



SPECIFICATIONS



UL File NO : E340871

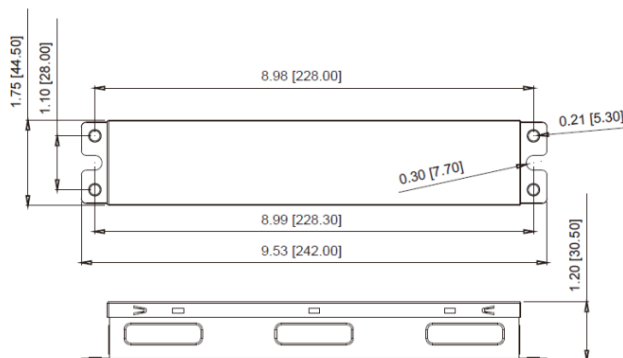
Mechanical and Thermal

Dimensions L9.53" X W1.75" X H1.20"

Weight 400g

Lead Wire Length 6" (Standard)

Max. Case Operation Temp. 90°C



*Dimension in Inch(Metric)

MDR-505TW-24-100-LC

Features

- ✓ Constant Voltage Output
- ✓ 0-10V Dimming
- ✓ Designed for tune-able white LED
- ✓ Class 2 Compliance
- ✓ Damp Location
- ✓ 5 Year Warranty
- ✓ Hot Wire Protection
- ✓ Support CASAMBI CBU-A2D/CBU-ASR Controller
- ✓ Support Ambientechn 2ch Wall Switch

Protection

- Auto-reset electronic short circuit
- Overload protection
- Class 2
- Inherent Thermal Protection
- Hot Wire Protection
- 0-10V dimming wires

Environmental Specifications

- Operating Temperature -20° to 60°C
- Storage Temperature -20° to 70°C
- MTBF >100,000 hrs
- -Lead Free SMT process

Macron Associate Co. – Power Supply Team

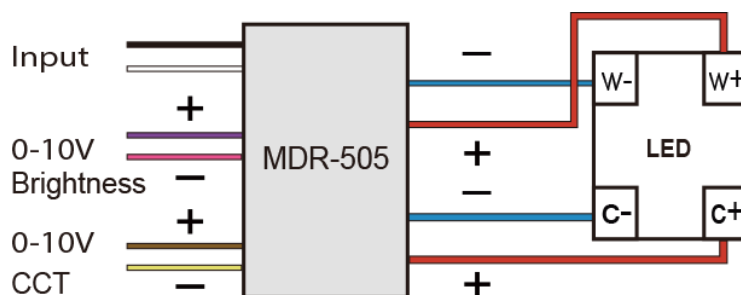
NO.352, Perng-Yi Road, Taiping, Taichung, Taiwan 411

TEL: 886-4-22708357 FAX: 886-4-22767307 Email: macron@macrongroup.com

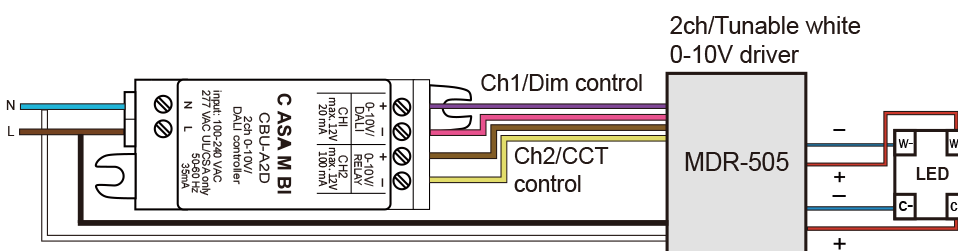


■ Wiring Diagram

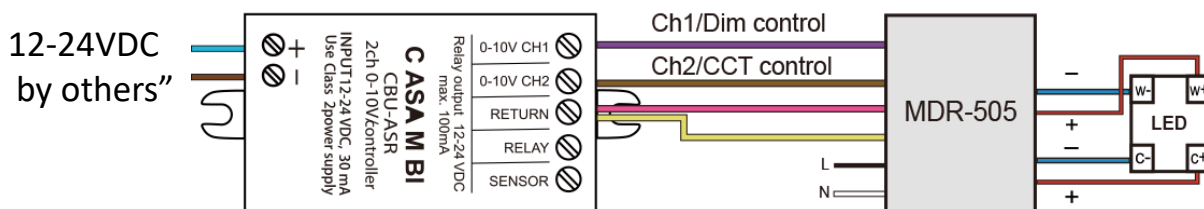
A. Wire Diagram/0-10V Dimmer(4 contact tunable white COB/engine)



