POWER SOURCE

Phase cut AC Dimmable Constant Current LED Driver with Selectable Output

PDC-40 series

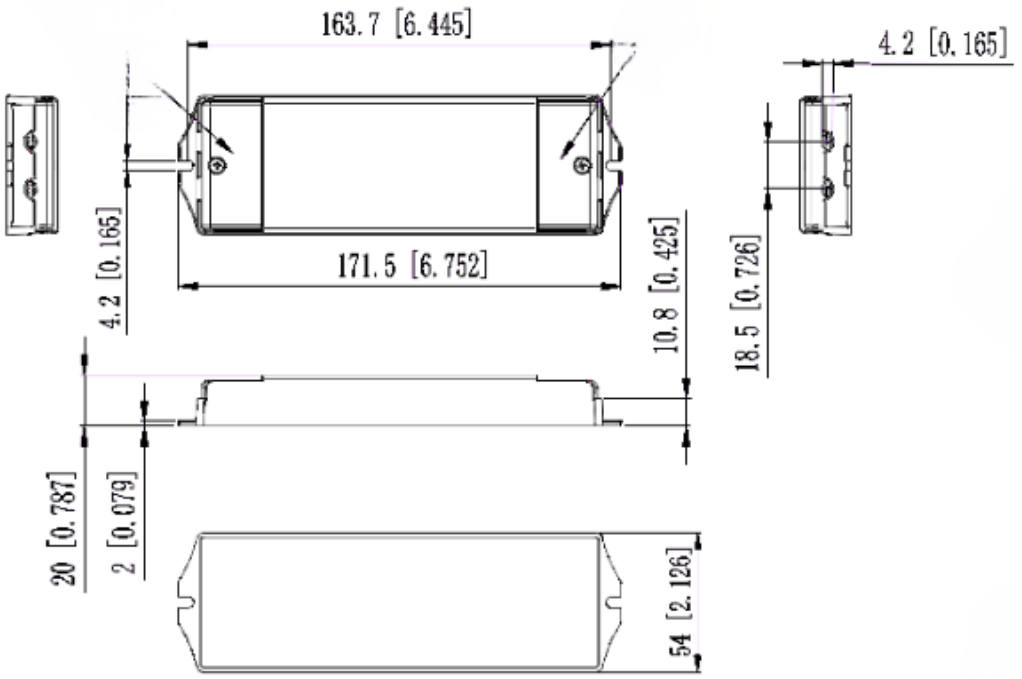


Features:

- AC Input Range: 200-240VAC with PFC
- Output Current selectable via DIP switch
- Protections: Short circuit, over temperature
- IP20 design for indoor installation
- Class II Power Supply
- High level of dimmer compatibility
- Built-in active PFC function
- Works with leading or trailing edge dimmers
- 5-year warranty

Model		PDC-40							
Output	Rated Current (mA) ±5%	300mA	350mA	400mA	450mA	500mA	550mA	600mA	650mA
	⊤ON ⊥OFF	⊥⊥⊥⊥	⊤⊥⊥⊥	⊥⊤⊥⊥	⊤⊤⊥⊥	⊥⊥⊤⊥	⊤⊥⊤⊥	⊥⊤⊤⊥	⊤⊤⊤⊥
	DC Voltage	3-65V	3-65V	3-65V	3-65V	3-65V	3-65V	3-65V	3-62V
	Rated Power	19.5W	22.8W	26W	29.3W	32.5W	35.8W	39W	40W
	Rated Current (mA) ±5%	700mA	800mA	900mA	1000mA	1100mA	1200mA	1300mA	1400mA
	⊤ON ⊥OFF	⊥⊥⊥⊤	⊤⊥⊥⊤	⊥⊤⊥⊤	⊤⊤⊥⊤	⊥⊥⊤⊤	⊤⊥⊤⊤	⊥⊤⊤⊤	⊤⊤⊤⊤
	DC Voltage	3-57V	3-50V	3-45V	3-40V	3-37V	3-34V	3-31V	3-29V
	Rated Power	40W	40W	40W	40W	40W	40W	40W	40W
	No-load voltage (Max.)	75V							
Input	Rated Input Voltage	200-240VAC							
	Rated Frequency	50/60Hz							
	Power Factor	Full loading ≥ 0.90@230VAC							
	THD (Typ.)	≤20%							
	Efficiency (Typ.)	80%@230VAC							
	AC Current (Max.)	0.29A							
	Inrush Current (Typ.)	15.6A, 10.3us@50%Ipeak@230VAC							
	Leakage Current	<0.50mA							
Protection	Short Circuit	Constant current mode, recovers automatically after fault condition is removed.							
	Over Temperature	Ambient temp. over 50°±5°C, output current will be reduced to 50%; Ambient temp. over 60°±5°C, output current will be reduced to 0%; Ambient temp. reduces to 45°±5°C, recovers automatically – measured as case temperature tc=75°±5°C.							
	Protection Class	II							
Environment	Working TEMP.	-40 -+60°C (See de-rating curve below)							
	TA&TC	TA:40°C TC:80°C(SAA) 90°C(ENEC)							
	Working Humidity	20-90%RH, non condensing							
	Storage Temp. Humidity	-40 - +80°C, 10-95%RH							
	Temp. coefficient	±0.03%/°C, (0-50°C)							
	Vibration	10-500Hz, 2G 10min./1 cycle, period for 60min. each along X, Y, Z axes.							
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							
	EMC Immunity	EN61547; EN61000-4-2,3,4,5,6,11							
	EMC Emission	EN55015; EN61000-3-2,3							
Others	Weight	0.225kg							
	Size	171.5*54*20mm (L*W*H)							
	Packing	250*190*135mm 20PCS/CTN 5KG/CTN							
Notes	1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature. 2. Tolerance: includes set up tolerance, line regulation and load regulation. 3. Specifications are subject to change without prior notice. Contact ADM Systems to confirm any critical parameters.								

