VaLO 200W 24V RGBW ZigBee LED Driver
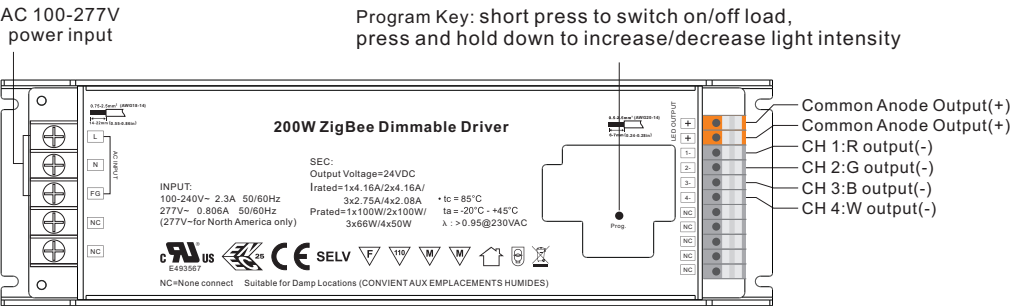

Important: Read All Instructions Prior to Installation

Function introduction

AC 100-277V power input

Program Key: short press to switch on/off load, press and hold down to increase/decrease light intensity

200W ZigBee Dimmable Driver

INPUT:
100-240V~ 2.3A 50/60Hz
277V~ 0.806A 50/60Hz
(277V~for North America only)

SEC:
Output Voltage=24VDC
Irated=1x4.16A/2x4.16A/
3x2.75A/4x2.08A
Prated=1x100W/2x100W/
3x66W/4x50W

• tc = 85℃
ta = -20℃ - +45℃
λ : >0.95@230VAC

E493567

NC=None connect   Suitable for Damp Locations (CONVIENT AUX EMPLACEMENTS HUMIDES)

Common Anode Output(+)
Common Anode Output(+)
CH 1:R output(-)
CH 2:G output(-)
CH 3:B output(-)
CH 4:W output(-)

Note: 1) W channel can be turned on through Gateway's color temperature control interface which will mix RGB channels as 1 channel white and then make color tuning with the 4th channel white. Once turned on, the brightness of white channel will be controlled together with RGB channels.
2) W channel can be controlled separately from RGB channels through RGBW zigbee remote or touch panel's W button, please refer to their manuals.

Product Data

Output	LED Channel	4	
	DC Voltage	12V DC	24V DC
	Max. Current	Max. 8.3A/ch, ch1+ch2+ch3+ch4=16.6A	Max. 4.1A/ch, ch1+ch2+ch3+ch4=8.4A
	Voltage Tolerance	±1%	
	Rated Power	max. 200W	
Input	Voltage Range	100-277V AC	
	Frequency Range	50/60Hz	
	Power Factor (Typ.)	> 0.98 @ 230VAC	
	Total Harmonic Distortion	THD ≤ 15% (@ full load / 230VAC)	
	Efficiency (Typ.)	93% @ 230VAC full load	
	AC Current (Typ.)	2.3A @ 100VAC, 1A @ 230VAC, 0.9A@277VAC	
	Inrush Current (Typ.)	Cold Start Max. 65A @ 230VAC	
	Leakage Current	< 0.5mA /230VAC	
	Standby Power Consumption	< 1W	

Control	Dimming Interface	ZigBee
	Dimming Range	0.1%-100%
	Dimming Method	Pulse Width Modulation
Protection	Over Current	Yes, recovers automatically after fault condition is removed
	Over Temperature	Yes, recovers automatically after fault condition is removed
Environment	Working Temp.	-20℃ ~ +45℃
	Max. Case Temp.	85℃ (Ta="45℃")
	Working Humidity	10% ~ 95% RH non-condensing
	Storage Temp. & Humidity	-40℃ ~ +80℃, 10% ~ 95% RH
Safety & EMC	Safety Standards	UL8750, CAN/CSA C22.2 No. 250.13-14, ENEC EN61347-1, EN61347-2-13 approved
	Withstand Voltage	I/P-O/P: 3.75KVAC
	Isolation Resistance	I/P-O/P: 100M Ohms / 500VDC / 25℃ / 70% RH
	EMC Emission	EN55015, EN61000-3-2, EN61000-3-3
	EMC Immunity	EN61547, EN61000-4-2,3,4,5,6,8,11, surge immunity Line-Line 1KV
Others	MTBF	187100H, MIL-HDBK-217F @ 230VAC at full load and 25℃ ambient temperature

