Driver PSCD-60W-24V KVE

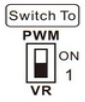
Whole Family: PSCD-XXW-24V KVE (60W, 96W, 300W, 600W)

c UL us LISTED E495946 FC Class P Class 2

Features

Output:	Constant Voltage
Range:	100-277VAC
PFC design:	Built-in active PFC function
Efficiency:	Up to 86%
Protections:	Short circuit/ over load/ over temperature
Heat dissipation:	Cooling by free air convection
Waterproof performance:	Full plastic protection housing, for dry & damp locations (US)
Dimming function:	Phase dimming: work with forward phase /leading edge, MLV and Reverse phase /trailing edge, ELV, TRIAC dimmers. 0-10V dimming: 0-10V/1-10V/Potentiometer/10V PWM 4 in 1
Min load	Min load is 20%
Dimming range:	0-100% dimmingdepth0.1%
Application:	Suitable for LED lighting and moving sign
Warranty:	applications 2 years warranty

Specification

Model		PSCD-60W-12V KVE	PSCD-60W-24V KVE	PSCD-60W-48V KVE
Certificate		UL / cUL / FCC / Class P / Class 2		
Output	DC Voltage	12V	24V	48V
	Voltage Tolerance	±5%	±2.5%	±1.25%
	Voltage Regulation	≤0.5%	≤0.5%	≤0.5%
	Load Regulation	≤2%	≤1%	≤1%
	Rated current	5A	2.5A	1.25A
	Rated power	60W		
	Voltage Ripple	500mVp-p	450mVp-p	450mVp-p
	Overshoot voltage	<7% (fullload)	<2% (fullload)	<2% (full load)
	Output volt Adjustment	12-13V 	24-26V 	48-50V 
	Outputmodeselection	The DIP switch in the "ON" position represents the PWM (Pulse - Width Modulation) mode, and in the "1" position represents the VR (Modulation of DC Voltage) mode. 		
		Switching the output mode requires the power to be cut off for 3 seconds and then powered on again for the mode switching to take effect.		
Input	VoltageRange	100-277VAC		
	FrequencyRange	47-63Hz >0.98@120VAC		
	Power Factor (Typ.) @ full load	>0.98@120VAC >0.97@277VAC	>0.98@120VAC >0.97@277VAC	>0.98@120VAC >0.97@277VAC
	THD(Typ.)@fullload	<15%@120V <15%@277V		
	Efficiency(Typ.) @ full load	≥83%@120VAC ≥84%@277VAC	≥83%@120VAC ≥85%@277VAC	≥84%@120VAC ≥86%@277VAC
	ACCurrent(Max.)	≤0.75A@120VAC ≤0.3A@277VAC		
	Standbypower	≤0.5W		
	InrushCurrent(Typ.)	31.6A,152us@50%Ipeak 120VAC 76.8A,156us@50%Ipeak 277VAC		
	Leakagecurrent	<0.5mA		
Protection	ShortCircuit	Hiccup mode, can be automatically restored after abnormal removal		
	OverLoad	≥120%, Constant-Current Mode, automatic recovery after exception		
	Overtemperature	When the ambient temperature exceeds 55°C±5°C, the output is turned off		
Environment	WorkingTEMP.	-40~+40°C(seebelowderatingcurve)		
	WorkingHumidity	20-90%RH non-condensing		
	StorageTEM.,Humidity	-40-+80°C,10-95%RHnon-condensing		
	TEMP.coefficient	±0.03%/°C(0-50°C)		
	Vibration	10~500Hz,2G12minutes/cycle,XYZaxis72minuteseach		
Safety & EMC	Safetystandards	UL8750 CAN/CSA-C22.2No.250.13		
	Withstandvoltage	I/P-O/P:1.88KVAC		
	Isolationresistance	I/P-O/P:100MΩ/500VDC/25°C/70%RH		

