

Model	Rated Input Voltage	Input Power	Input Current	PF	Output Power Range	Output Voltage	Output Current	Efficiency (typ.)	Cementing product
LV100W48CG2 1-10	220-240VAC	≤115W	≤0.6A	≥0.95	0-100.8W	48V	0-2.1A	92%	N
LV150W48CG2 1-10		≤168W	≤0.9A		0-150W		0-3.125A	92%	Y
LV250W48CG2 1-10		≤275W	≤1.5A		0-250W		0-5.21A	93%	Y

\* Test result @230V, 50Hz, Full Load.

\* Recommended minimum full load power is 10% load

### 1. Parameters

category	Item	Technical Norm			
Features	Output Type	Constant Voltage			
	Dimmable Type	3 in 1: 1-10VDC, PWM signal, Resistance			
	Output Features	Isolation SELV			
	IP Grade	IP20			
	Insulation Class	Class II			
Input	Rated Input Voltage	220-240VAC			
	Range of AC Input Voltage	176-264VAC			
	Range of DC Input Voltage	175-280VDC(EMI not evaluated)			
	Frequency	Rate:50/60Hz, Range:47~63Hz			
	Power Factor	≥0.95, 220-240VAC, Rated Load, see graphs			
	THD	≤7%	230VAC, Rated load, see graphs		
	Standby Power Consumption	≤0.5W, @230VAC, Dim to OFF			
Output	Output Voltage	48VDC+2%			
	No load Voltage	48VDC+3%			
	Output Voltage Ripple	<480mV <sub>PK-PK</sub> (0.5%)			
	Line Regulation	±1%			
	Load Regulation	±2%			
	Flicker 频闪	SVM ≤0.4, PstLM ≤1.0 (Dim to 100% load)			
	Overshoot	<105%Vo			
	Start-up Time	≤0.5S (220-240VAC)			
	Efficiency	100W	≥90%	92% typ.	230VAC, Rated Load, at output terminals, see graphs
		150W	≥90%	92% typ.	
250W		≥91%	93% typ.		
Protection	Short Circuit Protection	Auto Recovery			

	Over Current Protection	120%-180%Io, Auto Recovery		
	Over Voltage Protection	110%-150%Vo, Auto Recovery		
	Over Temperature Protection	90<Tc<110°C,Auto Recovery		
	Insulation voltage	I/P to O/P, 3KVac/5mA/1min		
	Insulation resistance	>100M ohm @ 500VDC		
	Leakage current	I/P to O/P < 250µA		
Control Method	1-10V(0-10V)dimming	0-10Vdc, Port source current 0.1mA typical		
	PWM dimming	PWM Signal dimming Duty: 0- 99%,0.25KHz-2KHz, Voltage amplitude:3-10V		
	Resistance dimming	0-100/N Kohm (N=driver quantity for synchronized dimming operation)		
	Output Dimming range	Output duty:1%-100%,1.38KHz, Dim-to-off		
Environment	Ta/Operation Temperature	-25....+45		
	Ts/Storage Temperature	-40....+85°C		
	Tc/Enclosure Temperature	100W/150W/250W	90°C	
	Humidity	5% 85%RH		
	Atmosphere	86-108KPa		
Construction	Connection Method	Terminal		
	Cable Terminals	Input	1 terminal block (300V/10A)	
		Output	100W/150W	1 terminal block (300V/10A)
			250W	2 terminals block(300V/10A)
		Dimming	1 terminal block(300V/10A)	
	Installation	Independent		
	Input Wire Cross Section	0.75mm <sup>2</sup> -1.5 mm <sup>2</sup>		
	Output Wire Cross Section	100W/150W	1*0.75mm <sup>2</sup> -1.5 mm <sup>2</sup>	
		250W	2*0.75mm <sup>2</sup> -1.5 mm <sup>2</sup>	
	Dimming Wire Cross Section	1*0.5mm <sup>2</sup> -1.5mm <sup>2</sup>		
	Cable stripping lengths	6mm		
	Output Cable Length	Max. 3M		
	Cable diameters range	Input	2.2-4mm or 9.5-10.5mm	
		Output & Dimming	2.2-4mm	
	Dimension	100W/150W	350*30*18mm (L*W*H)	
250W		400*40*22mm (L*W*H)		
Standards	Certification	CE, ENEC, SAA		
	Safety Standards	EN61347-2-13:2014/A1:2017,EN 61347-1:2015/A1:2021, EN IEC 62384:2020,EN61347-1:2015, EN62493:2015, AS61347.2.13:2018,AS/NZS 61347.1:2016 IncA1		
	EMC Standards	EN IEC 55015:2019,EN IEC 55015:2019/A11:2020, EN IEC 61000-3-2:2019/A1:2021,EN61547:2009, EN 61000-3-3:2013/A2:2021		
	Performance	EN62384		
	Surge	L-N:2KV		
Others	RoHS	2011/65/EU		
	MTBF	≥250KHours,Ta=25°C (MIL-HDBK-217F)		

