



FMS-80-350 N-S LD-F

80W Constant Current -FMS Series



■ Approve



Features

- Class I, Non-isolated, Built-in
- Input Voltage 220-240VAC
- Protections: SCP/OVP/OTP
- Power Factor: 0.95(Typ.)
- Efficiency : $\geq 90\%$ (Typ.)
- Adjustable Output Current with dip-switch
- 5 years warranty
- IP20

Applications

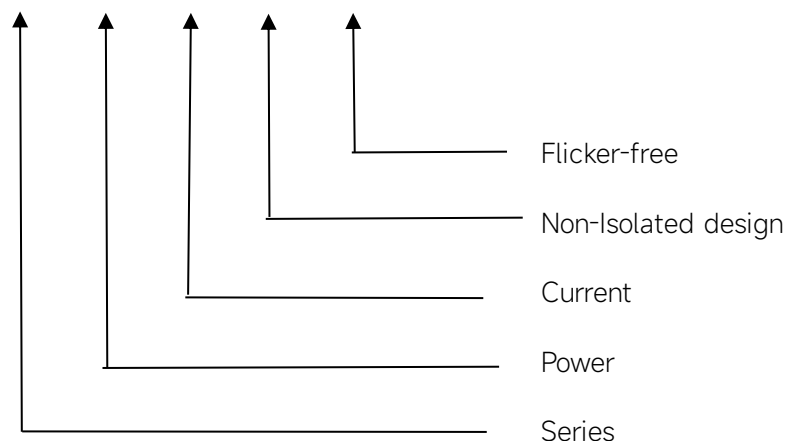
- Linear light

◆ Description

FMS-80-350 N-S LD-F is an 80W non-Isolated design constant current LED driver that operates from 198-264Vac input with 200 to 350mA output current and a forward voltage range from 120 to 350Vdc. The output current is adjustable by DIP Switch. With it's compact dimensions from 280*30*21 mm. It is easy to integrate in linear light products. To ensure trouble-free operation, protection is provided against output short circuit, over voltage and over temperature.

◆ Model code

FMS-80-350 N-S LD-F



◆ Specification

Output	Constant Current	200mA	250mA	300.mA	350mA
	Voltage Range	120-350VDC	120-320VDC	120-266VDC	120-228VDC
	Unload voltage Max.	400VDC			
	Current Accuracy	±8%		±5%	
	Output HF current ripple(≥1KHz)	±5%			
	Output LF current ripple(≤120Hz)	±5%			
	SVM	≤0.4			
	Pst	≤1			
	Efficiency(Typ.)	≥90% @Full load ,220-240V			
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 DC voltage(VDC)	176-280VDC			
	Frequency(Hz)	0/50/60 Hz			
	Displacement factor	≥0.9			
	Power Factor	0.95 @Full load ,220-240V			
	Input Current max	0.5A			
	Start-up time	< 0.5S			
	No Load Power	≤0.5W			
	THD (Typ.)	<10%@Full load ,220-240V			
Protection	Over Load Protection	106-160% YES/Auto Resume			
	Over Voltage Protection	400VDC YES/Auto Resume			
	Short circuit Protection	YES/Auto Resume			
capability	Surge capability (L-N)	1KV			
	Surge capability (L/N-Ground)	2KV			
Environment	Operating Temperature	-20°C~+50°C			
	Humidity	20%-90%RH			
	Tc	80°C			
	Storage Temperature	-40°C~+85°C			
	Life time	> 50000h@Tc=75°C			
Surface	Noise	≤25dB(A)@20cm			
	Dimension	280X30X21(LXWXH)mm			
Standards	material	metal case			
	Safety	GB19510.1, GB19510.14; IEC61347-1, IEC61347-2-13; EN61347-1, EN61347-2-13, EN62384;AS/NAS 61347-1, AS/NAS 61347-2-13;AS/NZS 61347.1,AS			
	EMC	GB/T17743, GB17625.1; EN55015, EN61000-3-2, EN61000-3-3, EN61547; 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 & Noise are measured at 20MHz of bandwidth by using a 300mm twisted pair-wire terminated with a 0.1uF & 47 uF parallel capacitor.</p> <p>3.Switch and dimmer are not recommended to connect between this product output and luminaries.</p> <p>4.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>5.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>6.The current with load range cannot exceed 130% of the maximum power at full load.</p> <p>7.The over-temperature protection of the product is provided by the IC.</p> <p>8.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.</p>	

