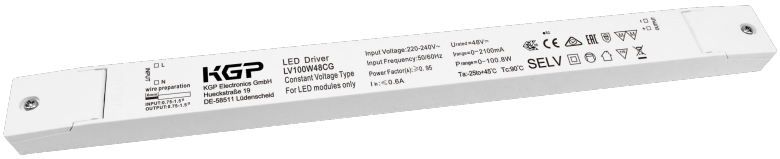
Constant Voltage LED Driver



Constant Voltage Driver

Model:LV(100-250)W48CG

Model	Rated Input Voltage	Input Power	Input Current	PF	Output Power Range	Output Voltage	Output Current	Efficiency (typ.)
LV100W48CG		≤115W	≤0.6A		0-100.8W		0-2.1A	92%
LV150W48CG	220-240VAC	≤168W	≤0.9A	≥0.95	0-150W	48V	0-3.125A	92%
LV250W48CG		≤275W	≤1.5A		0-250W		0-5.21A	93%

Sense System

*** Test result @230V, 50Hz, Full 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				
	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				
	Inrush Current	Model	I_{peak}	I_{peak} (typ.)	Duration time	240Vac/50Hz, 90-degree phase, full load, cold start-up, duration time measure from 50%Ipk to 50%Ipk
		100W	<50A	45A	250us	
		150W	<60A	56A	185us	
		250W	<80A	76A	310us	
	Connected quantity of 16A Breaker	100W	10pcs,16A type B / 17pcs 16A type C			
		150W	8pcs,16A type B / 13pcs 16A type C			
		250W	6pcs,16A type B / 8pcs 16A type C			
Output	Output Voltage	48VDC±3%				
	Output Voltage Ripple	<480mV$_{PK-PK}$ (0.5%)				
	Line Regulation	±1%				
	Load Regulation	±2%				
	Overshoot	<105%Vo				
	Start-up Time	≤0.5S (220-240VAC)				

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KGP Website: https://www.kgp-electronics.de/en/products/constant-voltage/cv-switchable/linear

	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℃, 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℃			
	Ts/Storage Temperature	-40….+85℃			
	Tc/Enclosure Temperature For Safety	90℃			
	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	0.75mm²-1.5 mm²			
	Output Wire Cross Section	100W/150W		1*0.75mm²-1.5 mm²	
		250W		2*0.75mm²-1.5 mm²	
	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	EN61347-1:2015,EN61347-2-13:2014/A1:2017,EN62493:2015, AS61347.2.13:2018,AS/NZS 61347.1:2016 Inc A1			
	EMC Standards	EN55015:2013/A1:2015,EN61000-3-2:2014, EN61000-3-3:2013, EN61547:2009			
	Performance	EN62384			
	Surge	L-N:2KV			
Others	RoHS	2011/65/EU			
	MTBF	≥250KHours,Ta=25℃(MIL-HDBK-217F)			
	Audible Noise	<25dB @ 10cm distance, 20dB background			
	Life Time(@Ta max)	100W	≥100K Hrs	@230VAC Full load, End of Life, Failure Rate<10%	
		150W	≥55K Hrs		
		250W	≥63K Hrs		
	Warranty	5years			

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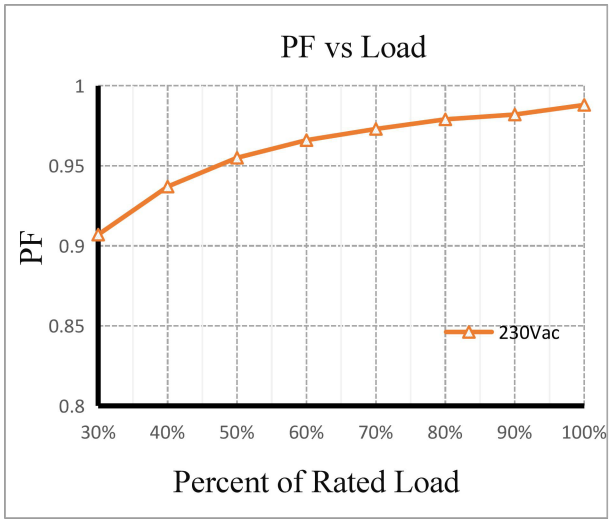
Remark:

1. All Parameters, if not specified, are measured at 230VAC/50Hz and 25℃ ambient temperature.
2. LED Driver is a component of the luminaires, Luminaires and wire layout will affect the EMC, please check the EMC with end products again.
3. 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.

