





SPECIFICATION

Product Name: Sensor DIM LED Driver

Model No.: MLC20C-NPS / MLC40C-NPS / MLC60C-NPS

Issue Date: 2023-10-16

CUSTOMER APPROVED

PRODUCT DIRECTOR APPROVED	P&M APPROVED	R&D CHECKED	PREPARED
			

Version	Product No.	Updating Reason	Stage	Date
A0	MLC20C-NPS MLC40C-NPS MLC60C-NPS		Production	Dec. 25, 2023

1. Feature



- 1) Metal strip non-isolated power supply; flicker-free PWM dimming power supply; with 12V auxiliary power supply; matching different sensor and wireless smart module.
- 2) Great performance, high efficiency, high PF value and low stand-by power; conforming to new ERP standard and complying to CE, SAA certification standards.
- 3) Built-in power supply is suitable for strip lamps; changing parameters by DIP switches.

2. Parameter

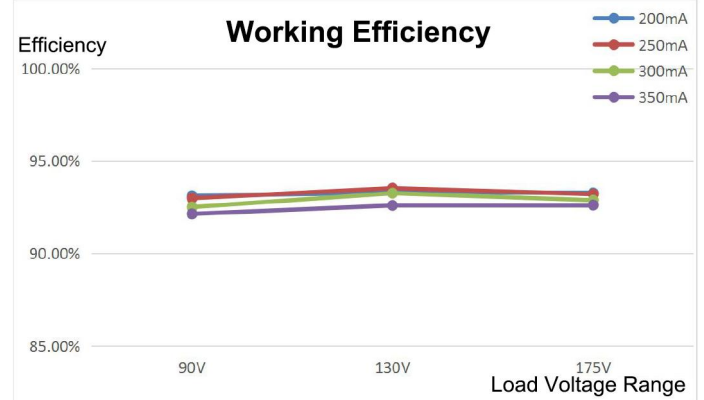
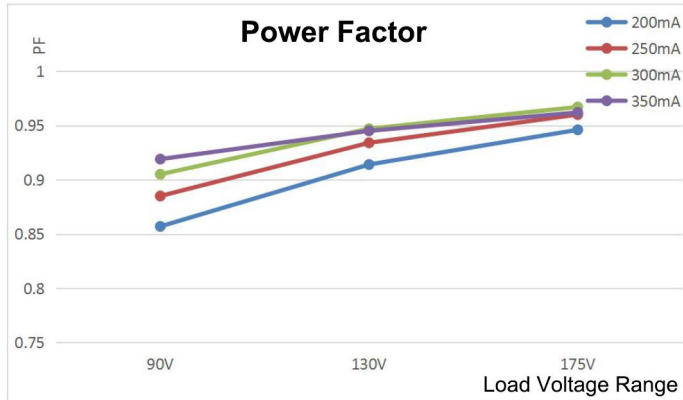
Product No.		MLC20C-NPS	MLC40C-NPS	MLC60C-NPS
Input	Voltage Range	198-264Vac 50Hz/60Hz		
	Input Current	0.1A (@230Vac full load)	0.19A (@230Vac full load)	0.3A (@230Vac full load)
	Operating Voltage	220-240Vac 50Hz/60Hz		
	No-load Power	≤0.3W		
	Stand-by Power	≤0.3W		
	Power Factor	≥0.9 (@230Vac full load)	≥0.95 (@230Vac full load)	≥0.95 (@230Vac full load)
	Working Efficiency	85% (230V Max load)	90% (230V Max load)	90% (230V Max load)
	THD	≤20% (@230V ac full load)		
	Leak Current	<0.5mA/240V		
	Surge Current	<22A (100us half-current) @230Vac		
Output	Working model	Constant Current		
	Type of load	LED		
	Start Time	≤1S (@230Vac full load)		
	Ripple Current	±5% (@230Vac full load, LED full load)		
	Strobe Frequency Requirement	Flicker free (≤5%)		
	No-load Output Voltage	65Vdc Max	160Vdc Max	200Vdc Max
	Load Power	18.9W Max	42W Max	61.25W Max
	Load Current	200mA\250mA\300mA\350mA (set by DIP switches)		
	Load Output Voltage Range	30-54Vdc	65-120Vdc	90-175Vdc

