

MXG Series LED Drivers

DL-750W-MXG Specification V1.0

Features

- Non-Isolated Class I Driver
- Input voltage:120-277V ,50/60Hz
- Efficiency Up to 95% (Typ.)
- Constant Power Drive, Constant Current Output Control Mode
- Isolated 3-in-1 dimming: 0-10V/PWM/Resistor; Timer dimming
- Input Surge Protection: DM 6kV, CM 15kV
- All-Around Protection: IUVP, OVP, SCP, OTP, OLP
- Ingress protection code: IP67
- 8 Years Warranty



DL-750W-V56X-MXG

DL-750W-V428X-MXG



DL-750W-V56J-MXG

DL-750W-V428J-MXG

Applications

Plant growth Lighting

Stadium Lighting



Model list

Model NO.	Input voltage	Output power	Output voltage	Output current	Default current	Eff. (Typ.)	THD (Typ.)	PF (Typ.)	NTC
DL-750W-V56X-MXG	120-277V	750W	25-56Vdc	11.6-16.3A	14.5A	94%	7%	0.97	√
DL-750W-V56J-MXG	50/60Hz								
DL-750W-V428X-MXG	120-277V	750W	323-428v	1.52-2.1A	1.8A	95%	7%	0.97	√
DL-750W-V428J-MXG	50/60Hz								

Note:

- 1 .The above parameters are tested under the following conditions:Ta=25°C, 230Vac input, full-load operation for 30 minutes.
2. When input voltage is 120-277Vac, rated power is 750W; special attention shall be paid during application.
For details, refer to the Input Voltage vs. Output Power curve.
3. Unless otherwise specified, all specification parameters are measured under the conditions of 380Vac (50Hz) input, rated load and ambient temperature of 25°C.
4. X Version: 0-10V/PWM/resistor + 12Vauxiliary power supply
J Version: Wire harness + RJ12/RJ25 port + Rotary dimming

Input characteristics

Parameter	Min	Typ.	Max	Note
Rated Input Voltage	120Vac	230Vac	277Vac	
Input Voltage Range	120Vac		305Vac	
Input Frequency	47Hz	50/60Hz	63Hz	
Power Factor(PF)	0.95	0.97	-	120-277Vac, full load
Total Harmonic Distortion(THD)	-	-	7%	230Vac, full load
Maximum Input Current	-	-	7.5A	120Vac, full load
Inrush Current	-	-	100A	230Vac , 25°C cold start

Output characteristics

Parameter	Min	Typ.	Max	Note
Efficiency@120Vac DL-750W-V56X/J-MXG	92.5%	92%	-	
Efficiency@120Vac DL-750W-V428X/J-MXG	92.5%	93%	-	
Efficiency@230Vac DL-750W-V56X/J-MXG	93.5%	94%	-	
Efficiency@230Vac DL-750W-V428X/J-MXG	94%	95%	-	
Output Voltage Range DL-750W-V56X/J-MXG	25Vdc	-	56Vdc	Constant power range: 46-56Vdc
Output Voltage Range DL-750W-V428X/J-MXG	323Vdc	-	428Vdc	Constant power range: 357-428Vdc
Open Circuit Voltage DL-750W-V56X/J-MXG	-	-	60V	
Open Circuit Voltage DL-750W-V428X/J-MXG	-	-	460V	
Output Current Range DL-750W-V56X/J-MXG	11.6A		16.3A	Default current: 13.39A
Output Current Range DL-750W-V428X/J-MXG	1.52A		2.1A	Default current: 1.75A
Output Current Accuracy	-5%	-	+5%	Full load
Output Current Ripple(PK-AV)	-	5% Iomax	-	Full load,20MHZ BW
Line Regulation	-3%	-	+3%	full load
Load Regulation	-3%	-	+3%	full load

Turn-on Delay Time	-	-	1.0s	120Vac, full load
Turn-on Delay Time	-	-	500ms	230Vac, full load
Auxiliary Output Voltage	10.8 V	12V	13.2V	
Auxiliary Output Source Current	0 mA	-	250 mA	Return terminal is "DIM-"
Auxiliary Output Transient Peak Current @6W	-	-	500 mA	500mA peak for a maximum duration of 2.0ms in a 5.0ms period during which time the average should not exceed 250mA.

Dimming

Dimming function		Min	Typ.	Max	Instructions
0-10V Dimming	Applied Voltage Range	0V	-	12V	
	Dimming Output Range	0%	-	100%	
	Rated Dimming Range	0V	-	10V	
	Dim On Voltage	0.4V	0.5V	0.5V	Programmable by computer
	Dim Off Voltage	0.2V	0.3V	0.4V	Programmable by computer
PWM Dimming	PWM High Level	9.5V	-	10.5V	
	PWM Low Level	0V	-	0.3V	
	PWM Frequency Range	300Hz	-	2kHz	
	PWM Duty Cycle	0%	-	99%	Output full power at 99% duty cycle
	Dim On Duty Cycle	4%	5%	6%	Programmable by computer
	Dim Off Duty Cycle	2%	3%	4%	Programmable by computer
Resistor Dimming	External Resistance Value	0KΩ	-	100kΩ	
	Dimming Output Range	0%	-	100%	

Note:

1. Dimming port output current: 100 μA (Typical).
2. The maximum withstand voltage of the dimming port is 12 V. Externally supplied voltage exceeding 12 V or reverse connection of the signal wire may cause damage to the power supply.
3. The default setting of product dimming is 3-in-1 positive logic dimming.
4. The dimming logic is programmable and can be configured as positive / negative logic dimming.
5. Dimming wire floating: default output is 100%; the output can be programmed to 0.
6. Note: Verify the compatibility between the dimmer and the dimming control port of the driver power supply. Especially when one dimmer controls multiple driver power supplies, verification and testing are mandatory.

