



Constant Voltage Driver

Model:CV(120-180)W24CG-1



Model	Rated Input Voltage	Input Power	Input Current	PF	Output Power Range	Output Voltage	Output Current	Efficiency (typ.)	No load Voltage
CV120W24CG-1	220-240VAC	≤137W	≤0.65A	≥0.95	6-120W	24V	0.25-5.0A	93%	24-25V
CV180W24CG-1		≤196W	≤0.89A		6-180W		0.25-7.5A		

* 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(It can meet the requirements of Class I lamps)				
Input	Rated Input Voltage	220-240VAC				
	Range of AC Input Voltage	198-264VAC				
	Frequency	Rate:50/60Hz, Range:47~63Hz				
	Power Factor	≥0.95, 220-240VAC, Rated Load, see graphs				
	THD	≤10%	230VAC, Rated Load, see graphs			
	Standby Power Consumption	≤0.5W, @230VAC,NO Load				
	Inrush Current	Model	Ipeak	Ipeak (typ.)	Duration time	240Vac/50Hz, 90-degree phase, full load, cold start-up, duration time measure from 50%Ipk to 50%Ipk
		120W	<55A	50A	272us	
180W		<60A	55A	680us		
Connected quantity of 16A Breaker	120W	10pcs,16A type B / 17pcs 16A type C				
	180W	8pcs,16A type B / 13pcs 16A type C				
Output	Output Voltage	23.3-24.7VDC				
	No load Voltage	24-25VDC				
	Output Voltage Ripple	±5%				
	Line Regulation	±5%				
	Load Regulation	±5%				
	filcker	SVM ≤0.4, PstLM ≤1.0				
	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	

		120W	32	254	90%, turn-off time measure from AC input turn-off to output voltage drop to 10%
		180W	46	296	
	Efficiency	120W	≥92%	93% typ.	230VAC, Rated Load, at output terminals, see graphs
		180W	≥92%	93% typ.	
Protection	Short Circuit Protection	Auto Recovery			
	Over Current Protection	Auto Recovery			
	Over Voltage Protection	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....+50°C			
	Ts/Storage Temperature	-40....+85°C			
	Tc/Enclosure Temperature For Safety	90°C (for 180W) 85°C (for 120W)			
	Humidity	5% 85%RH			
	Atmosphere	86-108KPa			
Construction	Connection Method	Push-in Terminal			
	Cable Terminals	PRI	1 terminal block		
		SEC	3 terminals block		
	Installation	Independent			
	PRI Wire Cross Section	0.75mm ² -1.5 mm ²			
	SEC Wire Cross Section	3*0.75mm ² -1.5 mm ²			
	SEC Cable Length	Max. 3M			
	Cable diameters range	PRI	1.5-3mm		
		SEC	1.5-3mm		
Dimension	120W/180W	253*42.5*31mm (L*W*H)			
Standards	Certification	CE, ENEC, SAA, UKCA			
	Safety Standards	EN61347-2-13:2014/A1:2017, EN62384:2006/A1:2009, EN61347-1:2015, AS61347.2.13:2018, AS/NZS 61347.1:2016 Inc A1			
	EMC Standards	EN IEC 55015:2019, EN IEC 55015:2019/A11:2019 EN IEC 61000-3-2:2019, EN61547:2009, EN 61000-3-3:2013/A1:2019			
	Performance	EN62384			
	Surge	L-N:2KV			
Others	RoHS	2011/65/EU			
	Audible Noise	<25dB @ 10cm distance, 20dB background			
	Life Time	120W	≥50K Hrs	@230VAC , full load, see graphs. End of Life: Failure Rate<10%.	
		180W	≥50K Hrs		
Warranty	5years				

Remark:

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

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 0.1µF/50V ceramic capacitance and 47µF/50V Aluminum capacitance connected in parallel. Measured using oscilloscope with bandwidth limited to 20MHz.

