

LED Driver

Indoor 35 W Non-Dimmable SI-EPD006570WW



SELV Constant Current LED Driver Easy Current Selection – No Dimming

Features & Benefits

- Output Currents: 800 / 925 / 1050 mA (fixed, selectable)
- Output Voltage Range: 17 ~ 34 V (SELV equivalent)
- Output Power Range: 14 ~ 36 W
- Input Voltage: 220 ~ 240 Vac 50/60 Hz
- Protections: Overload, No Load, Short Circuit, Over Temperature, Over Voltage,
- t_a Range: -20 ~ +55 °C
- Expected Lifetime: 50,000 hours at $t_c = 70$ °C
- Long lasting & high reliability
- Extra small compact housing
- Suitable for Class I and II luminaires

Applications

- Downlights, Spotlights and other Indoor Lighting Applications
- Office – Industry – Shop

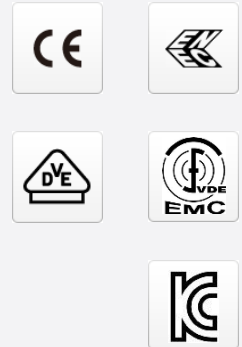


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1. Characteristics

Article	Symbol	Specification			Unit	Note	
		Min.	Typ.	Max.			
INPUT SPECIFICATIONS							
Nominal Voltage	V _{in}	220 ~ 240			V _{ac}		
Nominal Frequency	f _{in}	50 / 60			Hz		
AC Voltage Range		198		264	V _{ac}		
DC Voltage Range		n/a			V		
Maximum Voltage				275	V _{ac}	2 hours max.	
Nominal Current	I _{in}	200			mA	At 230 V, 36 W load (see section 2e)	
Total Harmonic Distortion	THD				20	%	At full load, 230 V, 50 Hz (see graph)
Power Factor	PF	0.95				-	At full load, 230 V, 50 Hz (see graph)
Efficiency	η	87				%	At full load, 230 V, 50 Hz (see graph)
Power Losses					5.5	W	At 230 V, 1050 mA (see section 2e)
No-load Power		n/a			W	Load switching on output side is safe but not permitted	
Stand-by Power		n/a			W	Unit is not dimmable/controllable	
Protection Class		II			-	Suitable for class I and II luminaires	
In-rush Current					16	A _{pk}	t _{width} = 100 μs typ. (at 50% I _{pk})
Units per Circuit Breaker					B16: 25 B10: 15	-	I _{max} = 16 A, t _{width} = 100 μs
OUTPUT SPECIFICATIONS							
Nominal Voltage	V _o	17 ~ 34			V _{dc}	With load	
Max. Voltage					50	V _{dc}	Open circuit, No-load protection
Nominal Current	I _o	800 / 925 / 1050			mA	±5 %	
Current Ripple		±30			%	Ripple / average @ 100 Hz	
Nominal Power	P _o	14 ~ 36	36	W			See section 2e
Galvanic Isolation		SELV-equivalent					Output to mains – Touch current < 0.7 mA
Touch Current					0.7	mA	According to EN 60598-1 annex G and EN 61347-2-13 annex A

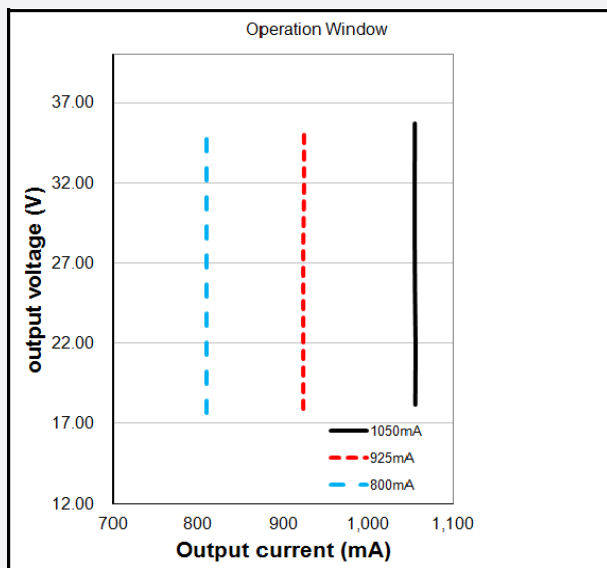
Article	Symbol	Specification			Unit	Note
		Min.	Typ.	Max.		
DIMMING SPECIFICATIONS						
Dimming Control			n/a			Unit is not dimmable
ENVIRONMENTAL SPECIFICATIONS						
Ambient Temperature	t_a	-20		55	°C	
Case Temperature	t_c			80	°C	Measured at t_c point as indicated on the product label
Case Temperature in fault condition				110	°C	
Storage Temperature	t_s	-25		75	°C	Cool down before operating
Relative Humidity		5		85	%	Not condensing
Surge Transient Protection	L / N			±1	kV	According to EN 61547-5.7
IP Rating			IP20		-	Suitable for indoor environment
Mains Switching cycles		100,000			-	
Expected Lifetime		35,000			h	$t_c = 80\text{ °C}$, 10 % failure rate (14 h on / 10 h standby per day)
		50,000			h	$t_c = 70\text{ °C}$, 10 % failure rate (14 h on / 10 h standby per day)
Dimensions	L x W x H		103 x 67 x 29.5		mm	
Net Weight			165		g	