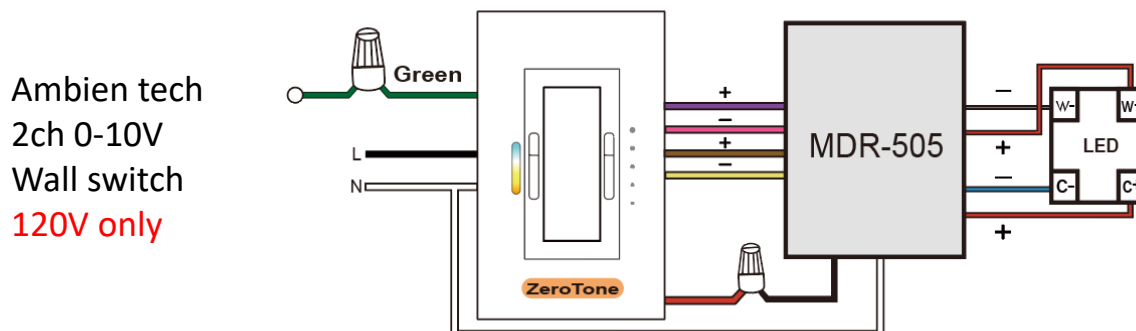
B. Wire Diagram/CASAMBI CBU-A2D Controller



C. Wire Diagram/CASAMBI CBU-ASR Controller



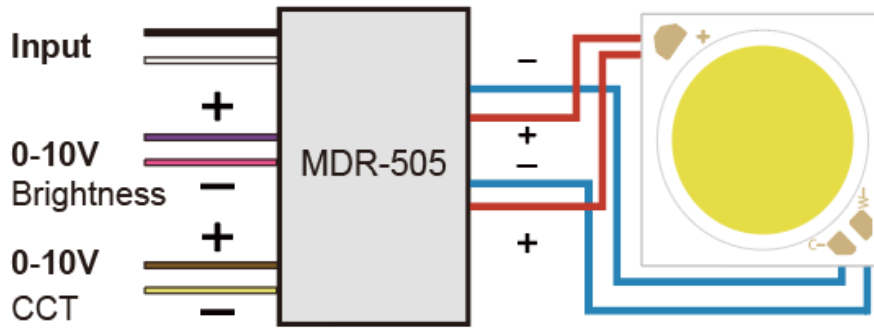
D. Wire Diagram/Ambientech 2ch 0-10V Wall Switch