	SurgeImmunityTest	ACPowerLine:DifferentialMode2KV
	EMCImmunity	FCC/ICESdonotrequestthistest
	EMCEmission	FCCPart15SubpartB；ANSIC63.4:2017；ICES-005Issue5
Others	NetWeight	0.35KG
	Dimension	178*61.1*24mm(L*W*H)
	Packing	290*215*140mm
Notes	1. All parameters NOT specially mentioned are measured at 120VAC input, rated load and 25℃ of ambient temperature. 2. Tolerance: includes setup tolerance and load regulation. 3. The power supply is considered as a component that will be operated in combination with final Equipment. Since EMC performance will be affected by the complete installation, the final equipment manufactures must be-qualify EMC Directive on the complete installation again. 4. Default states: The output mode is PWM output by default. The dimming curve is a gamma2.2 curve. 5. Regarding LED driver load types where the driver meets the harmonic emissions requirements of ANSIC82.77-10.	

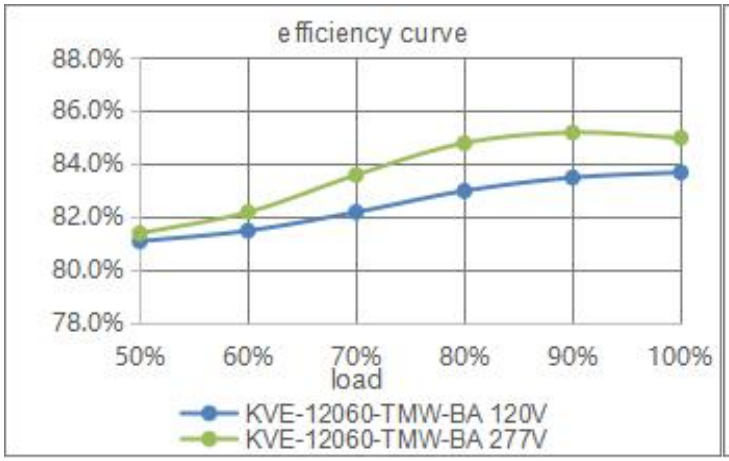
MCB recommendation

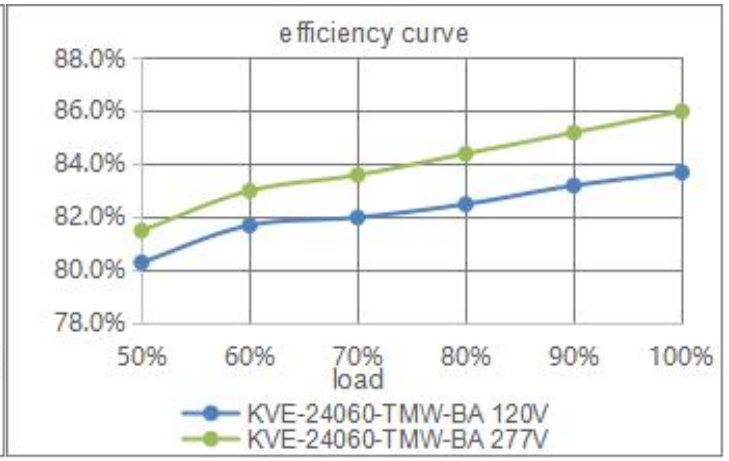
When the input voltage is 120Vac,the number of LED Driver matched by circuit breakers is as follows:		
MCBType	Level	The number of LED Driver
Ctype	10A	9
	13A	11
	16A	14
	20A	18
	25A	23
When the input voltage is 277Vac,the number of LED Driver matched by circuit breakers is as follows:		
MCBType	Level	The number of LED Driver
Ctype	10A	24
	13A	32
	16A	40
	20A	50
	25A	62

