



General

Product Type	Constant Current Driver
Length (mm)	135
Width (mm)	30
Height (mm)	20
Housing Color	White
Housing Material	Plastic
Mounting	Surface mounted
Weight (g)	85

Electronics

Input Domain	AC
Input Voltage	100 ~ 240V AC
Output Voltage	3 ~ 24V DC
Output Current (mA) max/output	350~700
Output Power Range (W)	1~12
Power Factor at Full Load	+0.85 @ 230VAC
Power Supply	Internal
LED Outputs	1
Anti Surge	L-N: 1kV
Efficiency	78%
Leakage current max. (mA)	0.5
Standby Power Loss Max. (W)	0.5
Input Frequency	50 ~ 60Hz
Inrush Current	5A @ 230VAC

Lighting

Color Range	Single Color
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Control

Output Signal	PWM-CC
Control	DALI
Dimming Range	0~100%
Number of Channels	1

Protection

Protection Class	II
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Environmental

Storage Temperature	-40 ~ +80 °C
Operating Temperature	-30 ~ +50 °C
Ingress Protection	IP20

CE IP20

Disclaimer

Due to the technical evolution and improvement of our products, the data provided in this document may be updated on a regular basis, and as such, confirmation of this information is strongly recommended prior to the order process. OneEightyOne is not responsible for any discrepancies in this document following changes in our products. We reserve the right to make technical changes to our products and to change information, at its sole discretion, without notice.



LED Intelligent Driver

- Dimming interface: DALI.
- T-PWM™ digital dimming, present a perfect visual experience.
- DIP switch for multiple optional currents' quick selection.
- Dimming range: 0~100%, LED start at 0.01% possible.
- DALI dimming curve: liner curve or logarithmic curve.
- 0~100% flicker-free, High frequency exemption level.
- Innovative thermal management technology, intelligent power life protection.
- Over-heat / Over load / Short circuit protection, recover automatically.
- DALI bus standard: IEC62386-101, 102, 207.
- Suitable for internal lights application for I / II / III.
- Up to 50000-hour life time.
- 5 years warranty (Rubycon capacitor).

T-PWM™

Super depth dimming technology

Flicker-free

IEEE 1789

TUV Certificate No. B 001119 0007 Rev. 00
 CB Certificate No. SG PSB-LE-01925
 RCM Certificate No. RCMP19279 001
 CE EMC Certificate No. BSTXD190412501201EC
 LVD Certificate No. BST190412501201SC
 CCC Certificate No. 2019011002209509

Dimmable:

0.01~100%



DALI

T-PWM
Super depth
dimming
technology

Flicker-free
IEEE 1789

Over-heat
Protection

Short Circuit
Protection

Over Load
Protection

Multiple
Current

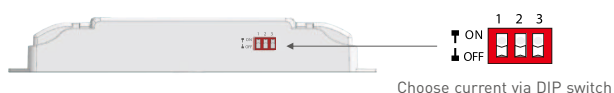


Specification

Model		SE-10-350-700-W1D	SE-12-100-400-W1D	SE-12-350-700-W1D
OUTPUT	Output Voltage	2-12Vdc	10-42Vdc	10-24Vdc
	Max Output Voltage	20Vdc	50Vdc	35Vdc
	Output Current	350-700mA	100-400mA	350-700mA
	Output Power Range	0.7W~8.4W	1W~12W	3.5W~12W
	Strobe Level	No video flicker / High frequency exemption level.		
	Dimming Range	0~100%, 0.01% dimming depth.		
	LF current ripple(<120Hz)	<1%		
	Current Accuracy	±5%		
	Ripple & Noise	≤2V		
	PWM Dimming Frequency	≤3600Hz		
INPUT	Dimming Interface	DALI		
	Input Voltage	100-240Vac		
	Frequency	50/60Hz		
	Input Current	0.15A@115Vac, 0.1A@230Vac	0.25A@115Vac, 0.15A@230Vac	
	Power Factor	PF>0.95/115Vac , PF>0.80/230Vac, at full load		
	Efficiency	75%	82%	81%
	Inrush Current(typ.)	Cold start 5A at 230Vac		
	Anti Surge	L-N: 1kV		
	Leakage Current	<0.35mA/230Vac	<0.5mA/230Vac	
ENVIRONMENT	Working Temperature	ta: -30°C ~ 50°C tc: 75°C		
	Working Humidity	20 ~ 95%RH, non-condensing		
	Storage Temp., Humidity	-40°C ~ 80°C, 10~95%RH		
	Temp. Coefficient	±0.03%/°C (0-50°C)		
	Vibration	10~500Hz, 2G 12min./1cycle, period for 72min. each along X, Y, Z axes.		
PROTECTION	Over-heat Protection	Intelligently adjusting or turning off the output current if the PCB temperature ≥110°C, auto recovers.		
	Over Load Protection	Shut down the output when current load≥102%, auto recovers.		
	Short Circuit Protection	Shut down automatically if short circuit occurs, auto recovers.		
SAFETY & EMC	Withstand Voltage	I/P-O/P: 3750Vac		
	Isolation Resistance	I/P-O/P: 100MΩ/500VDC/25°C/70%RH		
	Safety Standards	IEC/EN61347-1, IEC/EN61347-2-13		
	EMC Emission	EN55015, EN61000-3-2 Class C, IEC61000-3-3		
	EMC Immunity	EN61000-4-2,3,4,5,6,8,11 EN61547		
	Strobe Test Standard	IEEE 1789		
OTHERS	Dimension	135×30×20mm[L×W×H]		
	Packing	140×34×23mm[L×W×H]		
	Weight[G.W.]	80g±10g		

