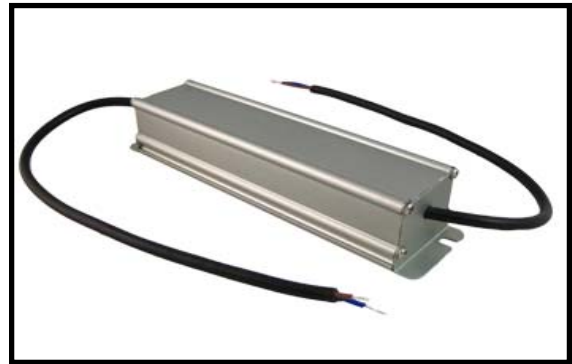


35W Constant Current LED Driver LEDWCx035 series

FEATURES

- High Efficiency (Up to 88%)
- Active Power Factor Correction (Typical 0.92)
- Constant Output Current
- Lightning Protection
- Waterproof (IP67)
- Dimming Control
- Overload, Overvoltage and Overcurrent Protection
- Comply With UL8750 & EN61347 Safety Regulations
- Class II - UL1310 (See Notes for Applicable Models)

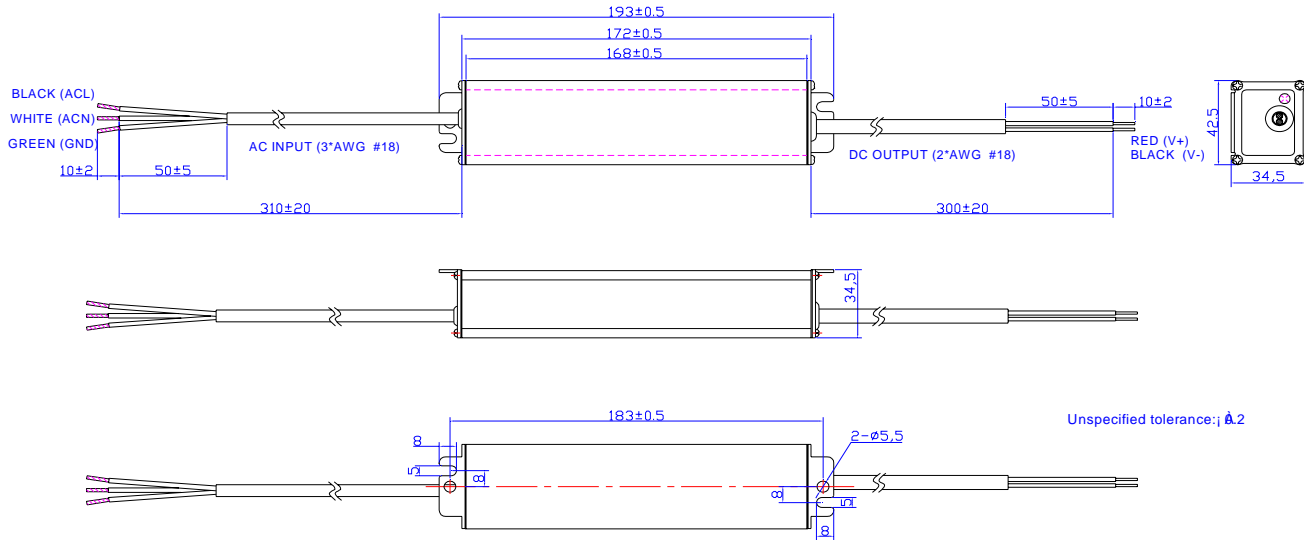


SPECIFICATION

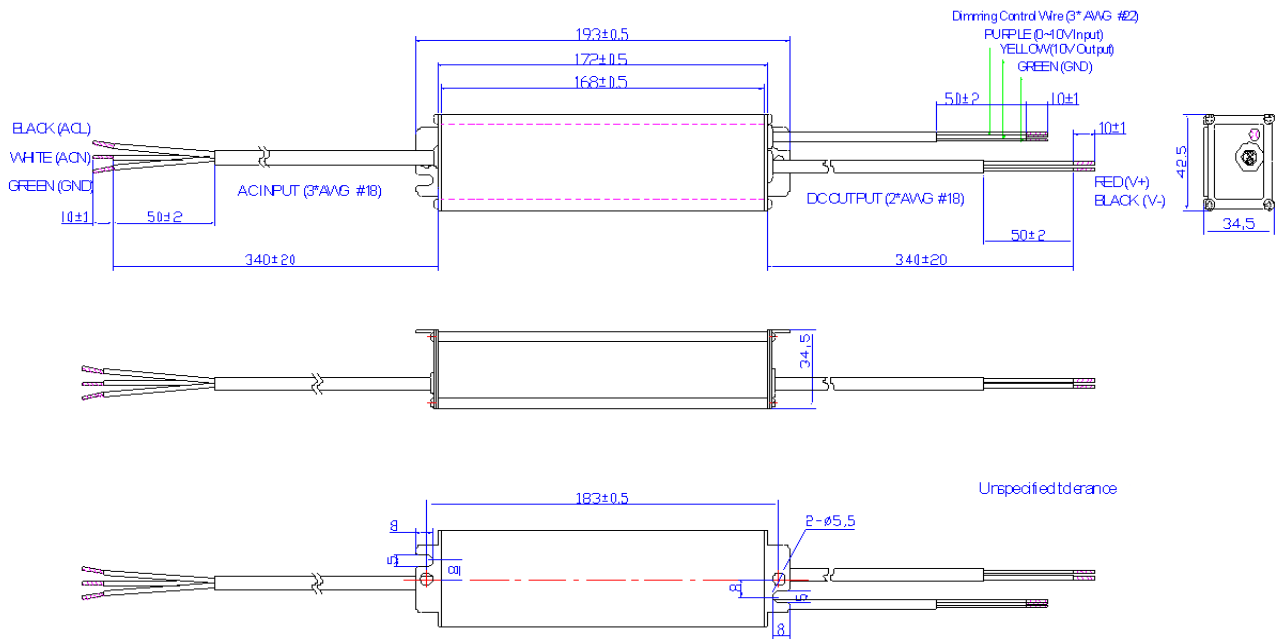
| Model | | LEDWCx 035S290ST (7) | LEDWCx 035S245ST (7) | LEDWCx 035S210ST (7) | LEDWCx 035S175ST (7) | LEDWCx 035S140ST (7) | LEDWCx 035S105ST (7) | LEDWCx 035S070ST (8) | LEDWCx 035S045ST (9) | LEDWCx 035S035ST (9) | |
|---------------|------------------------------|--|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-----|
| Output | Rated Current | 2900 mA | 2450 mA | 2100 mA | 1750 mA | 1400 mA | 1050 mA | 700 mA | 450 mA | 350 mA | |
| | Current Range (Min - Max) mA | 2755 - 3045 | 2328 - 2573 | 1995 - 2205 | 1663 - 1838 | 1330 - 1470 | 998 - 1103 | 665 - 735 | 428 - 473 | 333 - 368 | |
| | Rated Power | 35W | 35W | 35W | 35W | 35W | 35W | 35W | 35W | 35W | |
| | Ripple & Noise (max.) (2) | 4V | 4V | 4V | 4V | 4V | 4V | 4V | 5V | 8V | 10V |
