

40W Constant Current LED Driver LEDWC-040 series

FEATURES

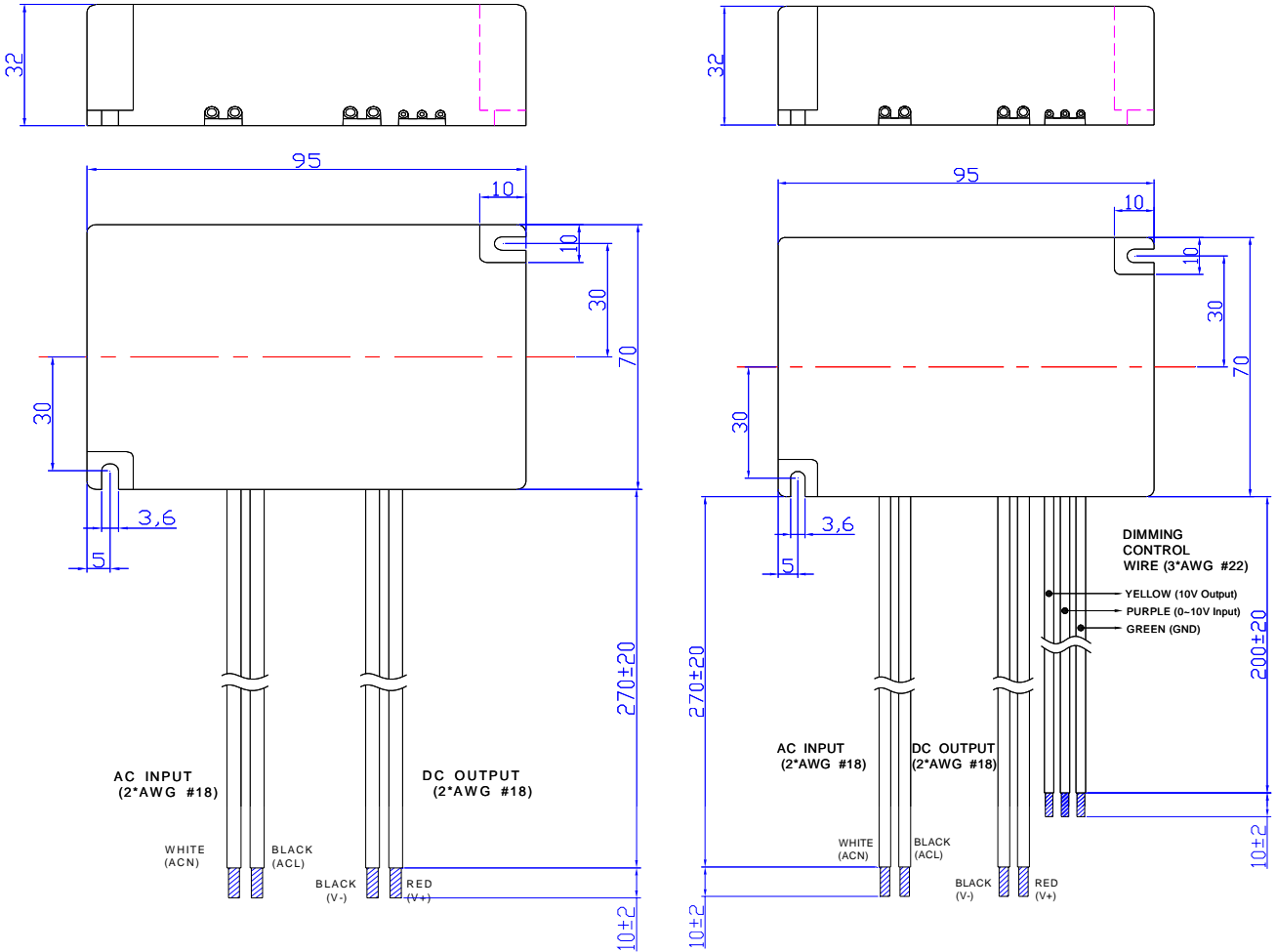
- >High Efficiency (Up to 88%)
- >Active Power Factor Correction (Typical 0.94)
- > Constant Output Current
- >Lightning Protection
- >Waterproof (IP66)
- >Dimming Control
- >All-Round Protection: OVP, SCP, OLP
- >Comply With UL8750 & EN61347 Safety Regulations