Protection

Function	Function instructions
Input Under Voltage Protection	When the input voltage is less than 108Vac, the output power will be reduced to 50%±20 of the full load; For details, please refer to the derating curve
Output Overload Protection	Hiccup mode, recovers automatically after fault condition is removed.
Output Short- Circuit Protection	Hiccup mode, recovers automatically after fault condition is removed.
Over-Temperature Protection	Self-healing type When the casing temperature exceeds 90°C, the output power derates as the case temperature rises.
Output Over Voltage Protection	Self-recovery type, recovers automatically after fault condition is removed

Environmental

categories	Parameter
Operating Ambient temperature (Ta)	-40 ~ +60°C @200-277Vac -40 ~ +45°C @120-200Vac
Operating Case Temperature for Safety (Tc_s)	-40°C ~ 90°C
Operating Case Temperature for Warranty (Tc_w)	-40°C ~ +75°C, 10% ~ 95% RH
Storage Temperature, Humidity	-40°C ~ +85°C, 10% ~ 95% RH
Vibration Resistance	10-500Hz, 5g 12 min/cycle; X, Y, Z axes 72 min each axis
MTBF	230,000 hours (MIL-HDBK-217F), Ta=25°C; 230Vac, 80% load
Lifetime	70,000 hours@Tc≤75°C

Safety

Certifications	Region/Country	Standard	Certification Status (Yes/No)
CCC	China	GB/T 19510.1, GB/T 19510.213	√
CE	Europe	EN 61347-1, EN 61347-2-13	√
ENEC		EN 62384	√
CB	CB member state	IEC 61347-1, IEC 61347-2-13	
SAA	Australia	AS/NZS 61347.1, AS/NZS 61347.2.13	√
UL	USA	UL 8750	√
CUL	Canada	CSA C22.2 No.250.13	√

EAC	Russia	ГОСТ 61347-1-2019 ГОСТ IEC 61347-2-13-2013	
BIS	India	IS 15885(PART 2/SEC 13)	

EMC

EMC Certification	Region/Country	Standard	Certification Status (Yes/No)
CCC	China	GB/T 17743, GB 17625.1	√
CE	Europe	EN IEC 55015 EN 61547 EN IEC 61000-3-2;3-3;4-5	√
EAC	Russia	IEC 61547-2013 CISPR 15-2014 IEC 6100-3-2-2017 IEC 6100-3-3-2015	
FCC	USA	FCC Part 15 Subpart B	√

RoHS

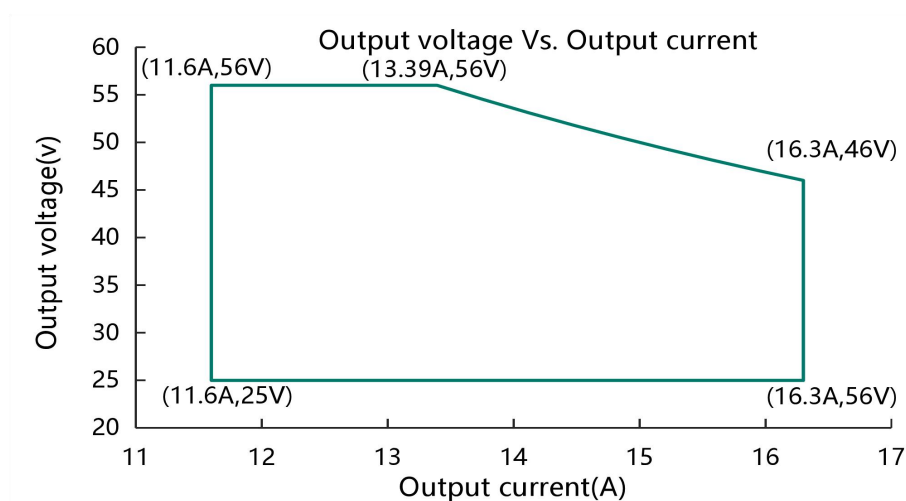
Our products comply with reference to RoHS Directive (EU) 2015/863 amending 2011/65/EU.

Safety Test Items

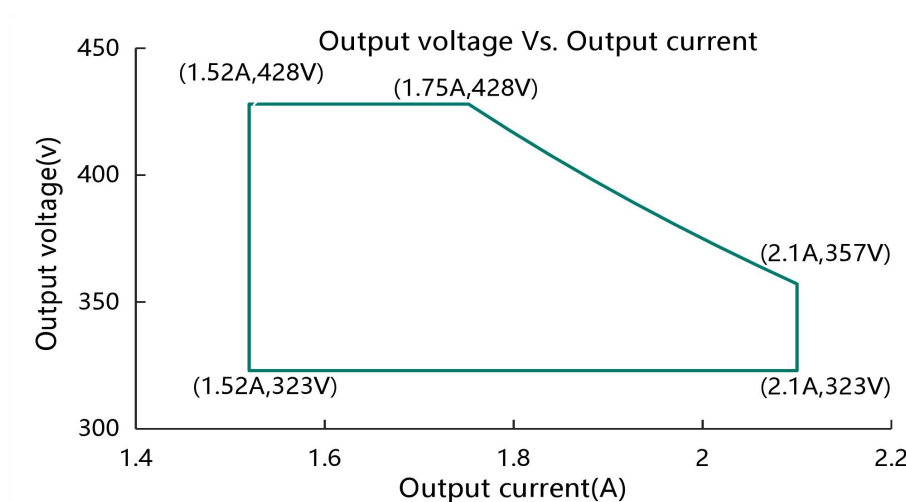
Safety Test Item	UL	CE/CB/ENEC	CCC	Insulation Requirements
Input-Output	-	3750Vac	-	1min < 5mA
Input-Case/Ground	-	1500Vac	-	1min < 5mA
Input-Dim	-	1500Vac	-	1min < 5mA
Output-Case/Ground	-	500Vac	-	1min < 5mA
Output-Dim	-	1500Vac	-	1min < 5mA
Dim-Case	-	500Vac	-	1min < 5mA
Insulation Resistance	≥10MΩ			Input-Dim, Test voltage: 500Vdc
Ground Resistance	≤0.1Ω			25A/1min; Ta=25°C±10°C

Note: The driver is considered as a component that will be operated in combination with the final equipment. Since EMC performance will be affected by the complete installation, the final equipment manufacturers must re-qualify EMC Directive on the complete installation again.

