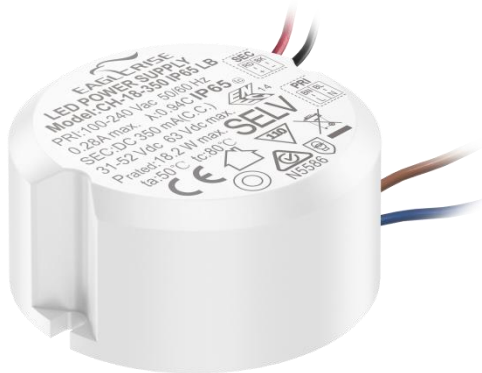


18W Constant Current – IP65



■ Approve



Features

- Class II, SELV, Built-in
- Input Voltage 100-240VAC
- Protections: SCP/OLP/OVP
- Power Factor 0.9C-0.95
- Efficiency $\geq 86\%$
- IP65 Ingress protection
- 5 years warranty

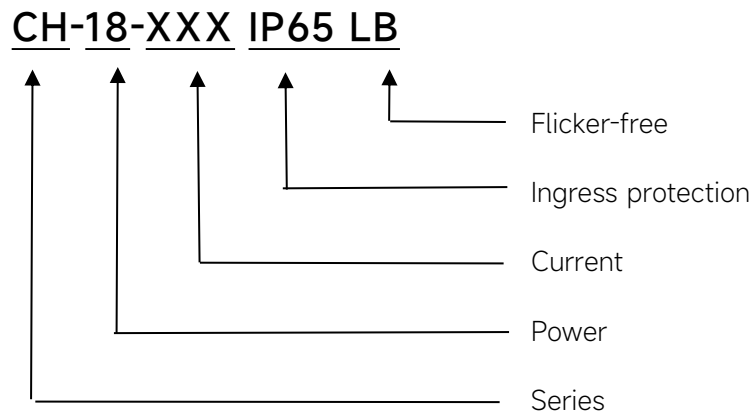
Applications

- Outdoor-Wall light
- Lawn light

◆ Description

CH-18-XXX IP65 LB is an 18W constant current LED driver that operates from 90-264Vac input with 300 to 700mA output current. With it's compact dimensions from $\Phi 55 \times 26\text{mm}$ it is easy to integrate in Outdoor-Wall light lights and Lawn lights. To ensure trouble-free operation, protection is provided against output short circuit and over Load

◆ Model code



◆ Specification

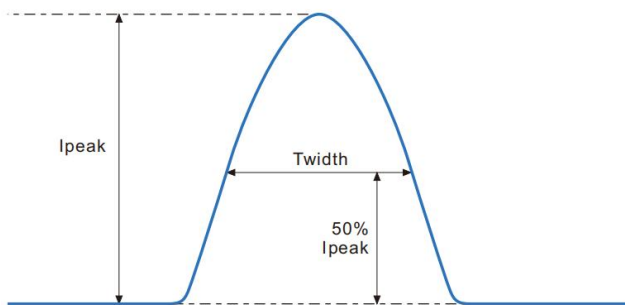
Output	Constant Current	300mA	350mA	500mA	...	700mA
	Voltage Range	36-60VDC	31-52VDC	21.5-36VDC	...	15.5-26VDC
	Unload voltage Max.	75VDC	63VDC	46VDC	...	35VDC
	Current Accuracy	±5%				
	Output HF current ripple(≥1KHz)	±5%				
	Output LF current ripple(≤120Hz)	±5%				
	SVM	≤0.4				
	Pst	≤1				
	Efficiency(Typ.)	≥86%; ≥85%@600mA				
Input	Rated input voltage	100-240VAC				
	Range of input voltage	90-264VAC				
	Frequency(Hz)	50/60 Hz				
	Displacement factor	≥0.9				
	Power Factor	0.9C-0.95				
	Input Current max	0.28A				
	Start-up time	< 0.5S				
	No Load Power	≤0.5W				
	THD (Typ.)	< 10%				
Protection	Over Load Protection	103-120% YES/Auto Resume				
	Over Voltage Protection	> 75VDC	> 63VDC	> 46VDC	...	> 35VDC
	Short circuit Protection	YES/Auto Resume				
capability	Surge capability (L-N)	1KV				
	Surge capability (L/N-Ground)	NA				
Environment	Operating Temperature	-20°C~+50°C				
	Humidity	20%-90%RH				
	Tc	80°C				
	Storage Temperature	-25°C~+60°C				
	Life time	> 50000h@Tc=75°C,230VAC				
	Noise	≤20dB(A)@10cm				
Surface	Dimension	Φ55X26(DXH)mm				
standards	EN 61347-1; EN61347-2-13; EN62384; EN55015; EN61000-3-2 ; EN61000-3-3; 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 240VAC 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.					

