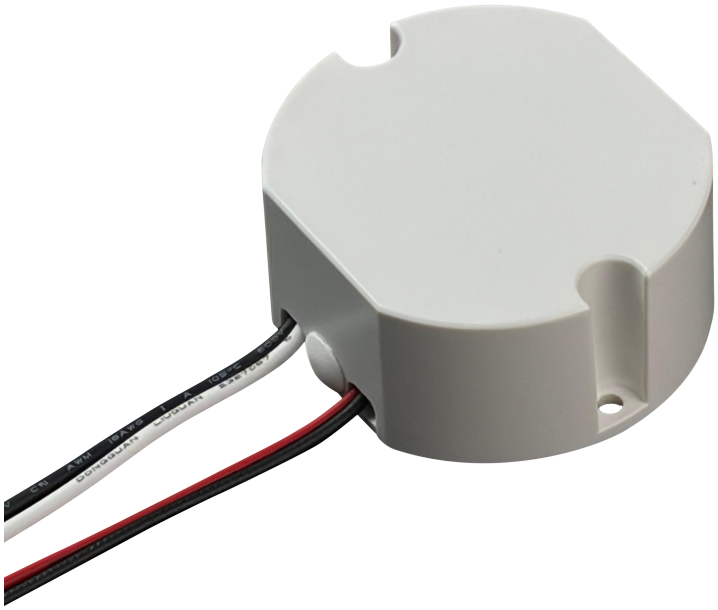
KV2-TDW Series 15W

Whole Family: KV2-XX015-TDW (XX=12/24VDC) [10W 15W 20W 25W 30W 40W]

SELV RoHS



Features

Output:	Constant Voltage
Range:	120-277VAC
PFC design:	Built-in active PFC function
Efficiency:	Up to 78%
Protections:	Short circuit / Over load / Over temperature
Heat dissipation:	Cooling by free air convection
Waterproof performance:	Full plastic protection housing, for dry and damp locations.
Dimming function:	Phase dimming: work with Forward phase, MLV and Reverse phase, ELV, TRIAC dimmers.
Dimming range:	0-100% dimming depth 1%
Application:	Suitable for the application of LED lighting
Warranty:	5 years warranty
Others:	Output frequency 20K Hz PWM, flicker-free

TRIAC Dimmable LED Driver - Constant Voltage Output - KV2-TDW Series 15W

Specification

Model		KV2-12015-TDW	KV2-24015-TDW
Certificate		UL pending / ROHS / SELV	
Output	DC Voltage	12V	24V
	Rated current	1.25A	0.625A
	Rated power	15W	
	Voltage Tolerance	±0.5V	
Input	Voltage Range	120-277VAC	
	Frequency Range	47 - 63Hz	
	Power Factor @ full load	≥0.98@120VAC ≥0.92@277VAC	
	THD(Typ.) @ full load	≤10%	
	Efficiency @ full load	≥73%@120VAC ≥75%@277VAC	77%@120VAC 74%@277VAC
	AC Current (Max.)	0.18A	
	Inrush Current (Typ.)	0.96A, 35.2us @50%Ipeak 120VAC 1.96A, 26us @50%Ipeak 277VAC	
Protection	Short Circuit	Hiccup mode, recovers automatically after fault condition is removed.	
	Over Load	105%~120% Hiccup mode, recovers automatically after fault condition is removed.	
	Over temperature	Ambient temperature over 55℃±5℃ , output reduce to 50%; Ambient temperature over 60℃±5℃, output off; When the temperature is reduced to 45℃±5℃ the output returns to 100%.	
Environment	Working TEMP.	-40~+50℃ (see below derating curve)	
	Working Humidity	20 - 90%RH non-condensing	
	Storage TEM.,Humidity	-40 - +80℃,10 - 95% RH non-condensing	
	TEMP.coefficient	±0.03%/℃(0 - 50℃)	
	Vibration	10 ~ 500Hz, 2G 12 minutes/cycle, X Y Z axis 72 minutes each	
Safety & EMC	Safety standards	UL8750; CAN/CSA-C22.2 No.250.13	
	Withstand voltage	I/P-O/P:1.88KVAC	
	Isolation resistance	I/P-O/P:100MΩ / 500VDC / 25℃ / 70% RH	
	EMC Immunity	FCC/ICES do not request this test.	
	EMC Emission	FCC 47 CFR Part 15, Subpart B	
	Surge Immunity Test	AC Power Line: Differential Mode 1KV	
Others	Net Weight	0.103KG	
	Dimension	54*48.2*24mm(Φ*W*H)	
	Packing	380*290*155mm 100pcs/CTN	
Notes	1. All parameters NOT specially mentioned are measured at rated load for 120VAC and 25℃of ambient temperature. 2. Derated output is required at low input voltage to ensure long service life.		

