



#### **FEATURES**:

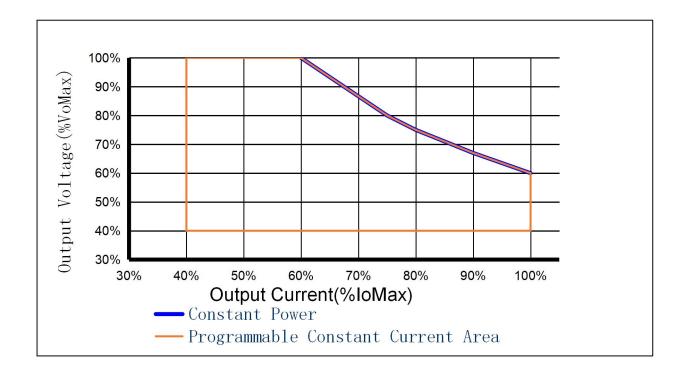
- NFC technology programmable without driver power on
- Constant power programmable design
- High efficiency (Max 93%), active power factor correction
- Ultra low THD at light load
- 0~10V/ PWM/ Timer, Dim to off option
- 12V/200mA AUX Output
- UL recognized with HL/ TL/Surge(Diff:4kV, Common:6kV)
- 5 year limited warranty

# **Electrical Specifications**

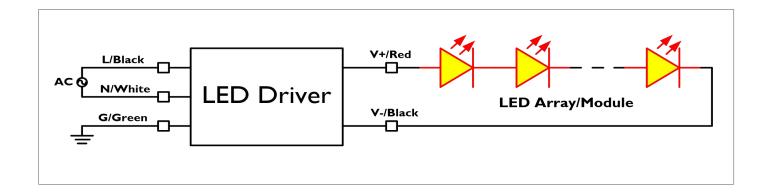
Model:		MWP160CV	MWP160CV	MWP160CV	MWP160CV	MWP160CV	
		24-36F	36-48F	48-80F	80-140F	140-233F	
	Max Output Power	160W					
	Constant Power Output Voltage Range	24-36Vdc	36-48Vdc	48-80Vdc	80-140Vdc	140-233Vdc	
	Constant Power Output Curent	4.44-6.67A	3.33-4.44A	2-3.33A	1.14-2A	0.687-1.14A	
	Programmable Constant Current Region	2.67-6.67 A	1.77-4.44 A	1.33-3.33 A	0.8-2 A	0.45-1.14 A	
	Open load Voltage	`1.05Vp(Vp:Programmable Output Voltage)					
Output	Line Regulation	±0.5%					
	Load Regulation	±3%					
	Ripple & Noise Pk-Pk	2%Vo					
	Eff.@ 115Vac & 100%load	89%	90%	92%	92%	91%	
	Eff.@ 230Vac & 100%load	91%	92%	93%	94%	93%	
	Turn-On Delay Time	<0.5S(100Vac,100%Load)					
	Dimming	0-10V(0%-100%)					
	Temperature Coefficient Of loset			0.05%/°C	80-140F  80-140Vdc  1.14-2A  0.8-2 A  Output Voltage)  92% 94%  6Load)  70%  100%Load)  100%Load)  100%Load)  100%Load)  100%Load  100%L		
	Auxiliary output			12V/200mA			
	AC Current Max	1.77A Max. @100Vac					
	Rated Input Voltage Range			100-277Vac	92% 94%  92% 94%  SLoad)  Owac  95(Vin277Vac 70%load) Dimming off) 25°C  Vac  Il be no damage to the particular of the p		
	Input Voltage Range	90-305Vac					
	Frequency Range	50/60Hz					
Input	Power Factor(PF)	PF>0.97 (Vin 230Vac 100%load),PF>0.95(Vin277Vac 70%load)					
	THD		<20% (	100-277Vac,50-100	)%Load)		
	Standby Power	0.4W(Measured at 230Vac,Dimming off)					
	Inrush Current Max		65	A @230Vac Ta=25	94%  0%Load)  0%)  A  00Vac  c  >0.95(Vin277Vac 70%load)  ac,Dimming off)  a=25°C  77Vac  will be no damage to the		
	Leakage Current		<	<0.75mA @ 277Va			
Protection	Short Circuit Protection (SCP)	In the event of a short circuit condition, there will be no damage to the driver, then automatic self-recovery will be activated.					
	Surge Protection	Line to Line: 4KV, Line to Earth: 6KV					
	Over Temperature Protection	When the Internal PCB temp reaches 105°C (±5°C), to avoid any damage to the driver,					
		its outp	ut will be turned o	off. After the tempe	II be no damage to the dri I be activated. Earth: 6KV	w 105°C,	