Mechanical Specifications



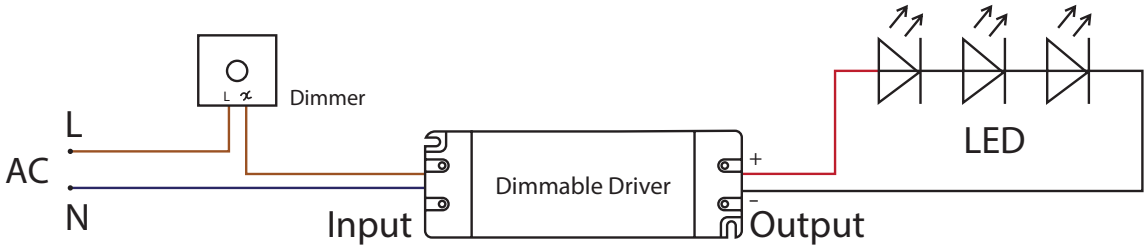
1) Input 3 pole terminal block: Active AC (L), Neutral AC (N).

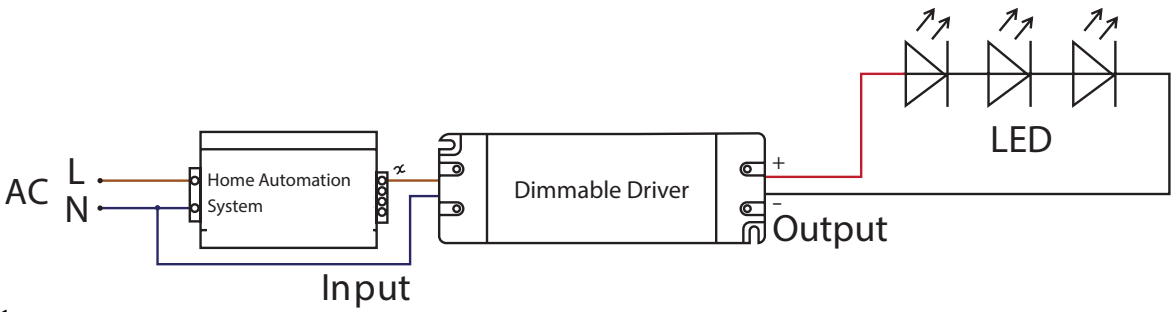
2) Output 2 pole terminal block: Positive (LED+), Negative (LED-)

