

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)

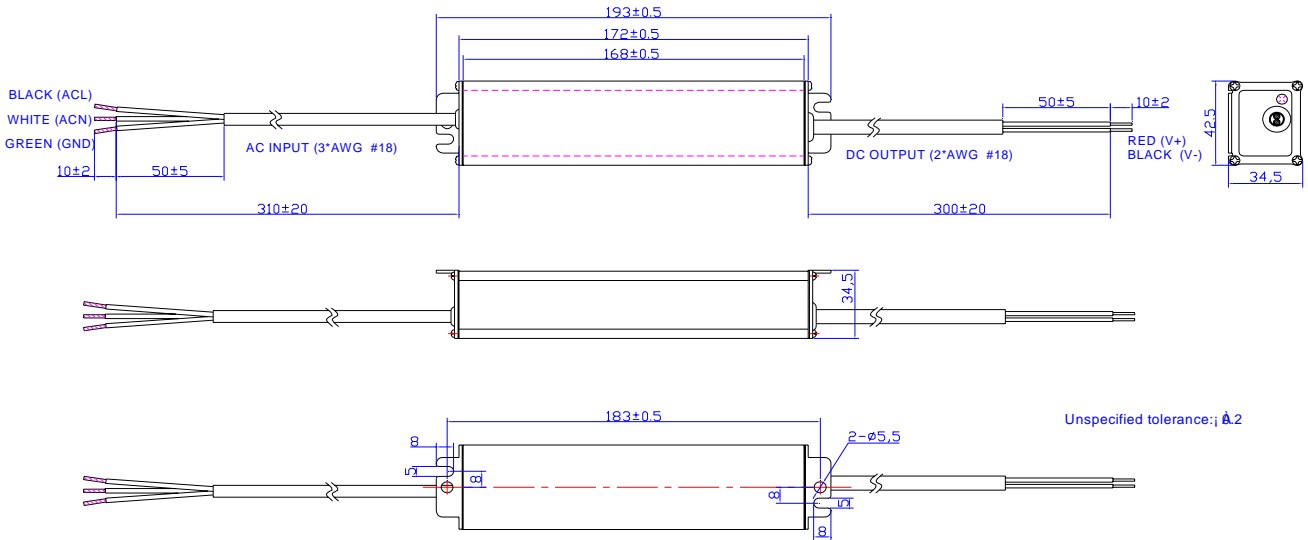


SPECIFICATION

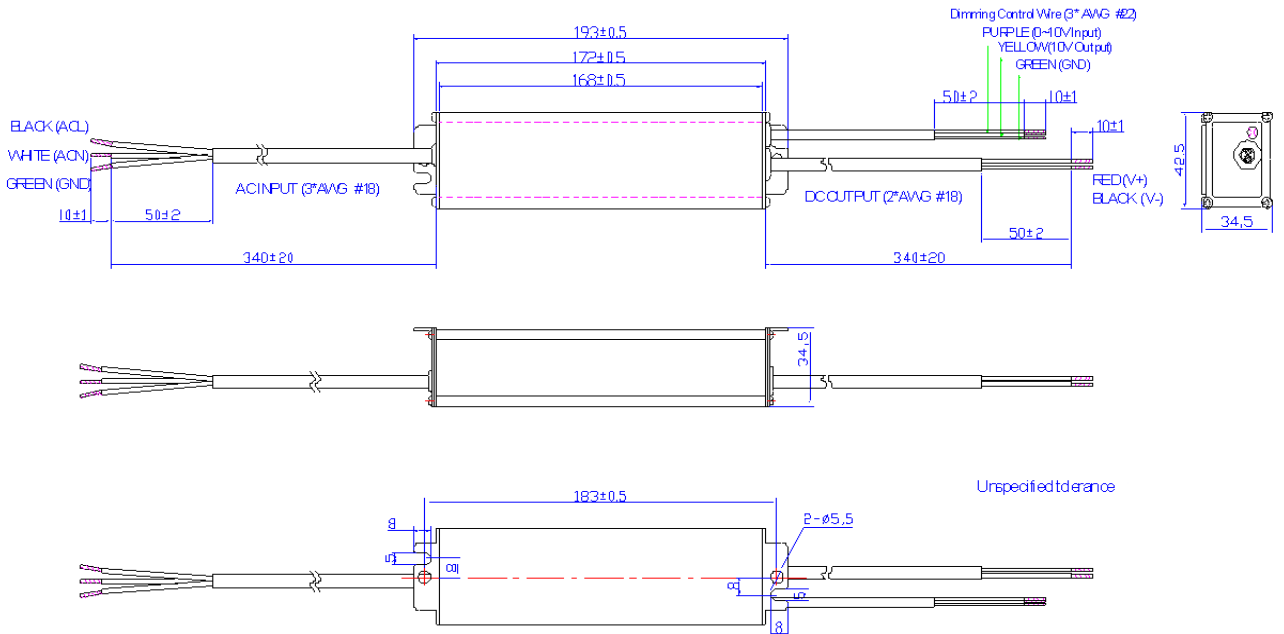
Model		LEDWCx 035S290ST (7)	LEDWCx 035S245ST (7)	LEDWCx 035S210ST (7)	LEDWCx 035S175ST (7)	LEDWCx 035S140ST (7)	LEDWCx 035S105ST (7)	LEDWCx 035S070ST (8)	LEDWCx 035S045ST (9)	LEDWCx 035S035ST (9)	
Output	Rated Current	2900 mA	2450 mA	2100 mA	1750 mA	1400 mA	1050 mA	700 mA	450 mA	350 mA	
	Current Range (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	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%	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%