MCB recommendation

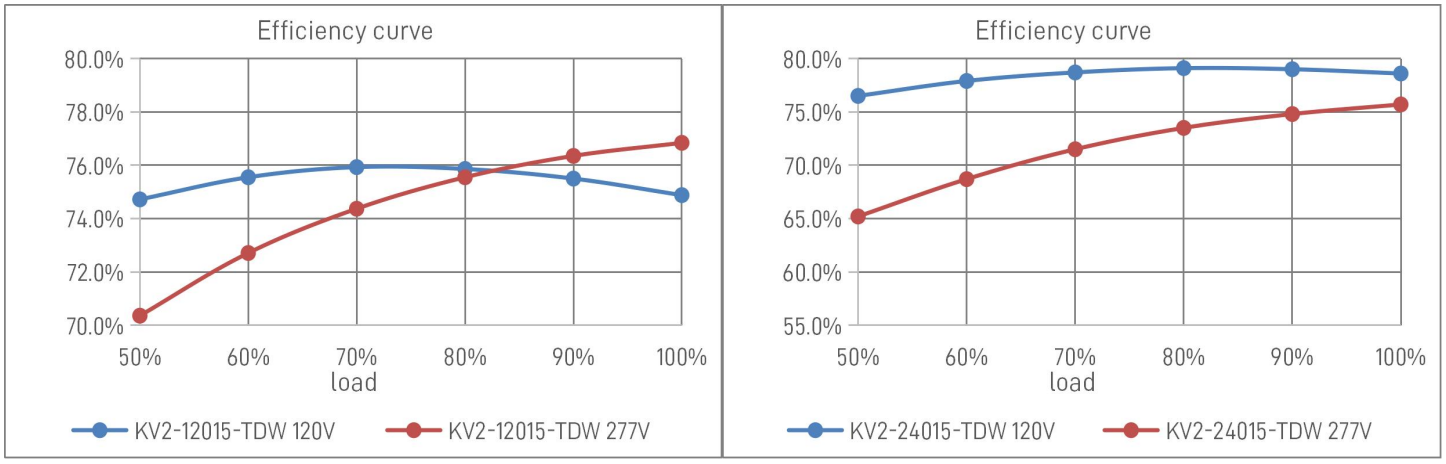
When the input voltage is 120Vac, the number of LED Driver matched by circuit breakers is as follows:		
MCB Type	Level	The number of LED Driver
B type	10A	49
	13A	64
	16A	79
	20A	99
When the input voltage is 277Vac, the number of LED Driver matched by circuit breakers is as follows:		
MCB Type	Level	The number of LED Driver
B type	10A	104
	13A	135
	16A	167
	20A	208

When the input voltage is 120Vac, the number of LED Driver matched by circuit breakers is as follows:		
MCB Type	Level	The number of LED Driver
C type	10A	49
	13A	64
	16A	79
	20A	99
When the input voltage is 277Vac, the number of LED Driver matched by circuit breakers is as follows:		
MCB Type	Level	The number of LED Driver
C type	10A	104
	13A	135
	16A	167
	20A	208