I-V Working area

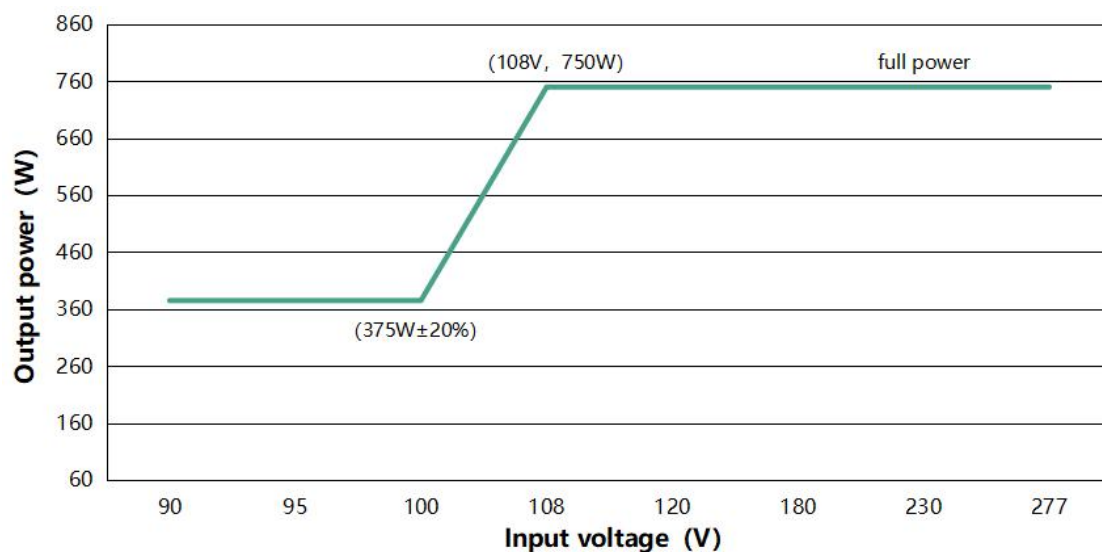


Load	Output (DL-750W-56X/J-MXG)								
Output Voltage	25V	29V	33V	46V	48V	50V	52V	54V	56V
Output Current	16.3A	16.3A	16.3A	16.3A	15.63A	15.0A	14.42A	13.8A	13.39A
Po_MAX	407.5W	472.7W	537.9W	750W	750W	750W	750W	750W	750W



Load	Output (DL-750W-428X/J-MXG)								
Output Voltage	323V	330V	340V	357V	380V	400V	410V	420V	428V
Output Current	2.1A	2.1A	2.1A	2.1A	1.97A	1.88A	1.83A	1.79A	1.75A
Po_MAX	678.3W	693W	714W	750W	750W	750W	750W	750W	750W

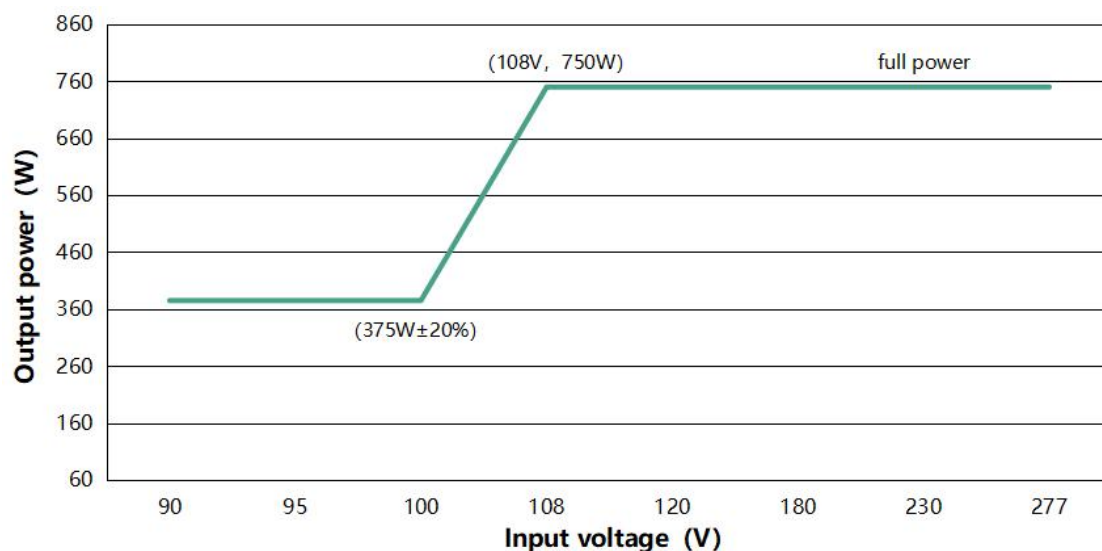
Output power vs. Input voltage



DL-750W-V56X/J-MXG(Rated Output Current & Output Power vs. Different Input Voltages @ 56 Vdc Output)

Input Voltage	90Vac	95Vac	100Vac	108Vac	120Vac	180Vac	230Vac	277Vac
Output Current	5.5A	5.5A	5.5A	13.1A	13.2A	13.32A	13.35A	13.39A
Po_MAX	372W	372W	372W	750W	750W	750W	750W	750W

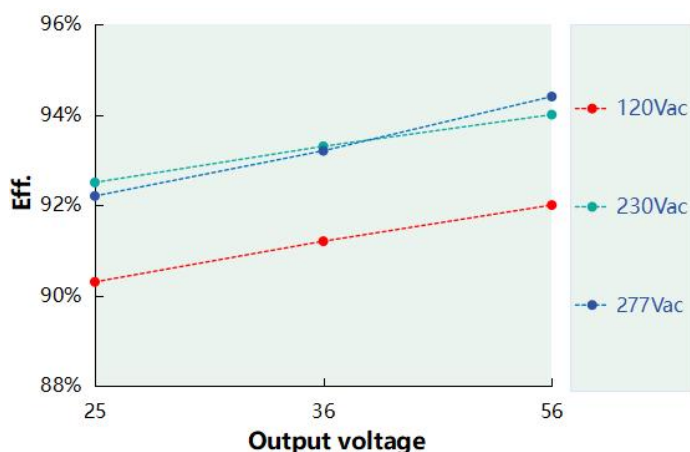
Output power vs. Input voltage



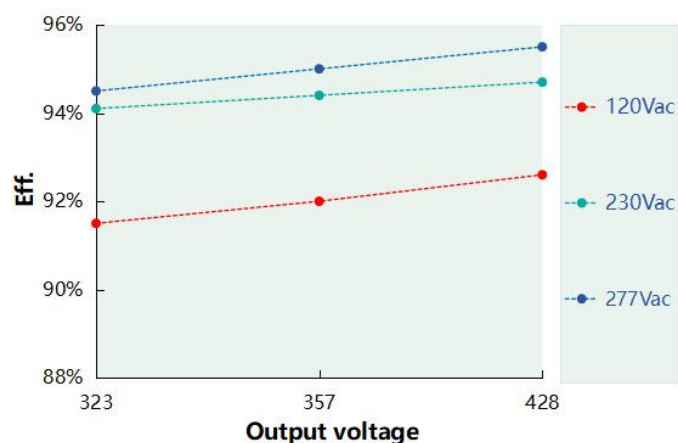
DL-750W-V428X/J-MXG(Rated Output Current & Output Power vs. Different Input Voltages @ 428 Vdc Output)

