Phase Cut Dimming LED driver

Model:CV45W24CG-4
CV(75-200)W24CG Triac



Model	Output Current	Input Current	Input Power	Output Power Range	PF	Efficiency (*Typical)	Output Voltage	No load Voltage	Cementig product
CV45W24CG-4 Triac	0-1.88A	≤0.35A	≤55W	0-45W	≥0.95	≥89%	24V	22.8-25.2V	Y
CV75W24CG Triac	0-3.13A	≤0.39A	≤85W	0-75W	≥0.95	≥91%	24V	22.8-25.2V	Y
CV150W24CG Triac	0-6.25A	≤0.73A	≤170W	0-150W	≥0.95	≥91%	24V	22.8-25.2V	Y
CV200W24CG Triac	0-8.33A	≤1.1A	≤225W	0-250W	≥0.95	≥91%	24V	22.8-25.2V	Y

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

1. Parameters

Category	Item	Technical Norm		
Features	Output Type	Constant Voltage		
	Dimming Type	Triac（Anterior cut or posterior cut）		
	Output Features	Isolation SELV		
	IP Grade	IP20		
	Insulation Class	Class II		
Input	Rated Input Voltage	220-240VAC		
	Range of AC Input Voltage	198-264VAC		
	Frequency	Rate:50/60Hz, Range:47~63Hz		
	Input Current	45W ≤0.35A (230VAC，full load)		
		75W ≤0.39A (230VAC，full load)		
		150W ≤0.73A (230VAC，full load)		
		200W ≤1.1A (230VAC，full load)		
	Input Power	45W ≤55W (230VAC，full load)		
		75W ≤85W (230VAC，full load)		
		150W ≤170W (230VAC，full load)		
		200W ≤225W (230VAC，full load)		
	Power Factor	≥0.95, 220-240VAC, Rated Load, see graphs		
	THD	45W/75W/150W/200W	⩽10%	230VAC，Rated Load, see graphs

	Standby Power Consumption	≤2W, @230VAC,Dim to OFF			
	Inrush Current	≤70A/350us (230VAC，full load)			
Output	Output Voltage	24VDC±5%			
	No load Voltage	24VDC+5%			
	Output Current	45W 0-1.88A (Max. output)			
		75W 0-3.13A (Max. output)			
		150W 0 -6.25A (Max. output)			
		200W 0 -8.33A (Max. output)			
	Max. Output Power Efficiency	45W	75W	150W	200W
		≥89% (230VAC，full load)	≥91% (230VAC，full load)	≥91% (230VAC，full load)	≥91% (230VAC，full load)
	Current Ripple(< 120 Hz)	±5% (Imax-Imin)/(Imax+Imin)			
	Output Voltage Ripple	<480mVPK-PK (1%)			
	Line Regulation	±1%			
	Load Regulation	±2%			
	PstLM	≤1			
	SVM	≤0.4			
	Overshoot	<105%Vo			
	Current Accuracy	±5%			
	Start-up Time	≤1S(230VAC，full load)			
Control Method	PUSH dimming	PUSH dimming (Max. lead wire length：20m,same port of Triac）			
	PUSH-button	Max parallel connnections qty for Push-dim 64PCS			
	Dimming range	Triac dimming: 1%-100%, Dim to off			
	Dimming frequency	18KHz			
Protection	Short Circuit Protection	Auto Recovery			
	Over Current Protection	Auto Recovery			
	No-load Protection	Auto Recovery			
	Over Voltage Protection	110%-150%Vo, Auto Recovery			
	Over Temperature Protection	90<Tc<110℃, Auto Recovery			
	Insulation voltage	3000V 5mA 60S between P-S			
	Insulation resistance	>100M ohm @ 500VDC			
	Leakage current	I/P to O/P <0.7mA			
Environment	Ta/Operation Temperature	-25….+50℃			
	Ts/Storage Temperature	-25….+85℃			
	Tc/Enclosure Temperature	45W 90℃ (230VAC，full load)			
		75W 85℃ (230VAC，full load)			
		150W 90℃ (230VAC，full load)			
		200W 90℃ (230VAC，full load)			
	Humidity	10%....90%RH			
	Atmosphere	86-108KPa			
Construction	Connection Method	Push-in Terminal			
	Installation	Independent			

	PRI Wire preparation	0.75-2.5□/ 8-9mm	
	SEC Wire preparation	0.75-2.5□/ 8-9mm	
	Triac Wire preparation	0.5-2.5□ /8-9mm	
	Dimension	45W	151.5*40.2*31mm (L*W*H)
		75W/150W	410*270*160mm (L*W*H)
		200W	305*295*185mm (L*W*H)
Standards	Certification	CE ENEC EAC SELV UKCA SAA	
	Safety Standards	EN 61347-1:2015/A1:2021 EN 61347-2-13:2014/A1:2017 EN IEC 62384:2020 EN 62493:2015 AS61347.2.13:2018 AS/NZS61347.1:2016 Inc A1 BS EN 61347-1:2015/A1:2021 BS EN 61347-2-13:2014/A1:2017 BS EN 62493:2015 BS EN IEC 62384:2020	
	EMC Standards	EN IEC 55015:2019 EN IEC 55015:2019/A11:2020 EN IEC 61000-3-2:2019/A1:2021 EN 61000-3-3:2013/A2:2021 EN 61547:2009	
	Performance	EN62384:2020	
	Surge	L-N/2KV	
Others	RoHS	complied to 2011/65/EU	
	REACH	EU Regulation (EC) No 1907/2006	
	Life Time	50000h @Ta/ Tc	
	Warranty	5years ,F.R. < 10000ppm	
	Noise	≤ 20dB @Background noise ≤16dB ,Interval≥20cm	

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. During the PUSH DIM test, the number of parallel connections must be less than 64 PCS
4. Do not install upside down.