| | Max. Voltage | 12 Vdc | 15 Vdc | 18 Vdc | 20 Vdc | 24 Vdc | 33 Vdc | 50 Vdc | 78 Vdc | 100 Vdc | |
| | Voltage Range (Min - Max) | 4V -12V | 5V - 15V | 6V - 18V | 7V - 20V | 8V - 24V | 11V - 33V | 17V - 50V | 26V - 78V | 33V - 100V | |
| | No Load Output Voltage | 17V | 20V | 24V | 26V | 30V | 39V | 56V | 83V | 104V | |
| | Line Regulation | 3% | | | | | | | | | |
| | Load Regulation | 5% | | | | | | | | | |
| | Setup, Rise Time (Typ.) | 2.5S (110 VAC) and 1.5S (220 VAC) | | | | | | | | | |
| Input | Voltage Range | 90V ~ 305VAC | | | | | | | | | |
| | Frequency Range | 47Hz / 63Hz | | | | | | | | | |
| | Power Factor Correction | 99% @ 110 VAC 92% @ 220 VAC | | | | | | | | | |
| | Efficiency (Typ.) (1) | 83% | 83% | 85% | 86% | 87% | 87% | 87% | 87% | 88% | 88% |
| | Inrush Current | 60A @ 230VAC Input and 25°C cold start | | | | | | | | | |
| | Leakage Current | 0.5 mA (max) at 277Vac 50Hz input | | | | | | | | | |
| | AC Current (Typ.) | 0.49 A / 100VAC 0.25A / 220VAC | | | | | | | | | |
| Protections | Short Circuit Protection | Protection type : Hiccup mode, recovers automatically after fault condition is removed | | | | | | | | | |
| | Over Load Protection | 1.25 Vmax Protection type : Hiccup mode, recovers automatically after fault condition is removed | | | | | | | | | |