Connecting Port	PWM	Yes (5V and 3.3V PWM signals are compatible)
	Port Connecting Method	3PIN PH2.0 row needles terminal

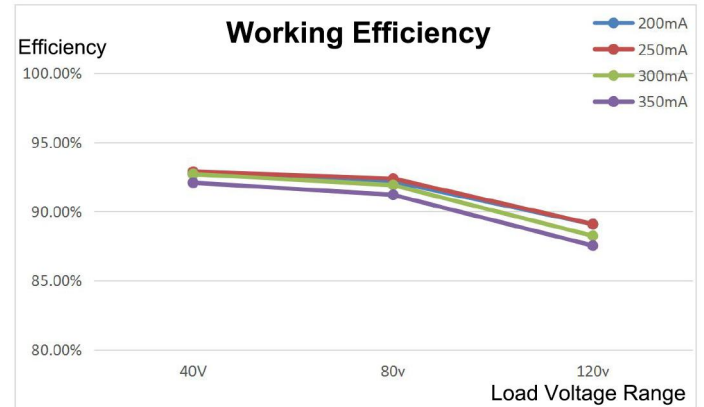
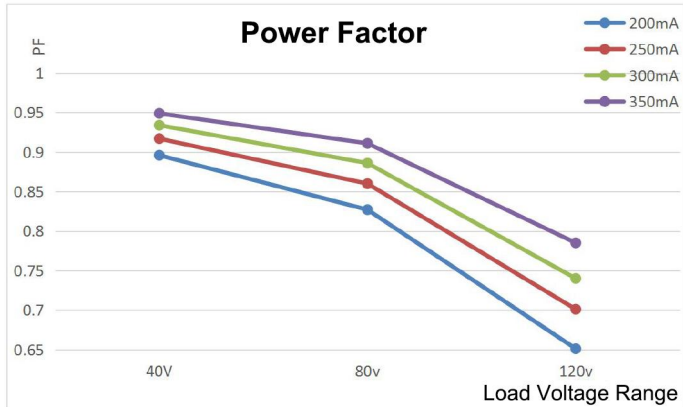
Auxiliary Power Supply	Voltage	12V±1V		
	Current	Max100mA		
Protection Requirements	Operating Temperature/Humidity	-25℃~+50℃		
	Storage Temperature/Humidity	-40℃~+80℃ Humidity: 85% (Non-condensing)		
	Atmospheric Pressure	86~106KPa		
Certificate Standards	Safety Standards (LVD)	EN61347-1, EN61347-2-13		
	EMC Standards	EN55015, EN61547, EN61000-3-2, EN61000-3-3		
	Lightning Surge	LN: 1KV		
	Withstand Voltage	1500V AC 5mA 60S (input "L N" to output SEC+ SEC-)		
	Environmental requirement	Compliant to RoHS		
	Certificate	CE \ SAA		
Others	Output Current Accuracy	±5%		
	Wiring	Press terminal, wire diameter: 0.5-1.0mm ²		
	IP Rating	IP20		
	Protection Class	Class II		
	Installation	Built-in		
	Dimension	195*30*21mm		
	Net Weight	135g±3g	135g±3g	138g±3g
	Warranty	Five years warranty (Ta=50℃@230Vac full load)		