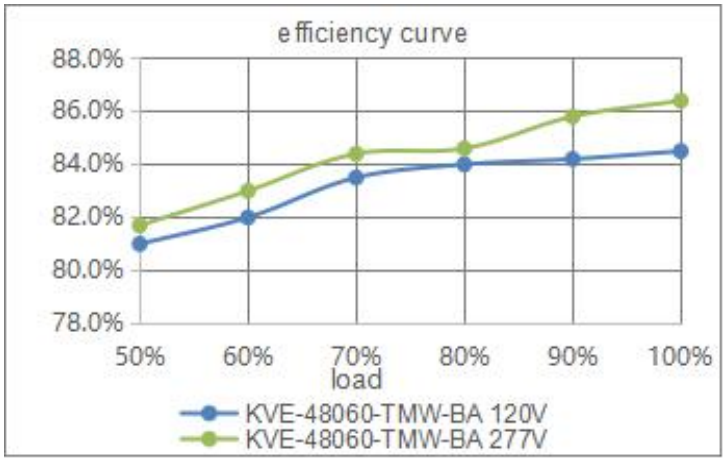
Note：

1. The above quantities of the led drivers connected on the Type C is recommended base on the maximum ambient temperature is 50 ℃.
2. The breaker should be selected according to the input rated voltage, input rated current, ambient temperature, and trip characteristic curve.

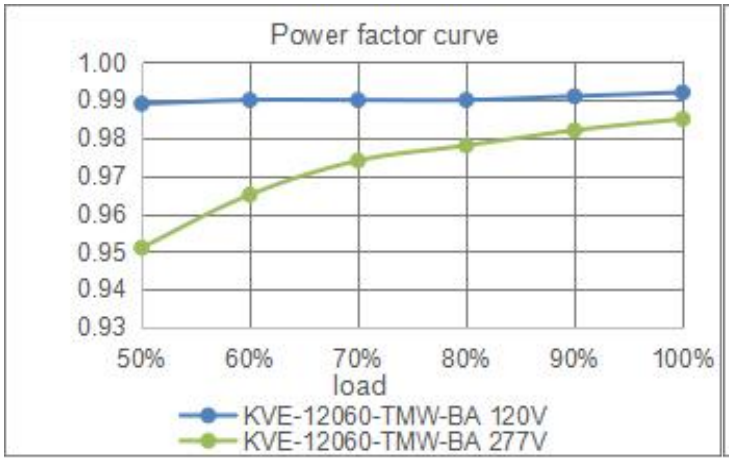
Efficiency Curve (efficiency vs output load)

