

Features

- Constant current output and the output current adjustable via a DIP switch
- Built-in active PFC function
- Smooth dimming; dimming depth $\leq 1\%$
- Supports Triac dimming
- IP20
- 5-year warranty



Applications

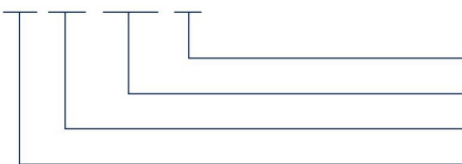
· Horticultural lighting · indoor office lighting · decorative lighting · commercial lighting · residential lighting

Descriptions

PL-DR40DIM is a 40W constant current Triac dimmable LED driver with 0-100% dimming range. It is compatible with leading and trailing edge dimmers and has flicker-free effect during the whole process of dimming. Its rated input voltage ranges from 198 to 253Vac and output current is adjustable from 700 to 1050mA via a DIP switch with every 50mA as a step.

Product Model

LF - AAT 040 - 1050 - 42



- 42: maximum output voltage: 42V
- 1050: maximum output current: 1050mA
- 040: rated power: 40W
- AAT: CC Triac dimmable LED driver series

■ Electrical Characteristics

Model		LF-AAT040-1050-42							
Output	Output Current	Adjustable via a DIP switch							
		700mA	750mA	800mA	850mA	900mA	950mA	1000mA	1050mA
	Output Voltage	9-42Vdc					9-40Vdc	9-38Vdc	
	Flicker Index	IEC-Pst ≤ 1 , CIE SVM ≤ 0.4 Complies with flicker-free standard (IEEE Std 1789-2015)							
	Current Tolerance	$\pm 5\%$							
	Temperature Drift	$\pm 10\%$							
	Start-up Time	$< 3S@230Vac$							
Input	Input Voltage	220-240Vac (voltage limit: 198-253Vac)							
	DC Input Voltage	176-280Vdc							
	Input Frequency	47-63Hz							
	Input Current	0.3A max.							
	PF	$> 0.90@230Vac$ full load							
	THD	$< 20\%$							
	Efficiency	$> 83\%$							
	Inrush Current	$\leq 60A \& 2600\mu S@230Vac$							
	Loading Quantities of Circuit Breaker	Model	B10	C10	B16	C16			
		Quantity (pcs)	31	31	49	49			
		Leakage Current	$\leq 0.5mA$						
	Standby Power Consumption	$< 2W$ (dim to off)							
Protections	Open Circuit	Open-circuit voltage $\leq 59Vdc$							
	Short Circuit	Auto-recovery							
Environment Descriptions	Operating Temperature	$-20^{\circ}C \sim +45^{\circ}C$							
	Operating Humidity	20-90%RH (without condensation)							
	Storage Temperature/ Humidity	$-40^{\circ}C \sim +80^{\circ}C$ (6 months in Class I environment); 10-90%RH (without condensation)							
	Atmospheric Pressure	86-106kPa							

■ Electrical Characteristics

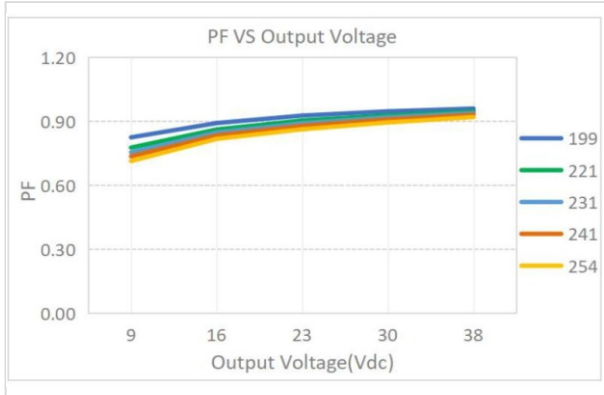
Safety and EMC	Certifications	TUV-ENEC, CE, CB, RCM, SAA
	Withstanding Voltage	I/P-O/P: 3.75kVac 5mA 60S
	Insulation Resistance	I/P-O/P: >100MΩ@500Vdc
	Safety Standards	ENEC: EN61347-1: 2015, EN61347-2-13: 2014/A1: 2017, EN62384: 2016/A1: 2009; CE-LVD: EN61347-2-13: 2014/A1: 2017, EN61347-1: 2015, EN62493: 2015; SAA: AS61347.2-13: 2018; CB: IEC61347-1: 2015, IEC61347-2-3: 2014, IEC61347-2-13: 2014/AMD1: 2016;
	EMI	CE-EMC/RCM: EN55015, EN61000-3-2, EN61000-3-3
	EMS	CE-EMC/RCM: EN61000-4-2, 3, 4, 5, 6, 11
Other Parameters	IP Rating	IP20
	RoHS	RoHS 2.0 (EU) 2015/863
	Warranty Condition	5 years (Tc ≤86°C)
	Noise Level	≤25dB (this data is measured in a soundproof room and the noise collector should be 10CM away from LED driver)
Testing Equipment	Digital power meter: CHROMA66202, oscilloscope: Tektronix DPO3014, DC electronic load: M9712B, LED board, constant temperature and humidity chamber; Everfine EMS61000-5B; Everfine EMS61000-4A, spectroanalyzer: KH3935, withstanding voltage tester: TH9201B, flicker tester (flicker-free coefficient test) 60N-01, etc.	
Testing Remarks	The above parameters are tested at the ambient temperature of 25°C, humidity of 50%, full load and input voltage of 230Vac without any special remarks.	