• Dimmable LED driver with metal case, 4 channels 12/24VDC constant voltage output
• Class 1 power supply, full isolated metal case
• Built-in two-stage active PFC function, PF > 0.98, Efficiency > 93%, low standby power < 1W
• Compliant with Safety Extra Low Voltage standard
• Over load, over temperature protection
• ZigBee RGBW LED light device based on ZigBee 3.0 protocol, supports Touchlink commissioning
• Enables to control ON/OFF, light intensity and RGB color
• W channel can be controlled through Gateway's color temperature control interface
• W channel can be controlled separately from RGB channels through RGBW zigbee remote or touch panel's W button
• Can directly pair to a compatible ZigBee remote via Touchlink
• Supports zigbee green power and can bind max. 20 zigbee green power remotes
• Compatible with universal ZigBee coordinator or gateway products
• IP20 rating, suitable for indoor LED lighting applications
• 5 years warranty

Safety & Warnings

• DO NOT install with power applied to the device.
• DO NOT expose the device to moisture.

Operation

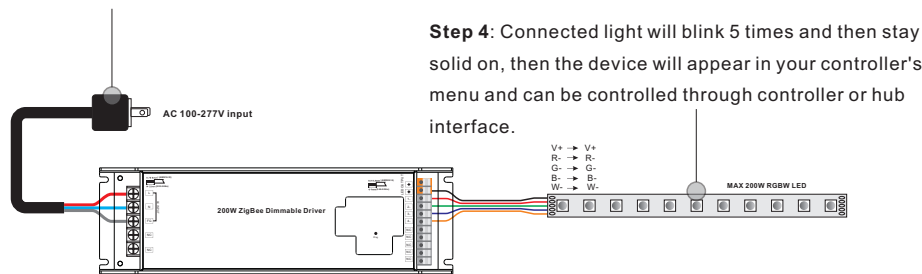**1.Do wiring according to connection diagram correctly.**

2.This ZigBee device is a wireless receiver that communicates with a variety of ZigBee compatible systems. This receiver receives and is controlled by wireless radio signals from the compatible ZigBee system.

3. Zigbee Network Pairing through Coordinator or Hub (Added to a Zigbee Network)

Step 1: Remove the device from previous zigbee network if it has already been added to, otherwise pairing will fail. Please refer to the part "**Factory Reset Manually**".
Step 2: From your ZigBee Controller or hub interface, choose to add lighting device and enter Pairing mode as instructed by the controller.
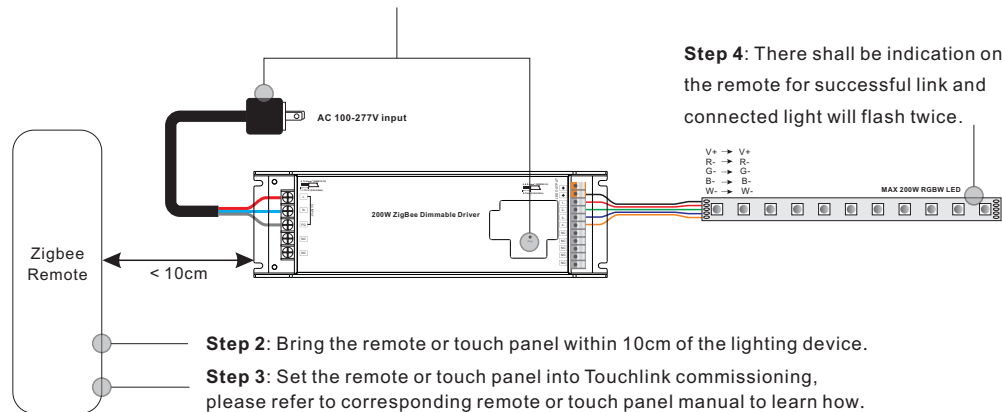
Step 3: power on the device, it will be set into network pairing mode (connected light flashes twice slowly), the network pairing mode will last until the device is added to a zigbee network.

Step 4: Connected light will blink 5 times and then stay solid on, then the device will appear in your controller's menu and can be controlled through controller or hub interface.


4. TouchLink to a Zigbee Remote

Step 1: Method 1: Short press "Prog" button (or re-power on the device) 4 times to start Touchlink commissioning immediately, 180S timeout, repeat the operation.
Method 2: If the device is already added to a network, it will be set into Touchlink commissioning immediately, 180S timeout. Once timeout, re-power on the device to set it into touchlink commissioning again.

Step 4: There shall be indication on the remote for successful link and connected light will flash twice.

Step 2: Bring the remote or touch panel within 10cm of the lighting device.
Step 3: Set the remote or touch panel into Touchlink commissioning, please refer to corresponding remote or touch panel manual to learn how.