Life Time(@Ta max)	100W	≥100K Hrs	@230VAC , full load, End of Life: Failure Rate<10%
	150W	≥55K Hrs	
	250W	≥63K Hrs	
Warranty	5years		
Noise	≤ 28dB @Background noise ≤18dB , Interval≥15cm		

**Remark:**

All Parameters, if not specified, are measured at 230VAC/50Hz and 25°C ambient temperature.

Terminal wiring must be operated with a suitable screwdriver. After installation, check to make sure that the terminals cannot be pressed against the wire sheath

LED Driver is a component of the luminaires, Luminaires and wire layout will affect the EMC, please check the EMC with end products again.

Output ripple should be measured at the output end which has with 0.1uF/50V ceramic capacitance and 47uF/50V Aluminum capacitance connected in parallel. Measured using oscilloscope with bandwidth limited to 20MHz.

## 2. Connected quantities of different current Breaker

TYPE	LV100W48CG2 1-10V Connected quantities of different current Breaker						Input Voltage	Inrush Current <50A	Time
	current (A)	10	13	16	20	25			
	Installation wire diameter	1.5mm <sup>2</sup>	2.5mm <sup>2</sup>	2.5mm <sup>2</sup>	4mm <sup>2</sup>	4mm <sup>2</sup>			
TYPE B	13	17	21	27	33	@230VAC	45	250us	
TYPE C	21	28	34	43	53				
TYPE D	34	44	55	68	85				

TYPE	LV150W48CG2 1-10V Connected quantities of different current Breaker						Input Voltage	Inrush Current <60A	Time
	current (A)	10	13	16	20	25			
	Installation wire diameter	1.5mm <sup>2</sup>	2.5mm <sup>2</sup>	2.5mm <sup>2</sup>	4mm <sup>2</sup>	4mm <sup>2</sup>			
TYPE B	11	14	17	21	27	@230VAC	56	185us	
TYPE C	17	22	27	34	43				
TYPE D	27	36	44	55	69				

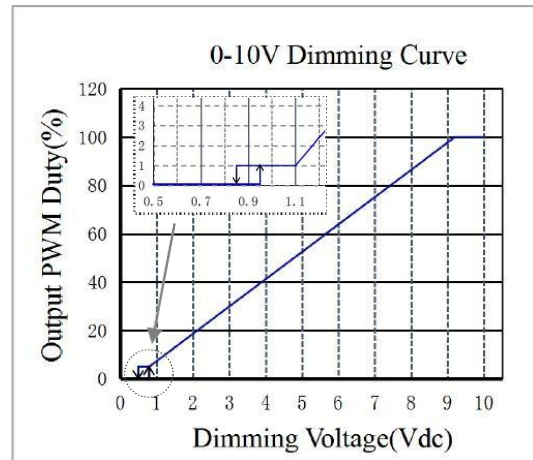
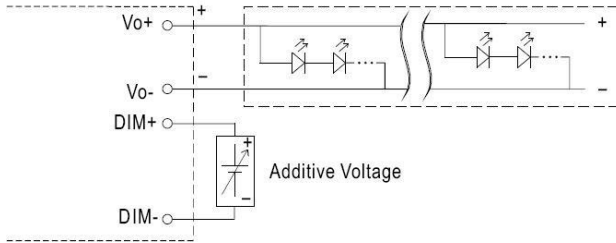
TYPE	LV250W48CG2 1-10V Connected quantities of different current Breaker						Input Voltage	Inrush Current <80A	Time
	current (A)	10	13	16	20	25			
	Installation wire diameter	1.5mm <sup>2</sup>	2.5mm <sup>2</sup>	2.5mm <sup>2</sup>	4mm <sup>2</sup>	4mm <sup>2</sup>			
TYPE B	8	10	13	16	20	@230VAC	76	310us	
TYPE C	13	16	20	25	32				
TYPE D	20	26	32	40	51				



