Model: GP-CCP010P-42CD-TA1

■ Features

- Universal AC input 90~264VAC.
- Constant Current Mode with multiple current selectable by DIP switch.
- Dimming method : DALI/DALI-2 or PUSH dimming.
- Active PFC design.
- Protections: OLP/ SCP.
- Cooling by free air convection.
- No-load and Standby Power Consumption < 0.5W.
- Wide voltage range from 10V to 42V.
- Suitable for high brightness light-emitting diode products.

■ Approvals

■ Size

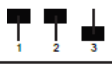
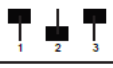
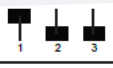
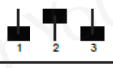
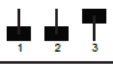
135 x 30 x 20 mm (L x W x H)

■ Specifications

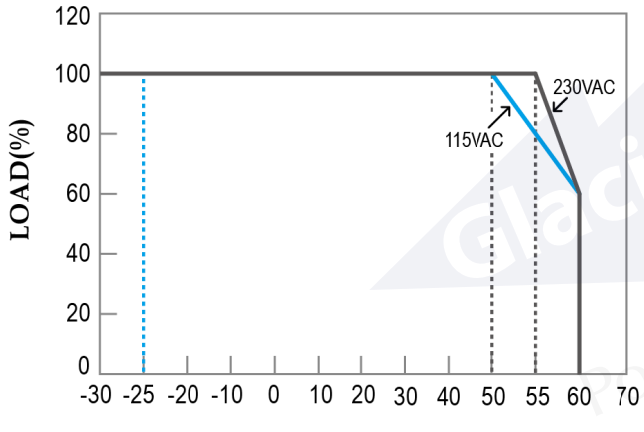
Model No.		GP-CCP010P-42CD-TA1						
Output	DC Voltage	42V						
	Constant Current Region note.3	10 ~ 42V	10 ~ 42V	10 ~ 42V	10 ~ 40V	10 ~ 33V	10 ~ 28V	10 ~ 25V
	Rated current	100mA	150mA	200mA	250mA	300mA	350mA	400mA
	Rated Power	4.2W	6.3W	8.4W	10W	9.9W	9.8W	10W
	Ripple & Noise (Max.) note.2	50mV						
	Efficiency (Typ.)	83% at 230VAC full load						
	Current Tolerance	±5%						
	Current Ripple (Max.) note.5	20mA						
	Set up Time (Max)	< 0.7 sec at 230VAC full load						
Input	Rated Voltage	100~ 240VAC 141~340VDC						
	Voltage Range	90 ~ 264VAC						
	Frequency Range	47 Hz ~ 63 Hz						
	AC Current (Typ.)	0.12A at 115VAC,0.06A at 230VAC						
	Power Factor	>0.98 at 115VAC, >0.93 at 230VAC at full load						
	Total Harmonic Distortion	THD<10% at 230VAC full load						
	No-load Power Consumption	Pno<0.5W @ 230VAC						
	Standby Power Consumption	Psb<0.5W @ 230VAC (DIM to OFF)						
	Inrush Current (Typ.)	Cold Start 3.6A (Td=27us measured at 50% Ipeak) at 230VAC						
	Max. Number of PSUs on Circuit Breaker	B type : 50units (10A) / 80 units (16A) / 125 units (25A), C type : 58 units (10A) / 93 units (16A) / 145 units (25A), D type : 106 units (16A) / 166 units (25A) at 230VAC						
	Leakage Current(Typ.)	<0.5mA / 240VAC						
DIM. Control (DALI-2)	DALI standards	Comply with IEC62386-101 ed2, 102 ed2, 207 ed2, Device Type 6 (DT6)						
	DALI bus current consumption	< 2.0mA						

