



**40W** DALI-2 **Dimmable** Constant Current **LED Driver** With Selectable Output

# WARRANTY

### Features of the:

**DDC-40** 



**DALI-2** IEC62386 Compatibility



**Output Current** Selectable By DIP switch



**AC Input Range:** 100-277VAC with PFC



**IP20 Design** For Indoor Installation



Class II **Power Supply** 



Installation



**Protections: Short Circuit**, Overload, Over **Temperature** 



Built in **PUSH Dimming** 



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IP20 SELV

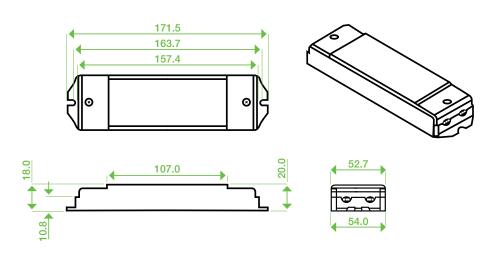
## Specification



|             | Model                                                                                                                                                                                                                                                                                                                                                  | DDC-40                                                                                                                                                                                                |                       |       |        |        |        |             |        |  |
|-------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|-------|--------|--------|--------|-------------|--------|--|
|             | Rated Current (mA) ±25mA                                                                                                                                                                                                                                                                                                                               | 300mA                                                                                                                                                                                                 | 350mA                 | 400mA | 450mA  | 500mA  | 550mA  | 600mA       | 650mA  |  |
|             | T ON A OFF                                                                                                                                                                                                                                                                                                                                             | <b>TTTT</b>                                                                                                                                                                                           | TTTT                  | TTTT  | TTTT   | TTTT   | TATA   | <b>TTTT</b> | TTTL   |  |
|             | DC Voltage                                                                                                                                                                                                                                                                                                                                             | 3-65V                                                                                                                                                                                                 | 3-65V                 | 3-65V | 3-65V  | 3-65V  | 3-65V  | 3-65V       | 3-62V  |  |
|             | Rated Power                                                                                                                                                                                                                                                                                                                                            | 19.5                                                                                                                                                                                                  | 22.8                  | 26    | 29.2   | 32.5   | 42.2   | 39          | 40     |  |
| Output      |                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                       |                       |       |        |        |        |             |        |  |
|             | Rated Current (mA) ±25mA                                                                                                                                                                                                                                                                                                                               | 700mA                                                                                                                                                                                                 | 800mA                 | 900mA | 1000mA | 1100mA | 1200mA | 1300mA      | 1400mA |  |
|             | T ON ▲ OFF                                                                                                                                                                                                                                                                                                                                             | TTTT                                                                                                                                                                                                  | TTTT                  | TTTT  | TTTT   | TTTT   | TATT   | TTTT        | TTTT   |  |
|             | DC Voltage                                                                                                                                                                                                                                                                                                                                             | 3-57V                                                                                                                                                                                                 | 3-50V                 | 3-45V | 3-40V  | 3-37V  | 3-34V  | 3-31V       | 3-29V  |  |
|             | Rated Power                                                                                                                                                                                                                                                                                                                                            | 40                                                                                                                                                                                                    | 40                    | 40    | 40     | 40     | 40     | 40          | 40     |  |
| Input       | Rated Input Voltage                                                                                                                                                                                                                                                                                                                                    | 200-240VAC                                                                                                                                                                                            |                       |       |        |        |        |             |        |  |
|             | Rated Frequency                                                                                                                                                                                                                                                                                                                                        | 47-63HZ                                                                                                                                                                                               |                       |       |        |        |        |             |        |  |
|             | Power Factor                                                                                                                                                                                                                                                                                                                                           | Full loading ≥ 0.9@230VAC                                                                                                                                                                             |                       |       |        |        |        |             |        |  |
|             | Efficiency (Typ.)                                                                                                                                                                                                                                                                                                                                      | Full loading ≥ 80%@230VAC                                                                                                                                                                             |                       |       |        |        |        |             |        |  |
|             | AC Current (Max.)                                                                                                                                                                                                                                                                                                                                      | 0.29A                                                                                                                                                                                                 |                       |       |        |        |        |             |        |  |
|             | Inrush Current (Typ.)                                                                                                                                                                                                                                                                                                                                  | 12.8A,5.4uS@50%lpeak                                                                                                                                                                                  |                       |       |        |        |        |             |        |  |
|             | Leakage Current                                                                                                                                                                                                                                                                                                                                        | <0.50mA                                                                                                                                                                                               |                       |       |        |        |        |             |        |  |
| Protection  | Short Circuit                                                                                                                                                                                                                                                                                                                                          | Constant current mode, recovers automatically after fault condition is removed.                                                                                                                       |                       |       |        |        |        |             |        |  |
|             | Output No-Load Voltage                                                                                                                                                                                                                                                                                                                                 | 52V max.                                                                                                                                                                                              |                       |       |        |        |        |             |        |  |
|             | Over Temperature                                                                                                                                                                                                                                                                                                                                       | Ambient temp. over 50±5°C, output current will be reduced to 50%;  Ambient temp. over 60±5°C, output will be off; recovers automatically after temp. drops.  - measured as case temperature tc=75±5°C |                       |       |        |        |        |             |        |  |
|             | Protection Class                                                                                                                                                                                                                                                                                                                                       | II .                                                                                                                                                                                                  |                       |       |        |        |        |             |        |  |
| Environment | Working TEMP.                                                                                                                                                                                                                                                                                                                                          | -40-+60°C                                                                                                                                                                                             |                       |       |        |        |        |             |        |  |
|             | Working Humidity                                                                                                                                                                                                                                                                                                                                       | 20-90%RH, non condensing                                                                                                                                                                              |                       |       |        |        |        |             |        |  |
|             | Storage TEMP. Humidity                                                                                                                                                                                                                                                                                                                                 | -40 - +80°C, 10-95%RH                                                                                                                                                                                 |                       |       |        |        |        |             |        |  |
|             | TEMP. coefficient                                                                                                                                                                                                                                                                                                                                      | +0.03%/°C, (0-50°C)                                                                                                                                                                                   |                       |       |        |        |        |             |        |  |
|             | Vibration                                                                                                                                                                                                                                                                                                                                              | 10-500Hz, 2G 10min./1 cycle, period for 60min. each along X, Y, Z axes.                                                                                                                               |                       |       |        |        |        |             |        |  |
| Safety      | Safety Standards                                                                                                                                                                                                                                                                                                                                       | EN61347-1 EN61347-2-13                                                                                                                                                                                |                       |       |        |        |        |             |        |  |
|             | Withstand Voltage                                                                                                                                                                                                                                                                                                                                      | I/P-O/P:3.75KVAC                                                                                                                                                                                      |                       |       |        |        |        |             |        |  |
|             | Isolation Resistance                                                                                                                                                                                                                                                                                                                                   | I/P-O/P:100MΩ/500VDC/25°C/70%RH                                                                                                                                                                       |                       |       |        |        |        |             |        |  |
| Others      | Weight                                                                                                                                                                                                                                                                                                                                                 | 0.3kg                                                                                                                                                                                                 |                       |       |        |        |        |             |        |  |
|             | Size                                                                                                                                                                                                                                                                                                                                                   | 171.5*54*20                                                                                                                                                                                           | 171.5*54*20mm (L*W*H) |       |        |        |        |             |        |  |
|             | Packing                                                                                                                                                                                                                                                                                                                                                | 320*280*215mm (50PCS/CTN) for outer carton.                                                                                                                                                           |                       |       |        |        |        |             |        |  |
| Notes       | <ol> <li>All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature.</li> <li>Tolerance: includes set up tolerance, line regulation and load regulation.</li> <li>Specifications are subject to change without prior notice. Contact your supplier to confirm any critical parameters.</li> </ol> |                                                                                                                                                                                                       |                       |       |        |        |        |             |        |  |

