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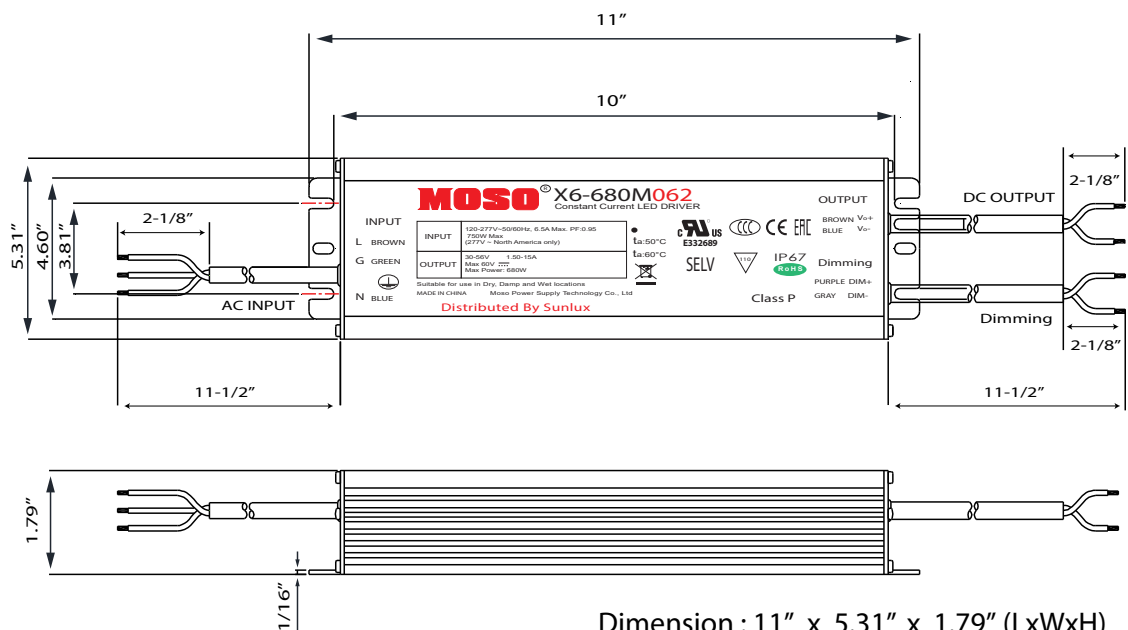


Product Features

- Universal input voltage / Full range: 90~305Vac
- Constant power design, output current programming adjustable
- M Types: Off-line programmable / Constant lumen output
- 3-in-1 dimmable: 0~10Vdc/PWM/Timer dimming (Dim-to-off)
- Output and dimming signal isolating
- Surge protection: 6KV Line-Line, 10KV Line-Earth
- Protections: SCP/OVP/OTP
- IP67 design for indoor and outdoor applications
- Metal case, suitable for dry, damp and wet locations
- 5 Years warranty
- Best use in, LED roadway lighting, industrial lighting, landscape lighting, etc.

Model N°	Max Output Power (W)	Output Volt. (Vdc)	Full Power Output Volt. (Vdc)	Full Power Current Adjustable (A)	Default Output Current Setting (A)	Typical Efficiency	Power Factor
X6-680M062	680W	30-56V	45.3-56V	12.15-15A	45.3V/15A	94%	0.96

