



SPECIFICATIONS

MDR-505TW-24-100-LC



■ Features

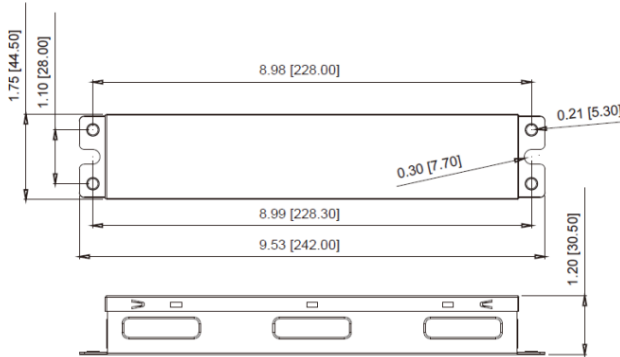
- ✓ Constant Voltage Output
- ✓ 0-10V Dimming
- ✓ Designed for tune-able white LED
- ✓ Class 2 Compliance
- ✓ Damp Location
- ✓ 5 Year Warranty
- ✓ Hot Wire Protection
- ✓ Support CASAMBI CBU-A2D/CBU-ASR Controller
- ✓ Support Ambientech 2ch Wall Switch

Note-

1. UL in process

■ Mechanical and Thermal

Dimensions	L9.53" X W1.75" X H1.20"
Weight	400g
Lead Wire Length	6" (Standard)
Max. Case Operation Temp.	80°C



*Dimension in Inch(Metric)

■ 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

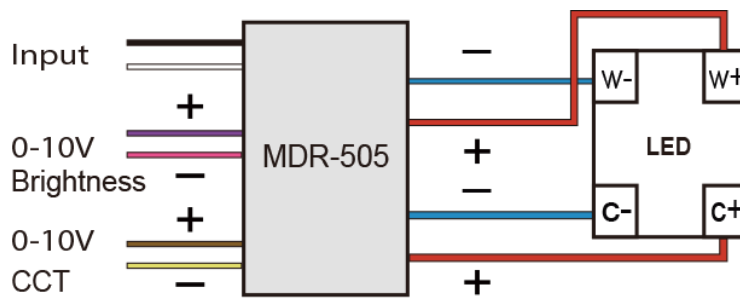
NO.352, Perng-Yi Road, Taiping, Taichung, Taiwan 411

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

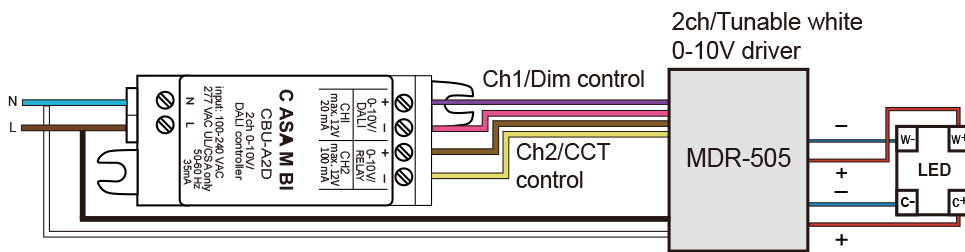


■ Wiring Diagram

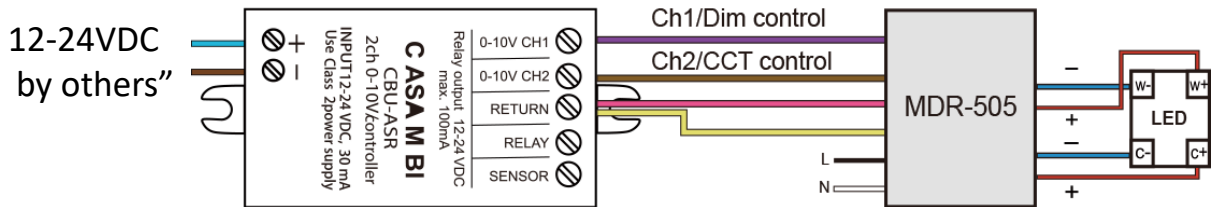
A. Wire Diagram/0-10V Dimmer(4 contact tunable white COB/engine)



