SRP-2305-50-TW-CC

50W DALI DT6 DIMMABLE LED DRIVER
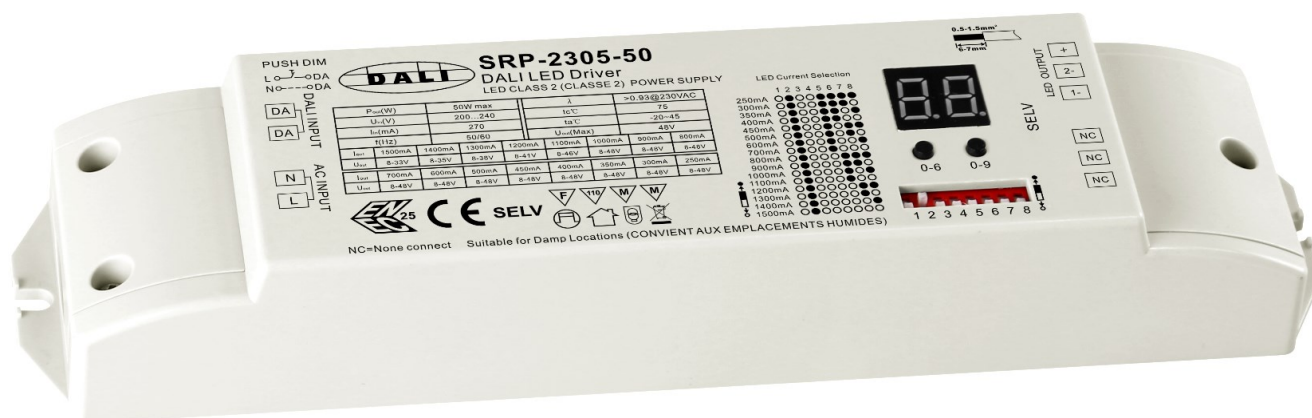
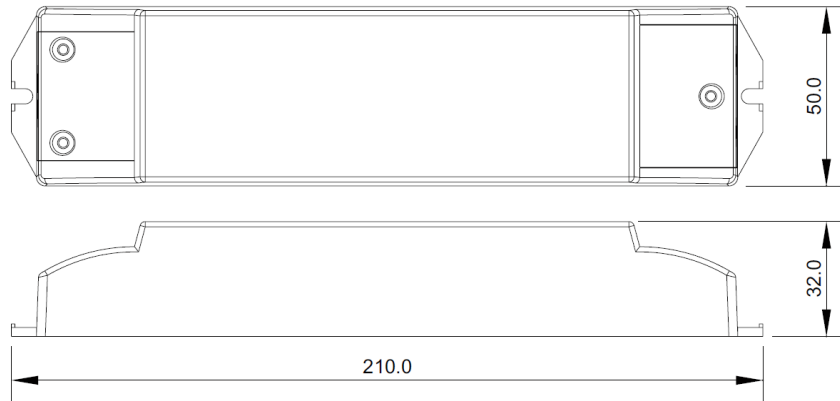|	
Product features	

- DT6 dimmable 1/2-channel TW power supply unit

- 200-240VAC wide input voltage range

- 1/2-channel constant current output (total output power up to 50W)

- Output current from 250mA to 1500mA selectable via DIP switches

- Class 2 power supply, completely insulated plastic housing

- High power factor and efficiency

- Built-in DALI interface, DALI DT6 device, the device can be controlled via 1/2 DALI address