◆ Model list

NO.	Model number	Output			Max.Prated(W)
		Constant current (mA)	Normal working voltage (VDC)	No load working voltage (VDC)	
1	CH-18-300 IP65 LB	300	36-60	75	18
2	CH-18-350 IP65 LB	350	31-52	63	18.2
3	CH-18-400 IP65 LB	400	27-45	55	18
4	CH-18-450 IP65 LB	450	24-40	50	18
5	CH-18-500 IP65 LB	500	21.5-36	46	18
6	CH-18-550 IP65 LB	550	19.5-33	43	18.2
7	CH-18-600 IP65 LB	600	18-30	40	18
8	CH-18-650 IP65 LB	650	16.5-28	38	18.2
9	CH-18-700 IP65 LB	700	15.5-26	35	18.2

◆ Inrush Current

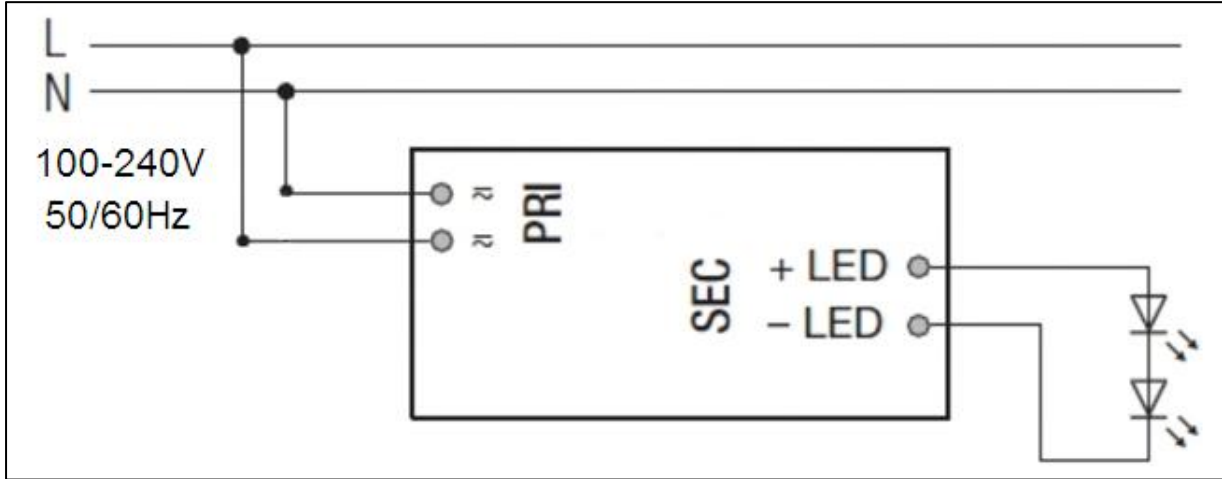
I_{peak}	Twidth	B10	B16	B20	C10	C16	C20
12.8A	104 μ s	28pcs	45pcs	57pcs	28pcs	45pcs	57pcs