DIM. Control (PUSH DIM)	AC PUSH dimming	work for AC voltage input only, refer to the wiring diagram of PUSH DIM
Protections	Short Circuit	Type: Hiccup mode, Recovers automatically after fault condition is removed.
	Over Load	Intelligent closed output if current load≧120% Auto Recover
Environment	Operation Temp.	-30 ~ +55°C
	Operation Humidity	20% ~ 90% RH non-condensing.
	Storage Temp.	-30 ~ +80°C
	Storage Humidity	10% ~ 90% RH
	Vibration	10 ~ 500 Hz, 2G 10 min. / 1 cycle, period for 60 min. each along X, Y, Z axes.
Safety & EMC	Safety Standards	Compliance EN61347-1,EN61347-2-13
	Withstand Voltage	I/P-O/P: 3.75KVAC
	Isolation Resistance	I/P-O/P :100M ohms / 500V DC at 25°C
	EMI Conduction & Radiation	Compliance to EN55015
	Harmonic Current	Compliance to EN61000-3-2 Class C, EN61000-3-3
	EMS Immunity	Compliance to EN61000-4-2,3,4,5,6,8,11;EN61547
Others	MTBF	20K hours min.MIL-HDBK-217F(25°C)
	Dimension(L x W x H)	135 x 30 x 20mm ; 70g/Pcs
Remark	1. All parameters not specially mentioned are measured at 230VAC full load and 25°C ambient temperature. 2. Ripple & Noise are measured at 20MHz bandwidth by using a 12" twisted pair-wire terminated with 0.1uf & 47uf parallel capacitor. 3. Constant current operation region is within the specified output voltage range above. This is the suitable operation region for LED related applications. 4. The power supply is considered a component which will be installed a final equipment. The final equipment must be re-confirmed that it still meets EMC directives. 5. Current Ripple are measured at 20MHz bandwidth oscilloscope.	

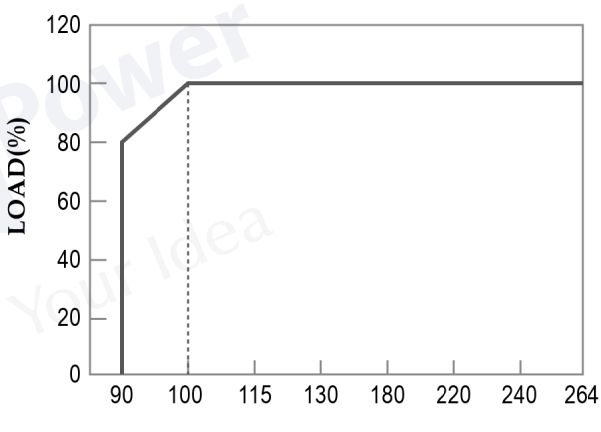
■ Constant current setting by DIP switch

						
100mA	150mA	200mA	250mA	300mA	350mA	400mA
10-42V	10-42V	10-42V	10-40V	10-33V	10-28V	10-25V
1-4.2W	1.5-6.3W	2-8.4W	2.5-10W	3-9.9W	3.5-9.8W	4-10W

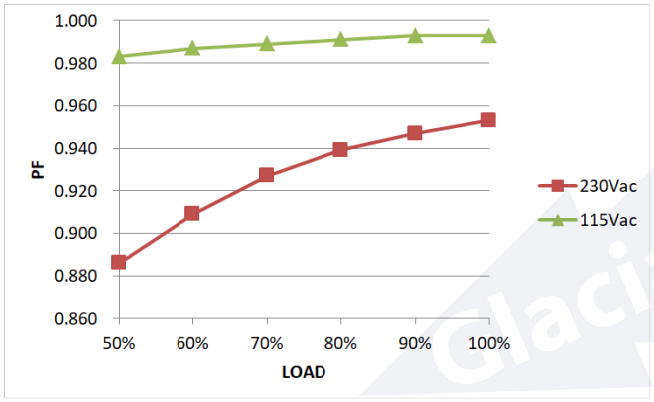
■ Derating Curve (Load vs Temperature)