Physical

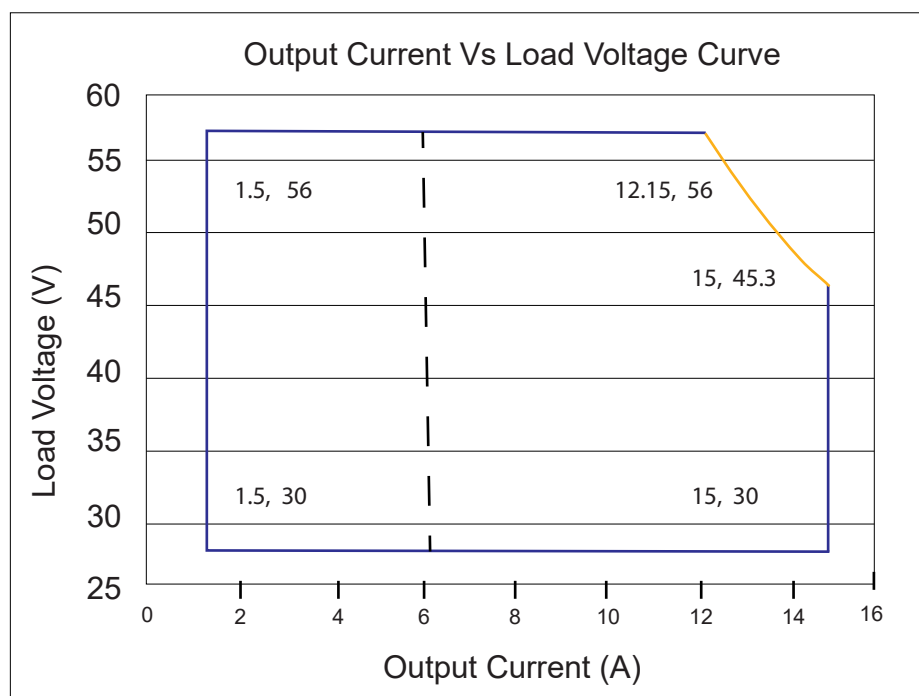


Dimension : 11" x 5.31" x 1.79" (LxWxH)

Weight : 7.05 ± 0.66 lbs



Operating Area



Note: The drivers are not allowed to work in overloaded condition, otherwise warranty will expire.

General Specifications

Parameter		Description			Notes
		Min.	Typ.	Max.	
Efficiency @120Vac Io: 15.0A		90%	92%	–	Measured at full load and 25°C - ambient temperature
Efficiency @230Vac Io: 15.0A		92%	93%	–	Measured at full load and 25°C - ambient temperature
Efficiency @277Vac Io: 15.0A		92%	93%	–	Measured at full load and 25°C - ambient temperature
Dielectric Strength	Input-Output	–	3750Vac	–	Maximum 5mA/60S
	Input-PE	–	1600Vac	–	
	Output-PE	–	1600Vac	–	
Grounding Resistance		–	–	0.1Ω	25A/60S, under 25°C ± 10°C ambient temperature
Insulation Resistance		10MΩ	–	–	Input-Output, Input-PE, Output-PE, 500Vdc/60S/25°C/70%RH
MTBF		–	200000Hrs	–	Telcordia SR-332, 100% load, & Ta = 25°C
Lifetime		–	50000Hrs	–	230Vac & 100% load, 75°C case temperature, refer to lifetime curve for details.
Ambient Temperature		-40°C	–	+45°C	230Vac&100% load
Operating Case Temp for Safety Tc_S		-40°C	–	+90°C	
Operating Case Temp for Warranty Tc_S		-40°C	–	+75°C	5 years warranty case temp. Humidity: 10% to 95% RH
Storage Temperature		-40°C	–	+85°C	Humidity: 5% to 100% RH
Net Weight		7.05 ± 0.66 Lbs/pc			
Dimensions		11" * 5.31" * 1.79" (L*W*H)			

Input Specifications

Parameter	Description			Notes
	Min.	Typ.	Max.	
Input Voltage	108Vac	120-277Vac	305Vac	
Input Frequency	47Hz	50/60Hz	63Hz	
Leakage Current	—	—	0.75mA	277Vac / 60Hz
Input AC Current	—	—	6.5A	100-277Vac & Full load
Inrush Current	—	—	38A	230Vac & Full load
Standby Power Consumption	—	—	0.5W	
Power Factor	0.97	0.99	—	120Vac, 50/60Hz, full load
	0.95	0.97	—	230Vac, 50/60Hz, full load
	0.92	0.95	—	277Vac, 50/60Hz, full load
THD	—	5%	10%	120-230Vac, 50-60Hz, 100% load
	—	—	20%	277Vac, 50-60Hz, 70%-100% load