2. Connected quantities of different current Breaker

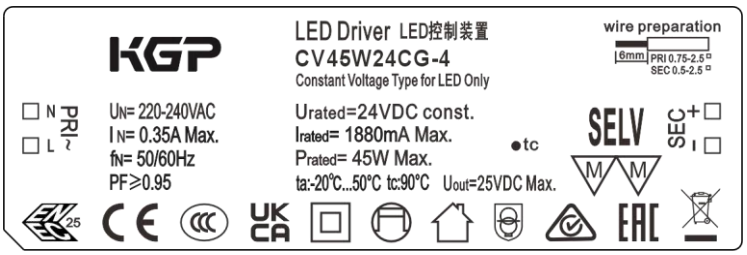
TYPE	CV45W24CG-4 Connected quantities of different current Breaker						Input Voltage	Inrush Current ＜50A	Time
	current（A）	10	13	16	20	25			
	Installation wire diameter	1.5mm²	2.5mm²	2.5mm²	4mm²	4mm²			
TYPE B		13	17	21	27	33	@230VAC	45	300us
TYPE C		21	28	34	43	53			
TYPE D		34	44	55	68	85			

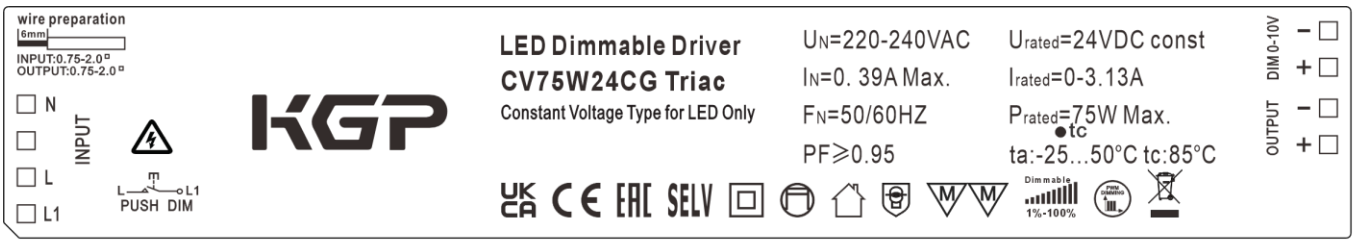
TYPE	CV75W24CG Triac Connected quantities of different current Breaker						Input Voltage	Inrush Current ＜50A	Time
	current（A）	10	13	16	20	25			
	Installation wire diameter	1.5mm²	2.5mm²	2.5mm²	4mm²	4mm²			
TYPE B		6	8	10	12	15	@230VAC	45.2	240us
TYPE C		10	13	16	20	25			
TYPE D		20	26	32	41	51			

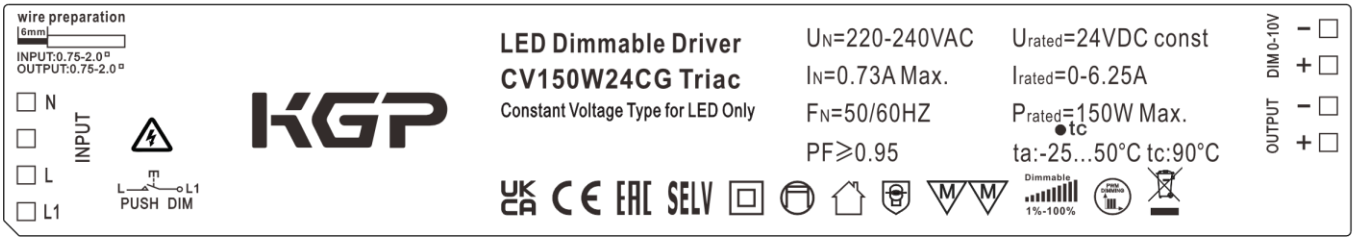
TYPE	CV150W24CG Triac Connected quantities of different current Breaker						Input Voltage	Inrush Current ＜50A	Time
	current（A）	10	13	16	20	25			
	Installation wire diameter	1.5mm²	2.5mm²	2.5mm²	4mm²	4mm²			
TYPE B		9	12	14	18	22	@230VAC	46.6	296us
TYPE C		9	12	14	18	22			
TYPE D		9	12	14	18	22			

