PELECTRONIC

250W Single Output Programmable LED Driver

FEATURES

- NFC technology programmable without driver power on
- Constant power programmable design
- High efficiency (Max 92%), active power factor correction
- Ultra low THD at light load
- 0~10V/ PWM/ Timer, Dim to off option
- UL recognized with HL/ TL/Surge (Diff:6kV, Common:10kV)

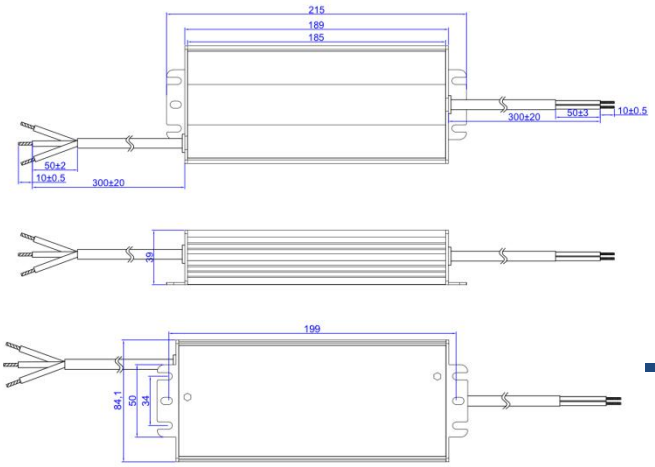
ELECTRICAL SPECIFICATIONS

Part Number	Output Voltage Range Without Dimming	Programmable Constant Voltage Region	Programmable Constant Voltage Region	Maximum Output Power	Input Current	Power Factor	Efficiency 110V	Efficiency 220V	Line Regulation	Load Regulation	Ripple & Noise
PA250M024-036SP	24-36 V	24-36 V	4.1-10.4A	250W	2.4A (115VAC) 1.2A (230VAC)	0.99 (115VAC) 0.97 (230VAC)	90%	91%	±0.3%	±1%	3.0%Vo
PA250M036-048SP	36-48 V	36-48 V	2.7-6.9A	250W			91%	92%			
PA250M048-080SP	48-80 V	48-80 V	2.0-5.2 A	250W			91%	92%			
PA250M080-140SP	80-140 V	80-140 V	1.2-3.2 A	250W			91%	92%			
PA250M140-233SP	140-233 V	140-233 V	1.0-1.78 A	250W			91%	92%			

PROTECTION	OVER CURRENT	95~108%
		Protection type: Constant current limiting, recovers automatically after fault condition is removed
	SHORT CURRENT	Hiccup mode, recovers automatically after fault condition is removed
	OVER VOLTAGE	1.3Vo， Protection type: Hiccup mode, recovers automatically after fault condition is removed
	OVER TEMP.	Hiccup mode, recovers automatically after fault condition is removed
ENVIRONMENT	WORKING TEMP.	-35~+70℃ (Refer to “Derating Curve”)
	WORKING HUMIDITY	10~100% RH non-condensing
	STORAGE TEMP., HUMIDITY	-40 ~ +85℃, 5 ~ 100% RH
	TEMP. COEFFICIENT	±0.05%℃ (0~50℃)
	VIBRATION	10~500Hz, 5G 12min./1cycle, period for 72min. each along X, Y, Z axes

SAFETY & EMC	SATETY STANDARDS	UL8750, UL935, UL1012, CSA-C22.2 No.107.1, EN61347-1, EN61347-2-13
	WITHSTAND VOLTAGE	I/P – O/P: 3.75kVAC
	ISOLTATION RESISTANCE	I/P – O/P: 100M Ohms / 500VDC /25℃ / 70% RH
	EMC EMISSION	Compliance to EN55015, EN61000-3-2 Class C (≥60% load); EN61000-3-3
	EMC IMMUNITY	Compliance to EN61000-4-2,3,4,5,6,8,11; EN61547, EN55024

MECHANICAL SPECIFICATION



GENERAL INFORMATION

LED Driver Type	Constant current
Maximum Wattage	250 W
Input Voltage	90 ~ 305 VAC
Input Frequency	47 ~ 63 Hz
Total Harmonic Distortion	<20%
WARRANTY	5 year limited warranty
Inrush Current	65A at 230VAC cold start +25℃
MTBF	＞200kHrs to MIL-HDBK-217 at25℃,GB
Protection	Overload/Over temperature/Short circuit protection

