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

## Features

－90～132VAC input only
－Class II power unit，ungrounded
－Full plastic case enclosed
－Protections：Short circuit／Over voltage／Over temperature
－ 3 year warranty
－Output current level selectable by DIP switch
－Suitable for intelligent LED lighting
－Built－in DALI interface and push dimming function（DA version）
－Power supply synchronization function up to 10 units
－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 $60^{\circ} \mathrm{C}$（LCM－60U（DA）must not exceed $65^{\circ} \mathrm{C}$ ）
－Always allow adequate ventilation clearances， 50 mm ，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－40U（DA）

| Voltage <br> range | Selectable <br> Current | $\mathbf{1}$ | $\mathbf{2}$ | $\mathbf{3}$ | $\mathbf{4}$ | $\mathbf{5}$ | $\mathbf{6}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $2-100 \mathrm{~V}$ | 350 mA | --- | --- | --- | --- | --- | --- |
| $2-70 \mathrm{~V}$ | 500 mA | ON | --- | --- | --- | --- | --- |
| $2-59 \mathrm{~V}$ | 600 mA | ON | ON | --- | --- | --- | --- |
| $2-50 \mathrm{~V}$ | $\mathbf{7 0 0 m A}$ | ON | ON | ON | --- | --- | ON |
| $2-39 \mathrm{~V}$ | 900 mA | ON | ON | ON | ON | --- | ON |
| $2-34 \mathrm{~V}$ | $\mathbf{1 0 5 0 m A}$ | ON | ON | ON | ON | ON | ON |

Note： 1 ．Factory default setting is 700 mA ．

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．

LCM－60U（DA）

| Voltage <br> range | Selectable <br> Current | $\mathbf{1}$ | $\mathbf{2}$ | $\mathbf{3}$ | $\mathbf{4}$ | $\mathbf{5}$ | $\mathbf{6}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\mathbf{2 - 9 0 V}$ | 500 mA | --- | --- | --- | --- | --- | --- |
| $2-84 \mathrm{~V}$ | 600 mA | ON | --- | --- | --- | --- | --- |
| $2-72 \mathrm{~V}$ | 700 mA | ON | ON | --- | --- | --- | --- |
| $\mathbf{2 - 5 6 V}$ | 900 mA | ON | ON | ON | --- | --- | ON |
| $\mathbf{2 - 4 8 V}$ | 1050 mA | ON | ON | ON | ON | --- | ON |
| $\mathbf{2 - 3 6 V}$ | 1400 mA | ON | ON | ON | ON | ON | ON |

> 2. Output voltage and output wattage must not exceed the rated values.
3. Connection of Dimming Functions
a. $\mathbf{0 - 1 0 V d c}$ or 10 V PWM (non-DA version only)

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 | $0.1 \sim 1 \mathrm{sec}$ |
| Dim UP/DOWN | $1.5 \sim 10 \mathrm{sec}$ |
| Reset | $>11 \mathrm{sec}$ |
| None | $<0.05 \mathrm{sec}$ |

- Every long pushing action will change the dimming direction.
- Factory dimming setting: 100\%
d. Synchronization operation
- Synchronization up to 10 drivers ( 1 master +9 slaves)
- Dimming operating range : 10\%~100\%
- Sync cable length : < 5m
- Sync cable type : Flat cable
- Sync cable cross section area : 22 - 24 AWG (0.2~0.3mm²)


NOTE: 1. Please make sure all units are set to $100 \%$ dimming setting (factory default) before synchronizing.
2. Min. Dimming operating range depends on dimmer setting.

## 4. NTC Connection


5. Recommended Screwdriver, Wire and Torque Setting

| Type | The cover (the blue one) | Screw terminal <br> (FAN $\pm$, NTC $\pm$, DIM $\pm$ ) | Push terminal (ACL/N, PUSH, DA $\pm$, $\mathrm{Vo} \pm$ ) |
| :---: | :---: | :---: | :---: |
| Solid wire | ----- | $\phi$ 0.404- $\psi$ 0.643mm | $\phi 1.024-\phi 1.628 \mathrm{~mm}$ |
| Stranded wire | ----- | 0.129-0.326mm ${ }^{2}$ | 0.823-2.08mm ${ }^{2}$ |
| American wire gauge | ----- | 22-26AWG | 14-18AWG N |
| Wire stripping length | ----- | 7 mm (0.27") | 10 mm (0.39") |
| Screwdriver | 6 mm Phillips | 3 mm Phillips | 3 mm Phillips |
| Recommended tightening torque | $4.6 \mathrm{kgf-cm}$ (4 lb-in) | $2.88 \mathrm{kgf-cm}(2.5 \mathrm{lb}-\mathrm{in})$ | ---- |
| Suggested push-down strength | ----- | ----- | $3-4 \mathrm{kp}$ (6.61-8.81 IbF) |

6. Suggested Maximum Number of the LCM Units that can be Connected to a MCB (miniature circuit breaker) at 115Vac

| Model | B10 | B16 | C10 | C16 |
| :---: | :---: | :---: | :---: | :---: |
| LCM-40U(DA) | 13 | 20 | 23 | 38 |
| LCM-60U(DA) | 9 | 15 | 15 | 25 |

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

