CV(120-180)W24CG-1

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.)	Cementing product
CV120W24CG-1	220-240VAC	≤137W	≤0.65A	≥0.95	6-120W	24V	0.25-5.0A	93%	Y
CV180W24CG-1		≤196W	≤0.89A		6-180W		0.25-7.5A	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(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 / 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 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 90%, turn-off time measure from AC input turn-off to output voltage drop to 10%
		120W	32	254	
		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℃			
	Ts/Storage Temperature	-40….+85℃			
	Tc/Enclosure Temperature For Safety	90℃（for 180W） 85℃（for 120W）			
	Humidity	5%....85%RH			
	Atmosphere	86-108KPa			
Construction	Connection Method	Push-in Terminal			
	Cable Terminals	PRI		1 terminal block	
		SEC		3terminals block	
	Installation	Independent			
	PRI Wire Cross Section	0.75mm²-1.5 mm²			
	SEC Wire Cross Section	3*0.75mm²-1.5 mm²			
	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			
	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:

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/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

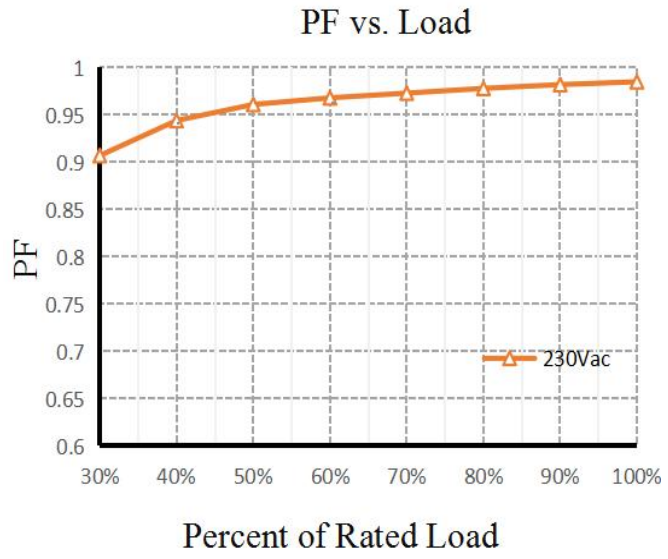
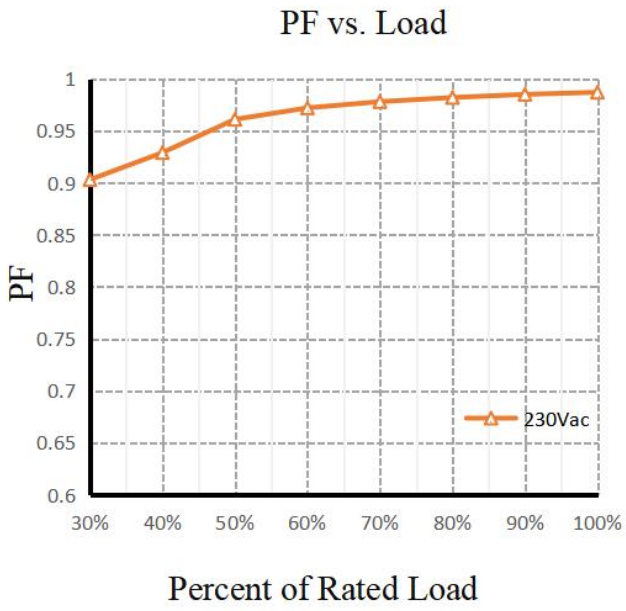
TYPE	CV120W24CG Connected quantities of different current Breaker						Input Voltage	Inrush Current	Time
	current（A）	10	13	16	20	25			
	Installation wire diameter	1.5mm²	2.5mm²	2.5mm²	4mm²	4mm²			
TYPE B		19	24	30	38	47	@230VAC	32	254us
TYPE C		30	39	48	60	75			
TYPE D		48	62	77	96	120			