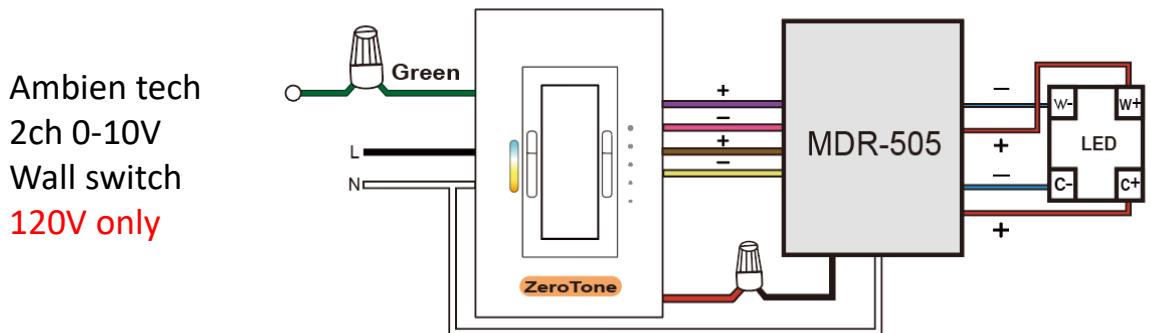
B. Wire Diagram/CASAMBI CBU-A2D Controller



C. Wire Diagram/CASAMBI CBU-ASR Controller



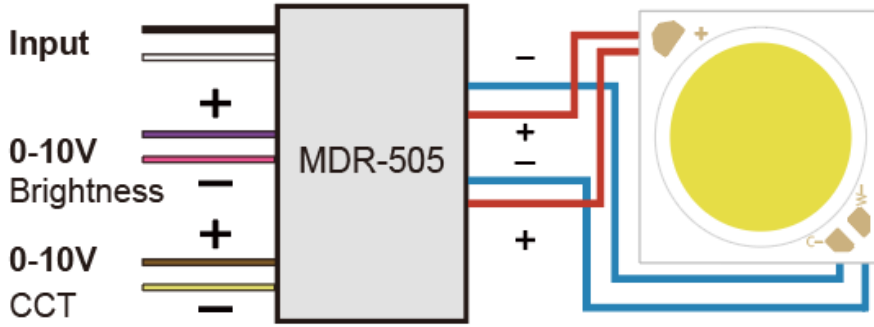
D. Wire Diagram/Ambientech 2ch 0-10V Wall Switch



