

KVZ series 60W

Whole Family: KVZ-XX060-xC-P (XX=12V 24V 48V) [60W]

xC: 1C/DW 2C/CCT 3C/RGB 4C/RGBW 5C/RGBCW



ICES-005

Class 2

Class P

IP20
SELV

RoHS



Features

Output Type:	Constant Voltage
Input Range:	120-277VAC
PFC design:	Built-in active PFC function
Protections:	Short circuit/ Over load/ Over temperature
Heat dissipation:	Cooling by free air convection
Waterproof performance:	IP20 (EU); For dry and damp locations (US)
Design features:	<ol style="list-style-type: none"> Simple wiring Precise control The connection is simple and reliable
Dimming function:	ZigBee wireless dim., which can be controller by Mobile App or Smart speaker, like Google home or Amazon echo .Adopt TUYA module, 8K Hz PWM output
Dimming range:	1-100% dimming depth 1%
Application:	Suitable for the application of LED lighting
Warranty:	5 years warranty
Others:	PWM output, flicker-free dimming

ZigBee Wireless Dimming - Constant Voltage TUYA LED Driver - 1-5 Channel 60W

Specification

Model		KVZ-12060-xC-P	KVZ-24060-xC-P	KVZ-48060-xC-P
Certificate		UL / FCC / CE / ENEC / UKCA / SAA / ICES-005 / Class 2 / Class P / SELV / ROHS / REACH		
Output	DC Voltage	12V	24V	48V
	Voltage Tolerance	±4%	±2%	±2%
	Load Regulation	±3%	±2%	±1%
	Line Regulation	≤1%	≤1%	≤1%
	Rated current	5A	2.5A	1.25A
	Rated power	60W	60W	60W
	RIPPLE & NOISE (max.)	376mVp-p	248mVp-p	208mVp-p
	Overshoot voltage	< 3% (full load) < 4%(no load)		
Input	Voltage Range	120-277VAC		
	Frequency Range	50 / 60Hz		
	Power Factor @ full load	>0.95		
	THD(Typ.) @ full load	≤10%@120VAC ≤15%@277VAC		
	Efficiency(Typ.) @ full load	86.5%@120VAC 90.0%@230VAC 90.5%@277VAC	87.0%@120VAC 88.5%@230VAC 89.5%@277VAC	86.0%@120VAC 89.5%@277VAC
	AC Current (Max.)	0.64A		
	Inrush Current (Typ.)	26.4A, 136us @50%Ipeak 120VAC 46.7A, 140us @50%Ipeak 277VAC 63.2A, 146us @50%Ipeak 277VAC		
	Leakage current	<0.5mA		
Protection	Short Circuit	Hiccup mode, automatically recovers after an exception is removed.		
	Over Load	105%~120% Hiccup mode, recovers automatically after fault condition is removed.		
	Over temperature	Turn off the output voltage and recover automatically after the temperature drops.		
Environment	Working TEMP.	-40~+50°C (see below derating curve)		
	Working Humidity	20 - 90%RH non-condensing		
	Storage TEM.,Humidity	-40 - +80°C,10 - 95% RH non-condensing		
	TEMP.coefficient	±0.03%/°C(0 - 50°C)		
	Vibration	10 ~ 500Hz, 2G 12 minutes/cycle, X Y Z axis 72 minutes each		
Safety & EMC	Safety standards	EN61347-1; EN61347-2-13 UL8750 CAN/CSA-C22.2 No.250.13		
	Withstand voltage	I/P-O/P:3.75KVAC (EU) I/P-O/P:1.88KVAC (US)		
	Isolation resistance	I/P-O/P:>100MΩ / 500VDC / 25°C / 70% RH		
	Surge Immunity Test	AC Power Line:Differential Mode 1KV		
	EMC Immunity	EN61547; EN61000-4-2,3,4,5,11 FCC/ICES do not request this test.		
	EMC Emission	EN55015; EN61000-3-2,3 CFR47 FCC Part15 Subpart B:2020; ANSI C63.4a-2017; ICES-005 Issue 5		

ZigBee Wireless Dimming - Constant Voltage TUYA LED Driver - 1-5 Channel 60W

Others	Net Weight	0.35KG
	Dimension	192.5*62*24mm (L*W*H)
	Packing	280*210*160mm 20pcs/CTN
Notes	<ol style="list-style-type: none"> 1. Unless otherwise specified, all specifications are measured at 120V input, rated load, and 25°C ambient temperature. 2. Default states: Output voltage is DC Rate Voltage. Output frequency is 8KHZ. 3. LED driver Meets the harmonic emissions requirements of ANSI C82.77-10. 	