2. Connected quantities of different current Breaker

TYPE	CV120W24CG-1 Connected quantities of different current Breaker						Input Voltage	Inrush Current	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	12	16	19	24	30	@230VAC	50	272μs	
TYPE C	19	25	31	38	48				
TYPE D	31	40	49	61	77				

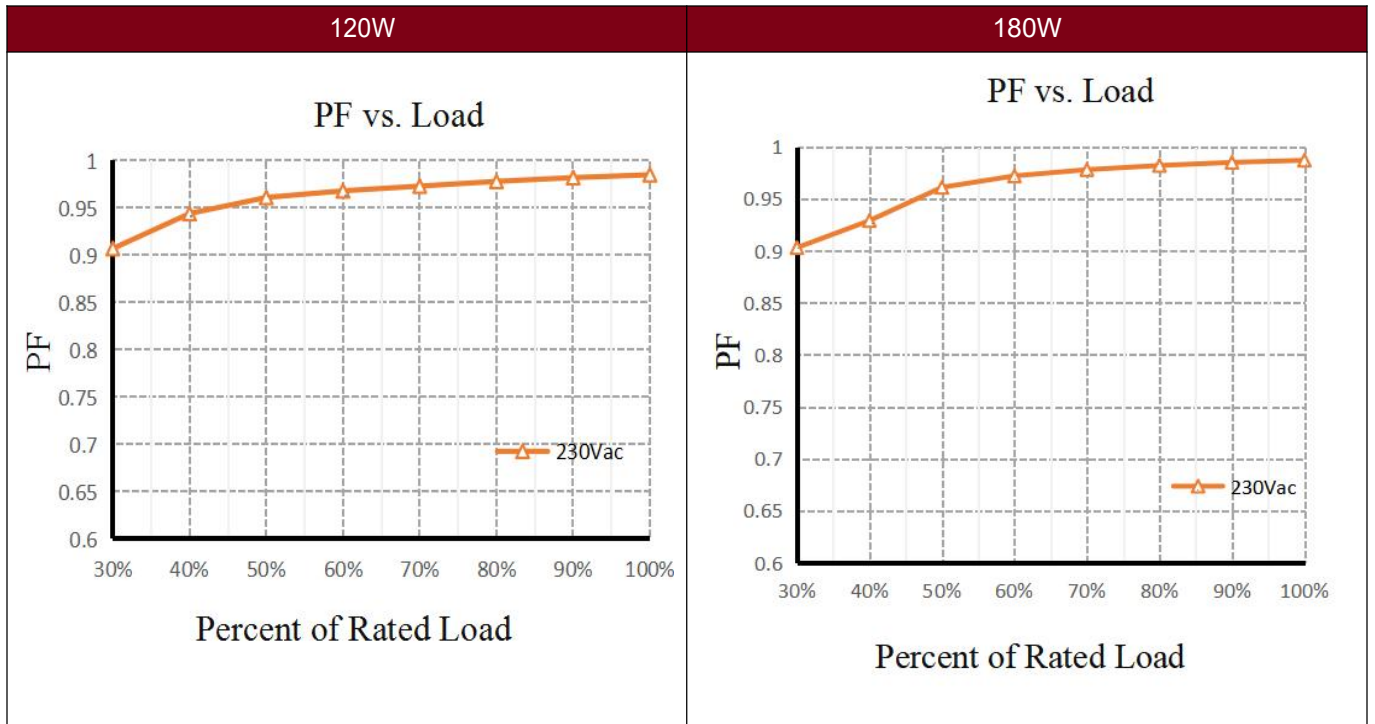
TYPE	CV180W24CG-1 Connected quantities of different current Breaker						Input Voltage	Inrush Current	Time
	current (A)	10	13	16	20	25			
	Installation wire diameter	1.5mm ²	2.5mm ²	2.5mm ²	4mm ²	4mm ²			
TYPE B	11	14	17	22	27	@230VAC	55	680μs	
TYPE C	17	23	28	35	44				
TYPE D	28	36	45	56	70				