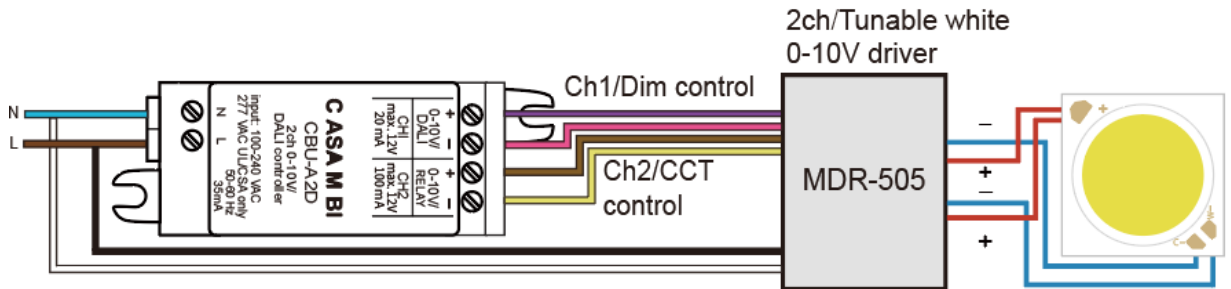


■ Wiring Diagram

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

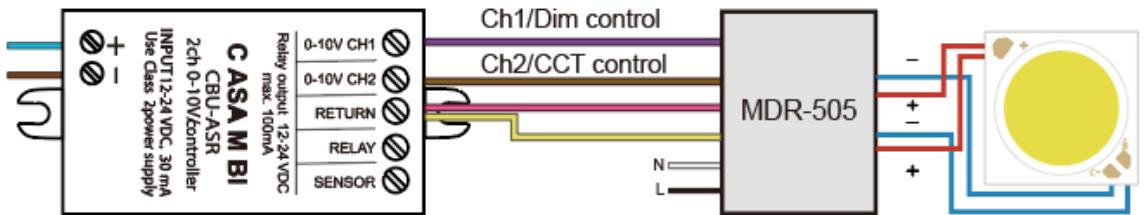


B. Wire Diagram/CASAMBI CBU-A2D Controller



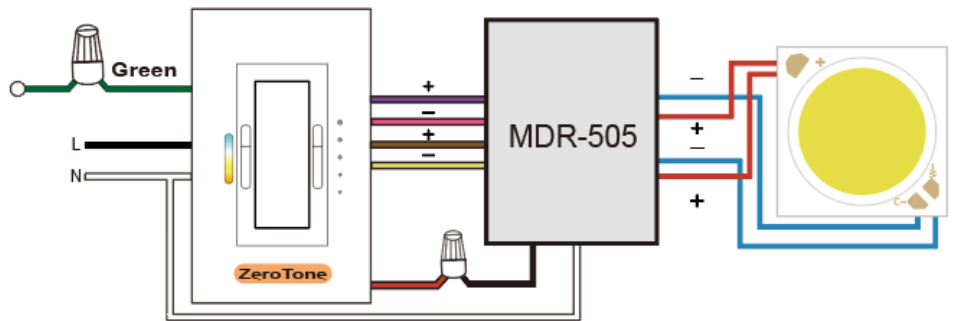
C. Wire Diagram/CASAMBI CBU-ASR Controller