3. Product Characteristic Testing

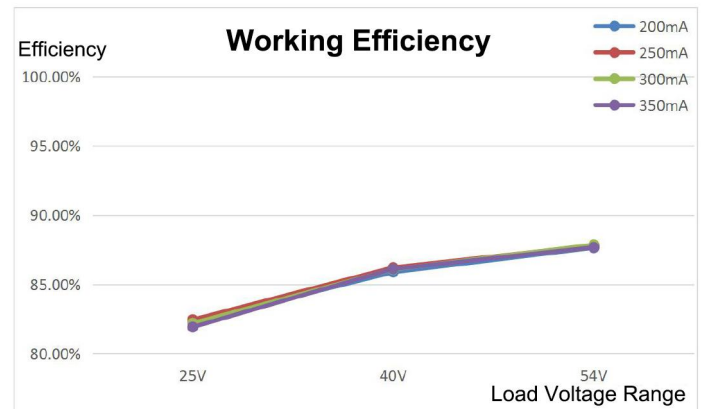
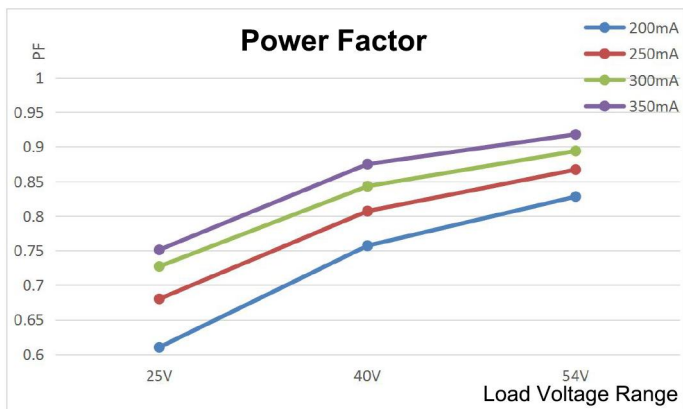
MLC60C-NPS



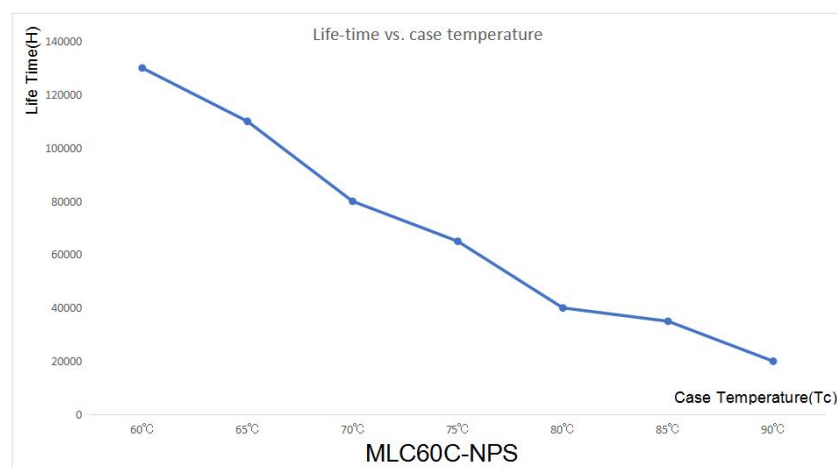
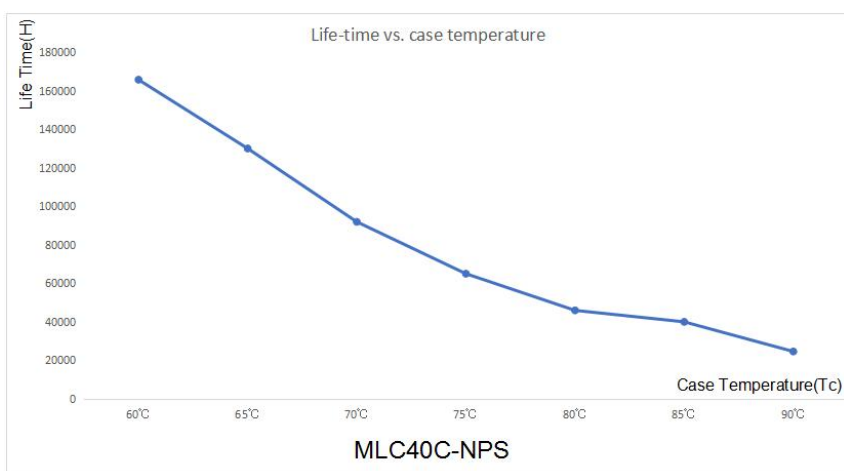
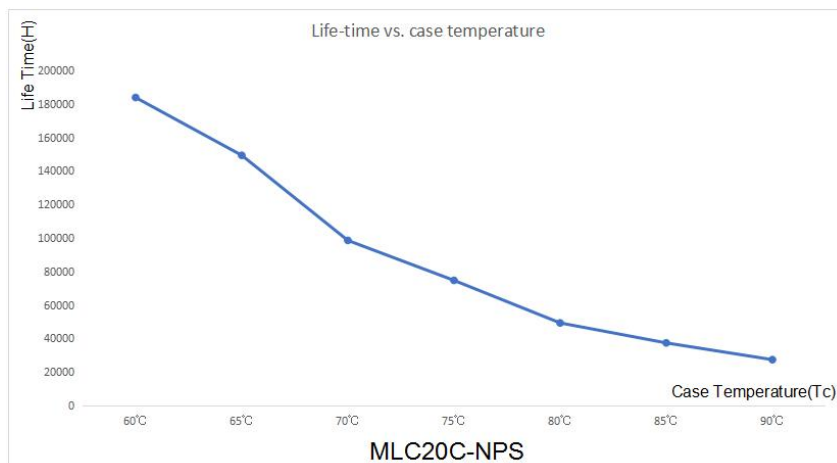
MLC40C-NPS