Note: 1) Directly TouchLink (both not added to a ZigBee network), each device can link with 1 remote.
2) TouchLink after both added to a ZigBee network, each device can link with max. 30 remotes.
3) For Hue Bridge & Amazon Echo Plus, add remote and device to network first then TouchLink.
4) After TouchLink, the device can be controlled by the linked remotes.
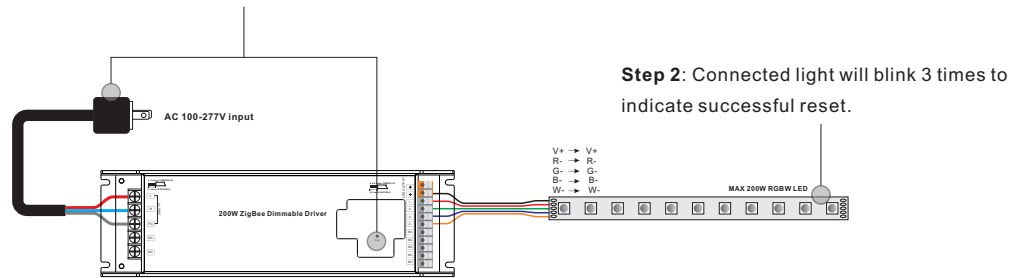
5. Removed from a Zigbee Network through Coordinator or Hub Interface
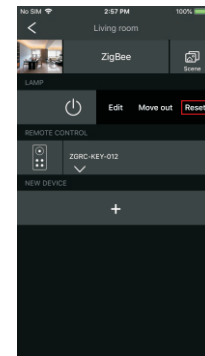
From your ZigBee controller or hub interface, choose to delete or reset the lighting device as instructed. The connected light blinks 3 times to indicate successful reset.

6. Factory Reset Manually

Step 1: Short press "Prog." key for 5 times continuously or re-power on the device for 5 times continuously if the "Prog." key is not accessible.
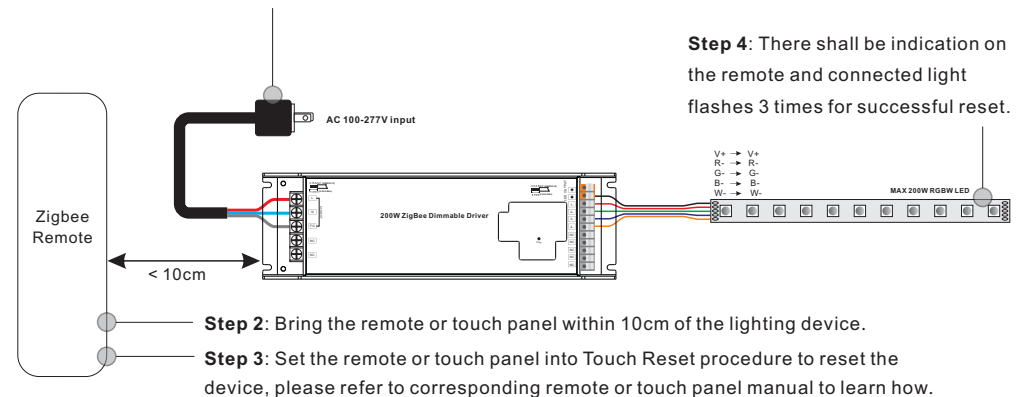
Step 2: Connected light will blink 3 times to indicate successful reset.

Note: All configuration parameters will be reset after the device is reset or removed from the network.

7. Factory Reset through a Zigbee Remote (Touch Reset)
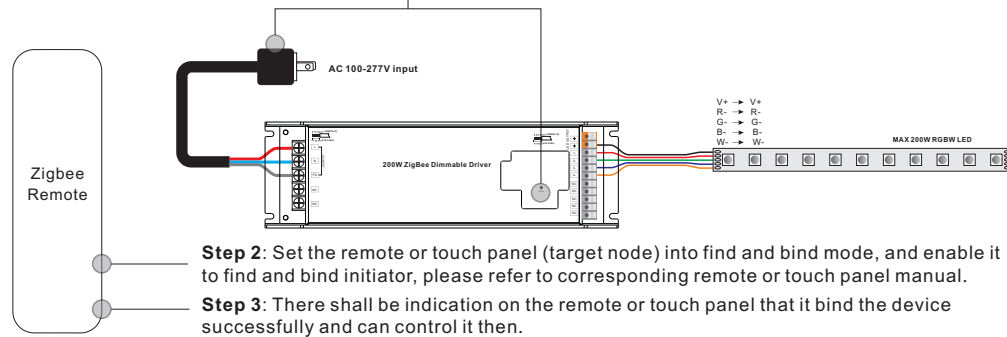
Note: Make sure the device already added to a network, the remote added to the same one or not added to any network.