3. Label

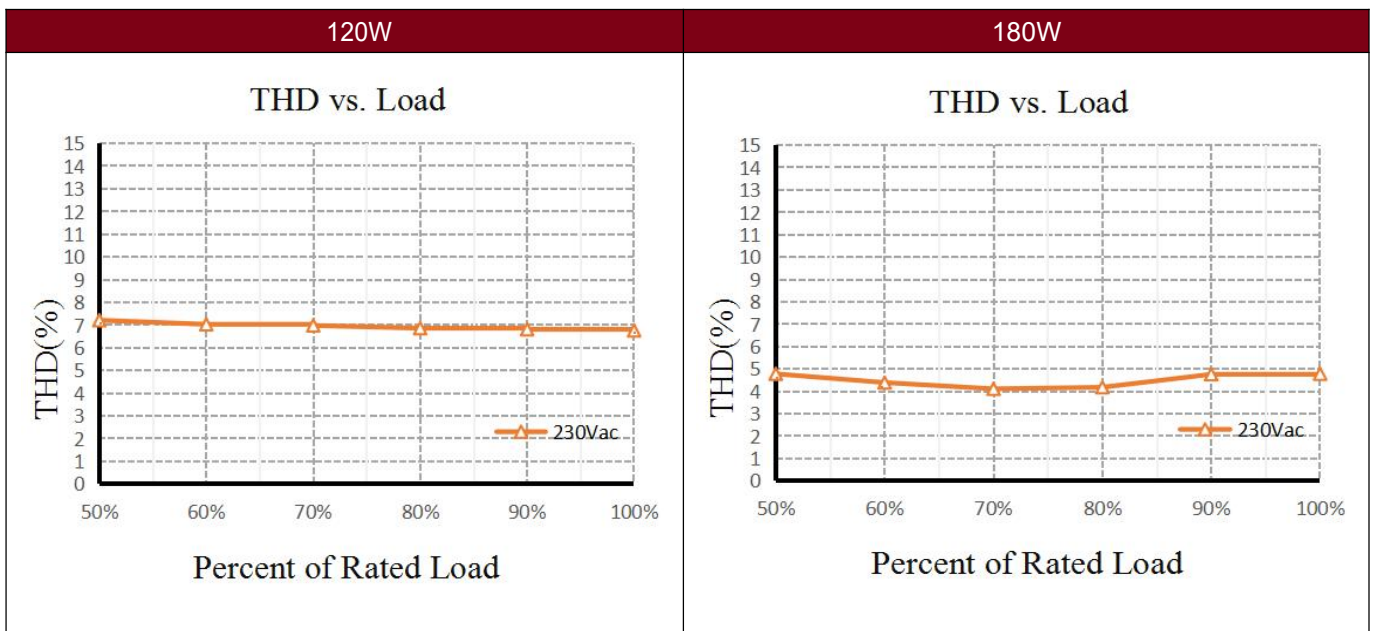
<input type="checkbox"/> N <input type="checkbox"/> L PR₂	 KGP KGP Electronics GmbH Hueckstraße 19 DE-58511 Lüdenscheid	LED Driver LED控制装置 CV180W24CG-1 Constant Voltage Type for LED Only	U _N = 220-240VAC I _N = 0.89A Max. f _N = 50/60Hz PF≥0.95 •tc	V _{out} = 24VDC const. I _{out} = 7500mA Max. P _{out} = 180W Max. t _a = -25...50°C t _c = 90°C	SEC+ <input type="checkbox"/> I <input type="checkbox"/> wire preparation 
					

<input type="checkbox"/> N <input type="checkbox"/> L PR₂	 KGP KGP Electronics GmbH Hueckstraße 19 DE-58511 Lüdenscheid	LED Driver LED控制装置 CV120W24CG-1 Constant Voltage Type for LED Only	U _N = 220-240VAC I _N = 0.65A Max. f _N = 50/60Hz PF≥0.95 •tc	V _{out} = 24VDC const. I _{out} = 5000mA Max. P _{out} = 120W Max. t _a = -25...50°C t _c = 85°C	SEC+ <input type="checkbox"/> I <input type="checkbox"/> wire preparation 
					

