

Product Specification

Product Name: 75W LED Driver
Product Model: MEP-075V057
Product Code: MS015091-N0
Rev. C.2

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Prepared By	Checked By	Approved By



Features

- ◆ Input Voltage: 100~240Vac;
- ◆ lout by potentiometer;
- ◆ Surge immunity: DM-4KV, CM-6KV;
- ◆ Protection: SCP, OVP, OTP;
- ◆ IP65

Application

- ◆ LED street lighting, industrial lighting and landscape lighting.

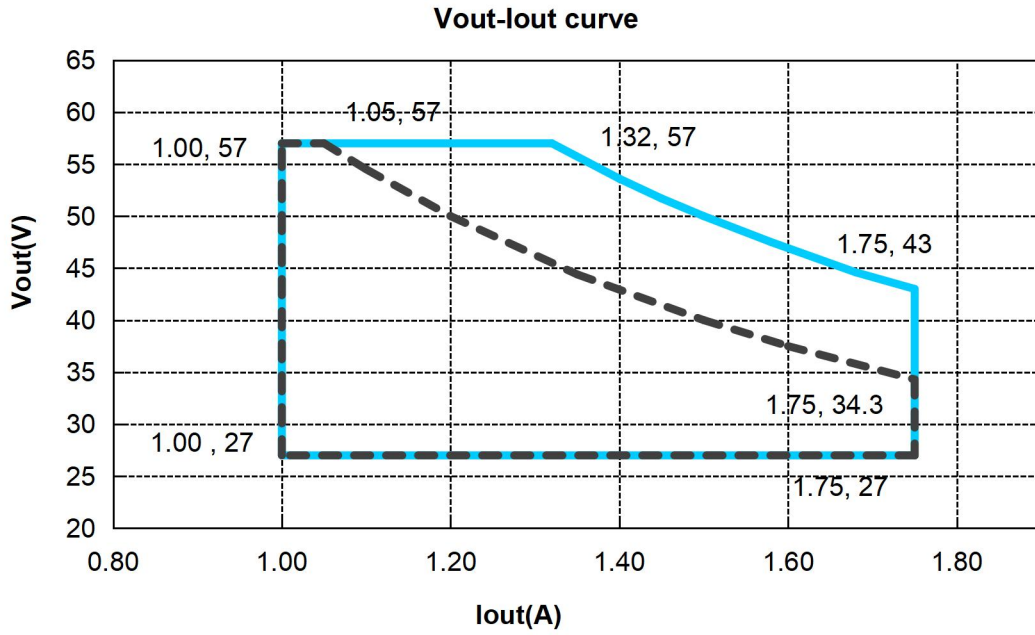
DESCRIPTION

The MEP series is a constant-current LED power supply with input voltage range of 100 ~ 240Vac, high power factor and low THD. With input undervoltage protection, lightning protection, output overvoltage protection, short circuit protection, over temperature protection, to ensure the high reliability of products. This series has compact structure and is specially designed for explosion-proof lamp, mine lamp

Models

Model Number	Input voltage range(Vac)	Output Voltage Range (Vdc)	Full-power lout (A)	Default lout(A)	Typical Efficiency	Typical THD	Typical PF	
							120Vac	230Vac
MEP-075V057	100~240	27-57	1.32-1.75	27~43V/ 1.75A	90%	5%	0.98	0.96

Vout-lout curve



Note: 60W is suitable for the dotted line area, 75W includes the entire solid line area

INPUT SPECIFICATION

Parameter	Min.	Typ.	Max.	Notes
Input Voltage	90Vac	100~240Vac	264Vac	Please refer to the Derating curve
Input Frequency	47Hz	50/60Hz	63Hz	
Leakage Current	-	-	0.75mA	240Vac/50Hz
Input AC Current	-	-	0.9A	100~240Vac & 100% load
Inrush Current(I _{2t})	-	-	75A	230Vac input, Ta=25°C (cold start)
Power Factor	0.97	0.98	-	120Vac/60Hz, 80% Load
	0.95	0.96	-	230VAC/50Hz, 100% Load
THD	-	5%	15%	120~240Vac, 80%–100% Load

OUTPUT SPECIFICATIONS

Parameter	Min.	Typ.	Max.	Notes
Output Current Tolerance	-8%	-	8%	Full load
Total Output Current Ripple(pk-pk)	-	10%	15%	Full load & LED Load, ripple is different with difference LED load. 20MHz BW
Startup Overshoot Current	-	-	10%	180~240Vac, full load, LED load 120~176Vac, 80% full load, LED load
No Load Output Voltage			75V	
Standby power consumption	-	-	5W	
Line Regulation	-	-	±1%	25°C±10°C ambient temperature, input voltage changes from 120Vac to 240Vac.
Load Regulation	-	-	±3%	25°C±10°C ambient temperature, 230Vac input, load changes from 60% to 100%.
Turn-on Delay Time	-	1S	2S	120Vac, 80% load
	-	0.5S	1S	230Vac, 100% load

GENERAL SPECIFICATION

Parameter	Min.	Typ.	Max.	Notes
Efficiency@120Vac	86%	88%	-	Measured at full load and 25°C ambient temperature
Efficiency@230Vac	88%	90%	-	
Dielectric Strength input to output	-	3750Vac	-	60S, current is less than 10mA
Dielectric Strength input to PE	-	1600Vac	-	60S, current is less than 10mA
Dielectric Strength output to PE	-	1600Vac	-	60S, current is less than 10mA
Grounding Resistance	-	-	0.1Ω	Under 25°C±10°C ambient temperature, pass 25A current for 60s
Insulation Resistance	10MΩ	-	-	500Vdc/60S/25°C/70%RH
MTBF	-	200000 hours	-	25°C, 230Vac, 80%load (MIL-HDBK-217F)
Lifetime	-	50000 hours	-	230Vac&100%load, 70°C Tcase
Operating Case Temperature for Safety T _{cs}	-40°C	-	85°C	
Operating Case Temperature for Warranty T _{cw}	-40°C	-	70°C	5 years warranty Humidity: 10% to 95% RH
Storage Temperature	-40°C	-	+85°C	Humidity: 10% to 95% RH
Dimensions (L×W×H)mm	∅ 90×38mm			
Net Weight	440±50g/PCS			
Package	L390xW250xH250mm			

Note: All specifications are tested by Cree XLamp XP-G2 and typical measured at 220Vac and 25°C unless otherwise stated.