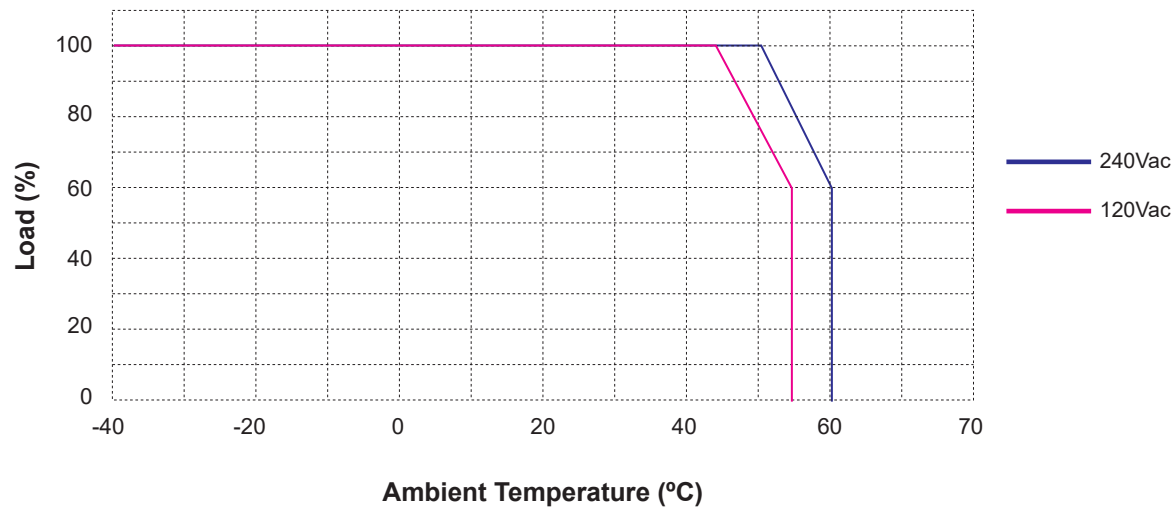
Output Specifications

Parameter	Description			Notes
	Min.	Typ.	Max.	
Output Current Tolerance	-5%	—	5%	
Output Current Setting Range with Constant Power (A)	1.5	—	15	
Total output Current Ripple (Pk-Pk)	—	5%	10%	20MHz BW, Full load & LED load, the ripple would be tiny different under LED load.
Starup Overshoot Current	—	—	10%	120~277Vac & 100% load
Line Regulation	-1%	—	1%	25°C± 10°C ambient temperature, input voltage changes from 100Vac to 277Vac
Load Regulation	-3%	—	3%	25°C± 10°C ambient temperature, input voltage 230Vac, load changes from 60% to 100%
Turn-on Delay time	—	1S	2S	120-277Vac, 100%, load 10-90%Vo