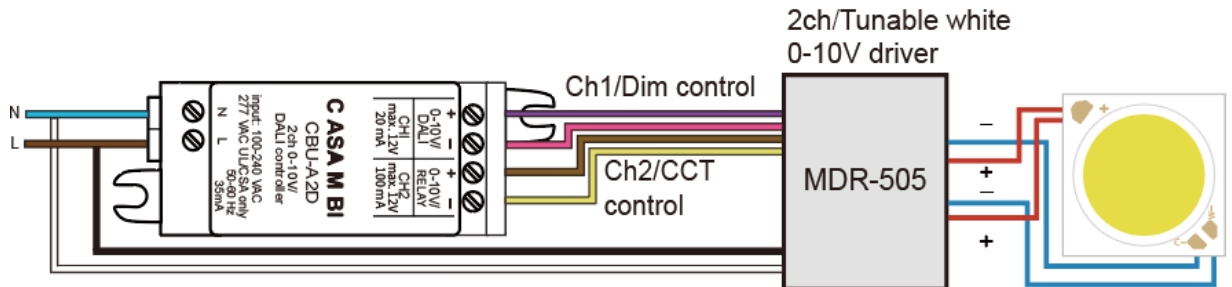


■ Wiring Diagram

A. Wire Diagram/0-10V Dimmer(3 contact tunable white COB)

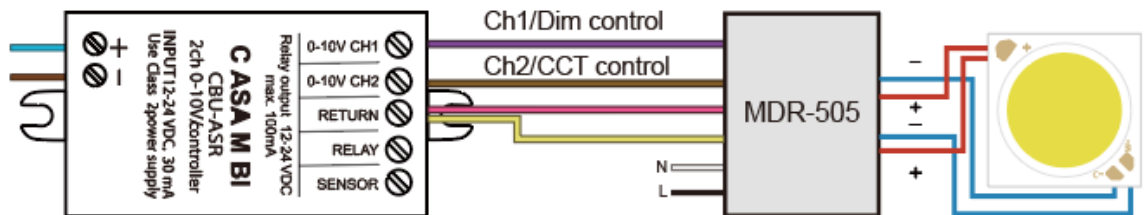


B. Wire Diagram/CASAMBI CBU-A2D Controller



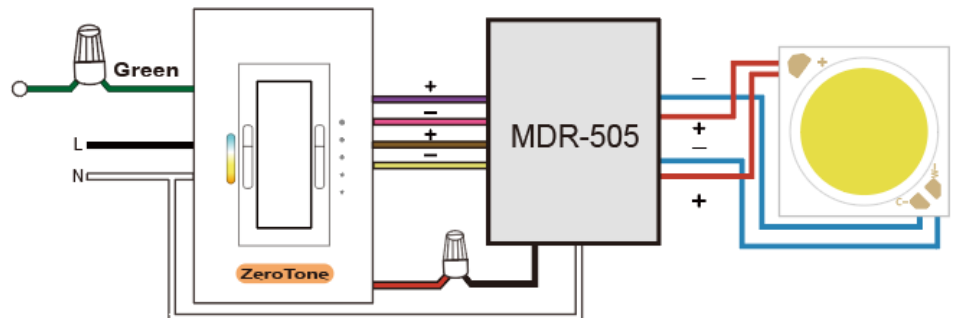
C. Wire Diagram/CASAMBI CBU-ASR Controller

12-24VDC
by others"



D. Wire Diagram/Ambientech 2ch 0-10V Wall Switch

Ambien tech
2ch 0-10V
Wall switch
120V only



1. Input – specification

	Units	Minimum	Typical	Maximum	Notes
Input Voltage Range(Vin)	Vac	108	120-277	304	
Input Frequency Range	Hz	50	60	63	
Input Power	W		110		
Power Factor(PF)		0.9	>0.9		From 100% to 80% of rated power
Input Current	A	-	-	0.9A@120VAC 0.4A@277VAC	
Inrush Current	A	Meet NEMA 410 requirements			
Total Harmonics Distortion (THD)				20%	At nominal input voltage and nominal LED voltage
Efficiency		-	>86%	-	Efficiency is measured after driver has thermally stabilized + full load
Isolation	Meet UL1310/UL8750 for class 2 isolation power supply				