Input Voltage	90Vac	95Vac	100Vac	108Vac	120Vac	180Vac	230Vac	277Vac
Output Current	0.87	0.87	0.87	1.75A	1.75A	1.75A	1.75A	1.75A
Po_MAX	372W	372W	372W	750W	750W	750W	750W	750W

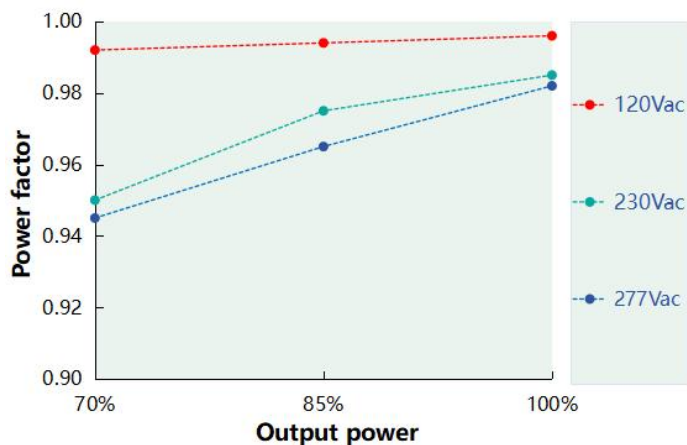
Eff. vs. Output voltage DL-750W-V56X/J-MXG



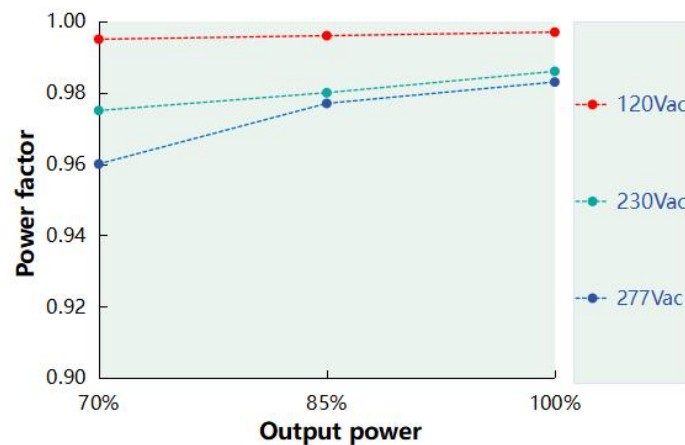
Eff. vs. Output voltage DL-750W-V428X/J-MXG