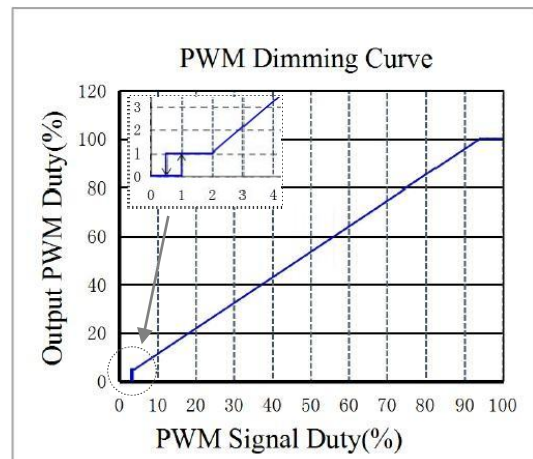
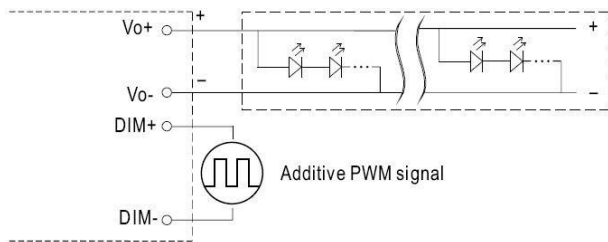
### 4. 3 in 1 Dimming Function

Output power can be adjusted by applying one of the three methodologies between DIM+ and DIM-: 0-10VDC, or PWM signal or resistance.

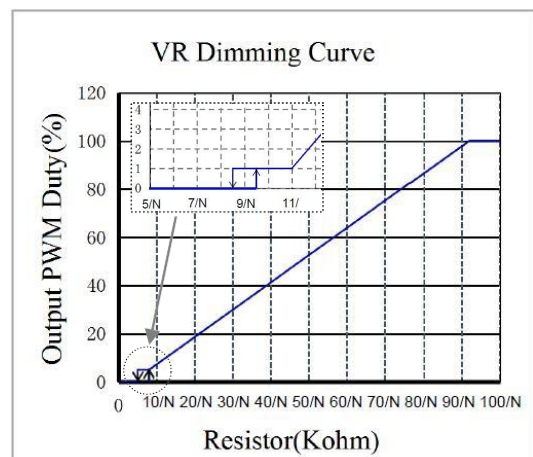
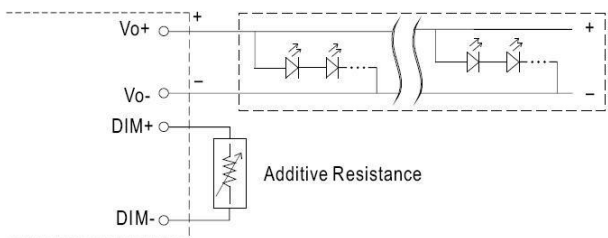
#### Applying additive 0 ~ 10VDC