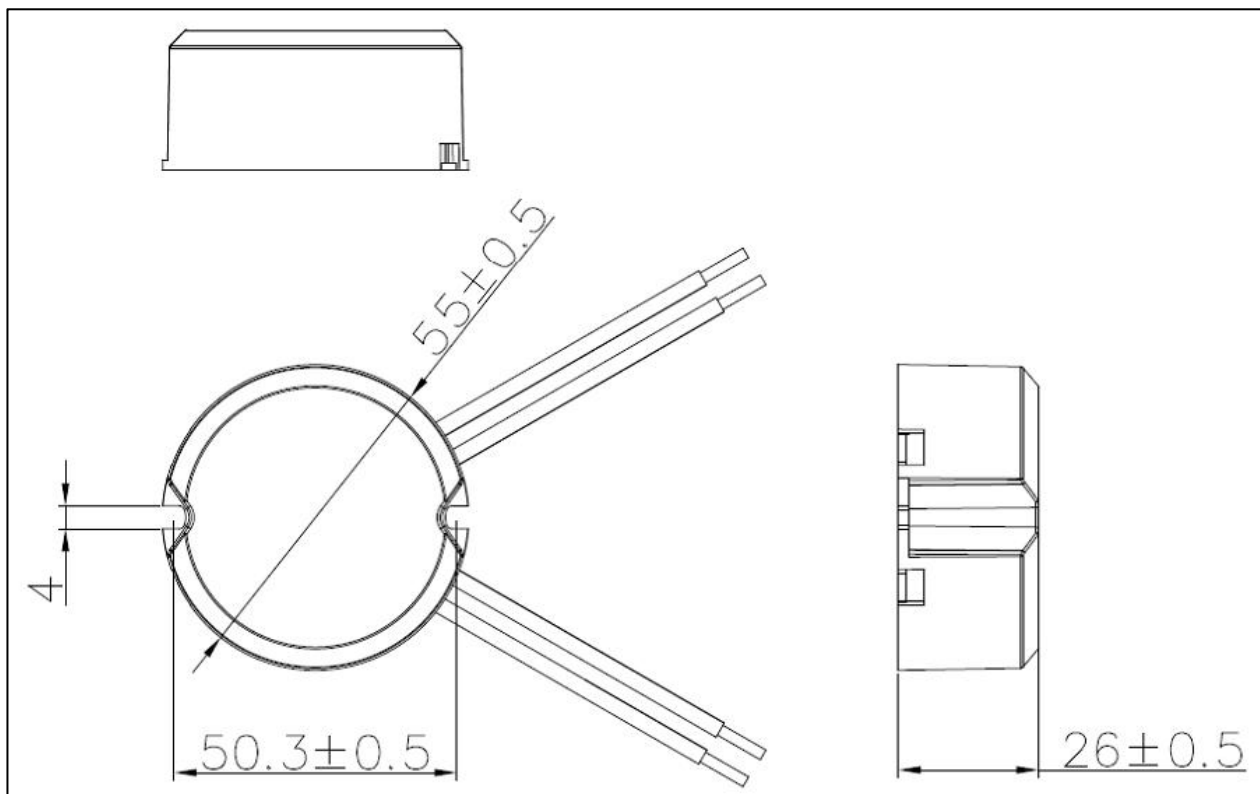
Remarks:

- 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**

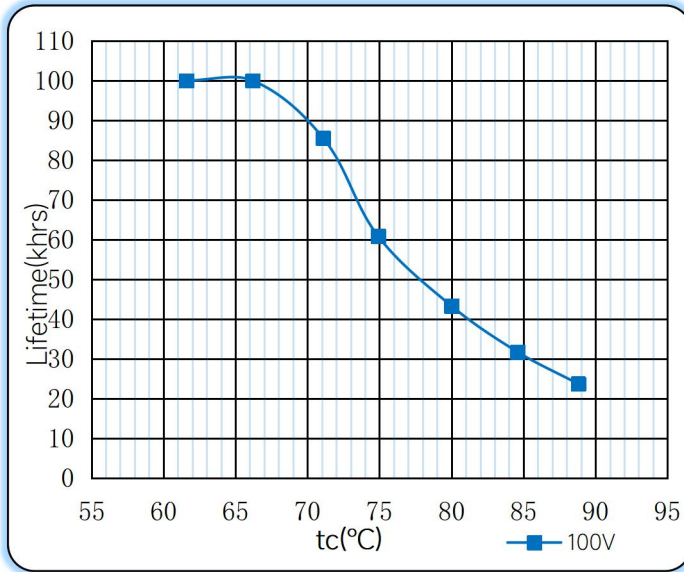


◆ **2D diagram**

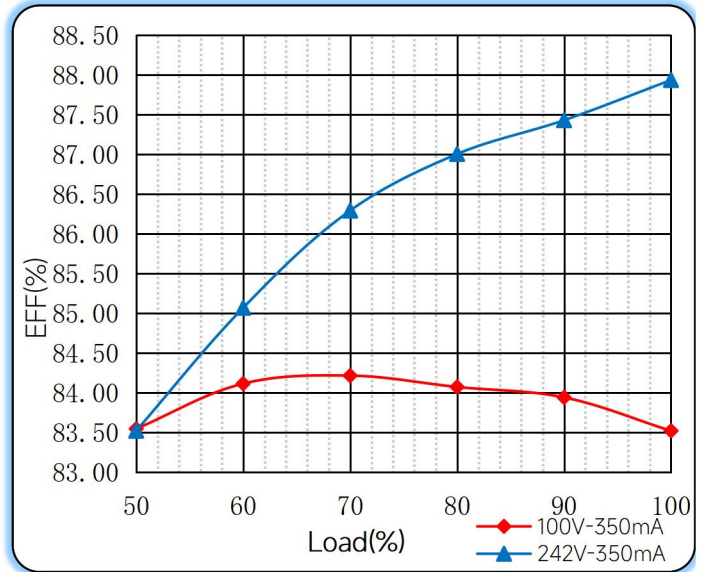


◆ Curve for CH-18-350 IP65 LB, I_o=350mA

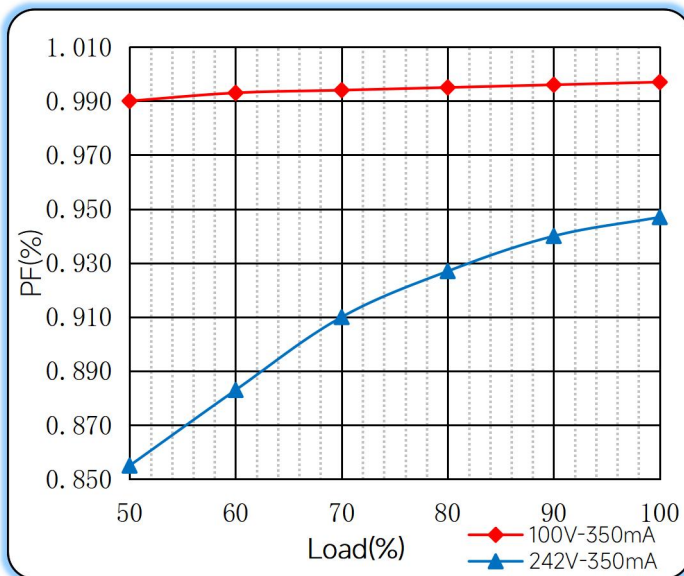
Lifetime vs. Temperature Curve



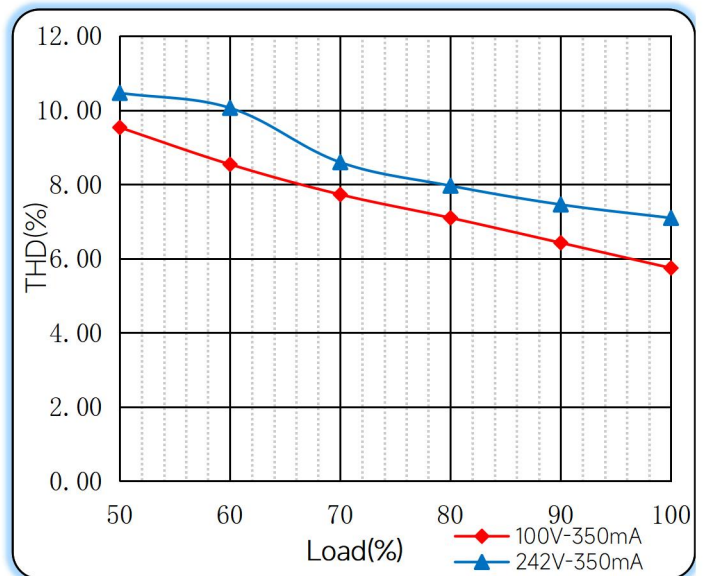