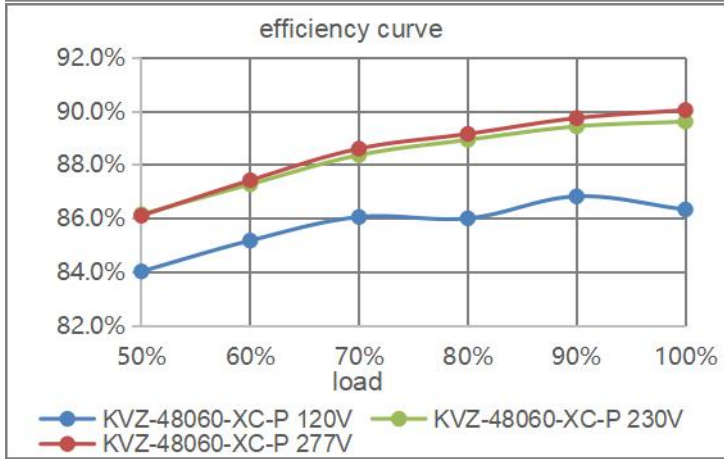
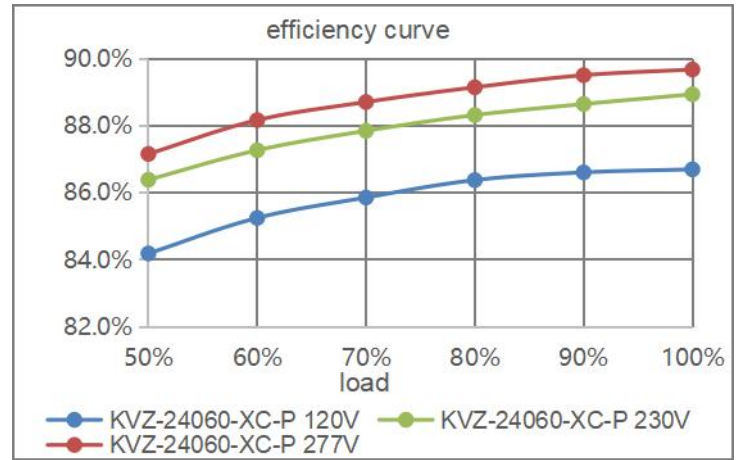
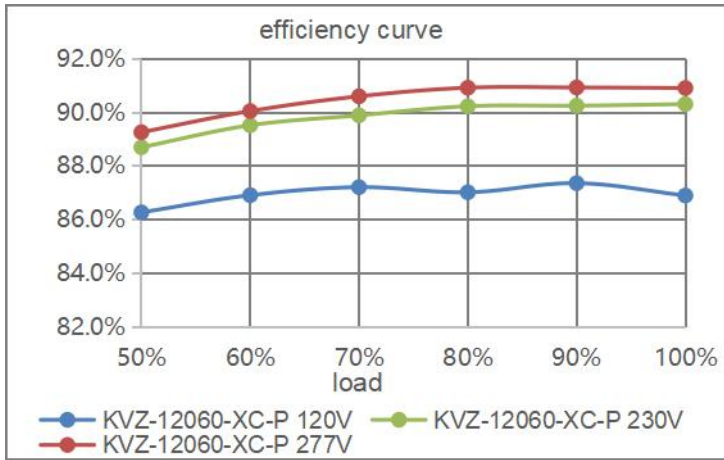
MCB recommendation

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
C type	10A	14
	13A	18
	16A	22
	20A	28
When the input voltage is 230Vac,the number of LED Driver matched by circuit breakers is as follows:		
MCB Type	Level	The number of LED Driver
C type	10A	12
	13A	15
	16A	19
	20A	24
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	9
	13A	11
	16A	14
	20A	17