MLC20C-NPS



Life Curve



Shenzhen Merrytek Technology Co., Ltd

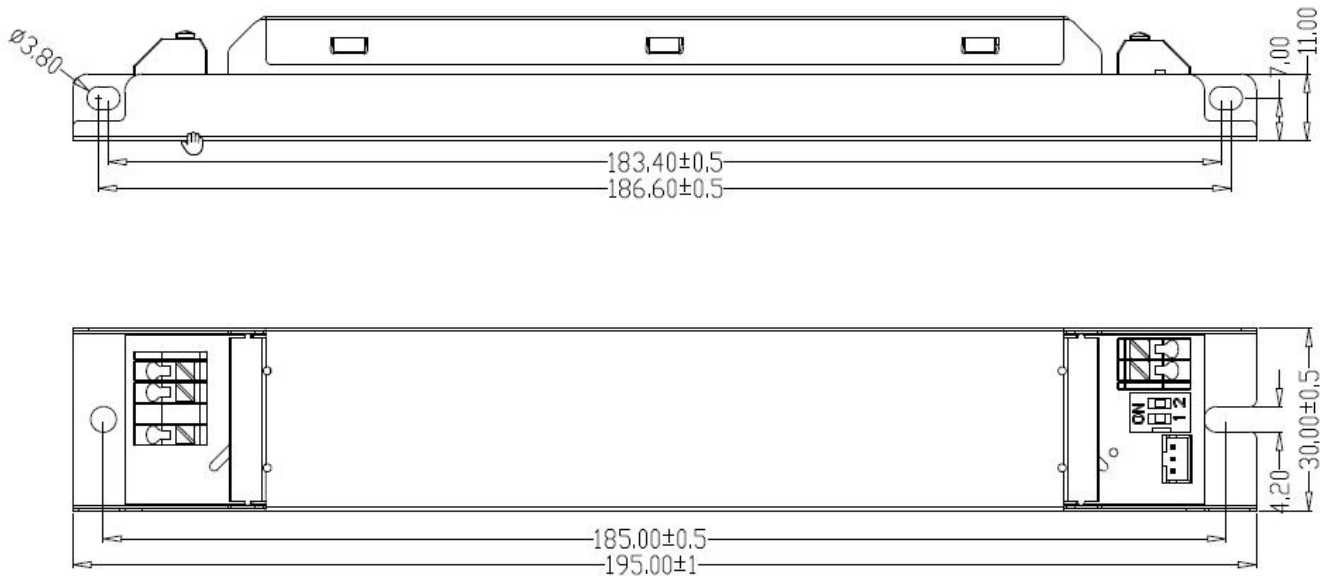
Add: No.17th Building, Dianda Guyuan Industrial Park, Mashantou, Matian, Guangming District, Shenzhen, China, 518106