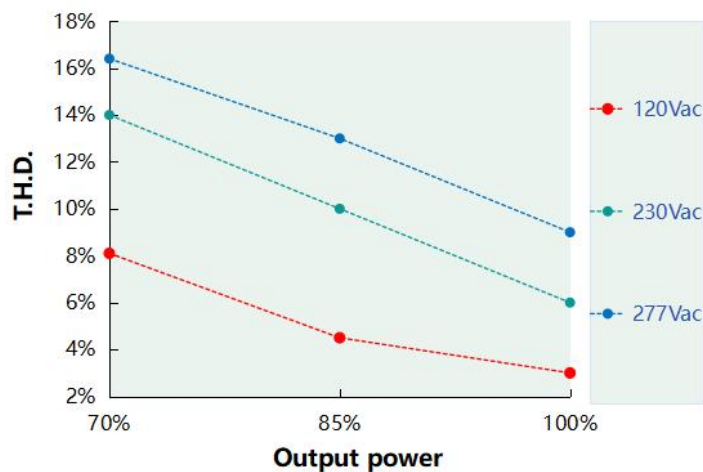
PF vs. Output power DL-750W-V56X/J-MXG



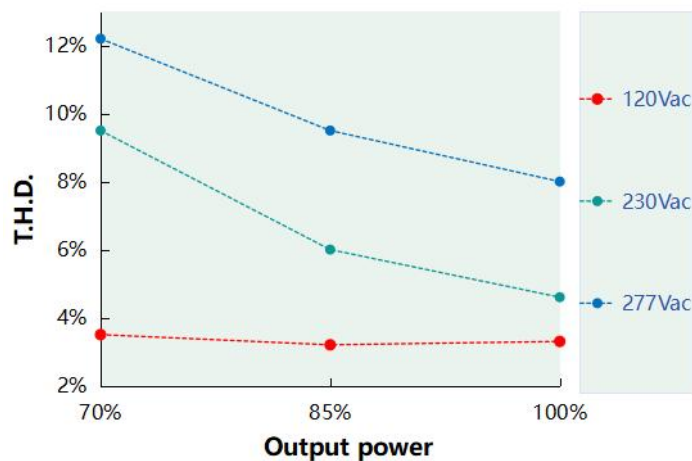
PF vs. Output power DL-750W-V428X/J-MXG



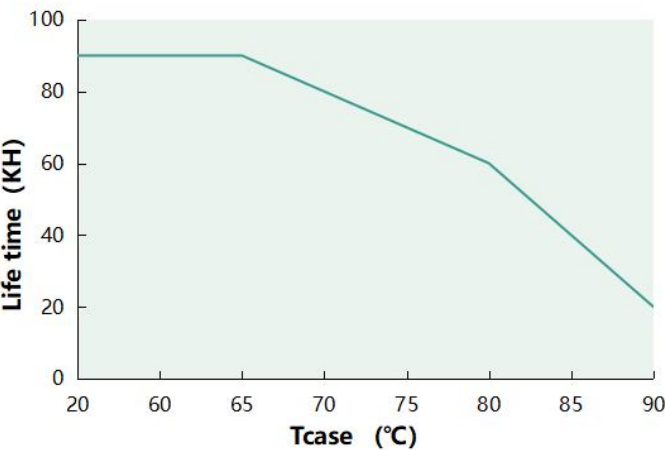
THD vs. Output power DL-750W-V56X/J-MXG



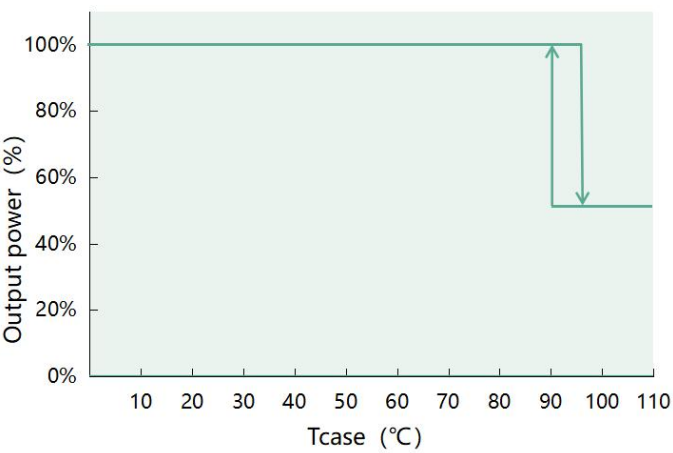
THD vs. Output power DL-750W-V428X/J-MXG



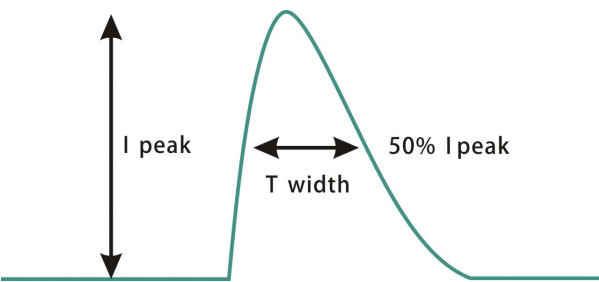
Life time vs. Tcase



Output power vs. Tcase



Inrush Current



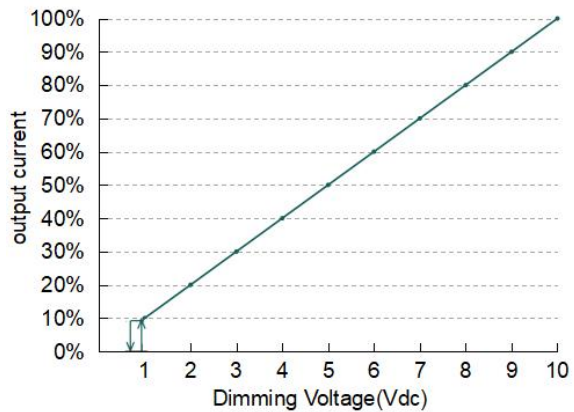
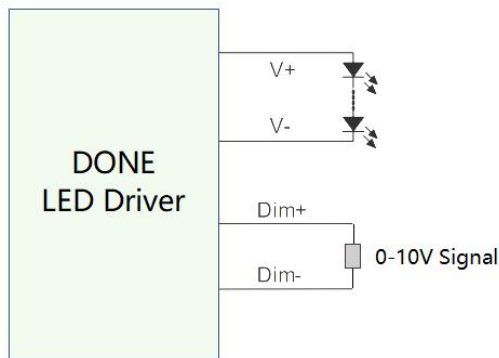
Input voltage	Peak current	T(@50% Peak current)
120Vac	34A	530us
220Vac	66A	526us
277Vac	85A	520us

Dimming operation

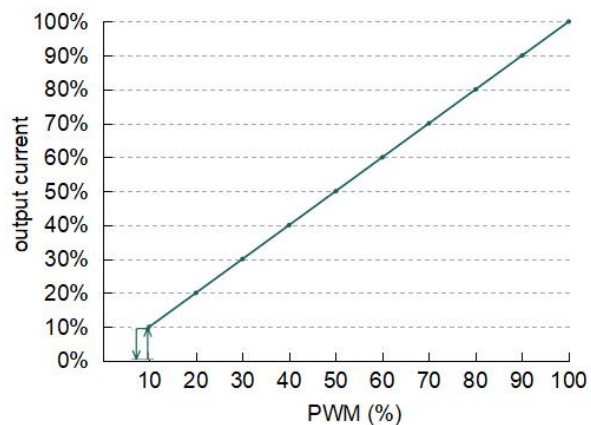
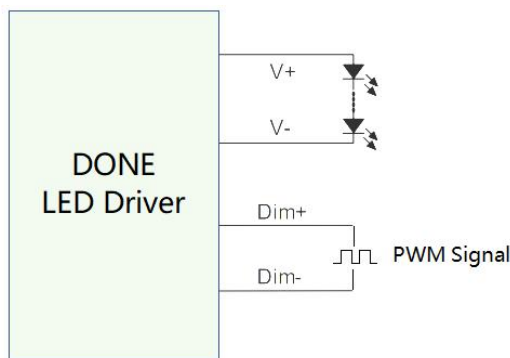
3-in-1 dimming function

Connect a 0-10V Dimmer or 10V PWM signal or resistor between DIM+ and DIM-

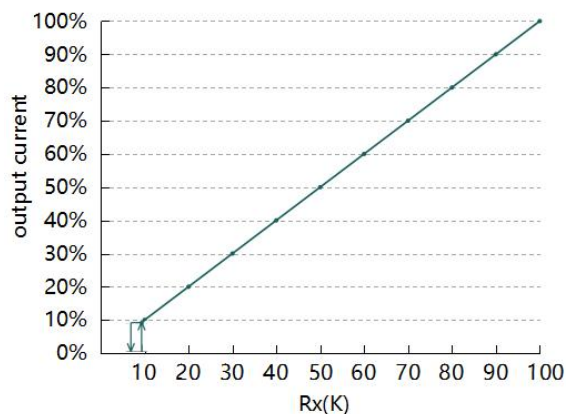
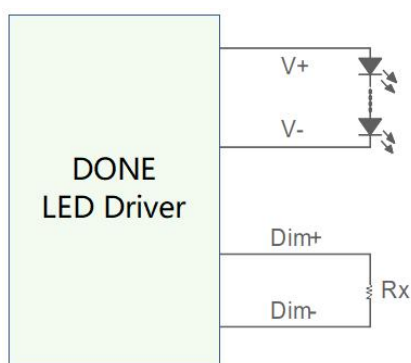
0-10V dimming:



PWM dimming:



Resistor Dimming:



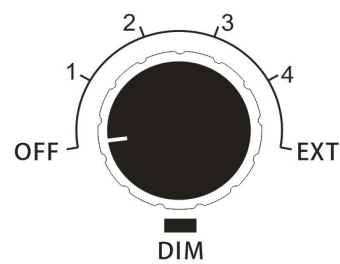
Note:

- Both positive and negative logic dimming can be set by programming; the turn-on and turn-off voltage duty cycle can also be programmed.
- The 0-10V dimming supports positive and negative logic, and the positive/negative logic is also applicable to PWM dimming.
- Due to the precision tolerance of electronic components, there is a deviation between the actual turn-on voltage and turn-off voltage, with a tolerance of $\pm 0.1V$. Please pay attention to the compatibility between the dimmer and the dimming control port of the driver power supply. Especially when one dimmer is used to control multiple driver power supplies, relevant testing and verification are required.