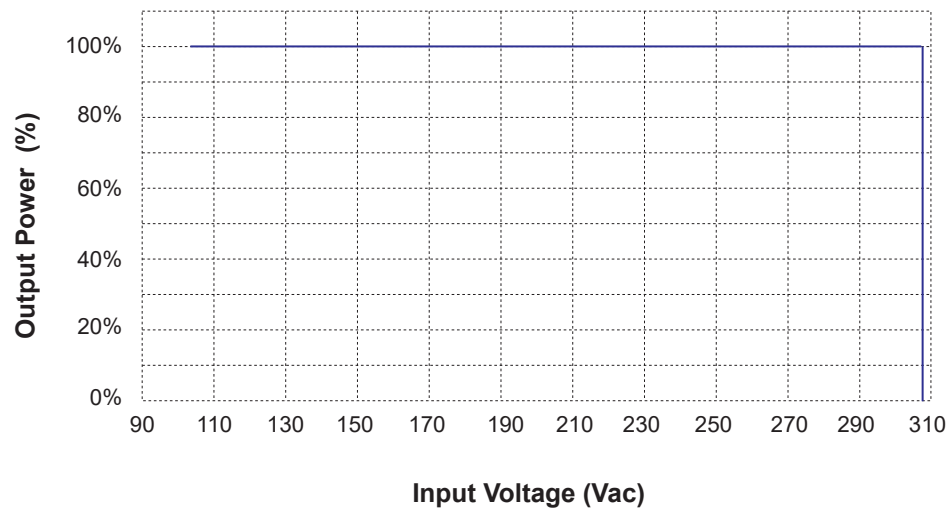
Dimming Specifications

Parameter		Description			Notes
		Min.	Typ.	Max.	
0~10V Absolute Maximum Voltage on the Vdim (+) Pin		—	10V	—	
0~10V Source Current on Vdim (+) Pin		—	0.2mA	0.4mA	
Dimming Output Range	X6-680M062	10%Imax	—	100%Imax	Imax = 15.0A
Recommended Dimming Range for 0-10V		0V	—	10V	Default 0-10V/PWM Dimming (0-10V, 0-9V, 0-5V, 0-3.3V Positive and Reverse Logic can be customized as request)
PWM_in high level		9.7V	—	10.3V	
PWM_in low level		0V	—	0.3V	
PWM_in frequency range		300Hz	—	2KHz	
PWM_in Duty Cycle		1%	—	99%	

