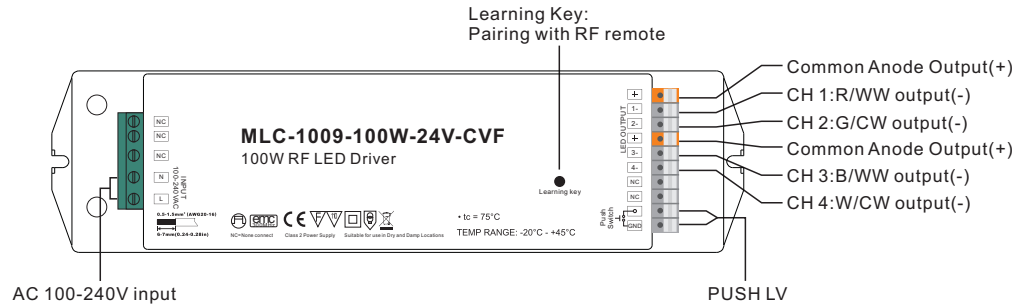# 100W RF Dimmable LED Driver

MLC-1009-100W-24V-CVF

Important: Read All Instructions Prior to Installation

Function introduction

Learning Key:
Pairing with RF remote

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

MLC-1009-100W-24V-CVF
100W RF LED Driver

Learning key

AC 100-240V input

PUSH LV

Product Data

Output	LED Channel	4
	DC Voltage	24V DC
	Max. Current	Max. 4.16A/CH, CH1+CH2+CH3+CH4=4.16A
	Voltage Tolerance	±1%
	Rated Power	max. 100W
Input	Voltage Range	100-240V AC
	Frequency Range	50/60Hz
	Power Factor (Typ.)	> 0.90 @ 230VAC
	Total Harmonic Distortion	THD ≤ 15% (@ full load / 230VAC)
	Efficiency (Typ.)	90% @ 230VAC full load
	AC Current (Typ.)	1.2A @ 100VAC, 0.5A @ 230VAC
	Leakage Current	< 0.5mA /230VAC
Control	Dimming Interface	RF Wireless/PUSH LV
	Dimming Range	0%-100%
	Dimming Method	Pulse Width Modulation
Protection	Short Circuit	Yes, recovers automatically after fault condition is removed
	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℃
	Working Humidity	10% ~ 95% RH non-condensing
	Storage Temp. & Humidity	-40℃ ~ +80℃, 10% ~ 95% RH
Safety & EMC	Safety Standards	TUV 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	193.6K hrs min. @ 230VAC full load and 25℃ ambient temperature
	Dimension	244*64*32mm (L*W*H)

- Dimmable LED driver with RF control
- Max. output power 100W total
- 4 channels 24VDC constant voltage output
- Class Ⅱ power supply, full isolated plastic case
- High power factor and efficiency
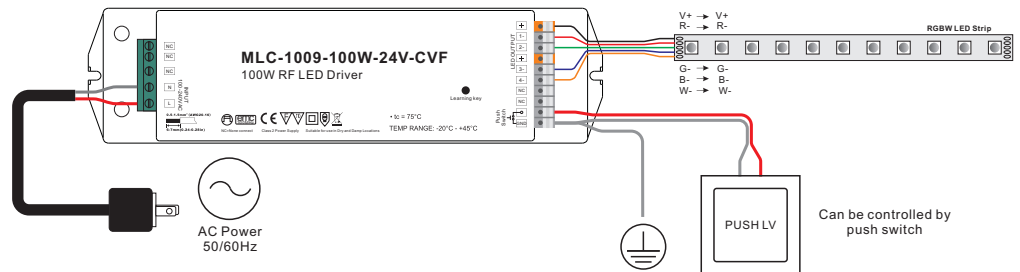- To control single color, dual color, RGB/RGBW LED lighting

