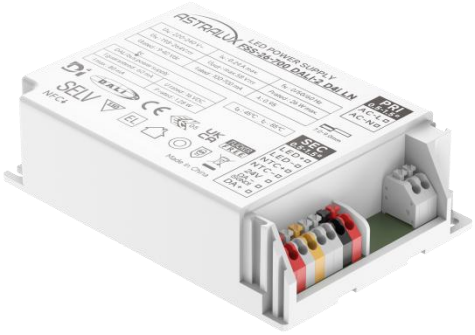
26W DALI D4i+ NFC Dimming power supply



■Approve

Features

- Class II，SELV，independent
- Input Voltage： 220-240VAC
- Protections：SCP/OLP/OVP/OTP
- Power Factor： > 0.95
- Efficiency：83%
- 5 years warranty
- Support DALI-2 and D4i Certified
- Adjustable Output Current (AOC) with NFC
- IP20

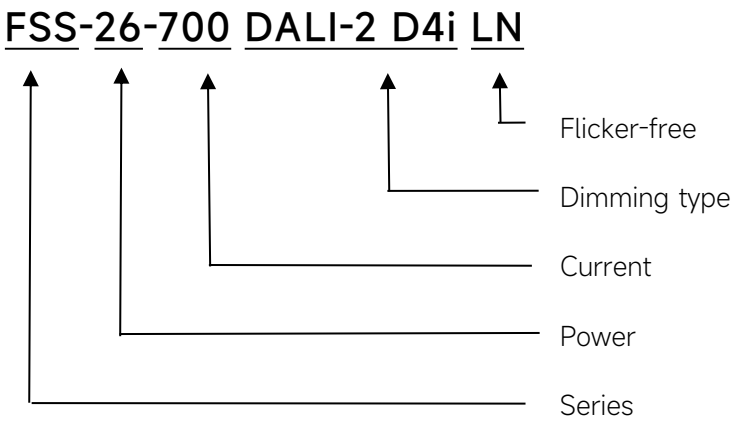
Applications

- LED panel、LED down light

◆ Description

FSS-26-700 DALI-2 D4i LN is a 26W constant current LED driver with 100 to 700mA output current and a forward voltage range from 9 to 40Vdc. The output current is adjustable by NFC. With it's dimensions from 110 X 74 X 30 mm it is easy to integrate in LED Panel and down light products. this family provides integrated AC power monitoring with an auxiliary voltage and dim-to-off functionality for powering low voltage, wireless controls. The dimming control supports two-way communication via DALI-2 and complies with D4i. The high efficiency of these drivers and better thermal design enable them to run cooler, significantly improving reliability and extending product life.To ensure trouble-free operation, protection is provided against output short circuit and over Load.

◆ Model code



◆ Specification

Output	Constant Current (mA)	100~700mA	
	Voltage Range(VDC)	9~40V	
	Unload voltage Max.(VDC)	58VDC	
	Current Accuracy	±5%	
	Output HF current ripple(≥1KHz)	±20%	
	Output LF current ripple(≤120Hz)	±3%	
	SVM	≤0.4@Full Load	
	P_{st}	≤1@Full Load	
	Efficiency(Typ.)	83%@Full Load, 240VAC	
Input	Rated input voltage(VAC)	220~240VAC	
	Range of input voltage(VAC)	198~264VAC	
	Range of input voltage(VDC)	198-280VDC	
	Frequency(Hz)	0/50/60Hz	
	Displacement factor	≥0.9@Full load, 240VAC	
	Power Factor	＞0.95@Full Load,220-240VAC	
	Input Current max	240mA@Full Load,198VAC	
	Start-up time	＜ 1 S	
	No Load Power	≤1W	
	Standby Power	≤1W	
	Network standby power	≤1W	
	THD (Typ.)	＜10%@Full Load,230Vac	
Dimming	Dimming	YES	
	Dimming mode	DALI-2 IEC 62386-101,102,150,207,250,251,252,253	
	Dimming depth	1%	
	Dimming current range	1%-100%	
Protection	External Thermal Protection	R1 (Startderating)	20.73 kΩ （The output current starts to decrease linearly when the actual NTC resistance ）
		R2 (Stopderating)	13.85kΩ（When the actual NTC resistance value is lower than R2, the output current will stay at the programmed Protection Current Floor.
		Protection Current Setting	60%Ioset （10%Ioset > Iomin (default setting is 60%)
			60%Ioset （10%Ioset ≤ Iomin (default setting is 60%)
	Over Load Protection	103-120%	
		YES/Auto resume(When there is dimming command input)	
	Over Voltage Protection	<44VDC	
		YES/Auto resume(When there is dimming command input)	
	Short circuit Protection	YES/Auto resume(When there is dimming command input)	
	Over Temperature Protection	YES/Auto resume(When there is dimming command input)	
Environment	Operating Temperature	-20~45℃	

