

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

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

* Recommended minimum power is 10% load.

1. Parameters

Category	Item	Technical Norm			
Features	Output Type	Constant Voltage			
	Dimmable Type	Non-dimmable			
	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,NO Load			
Output	Output Voltage	48VDC±2%			
	No load Voltage	48VDC+3%			
	Output Voltage Ripple	<480mV _{PK-PK} (0.5%)			
	Line Regulation	±1%			
	Load Regulation	±2%			
	Flicker	SVM ≤0.4, PstLM ≤1.0			
	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			
Environment	Ta/Operation Temperature	-25....+45°C			
	Ts/Storage Temperature	-40....+85°C			
	Tc/Enclosure Temperature For Safety	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)	
	Installation	Independent			
	Input Wire Cross Section	0.75mm ² -1.5 mm ²			
	Output Wire Cross Section	100W/150W	1*0.75mm ² -1.5 mm ²		
		250W	2*0.75mm ² -1.5 mm ²		
	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,CB 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	≤ 24dB @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/100V ceramic capacitance and 10uF/100V Aluminum capacitance connected in parallel. Measured using oscilloscope with bandwidth limited to 20MHz.

2. Connected quantities of different current Breaker

TYPE	LV100W48CG2 Connected quantities of different current Breaker						Input Voltage	Inrush Current <50A	Time
	current (A)	10	13	16	20	25			
	Installation wire diameter	1.5mm ²	2.5mm ²	2.5mm ²	4mm ²	4mm ²			
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 Connected quantities of different current Breaker						Input Voltage	Inrush Current <60A	Time
	current (A)	10	13	16	20	25			
	Installation wire diameter	1.5mm ²	2.5mm ²	2.5mm ²	4mm ²	4mm ²			
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 Connected quantities of different current Breaker						Input Voltage	Inrush Current <80A	Time
	current (A)	10	13	16	20	25			
	Installation wire diameter	1.5mm ²	2.5mm ²	2.5mm ²	4mm ²	4mm ²			
TYPE B	8	10	13	16	20	@230VAC	76	310us	
TYPE C	13	16	20	25	32				
TYPE D	20	26	32	40	51				

3. Label

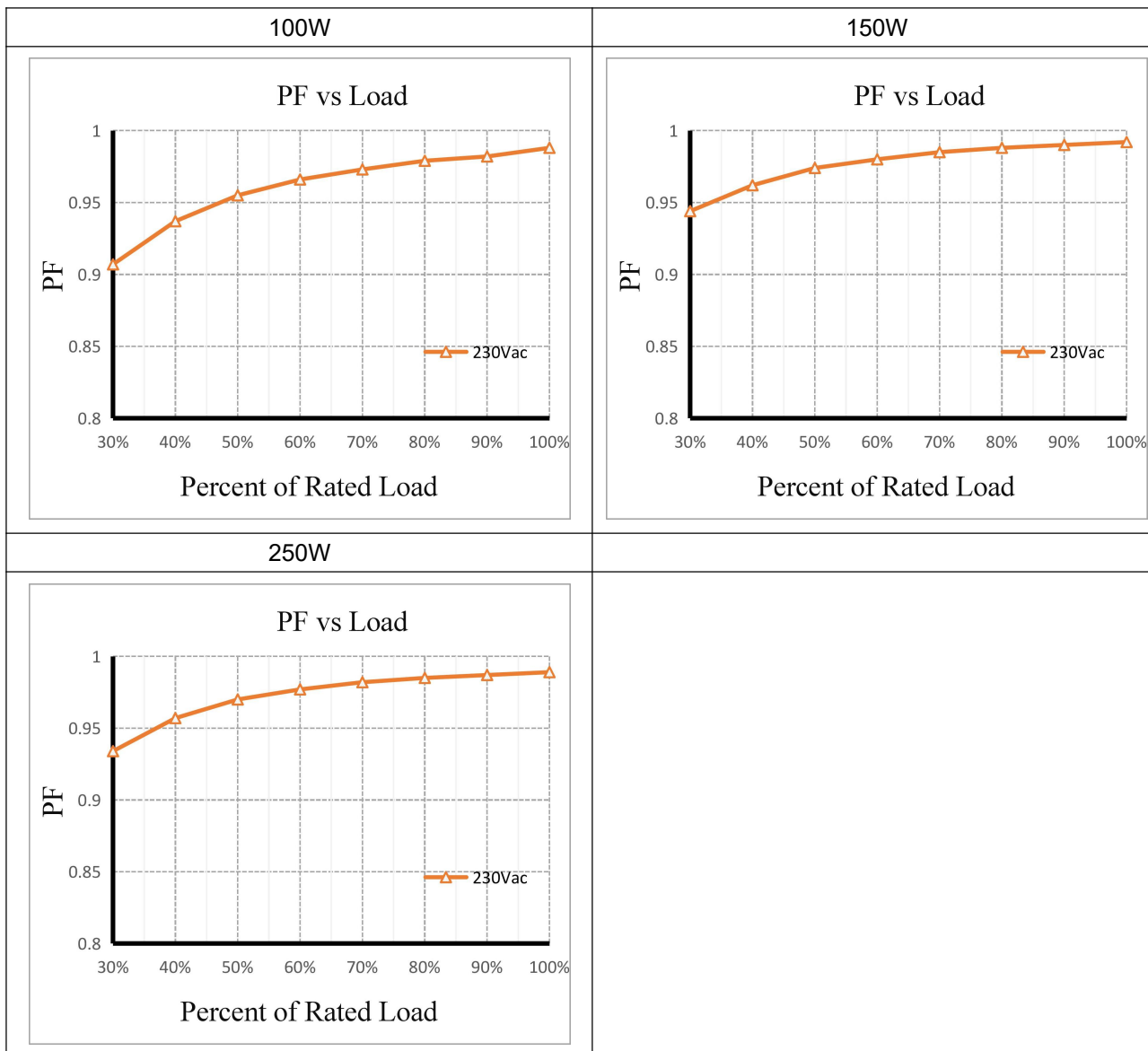
<input type="checkbox"/> L <input type="checkbox"/> N wire preparation (6mm)	KGP Electronics GmbH Hueckstraße 19 DE-58511 Lüdenscheld	LED Driver LV100W48CG2 Constant Voltage Type For LED modules only	Input Voltage:220-240V~ Input Frequency:50/60Hz Power Factor(λ): ≥ 0.95 $I_{in} \leq 0.6A$	U _{rated} =48V= I _{range} =0-2100mA P _{range} =0-100.8W ta:-25to+45°C tc:90°C		<input type="checkbox"/> OUTPUT <input type="checkbox"/> + <input type="checkbox"/> -