- Compatible with a variety of RF remotes
- Push dim function available while connected with a push switch
- IP20 rating
- Suitable for indoor LED lighting applications
- Radio Frequency : 868/869.5/916.5/434mhz
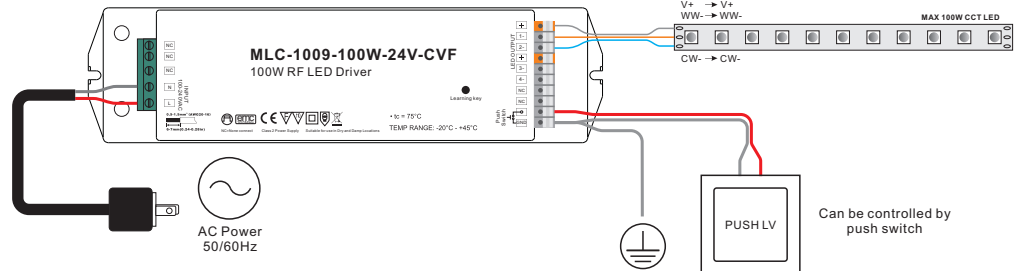- 5 years warranty

Safety & Warnings

- DO NOT install with power applied to device.
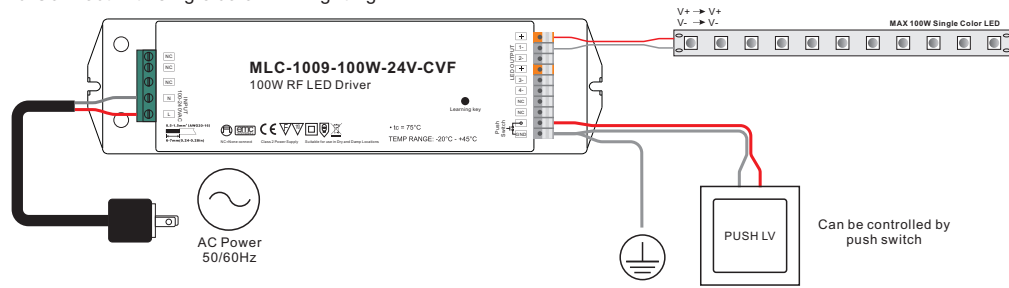- DO NOT expose the device to moisture.
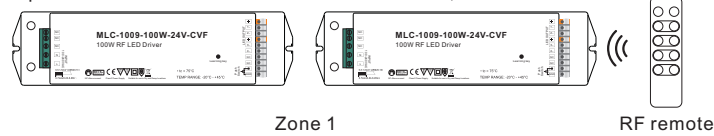
Wiring Diagram

1.Connect with RGBW LED lighting

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

RGBW LED Strip

MLC-1009-100W-24V-CVF
100W RF LED Driver

Learning key

AC Power
50/60Hz

PUSH LV

Can be controlled by push switch

2.Connect with CCT LED lighting

V+ → V+
WW- → WW-
CW- → CW-

MAX 100W CCT LED

MLC-1009-100W-24V-CVF
100W RF LED Driver

Learning key

AC Power
50/60Hz

PUSH LV

Can be controlled by push switch

3.Connect with single color LED lighting

MLC-1009-100W-24V-CVF
100W RF LED Driver

AC Power
50/60Hz

V+ → V+
V- → V-

MAX 100W Single Color LED
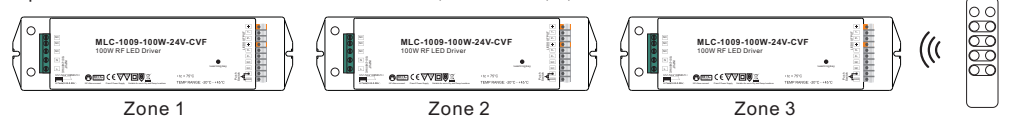
Learning key

Push Switch

PUSH LV

Can be controlled by push switch

If you use multiple receivers, you have two choices:
Option 1: have all the receivers in the same zone, like zone 1

MLC-1009-100W-24V-CVF
100W RF LED Driver

MLC-1009-100W-24V-CVF
100W RF LED Driver

Zone 1

RF remote

Option 2: have each receiver in a different zone, like zone 1, 2, 3 or 4

RF remote

MLC-1009-100W-24V-CVF
100W RF LED Driver

MLC-1009-100W-24V-CVF
100W RF LED Driver

MLC-1009-100W-24V-CVF
100W RF LED Driver

Zone 1

Zone 2

Zone 3

Operation

Do wiring according to connection diagram.

