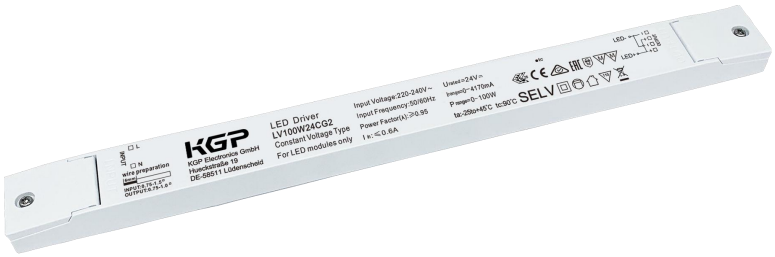
LV(100-250)W24CG2

Constant Voltage Driver

Model:LV(100-250)W24CG2



Model	Rated Input Voltage	Input Power	Input Current	PF	Output Power Range	Output Voltage	Output Current	Efficiency (typ.)	Cementing product
LV100W24CG2	220-240VAC	≤115W	≤0.6A	≥0.95	0-100W	24V	0-4.17A	92%	N
LV150W24CG2		≤168W	≤0.9A		0-150W		0-6.25A	93%	Y
LV250W24CG2		≤275W	≤1.5A		0-250W		0-10.42A	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	24VDC+5%			
	No load Voltage	24VDC+5%			
	Output Voltage Ripple	<240mVPK-PK (0.5%)			
	Line Regulation	±1%			
	Load Regulation	±2%			
	Filcker	SVM ≤0.4，PstLM ≤1.0			
	Overshoot	<105%Vo			
	Start-up Time	≤0.5S (220-240VAC)			
	Hold-up time & Turn off time (Typical)	Model	Hold-up time(mS)	Turn-off time(mS)	230VAC, LED Rated Load, Hold-up time measure from AC input turn-off to output voltage drop to 90%, turn-off time measure from AC input turn-off to output voltage drop to 10%
		100W	9.2	69.6	
		150W	10	384	

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		250W	16.2	676	
	Efficiency	100W	≥91%	92% typ.	230VAC, Rated Load, at o output terminals, see graphs
		150W	≥91%	93% 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		2terminals block(min.150V 10A)	
	Installation	Independent			
	Input Wire Cross Section	0.75mm²-1.5 mm²			
	Output Wire Cross Section	100W/150W		2*0.75mm²-1.0 mm²	
		250W		2*0.75mm²-1.5 mm²	
	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℃(MIL-HDBK-217F)			
	Life Time	100W	≥60K Hrs	@230VAC , full load, see graphs. End of Life: Failure Rate<10%.	
		150W	≥55K Hrs		

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		250W	≥52K Hrs	
	Warranty	5years		
	Noise	≤ 24dB @Background noise ≤18dB， Interval≥15cm		

Remark:

All Parameters, if not specified, are measured at 230VAC/50Hz and 25℃ 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	LV100W24CG2 Connected quantities of different current Breaker						Input Voltage	Inrush Current ＜50A	Time
	current（A）	10	13	16	20	25			
	Installation wire diameter	1.5mm²	2.5mm²	2.5mm²	4mm²	4mm²			
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	LV150W24CG2 Connected quantities of different current Breaker						Input Voltage	Inrush Current ＜60A	Time
	current（A）	10	13	16	20	25			
	Installation wire diameter	1.5mm²	2.5mm²	2.5mm²	4mm²	4mm²			
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	LV250W24CG2 Connected quantities of different current Breaker						Input Voltage	Inrush Current ＜80A	Time
	current（A）	10	13	16	20	25			
	Installation wire diameter	1.5mm²	2.5mm²	2.5mm²	4mm²	4mm²			
TYPE B		8	10	13	16	20	@230VAC	76	310us
TYPE C		13	16	20	25	32			
TYPE D		20	26	32	40	51			