#### Applying additive PWM signal (Duty: 0- 99%,frequency range 0.25KHz ~ 2KHz, Voltage amplitude:3-10V)

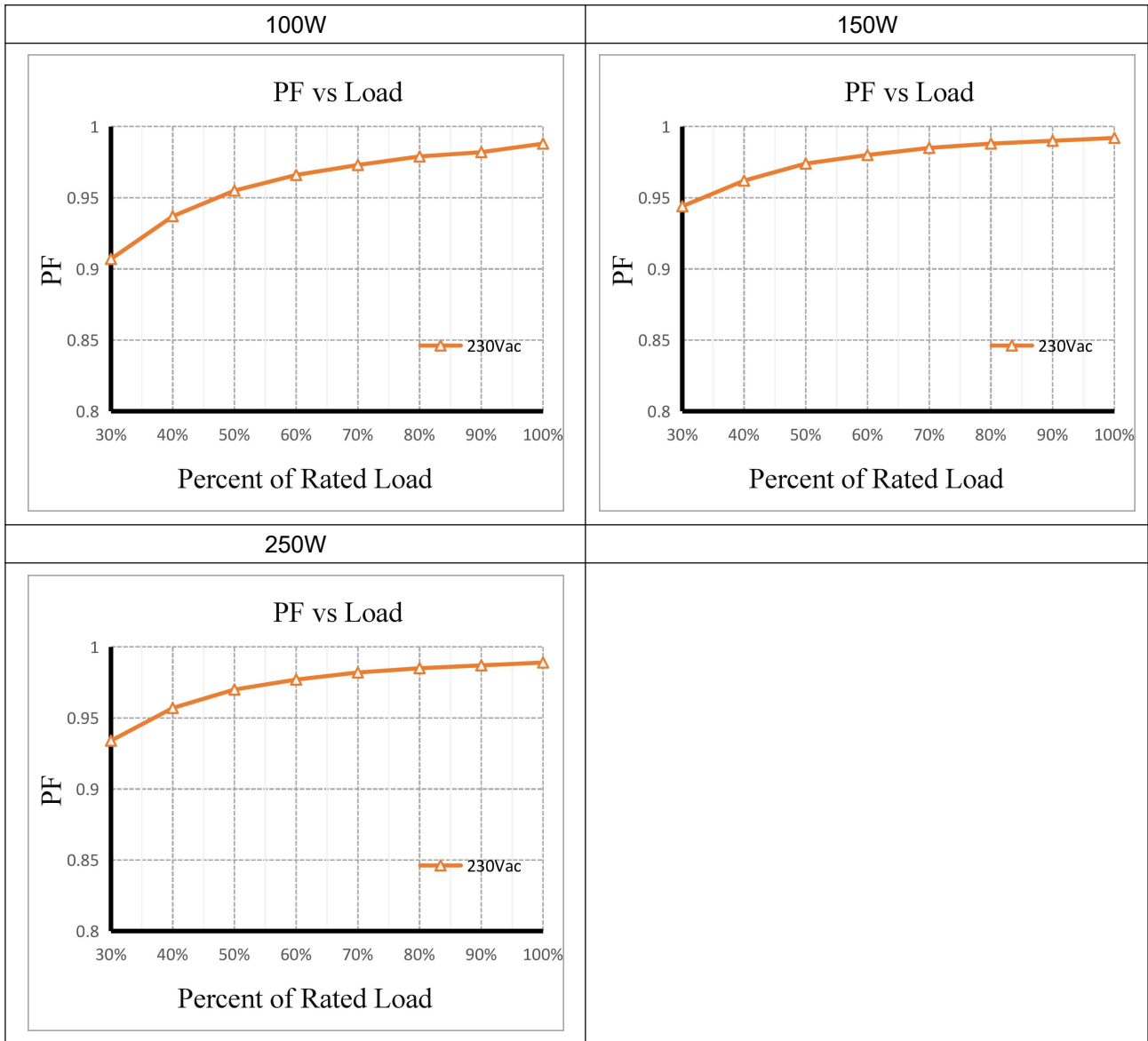