Preliminary

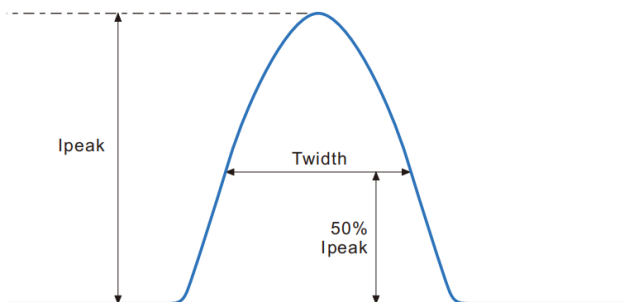
◆ Parameter

Number	Output				Switch position	
	Current (mA)	Voltage (VDC)	Voltage No load (VDC)	Power (W)	1	2
1	200mA	120-350VDC	400	70W	--	--
2	250mA	120-320VDC		80W	ON	--
3	300mA	120-266VDC		79.8W	--	ON
*4	350mA	120-228VDC		79.8W	ON	ON

* Factory default

◆ Inrush Current

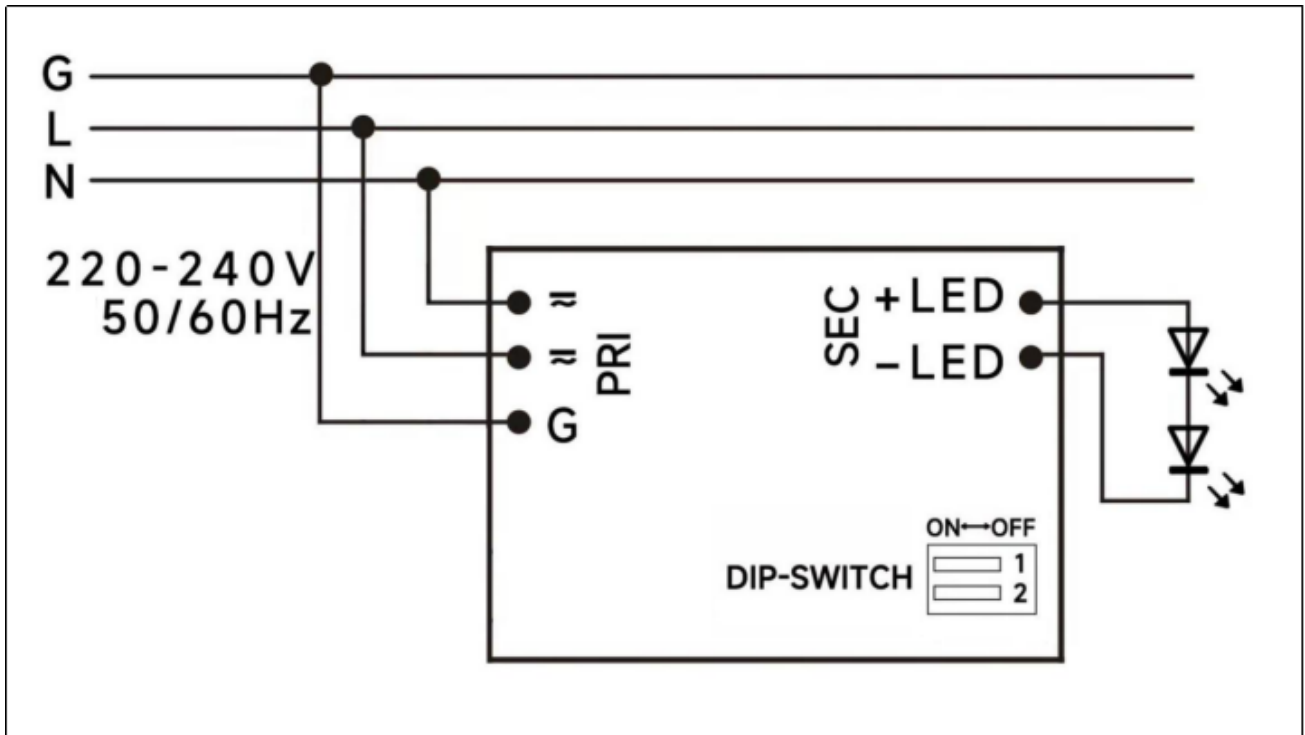
I _{peak}	T _{width}	B10	B16	B20	C10	C16	C20
25.1A	252μs	12pcs	20pcs	25pcs	16pcs	25pcs	32pcs