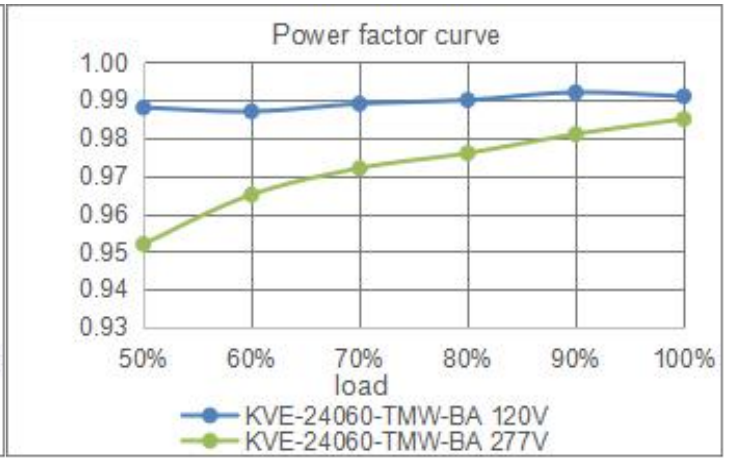


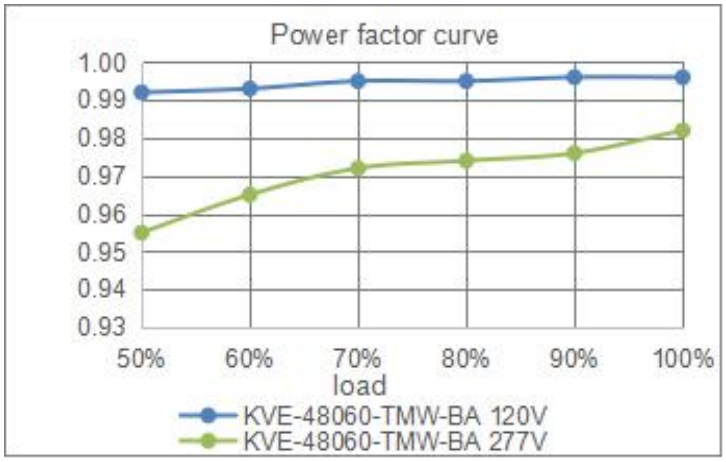




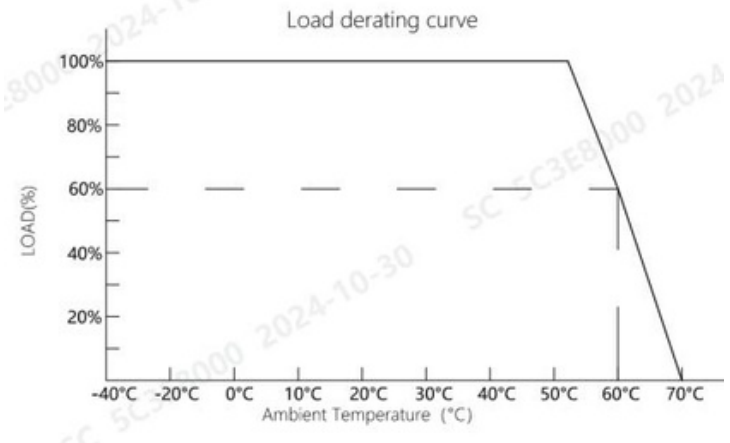
Power factor curve(Power factor vs output load)