| | Over Voltage (Typ.) | 15V | 18V | 21V | 25V | 32V | 41V | 63V | 97V | 120V | |
| Environmental | Temperature Range | Operational | - 35°C ~ 55°C | | | | | | | | |
| | | Storage | - 40 ~ +85°C | | | | | | | | |
| | Humidity | Operational | 10 ~ 100% RH | | | | | | | | |
| | | Storage | 5 ~100% R.H | | | | | | | | |
| Safety & EMC | Safety Standards | UL8750 Compliance to UL1310 Class2 UL1012 UL935, CAN/CSA-C22.2 No. 0, CSA-C22.2 No. 107.1, CSA-C22.2 No. 250.0 | | | | | | | | | |
| | CE | EN 61347-1, EN61347-2-13 | | | | | | | | | |
| | No load Power Dissipation | ≤6.0W | | | | | | | | | |
| | EMI Conduction & Radiation | EN55015 with 6db margin | | | | | | | | | |
| | Harmonic Current | EN61000-3-2 , EN61000-3-3 | | | | | | | | | |
| | EMS Immunity | EN61000-4-2, EN61000-4-3, EN61000-4-4, EN 61000-4-5, EN61000-4-6, EN61000-4-8, EN61000-4-11, EN 61547 | | | | | | | | | |
| Others | MTBF (3) | 541K HRS Compliance: MIL-HDBK-217F @ 25°C ambient temp. | | | | | | | | | |
| | Life Time (4) | 87,000 hours @ 45°C ambient temp. | | | | | | | | | |
| | Dimension (L*W*H) | 172*34.5*42.5 (mm) - 6.77*1.36*1.67 (inch) | | | | | | | | | |
| | Weight | 480 g - 1.06Lb | | | | | | | | | |