Remarks:

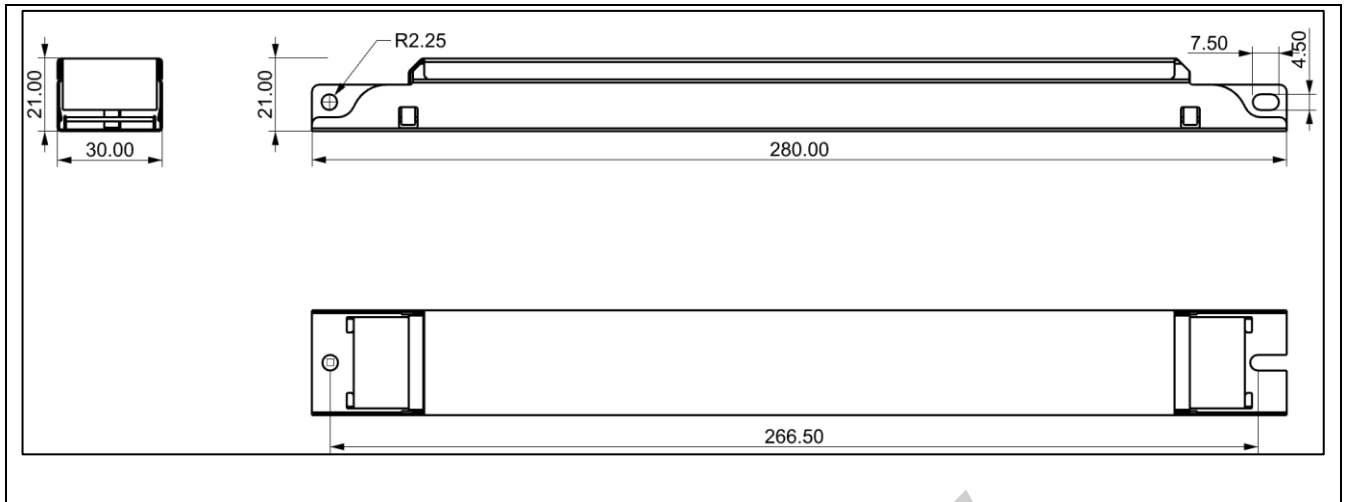
- 1.The number of drives mounted under different MCBs in the table is the maximum value. Please do not exceed this number during installation.
- 2.Different brands and models of miniature circuit breakers, the number of drives mounted will be slightly different.