	Humidity	20%~90%RH
	Tc	85℃
	Storage Temperature	-25℃~+60℃
	Life time	＞50000h
Surface	Dimension	110X74X30mm（With side caps ： 160X74X30mm）
Standards	EN 61347-1,EN 61347-2-13 IEC 61347-1,IEC 61347-2-13 GB 19510.1,GB 19510.14 AS/NZS 61347.1,AS 61347.2.13 EN 62384 EN IEC 55015,EN IEC 61000-3-2,EN 61000-3-3 GB/T 17743,GB 17625.1 EN 61547	
Others	ErP	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℃ 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.Data are typical values obtained from test samples. 5.Switch and dimmer are not recommended to connect between this product output and luminaries.	

◆ Auxiliary and Bus Power Supply Specifications

Parameter	Min.	Typ.	Max.	Notes
24V Auxiliary Output Voltage	22.8 V	24 V	25.2V	
24V Auxiliary Output Source Current	0 mA	-	167 mA	
24V Auxiliary Output Transient Peak Current @5.5W	-	-	230 mA	230mA peak for a maximum duration of 2.2 ms in a 6.0ms period during which time the average should not exceed 167mA.
Integrated DALI-2 Bus Power Supply Voltage	12 Vdc	16 Vdc	20 Vdc	Voltage is depending on loading.
Integrated DALI-2 Bus Power Supply Current	50 mA	-	58 mA	Return terminal is "DA−"

Notes: (1) DALI-2 bus power supply is enabled by default and can be disabled via programming interface.
(2) DALI-2 bus power supply supports automatic shut-down and restart after short-circuit.