- Colour control according to DALI DT6 specifications

- Complies with DALI IEC 62386-101,102,207 standard

- Generally compatible with DALI masters supporting DT6 commands

- IP20 protection class, suitable for indoor lighting projects
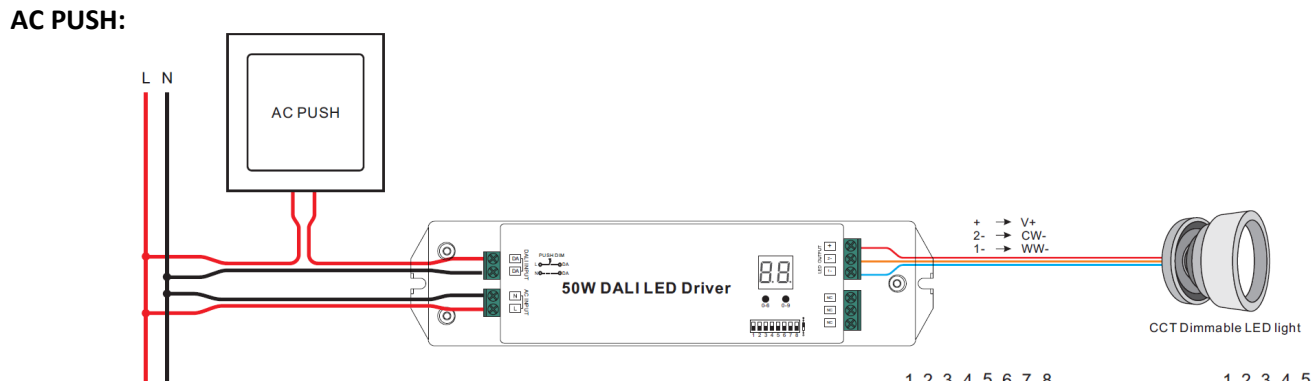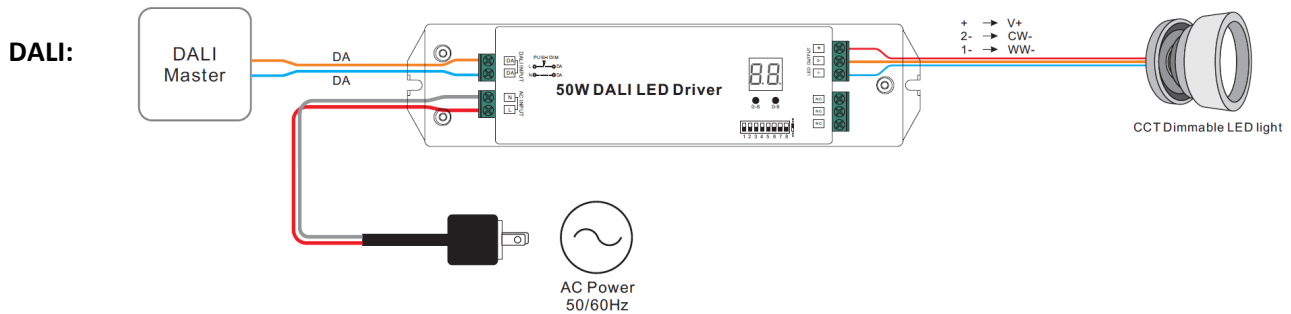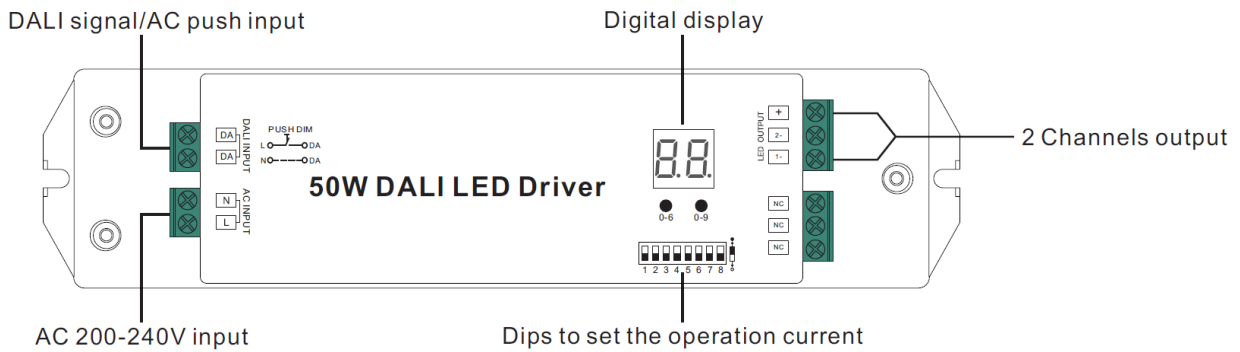
- 5 years warranty

