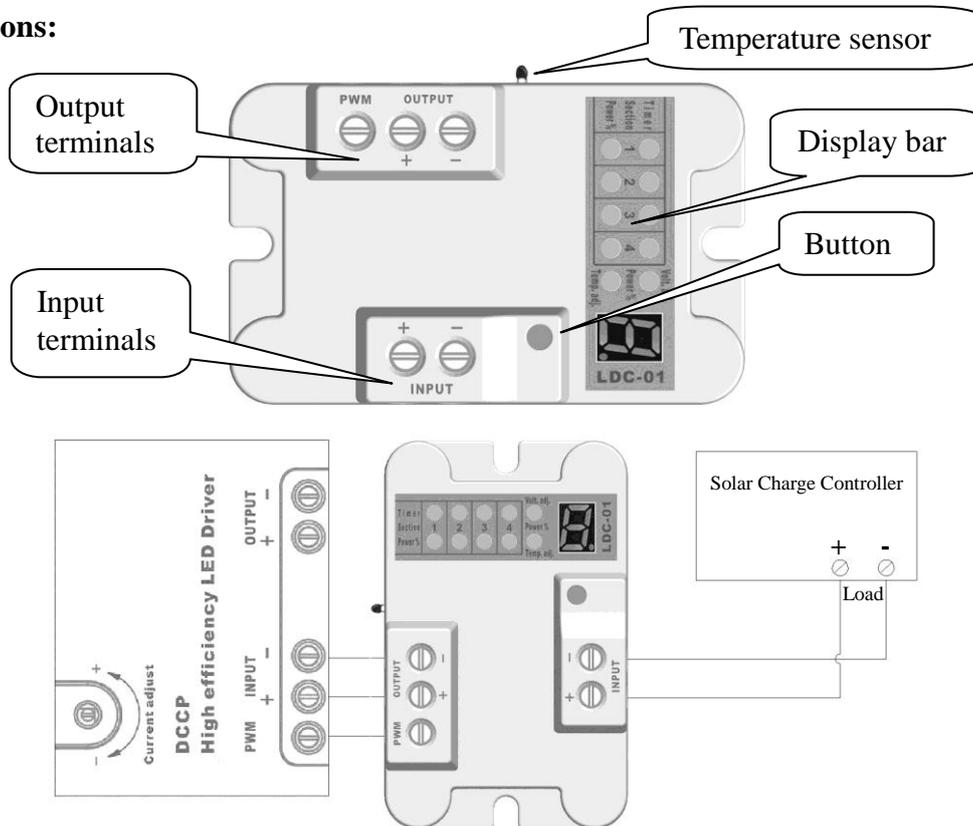


LED Driver Controller LDC-01

— For DCCP series LED driver

Thank you for selecting the product. LDC-01(LED Driver Controller) is an optional accessory for DCCP series LED DC driver. It can realize max. 4 -timer working. For each timer, 0~9 working hours and 0~100% output power is adjustable. The output power can also be adjusted automatically with changes of battery voltage and temperature. Read this manual carefully and thoroughly so as to preferably install and use the product. Under normal service conditions, the warranty period of the product is two (2) years free of charge, starting from the sales date.

◆ Introductions:



As shown in above picture:

Input terminals: connect controller or other DC power supply.

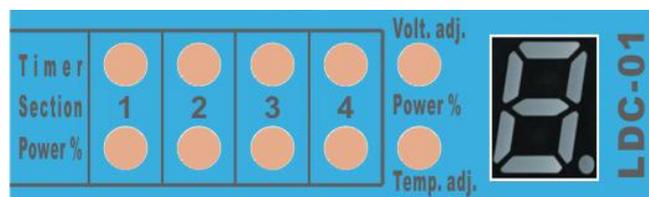
Output terminals: connect DCCP series LED driver. PWM frequency is 200Hz.

Button: Set the working hours and power percentage.

Display bar: Display the timer and power percentage.

Temperature sensor: fit to the heat sink of LED source.