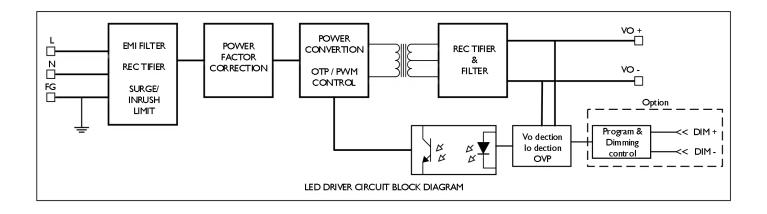
		automatic self-recovery mode will be activated.				
Environment	Ambient Temperature	Ta :-40~+70°C; Tc (max):≦ 90°C				
	Operating Humidity	20∼90% RH				
	Storage Temperature & Humidity	-40∼+80°C, 10∼95% RH				
	Environment Protection Rating	UL Dry, Damp or Wet Location, IP67				
	Vibration	10∼500Hz 5G 12Min/Cycle, X,Y,Z axis per 72 minute				
	Safety Standards	IEC/EN61347-1(GB19510-1-2009), IEC/EN61347-2-13(GB 19510.14-2009), UL8750,				
		CSA C22.2 NO. 250.13-12				
	Withstand Voltage	I/P-O/P:3.75KVac, I/P-FG: I.5KVac, O/P-FG:0.5KVac				
Safety &	Insulation Resistance	I/P-O/P, > 100M Ohms/500VDC/25°C/70%RH				
EMC	EMI	EN55015, FCC PART15-CLASSB				
	Harmonic Current	EN61000-3-2 Class C				
	EMS	EN61000-4-2,3,4,5,6,8,11;ENV50204,EN61547,EN55024 Industry standard				
Others	MTBF	>280kHrs to MIL-HDBK-217 at25℃,GB				
	Dimensions	226*70*37mm (L*W*H),8.9*2.76*1.46in (L*W*H)				
	Weight	832±10g 25pcs/carton				

# **V-I Operating Area**

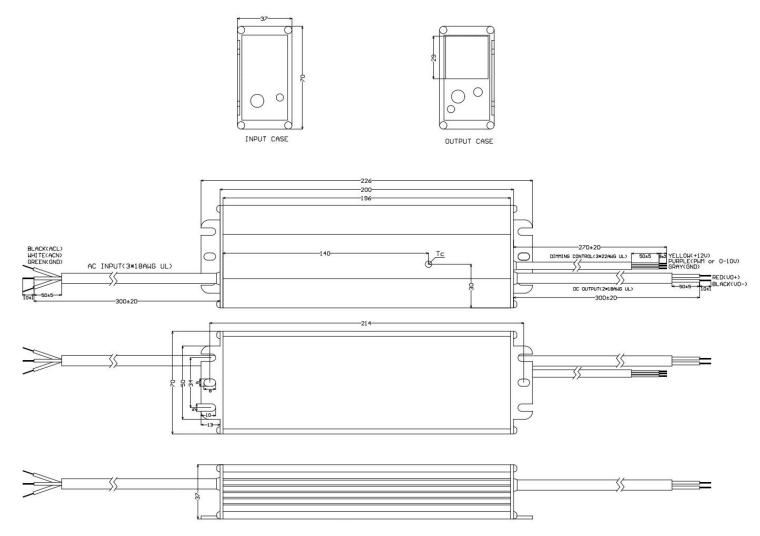


## **Wiring Diagram**





# **Enclosure**



### **Installation & Application Notes**

Section I – Physical Characteristics

- 1.1 LED Driver shall be installed inside an electrical enclosure.
- 1.2 Wiring inside electrical enclosure shall comply with 600V/105°C rating or higher.
- 1.3 Input and output use lead-wires. Lead-wires are UL SJTW Cable 18AWG 105C/600V solid copper.
- 1.4 Special water proof should be used on the input/output cable, this product is non-potting, water maybe suck in the product.