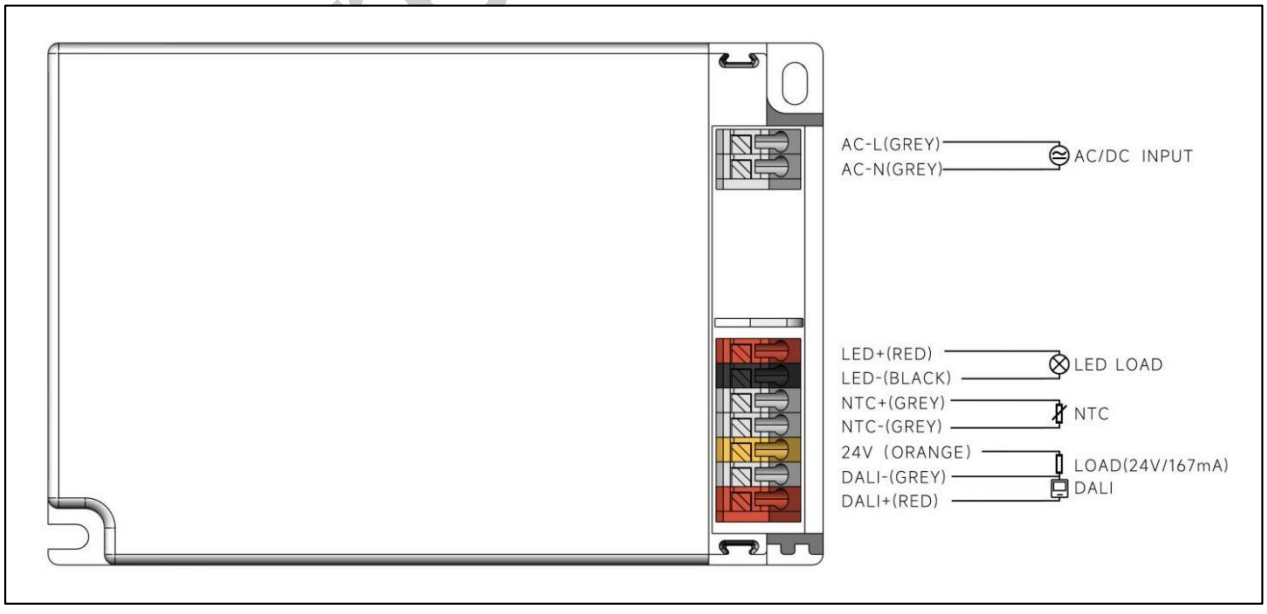
◆ Parameter

Number	Output			
	Current (mA)	Voltage (VDC)	Voltage No load (VDC)	Power (W)
*1	100mA	9-40	58	4
2	...			.....
3	650mA			26
4	...	.....		.....
5	700mA	9-37		26

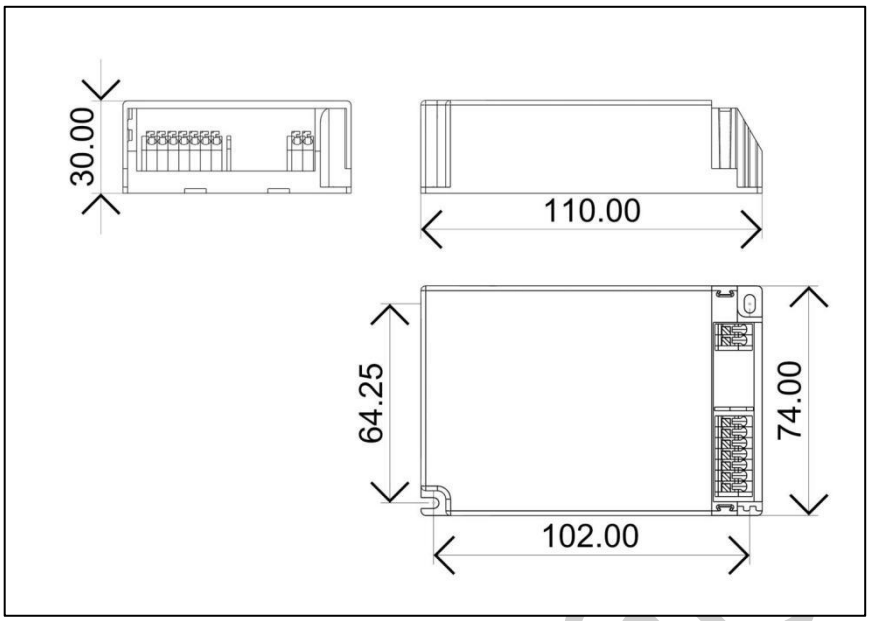
◆ Circuit Breaker

I^{peak}	Twidth	B10	B16	B20	C10	C16	C20
4.44A	**37.6μs**	33pcs	53pcs	66pcs	33pcs	53pcs	66pcs

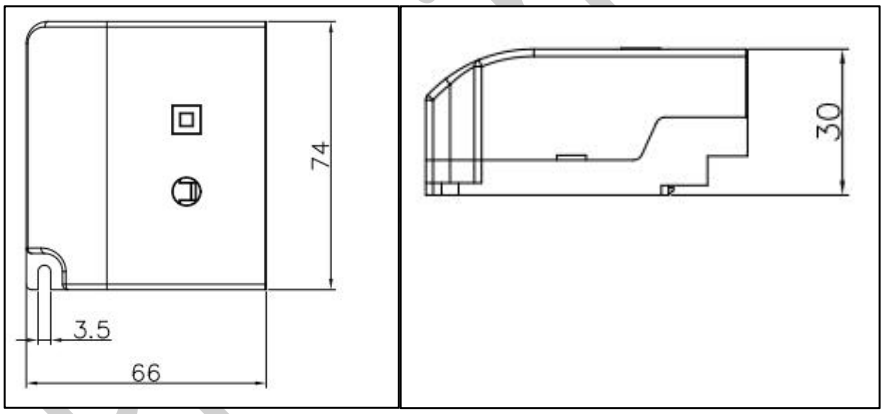
◆ Wiring diagram



◆ 2D diagram



(With side caps)



