

Project :

Date :

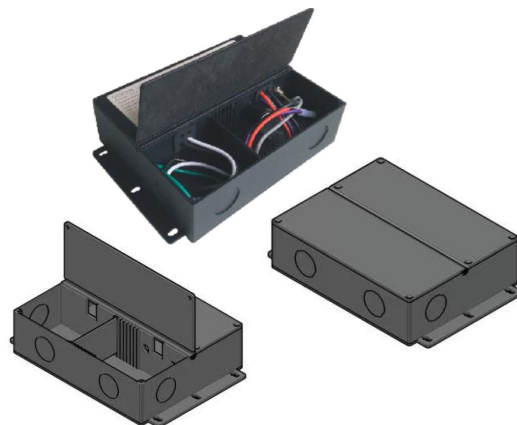
Cat. No. :

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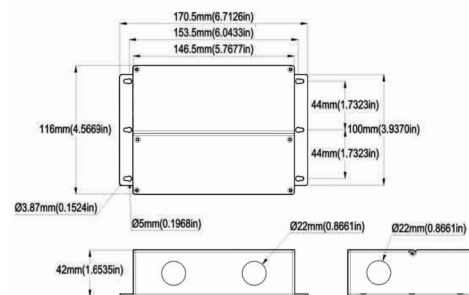
Notes :

Volts :

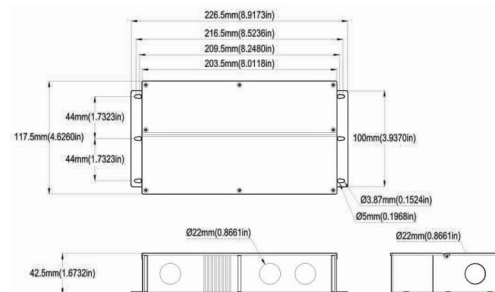
- Universal input, 110-277Vac
- Build in active PFC, typical power factor>0.95, THD<20%@120V Max. load
- High efficiency : up to 80%
- Load: 0.1-100%
- Short-circuit, over-temperature, over-load protection
- Full protection metal case, for dry, damp, wet location
- Flicker-free
- Suitable for LED lighting and moving sign applications
- Dim-all: Triac/0-10V/1-10V/10V PWM/Potentiometer
- Switch to PWM or Voltage Reduce output



Model		NT-OTM-TD30-JA12	NT-OTM-TD30-JA24	NT-OTM-TD60-JA12	NT-OTM-TD60-JA24
Output	DC Voltage	12V	24V	12V	24V
	Rated Current	2.5A	1.25A	5A	2.5A
	Rated Power	30W	30W	60W	60W
	Voltage Tolerance	±0.5V			
	Voltage Regulation	±0.5%			
	Load Regulation	±1%			
Input	Voltage Range	110-277VAC			
	Frequency Range	47-63Hz			
	Power Factor (Typ.) @ full load	0.99@120VAC 0.95@277VAC			
	THD (Typ.) @ full load	<20% @120VAC & 277VAC			
	Efficiency (Typ.) @ full load	12V/24V 79% @120Vac 80% @277Vac 36V/48V 80% @120Vac 81% @277Vac			
	AC Current (Max.)	0.5A@110Vac			
	Inrush Current (Typ.)	7A, 50%, 420us @120Vac 12A, 50%, 480us @277Vac			
	Leakage current	<0.50mA			
Protection	Short Circuit	shut down o/p voltage, re-power on to recover after fault condition is removed			
	Over Loading	≤120% shut down o/p voltage, re-power on to recover after fault condition is removed			
	Over temperature	100°C±10°C shut down o/p voltage, automatically recover after cooling.			
Environment	Working TEMP.	-40~+60°C (see below derating curve)			
	Working Humidity	20~90%RH, non-condensing			
	Storage TEMP. Humidity	-40~+80°C, 10~95%RH			
	TEMP. coefficient	±0.03%/°C (0~50°C)			
Safety & EMC	Vibration	10~500Hz, 5G 10min./1 cycle, period for 60min. each along X,Y,Z axes			
	Safety standards	UL8750+UL1310			
	Withstand voltage	I/P-O/P: 1.88KVAC			
	Isolation resistance	I/P-O/P: 100MQ/500VDC/25°C/70%RH			
others	EMC EMISSION	FCC Part 15 B			
	Net. Weight	0.7Kg		1.1Kg	
	Size	170.5*116*42mm (L*W*H)		226.5*117.5*42.5mm (L*W*H)	



