



20W 0/1-10V Dimmable Constant Current LED Driver With Selectable Output

# Features of the: ADC-20



0/1-10V Dimmable



Output Current Selectable By DIP switch



AC Input Range: 100-277VAC with PFC



IP20 Design For Indoor Installation



Class II
Power Supply



Easy



Protections: Short Circuit, Overload, Over Temperature



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IP20 SELV

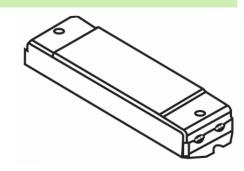
## Specification

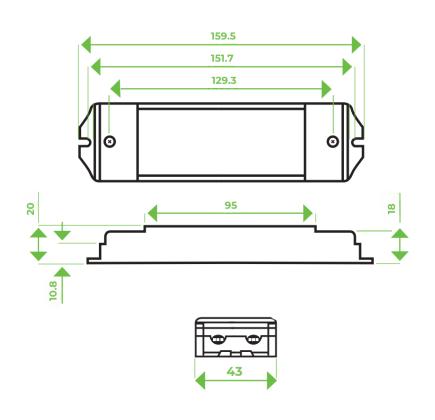


|             | Model  | ADC-20   |       |       |       |       |       |       |       |
|-------------|--|--|-------|-------|-------|-------|-------|-------|-------|
| Output      | Rated Current (mA)   | 250mA  | 350mA | 400mA | 450mA | 500mA | 550mA | 600mA | 700mA |
|             | <b>T</b> ON <b>▲</b> OFF   | TIT  | TIL   | TTT   | LLT   | TTL   | TAT   | ATT   | TTT   |
|             | Current Tolerance  | ±25mA  |       |       |       |       |       |       |       |
|             | DC Voltate   | 3-42V  | 3-42V | 3-42V | 3-42V | 3-42V | 3-42V | 3-33V | 3-29V |
|             | Rated Power  | 10.5W  | 14.7W | 16.8W | 18.9W | 20W   | 19.8W | 19.8W | 20.3W |
| Input       | Rated Input Voltage  | 100-277VAC   |       |       |       |       |       |       |       |
|             | Rated Frequency  | 47-63HZ  |       |       |       |       |       |       |       |
|             | Power Factor   | 0.99@120VAC 0.95@230VAC 0.9@277VAC   |       |       |       |       |       |       |       |
|             | Efficiency (Typ.)  | 81% @120VAC 81%@230VAC 80%@277VAC  |       |       |       |       |       |       |       |
|             | AC Current (Max.)  | 0.3A   |       |       |       |       |       |       |       |
|             | Inrush Current (Typ.)  | 10.2A, 24uS @ 50%lpeak at 277VAC   |       |       |       |       |       |       |       |
|             | Leakage Current  | <0.50mA TBC  |       |       |       |       |       |       |       |
| Protection  | Short Circuit  | Constant current mode, recovers automatically after fault condition is removed.                        |       |       |       |       |       |       |       |
|             | Output No-Load Voltage   | 52V max. TBC   |       |       |       |       |       |       |       |
|             | Over Temperature   | Ambient temp. over 55±10°C, output current will be off; recovers automatically after temperature drops |       |       |       |       |       |       |       |
|             | Protection Class   |  |       |       |       |       |       |       |       |
| Environment | Working TEMP.  | -40-+60°C  |       |       |       |       |       |       |       |
|             | Working Humidity   | 20-90%RH, non condensing   |       |       |       |       |       |       |       |
|             | Storage Temp. Humidity   | -40 - 70°C, 10-95%RH   |       |       |       |       |       |       |       |
| 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   | 0.15kg   |       |       |       |       |       |       |       |
|             | Size   | 159.5*43*20mm (L*W*H)  |       |       |       |       |       |       |       |
|             | Packing  | 340*250*135mm (50PCS/CTN ) for outer carton 8.3KG/CTN.   |       |       |       |       |       |       |       |
| Notes       | <ol> <li>All parameters NOT specially mentioned are measured at 277VAC 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-).
- 0/1-10V. Terminals 2P.
- 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.





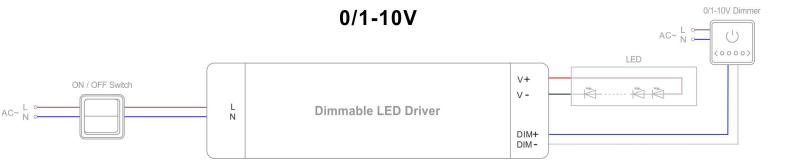
## Wiring Diagrams



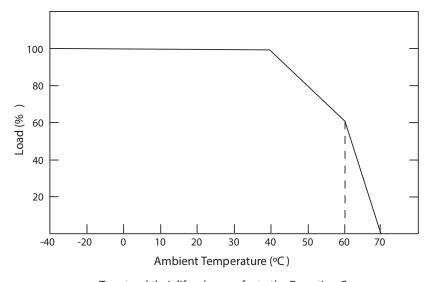
### **Dimming Operation and Connecting Diagram**

- 1. Adjust the LED driver output to the desired constant current by using the dip switch.
- 2. Connect the 0/1-10V dimmer pot for example the Power Source D1-10.
- 3. Connect a light fitting and test operation before connecting any further fittings.

#### 0-10/1-10V



#### **De-rating Curve and Instructions**



 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.

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

#### 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.