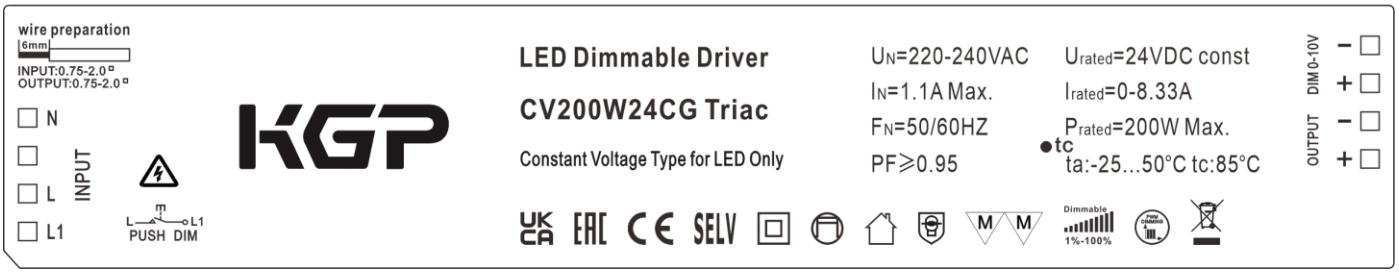
TYPE	LV200W24CG Triac Connected quantities of different current Breaker						Input Voltage	Inrush Current ＜70A	Time
	current（A）	10	13	16	20	25			
	Installation wire diameter	1.5mm²	2.5mm²	2.5mm²	4mm²	4mm²			
TYPE B		4	5	6	8	9	@230VAC	61.6	312us
TYPE C		6	8	10	13	16			
TYPE D		9	11	14	18	22			

3. Label


KGP
LED Driver LED控制装置
CV45W24CG-4
Constant Voltage Type for LED Only
wire preparation
6mm
PRI 0.75-2.5
SEC 0.5-2.5
PRI
N
L
UN= 220-240VAC
IN= 0.35A Max.
fN= 50/60Hz
PF≥0.95
Urated=24VDC const.
Irated= 1880mA Max.
Prated= 45W Max.
ta:-20℃...50℃ tc:90℃
Uout=25VDC Max.
tc
SELV
SEC
+
-


wire preparation
6mm
INPUT:0.75-2.0
OUTPUT:0.75-2.0
N
L
L1
INPUT
PUSH DIM
KGP
LED Dimmable Driver
CV75W24CG Triac
Constant Voltage Type for LED Only
UN=220-240VAC
IN=0. 39A Max.
FN=50/60HZ
PF≥0.95
Urated=24VDC const
Irated=0-3.13A
Prated=75W Max.
tc
ta:-25...50°C tc:85°C
SELV
Dimmable
1%-100%
DIM 0-10V
OUTPUT
-
+

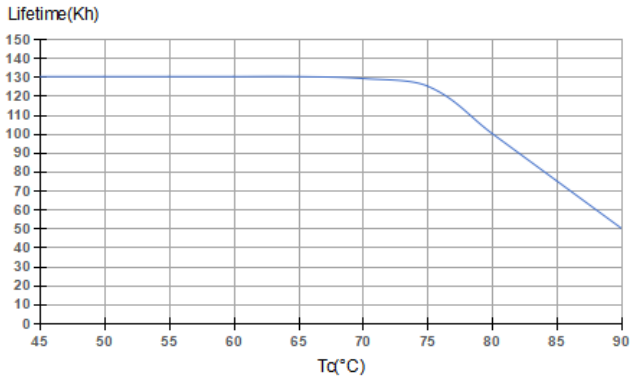

wire preparation
6mm
INPUT:0.75-2.0
OUTPUT:0.75-2.0
N
L
L1
INPUT
PUSH DIM
KGP
LED Dimmable Driver
CV150W24CG Triac
Constant Voltage Type for LED Only
UN=220-240VAC
IN=0.73A Max.
FN=50/60HZ
PF≥0.95
Urated=24VDC const
Irated=0-6.25A
Prated=150W Max.
tc
ta:-25...50°C tc:90°C
SELV
Dimmable
1%-100%
DIM 0-10V
OUTPUT
-
+


wire preparation
6mm
INPUT:0.75-2.0
OUTPUT:0.75-2.0
N
L
L1
INPUT
PUSH DIM
KGP
LED Dimmable Driver
CV200W24CG Triac
Constant Voltage Type for LED Only
UN=220-240VAC
IN=1.1A Max.
FN=50/60HZ
PF≥0.95
Urated=24VDC const
Irated=0-8.33A
Prated=200W Max.
tc
ta:-25...50°C tc:85°C
SELV
Dimmable
1%-100%
DIM 0-10V
OUTPUT
-
+