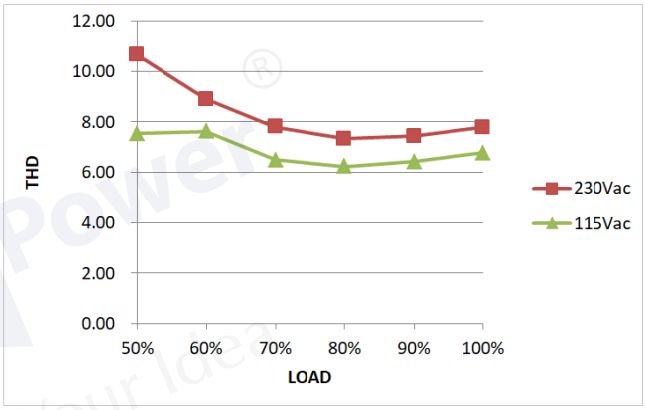
■ Static Characteristics



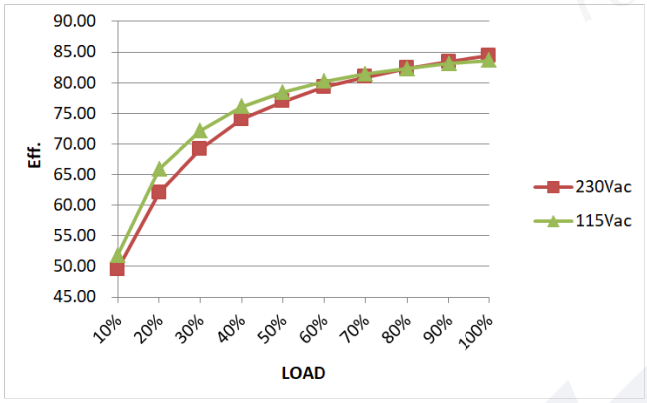
■ Power Factor (PF) Characteristic (※Ta at 50℃)



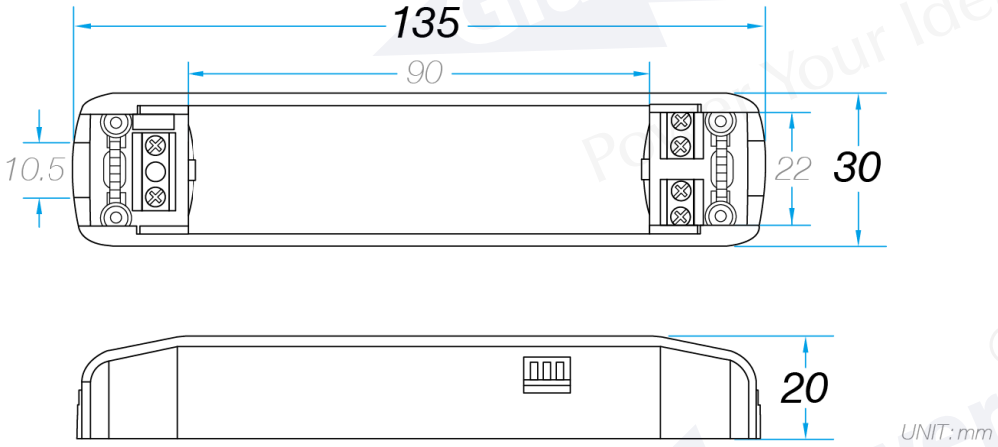
■ Total Harmonic Distortion (THD) (※Ta at 50℃)



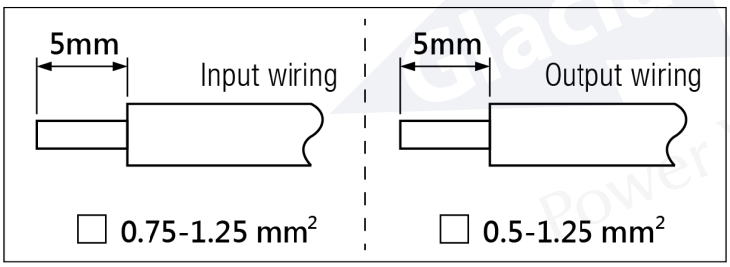
■ Efficiency vs Load (※Ta at 50℃)



