



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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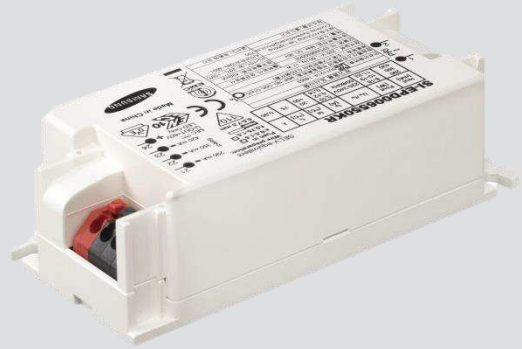
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LED Driver

Indoor 15 W Non-Dimmable SI-EPD006550KR



SELV Constant Current LED Driver Easy Current Selection – No Dimming

Features & Benefits

- Output Currents: 290 / 350 / 420 mA (fixed, selectable)
- Output Voltage Range: 27 ~ 54 Vdc (SELV equivalent)
- Output Power Range: 8 ~ 23 W
- Input Voltage: 220 ~ 240 Vac 50/60 Hz
- Protections: Overload, No Load, Short Circuit, Over Temperature, Over Voltage
- t_a Range: -20 ~ +50 °C
- Expected Lifetime: 50,000 hours at $t_c = 65$ °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}	140			mA	At 230 V (see section 2e)
Total Harmonic Distortion	THD				15	% 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	85				% At full load, 230 V, 50 Hz (see graph)
Power Losses					4	W At 230 V, input power 27 W max. (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: 50 B10: 30	- I _{max} = 16 A, t _{width} = 100 μs
OUTPUT SPECIFICATIONS						
Nominal Voltage	V _o	27 ~ 54			V _{dc}	With load
Max. Voltage					60	V _{dc} Open circuit, No-load protection
Nominal Current	I _o	290 / 350 / 420			mA	±5 %
Current Ripple		±20			%	Ripple / average at 100 Hz
Nominal Power	P _o	8 ~ 23	23	W See section 2e		
Galvanic Isolation		SELV-equivalent				Output to mains – Touch current < 0.5 mA
Touch Current					0.5	mA According to EN 60598-1 annex G and EN 61347-1 annex A

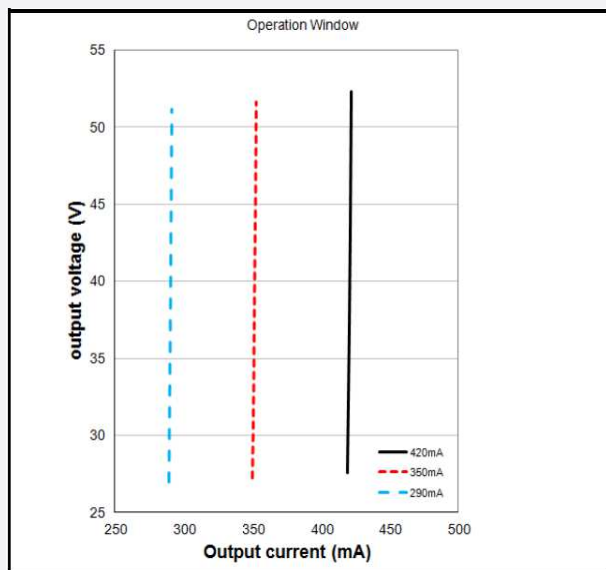
Article	Symbol	Specification			Unit	Note
		Min.	Typ.	Max.		
DIMMING SPECIFICATIONS						
Dimming Control			n/a			Unit is not dimmable
ENVIRONMENTAL SPECIFICATIONS						
Ambient Temperature	t_a	-20		50	°C	
Case Temperature	t_c			75	°C	Measured at t_c point as indicated on the product label
Case Temperature 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	$t_c = 75\text{ °C}$, 10 % failure rate (14 h on / 10 h standby per day)
		50,000			h	$t_c = 65\text{ °C}$, 10 % failure rate (14 h on / 10 h standby per day)
Dimensions	L x W x H		97 x 43 x 29.5		mm	
Net Weight			90		g	

Note:

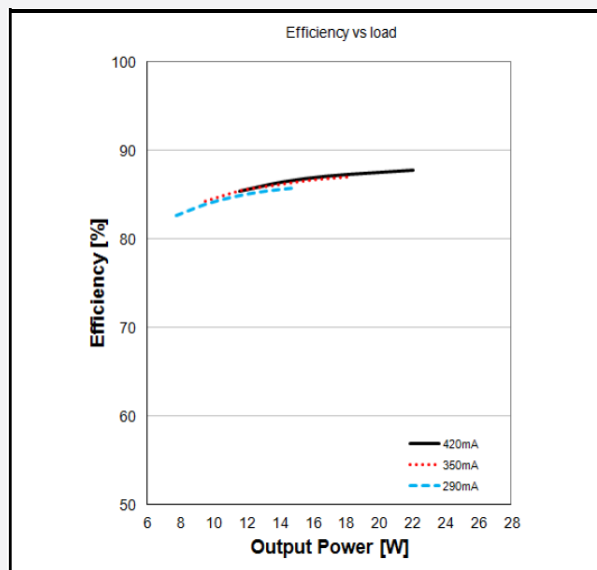
Standards: EN 61347-1, EN 61347-2-13, EN 55015, EN 61547, EN 61000-3-2, EN 62384