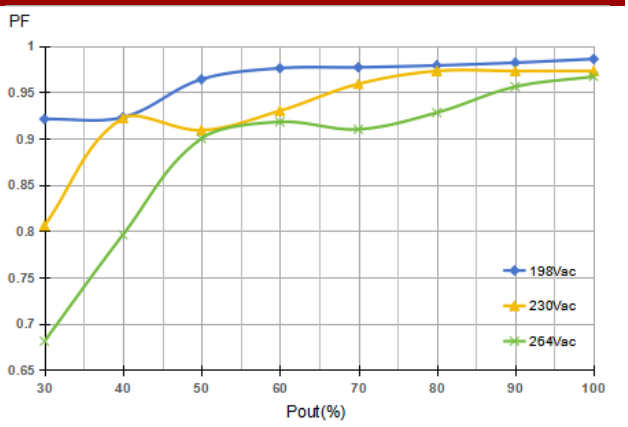
4. Graph

CV45W24CG-4

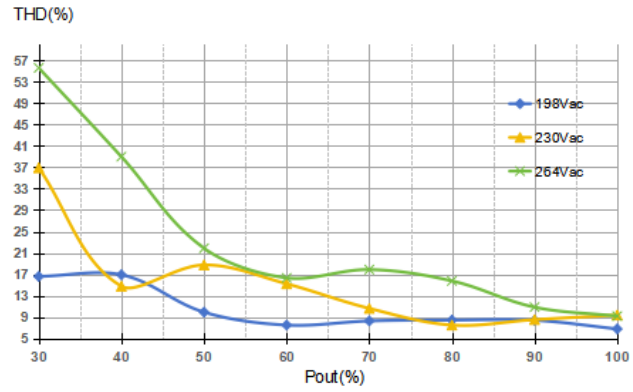
Lifetime vs. Case Temperature



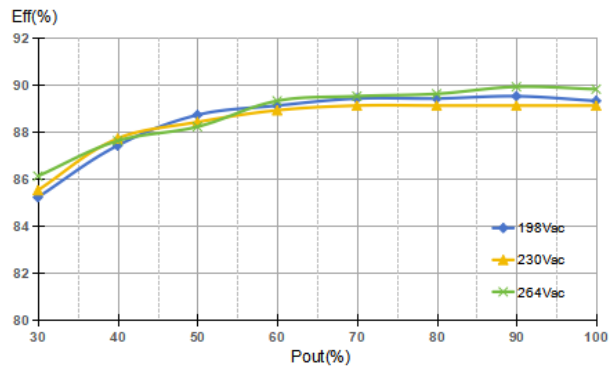
PF vs.Load



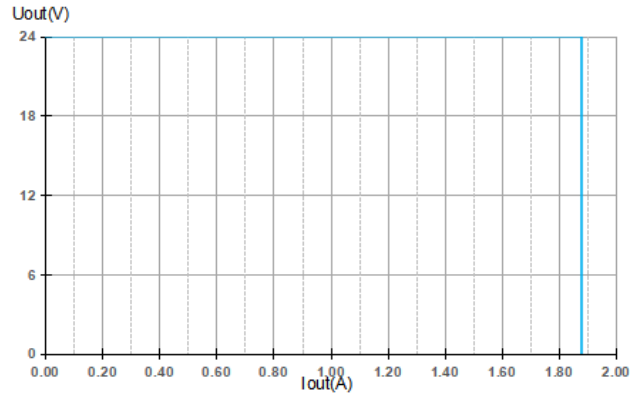
THD vs.Load



Efficiency vs. Load

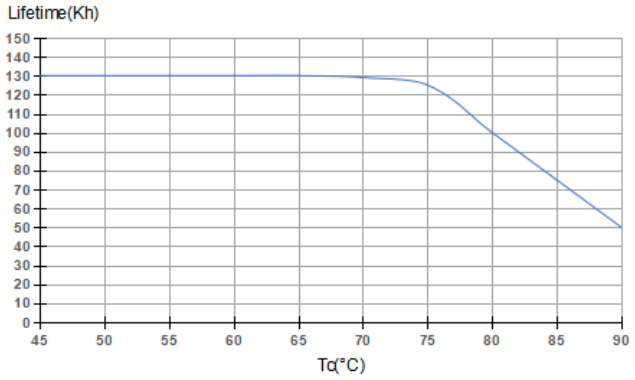


Vout vs.Iout

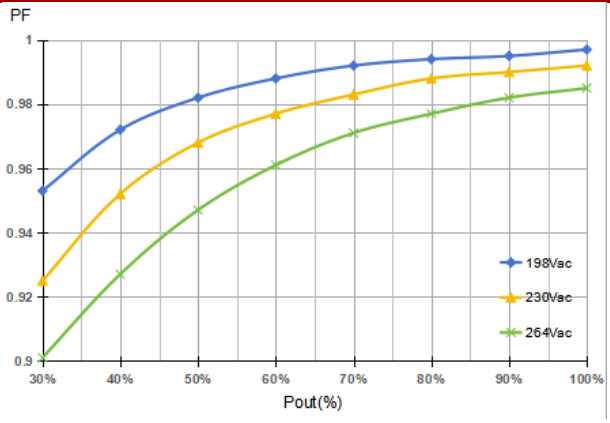


CV75W24CG Triac