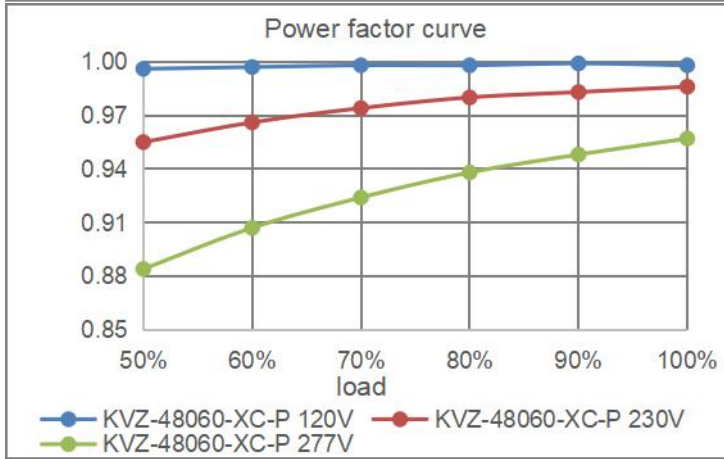
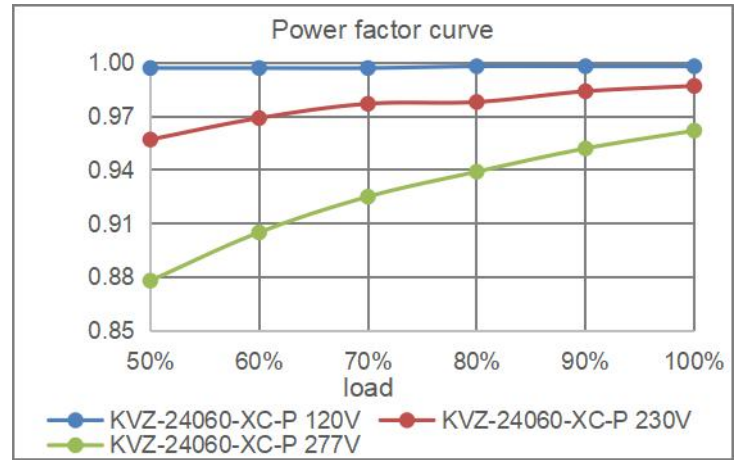
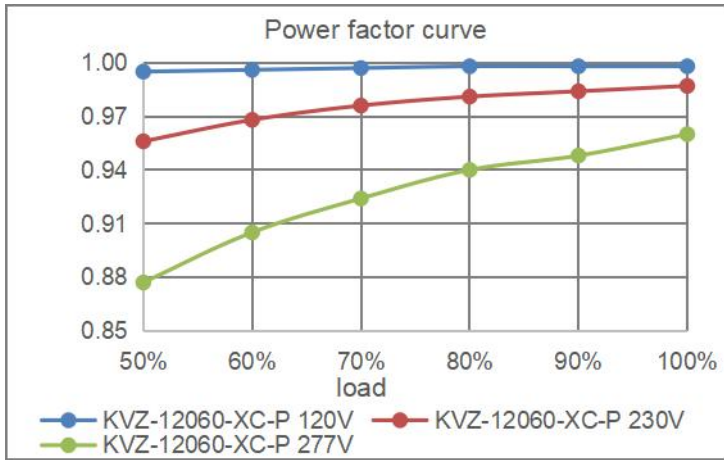
Note:

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.

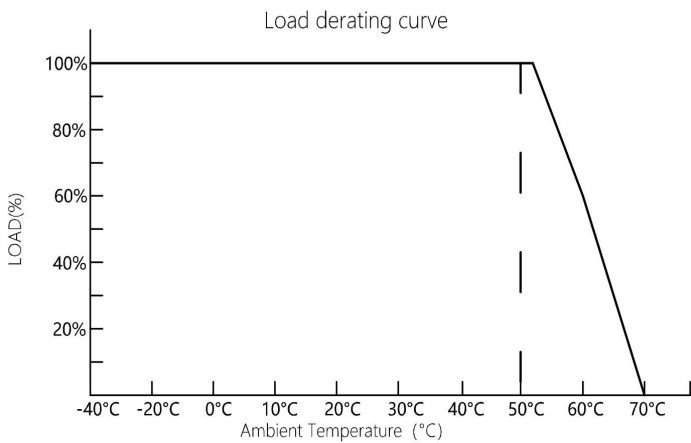
Efficiency Curve (efficiency vs output load)



Power factor curve(Power factor vs output load)