#### Applying additive resistance

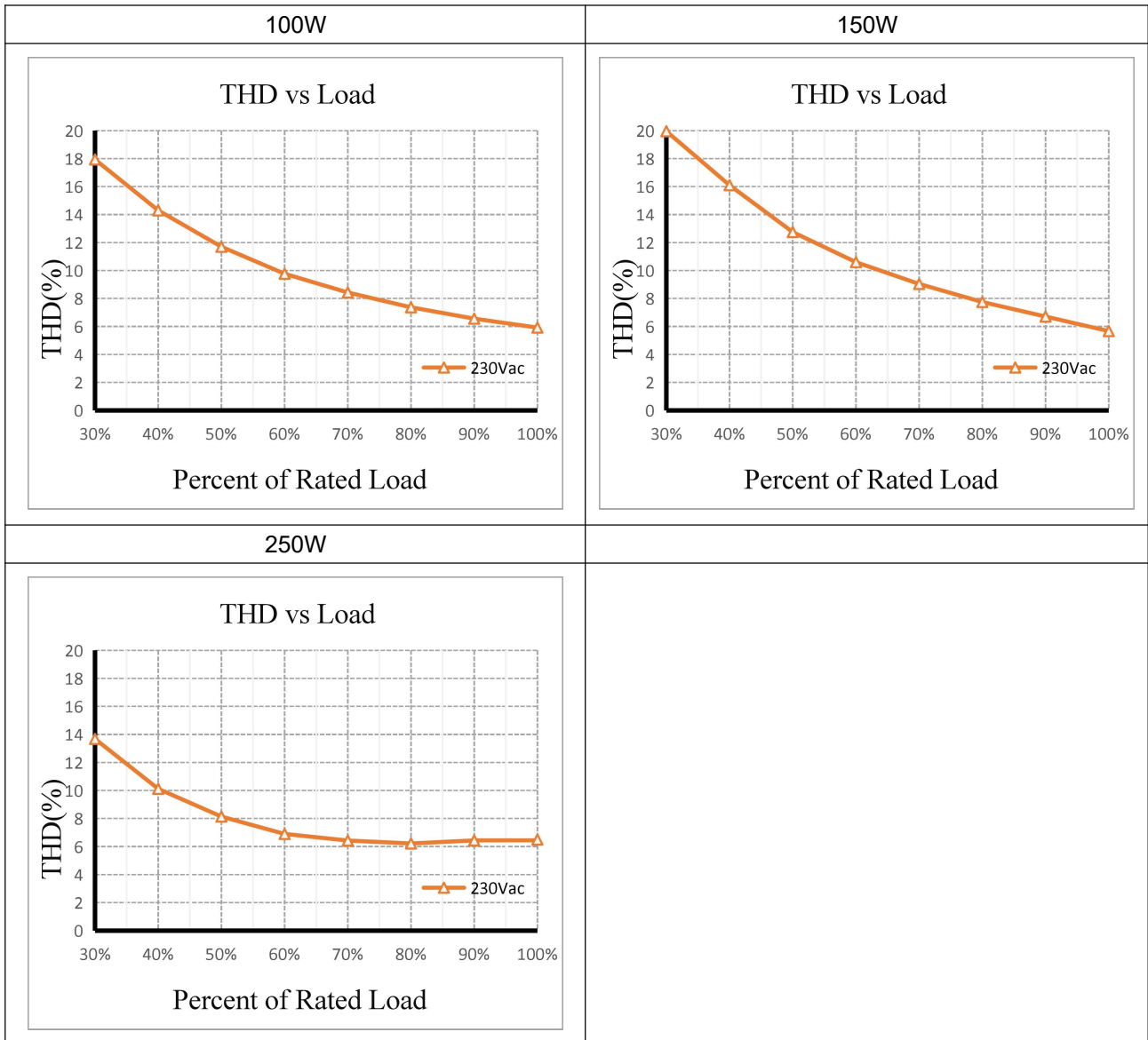


(N=driver quantity for synchronized dimming operation)