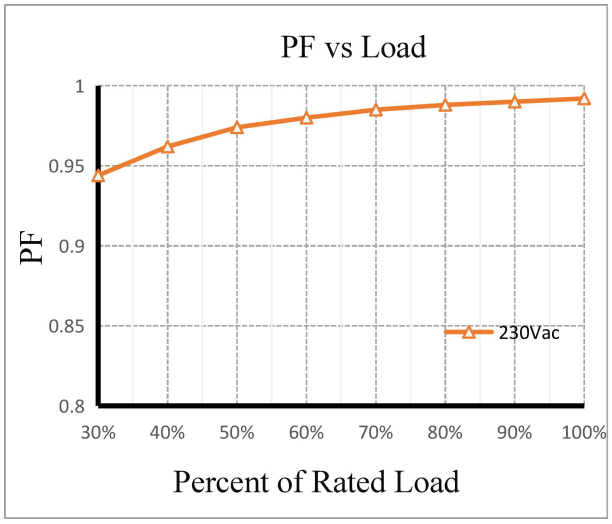
2. Graph

PF VS LOAD Curve

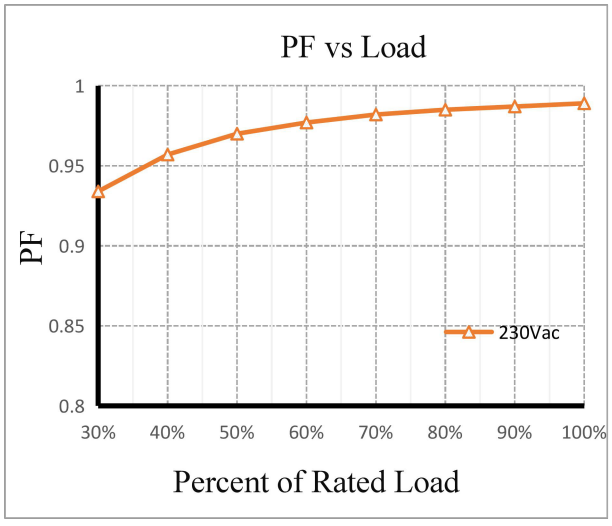
100W



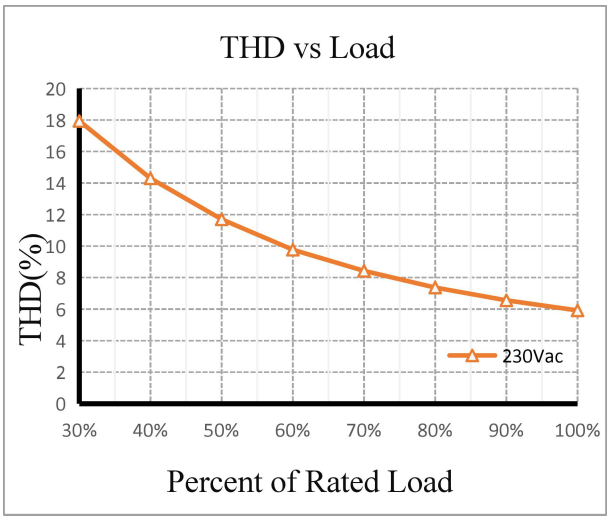
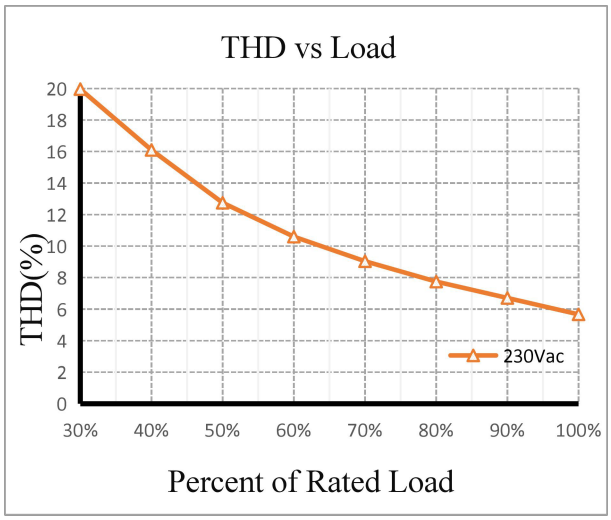
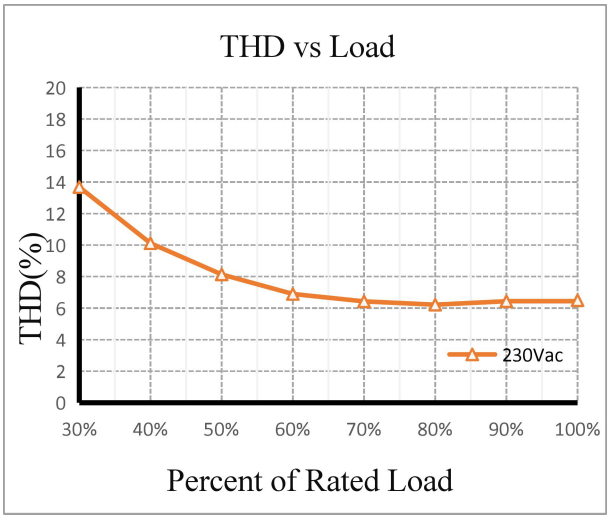
150W