Step 1: Re-power on the device to start TouchLink Commissioning, 180 seconds timeout, repeat the operation.

Step 4: There shall be indication on the remote and connected light flashes 3 times for successful reset.

Step 2: Bring the remote or touch panel within 10cm of the lighting device.
Step 3: Set the remote or touch panel into Touch Reset procedure to reset the device, please refer to corresponding remote or touch panel manual to learn how.

8. Find and Bind Mode

Step 1: Short press "Prog." button 3 times (Or re-power on the device (initiator node) 3 times) to start Find and Bind mode (connected light flashes slowly) to find and bind target node, 180 seconds timeout, repeat the operation.
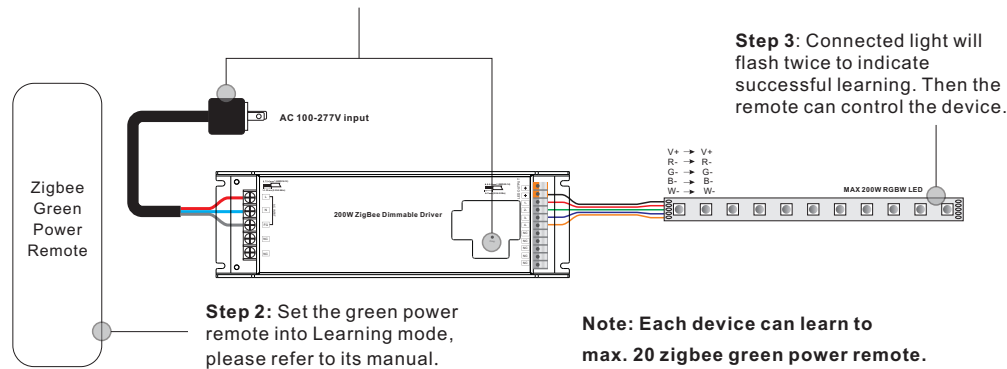

Zigbee Remote

AC 100-277V input

200W ZigBee Dimmable Driver

V+ → V+
R- → R-
G- → G-
B- → B-
W- → W-

MAX 200W RGBW LED

Step 2: Set the remote or touch panel (target node) into find and bind mode, and enable it to find and bind initiator, please refer to corresponding remote or touch panel manual.

Step 3: There shall be indication on the remote or touch panel that it bind the device successfully and can control it then.

9. Learning to a Zigbee Green Power Remote

Step 1: Short press "Prog." button 4 times (Or re-power on the device 4 times) to start Learning mode (connected light flashes twice), 180 seconds timeout, repeat the operation.
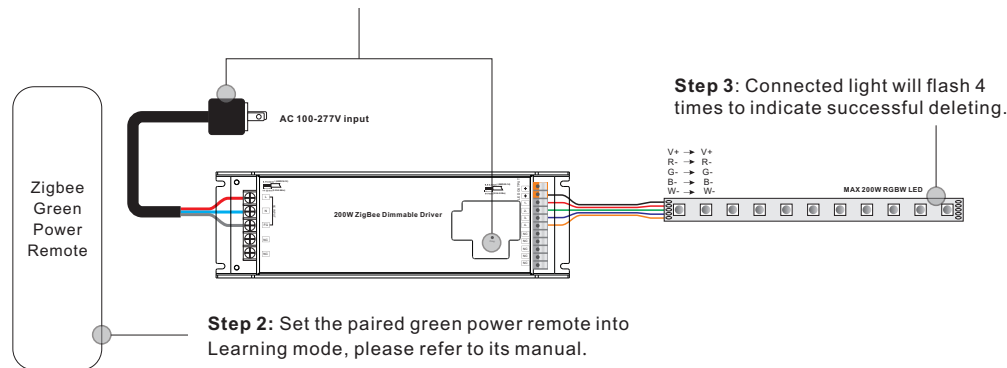
Step 3: Connected light will flash twice to indicate successful learning. Then the remote can control the device.

Zigbee Green Power Remote

AC 100-277V input

200W ZigBee Dimmable Driver

V+ → V+
R- → R-
G- → G-
B- → B-
W- → W-

MAX 200W RGBW LED

Step 2: Set the green power remote into Learning mode, please refer to its manual.

Note: Each device can learn to max. 20 zigbee green power remote.