APPROVALS

-UL 8750

-EMC: EN55015, EN61000-4-2,3,4,5,6,8,11

-EN61000-3-2 Class C

IP67 RoHS CE

PACKAGING INFORMATION

Weight:	TBD
Quantity:	20pcs/carton

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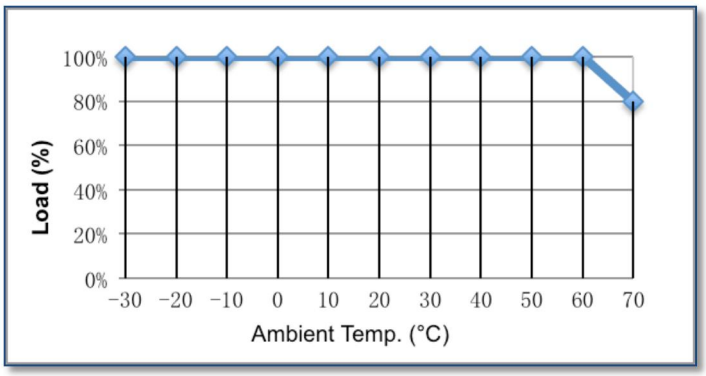
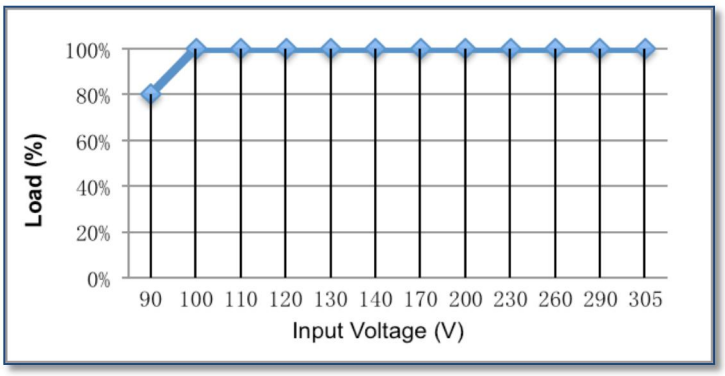
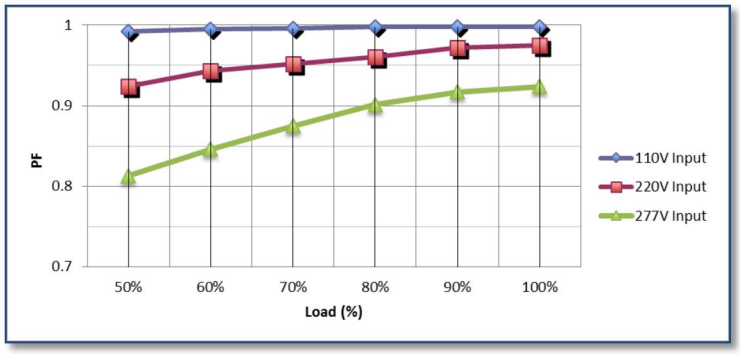
Derating Characteristics