Tel: +86 (0)755-2305 7253

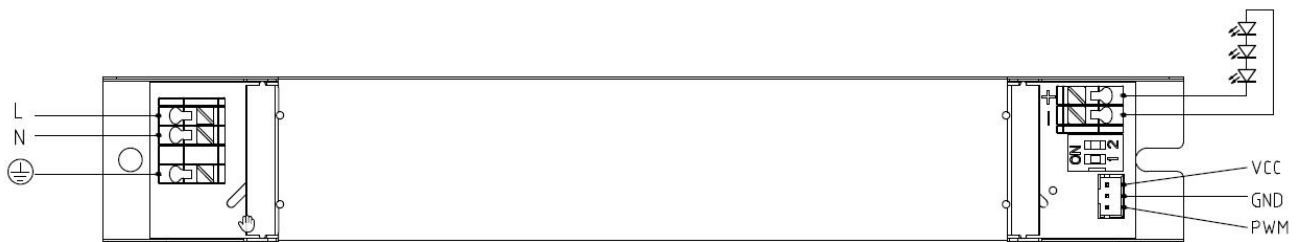
Fax: +86 (0)755-2786 3012

Website: www.merrytek.com

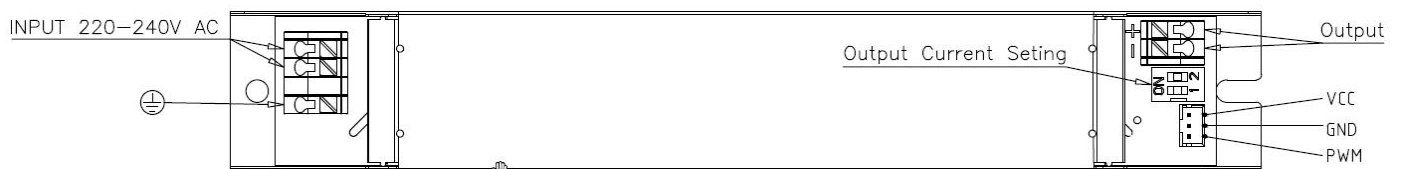
4. Dimension (mm)



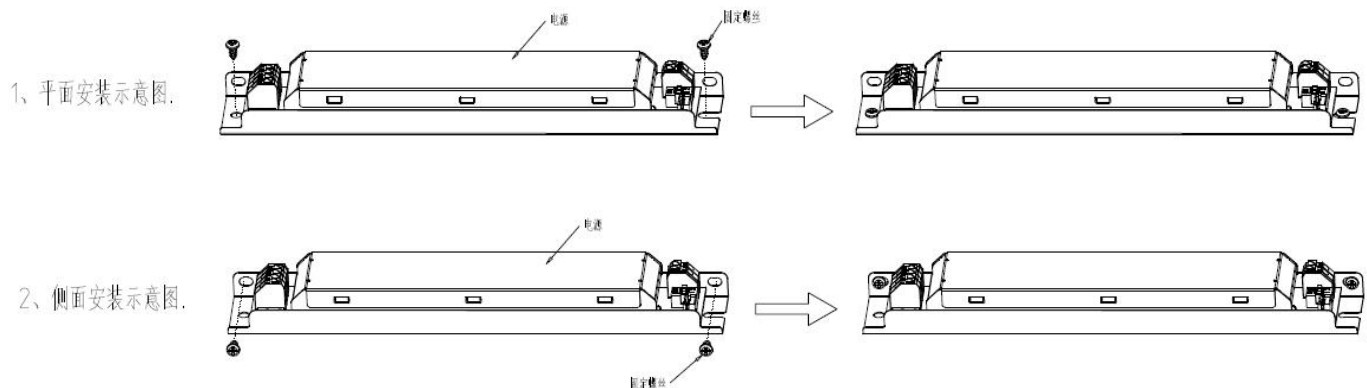
5. Wiring



6. Functional diagram



7. Installation diagram



8. DIP Switch Setting

Output Current Setting

I rated (CC)	1	2
350mA	ON	ON
300mA	ON	-
250mA	-	ON
200mA	-	-

9. Application Notice

- (1) Please use product according to specifications. Failure may occur if the product is used beyond the service conditions.
- (2) Connect loads firstly before turning on the input power; otherwise, load may be damaged.
- (3) After the LED drive input power is off, the output end still has residual voltage, which can be maintained for about 3 minutes.
- (4) This product is a non-isolated power supply:
 - a. To avoid electric shock, do not operate with power on before connecting load.
 - b. To avoid damaging sensing head, power off is also required before connecting.