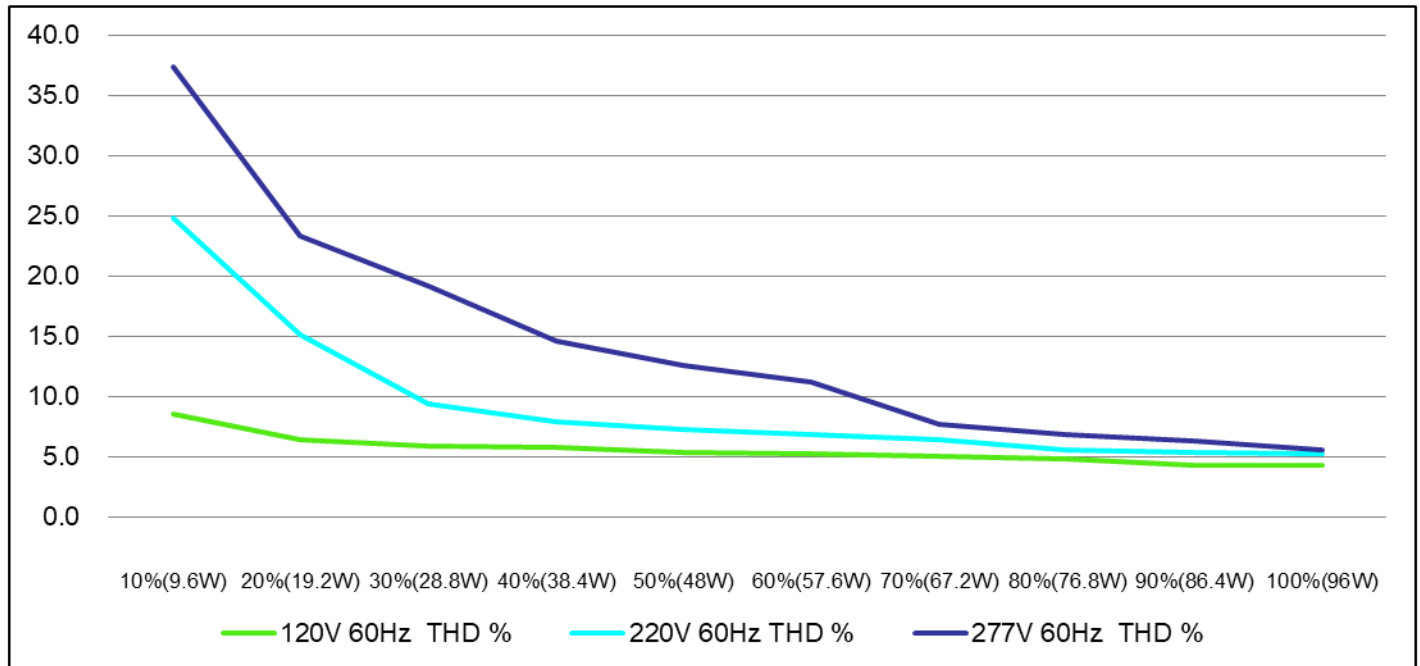
2. Output - specification

	Units	Minimum	Typical	Maximum	Notes
Output Voltage(Volt)	Vdc		24		
Output Current(Iout)	mA		4000		
Output Voltage Tolerance	%		±3		
Output Ripple Current	< 30% peak-to-peak of 4000 mA				≤ 20% pk-to-pk of the rated output current for all models with Vout max ≥ 24V
					≤ 50% pk-to-pk of the rated output current for all models with Vout max ≤ 24V
					At nominal LED voltage and nominal input voltage without dimming
Dimming Range	%	1%		100%	Please refer to Dimmer compatibility list
Star-up Time	ms		500-550		- Measured at the Maximum load and normal input voltage. - Complies with California title 24 and Energy star ® luminaire specification.
Isolation	Meet UL1310/UL8750 for class 2 isolation power supply				
Operation Case Temperature	°C	-30		90C	
Audible Noise	dB	< 24dB Class A			