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				

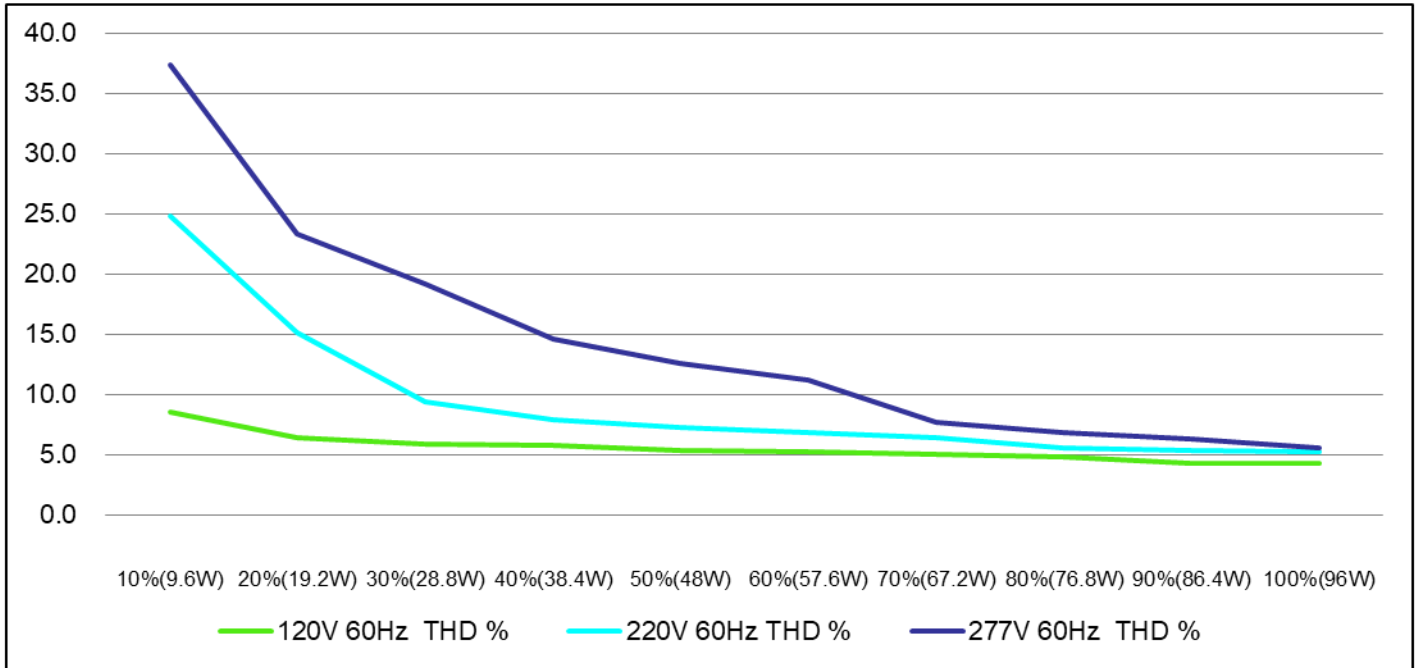
2. Output - specification

	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			$\leq 20\%$ pk-to-pk of the rated output current for all models with $V_{out\ max} \geq 24V$ $\leq 50\%$ pk-to-pk of the rated output current for all models with $V_{out\ max} \leq 24V$ 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		<ul style="list-style-type: none"> 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		80C	
Audible Noise	dB	< 24dB Class A			