◆ Wiring diagram



Preliminary

◆ 2D diagram



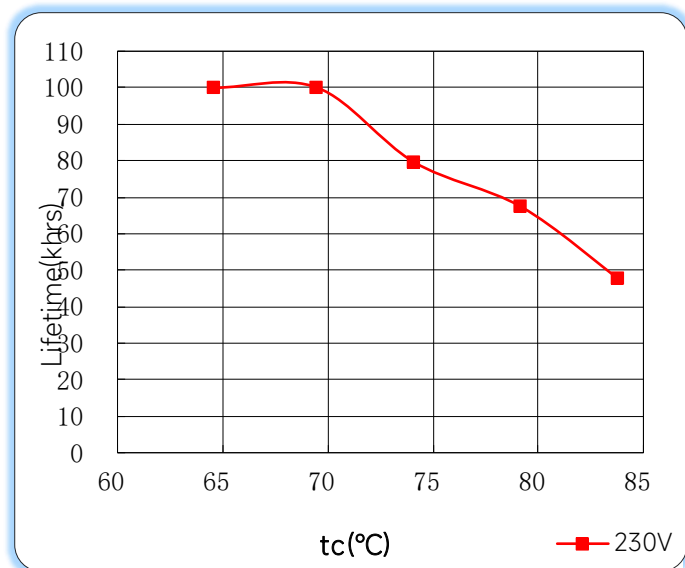
◆ Wiring & Connections

	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

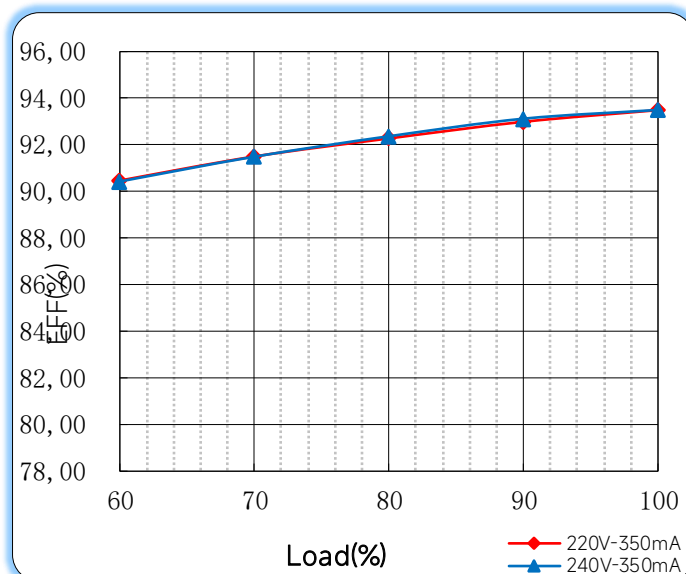
Note: Solid wire is risky to use on an angled terminal. Stranded wire is recommended for this kind of use.