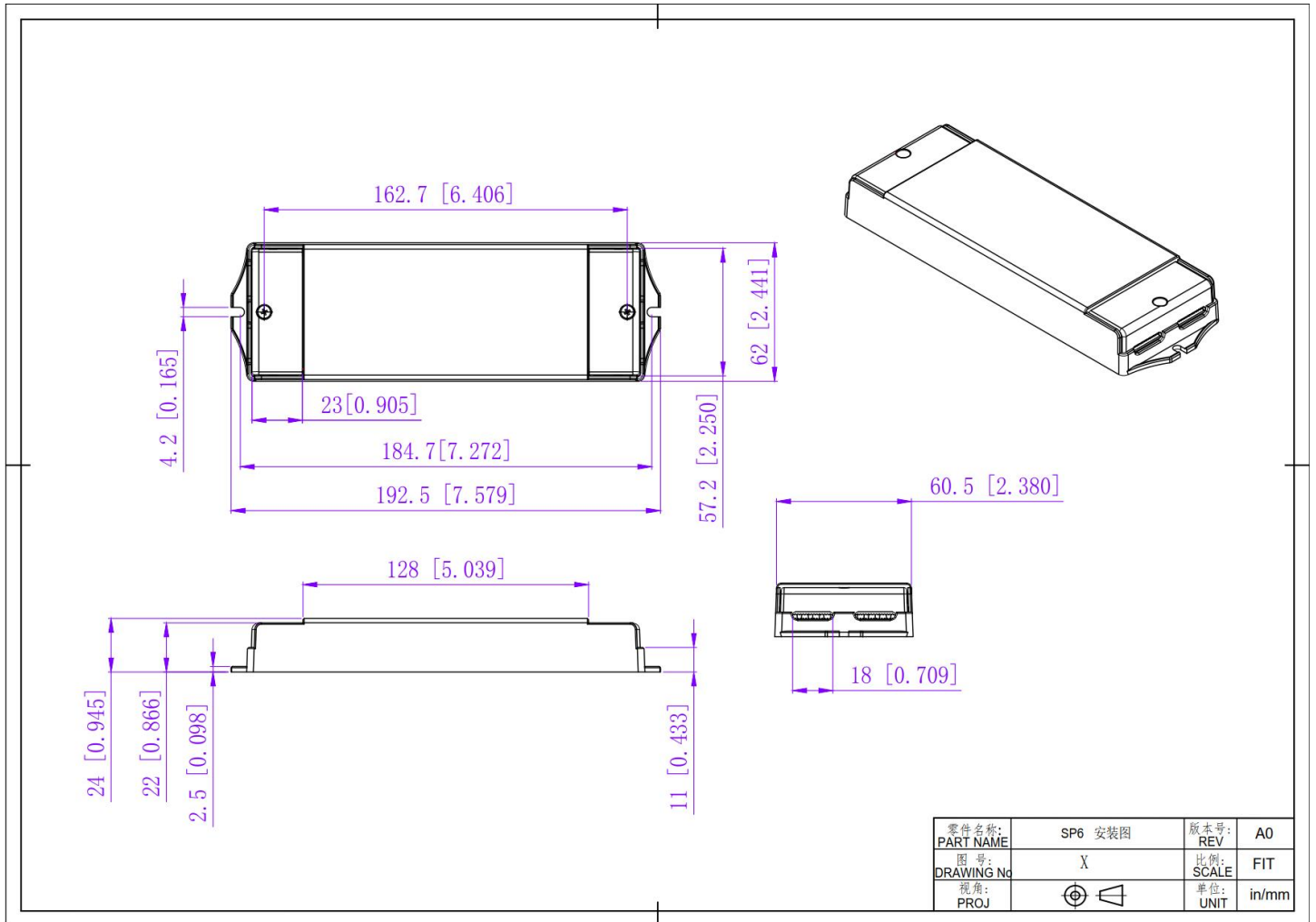


Derating Curve (output load vs TEMP.)



To extend their life, please refer to the Derating Curve and derate according to the temperature.

Mechanical Specification



12V&24V&48V Version

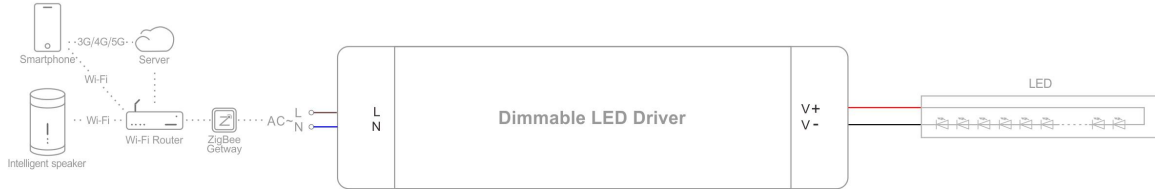
1. Input DG128 terminal with 3P: Live Wire(L) , Neutral Wire (N) .
2. Output DG128 terminals with XC→(X+1)P LED SEC positive (LED+), LED negative (LED-). Connected to LED light; Common anode design.
3. Please make sure you connect these correctly ,otherwise your product will not work correctly and could be damaged.