■ Mechanical Specification

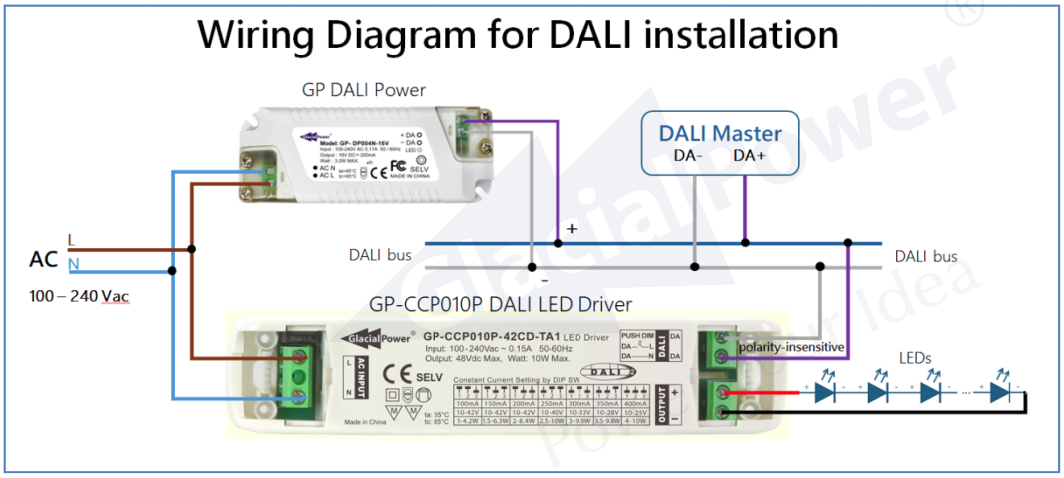


■ Wire Range for Terminal Block

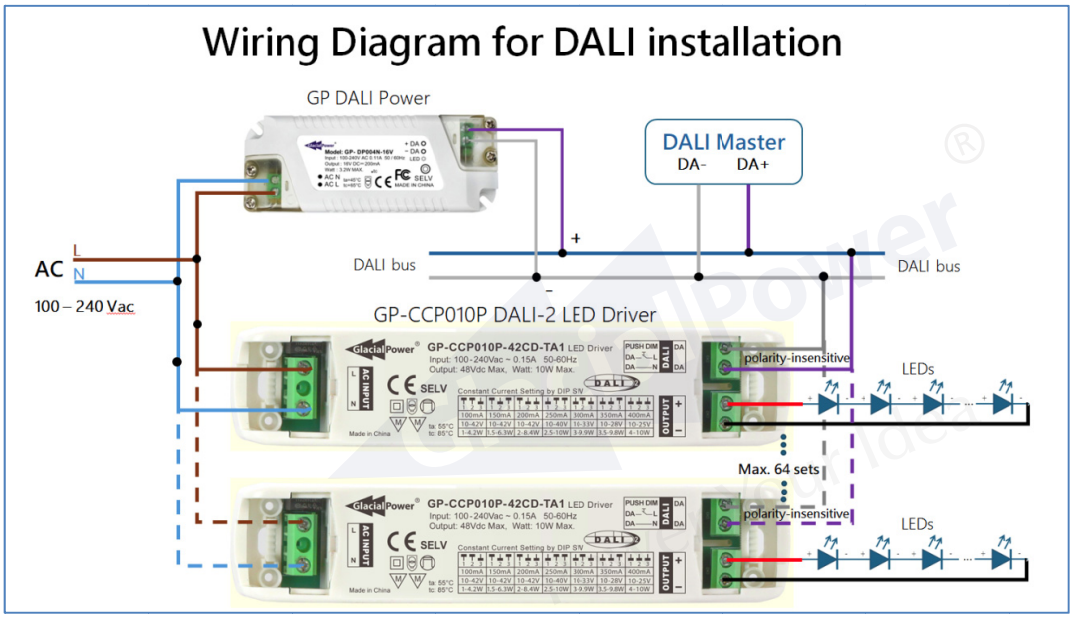


■ Wiring Diagram

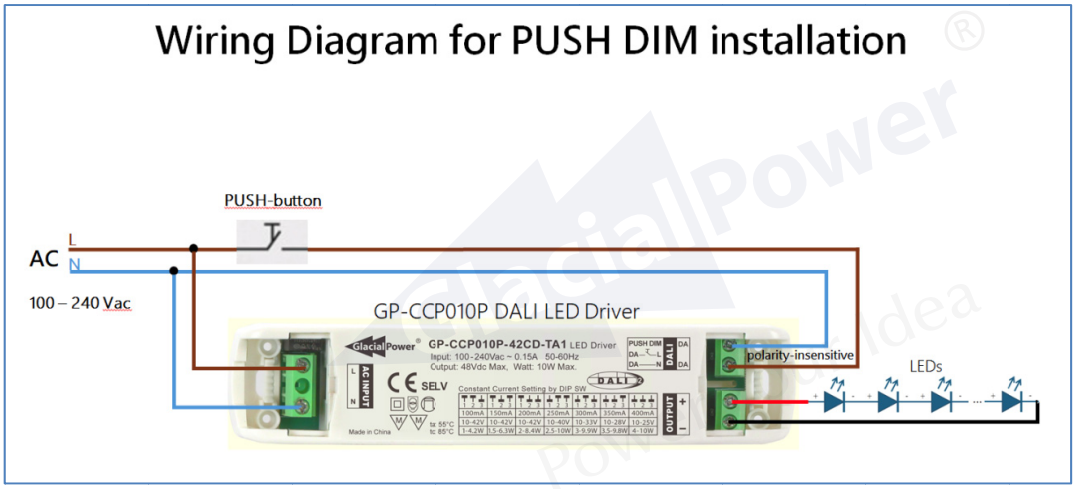
DALI



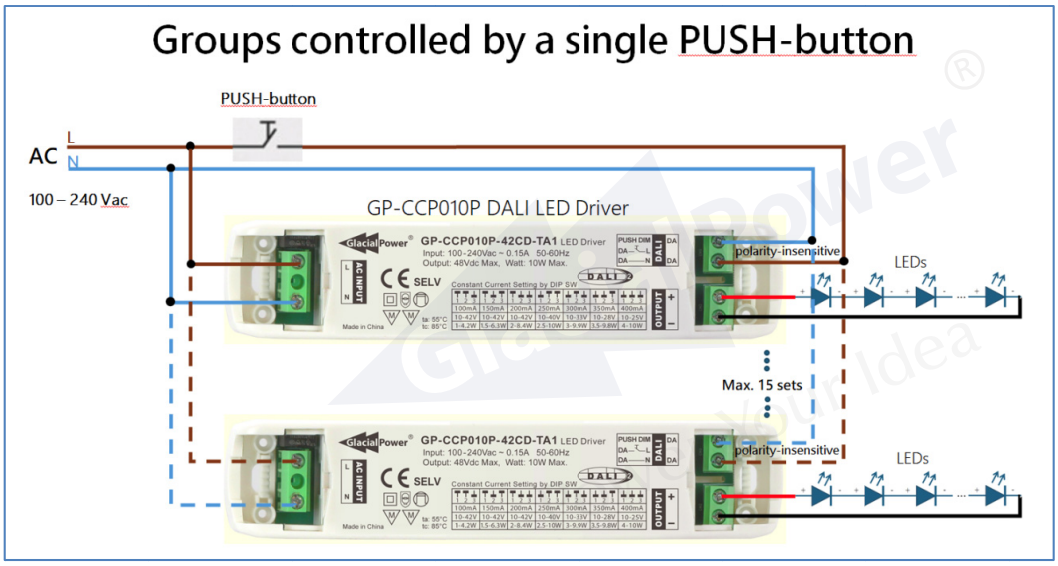
DALI