TYPE	CV180W24CG Connected quantities of different current Breaker						Input Voltage	Inrush Current	Time
	current（A）	10	13	16	20	25			
	Installation wire diameter	1.5mm²	2.5mm²	2.5mm²	4mm²	4mm²			
TYPE B		13	17	21	26	33	@230VAC	46	296us
TYPE C		21	27	33	42	52			
TYPE D		33	43	53	67	83			

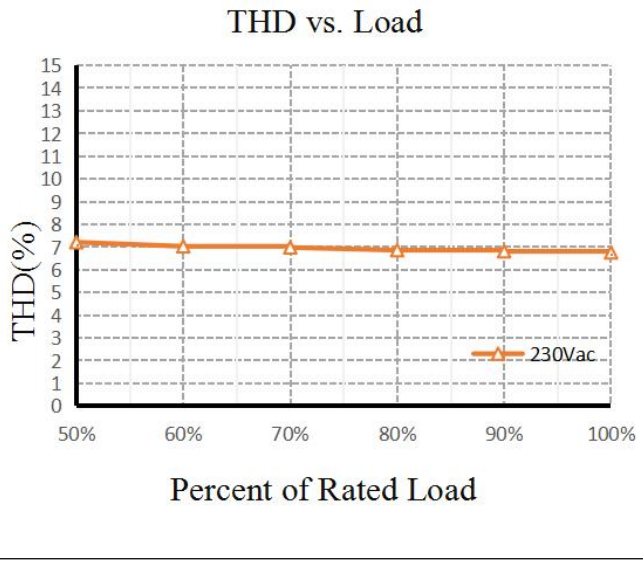
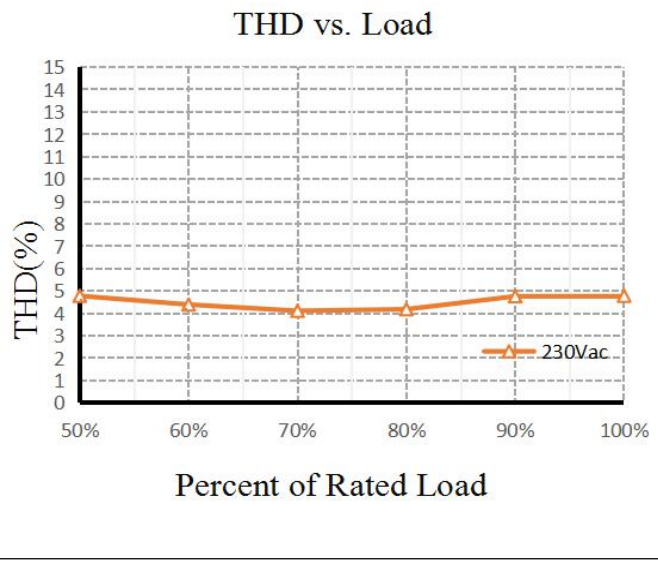
3. Label