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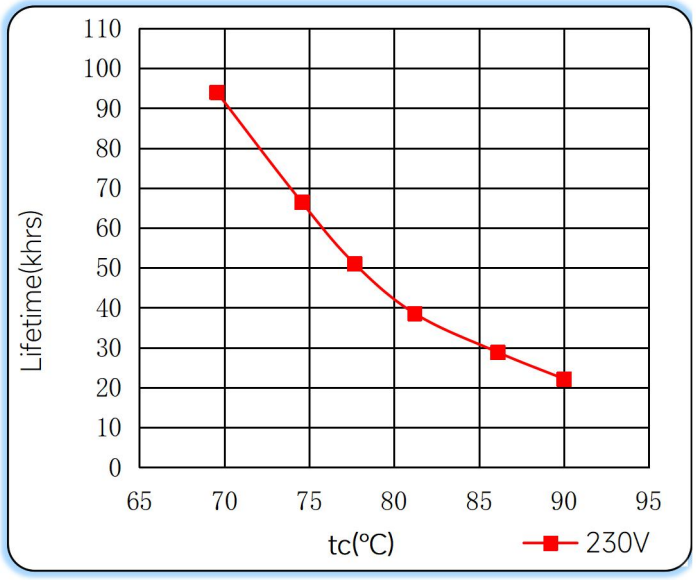
◆ Wiring & Connections

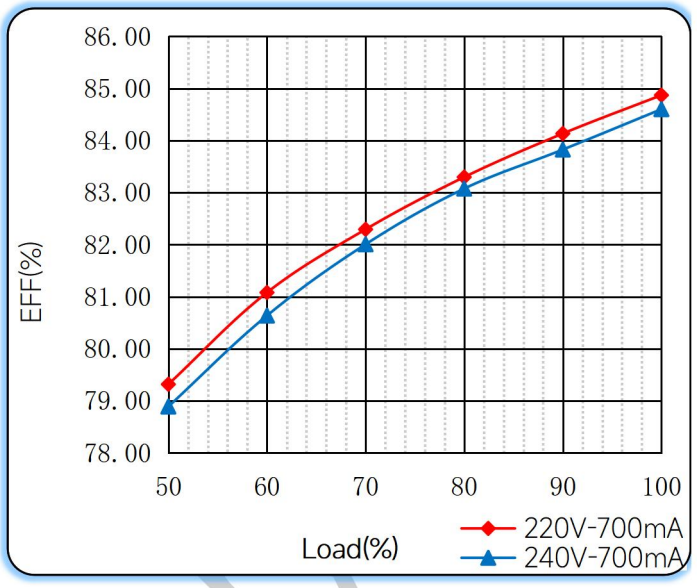
Specification item		Value （Unit ）
Input	Input wire cross-section	0.5...1.5 mm^2
	Input wire gauge.	16...20 AWG
	Input wire strip length	7...9mm
Output	Output wire cross-section	0.5...1.5 mm^2
	Output wire gauge.	16...20 AWG
	Output wire strip length	7...9mm