◆ Curve for FMS-80-350 N-S LD-F, $I_o=350mA$

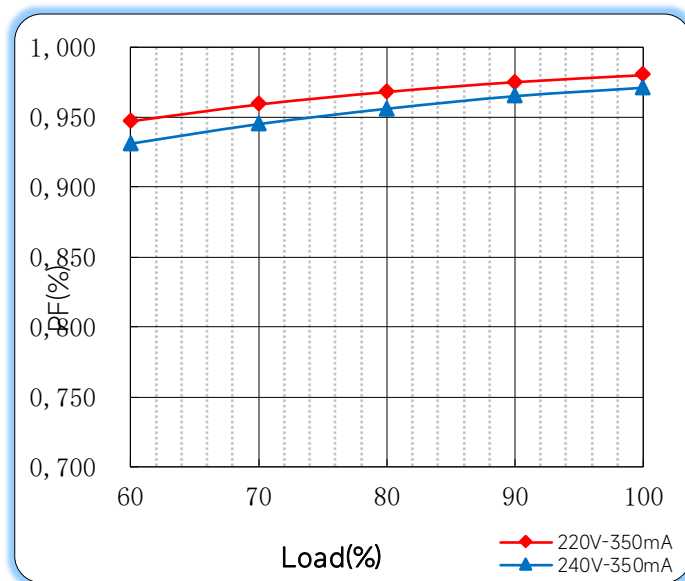
Lifetime vs. Ambient Temperature Curve



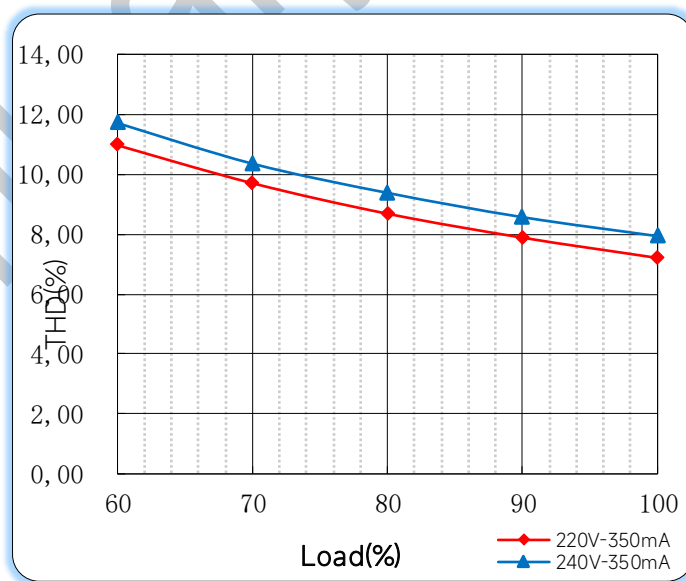
Efficiency vs. Load



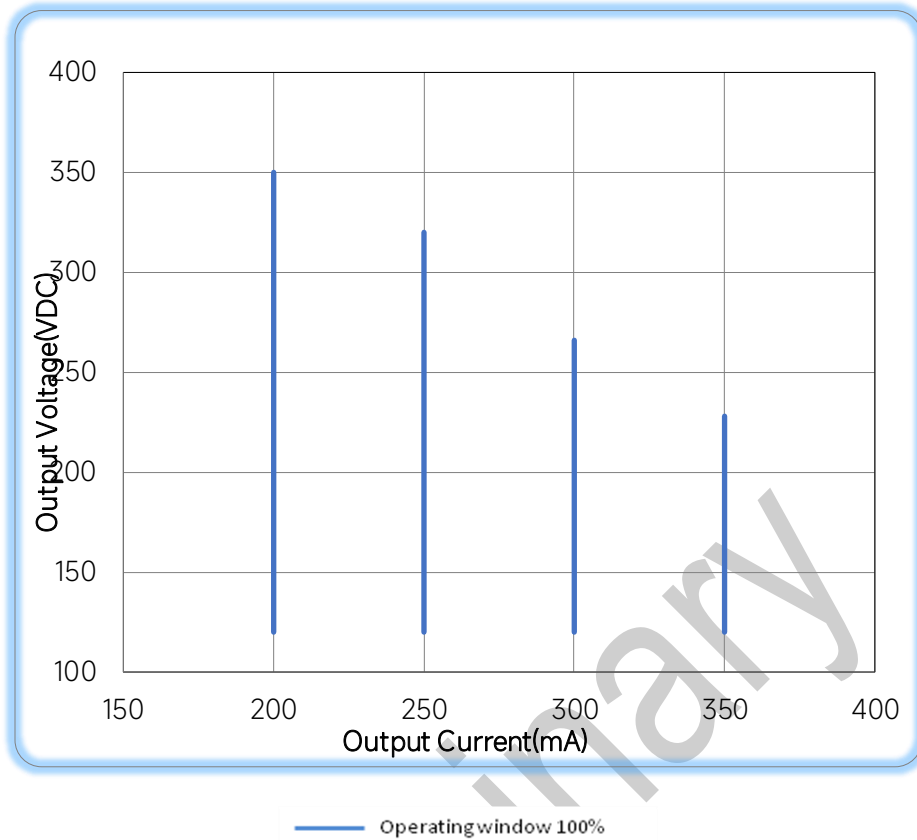
Power Factor Characteristics



THD vs. Load



◆ Operating window



◆ Revision Updates

ITEM	BEFORE	AFTER	VERSION	DATE
Initial			A	2024/01/13
lifetime	> 50000h@Tc=80°C	> 50000h@Tc=75°C	B	2024/04/15

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



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