

ON/OFF Constant Current LED Driver

SM-6



Features



- Super mini-sized design for independent use(only 25mm oblique diameter)
- Flicker-free, complying with CE Erp directive
- Push wire connections
- Configurable constant current output via DIP switch 200, 250, 300 and 350 mA
- Protections: opencircuit, shortcircuit, overload, overtemperature
- SELV equivalent
- Suitable for class II luminaires
- Protection class II



Selection Guide

Model No.	Nominal Voltage (V)	Nominal Current (A)	Power Factor (λ)	THD (%)	Max. Output (W)	Output Current (mA)	Output Voltage (V)	No Load Voltage (V)	Efficiency Full Load (%)
SM-6	220-240	0.09	0.50C	N/A	4.5	200	8-22.5	60	73
					5.6	250	8-22.5	60	74
					6.8	300	8-22.5	60	77
					7.9	350	8-22.5	60	78

Note: 1. The product picture is for reference only. For details, please refer to the actual product.
 2. Current adjustment is performed via DIP switches. See “DIP Switch Setting” instructions for details.
 3. All parameters NOT specially mentioned are measured at 25°C of ambient temperature, 230VAC input, 50Hz, full load and after warm-up.

Input Parameters

Parameter	Condition	Min.	Typ.	Max.
Input Voltage Range	AC Input	198VAC	230VAC	264VAC
	DC Input	176VDC	--	250VDC
Input Frequency Range	AC Input	47Hz	50/60Hz	63Hz
No-load Power Consumption	@230VAC, 50Hz	--	--	0.5W
Inrush Current	Cold start@230VAC, 50Hz, full load	20A/100us		
Max.units Per Circuit Breaker*	B10	35		
	B13	45		
	B16	56		
	B20	70		
	C10	70		
	C13	91		
	C16	112		
	C20	140		

Note: *These are max. values calculated out of inrush current! Please consider not to exceed the maximum rated continuous current of the circuit breaker. Calculation uses typical values from ABB series S200 as a reference. Actual values may differ due to used circuit breaker types and installation environment.

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Output Parameters

Parameter	Condition	Min.	Typ.	Max.
Output Accuracy	@230VAC, 50Hz, full load	--	±8%	--
Ripple & Noise*	Low frequency<120Hz,@230VAC, 50Hz, full load	--	--	30%
Pst LM	@230VAC, 50Hz, full load	--	--	1
SVM	@230VAC, 50Hz, full load	--	--	0.4
Galvanic Isolation	Isolated			
Over-Temperature Protection (OTP)	N/A			
Short-Circuit Protection (SCP)	Auto-Recovery If Fault Is Removed			
Over-Voltage Protection (OVP)	Auto-Recovery If Fault Is Removed			

Note: *Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uF & 47uF parallel capacitor.

General Parameters

Parameter	Condition	Value
Ambient Temperature Range t_a		-20 ... +45°C
Maximum Case Temperature t_c	Measured on t_c point indicated of the product label	85°C
Max.case Temp.In Fault Condition		N/A
Storage Temperature Range		-20...70°C
Relative Humidity	Non condensing	5...85%
Surge Transient Protection	L/N	1kV
Environmental Rating		Indoor
IP Rating		IP20
Mains Switchingcy Cycles		>100,000
Expected Lifetime	$t_{cmax}=85^{\circ}\text{C}$, 0.2%/1'000h failure rate	50,000h

Physical Parameters

Housing Material	PC
Type of Connection	Push button
Dimensions(LxWxH)	84x20x18.5mm
Mounting Hole Spacing	N/A
Weight	26g (Typ.)

Standards*

Safety Standards	EN 61347-1, EN 61347-2-13, EN 62493
Performance	EN 62384
EMC Standards	EN 55015, EN 61000-3-2, EN 61000-3-3, EN 61547