4. Graph

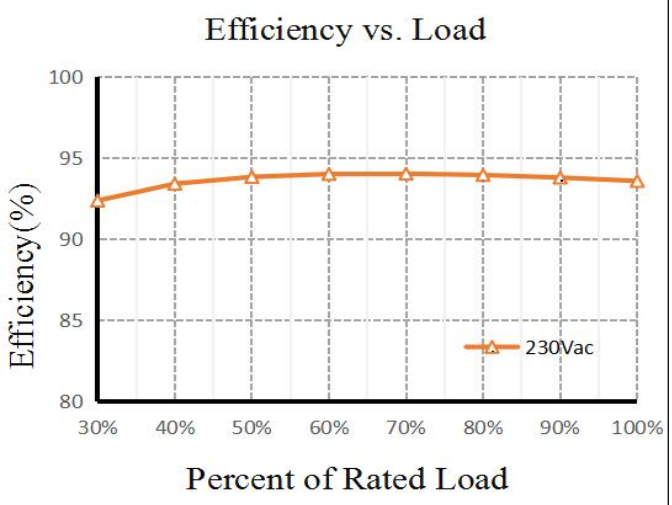
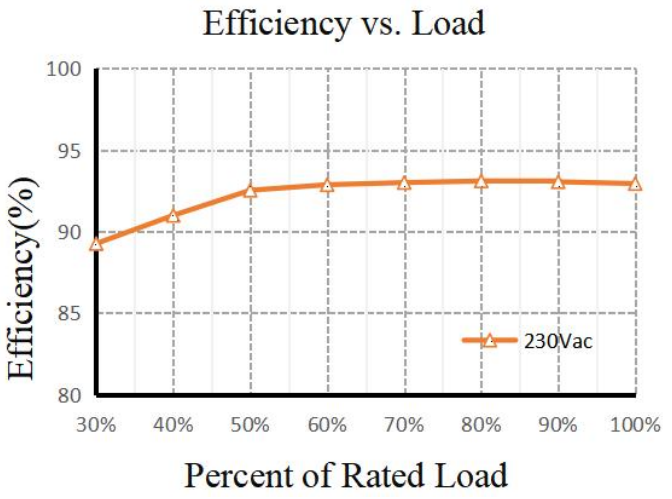
PF VS LOAD Curve

120W	180W
	

THD VS LOAD Curve

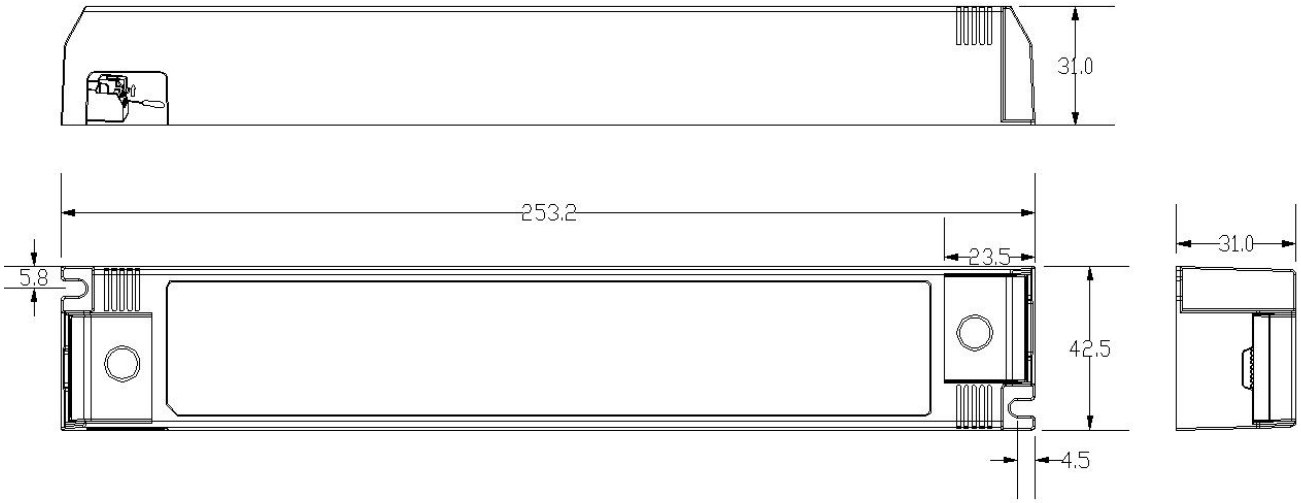
120W	180W
	

Efficiency VS LOAD Curve

120W	180W
	

5. Dimension （Unit：mm）

CV120W24CG-1 & CV180W24CG-1:



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	CV120W24CG-1	450*240*200	25	0.405	10.13	11.3
	CV180W24CG-1		25	0.405	10.13	11.3
Without white box and manual	CV120W24CG-1		25	0.405	10.13	11
	CV180W24CG-1		25	0.405	10.13	11

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.