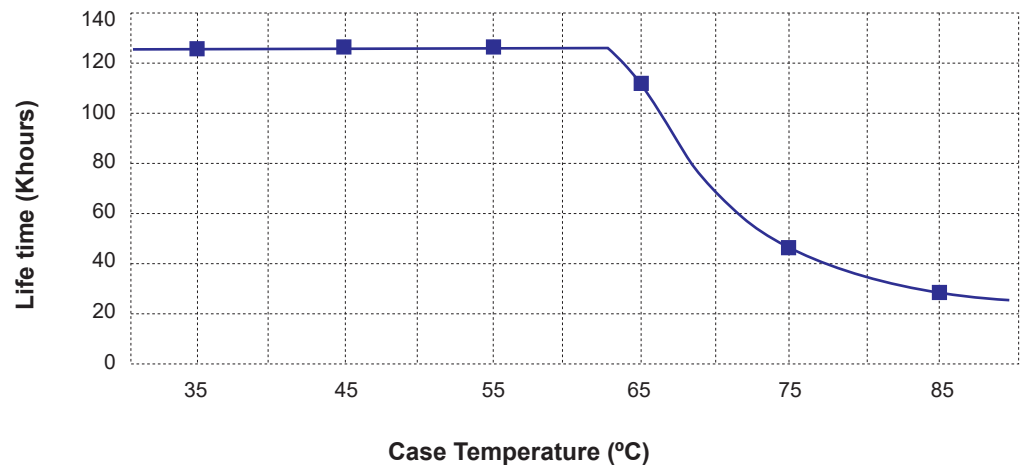
Derating Curve



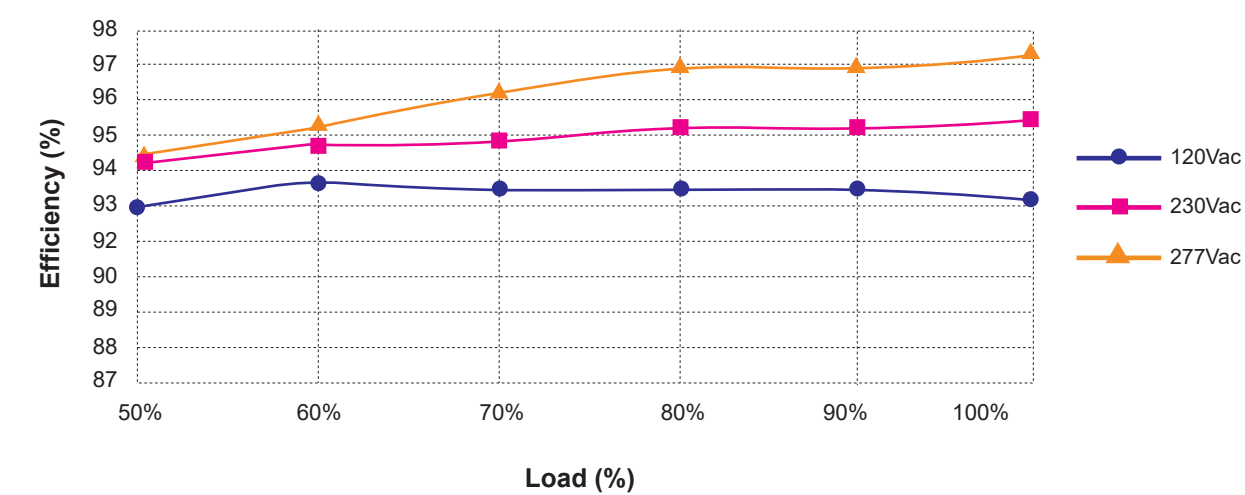
Output Power Vs Input Voltage



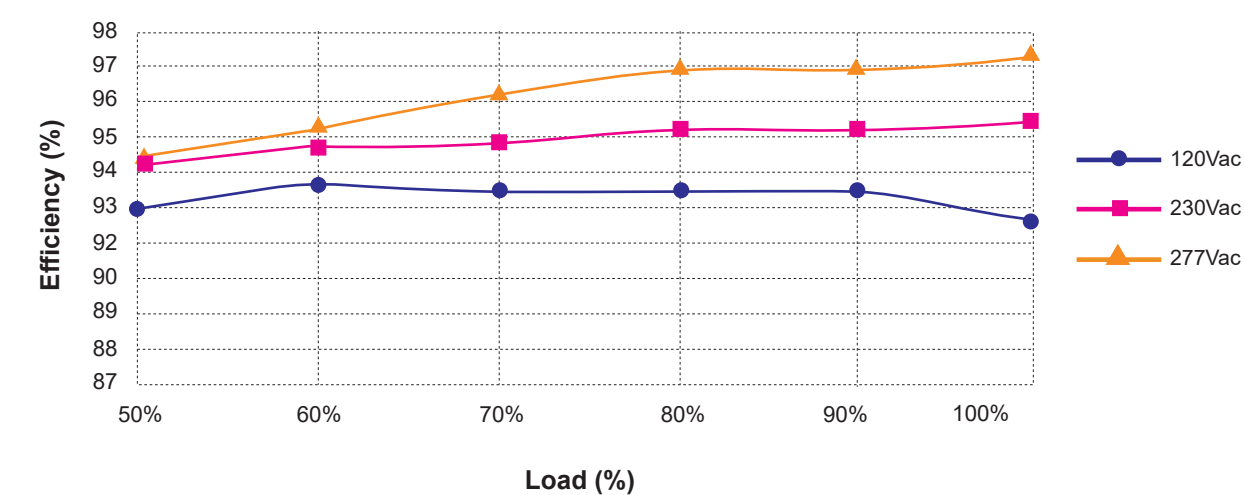
Lifetime Vs Case Temperature



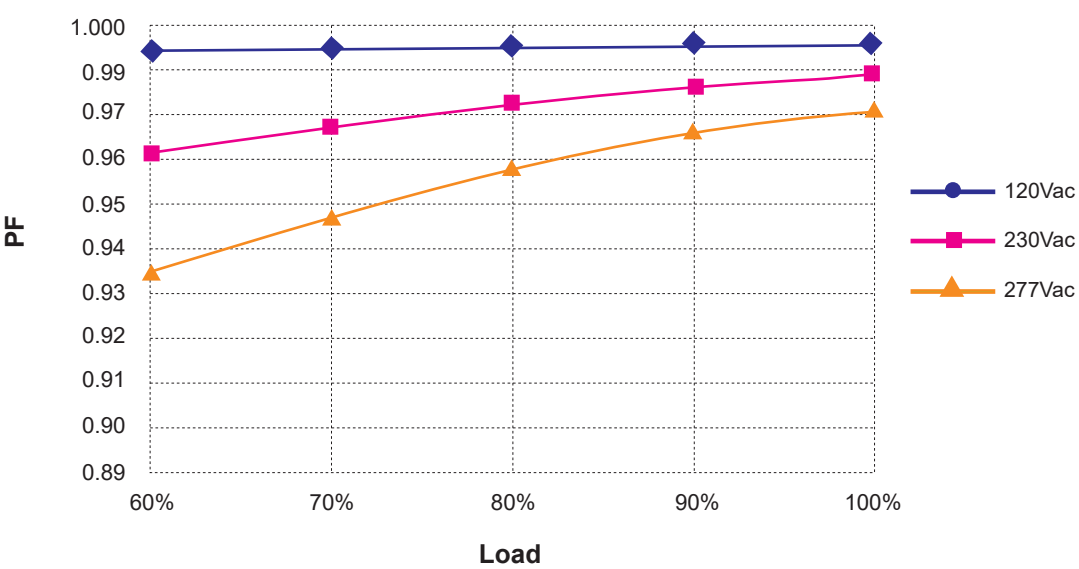
Efficiency Vs Load Io=12.15A



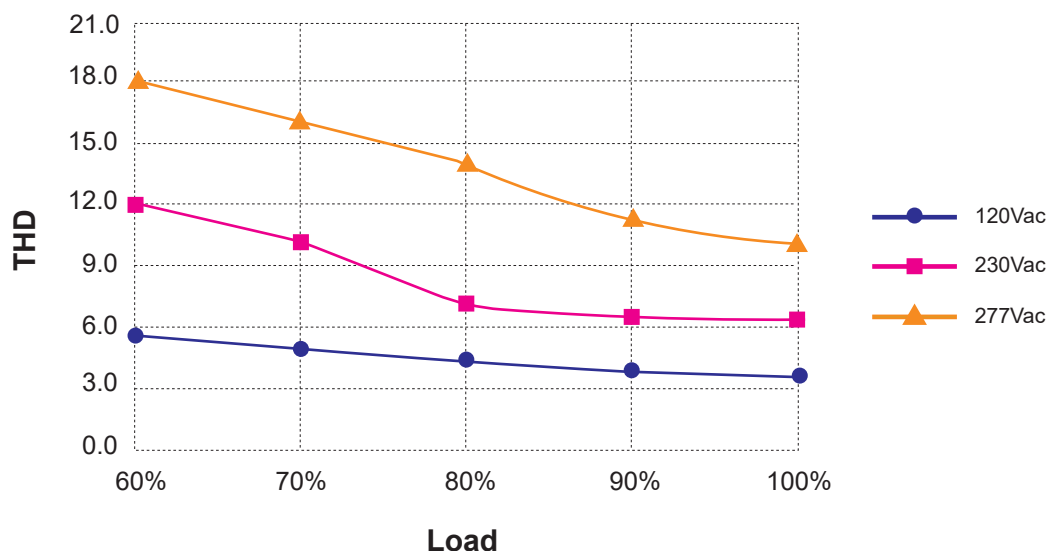
Efficiency Vs Load Io=15.0A



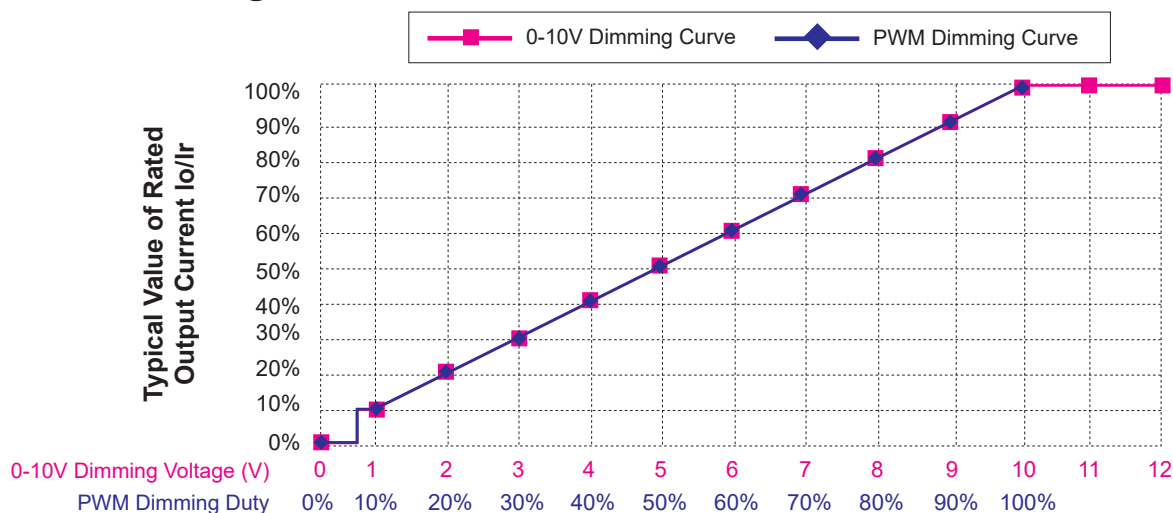
Power Factor Vs Load



Total Harmonic Distortion



0-10V/PWM Dimming Curve



Note: Dim to off model is realized by decreasing the output voltage, the power supply still has residual voltage when dim to off, so the start up voltage of the lamp should be higher than residual voltage

Protections