### **Mechanical Specification**

- Input 3 pole terminal block: Active AC (L), Neutral AC (N).
- Output 2 pole terminal block: Positive (LED+), Negative (LED-).
- DALI or PUSH Dim. Terminals 2P: when DALI dimming, the lines are not polarised.
- Suggested wire diameter: Input 0.75-2mm<sup>2</sup>; Output: 0.5-2mm<sup>2</sup>.
- Ensure that all wiring is correct before testing in order to avoid damage to the LED driver or the LEDs.



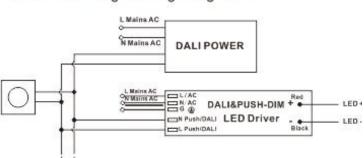
## Wiring Diagrams



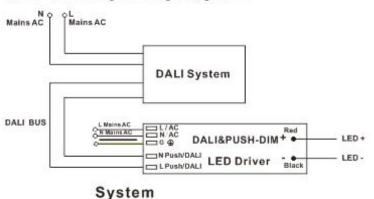
#### ■ Dimming Operation

DALI BUS

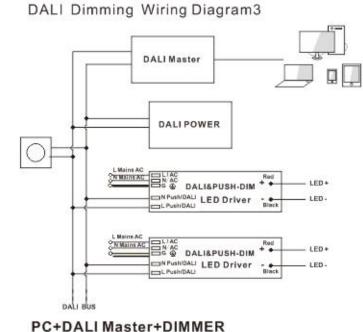
DALI Dimming Wiring Diagram1



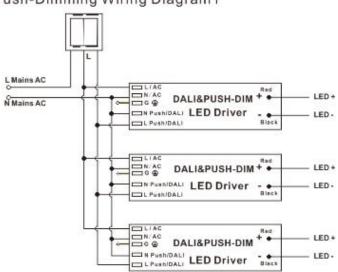
DALI Dimming Wiring Diagram2



Dimmer

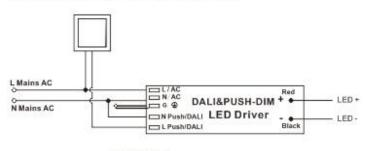


Push-Dimming Wiring Diagram1



Dimmer (with ON/OFF function)

#### Push-Dimming Wiring Diagram2



Dimmer

 Note: For DALI Dimming Wiring Diagram 3, only one DALI power is required in the DALI bus, no extra DALI power is needed if the Master or Dimmer already includes the DALI Power.

## De-rating Curve & Instructions

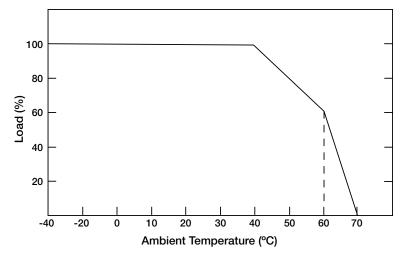


### **De-rating Curve**

 If being used in higher ambient temperatures, ensure the load on the LED driver is de-rated in accordance with this chart. Failure to do so could lead to a premature failure, which is not covered by the warranty.

#### Instruction:

- 1) This driver should be installed by qualified and professional person;
- 2) Please make sure the driver is installed with adequate ventilation around it to allow for heat dissipation.
- 3) Ensure that wiring is correct before test in order to avoid LED and power supply damage.
  - Any other question please feel free to contact ADM Systems Pty Ltd.



To extend their life, please refer to the De-rating Curve and de-rate according to the temperature.