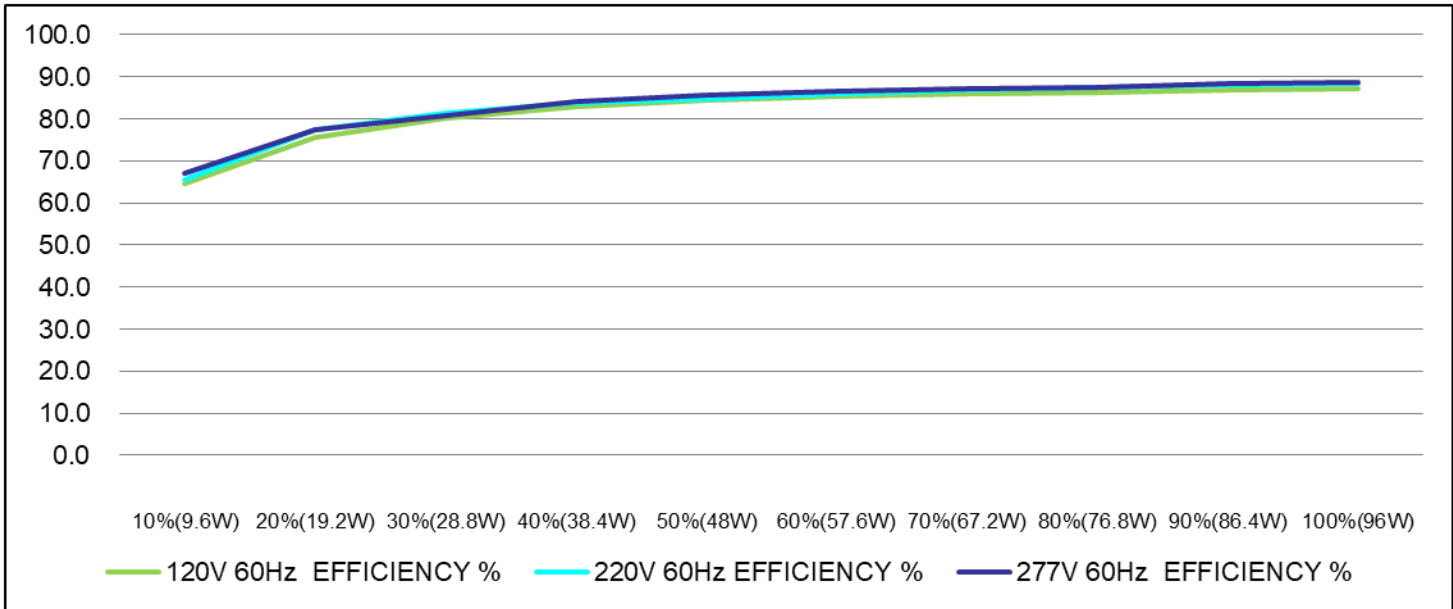
3. EMC / Protection / Compliance

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)



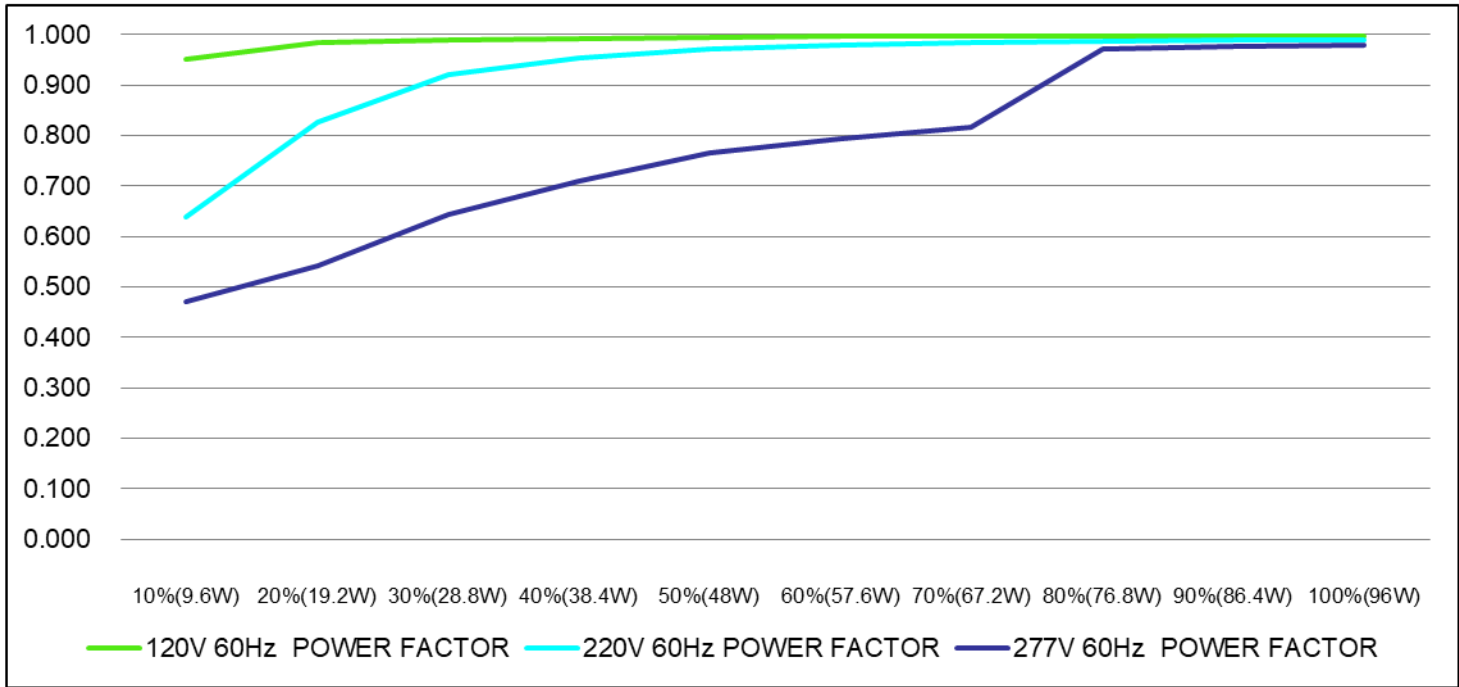
Macron Associate Co. – Power Supply Team