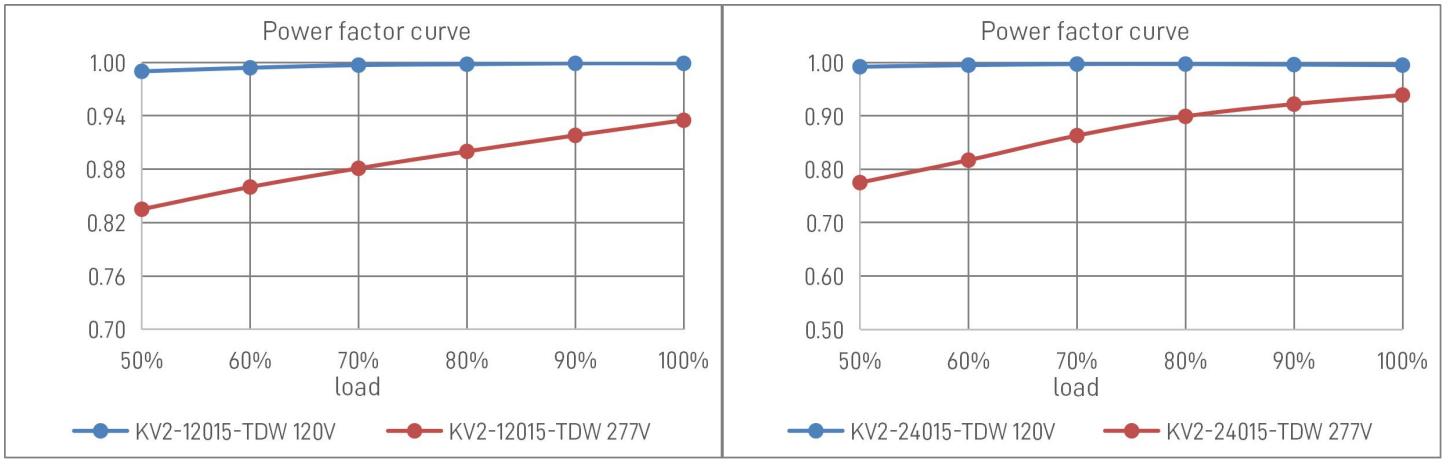
Note:

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

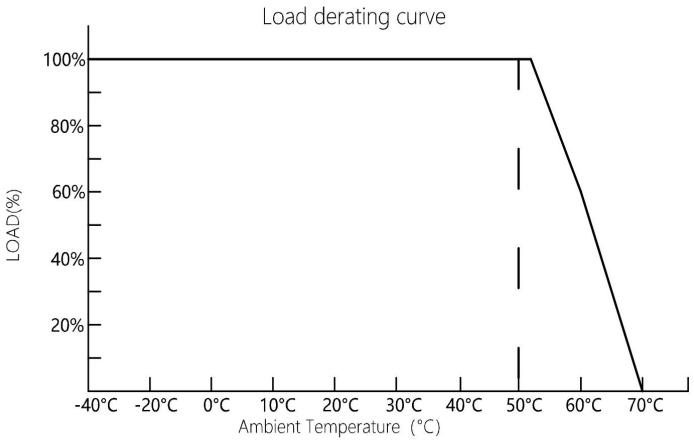
Efficiency Curve (efficiency vs output load)



Power Factor Curve (power factor vs output load)