Knob dimming+ RJ12/RJ25

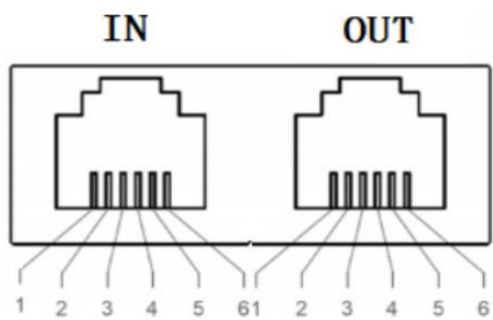
Knob dimming

The output current can be set to 0, 25%, 50%, 75%, 100% by knob switch.
When rotated to the EXT position, dimming can be performed through the RJ12 connector. default factory mode is in EXT



RJ12 connector

Function of each PIN pin

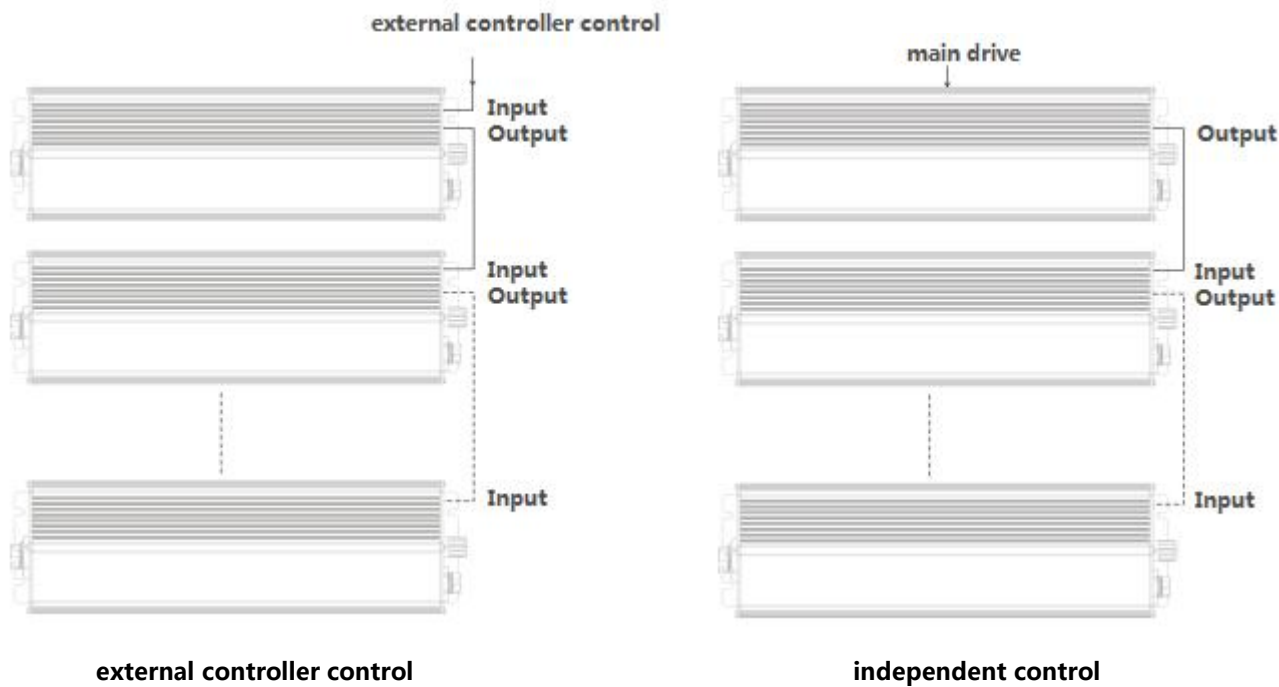


RJ12 Pin	function
1, 6	Vaux+(12V,250mA)
2, 5	DIM +
3, 4	DIM -/Vaux-

RJ12/RJ25 Cascade

When rotated to the EXT position, dimming is performed by connecting 0-10V/PWM control signal through RJ12 connector. Master-slave cascade, support up to 100 units of driver dimming. And supports two kinds of cascade solutions, external controller control or independent control, the connection mode is as follows table.

Note: Ensure that IN and OUT are connected correctly to avoid incorrect connections that may cause the system to fail to work properly



The output current is regulated by an external controller and all power supply knobs must be set to EXT