10. Delete Learning to a Zigbee Green Power Remote

Step 1: Short press "Prog." button 3 times (Or re-power on the device 3 times) to start delete Learning mode (connected light flashes slowly), 180 seconds timeout, repeat the operation.
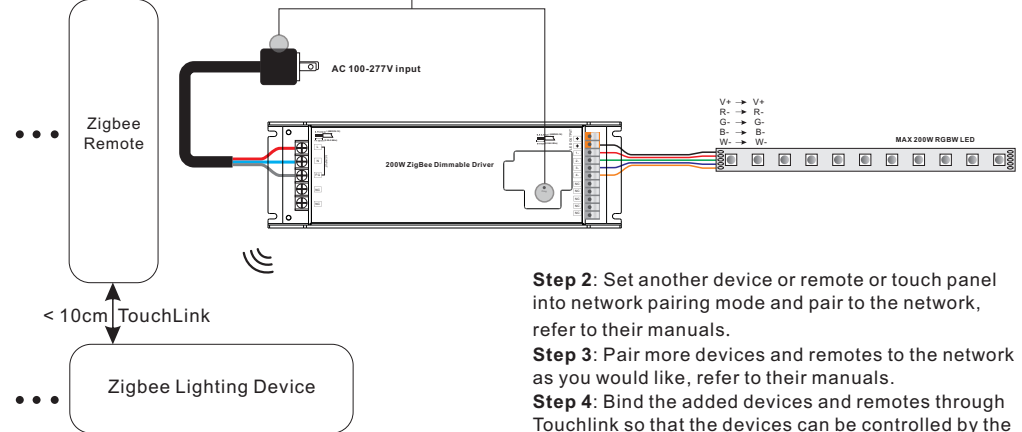
Step 3: Connected light will flash 4 times to indicate successful deleting.

Zigbee Green Power Remote

AC 100-277V input

200W ZigBee Dimmable Driver

V+ → V+
R- → R-
G- → G-
B- → B-
W- → W-

MAX 200W RGBW LED

Step 2: Set the paired green power remote into Learning mode, please refer to its manual.

11. Setup a Zigbee Network & Add Other Devices to the Network (No Coordinator Required)

Step 1: Short press "Prog." button 4 times (Or re-power on the device 4 times) to enable the device to setup a zigbee network (connected light flashes twice) to discover and add other devices, 180 seconds timeout, repeat the operation.

Zigbee Remote

AC 100-277V input

200W ZigBee Dimmable Driver

V+ → V+
R- → R-
G- → G-
B- → B-
W- → W-

MAX 200W RGBW LED

< 10cm TouchLink

Zigbee Lighting Device

Step 2: Set another device or remote or touch panel into network pairing mode and pair to the network, refer to their manuals.

Step 3: Pair more devices and remotes to the network as you would like, refer to their manuals.

Step 4: Bind the added devices and remotes through Touchlink so that the devices can be controlled by the remotes, refer to their manuals.

Note: 1) Each added device can link and be controlled by max. 30 added remotes.

2) Each added remote can link and control max. 30 added devices.

12. ZigBee Clusters the device supports are as follows:

Input Clusters

• 0x0000: Basic   • 0x0003: Identify   • 0x0004: Groups   • 0x0005: Scenes   • 0x0006: On/off

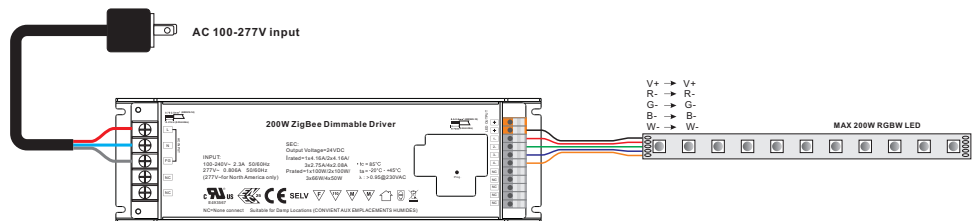• 0x0008: Level Control   • 0x0300: Color Control   • 0x0b05: Diagnostics

Output Clusters

• 0x0019: OTA

13. OTA

The device supports firmware updating through OTA, and will acquire new firmware from zigbee controller or hub every 10 minutes automatically.

Wiring diagram

AC 100-277V input

200W ZigBee Dimmable Driver

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277V~ 0.805A 50/60Hz
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• tc = 85°C
ta = -20°C - +65°C
ɡ : +0.55@230VAC

V+ → V+
R- → R-
G- → G-
B- → B-
W- → W-

MAX 200W RGBW LED

Product Dimension

330mm

79mm

39mm

270mm

261.7mm

62mm

79mm

39mm