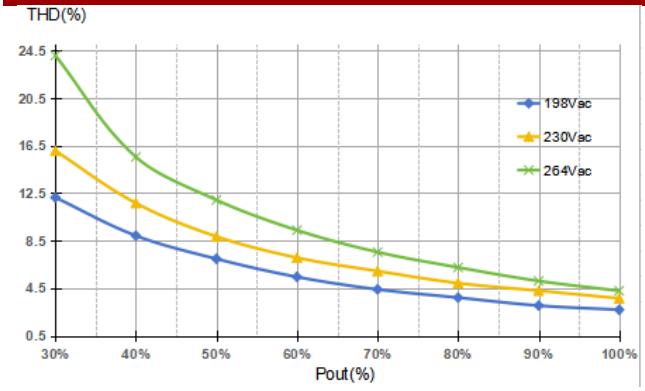
Lifetime vs. Case Temperature



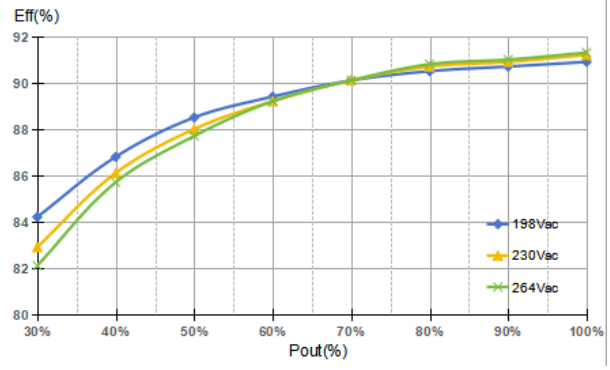
PF vs.Load



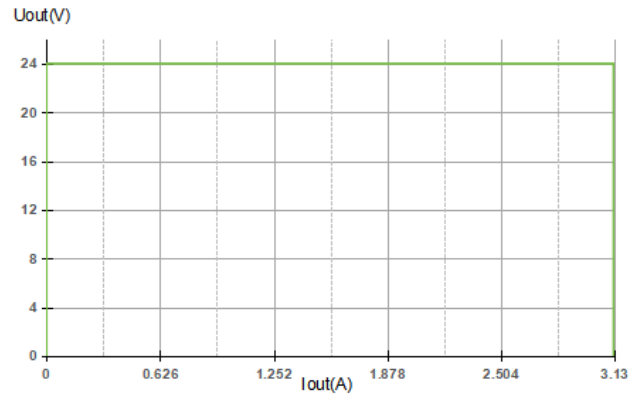
THD vs.Load



Efficiency vs. Load

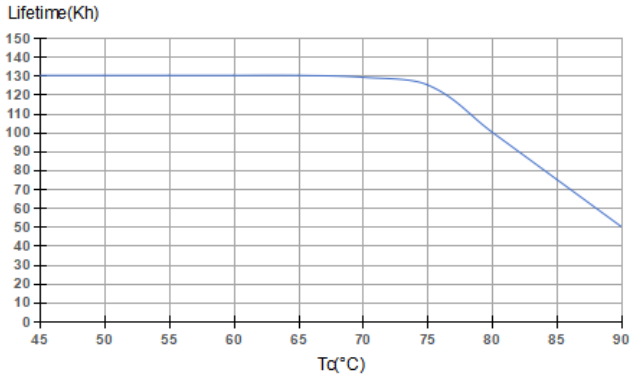


Vout vs.Iout

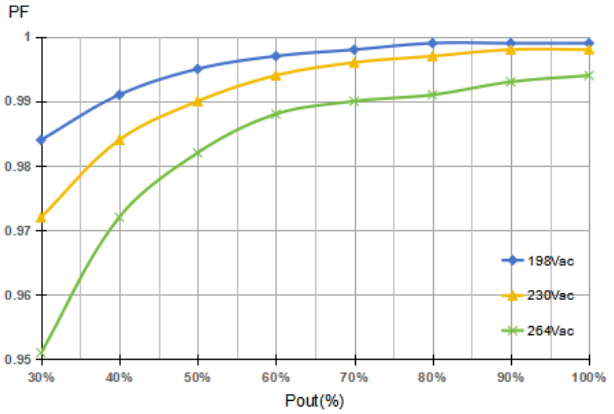


CV150W24CG Triac

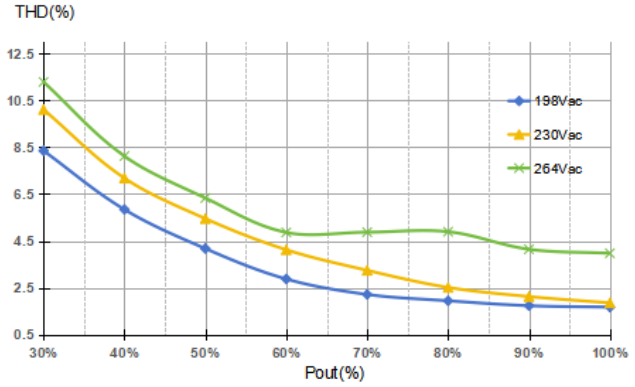
Lifetime vs. Case Temperature