2. Typical Characteristics Graphs

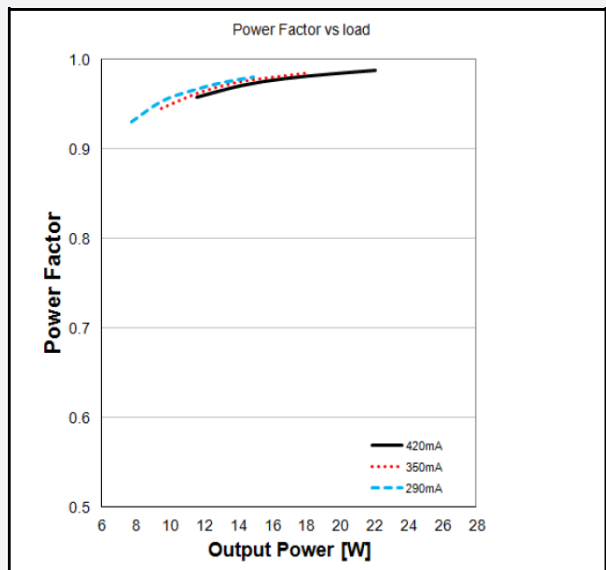
a) Operating Window



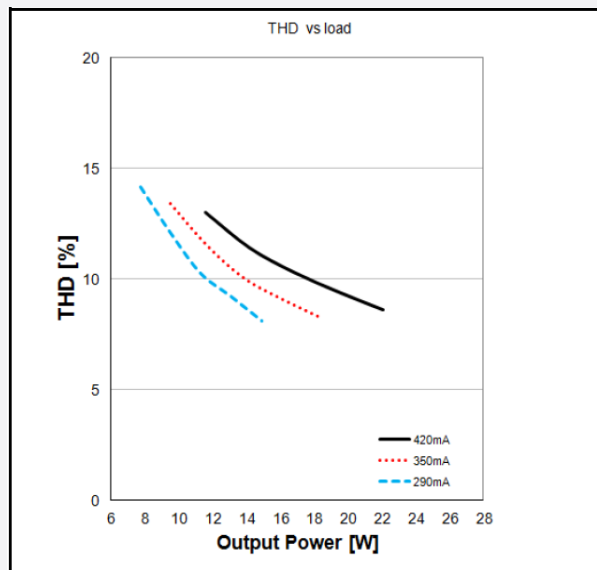
b) Efficiency vs. Load



c) Power Factor vs. Load



d) Total Harmonic Distortion vs. Load



e) Typical Output / Input

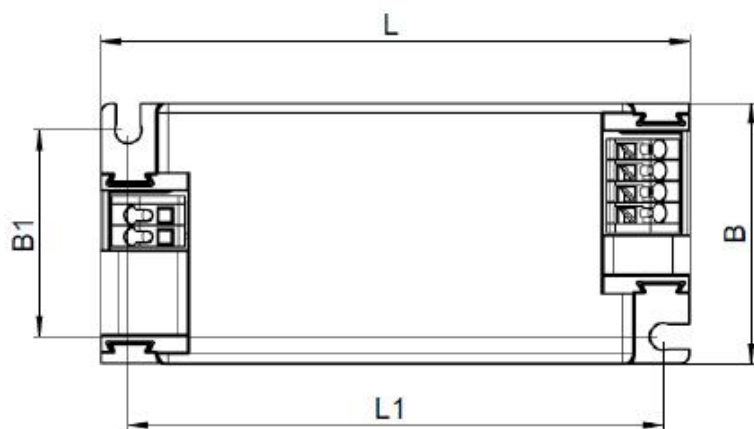
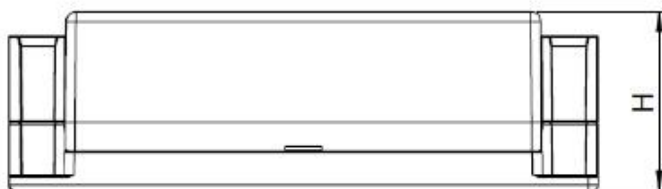
Output / Input Rating	Unit	Output Current Setting (mA)		
		290	350	420
Output Voltage, Min.	V	27	27	27
Output Voltage, Max.	V	54	54	54
Output Power, Min.	W	8	10	11
Output Power, Max.	W	16	19	23
Power Loss Max. (@ 230 V)	W	2.8	3.4	4
Line Input Power (@ 230 V)	W	18.8	22.4	27.0
Line Input Current (@ 230 V)	mA	100	120	140

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 60 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
97	88	43	34	29.5	mm

Housing material: plastic, white

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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