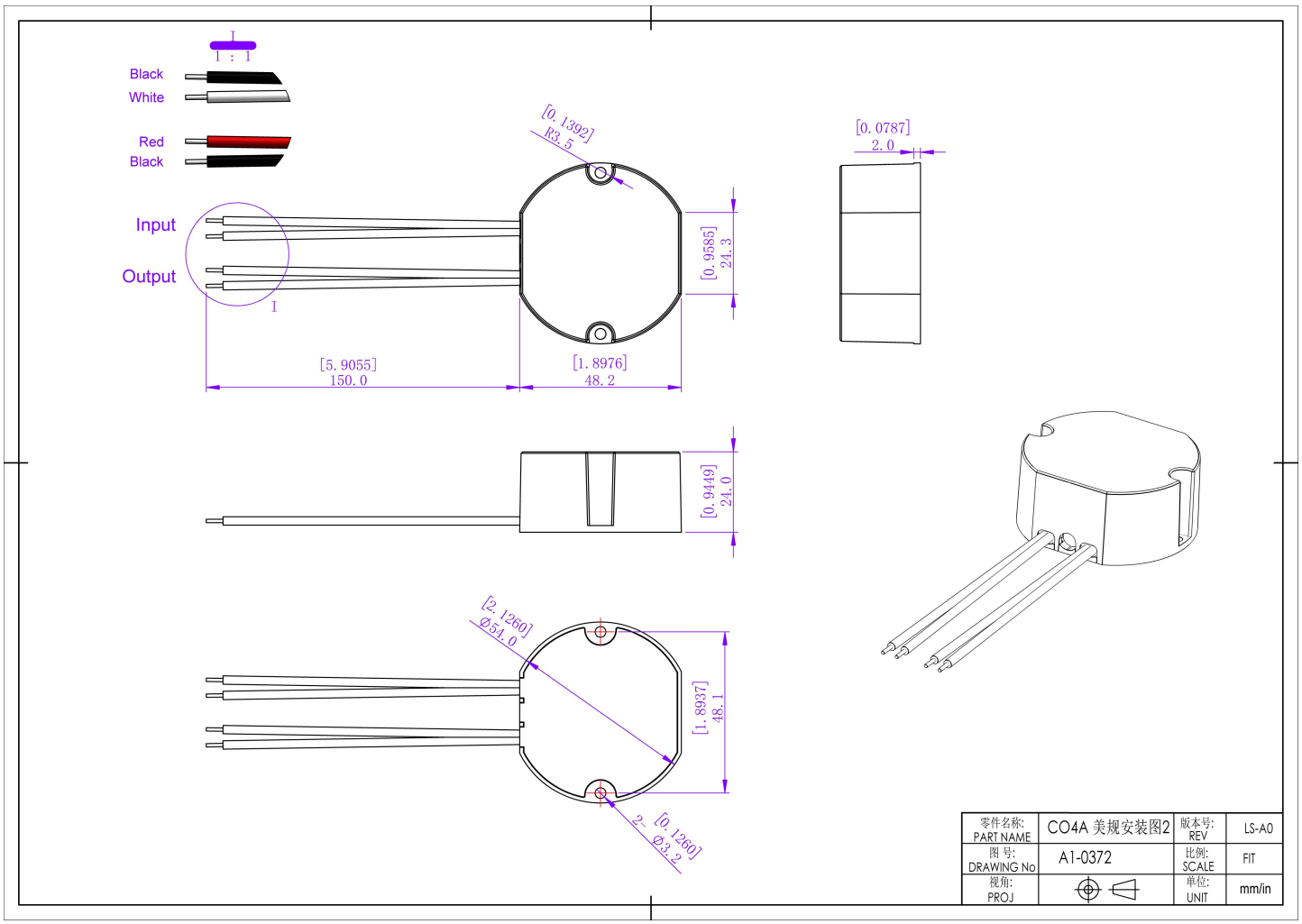


Derating Curve (output load vs TEMP.)



1. To extend their life, please refer to the Derating Curve and derate according to the temperature.
2. Please note that the rise in temperature of LED fixtures over a long period of time will cause their power to rise. Therefore, we recommend the power supply to reserve a certain amount of load to avoid overloading.

Mechanical Specification



American wire gauge	
CO4A	
Input wire	Black(L) White(N) (2*18AWG)
Output wire	Red(V+) Black(V-) (2*22AWG)