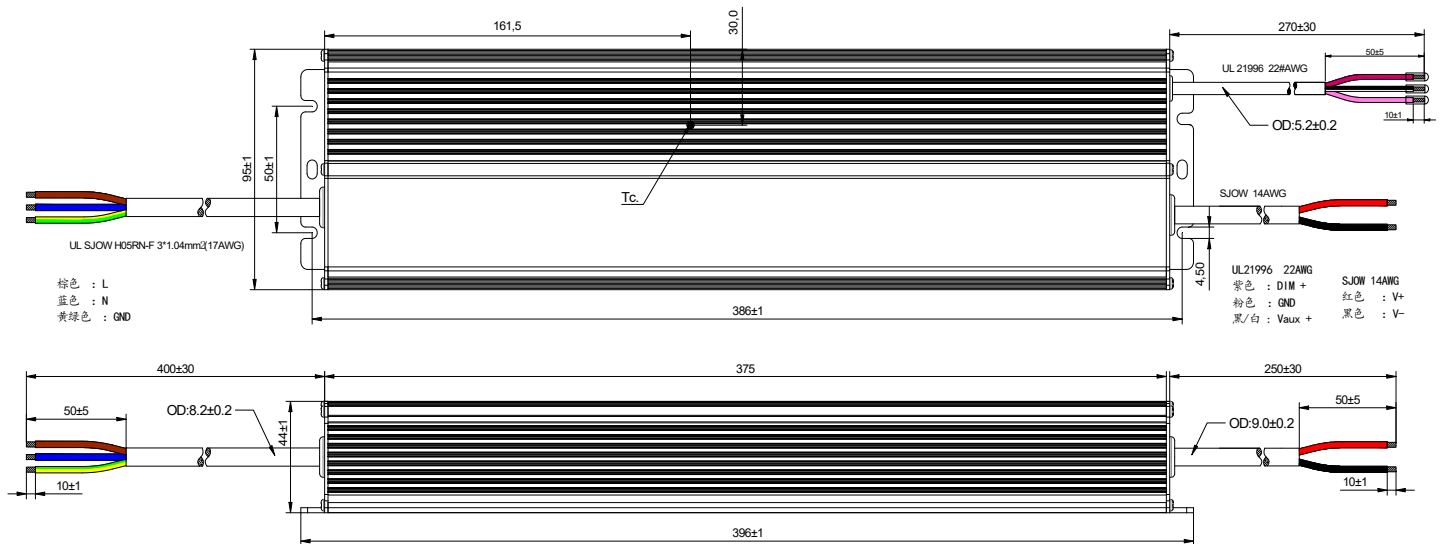
No external controller is required. Set the master power supply knob switch to the required current level and set the other slave power supplies to EXT