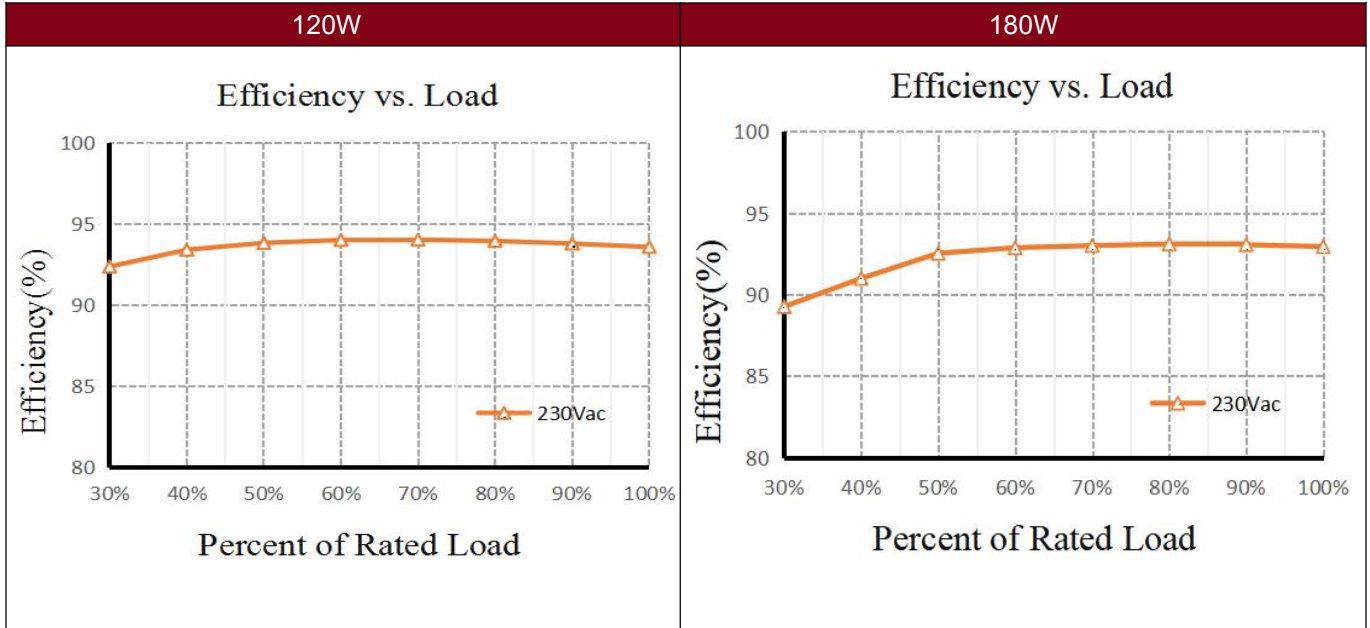
4. Graph PF VS LOAD Curve



THD VS LOAD Curve

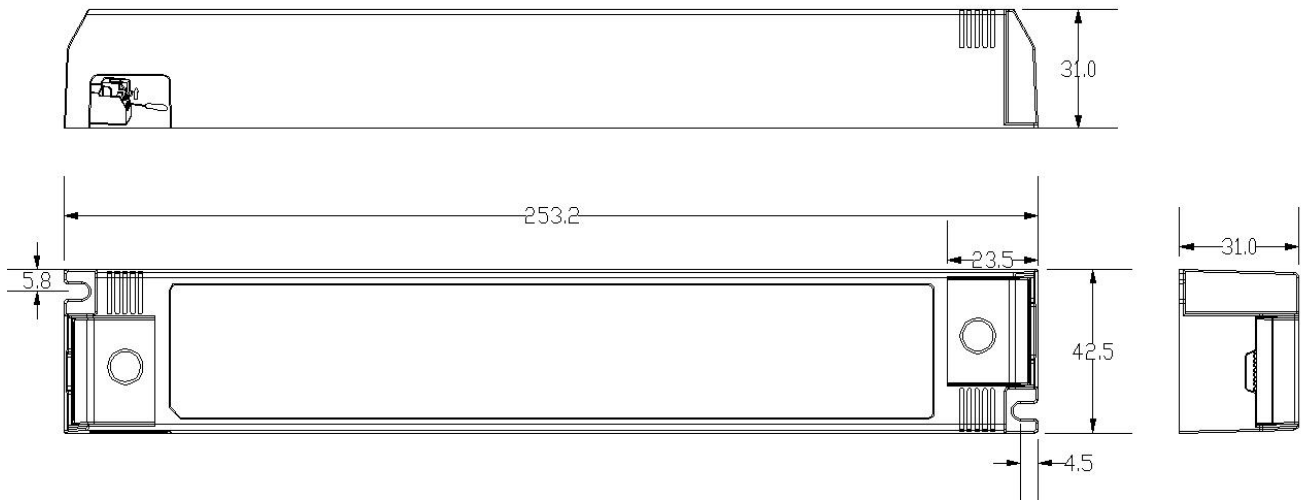


Efficiency VS LOAD Curve



5. Dimension (Unit: mm)

CV120W24CG-1 & CV180W24CG-1:



6. Packing information

Packing way	Model	Carton L*W*H(mm)	Pcs/Carton	Net eight/ Pcs(kg)	Net weight/ Carton(kg)	Gross eight /Carton(kg)
With white box and manual	CV120W24CG-1	450*240*200	45	0.405	18.225	19.12
	CV180W24CG-1					
Without white box and manual	CV120W24CG-1					19.01
	CV180W24CG-1					

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	REV.	REMARK
2022-12-27	V1.0	Initial release.
2024-05-31	V1.1	Update the circuit breaker table