Note:

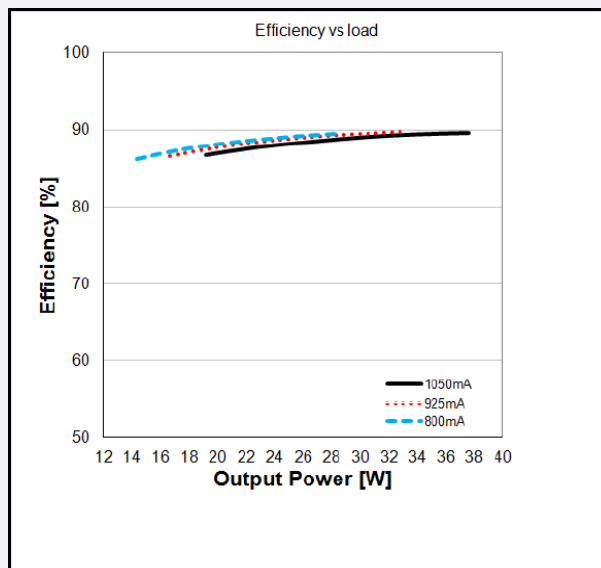
Standards: EN 61347-1, EN 61347-2-13, EN 55015, EN 61547, EN 61000-3-2, EN 62384