LED current selection

DIP switch for multi optional currents' quick selection
(see the table below).



SE-10-350-700-W1D	DIP Switch									
	Output Current	350mA	400mA	450mA	500mA	550mA	600mA	650mA	700mA	
	Output Voltage	2-12V	2-12V	2-12V	2-12V	2-12V	2-12V	2-12V	2-12V	
	Output Power	0.7-4.2W	0.8-4.8W	0.9-5.4W	1-6W	1.1-6.6W	1.2-7.2W	1.3-7.8W	1.4-8.4W	

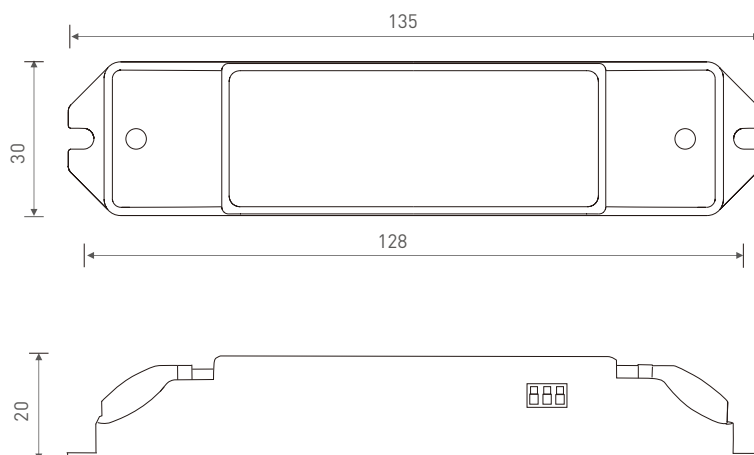
SE-12-100-400-W1D	DIP Switch									
	Output Current	100mA	150mA	200mA	250mA	300mA	350mA	400mA		
	Output Voltage	10-42V	10-42V	10-42V	10-42V	10-40V	10-34V	10-30V		
	Output Power	1-4.2W	1.5-6.3W	2-8.4W	2.5-10.5W	3-12W	3.5-12W	4-12W		

SE-12-350-700-W1D	DIP Switch									
	Output Current	350mA	400mA	450mA	500mA	550mA	600mA	650mA	700mA	
	Output Voltage	10-24V	10-24V	10-24V	10-24V	10-22V	10-20V	10-18.5V	10-17V	
	Output Power	3.5-8.4W	4-9.6W	4.5-10.8W	5-12W	5.5-12.1W	6-12W	6.5-12W	7-12W	

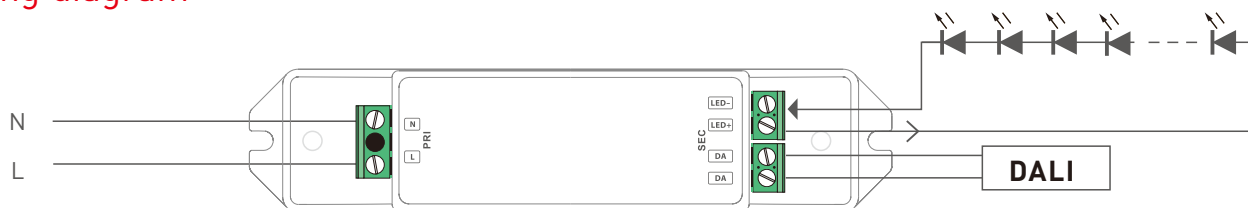
* Please choose the current value when the driver is power off.

