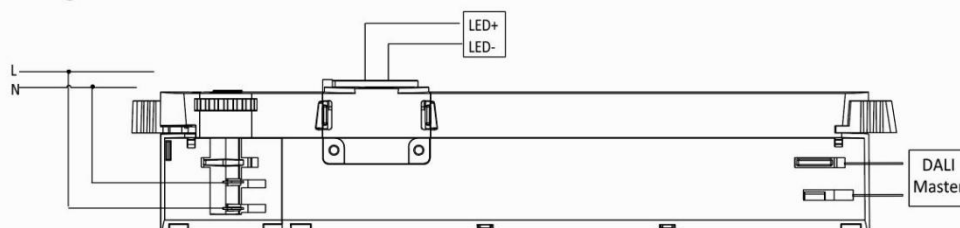


Remarks:

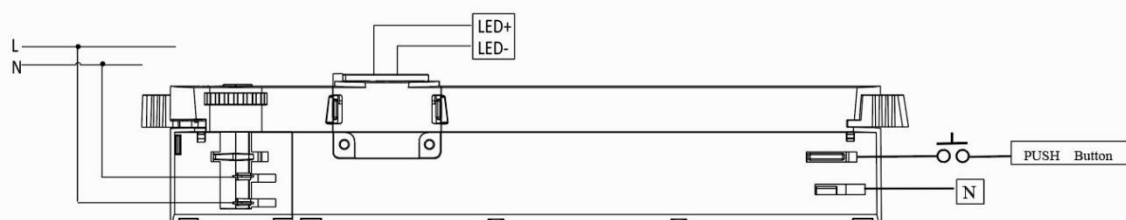
- 1.The number of drives mounted under different MCBs in the table is the maximum value. Please do not exceed this number during installation.
- 2.Different brands and models of miniature circuit breakers, the number of drives mounted will be slightly different.

◆ Wiring diagram

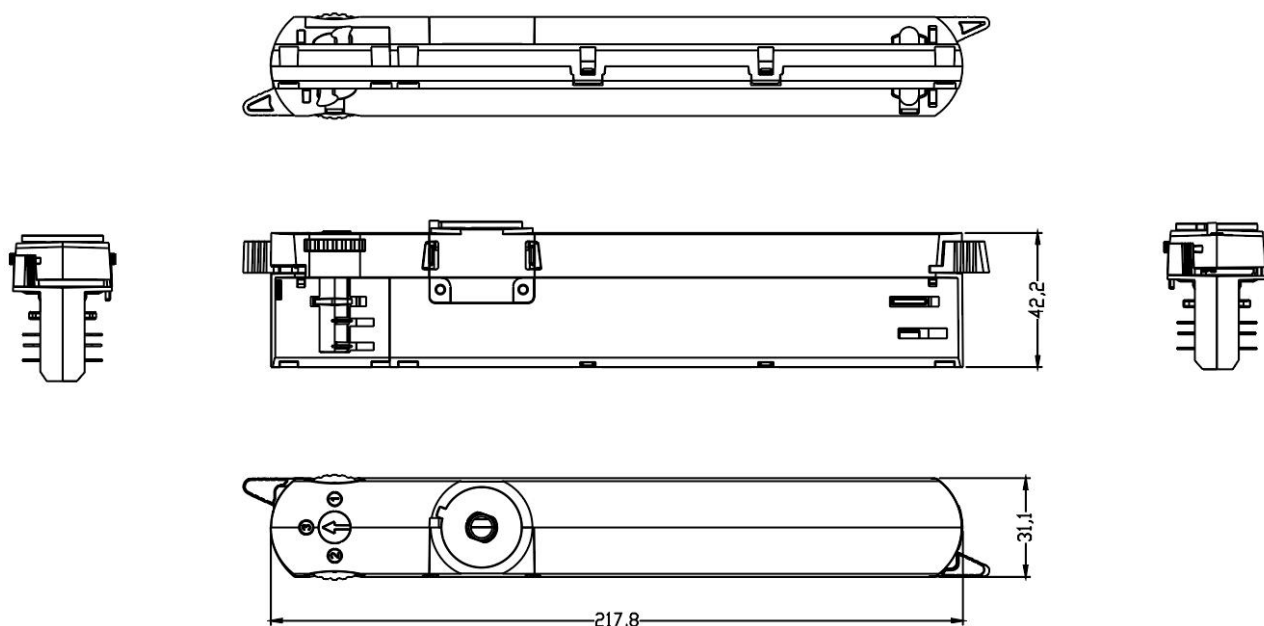
DALI Dimming



Push Dimming



◆ 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

◆ Packaging

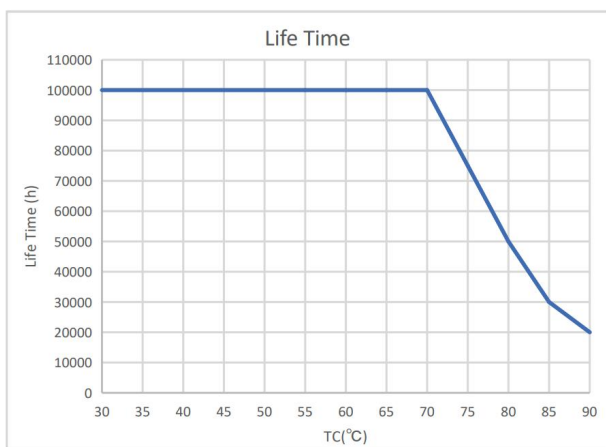
Mode	Product. Dimensions(mm)	weight/piece	Outer carton dimension(mm)	Quantity/ carton	Net weight/ carton(Kg)	Gross weight/ carton(Kg)
FDS-28-750 DALI-2 DT8 LD	217.8*31.1*42.2mm	0.146	310*235*230mm	50	7.4	7.9

◆ Matching brand

Serial number	Serial number	Serial number	Serial number
1	Global	XTSC&XTSCF6	3P
2	Stucchi	9000XX Series	3P
3	Unipro	TC33B	3P

◆ Curve for FDS-28-750 DALI-2 DT8 LD, $I_o=750\text{mA}$

Lifetime vs. Temperature Curve



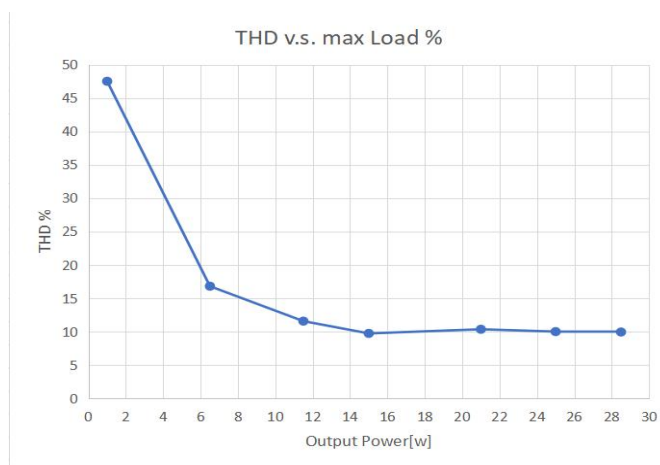
Efficiency vs. Load



Power Factor Characteristics



THD vs. Load



◆ Operating window



◆ Revision Updates

ITEM	BEFORE	AFTER	VERSION	DATE
Initial			A	2025/02/20

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

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EAGLERISE



Manual