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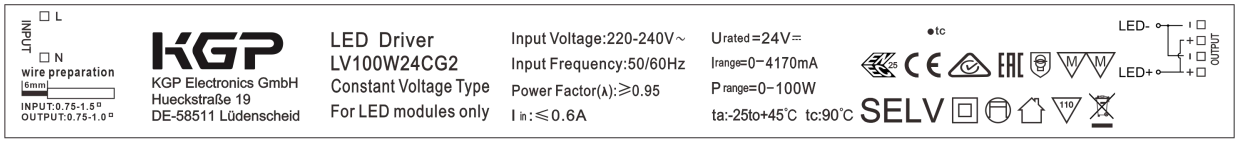
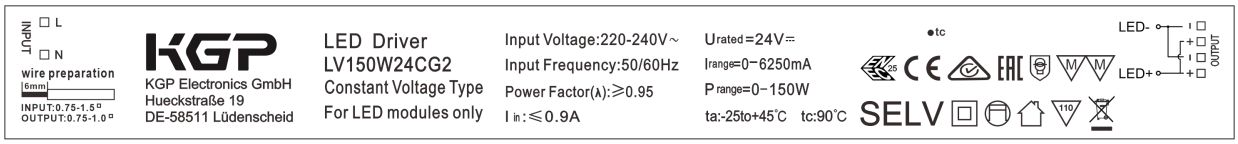
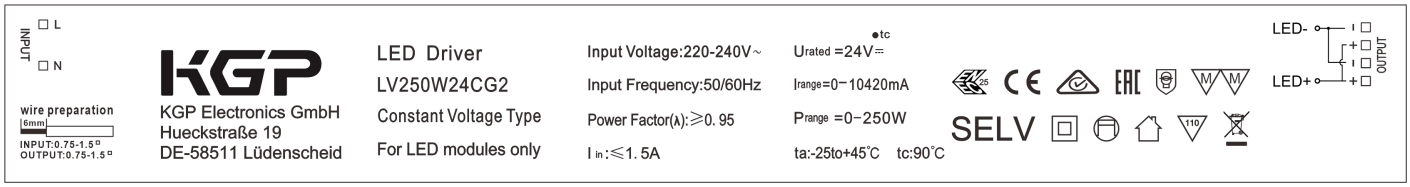
3. Label