<input type="checkbox"/> L <input type="checkbox"/> N wire preparation (6mm)	KGP Electronics GmbH Hueckstraße 19 DE-58511 Lüdenscheld	LED Driver LV150W48CG2 Constant Voltage Type For LED modules only	Input Voltage:220-240V~ Input Frequency:50/60Hz Power Factor(λ): ≥ 0.95 $I_{in} \leq 0.9A$	U _{rated} =48V= I _{range} =0-3125mA P _{range} =0-150W ta:-25to+45°C tc:90°C		<input type="checkbox"/> OUTPUT <input type="checkbox"/> + <input type="checkbox"/> -

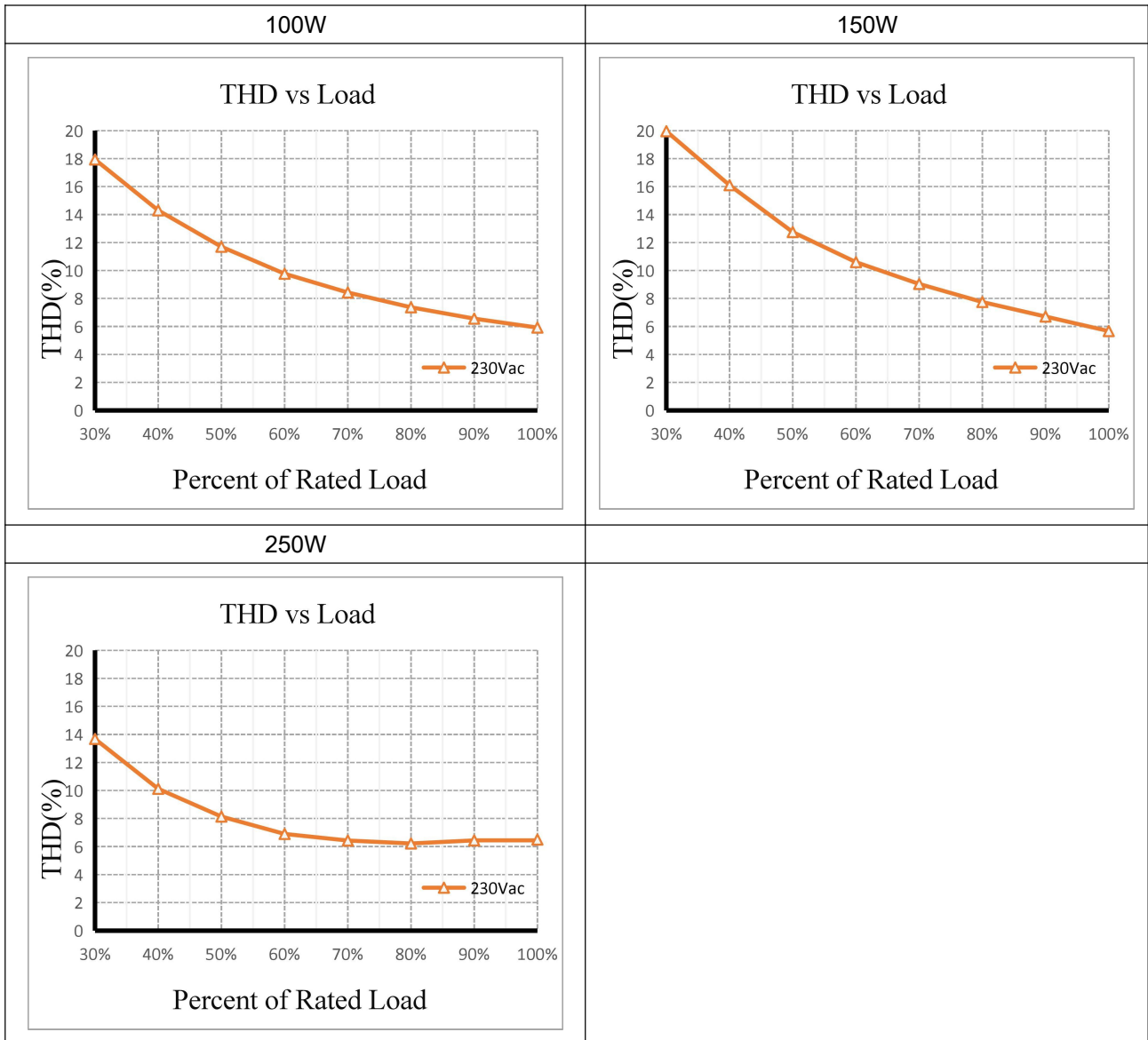
<input type="checkbox"/> L <input type="checkbox"/> N wire preparation (6mm)	KGP Electronics GmbH Hueckstraße 19 DE-58511 Lüdenscheld	LED Driver LV250W48CG2 Constant Voltage Type For LED modules only	Input Voltage:220-240V~ Input Frequency:50/60Hz Power Factor(λ): ≥ 0.95 $I_{in} \leq 1.5A$	U _{rated} =48V= I _{range} =0-5210mA P _{range} =0-250W ta:-25to+45°C tc:90°C		LED- <input type="checkbox"/> LED+ <input type="checkbox"/> OUTPUT <input type="checkbox"/>