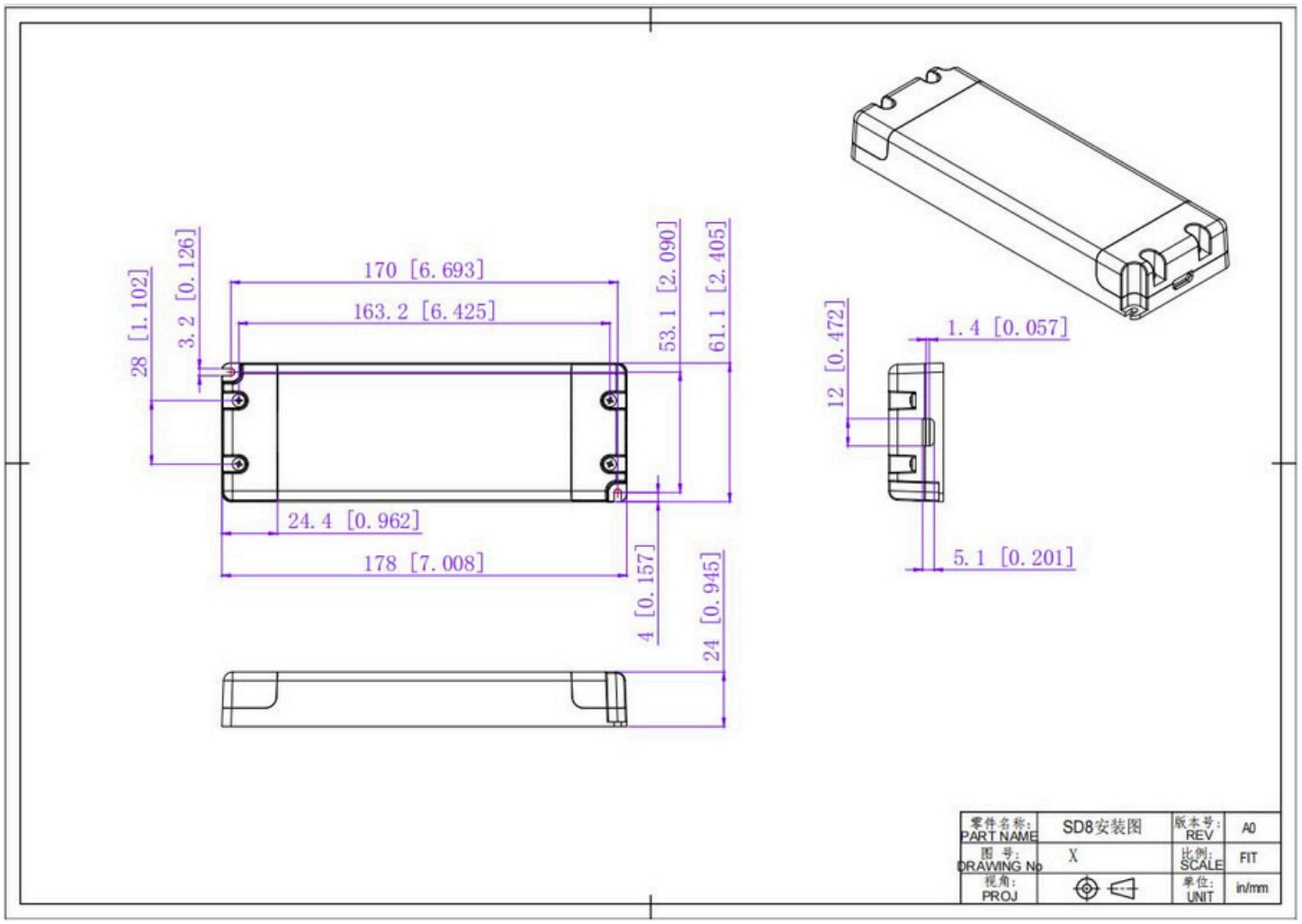


Derating Curve (output load vs TEMP.)



1. To extend their life, please refer to the Derating Curve and derate according to the temperature.
2. The output current of the LED driver should be selected according to the rated current of the lamp and the ambient temperature. Normally, we recommend the power supply to reserve a certain amount of load to extend LED driver's life.

Mechanical Specification



12V&24V&48V Version

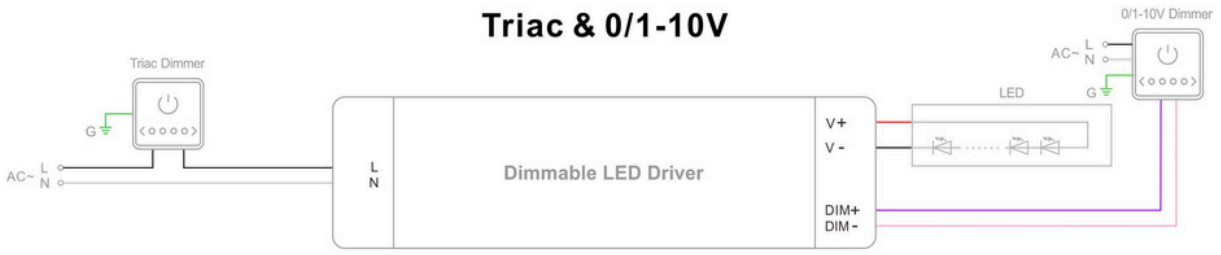
American wire gauge	
SD8	
Input wire	DG128-3P
Output wire	DG128-2P
Dimming wire	DG128-2P

Warm tips:

1. Recommended Max. Carrying Current (A) = wire diameter(mm^2) x 10A/mm^2
   For example: 1mm^2 output cable, Recommended Max. Carrying Current (A) = 1mm^2 x 10A/mm^2=10A
2. Any other requests for cable, we can customized.Any other requests for cable, we can customized.

Dimming Operation and Connecting Diagram

Using two ways of dimming at the same time, you must be assured that LED lighting is up to the max. Brightness then you could operatewith the other dimming;



Using one dimming ---TRIAC/Phase cut dimming

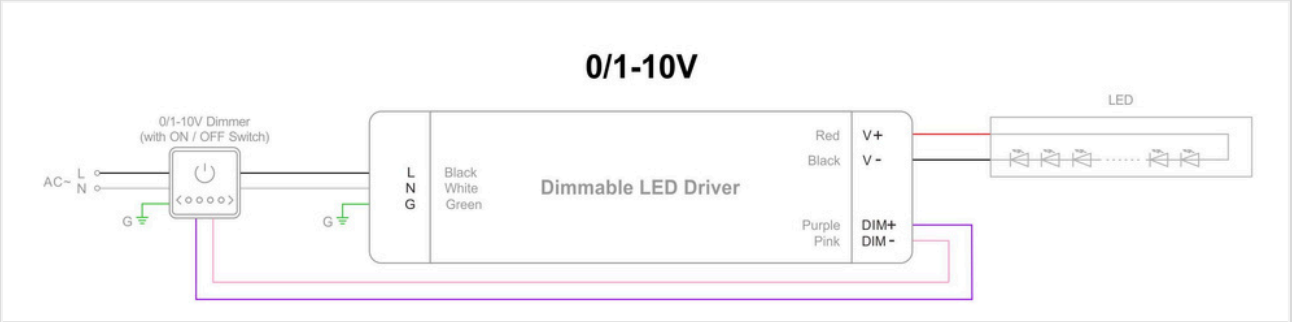
The Pulse-Width Modulation (PWM) of output voltage can be adjusted through input terminal of the AC phase line(L) by connection a phase /Triac dimmer or lighting system.