Technical Data

INPUT	**Voltage Range**	200-240V AC							
	Frequency Range	50/60Hz							
	Power Factor (typ.)	> 0.9							
	Total Harmonic Distortion	THD ≤ 15% (@ full load /230VAC)							
	Efficiency typ.	87% @ 230VAC full load							
	AC Current (typ)	0.27A @ 230VAC							
	Inrush Current (typ)	COLD START Max. 2A at 230VAC							
	Leakage Current	< 0.5mA/230VAC							
	Stand by Power Consumption	0.5W							
OUTPUT	**LED Channel**	2							
	Selectable Current	**250mA**	**300mA**	**350mA**	**400mA**	**450mA**	**500mA**	**600mA**	**700mA**
	DC Voltage Range	8-48V	8-48V	8-48V	8-48V	8-48V	8-48V	8-48V	8-48V
	Selectable Current	**800mA**	**900mA**	**1000mA**	**1100mA**	**1200mA**	**1300mA**	**1400mA**	**1500mA**
	DC Voltage Range	8-48V	8-48V	8-48V	8-46V	8-41V	8-38V	8-35V	8-33V
	Current Tolerance	+/- 5%							
	DC Voltage Range	8-48VDC							
	Rated Power	max. 50W							
PROTECTION	**Short Circuit**	Yes, recovers automatically after fault condition is removed							
	Over Temperature	Yes, recovers automatically after fault condition is removed							
	Over Voltage	Yes, recovers automatically after fault condition is removed							
CONTROL	**Dimming Interface**	DALI DT6							
	Dimming Range	0% - 100%							
	Dimming Methode	PWM, 1.5kHz							
	Dimming Curve	Logarithmic							
ENVIRONMENT	**Working Tempetrature**	-20°C - + 45°C							
	Max. Case Temperature	75°C							
	Working Humidity	10%-95% RH non-condensing							
	Storage Temperature	-40°C - +80°C							
	Storage Humidity	10% - 95% RH							
	IP Rating	IP20 (suitable for indoor LED lighting applications)							
Safety & EMC	**Safety Standards**	ENEC EN61347-1, EN61347-2-13 approved							
	DALI Standards	Comply with IEC 62386-101,102,207							
	Withstand Voltage	I/P-O/P: 3.75KVAC							
	Isolation Resistance	I/P-O/P: 100M Ohms / 500VDC / 25°C / 70% RH							
	EMC Emission	EN55015, EN61000-3-2, EN61000-3-3							
	EMC Immunity	EN61547, EN61000-4-2,3,4,5,6,8,11,							
Others	**MTBF**	193.6K hrs min. @ 230VAC full load and 25°C							
	Dimension	210*50*32mm (L*W*H)							
	Warranty	5 years							

Product dimension

50.0

32.0

210.0

Wiring diagram

DALI signal/AC push input

Digital display

2 Channels output

50W DALI LED Driver

AC 200-240V input

Dips to set the operation current

DALI:

DALI Master

DA
DA

50W DALI LED Driver

+ → V+
2- → CW-
1- → WW-

CCT Dimmable LED light

AC Power 50/60Hz

AC PUSH:

L N

AC PUSH

50W DALI LED Driver

+ → V+
2- → CW-
1- → WW-

CCT Dimmable LED light

Dips to set the operation current

	1 2 3 4 5 6 7 8
250mA	○○○○○●●●
300mA	○●○○○●●●
350mA	○○●○○●●●
400mA	●●○○●●●●
450mA	○○○○●●●●
500mA	○●○○●●●●
600mA	○○●○●●●●
700mA	●○○●●○●●

|	1 2 3 4 5 6 7 8
800mA	○●○○○●●●
900mA	○○●○○●●●
1000mA	○○○●○●●●
1100mA	○●○●○●●●
1200mA	●○○●○●●●
1300mA	○○○●○●●●
1400mA	○●●○○○●●
1500mA	○●○○○○○●

