The LED modules used in the Lederam collection can be connected directly to the mains voltage because they do not require any driver (other than the one already mounted on the module).

The model Lederam W dia. 25 cm (see p. 14), besides the 17W modules currently mounted (where 17W is the average consumption) can be supplied on request also with high efficiency (10W 1200 lumen ca.) or high output modules (20W 2000 lumen ca.).

Compared to traditional light sources, mains voltage LED modules are more sensitive to any interference in the electricity mains, including voltage fluctuation and harmonic distortion, because they have a faster response to changes in voltage. This means that consequently to this variations occasional flickering or functioning anomaly may occur, but since not depending on the product, they cannot be considered a flaw or defect.

Further than by problems on the line voltage, fluctuations and harmonics may be produced by variable power loads, as those caused by many types of motors and electronic devices.

Dimming

The mains voltage LED modules are dimmable using IGBT (trailing edge) dimmers designed specifically for LED loads (generally very low). It is preferable for the dimmers to have been tested and recommended specifically for the LED module we use (Acrich2 LED). Since this is a new generation of LEDs, their dimming is extremely delicate: incompatible dimmers may cause irreparable damage to the LED.

Some dimmers on the market have a NO button (Normally Open - diagram A) or are specific connector socketmounted or recessed (diagram B).

They are generally inserted into junction boxes; their limited thickness facilitates the installer's task and makes the dimmer fit for installation even in shallow boxes. Dimmers with an integrated radio dimmer for both manual (with NO button) and wireless control (diagram C) are also available.

It is important to note that, during adjustment (for instance, with an E2 table dimmer), the dimming appears less precise, with some flickering.

Furthermore some types of dimmer, even if they have been recommended by the manufacturers themselves, have visible flickering (almost essentially down to a minimum) depending on the mains and on the type of interference present. The problem can be solved by increasing the minimum value setting of the potentiometer on the dimmer.

Diagram A

Recommended dimmers:

[1] Relco LT1 UN - (max 100W) [2] Tecnel TE7636M - (max 100W)



Diagram B



Recommended dimmers:

[3] Relco DIMled34D - (max 100W)
[4] HPM Legrand XL400 trailing edge type
[5] Feller by Schneider Electric 40300 Rc / 40100 LED - (max 100W)
[6] Gira 239000 - (max 100W)
[7] Busch Jaeger 6523 U - (max 100W)



Diagram C

Recommended dimmer:

[8] Teleco TCDRL868A01 - (max 100W)