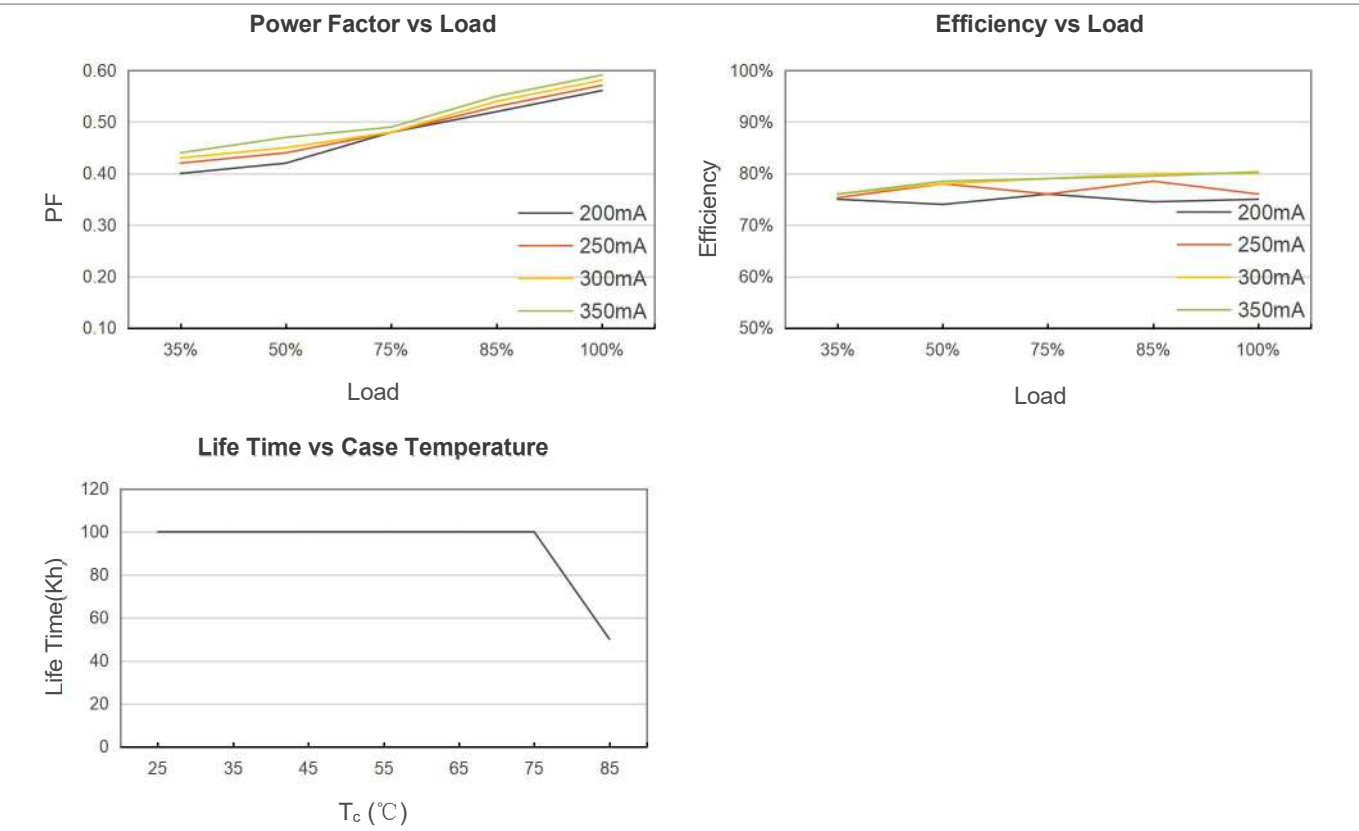
Note: *The above refers to the standards the product design complies with. For specific certifications obtained, please refer to page 1.

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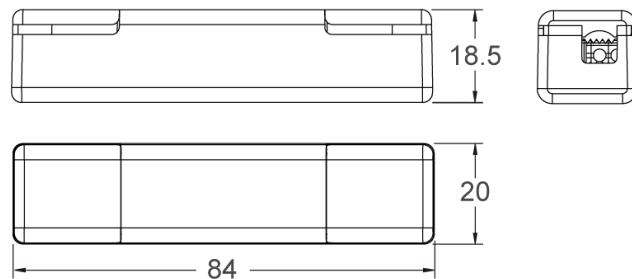


Product Characteristic Curve



Appearance of size

Dimension Drawing (mm)



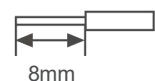
Wiring Diagram



Wire preparation:

PRI: 0.75-1.5mm²

SEC: 0.5-1.5mm²



Hot plug-in is not supported. Always connect or disconnect LED loads with the power completely turned off.

DIP Switch Setting

Output current	DIP switch	
	1	2
200mA (Default)	-	-
250mA	ON	-
300mA	-	ON
350mA	ON	ON

Set the current by DIP switch after mains off.