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## INSTRUCTION MANUAL

DALI LED driver - constant current

## Model No.: HED2040



## LED CURRENT SELECTION

The current can be easily configured by choosing the correct combination of the DIP switches (see table below):


## WIRING DIAGRAM

Switch-Dim wiring diagram



Switch-Dim \& DALI wiring diagram

4. Warning: Please make sure the correct current is selected before starting the driver!

Note:1. "DALI" is prior to both "Switch-Dim" and "1-10V".
2. "Switch-Dim" is prior to "1-10V". To shift dimming from "Switch-Dim" to "1-10V", the end-user should short-circuit "1-10V" first for at least 3 S .

## PUSH BUTTON SWITCH FOR DIMMING (SWITCH-DIM)

- On/Off: Short push(<0.4s) on the switch.

Note: short push should be at least 0.12 s , and the time interval between two pushes should be longer than 0.12 s also.

- Stepless dimming: Long push(>0.9s) on the switch.
- For fine tuning of light level: With every other long push, the light level goes to the opposite direction.
- Built-in with permanent memory: Light returns to the previous state when switched off and on again, even at power failure.


## SYNCHRONIZATION FOR SWITCH-DIM MODE ONLY

Up to 64pcs drivers can be connected to the same switch, thanks to the programme. This means there is no need for any additional synchrony wire in larger installations, where many drivers should be controlled by one switch.
For the synchronization to work correctly when more than one driver is connected to the same push button, please follow the step below after the drivers are connected:
Do a long push(>15s), the system will now be synchronized and all lights in the group dim down from 50\%.

## MANUAL OVERRIDE

DALI and switch-Dim can be connected at the same time, to enable manual override function for end-users to switch on/off, or adjust the dimming level with the push-switch, which makes the product more user-friendly and more options to fit for some extra-ordinary demands.

- Short push (<0.4s): On/Off
- Long push ( $>0.9 \mathrm{~s}$ ): Dim up/down the dimming level.
- If customers do not want to have this manual override function, we can just leave this "push" terminal alone, not connected to any wire.
- This manual override is only valid before the next DALI command, meaning the latest action, either from DALI or switch-Dim, stays in validity.


## SPECIFICATION

| Mains voltage | 220-240VAC 50/60Hz |  |  |
| :---: | :---: | :---: | :---: |
| Mains current | 0.23-0.21A |  |  |
| Max. output power/ current / voltage | 20W /350mA /12~58V 29W $/ 500 \mathrm{~mA} / 12 \sim 58 \mathrm{~V}$ 38W /650mA /12~58V 45W /800mA /12~56V 45W $/ 950 \mathrm{~mA} / 12 \sim 47 \mathrm{~V}$ 45W /1050mA /12~43V | 23W /400mA /12~58V 32W / $550 \mathrm{~mA} / 12 \sim 58 \mathrm{~V}$ 40W /700mA /12~58V 45W /850mA /12~53V $45 \mathrm{~W} / 1000 \mathrm{~mA} / 12 \sim 45 \mathrm{~V}$ $45 \mathrm{~W} / 1100 \mathrm{~mA} / 12 \sim 41 \mathrm{~V}$ | 26W /450mA /12~58V <br> 35W /600mA /12~58V <br> 42W $/ 750 \mathrm{~mA} / 12 \sim 56 \mathrm{~V}$ <br> 45W /900mA /12~50V |
| U-out max. | 80 V |  |  |
| Power factor | $\geq 0.95$ |  |  |
| Operation temperature | Ta: -20 ... +45 C Tc: $+80{ }^{\circ} \mathrm{C}$ |  |  |
| Max. Efficiency | 287\% |  |  |
| Dimming interface | DALI, switch-Dim, 1-10V. |  |  |
| Abnormal protection | Output short-circuit protection with auto-reset. |  |  |
| Over-heat protection | Over-heat protection with auto-reset. |  |  |
| EMC standard | EN55015, EN61547, EN61000-3-2/3 |  |  |
| Safety standard | EN61347-1, EN61347-2-13, EN60598-1 |  |  |
| DALI standard | IEC62386-102, 207 |  |  |
| Dielectric strength | Input $\rightarrow$ output : 3750VAC |  |  |
| IP grade | IP20 |  |  |