Dimensions

Unit : mm

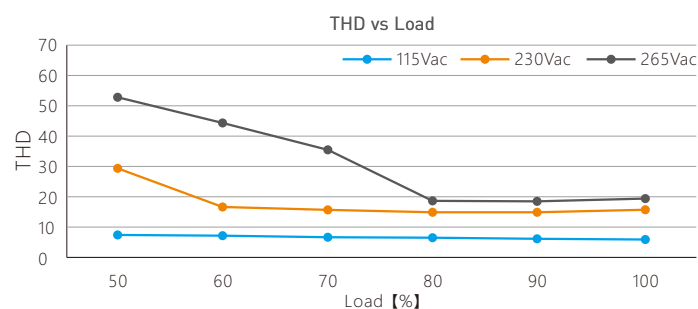
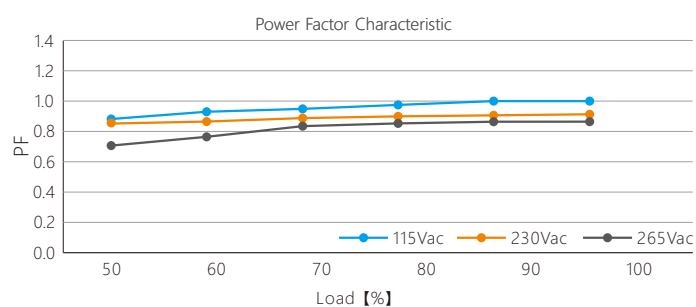
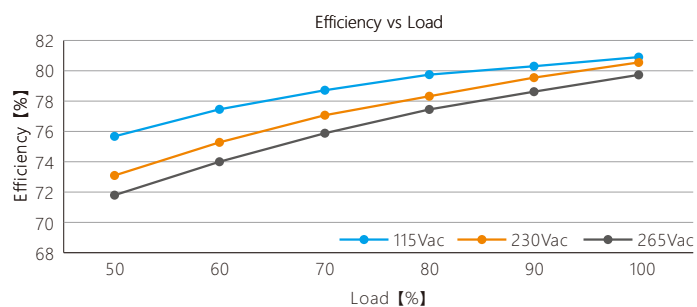


Wiring diagram

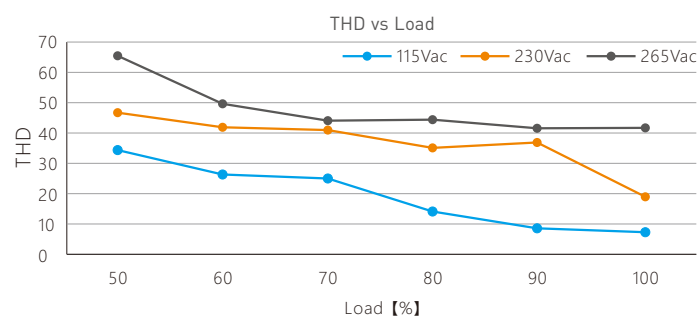
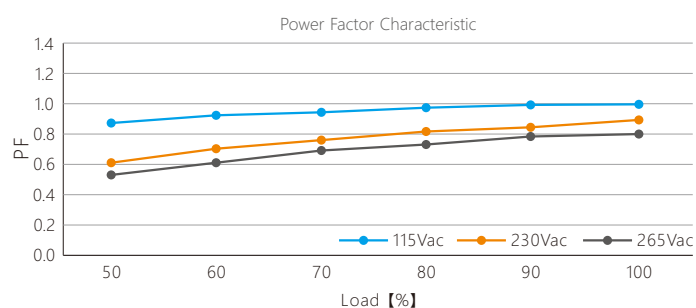
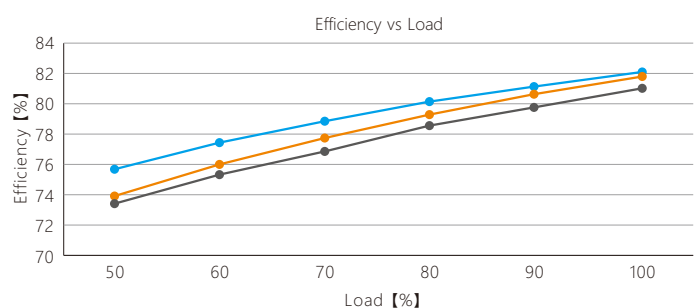