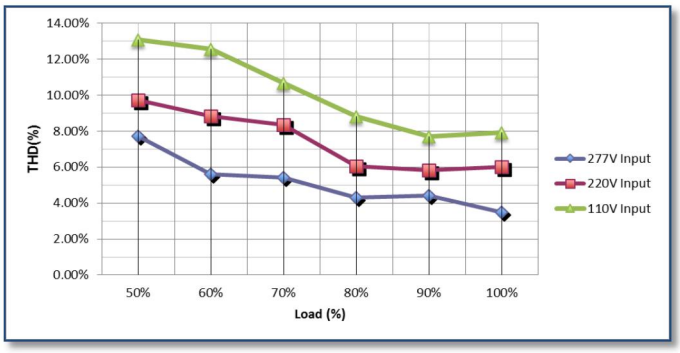
Static Characteristics



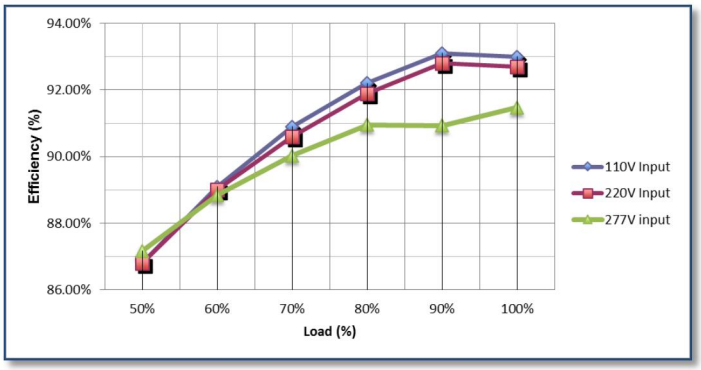
PA250M36-48SP PF vs Output



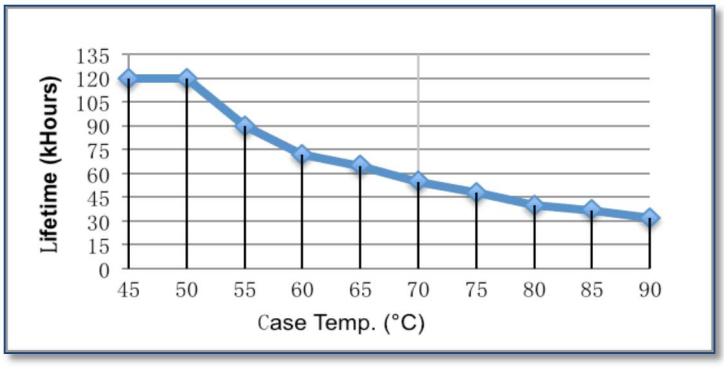
PA250M36-48SP THD vs Output



PA250M36-48SP Efficiency vs Output



PA250 Lifetime vs Case Temp



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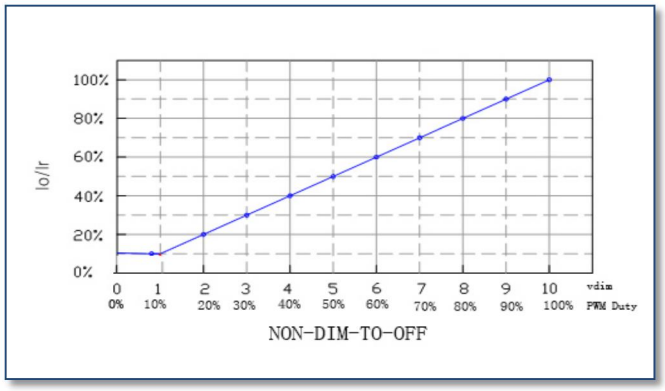
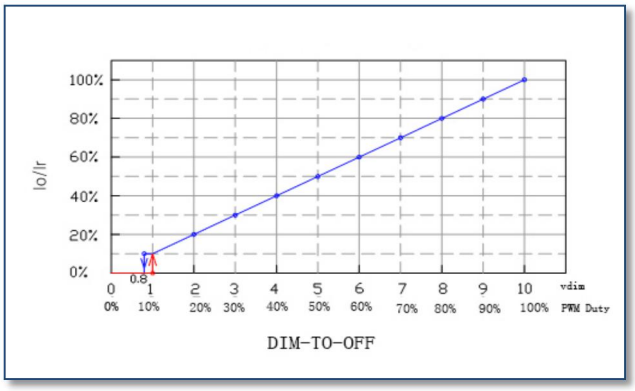
Dimming Function

0-10V Analog Dimming &PWM Dimming

Io/Ir vs Vdim(PWM DUTY)



Io/Ir vs Vdim(PWM DUTY)

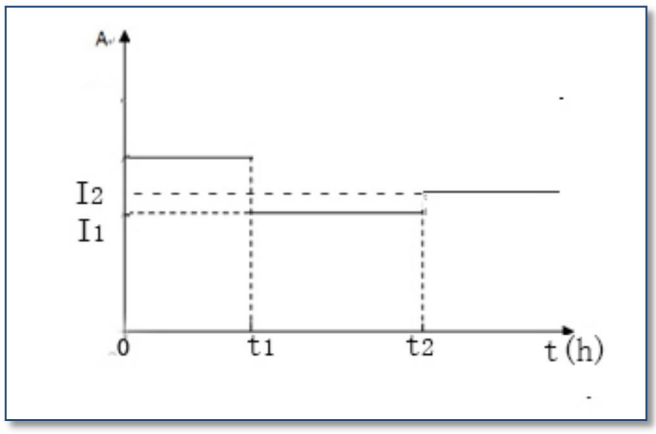


GND	Grey
Dimming wire 0-10V&PWM	Purple
10V AUX	Yellow
Input Dimming Voltage	0-10V
DIM+ Source Current	0-1mA
12V AUX Source Current	200mA
PWM Frequency Range	0.5 ~ 3 KHZ
PWM high level	10V

NOTE:

1. Io is actual output current and Ir is rated current without dimming control.
2. For the driver to operate properly, the load voltage must be in the working voltage range.
3. We have DIM-TO-OFF option can be programmed by the programmer.
4. Maximum input voltage at dimming wire is 12V.
5. AUX wire is only for source, can't connect to other voltage source.

TIMER Dimming



NOTE:

1. The dimming time can be programmed by the NFC controller.
2. The time of t1 and t2 can be set by the NFC programmer.(0.5h step)
3. The value of I1 and I2 can be set by the NFC programmer.
4. Current change from I1 to I2 need a few minutes.

NFC Controller

NOTE:

1.The NFC controller can program the output current, voltage and timer delays.

2. The NFC programming is a non-contact process, therefore much safer compared to traditional programming methods.

3. Power devices can be programmed without AC power applied to the driver.

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