2. Typical Characteristics Graphs

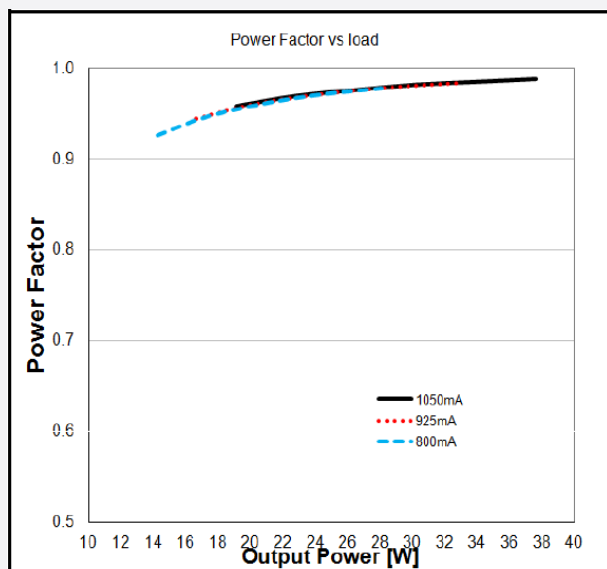
a) Operating Window



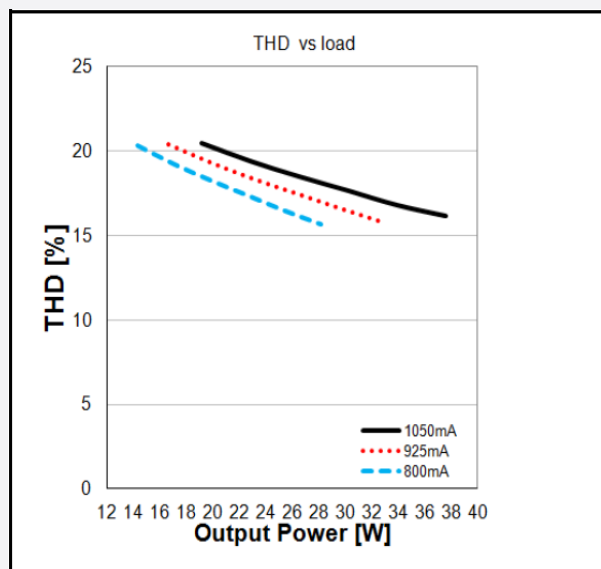
b) Efficiency vs. Load



c) Power Factor vs. Load



d) Total Harmonic Distortion vs. Load



e) Typical Output / Input

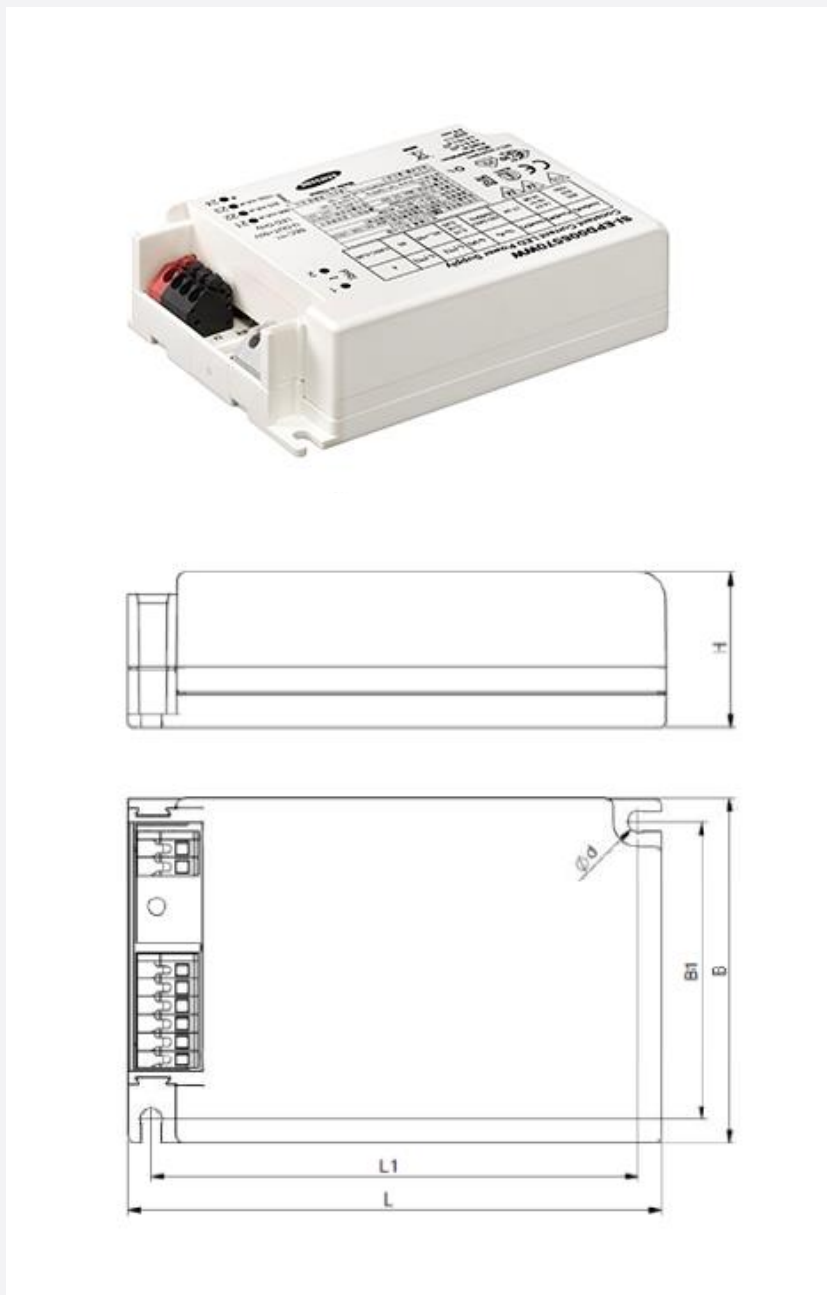
Output / Input Rating	Unit	Output Current Setting (mA)		
		800	925	1050
Output Voltage, Min.	V	17	17	17
Output Voltage, Max.	V	34	34	34
Output Power, Min.	W	14	16	18
Output Power, Max.	W	27	31	36
Power Loss Max. (@ 230 V)	W	4	4.7	5.5
Line Input Power (@ 230 V)	W	31	35.7	41.5
Line Input Current (@ 230 V)	mA	150	180	200