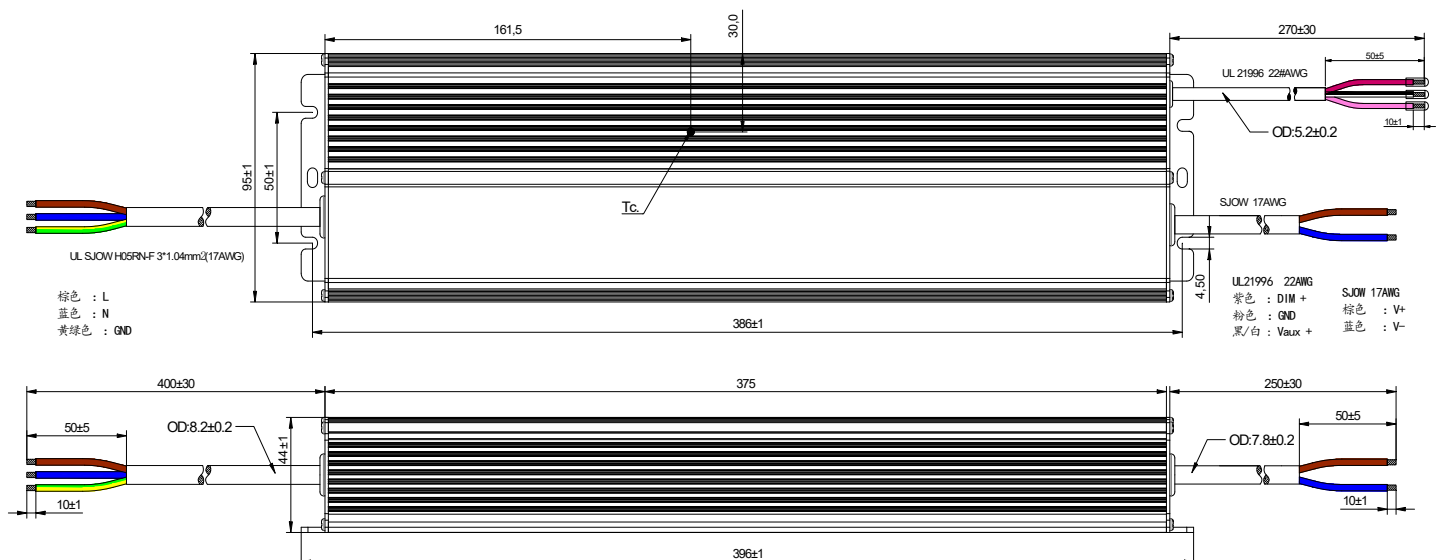
Mechanical Specification

Dimension (mm) L396*W90*H44mm

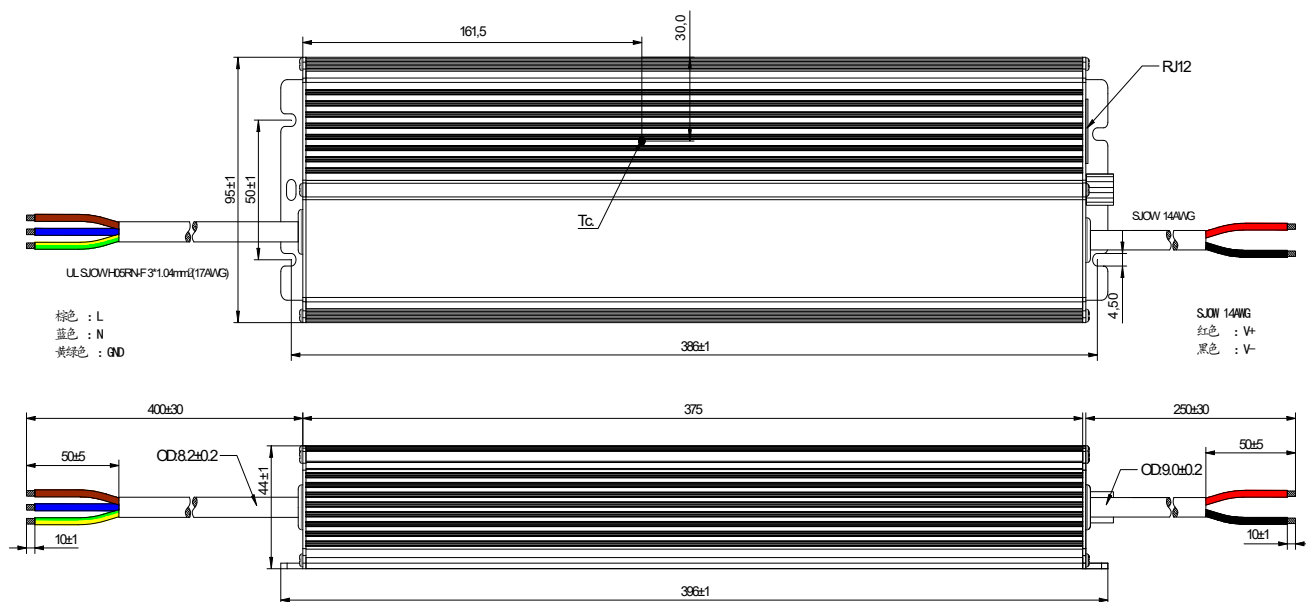
DL-750W-V56X-MXG



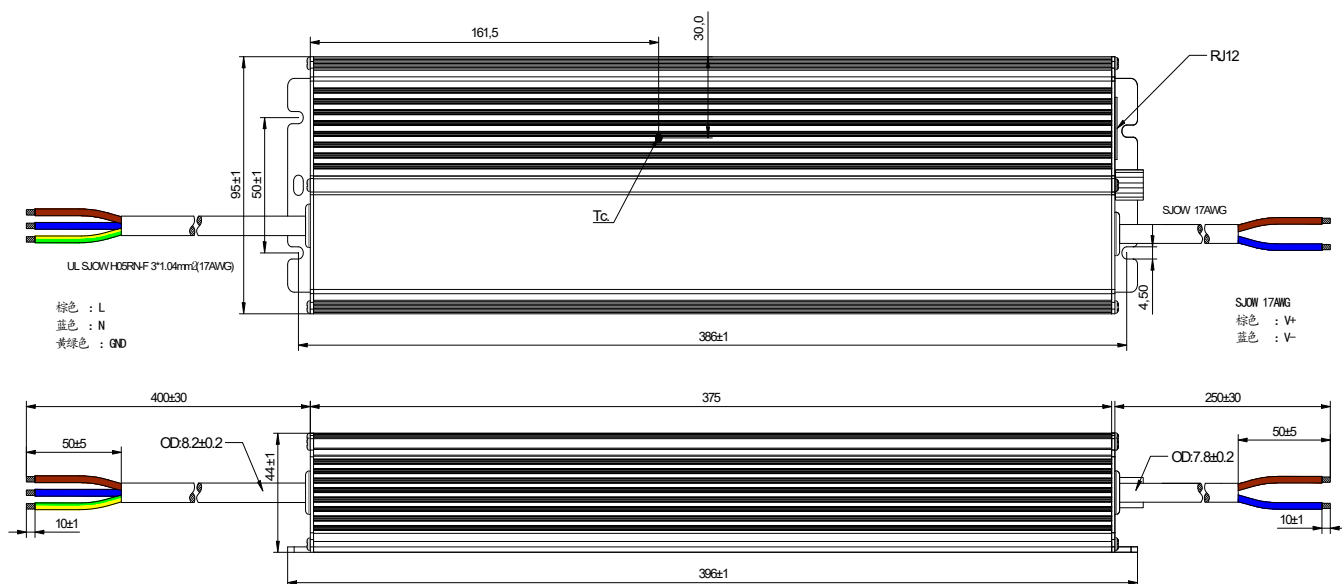
DL-750W-V428X-MXG



DL-750W-V56J-MXG



DL-750W-V428J-MXG



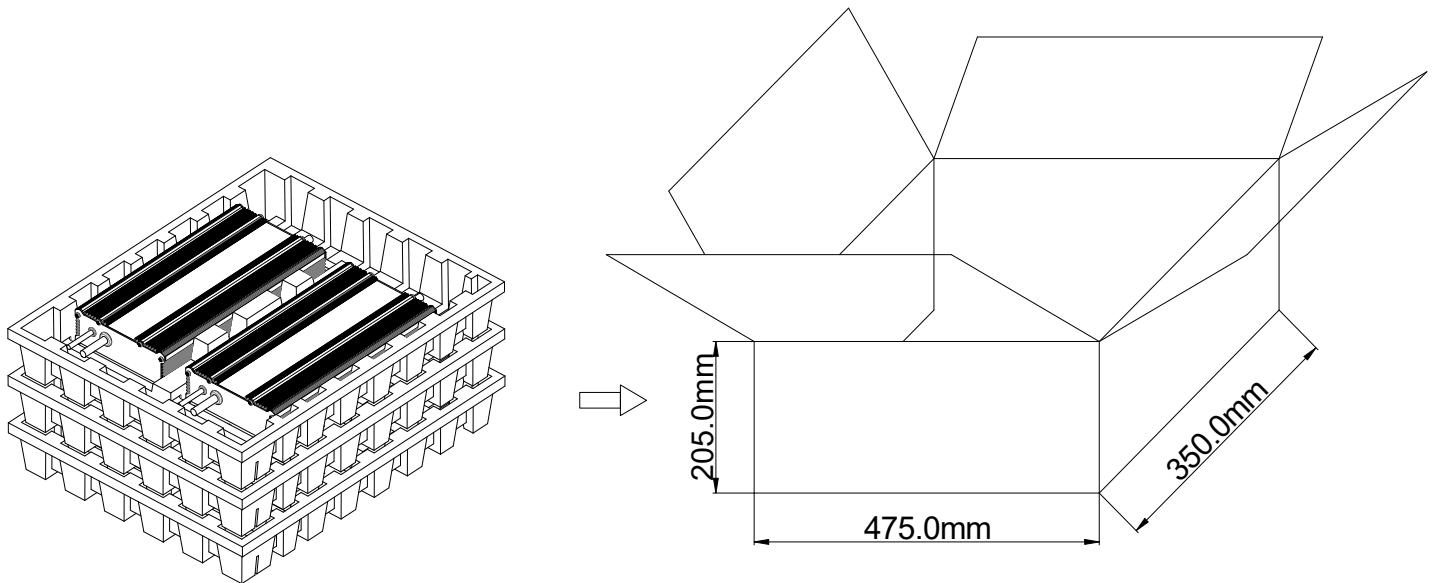
Weight

Weight

3.5kg

Packaging

BOX (mm)	L475*W350*H205
----------	----------------



Note: One Carton 3 layers and 2 pcs each layer, total 6pcs/carton.

Note:

1. According to the certificate obtained by the LED DRIVER, the LED DRIVER with the English label is sold in Europe, America and India.
2. The LED DRIVER with Chinese label is only used for China market.

Revise & Version

DATE	DESCRIPTION	REV.	CHECK
2026.8.31	Initial version.	V1.0	

MANUFACTRUER		
EDIT	CHECK	APPROVE