3) Suggested wire diameter: Input 0.75-2mm^2; Output: 0.5-2mm^2

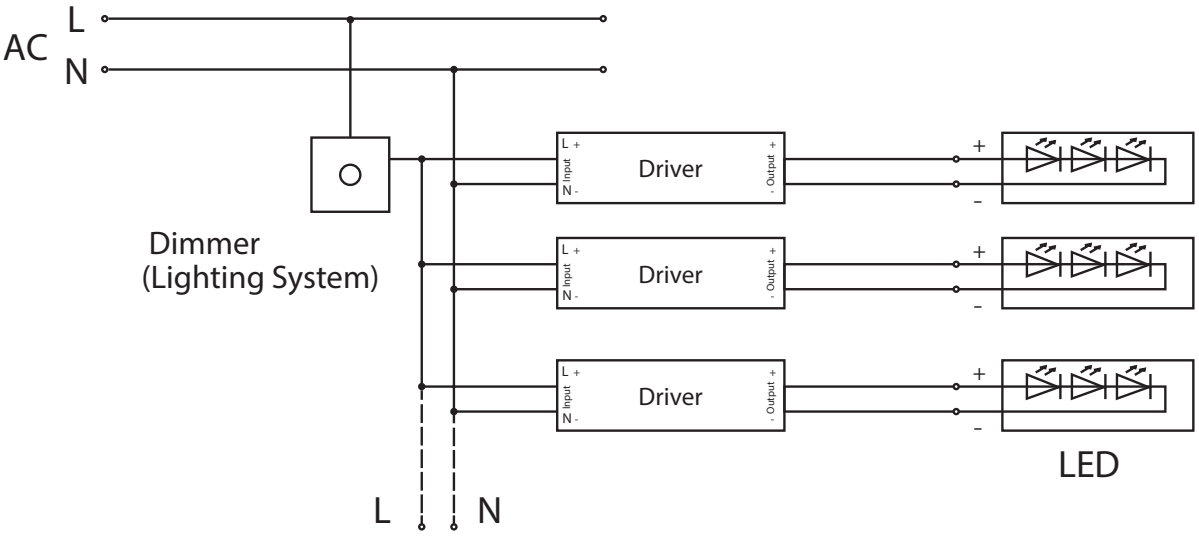
4) Ensure that all wiring is correct before testing in order to avoid damage to the LED driver or the LEDs.

Single Driver Connection diagram



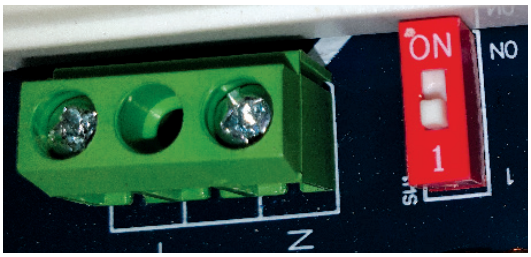


Multiple Driver Connection diagram

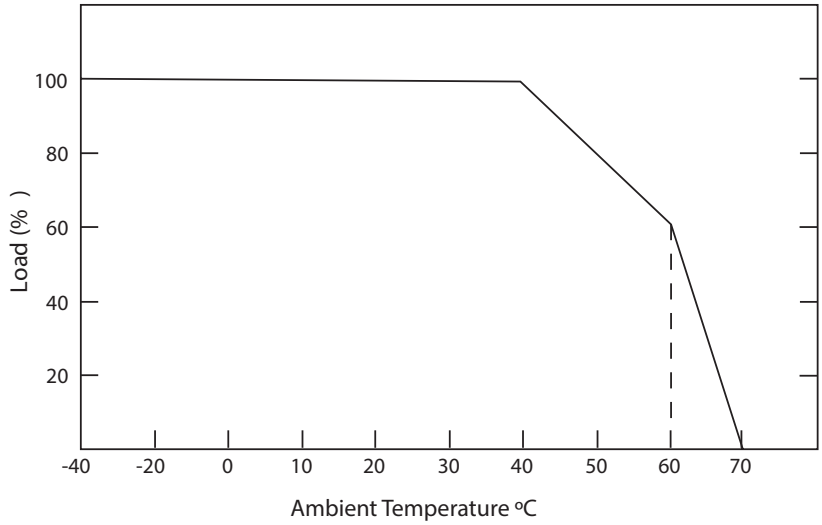


Dimmer Type Selection

- A leading edge or trailing edge dimmer should be installed on the AC input.
- Select the type of dimmer being used with the DIP switch to the right of the input terminal block. Position 1 for trailing edge, most common in Australia. If flicker is experienced try the ON position.
- It is recommended that you use a dimmer with at least 2x power of the rated output power of the driver.



De-rating Curve



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

Instructions

1) 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 warranty.

2) This driver should be installed by qualified and professional person;

3) Please make sure the driver is installed with adequate ventilation around it to allow for heat dissipation.

4) 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.