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

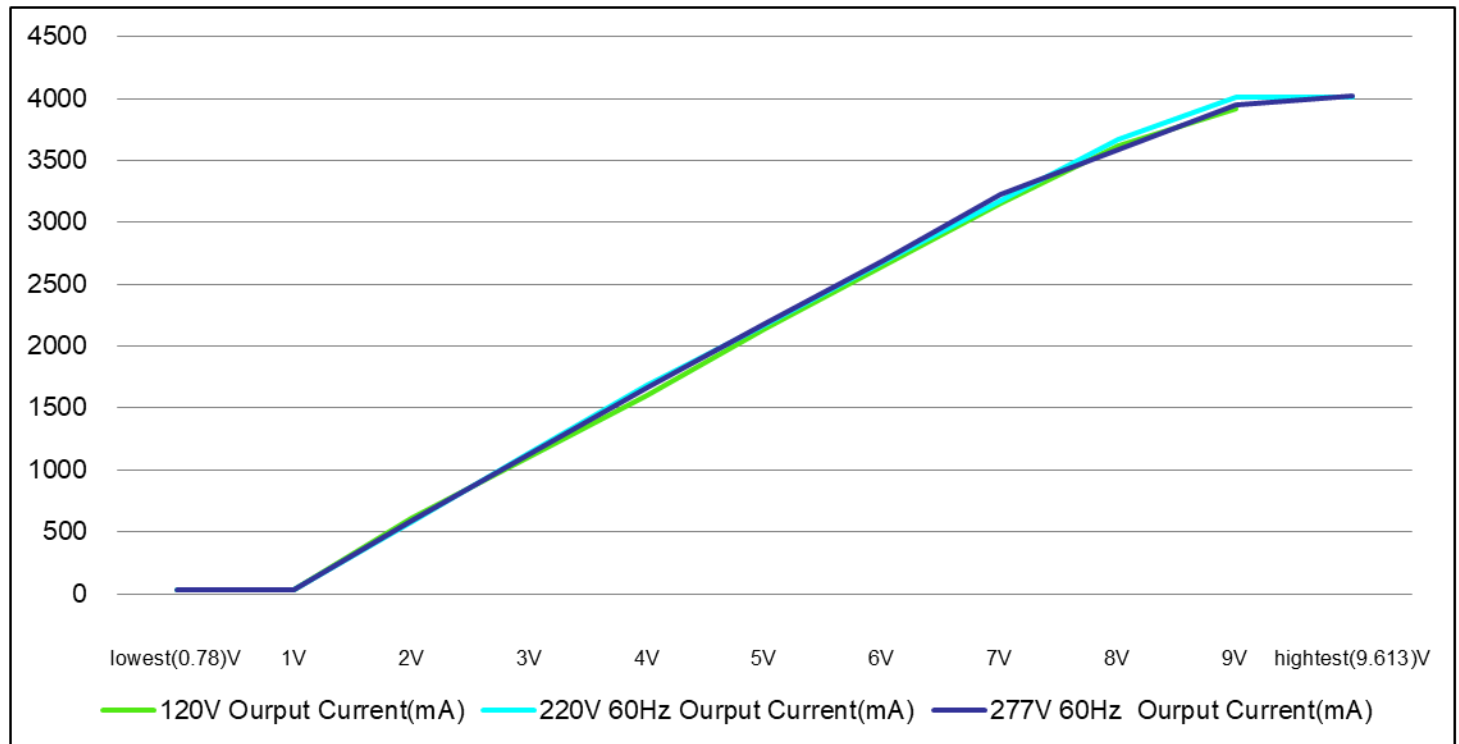
TEL: 886-4-22708357 FAX: 886-4-22767307 Email: macron@macrongroup.com

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