SPECIFICATION

Model		LEDWC() 040S333PS (7)	LEDWC() 040S222PS (7)	LEDWC() 040S166PS (7)	LEDWC() 040S140PS (7)	LEDWC() 040S128PS (7)	LEDWC() 040S105PS (7)	LEDWC() 040S070PS (8)	LEDWC() 040S045PS (9)	LEDWC() 040S035PS (9)	
Output	Rated Current	3330 mA	2220 mA	1660 mA	1400 mA	1280 mA	1050 mA	700 mA	450 mA	350 mA	
	Current Range (Min - Max) mA	3164 - 3497	2109 - 2331	1577 - 1743	1330 - 1470	1216 - 1344	998 - 1103	665 - 735	428 - 473	333 - 368	
	Rated Power	35W	36W	38W	36W	38W	38W	38W	38W	40W	40W
	Ripple & Noise (max.) (2)	3V	3V	3V	3V	3V	5V	5V	5V	5V	
	Max. Voltage	11 Vdc	16 Vdc	23 Vdc	25 Vdc	29 Vdc	36 Vdc	54 Vdc	89 Vdc	114 Vdc	
	Voltage Range (Min - Max)	4V -11V	6V - 16V	8V - 23V	10V - 25V	10V - 29V	12V - 36V	18V - 54V	30V - 89V	38V - 114V	
	No load Output Voltage	17V	22V	30V	35V	35V	41V	61V	98V	127V	
	Line Regulation	2%									
	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	98% @ 110 VAC 92% @ 220 VAC									
	Efficiency (Typ.) (1)	84%	85%	86%	87%	87%	87%	87%	87%	88%	88%
	Inrush Current	20A @ 230VAC Input and 25°C cold start									
	Leakage Current										
	AC Current (Typ.)	0.48 A / 100VAC 0.23A / 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.)	16V	23V	30V	34V	34V	41V	59V	98V	127V	
Environmental	Temperature Range	Operational	- 20°C ~ 60°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, EN61000-4-6, EN61000-4-8, EN61000-4-11, EN 61547									
Others	MTBF (3)	487K HRS Compliance: MIL-HDBK-217F @ 25°C ambient temp.									
	Life Time (4)	77,000 hours @ 45°C ambient temp.									
	Dimension (L*W*H)	95*70*32 (mm) - 3.74*2.76*1.26 (inch)									
	Weight	300 g - 0.66Lb									

Mechanical Specification



LEDWC-040SXXXPS

LEDWCD040SXXXPS

Efficiency

Model	LEDWC() 040S333PS (7)	LEDWC() 040S222PS (7)	LEDWC() 040S166PS (7)	LEDWC() 040S140PS (7)	LEDWC() 040S128PS (7)	LEDWC() 040S105PS (7)	LEDWC() 040S070PS (8)	LEDWC() 040S045PS (9)	LEDWC() 040S035PS (9)
Efficiency @ Full Load and 115VAC (min)	82.0%	83.0%	84.0%	85.0%	85.0%	85.0%	85.0%	86.0%	86.0%
Efficiency @ Full Load and 115VAC (typ)	83.0%	84.0%	85.0%	86.0%	86.0%	86.0%	86.0%	87.0%	87.0%
Efficiency @ Full Load and 230VAC (min)	83.0%	84.0%	85.0%	86.0%	86.0%	86.0%	86.0%	87.0%	87.0%
Efficiency @ Full Load and 230VAC (typ)	84.0%	85.0%	86.0%	87.0%	87.0%	87.0%	87.0%	88.0%	88.0%