Installation

SAFETY AND WARNINGS

- *Do not install with power applied to the device*
- *Do not set operation current with power applied to the device*
- *Do not expose the device to moisture*
- *Drivers with PWM dimming can cause noise due to vibrations. These can be generated by vibrating components in the device as well as by resonant vibrations from other bodies.*
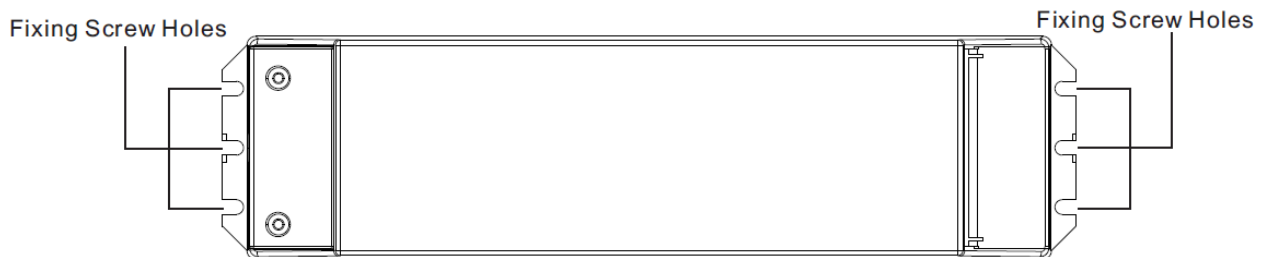
- Approved wire diameter: AWG16—AWG20 / 0.5mm^2-1.5mm^2
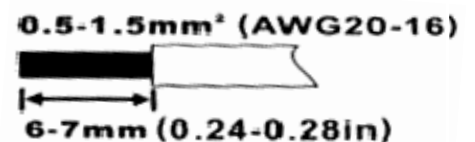
Operation

AC PUSH

While connected with a AC PUSH, the digital display will show "PD" which means Push Dimmer Mode, operations under Push Dimmer Mode are as follows:

1. Click the button to switch ON/OFF

2. Press and hold down the button to increase or decrease light intensity to desired level and release it, then repeat the operation to adjust light intensity to opposite direction. The dimming range is from 1% to 100%.

Set DALI address manually via buttons

1. Press one of the two buttons until the LED display starts flashing.

2. Press one of the two buttons briefly to change the corresponding number until the desired number lights up. Use the left button to change the number by 10 units, the right button to change the number by 1 unit. The address can be set from 00-63.

3. Then press one of the two buttons until the display stops flashing.

Information: The DALI address can be set manually from 00-63-FF. No DALI address is assigned in the factory setting. The display shows FF. If the unit is manually set to FF, it is reset to the factory setting.

Assigning a DALI address via a DALI master

The DALI address can also be programmed automatically via a master. Please refer to the operating instructions of the respective DALI master.
Information: The display will show AU if the DALI Master assigns the address to the device.

Important Information for installation

Set DALI Address Quantity

3.1 Press and hold down both of the two buttons until numeric digital display flashes, then release the button.

3.2 Click first button to select "1A" or "2A" which means 1 address or 2 addresses.

3.3 Then press and hold down any of the 2 buttons until the numeric digital display stops flashing to confirm the setting.

For example, when we set address to 22:

When select 1A, both two channels will be the same address 22.

When select 2A, channel 1 will be address 22, channel 2 will be address 23.

Power on level is a DALI parameter that defines the level of a control gear after power is restored. The factory default power on level for this driver is 100, which means the driver will be at 100% intensity when power is restored.

Troubleshooting Help

Situation A: The power supply has been overloaded and is now in overload protection mode.

What does the error pattern look like?

The connected LEDs flash. You can reduce the brightness via a DALI software and the strip will stop flashing. You can no longer control the colours with the software.

How can the problem be solved (two variants A + B)?

A.   1. Disconnect the device from the mains for at least 10 minutes. The unit will reset to factory settings.

2. Reduce the load so that it meets the specifications of the unit.

3. You can now operate the unit normally again.

B   1. Disconnect the device from the mains for at least 10 minutes. The unit will reset to the factory settings.

2. Disconnect the load (LED strip / LED module) from the power supply.

3. Reconnect the device to the mains.

4. Connect the device to the DALI Master software.

5. In the software, reduce the Power On Level and the maximum level for this device. The value must be below the maximum load of the power supply.

6. Disconnect the device from the power supply and reattach the load.

7. You can now operate the device normally again.