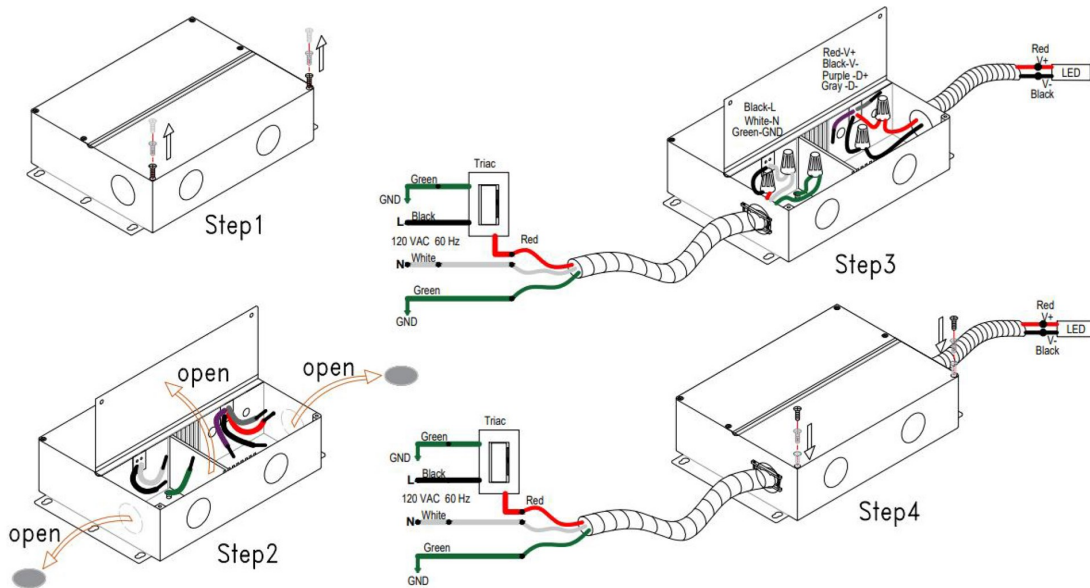
NT-OTM-TD30-JA12/24



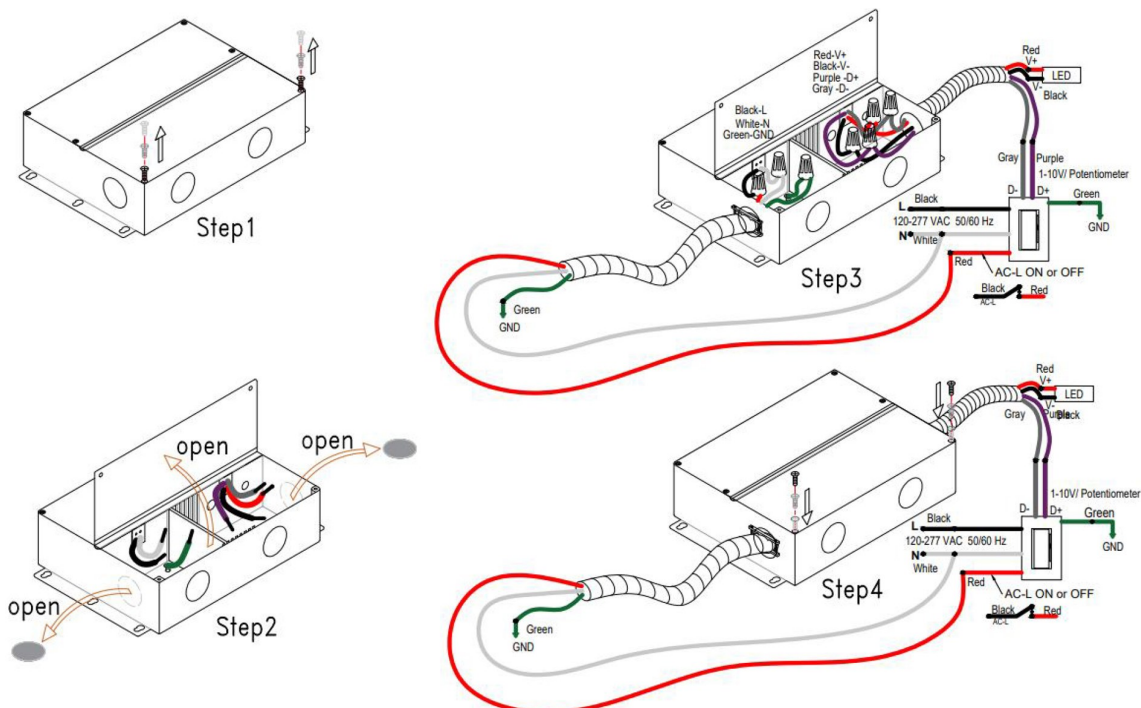
NT-OTM-TD60-JA12/24

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MLV OR TRIAC ELV WIRING DIAGRAM AND FOR PWM SWITCH ON











0-10V WIRING DIAGRAM AND FOR PWM SWITCH ON



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Comparison between new and old junction box led driver

Company product series:	New	Old
Products:	Junction box 30W-300W,	Junction box 30W-300W,
Input voltage:	110-277VAC (Safe voltage range 95-310VAC)	100-277VAC
PF:	≥0.95	≥0.95
Start Time:	≤500ms(380ms) Meet the California T24 standard	≤500ms Meet the California T24 standard
Flicker	Flicker free	Flicker free
THD:	≤20%	≤20%
Ripple	≤3%	≤3%
ways to control output	There are two ways to control output for all the drivers, VR(voltage regulation) or PWM(Pulse-Width Modulation),there is a button in the drivers for you to select 	No, only PWM (Pulse-Width Modulation)output
Minimum load limit:	When the driver is at VR output, no minimum loading,can work at real Zero loading,loading range:0.01%-100% while at PWM output, Loading Range: 10%-100% , if loading is less than 10% will result in more narrow dimming range , or flickering at the weak brightness	Only PWM output, Loading Range:10%-100%, if loading is less than 10% will result in more narrow dimming range , or flickering at the weak brightness
Dimming range:	When the driver is at VR output., Dimming Range: 0%-100% , 0% will turn off ; When output regulation PWM, dimming range is from 0.5%-100%, less than 0.5% will turn off ;	Dimming range is from 1%-100%, less than 1% will turn off ;
Adjust output voltage function:	All the drivers in junction box series has the function to adjust the output voltage slightly, 9-13V for 12V, 18-25V for 24V, 27-37V for 36V, 36-49V for 48V IP20 plastic case 30W 60W 80W 96W 100W all have the this function  	Only IP20 30W 60W can adjust the output voltage slightly,others can't