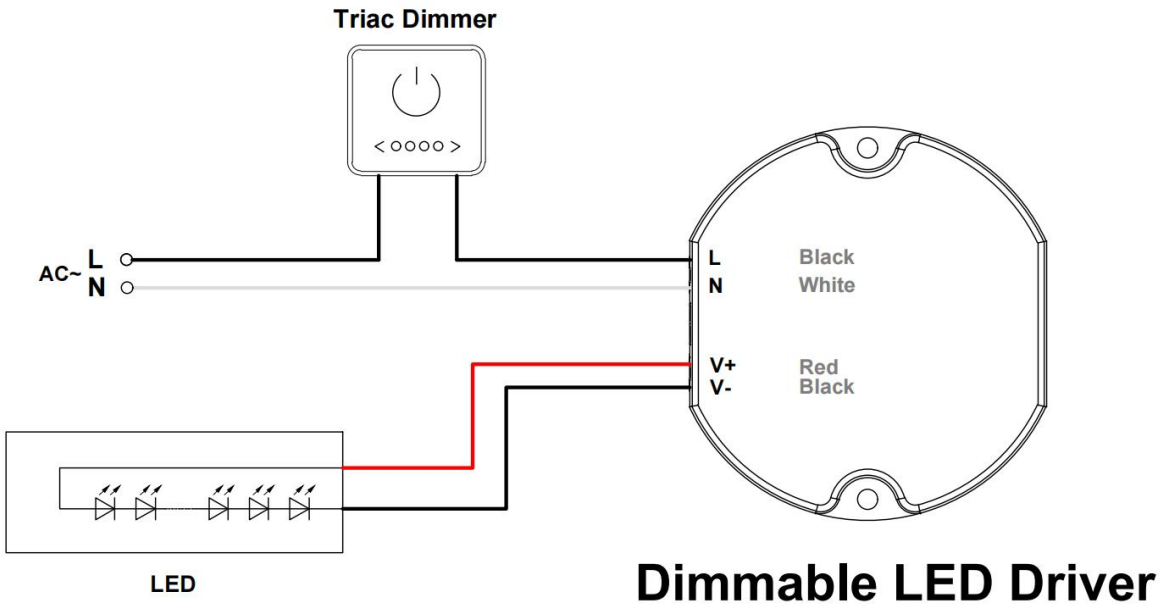
Warm tip:

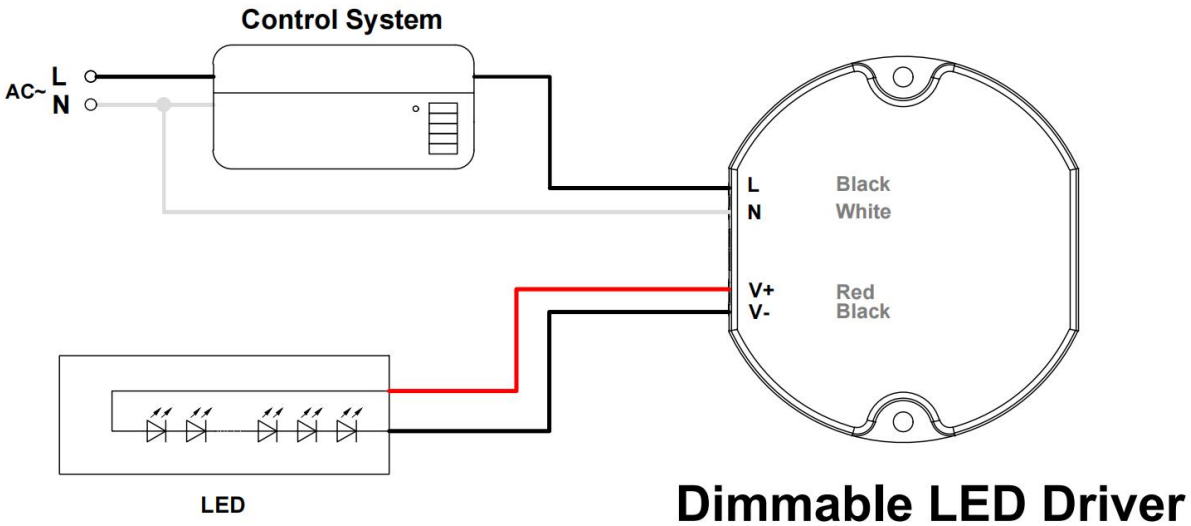
Any other requests for cable, we can customize.

Dimming Operation and Connecting Diagram

Using one dimming ---TRIAC/Phase cut dimming

1. 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.
2. Working with forward phase /leading edge, MLV and Reverse phase /trailing edge, ELV, TRIAC dimmers or light system.
3. Min. loading is about 10%
4. Please try to use dimmers with power at least 1.5 times as the output power of the driver.





Instructions

1. This driver should be installed by qualified and professional person.
2. Please make sure the driver is installed with adequate ventilation around it to allow for heat dissipation.
3. Ensure that wiring is correct before test in order to avoid light and power supply damage.
4. If driver cannot work normally, don't maintain privately.

Have any questions, please contact Zhuhai Shengchang.

Please visit our website or contact us for more information! www.scpower.net.cn/en