#### Section II – Performance

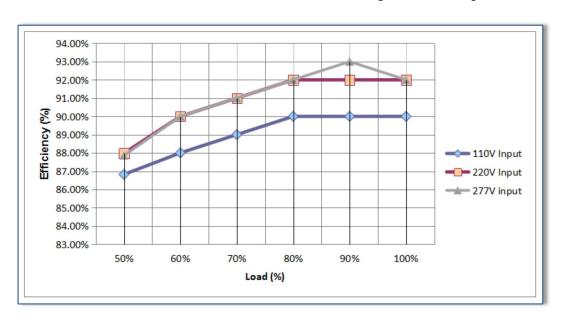
- 2.1 LED Driver has a minimum operating ambient temperature of -40°C.
- 2.2 LED Driver is certified by UL for use in a dry, damp or wet location.
- 2.3 LED Driver tolerates sustained open circuit and short circuit output conditions without damage.
- 2.4 LED Driver maximum allowable case temperature is 90°C.
- 2.5 LED Driver reduces output power to LEDs if maximum allowable case temperature is exceeded.

#### Section III - Cautions

- 3.1 LED Driver should be kept away from heat source and flammable and explosive substances.
- 3.2 LED Driver Should be installed in a ventilated and good heat dissipation space.
- 3.3 High Voltage! Do not open the case without experience.
- 3.4 Make sure I/P, O/P wire joints completely watertight, to prevent electric shock & leakage of electricity.

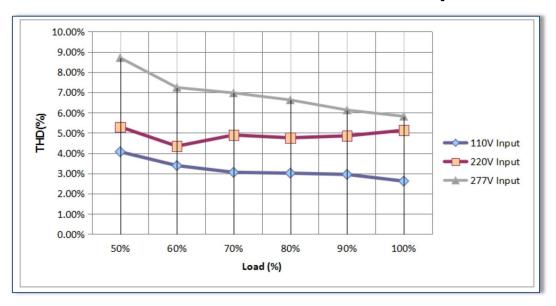
# **Efficiency**

# MWPI60CV36-48F Efficiency vs Output



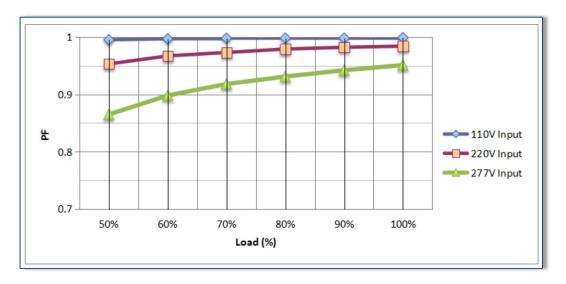
#### **THD**

## MWPI60CV36-48FTHD vs Output

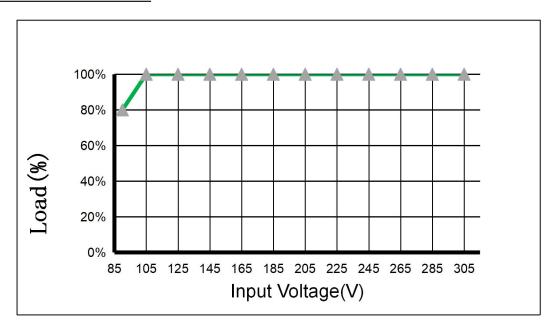


#### **Power Factor**

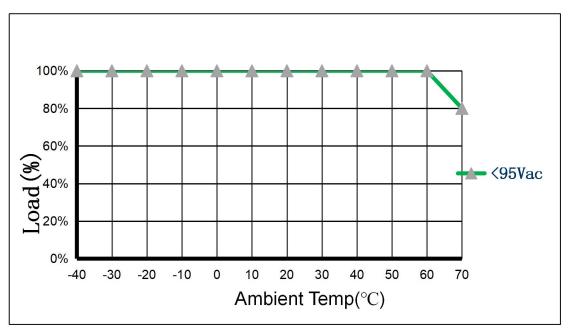
# MWPI60CV36-48F vs Input Voltage



# **Static Characteristics**

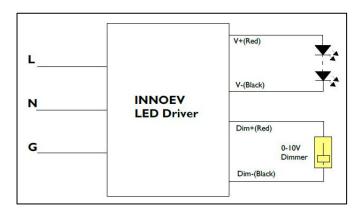


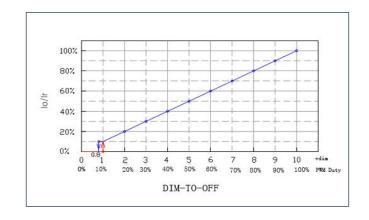
# **Output Power Derating**



## 0-10V Dimming Application (Optional Function)

### 0-10V Dimming





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

#### NOTE:

- lo 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 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.

## **Revision History**

DATE	REV	Modification	Reasons for change	Notes

Prepared By	Checked By	Approved By	File Number
Date	Date	Date	

Application and operation performance specification information subject to change without notification.