Mechanical Specification

LEDWC-035SXXXST



LEDWCD035SXXXST



Efficiency

| Model | LEDWCx 035S290ST (7) | LEDWCx 035S245ST (7) | LEDWCx 035S210ST (7) | LEDWCx 035S175ST (7) | LEDWCx 035S140ST (7) | LEDWCx 035S105ST (7) | LEDWCx 035S070ST (8) | LEDWCx 035S045ST | LEDWCx 035S035ST |
|---|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|---------------------|---------------------|
| Efficiency @ Full Load and 115VAC (min) | 80.0% | 81.0% | 81.0% | 81.0% | 83.0% | 85.0% | 85.0% | 86.0% | 87.0% |
| Efficiency @ Full Load and 115VAC (typ) | 81.0% | 82.0% | 82.0% | 82.0% | 84.0% | 86.0% | 86.0% | 87.0% | 88.0% |
| Efficiency @ Full Load and 230VAC (min) | 81.0% | 82.0% | 83.0% | 83.0% | 84.0% | 85.0% | 85.0% | 86.0% | 87.0% |
| Efficiency @ Full Load and 230VAC (typ) | 82.0% | 83.0% | 84.0% | 84.0% | 85.0% | 86.0% | 86.0% | 87.0% | 88.0% |

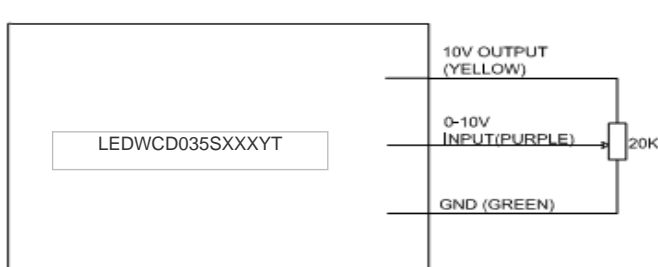
NOTES:

1. Measured at full load, 220VAC input.
2. Ripple & noise are measured at 20MHz of bandwidth oscilloscope and the output paralleled a 0.1uf ceramic capacitor & 10 uf electrolytic capacitor.
3. For 2900mA output model, measured at 110VAC input, 80%load and 25 C ambient temperature.
4. For 2900mA output model, measured at 110VAC input, 80%load and 45 C ambient temperature.
5. All parameters NOT specially mentioned are measured at 220VAC input, rated load and 25C ambient temperature.
6. A suffix -xxxx may be added to denote variation or modifications to the base product, were x can be any alphanumeric character or blank
7. Class 2 output (USR & CNR).
8. Class 2 output (USR only)
9. Specifications are subject to change without notice. AUTEK cannot be held liable for errors or omissions or the consequences thereof.

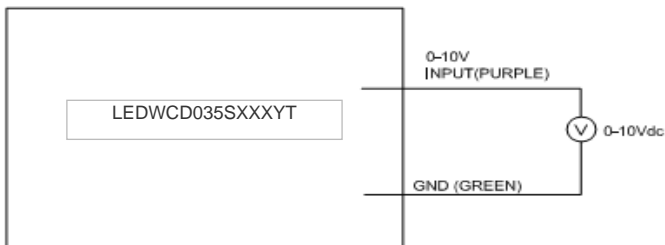
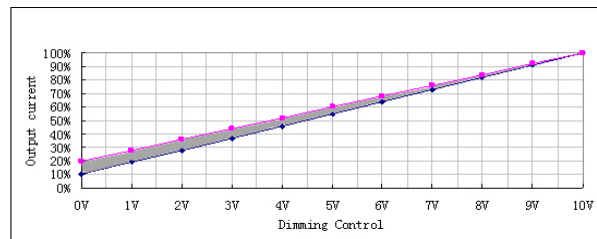
Dimming Control (On secondary side)

| Parameter | Min. | Typ. | Max. |
|---|--------|------|-------|
| 10V output voltage | 9.8V | 10V | 10.2V |
| 10V output source current | -10 mA | - | 2 mA |
| Absolute maximum voltage on the 0-10V input pin | -2V | - | 15V |
| Source current on 0-10V input pin | 0 mA | - | 1 mA |

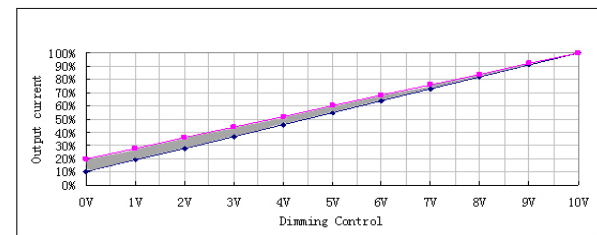
The dimmer control may be operated from either a potentiometer or from an input signal of 0 – 10 Vdc. Two recommended implementations are provided below.



Implementation 1: Potentiometer control



Implementation 2: DC input



Notes:

1. For the driver to operate properly, the load voltage must be maintained within the specified voltage range
2. As the dimming voltage is varied from 10V to 0V, the output current will be varied from 100% Io to 10%~20% Io.
3. Do not connect the dimming GND to the output; otherwise, the LED driver will not work normally.

Part Number Builder