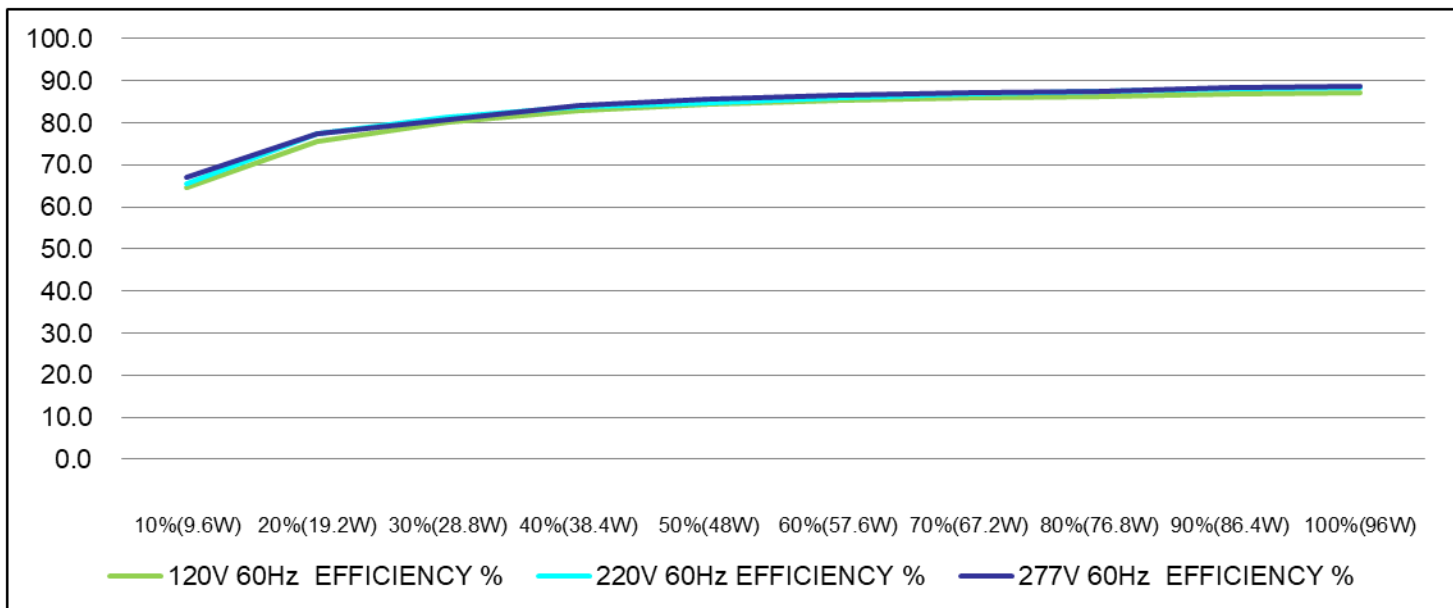
3. EMC / Protection / Compliance

Conducted and Radiated EMI		FCC CFR Title 47 Part 15 Class B and EN55015(CISPR 15) Class B compliant	
Immunity Compliance	ESD (Electrostatic Discharge)	IEC61000-4-2	6 kV contact discharge, 8 kV air discharge, level 3
	Electrical Fast Transient	IEC61000-4-4	±2 kV on AC power port for 1 minute, ±1kV on signal/control lines
	Surge	IEC61000-4-5	±2kV line to line/±2kV line to earth on AC power port, ±0.5kV for outdoor cables
Transient Protection	Ring Wave		ANSI/IEEE c62.41-1-2002 & c62.41-2-2002 category A, 2.5kV ring wave

THD of the driver VS Power Output (W)

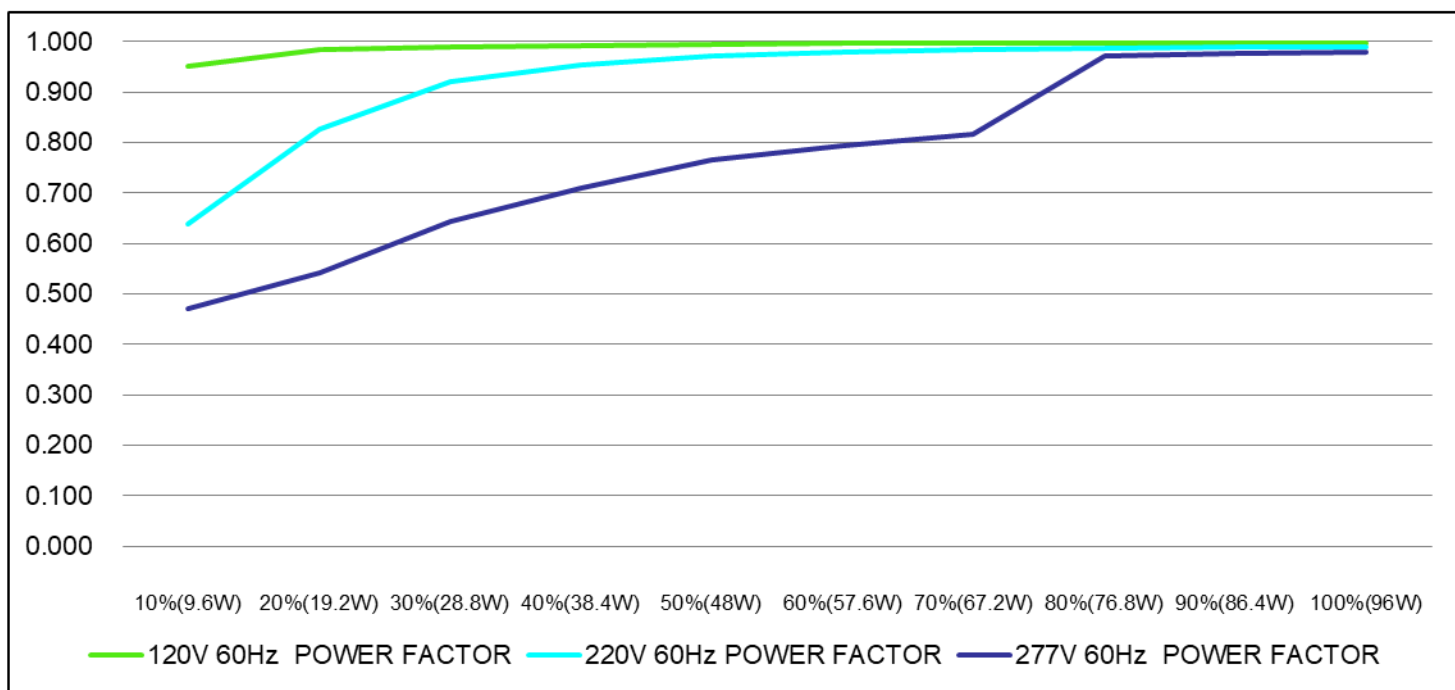


Efficiency of the driver VS Power Output (W)