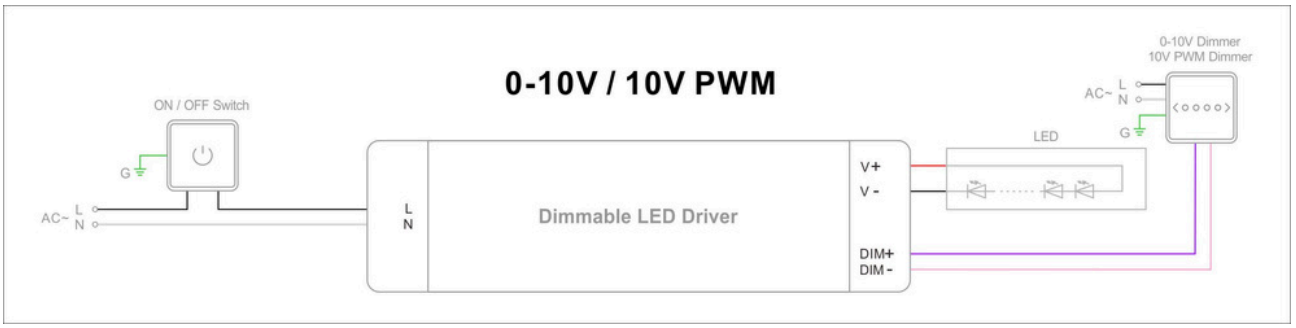
Working with forward phase /leading edge, MLV and Reverse phase /trailing edge, ELV, TRIAC dimmers or light system.

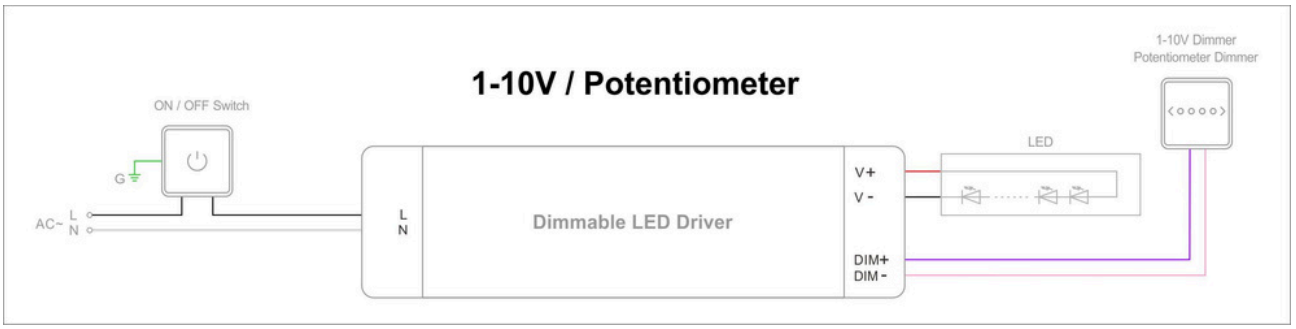
Min. loading is about 20%

Please try to use dimmers with power at least 1.5 times as the output power of the driver.

Using one dimming ---0-10/ 1-10V/ 10V PWM/ Potentiometer dimming







Instructions

This driver should be installed by qualified and professional person.

Please make sure the driver is installed with adequate ventilation around it to allow for heat dissipation.

Ensure that wiring is correct before test in order to avoid light and power supply damage.

If driver Cannot work normally, don’t maintain privately.