4. Graph

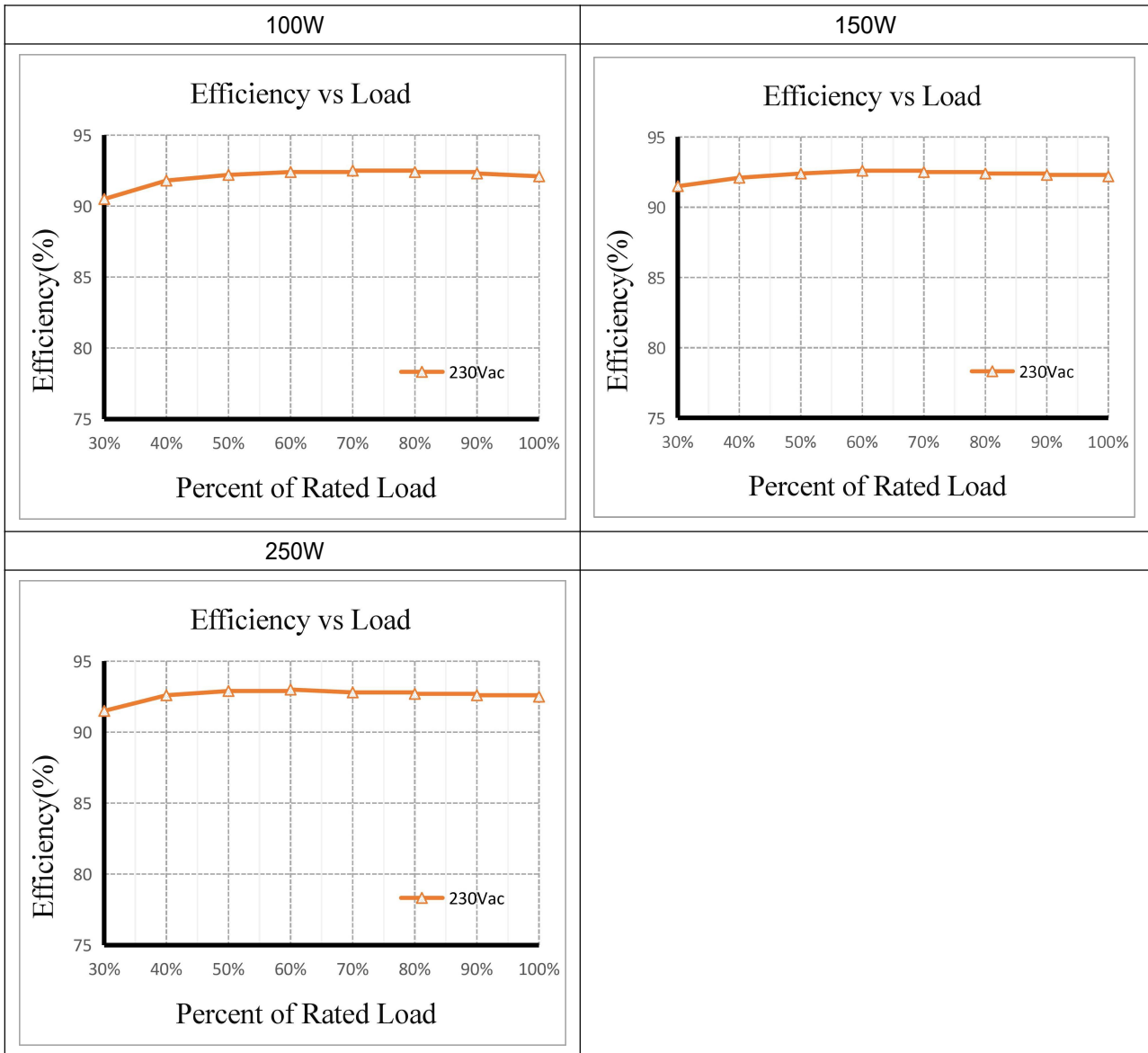
PF VS LOAD Curve



THD VS LOAD Curve

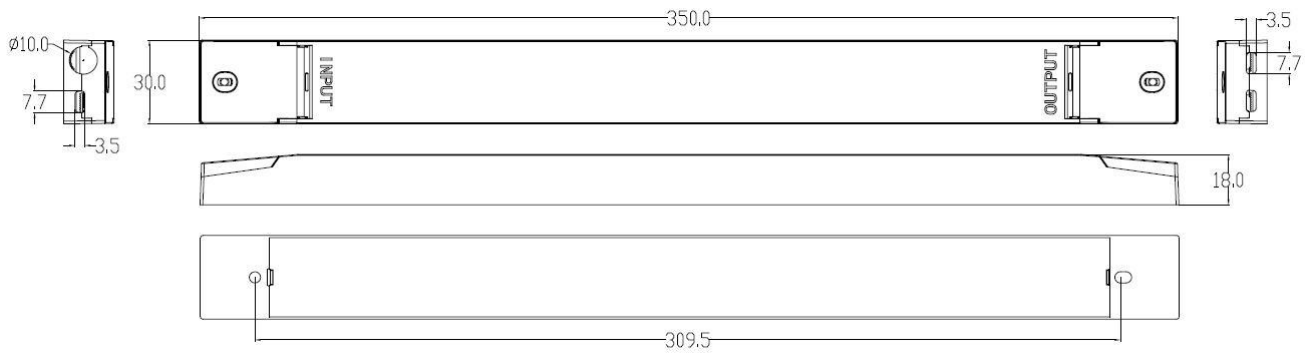


Efficiency VS LOAD Curve

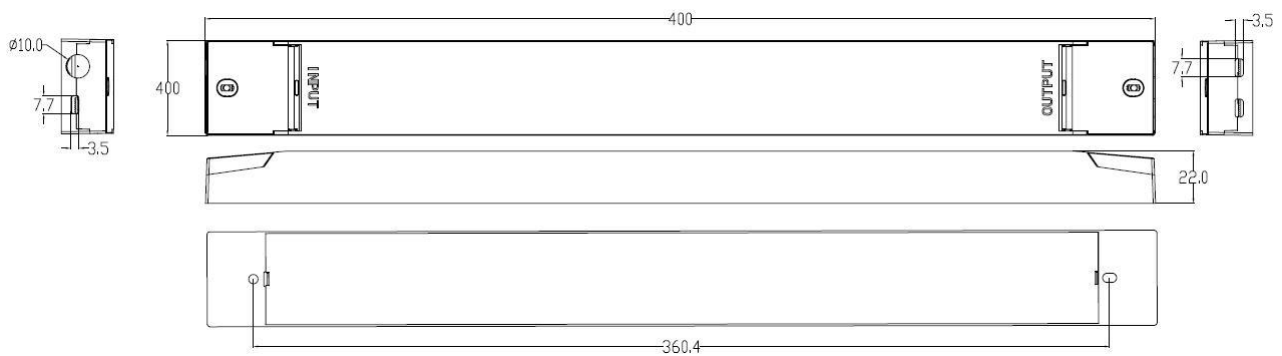


5. Dimension (Unit: mm)

LV100W48CG2 & LV150W48CG2:



LV250W48CG2:



6. Packing information

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

7. 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.)

8. 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.