■ Electrical Characteristics

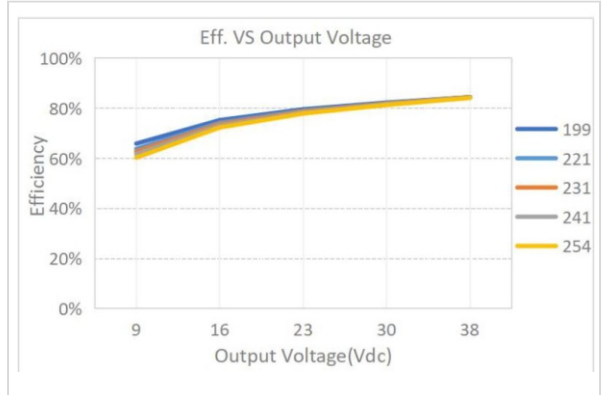
Additional Remarks	<ol style="list-style-type: none"> 1. It is recommended that user install the over voltage protection, under voltage protection and surge protection devices in the power supply circuits of light fixtures to ensure electricity safety. 2. Please disconnect AC input before switching output current via the DIP switch. 3. The PC cover, casing, end caps and other parts of the LED driver inside the LED light fixture must conform to UL94-V0 flammability standard or above. 4. The LED driver used in combination with the end device is one of the accessories of the whole light fixture, and the EMC of the whole light fixture is not only susceptible to the driver itself, but to the LED light fixture and the whole light fixture's wiring. Thus, the manufacturer of LED light fixture should re-confirm the EMC of the whole light fixture before the whole light fixture is finished.
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Product Characteristic Curves

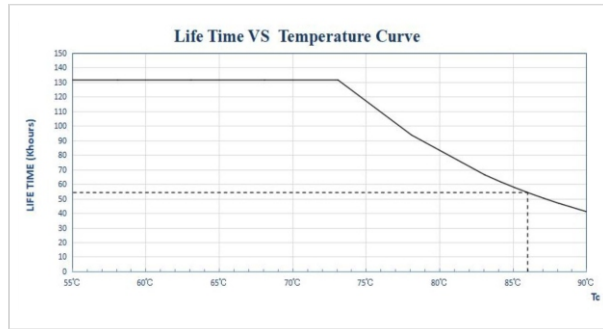
PF Curve



Efficiency Curve



Lifetime Curve



Dimming Operation Instructions

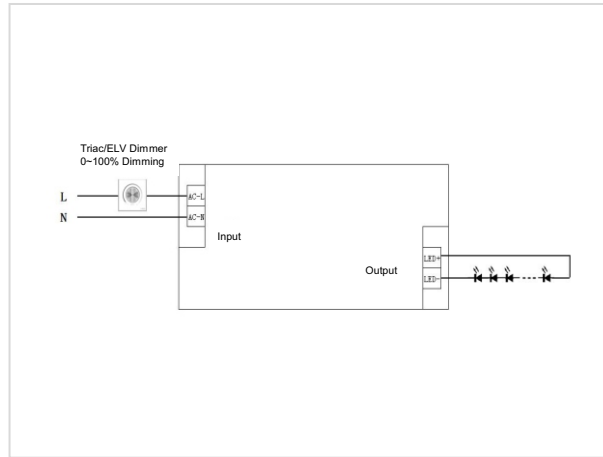
Product terminals

INPUT		OUTPUT	
AC-L	Input terminal of AC live wire	LED+	Positive electrode output of LED driver
AC-N	Input terminal of AC neutral wire	LED-	Negative electrode output of LED driver

Output current adjustable via a built-in DIP switch

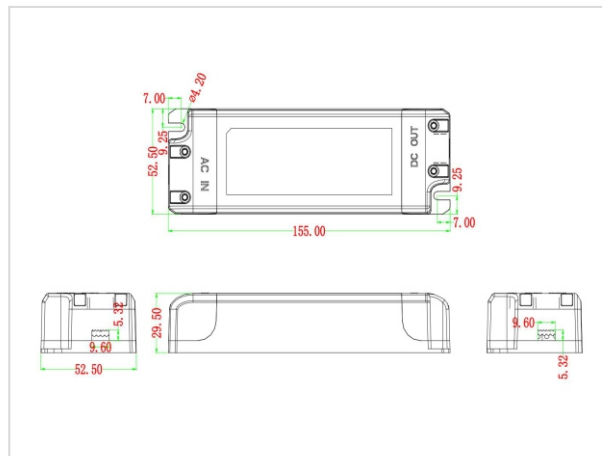
Current Adjustment Table					
Output Current	1	2	3	4	DIP Switch Diagram
1050mA	ON	ON	ON	ON	
1000mA	ON	ON	ON	OFF	
950mA	OFF	ON	ON	ON	
900mA	OFF	ON	ON	OFF	
850mA	OFF	OFF	ON	ON	
800mA	OFF	OFF	ON	OFF	
750mA	OFF	OFF	OFF	ON	
700mA	OFF	OFF	OFF	OFF	

Wiring Diagram of Triac Dimming Operation



■ Structure & Dimensions (unit: mm)

Appearance Dimensions



■ Label