Dimming performance and Output frequency(Hz)	When the driver is at VR output, no flicker, no noise, output voltage will not reach Vpk and Vpp while dimming,the best way to protect lights; when the drivers is at PWM output,the frequency is 4K (the International immunity for flickering),still very slightly flickering,will reach Vpk and Vpp some times while dimming	Output PWM with frequency 20K,no flicker,no noise when brightness is over 15%,but if brightness is less than 15%,noise occurs,20K frequency make the output voltage reach VPK and VPP many times while dimming,have risk to damage lights,not good to protect lights.
Protection way	It is the analog circuit way to have overload protection/over temperature protection/Short circuit protection for power less than 100W. When the power is going up,the current is also higher,so for 120W-340W,we are using dusk to dawn(digital circuits) way to protect the drivers accurately and fast, also not easy to have faults,since there is a MCU inside to monitor every protection continually.	All the powers are using the analog circuits to protect drivers, but analog circuits can't response fast and have complicated circuits with more components, easy to have failures. Especially when the power is bigger with higher current, the slower response of the protection will cause the damage of components resulting in failure easily.
Material of intergrated Junction box	Aluminum shell (will not rust and easy to corrode in long-time use)	Iron shell (easy to rust, corrode seriously in long-time use)
structure of intergrated Junction box:	Flip-shell design, No worry about lose the cover during use, and in the process of wiring, the flip cover can move left and right, which is convenient for the connection of heavy and weak current   	box and shell are seperated(with 1 or 2 covers)  
P rate of intergrated Junction box:	IP65 Waterproof (The thickness of the aluminum box is at least1.8mm, and the inner cover is sealed with sealing cotton) , there is no water leakage after many times of long-term water spray.	IP54 rainproof, made of iron 1mm,but the shell can't be waterproof,water will seep when raining