◆ Curve for FSS-26-700 DALI-2 D4i LN, Io=700mA

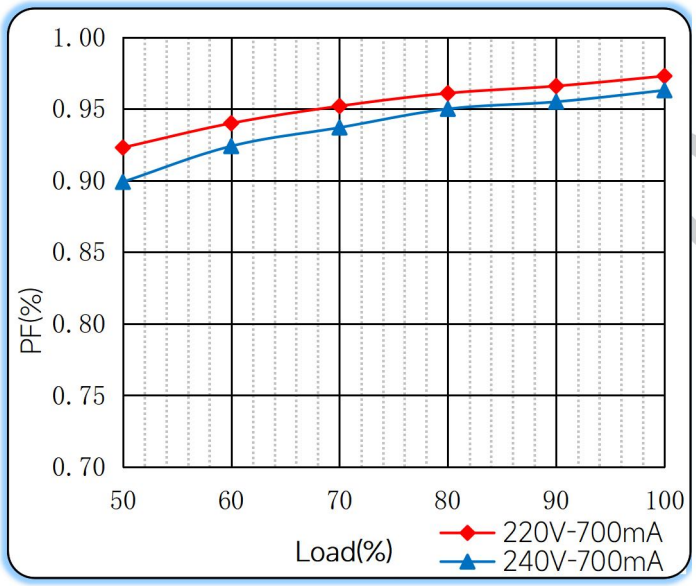
Lifetime vs. Temperature Curve



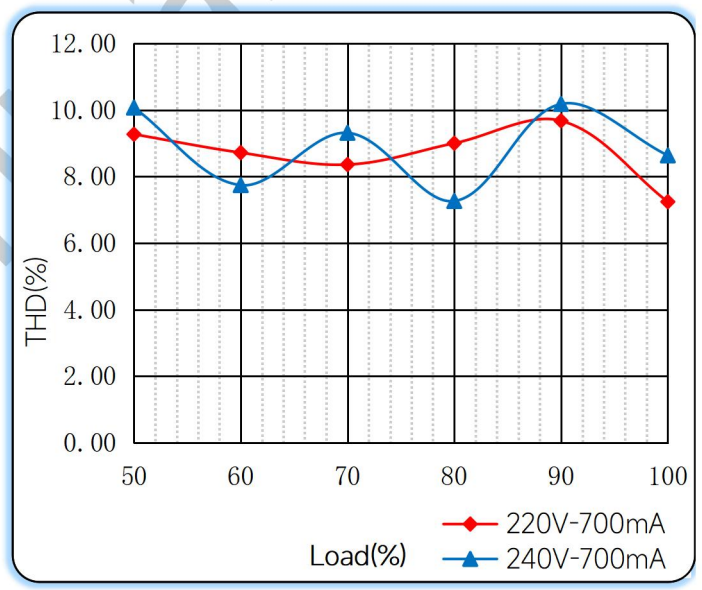
Efficiency vs. Load



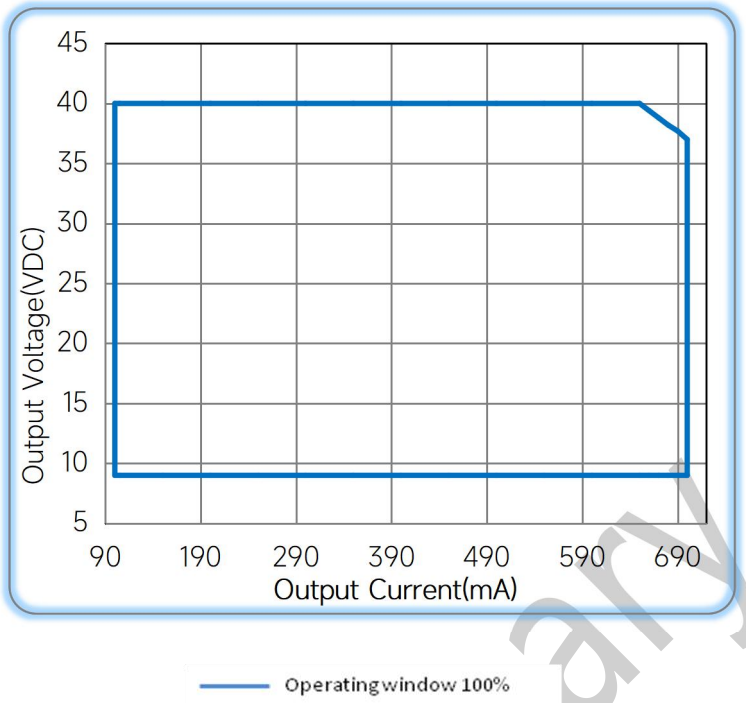
Power Factor Characteristics



THD vs. Load



◆ Operating window



◆ Revision Updates

ITEM	BEFORE	AFTER	VERSION	DATE
Initial			A	2022/09/14
TC	80°C	85°C	B	2023/02/07

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

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