3. Protection

- **Input over voltage protection**
Mains up to 275 Vac for two hours maximum.
- **Output short circuit protection**
Automatic and reversible.
- **Output overload protection**
Automatic and reversible.
- **Output over voltage protection**
Output voltage is limited to below 50 V.
- **No load operation**
Available.
- **Over temperature protection**
Automatic and reversible.
- **Load hot plug protection**
Hot plug-in or secondary switching of LEDs is not permitted and may cause a very high current to the LEDs.
- **Output under voltage protection**
n/a

4. Outline Drawing & Dimension

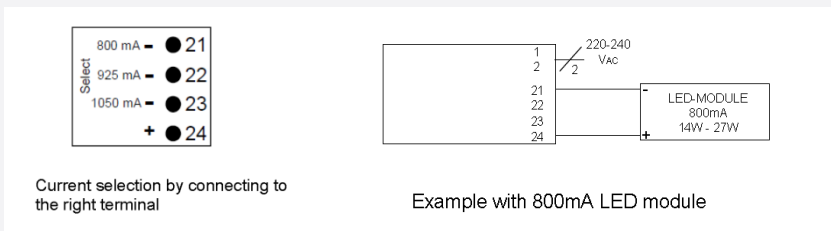
a) Dimension



L	L1	B	B1	H	Unit
103	94	67	58	29.5	mm

Housing material: plastic, white

b) Wiring Diagram



- Connectors type (input and output): Push-in terminals
- Wire cross-section: solid: 0.5 - 1.5 mm² flexible: 0.75 - 1.5 mm²
- Wire peeling length: 8 - 9 mm
- Load wire length: Max. 2 m

5. Label Structure

SI-EPD006570WW
Constant Current LED Power Supply

Iout[mA]	Pout[W]	Uout[V]	U _N /f _N	I _N [A]	t _a [°C]	t _c [°C]	λ
800	14-27	17-34	220-240V 50/60Hz	0.15	-20...+55	80	0.85C-0.95
925	16-31			0.18			
1050	18-36			0.20			

Wire preparation:
 Push in s:0.5-1.5 □ f:0.75-1.5 □ 8-9 mm

전기용품 표시사항
 안전인증번호: KSU11214-13012
 방송통신기자재등의 적합등록번호: MSIP-REI-OSR-1A0CS
 제품명칭: 조명기구용컨버터 (LED램프용)
 정격입력: 220 V~, 60 Hz, 40.5W
 모델명: SI-EPD006570WW 출력방식: 정전류방식
 정격출력전압: Max. DC 50V 정격출력전류:1050mA
 역률: 0.95 Tc: 80°C, ta: -20°C~55°C
 제조회사: Chung Tak Lighting Controls System(Guangzhou)Ltd A/S연락처: 080-4891-700
 제조년월: 별도표기 결선도: 제품에 표시

SEC U-OUT=50V LED Only
 800 mA ● 21
 925 mA ● 22
 1050 mA ● 23
 + ● 24

Made in China

6. Packing Structure

Packing material	Max. quantity (pcs)
Outer Box	20

7. Precautions in Handling & Use

- 1) To prevent the LED Driver from any defect, please handle and store it with care
 - Do not drop or give shock
 - Do not store in very humid location or at extreme temperature
 - Do not open or disassemble the product
- 2) Static electricity or surge voltage may damage the components inside LED Driver, as such please observe proper anti-electrostatic working process
 - People handling the Driver should be well grounded (e.g. using ESD wrist band) and wear anti-static working clothes and gloves
 - All related devices and instruments in the production line should be well grounded (e.g. working table, measuring equipment, assembly jigs)
- 3) Observe the correct polarity of output terminal
- 4) Avoid input voltage exceeds the maximum rating, which will cause damage to the circuit and result in malfunction

Legal and additional information.

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