250W



THD VS LOAD Curve

100W	150W
	
250W	
	

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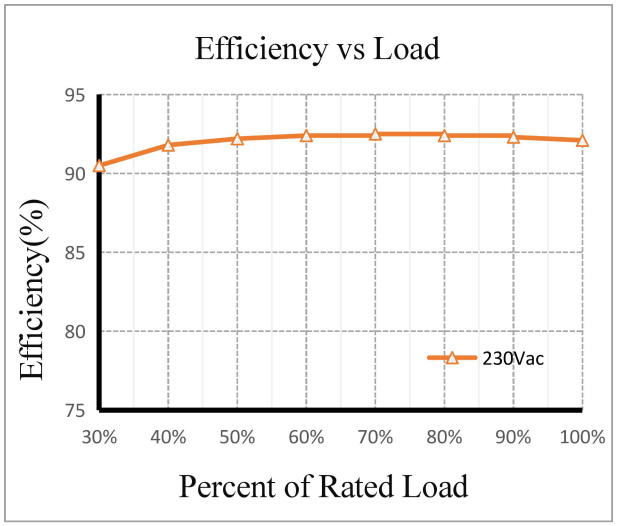
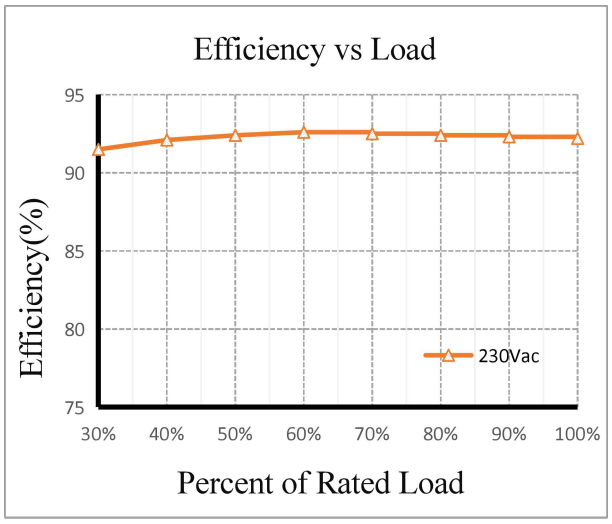
Efficiency VS LOAD Curve