Relationship Diagrams

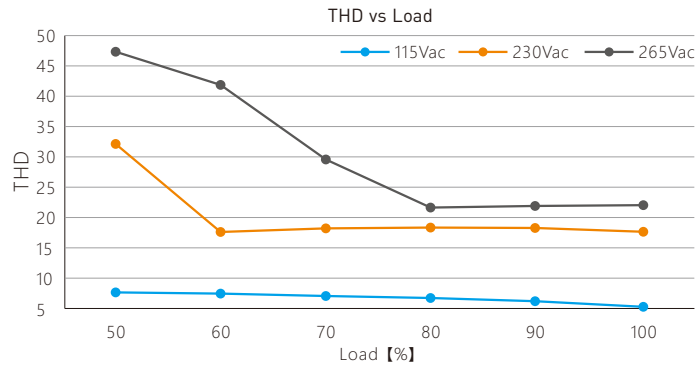
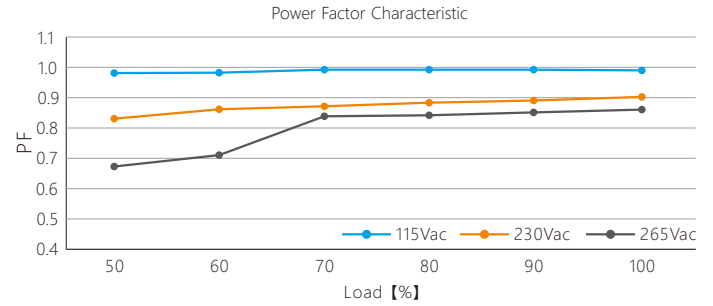
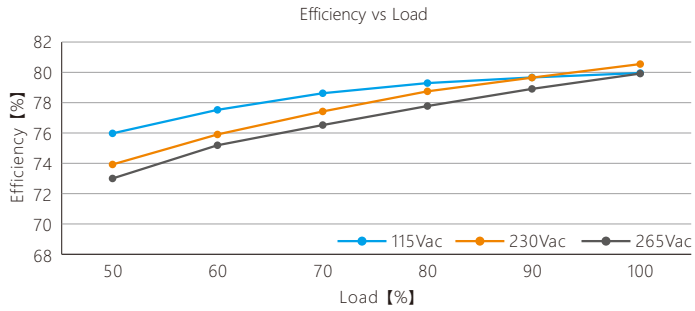
SE-10-350-700-W1D



SE-12-100-400-W1D



SE-12-350-700-W1D



Flicker Test Form

IEEE 1789

Limit of Modulation in low risk area	
Waveform frequency of Optical output	limit (%)
$f \leq 8\text{Hz}$	0.2
$8\text{Hz} < f \leq 90\text{Hz}$	$0.025 \times f$
$90\text{Hz} < f \leq 1250\text{Hz}$	$0.08 \times f$
$f > 1250\text{Hz}$	Exemption assessment

Limit of Modulation in no effect area	
Waveform frequency of Optical output	limit (%)
$f \leq 10\text{Hz}$	0.1
$10\text{Hz} < f \leq 90\text{Hz}$	$0.01 \times f$
$90\text{Hz} < f \leq 3125\text{Hz}$	$[0.08/2.5] \times f$
$f > 3125\text{Hz}$	Exemption assessment (High frequency exemption)

- Brightness
- ▲ 0.1%
 - ◆ 1%
 - ▲ 5%
 - ◆ 10%
 - 20%
 - 30%
 - 40%
 - ★ 50%
 - ★ 60%
 - ★ 70%
 - ★ 80%
 - ★ 90%
 - ◆ 100%

Marks in the right chart were tested results of different current ranges.

The output frequency is 0Hz in 100% brightness and its corresponding modulation is 0%, which could not be shown in the right chart.