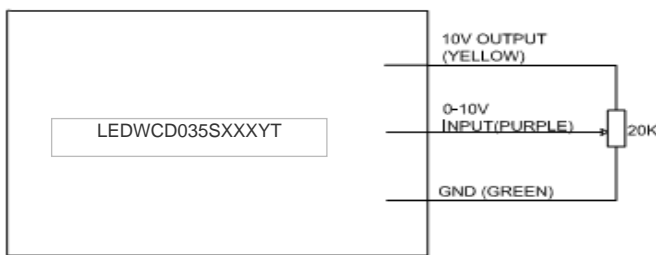
NOTES:

1. Measured at full load, 220VAC input.
2. Ripple & noise are measured at 20MHz of bandwidth oscilloscope and the output paralleled a 0.1 uf 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 -xxx 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.

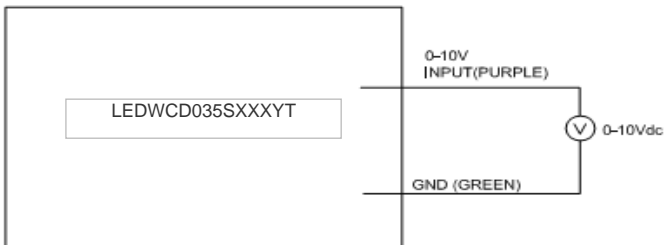
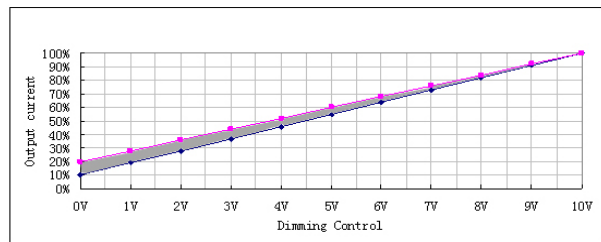
Dimming Control (On secondary side)

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

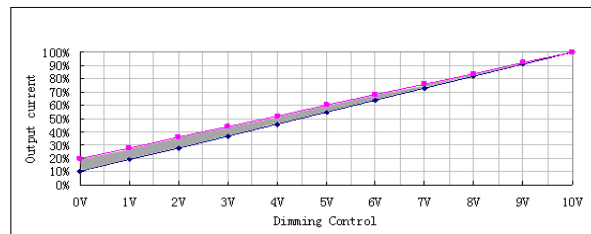
The dimmer control may be operated from either a potentiometer or from an input signal of 0 – 10 Vdc. Two recommended implementations are provided below.



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