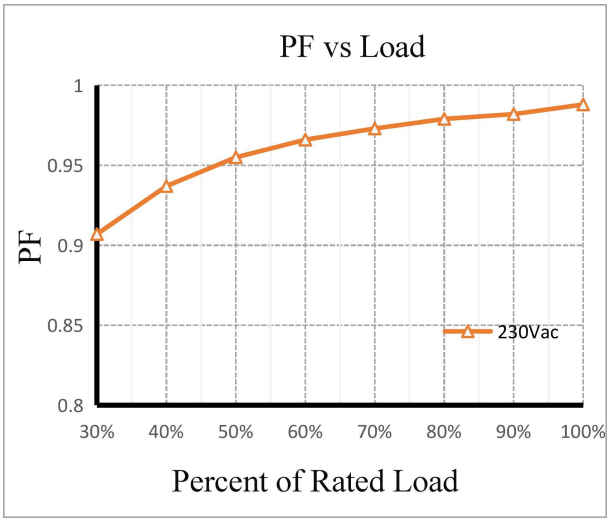




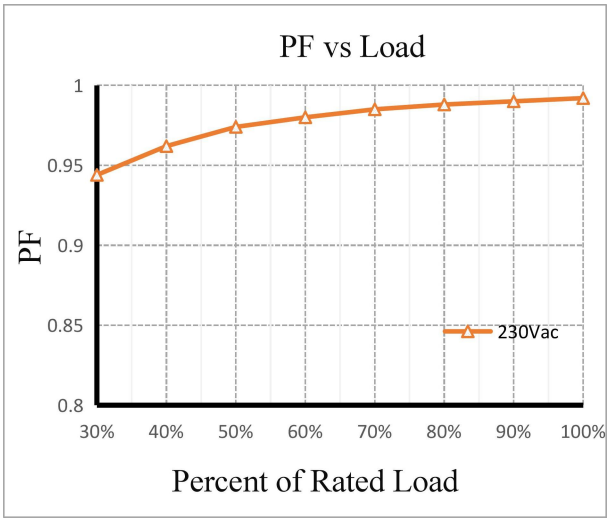
4. Graph

PF VS LOAD Curve

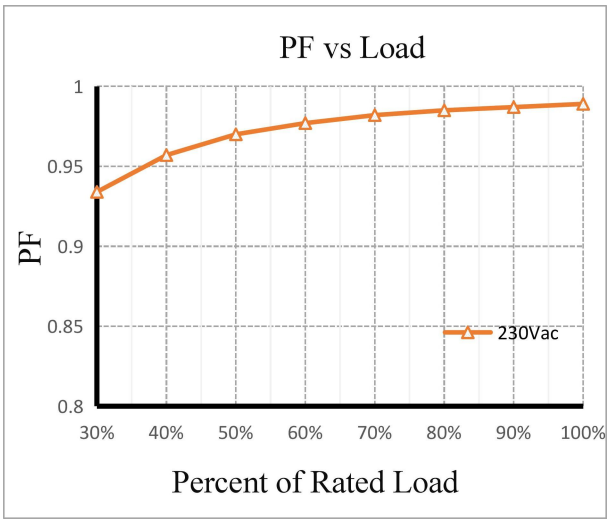
100W



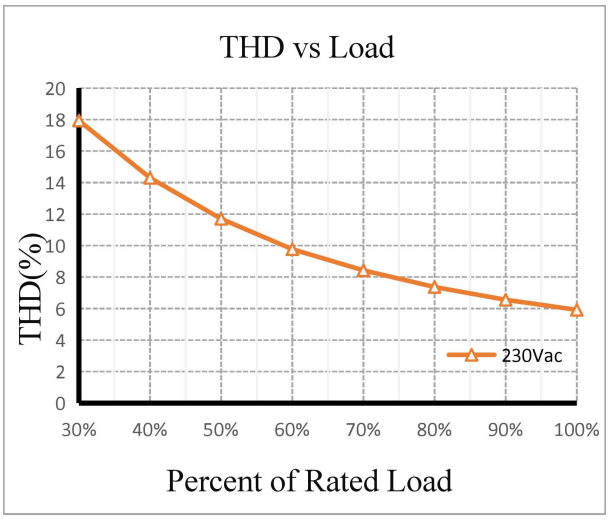
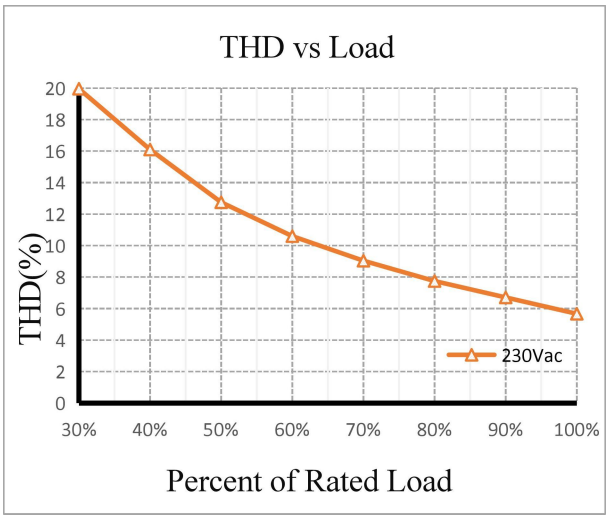
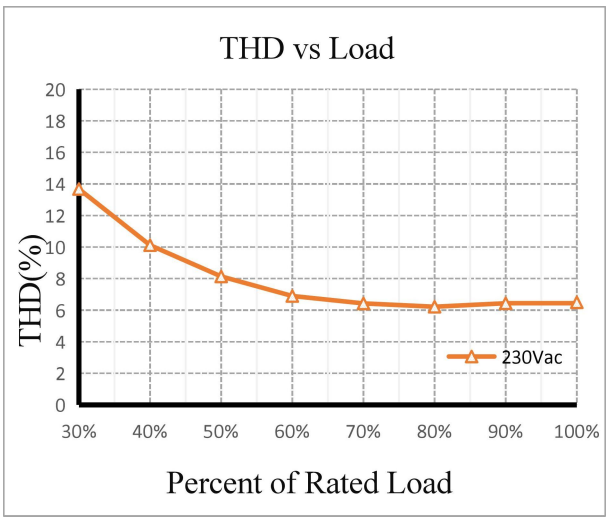
150W