Pair to RF sender with learning key:
1. Connect and wire up the RF receiver correctly, power on.
2. Click on/off button of the remote/panel to turn on it → Click "Learning" key on the receiver → Click a zone
number (ignore this step if the remote/panel has only 1 zone) → Touch the color wheel/slider (click any button
except on/off and zone buttons if the remote has no color wheel/slider) → LED lights connected with the
receiver will blink to indicate successful pairing to the selected zone

Note: one receiver can be paired with max 8 remote controls.

Pairing to RF sender without learning key (Applicable to RF senders with color wheel):
1. Pairing to RF remotes which have color wheel (including single color, CCT and RGBW): power off and power
on the receiver → turn on the remote, then click a zone number twice and press and hold it continuously and
quickly within 10 seconds → LED light connected with the receiver will flash to indicate successful pairing to
the selected zone.
2. Pairing to multi-zone RF touch panels which have color wheel (including single color, CCT and RGBW):
power off and power on the receiver → turn on the panel, then click a zone number three times and press and
hold it continuously and quickly within 10 seconds → LED light connected with the receiver will flash to indicate
successful pairing to the selected zone.

**Note: RF remotes without color wheel, single zone RF touch panels with color wheel, and RF touch
panels without color wheel do not have this function.**

Pairing to RF sender without learning key (Applicable to all compatible RF senders):
Re-power on the receiver three times continuously to set it into pairing status → Within 15 seconds, click on/off

button of the remote/panel to turn on it → Click a zone number (ignore this step if the remote/panel has only 1
zone) → Touch the color wheel/slider (click any button except on/off and zone buttons if the remote has no color
wheel/slider) → LED lights connected with the receiver will blink to indicate successful pairing to the selected
zone

Delete pairing with learning key:
1. Wire up the RF receiver correctly, power on.
2. Press and hold down the " Learning Key" button on receiver for over 3 seconds until the connected led light
on receiver flickers twice, which means well deleted.

How to stop running mode of single color LED light caused by RGBW sender interference:
1. When pairing single color LED light to a single color remote, it might be interfered and paired by nearby
RGBW senders, which might control the single color light into running mode. The running mode can not be
stopped by the paired single color remote or by delete pairing.
2. Then we need a remote or wall panel that has color wheel, and pair the remote or wall panel to the receiver
via above mentioned pairing method "Pairing to RF sender without learning key (Applicable to RF senders with
color wheel)", then touch the color wheel to stop the running mode.
3. Then delete pairing and pair the receiver to the single color remote again, it can be controlled by the remote
again.

PUSH DIM:
While connected with PUSH LV, click the button to switch ON/OFF lights. Press and hold down the button to
increase/decrease light intensity.

Built-in 10 color changing modes are as follows:

Mode 1: Any two colors of RGB mix fade-in & fade-out
Mode 2: RGB three colors mix fade-in & fade-out
Mode 3: RGB three colors mix fade-out & fade-in
Mode 4: RGB flash
Mode 5: RGB three colors fade-in & fade-out successively
Mode 6: RGB three colors fade-in successively
Mode 7: RGB three colors fade-out successively
Mode 8: RGB three colors jump changing successively
Mode 9: R&B two colors mix fade (R in B out), then G fade-in, then R&B mix fade (R out B in), then G fade-out
Mode 10: B fade-out, then G&B mix fade (G out B in), then R&G mix fade (R out G in), then R fade-in