PUSH DIM



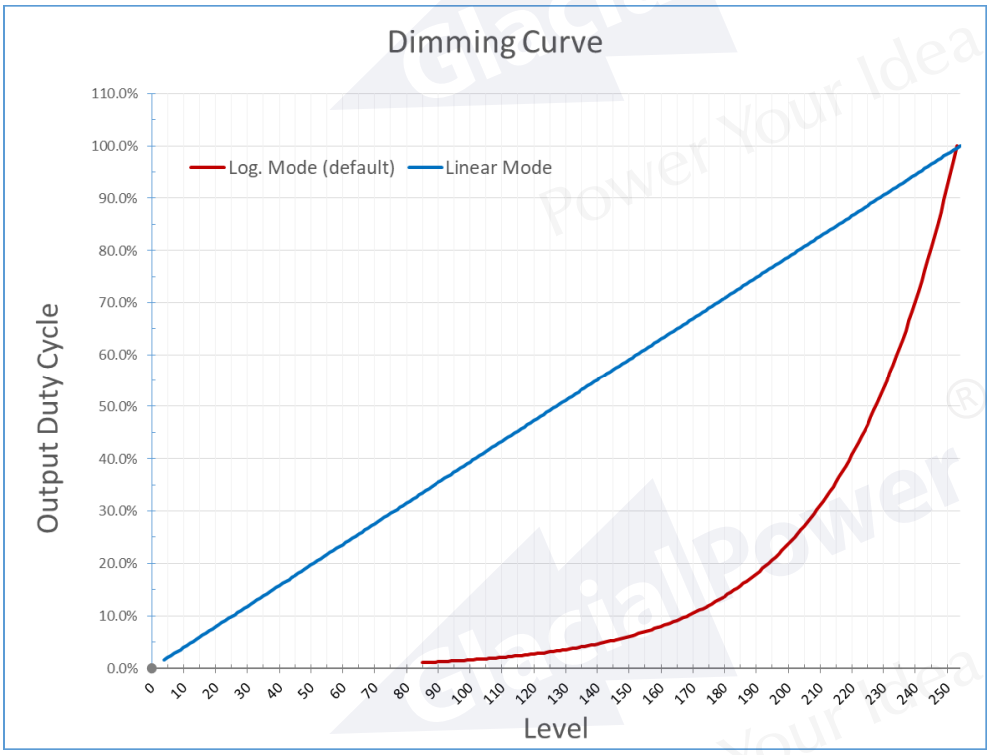
PUSH DIM



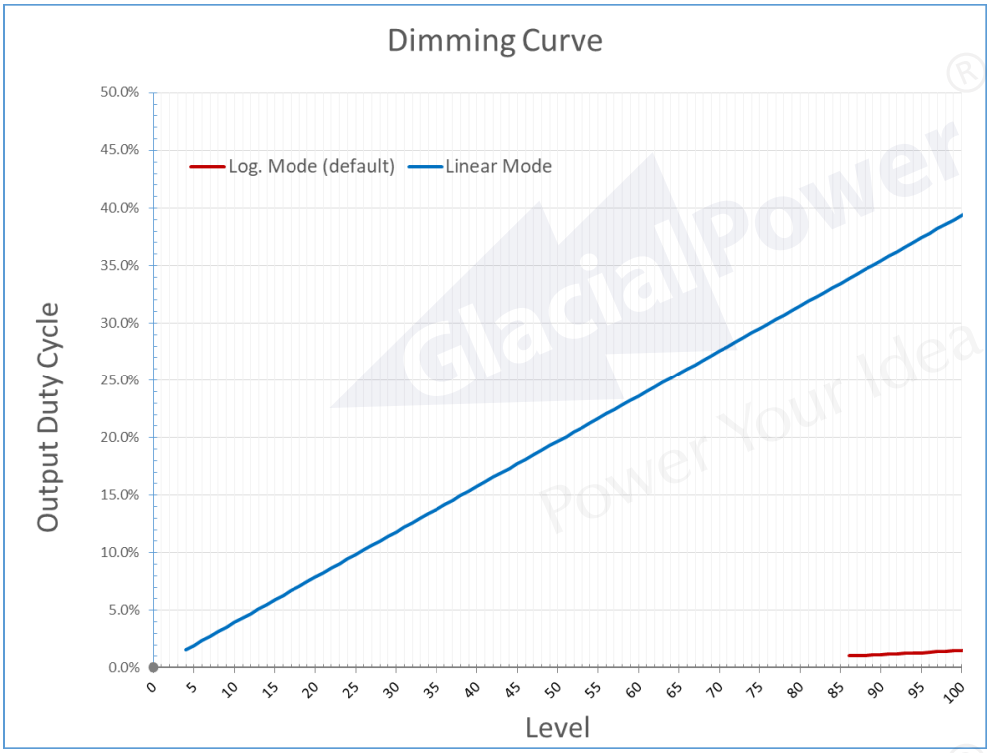
Note :

1. **DALI and PUSH DIM functions CANNOT operate simultaneously, and the wiring differs for each mode. Please refer to the wiring diagram.**
2. **PUSH DIM function work for AC voltage input only.**

■ Dimming Curve at DALI-2 mode



Dimming Curve (Enlarge)



■ FUNCTIONS

The GP-CCP010P-42CD-TA1 supports DALI or PUSH DIM function according to the wiring diagram, with the factory default set to DALI mode.