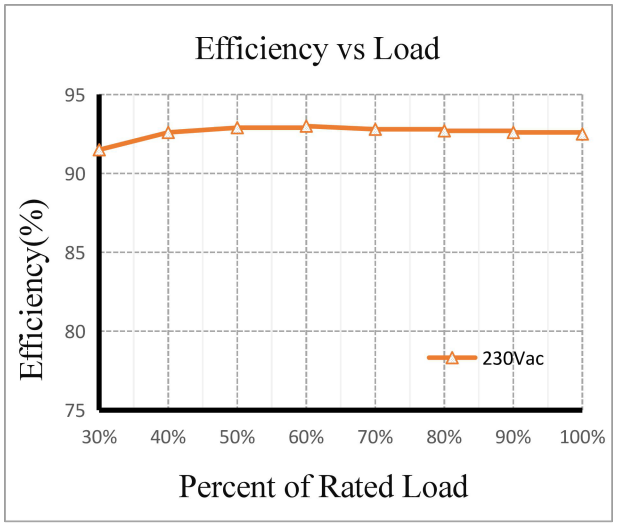
100W



150W



250W



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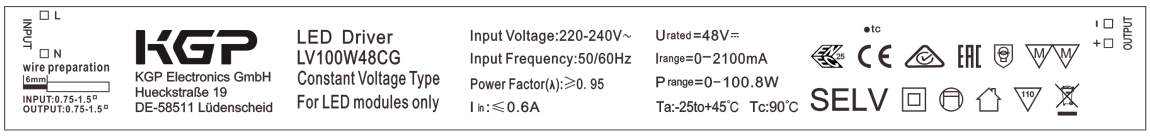
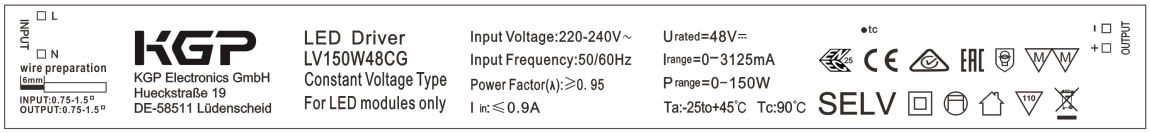
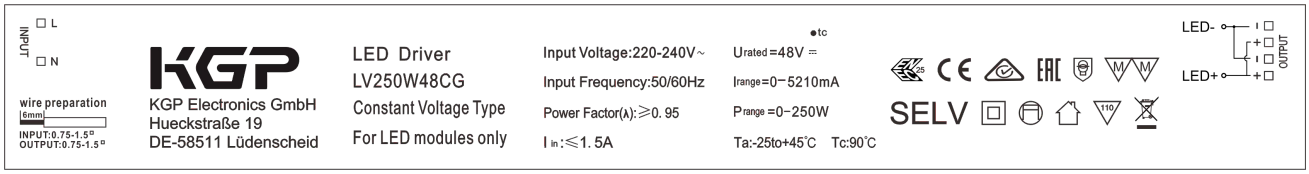
3. Label

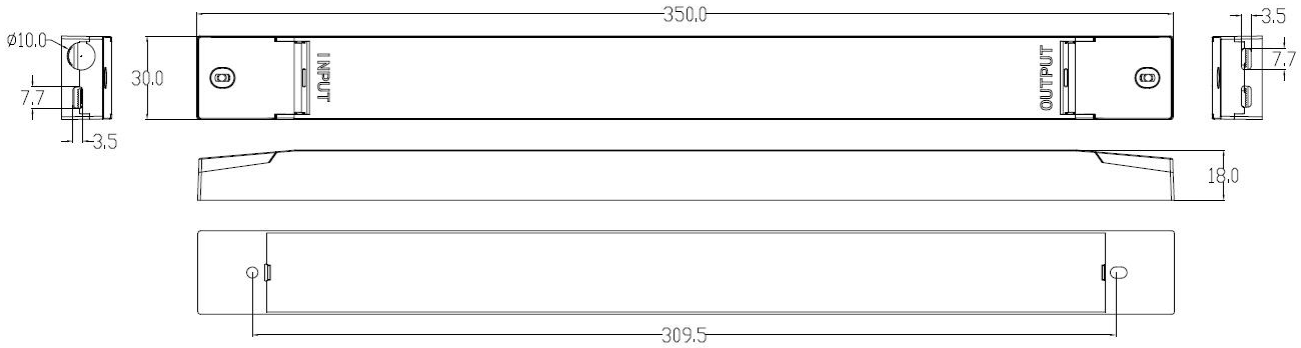




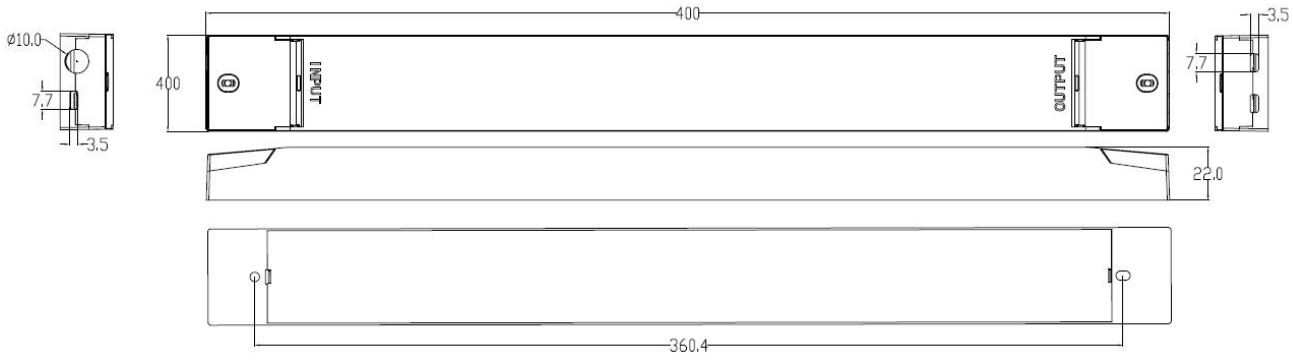


4. Dimension （Unit：mm）

LV100W48CG & LV150W48CG:



LV250W48CG:



5. 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	LV100W48CG	450*240*200	35	0.21	7.35	7.87
	LV150W48CG		35	0.309	10.82	11.34
	LV250W48CG		30	0.535	16.05	16.57
Without white box and manual	LV100W48CG		70	0.184	12.88	13.48
	LV150W48CG		70	0.281	19.67	20.27
	LV250W48CG		40	0.502	20.08	20.68

6. REVISION HISTORY

DATE	REV.	REMARK
2020-05-15	V0.01	Initial release.

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