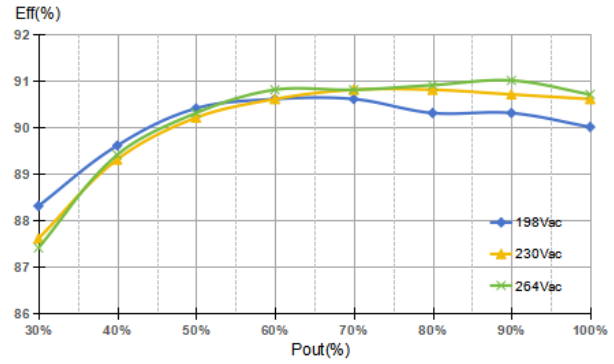
PF vs.Load



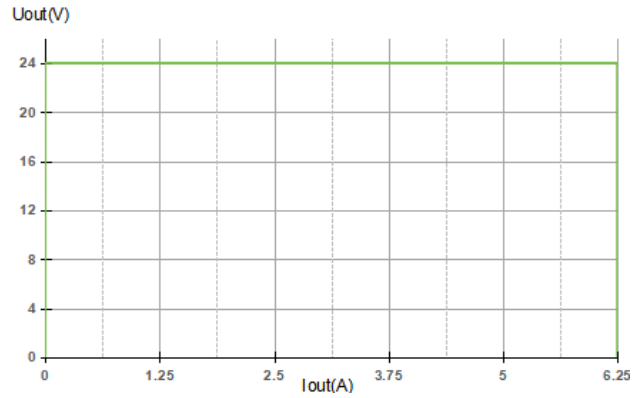
THD vs.Load



Efficiency vs. Load

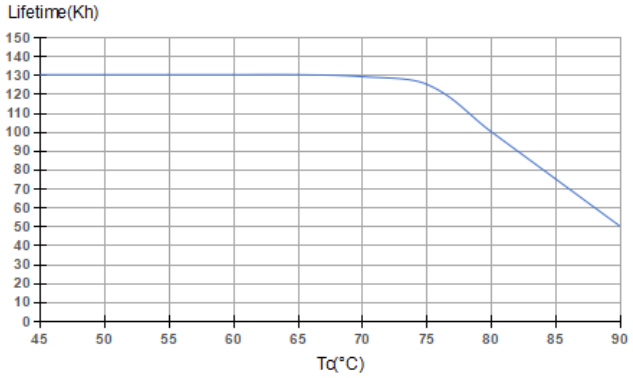


Vout vs.Iout

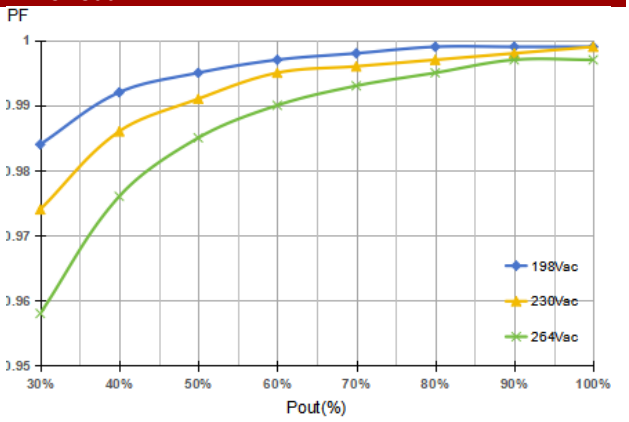


CV200W24CG Triac

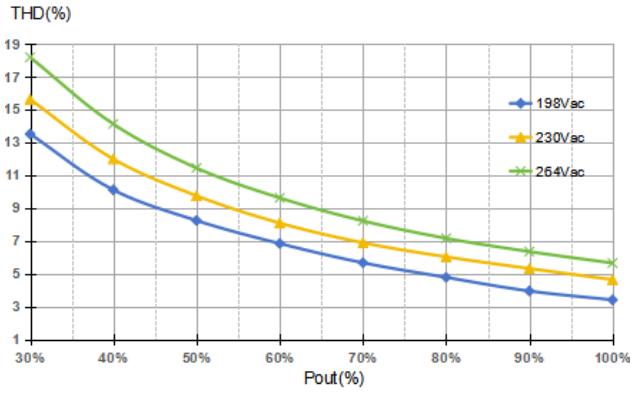
Lifetime vs. Case Temperature



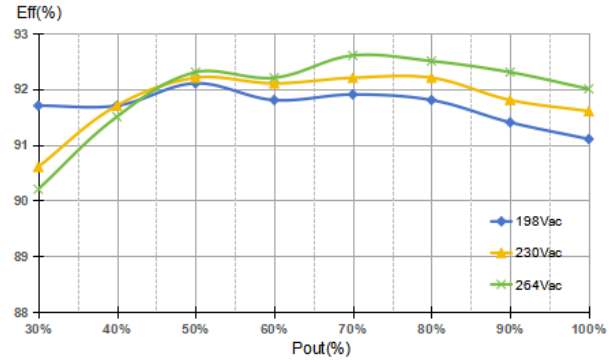
PF vs.Load



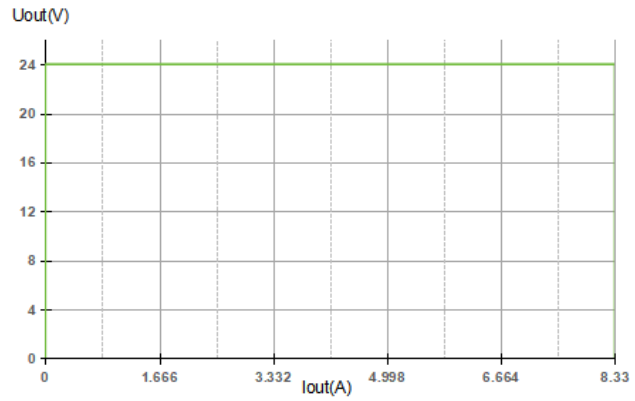