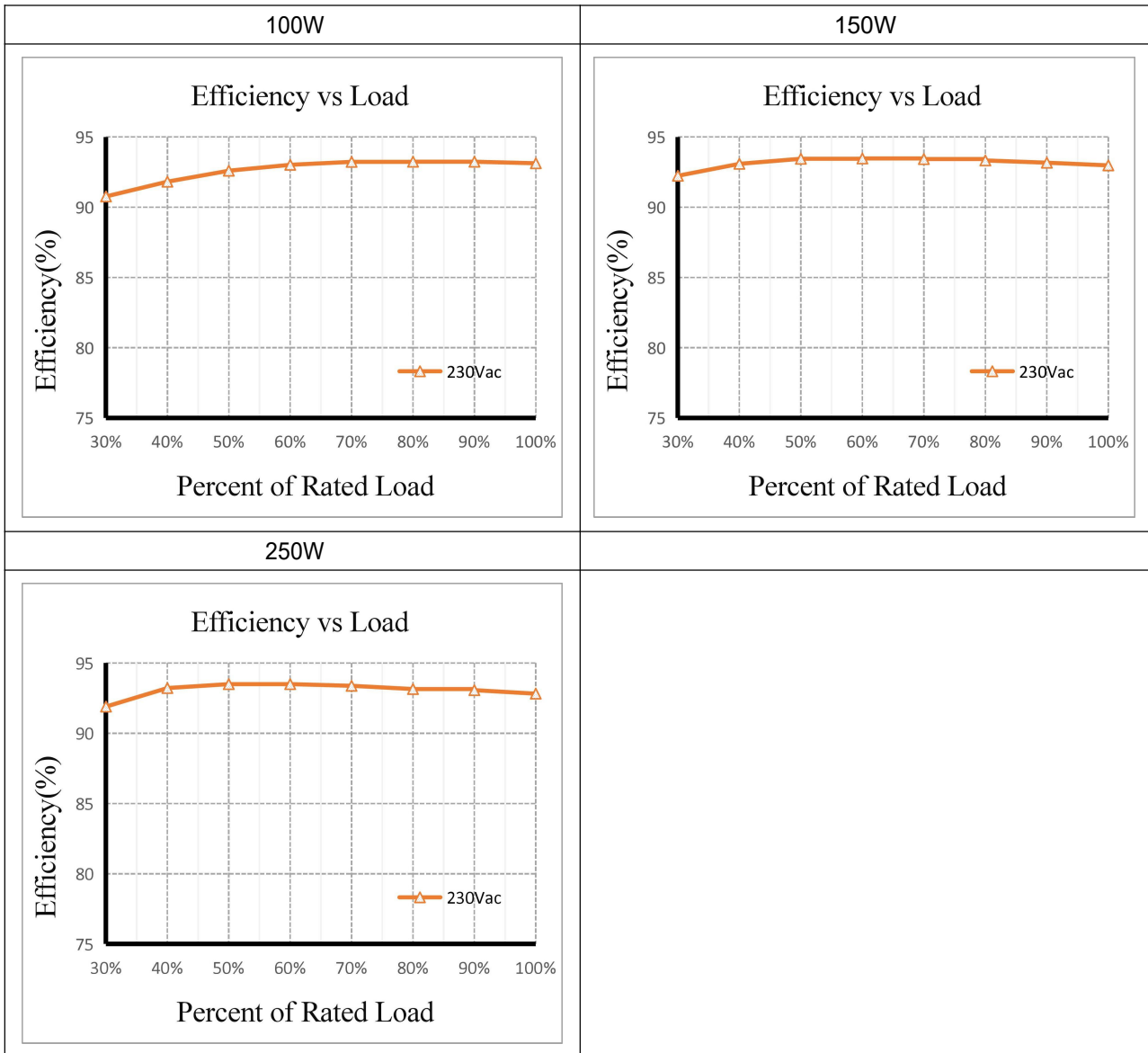
### 5. Graph PF VS LOAD Curve



### THD VS LOAD Curve

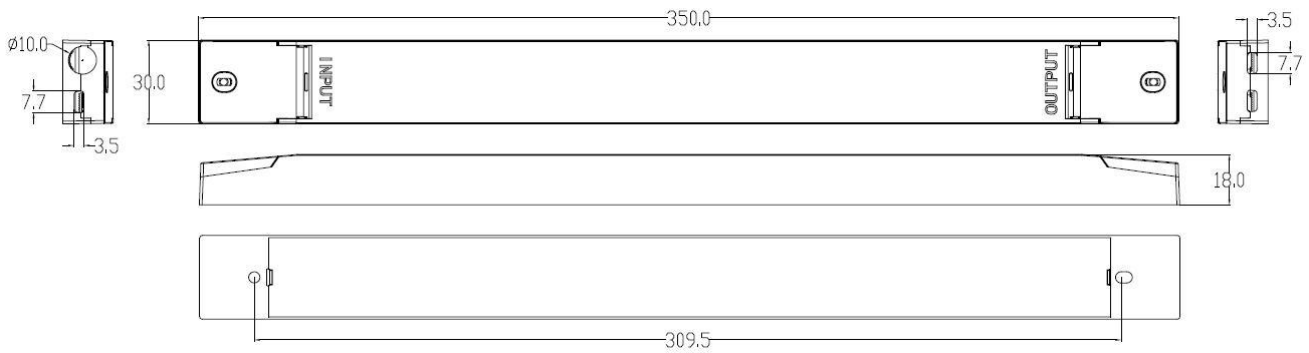


### Efficiency VS LOAD Curve

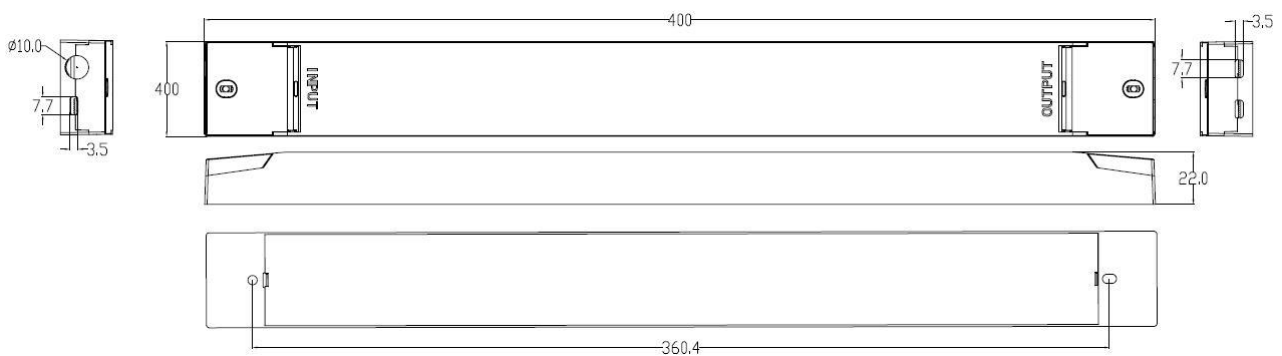


### 6. Dimension (Unit: mm)

#### LV100W48CG2 1-10 & LV150W48CG2 1-10:



#### LV250W48CG2 1-10:



**7. Packing information**

Packing way	Model	Carton L*W*H(mm)	Pcs/Car ton	Net weight/ Pcs(kg)	Net weight/ Carton(kg)	Gross weight / Carton(kg)
With white box and manual	LV100W48CG2 1-10	450*240*200	35	0.21	7.35	7.87
	LV150W48CG2 1-10		35	0.309	10.82	11.34
	LV250W48CG2 1-10		30	0.535	16.05	16.57
Without white box and manual	LV100W48CG2 1-10		70	0.184	12.88	13.48
	LV150W48CG2 1-10		70	0.281	19.67	20.27
	LV250W48CG2 1-10		40	0.502	20.08	20.68

**8. Wiring instructions**

- All connections must be kept as short as possible to ensure good EMI behaviour
- Mains leads should be kept apart from LED Driver and other leads (ideally 5 – 10 cm distance)
- Advice the maximum length of output wires is 3 m
- Secondary switching is not permitted (Except for constant voltage)
- Incorrect wiring can damage LED modules.
- The wiring must be protected against short circuits to earth (sharp edged metals parts, metal cable clips, louver, etc.)

**9. REVISION HISTORY**

DATE	VER	REMARK
2022-04-13	V1.0	Initial release.
2022-06-02	V1.1	Add circuit breaker table.
2022-09-05	V1.2	Update safety standards and EMC standards.