Warm tips:

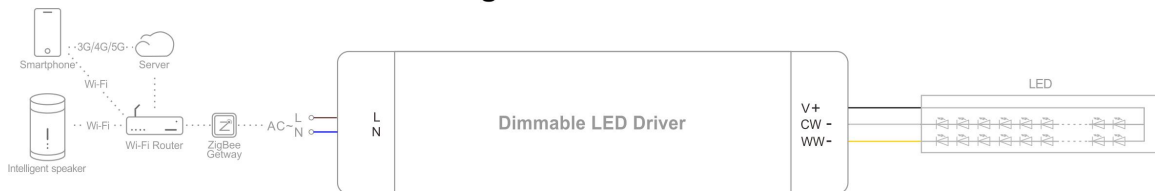
1. Suggested wire diameter: Primary 0.75-2.5mm² (18-14 AWG); Secondary 0.5-2.5mm² (20-14 AWG).
2. Any other requests for, we can customize.

Dimming Operation and Connecting Diagram

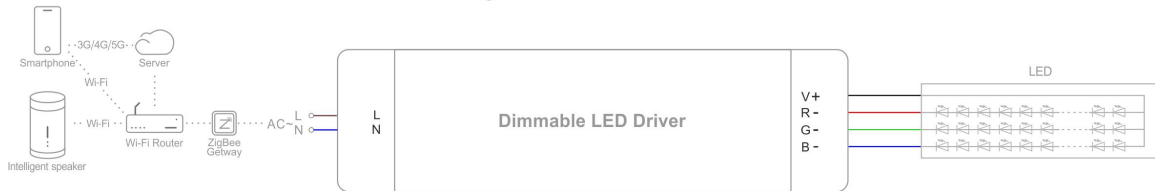
ZigBee - 1 Channel



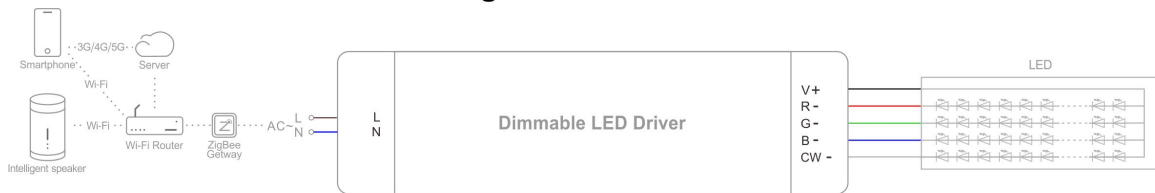
ZigBee - 2 Channel



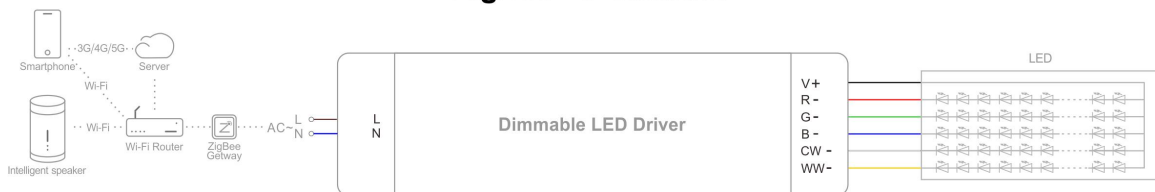
ZigBee - 3 Channel



ZigBee - 4 Channel



ZigBee - 5 Channel



TUYA USE Operation

1. Zigbee dimmable driver could be controlled by Mobile App

Use mobile phone to scan the QR code below or download "Smart Life" from the Apple store or Android market.



2. Zigbee dimmable driver could be controlled by Smart Speaker, like Google home or Amazon echo

Google home

- (1) Configure Google Home app through "Google Home" in App Store or Google Play to install the app.
- (2) Set up Google Home and configure in Home Control.
- (3) Add devices in Smart Life app (Refer to App Instruction).
- (4) Link Smart Life account in Home Control.

then SC Zigbee dimmable driver could be controlled through Google Home.

Amazon echo

- (1) Configure Echo through web or Amazon Alexa app in App Store or Google Play to install the app.
Web configuration link: <http://alexa.amazon.com/spa/index.html>
- (2) Set up Amazon Echo and enable Smart Life Skill.
- (3) Add devices in Smart Life app (Refer to App Instruction).
- (4) Link Smart Life account to Alexa.
- (5) Discover devices which have already been added in the Smart Life app.

Zigbee dimmable driver could be controlled through Echo.

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.