THD vs.Load



Efficiency vs. Load

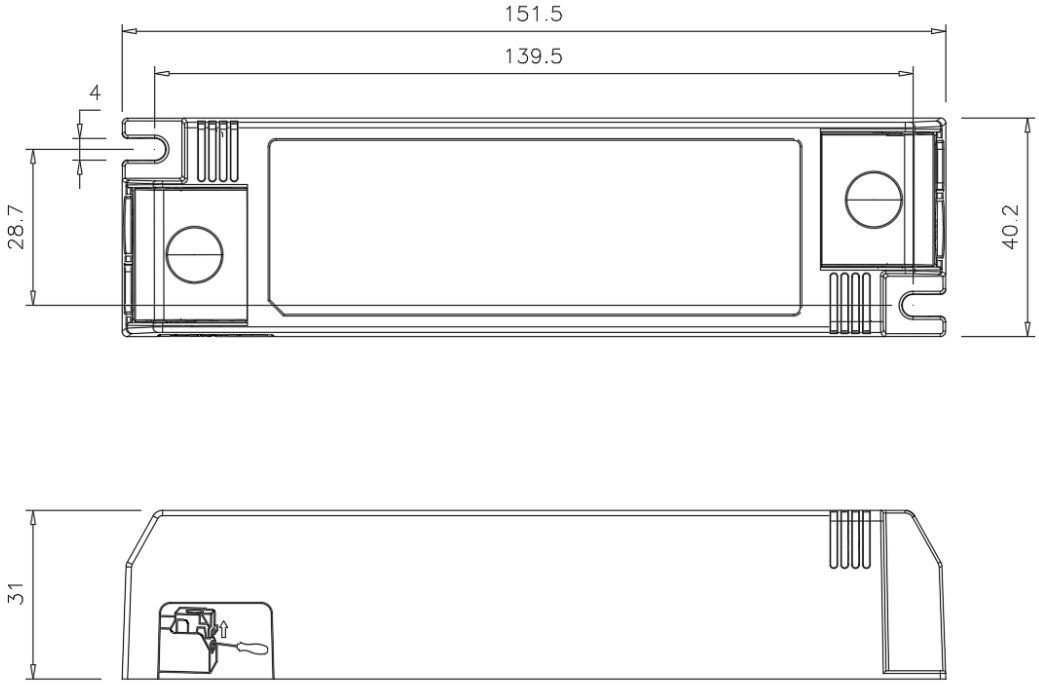


Vout vs.Iout

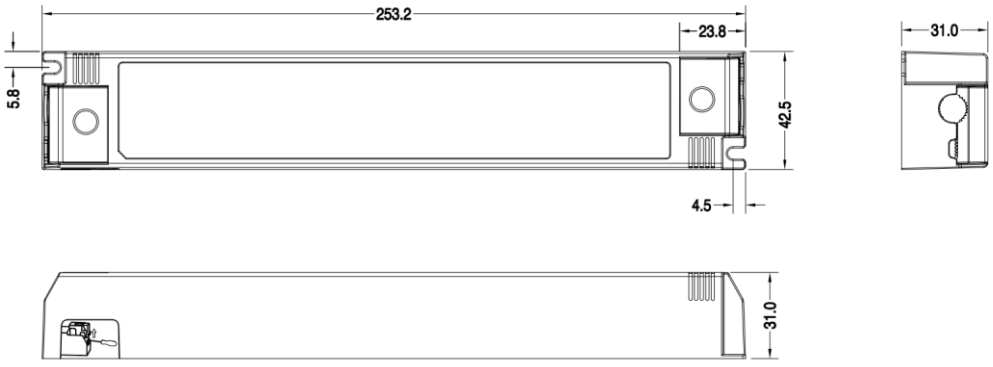


5. Dimension （Unit：mm）

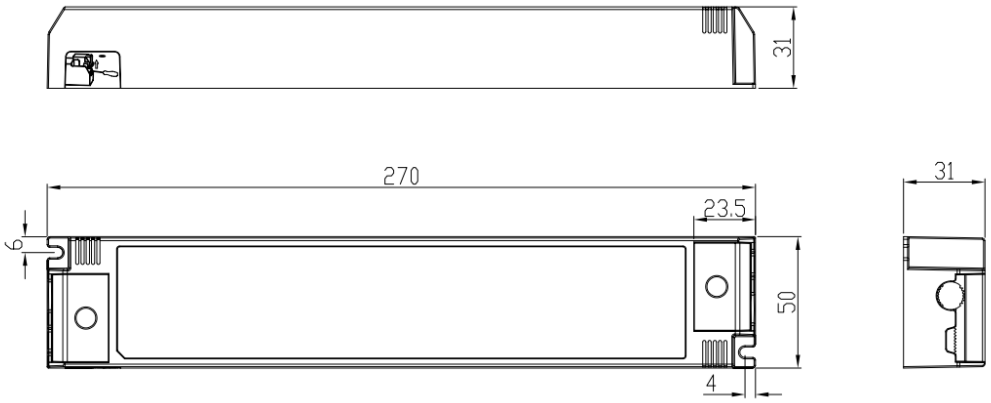
CV45W24CG-4



CV75W24CG Triac&CV150W24CG Triac



CV200W24CG Triac



6. Wiring Diagram

Fig. A: Triac Dimming

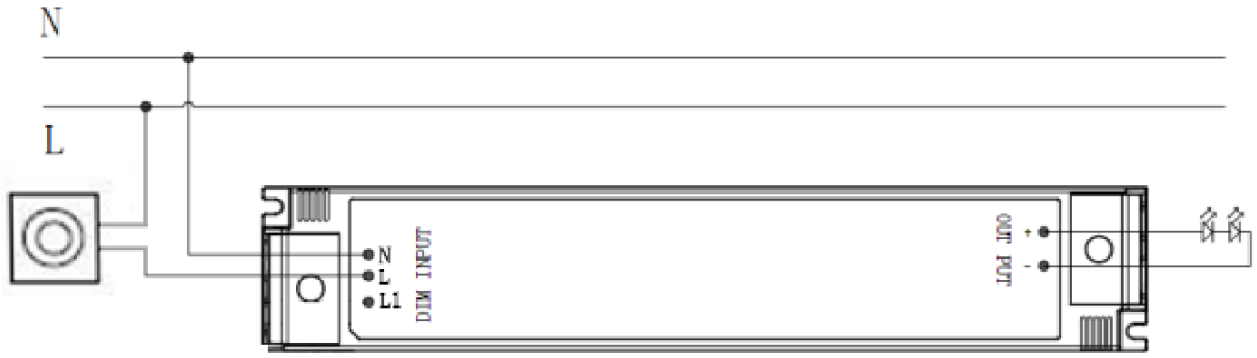
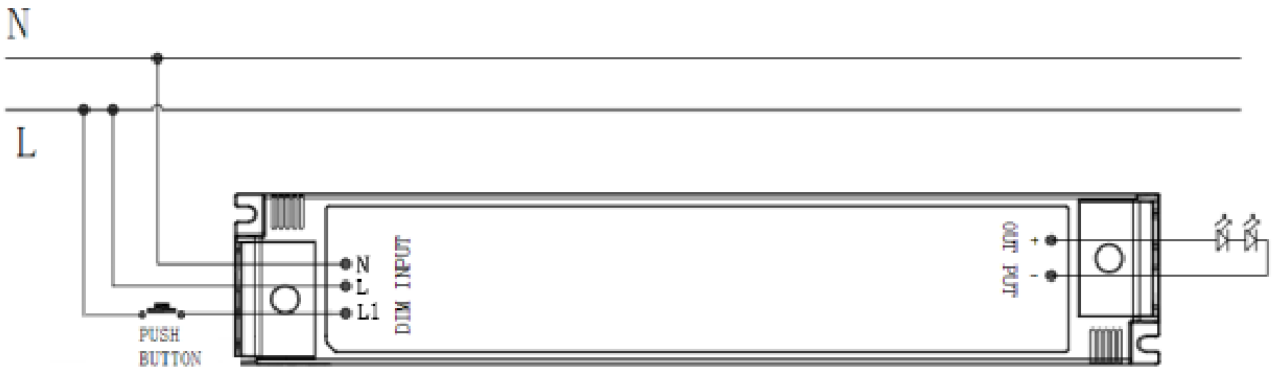