Parameter	Notes
Over Temperature Protection	Decreases output current, returning to normal after over temperature is removed. The max derating could met Max Temperature 85°C and Max Humidity 85%.
Short Circuit Protection	Hiccup mode and auto recovery. No damage will occur when any output is short-circuited. The output shall return to normal when the fault condition is removed.
Over Voltage Protection	Run into protection mode when output voltage exceeds limit, and return to normal when the fault is eliminated and restart the power supply.

- * Ensure the power has been cut off before making any connection.
- * All wiring and installation of this product is required to be manipulated by a professional

Safety Standards Approved

- USA
 - Category: UL
 - Standards: UL 8750
- Canada
 - Category: CUL
 - Standards: CSA C22.2 No.250.13
- Europe
 - Category: CE/ENEC
 - Standards:
 - EN61347-1
 - EN61347-2-13
 - EN62493
 - EN62384
- CB Countries
 - Category: CB
 - Standards
 - IEC61347-1
 - IEC61347-2-13
- China
 - Category: CCC
 - Standards:
 - GB19510.1
 - GB19510.14
- Australia
 - Category: SAA
 - Standards:
 - AS/NZS IEC 61347.2.13
 - AS/NZS 61347.1
- Russia
 - Category: EAC
 - Standards:
 - ГОСТ Р МЭК 61347-1-2011
 - ГОСТ IEC 61347-2-13-2013
 - ГОСТ IEC 62493-2014
 - СТБ EH 55015-2006
 - ГОСТ IEC 61547-2013
 - ГОСТ 30804.3.2-2013 (IEC 61000-3-2:2009)
 - ГОСТ 30804.3.3-2013 (IEC