

LCM-40(DA), LCM-60(DA) installation manual

Features

- 180~295VAC input only
- Built-in active PFC
- Output current level selectable by DIP switch
- Built-in DALI interface and push dimming function (DA version)
- \bullet Built-in 0~10Vdc and PWM signal dimming function (Non-DA version)
- Power supply synchronization function up to 10 units
- $\boldsymbol{\cdot}$ Temperature compensation function by external NTC

Wiring

- · Housing with cable clamp for remote installation
- Use wires with an adequate cross-section (see 5)
- Use suitable mounting tools to do the wiring and mounting (see 5)
- Use a MCB (miniature circuit breaker) with an adequate current rating to protect the lighting system (see 6)

Environmental limitations

- Maximum ambient temperature must not exceed 60°C
- · Always allow adequate ventilation clearances, 50mm, around the unit in use to prevent it from overheating
- Only install the unit in interior environments

Cautions

- This unit must be installed by a qualified electrician
- · This unit is not suitable for applications that DC/DC converters are connected before LED lamps

Settings and connections

1. Output Current Level Settings

The LCM can provide various output currents by setting the DIP switch. The settings of the DIP switch are shown in the tables below. LCM-40(DA) LCM-60(DA)

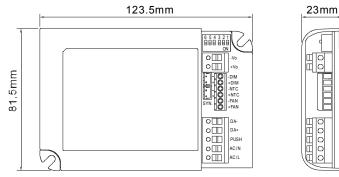
Voltage range	Selectable Current	1	2	3	4	5	6
2-100V	350mA						
2-80V	500mA	ON					
2-67V	600mA	ON	ON				
2-57V	700mA*	ON	ON	ON			ON
2-45V	900mA	ON	ON	ON	ON		ON
2-40V	1050mA	ON	ON	ON	ON	ON	ON

Voltage range	Selectable Current	1	2	3	4	5	6
2-90V	500mA						
2-90V	600mA	ON					
2-86V	700mA*	ON	ON				
2-67V	900mA	ON	ON	ON			ON
2-57V	1050mA	ON	ON	ON	ON		ON
2-42V	1400mA	ON	ON	ON	ON	ON	ON

Note : 1.Factory default setting is 700mA.

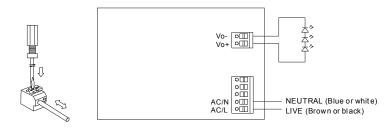
2.Output voltage and output wattage must not exceed the rated values.

Terminal blocks assignment for LCM



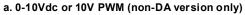
2. Connection of LED Lamps

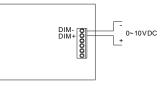
Press down the "push button" by a slotted screw driver to insert or remove the cable.



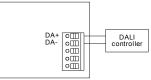
- Class II power unit, ungrounded
- Built-in 12V/50mA auxiliary output
- Full plastic case enclosed
- No load power consumption <1W (1.2W for DA version)
- · Protections: Short circuit / Over voltage / Over temperature
- 3 year warranty
- Suitable for intelligent LED lighting

3. Connection of Dimming Functions



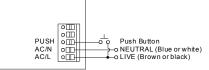


b. DALI (DA version only)



Note : Maximum DALI cable length is 300m (based on a 1.5mm² or 14AWG cable)

c. Push dim (DA version only)



Note: ONLY use open push button without indicator light.

Warning: Risk of short circuit. The push button can only be linked between the PUSH and the AC/L (brown or black). DO NOT connect the push button to the AC/N (blue or white).

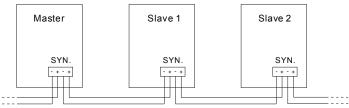
Dimming control mechanism

Function	Pushing time		
Turn ON/OFF	0.1~1 sec		
Dim UP/DOWN	1.5 ~ 10 sec		
Reset	> 11 sec		
None	< 0.05 sec		

It will always dim up when light intensity is lower than 10%, whereas it will always dim down when light intensity is higher than 90%
Factory dimming setting: 100%

d. Synchronization operation

The lights driven by LCM units (slaves) can be dimmed synchronously through a LCM unit (the master) directly controlled via 0-10Vdc, 10V PWM, DALI or push dim dimming function. The wiring is shown as below.



Mating housing for SYN. connectors : JST B2B-XH or equivalent

• Maximum number of the LCM units : 10 (1 master + 9 slaves)

• Maximum cable length between each units : 20m (based on a cable with cross-section of 0.15mm²~0.3mm² or AWG No. of 22 ~ 26) Note 1 : DO NOT connect dimming circuitry to slaves.

Note 2 : Please make sure all units are set to 100% dimming setting (factory default) before synchronizing.

4. NTC Connection



5. Recommended Screwdriver, Wire and Torque Setting

Туре	The cover (the blue one)	Screw terminal (FAN±, NTC±, DIM±)	Push terminal (ACL/N, PUSH, DA±, Vo±)
Solid wire		ψ 0.404 - ψ 0.643 mm	ϕ 1.024 - ϕ 1.628mm
Stranded wire		0.129 - 0.326mm²	0.823 - 2.08mm²
American wire gauge		22 - 26AWG	14 - 18AWG
Wire stripping length		7mm (0.27")	10mm (0.39")
Screwdriver	6mm Phillips	3mm Phillips	3mm Phillips
Recommended tightening torque	4.6 kgf-cm (4 lb-in)	2.88 kgf-cm (2.5 lb-in)	
Suggested push-down strength			3 - 4 kp (6.61-8.81 lbF)

6. Suggested Maximum Number of the LCM Units that can be Connected to a MCB (miniature circuit breaker) at 230Vac

Model	B10	B16	C10	C16
LCM-40(DA)	10	16	17	28
LCM-60(DA)	9	15	16	26

Note: These calculated values are based on MCB S201 series manufactured by ABB.