Fig. B: Push Dimming

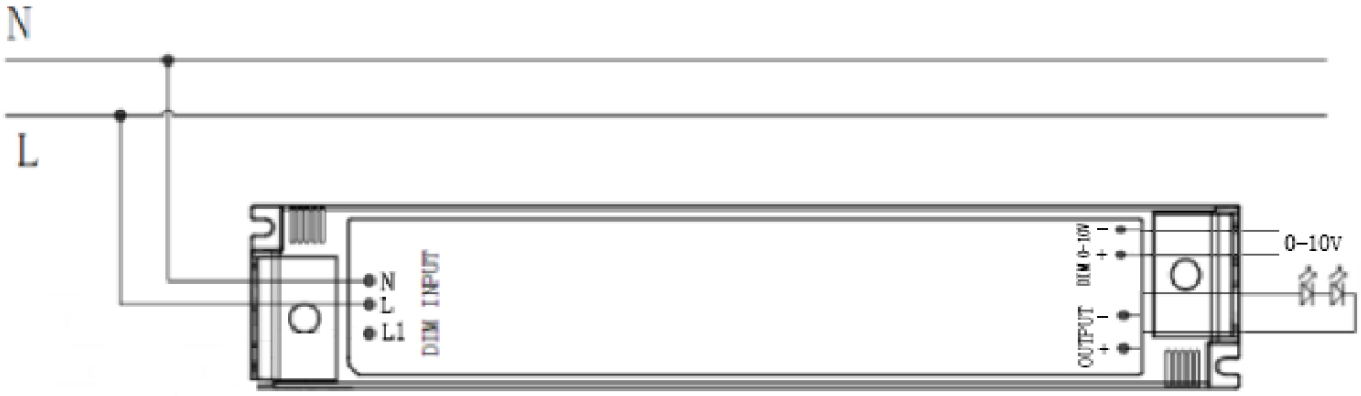


1.The factory default brightness is at 100%

2.Up to 64 drivers can perform the PUSH dimming at the same time when utilizing one common push button

3. The maximum length of the cable from the push button to the last driver is 200 meters

Fig. C: 0-10 Dimming



Preferred over 0-10V; Output power can be adjusted by applying one of the three methodologies between DIM+ and DIM-:0 -10VDC, or PWM signal or resistance.

7. 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	CV45W24CG-4	310*200*175	40	0.194	7.76	8.13
	CV75W24CG Triac	410*270*160	35	0.355	12.43	13.13
	CV150W24CG Triac		35	0.486	17.01	17.71
	CV200W24CG Triac	305*295*185	25	0.627	15.67	16.37

8. 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 0.5 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.)
• Hot plug-in is not supported due to residual output voltage of > 0 V up to mains voltage. Danger to life.
• When connecting an LED load, restart the device to activate the LED output.
• This can be done via mains reset or via interface (Triac, DSI, switch DIM).

9. Replace LED module

•Remove LED module

•Wait for 30 seconds

•Connect LED module again

•Hot plug-in or secondary switching of LEDs is not permitted and may cause a very high current to the LEDs

10. Trailing Edge Dimmer list approved by KGP

Manufacturer	Model
JUNG	1731DD
SKYDANCE	S1-K(ON mode)
Schneider	SBDLED-RC
亿楷	EU-200P
EHMANN	T37 08
EUCHIPS	wauldin106
Eetako	DTD55-230V-wg
Schneider	

Trailing Edge Dimmer list only on request -/ or confirmed by KGP Electronics (Only applicable to Trailing Edge Dimmer)

11. Functions

More functions：

Action	Action duration	Function
Short push	<0.6s	Turn on/off
Long push	0.6-3s	Dimming up or down

12. REVISION HISTORY

DATE	REV	Modification details
2026-06-12	V1.0	Initial release.
2026-06-24	V1.1	Newly added CV45W24CG-4 models
2026-07-21	V1.2	Newly added adaptive dimmer