250W



THD VS LOAD Curve

100W	150W
	
250W	
	

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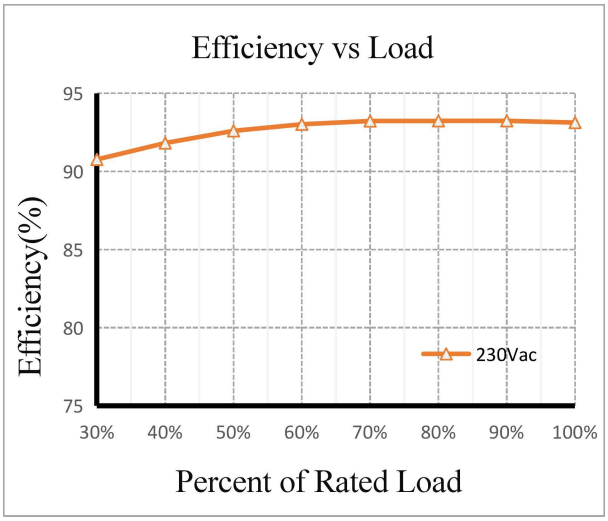
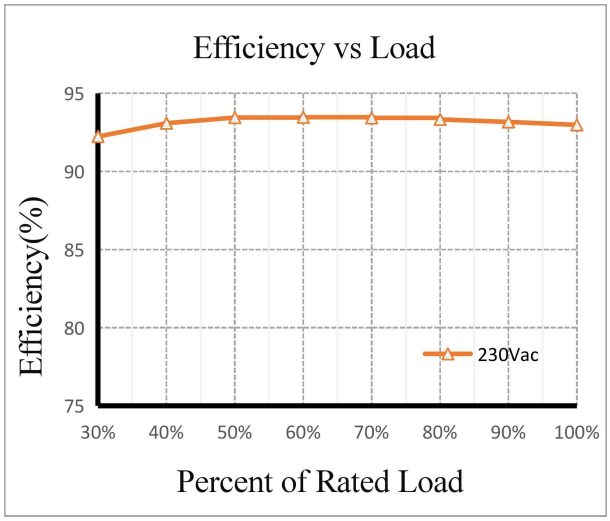
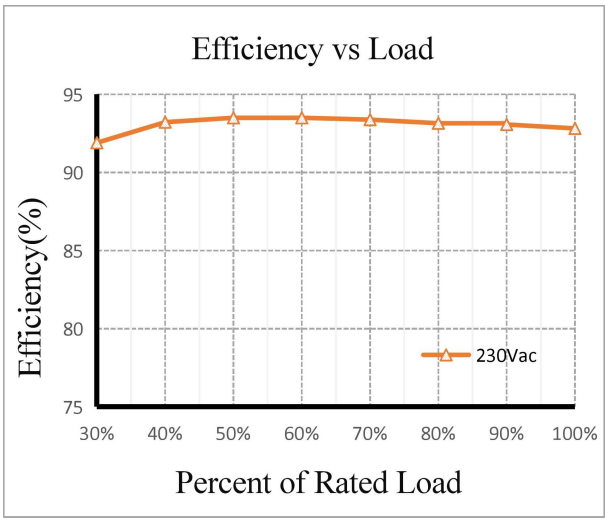
Efficiency VS LOAD Curve