Efficiency vs. Load



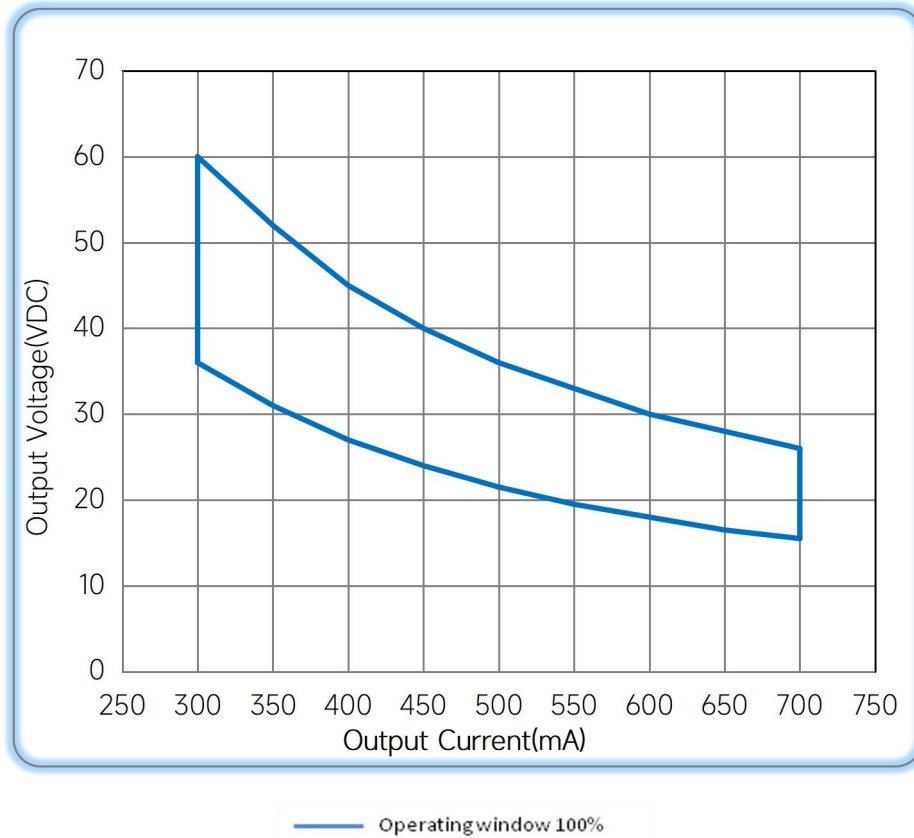
Power Factor Characteristics



THD vs. Load



◆ **Operating window**



◆ **Revision Updates**

ITEM	BEFORE	AFTER	VERSION	DATE
Initial			A	2022/05/15
Power Factor	0.94C	0.9C-0.95	B	2025/04/01
Approve		Update	C	2025/07/01

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