In DALI mode, it will automatically detect any PUSH-button activity when wiring diagram for PUSH DIM. If PUSH-button activity is detected, it will automatically switch to PUSH_DIM mode.

In PUSH_DIM mode, it will also automatically detect any DALI commands when wiring diagram for DALI. If DALI command activity is detected, it will automatically switch to DALI mode.

WARNING:

DALI and PUSH DIM functions **CANNOT** operate simultaneously, and the **wiring differs for each mode**. **Please refer to the wiring diagram**.

When the AC power is disconnected or shut down, the GP-CCP010P-42CD-TA1 will automatically save the current mode and light level. When power is restored, it will return to the previous mode, and the light level will vary based on the mode:

- **DALI Mode** : Restores to the light level set by the POWER ON LEVEL or SYSTEM FAILURE LEVEL according to DALI-2 specifications.
- **PUSH_DIM Mode** : Restores to last light level.

■ DALI functions

In DALI mode, the functions comply with the DALI-2 standards and operations of IEC 62386-101 ed2, 102 ed2, and 207 ed2, Device Type 6 (DT6)

Dimming Range 1% ~ 100%

■ PUSH DIM functions

In PUSH DIM, PUSH-button operations are divided into **Short Press** and **Long Press**:

Short Press : When the button is pressed and released within approximately 35ms to 800ms, it is considered a Short Press (or single-click).

Long Press : When the button is pressed and held for more than 1000ms (1 second), it is considered a Long Press.

Quick Short Press (or Multiple Clicks) : If the interval between consecutive **Short Presses** is within 350ms, this is considered a quick Short Press (or multiple clicks). Quick Short Presses can be performed repeatedly and are counted by the number of **Short Presses** detected.

For example,

A quick **Short Press twice (or double-click)** indicates **two Short Presses** with an interval of less than 350ms between each.

A quick **Short Press three times (or triple-click)** indicates **three Short Presses**, each with an interval of less than 350ms.

Please use a momentary (spring-back) switch button (**PUSH-button**):
Under normal conditions, the two contacts of the switch are open (NO : Normal Open). When the switch is pressed, the contacts are shorted, and when released, they return to the open state.

PUSH-button	Functions
Short Press (Single-click)	**TURN ON / TURN OFF the light**
	Short press to turn on the light, and short press again to turn it off. When turned on with a short press, the light returns to the previous light level before it was turned off. The fading time is approximately 0.7 seconds.
Quick Short Press twice (Double-click)	**Switch to [PRESET LEVEL]**
	The light can be quickly adjusted to a preset light level (without fading time). The factory **default [PRESET LEVEL] is set to 50%**, but users can set the [PRESET LEVEL] themselves.
Quick Short Press three times (Triple-click)	**Set [PRESET LEVEL]**
	First, press and hold until the desired light level is reached, then release the button. Quickly press three times (triple-click) to **set the current light level as the [PRESET LEVEL]**, and the light will flash twice to indicate that the setting is complete.
Long Press ≤ 10 sec	**Dimming 1% ~ 100% LEVEL**
	Press and hold continuously to adjust the light level gradually up or down between the minimum and maximum levels. Release the button when the desired light level is reached. Each time you press and hold, the dimming direction reverses. When the light is off, pressing and holding has no effect.
Long Press > 10 sec	**SYNC**
	If devices in the system are not synchronized in terms of on/off or dimming operation, a synchronization process is required to set them to the same state (on/off) and the same dimming level. When pressing and holding for more than 10 seconds, the device will set the light to around 50% level to indicate synchronization. After releasing the button, if you press and hold again, the dimming direction will gradually increase the light level.

Long Press > 20 sec	**Reset to Factory Settings (PUSH_DIM mode)**
	Press and hold for more than 20 seconds, and the device will set the light to 100% level, indicating a reset to factory settings. Upon restart, it will be in PUSH_DIM mode and will also automatically detect DALI mode.
Memory Function	**LAST LIGHT LEVEL Memory**
	The device automatically remembers the last light level when powered off. When powered on again, it returns to the last light level.