100W	150W
	
250W	
	

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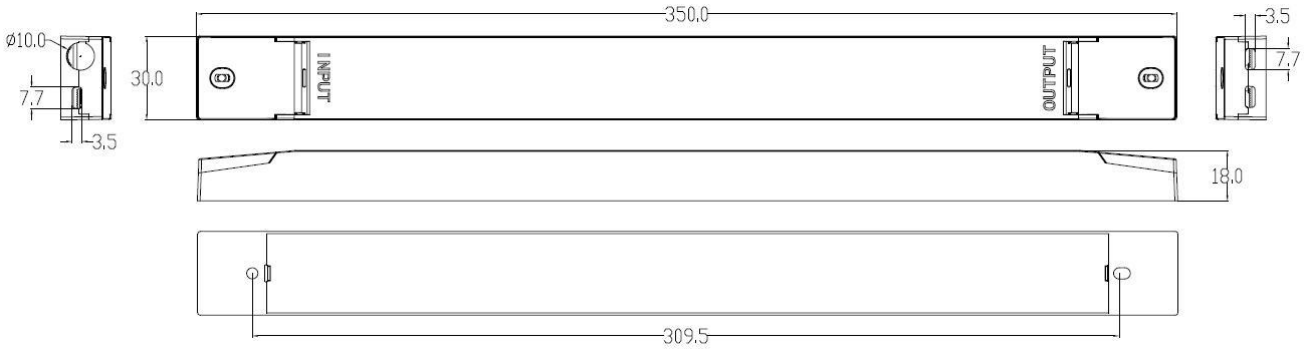
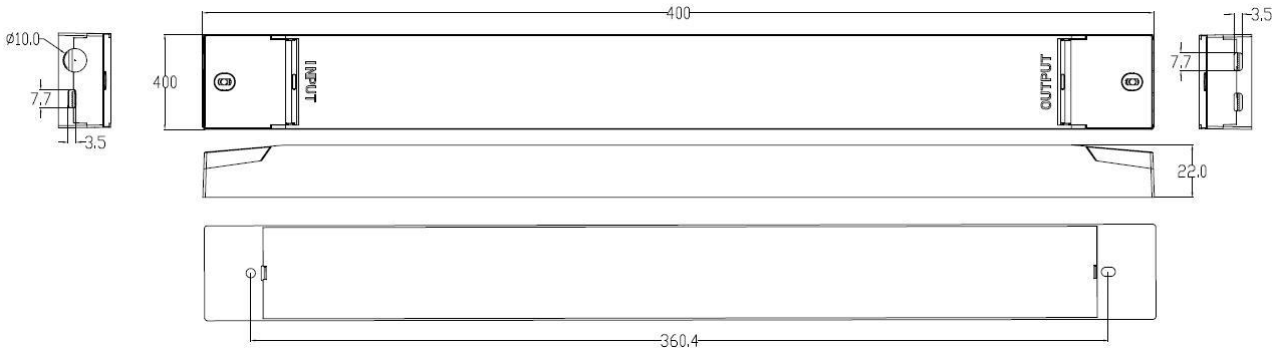
5. Dimension （Unit：mm）

LV100W24CG2 & LV150W24CG2:



LV250W24CG2:



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6. Packing information

Packing way	Model	Carton L*W*H(mm)	Pcs/Carton	Net eight/ Pcs(kg)	Net weight/ Carton(kg)	Gross weight / Carton(kg)
With white box and manual	LV100W24CG2	450*240*200	35	0.21	7.35	7.87
	LV150W24CG2		35	0.31	10.78	11.3
	LV250W24CG2		30	0.53	15.9	16.42
Without white box and manual	LV100W24CG2		70	0.19	12.88	13.48
	LV150W24CG2		70	0.28	19.6	20.2
	LV250W24CG2		40	0.5	20	20.6

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.

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