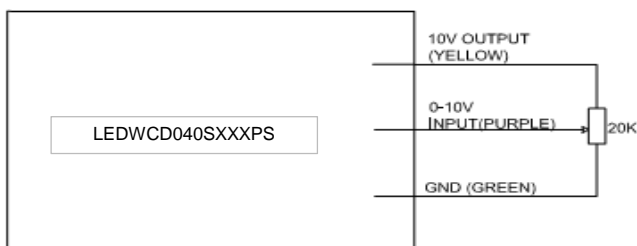
NOTES:

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 3330mA output model, measured at 110VAC input, 80%load and 25°C of ambient temperature.
4. For 3330mA output model, measured at 110VAC input, 80%load and 45°C of ambient temperature.
5. All parameters NOT specially mentioned are measured at 220VAC input, rated load and 25°C of 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), Non-Class 2 output (CNR).
9. None class 2 output (USR & CNR).
10. Specifications are subject to change without notice. AUTEK can't be held liable for errors or omissions or the consequences thereof.

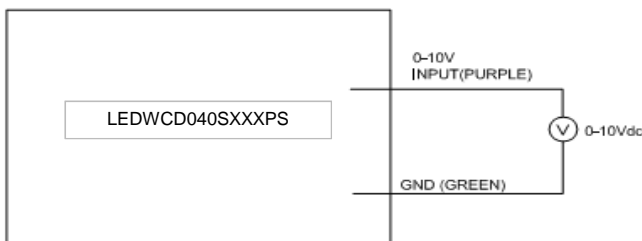
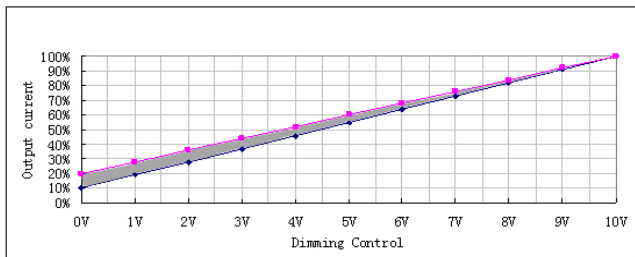
Dimming Control (On secondary side)

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

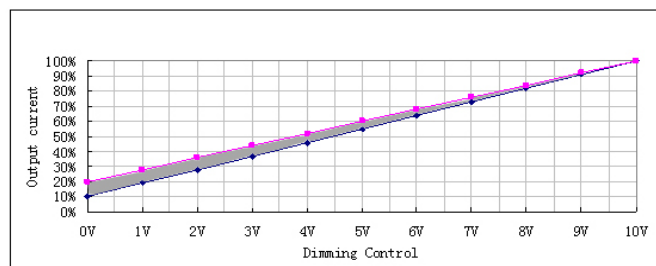
The dimmer control may be operated from either a potentiometer or from an input signal of 0 – 10 Vdc. Two recommended implementations are provided below.



Implementation 1: Potentiometer control



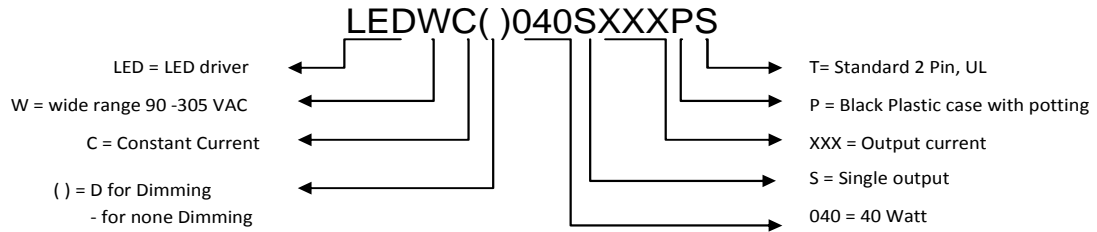
Implementation 2: DC input



Notes:

- 1- For the driver to operate properly, the load voltage must be maintained above the minimum voltage threshold (approx. 33% of the max. output voltage for any given model).
- 2- If the Dimming voltage is varied from 10V down to 0V, the output current can be varied from 100%Io down to 10%~20%Io.
- 3- Do not connect the GND of dimming to the output; otherwise, the LED driver can not work normally.

Part Number Scheme:



Derating Curve