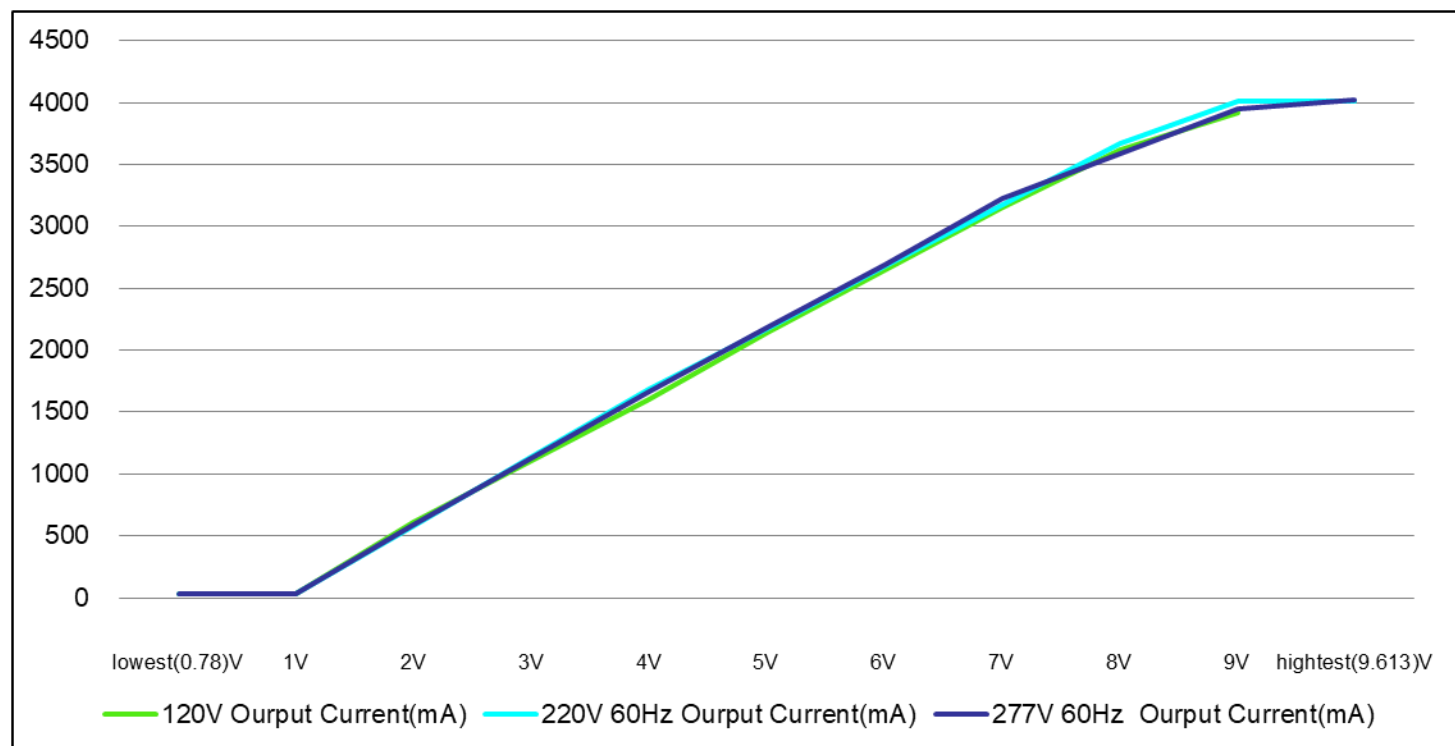


Electrical Specifications

Power Factor VS Power Output (W)



Lout of the driver VS Dim Voltage



Macron Associate Co. – Power Supply Team

NO.352, Perng-Yi Road, Taiping, Taichung, Taiwan 411

TEL: 886-4-22708357 FAX: 886-4-22767307 Email: macron@macrongroup.com