◆ Functions:



Operations:

1. Under non-setting state, press the button lightly, LED indicators are lighted circularly each time,
2. Press the button for more than 5 seconds till the LED indicator flashing. Release it at this moment. Then press the button to choose the desired number.
3. Under the setting state, if the desired number appears, stop pressing the button. When the LED indicator stops flashing, the setting is successfully.
4. If there is no any button pressing within 15 seconds, the LED indicator and digital tube will be turned off automatically for power saving.

Timer section	Working mode	Indicator	Working mode
Timer-1	'0': non-working '1~9': 1-9 hours working	Power%-1	'0': no output; '1~9': 10%~90% power '-': 100% power
Timer-2	'0': non-working '1~9': 1-9 hours working	Power%-2	'0': no output; '1~9': 10%~90% power '-': 100% power
Timer-3	'0': non-working '1~9': 1-9 hours working	Power%-3	'0': no output; '1~9': 10%~90% power '-': 100% power
Timer-4	'0': non-working '1~9': 1-9 hours working	Power%-4	'0': no output; '1~9': 10%~90% power '-': 100% power
Volt.adj.	'3~9': 30%~90% power, Limited power percentage of voltage control; '-': 100% power, no limitation.		
Temp.adj.	'3~9': 30%~90% power, Limited power percentage of temperature control; '-': 100% power, no limitation.		

Notes:

1. Limited power percentage of voltage control:

When battery voltage changes, the actual operating power is limited, which is a linear increase or decrease. It operates as per the following formula:

Actual operating power% = [(Battery voltage-11.1V)/(12.0-11.1V)]*(setting power% of current timer section - limited power%)+limited power %.

Notes: When it is powered for the first time, the system identifies the voltage <18V as 12V system, and ≥18V as 24V system. The above formula is applicable for 12V system. If it is 24V system, 11.1v is changed into 22.2V and 12.0V into 24.0V in the formula. When the battery voltage is lower than 11.1V or 22.2V, the formula is not applicable and the actual power is operated as per the limited power. And when the battery voltage is higher than 12V or 24V, the actual power is operated as per the setting power of current timer.

2. Limited power percentage of temperature control:

The control theory for temperature change is the same as voltage change, with the formula changed into the following:

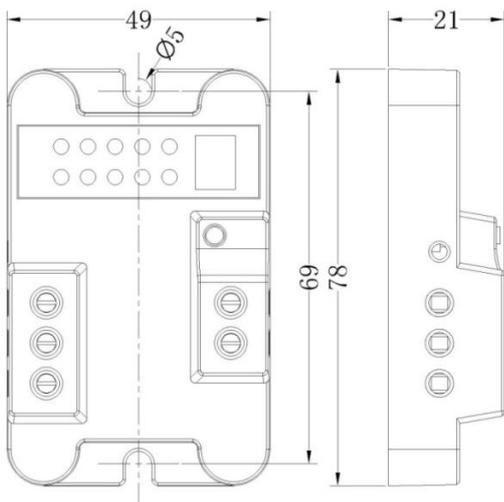
Actual operating power% = [(current temperature-75°C)/(85°C-75°C)]*(setting power% of current timer section - limited power%)+limited power %.

Notes: The effective temperature range is 75°C~85°C. When it is lower than 75°C, the actual power is operated as per the setting power of current timer section. And when it is higher than 85°C, it is operated as per the limited power.

3. If the limited power percentage of voltage control or temperature control is more than current timer section, or there is no power percentage limitation of voltage and temperature, it operates as per the power of the current timer.

4. When percentage limitations of voltage and temperature work at the same time, the actual power operates as per the min. power calculated with the above formulas.

5. There is a period of 2-20 seconds for power adjustment each time, so it is not realized at once. The frequency of PWM is 200Hz.



Parameters:

Item	Parameters
Input voltage range	8 ~ 32VDC
Max. input current	9A
Ambient temperature	-40°C ~ +65°C
Storage temperature	-40°C ~ +85°C
Humidity	0 ~ 95% N.C.
Enclosure	IP30
Altitude	≤5000m
Overall	78mm x 49mm x 21mm
Mounting	69mm (vertical)
Mounting hole	Φ5 (R2.46)
Terminal	2.5mm ²
Net weight	38g

Version Number: V1.1