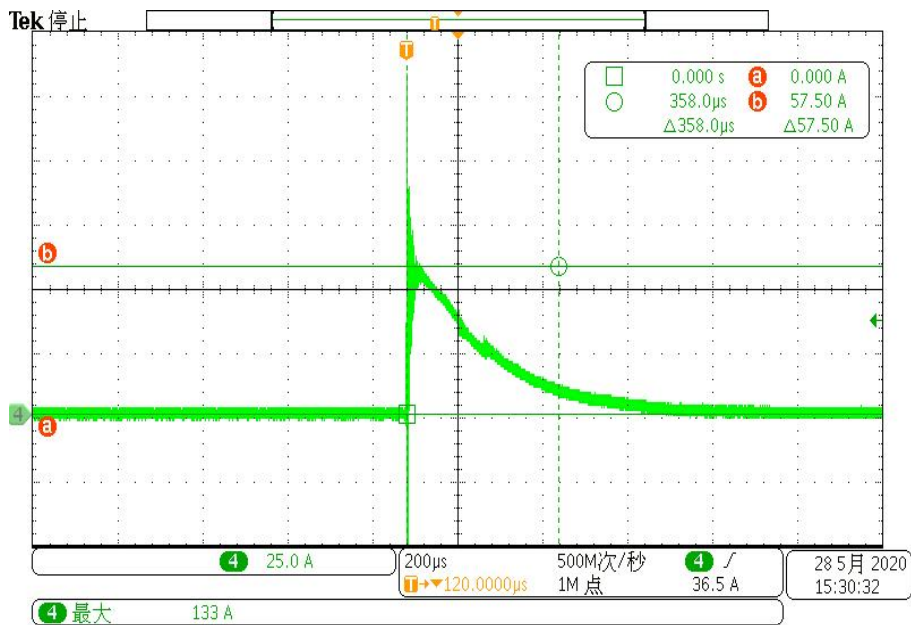
SAFETY STANDARDS

Safety Category	Country / Territory	Standards
CCC	China	GB19510.1, GB19510.14
CE	Europe	EN61347-1, EN61347-2-13
CB	CB countries	IEC61347-1, IEC61347-2-13
UL	UAS	UL 8750, UL 1310(Class 2 Power Units), UL 1012
CUL	Canada	CSA C22.2 No.107.1-01, CSA C22.2 No.223-M91 (Power Supplies With Extra-Low-Voltage Class 2 Outputs)
KC	South Korea	K61347-1, K61347-2-13, K62384
PSE	Japan	J61347-1, J61347-2-13
SAA	Australia	AS/NZS IEC 61347-2-13
		AS/NZS 61347.1

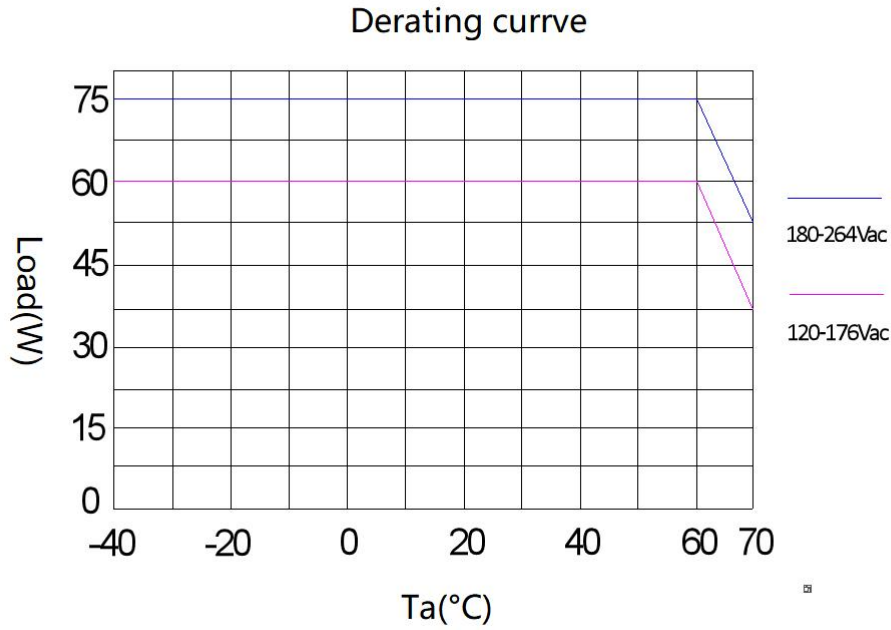
EMC COMPLIANCE

EMC Category	Country / Territory	Standards
CCC	China	GB 17743, GB 17625.1
CE	Europe	EN 55015, EN 61000-3-2, EN 61000-3-3
		EN61000-4-2,3,4,5,6,8,11
		IEC 61547
KC	South Korea	K61547
		K00015
PSE	Japan	J55015
FCC	USA	FCC part 15

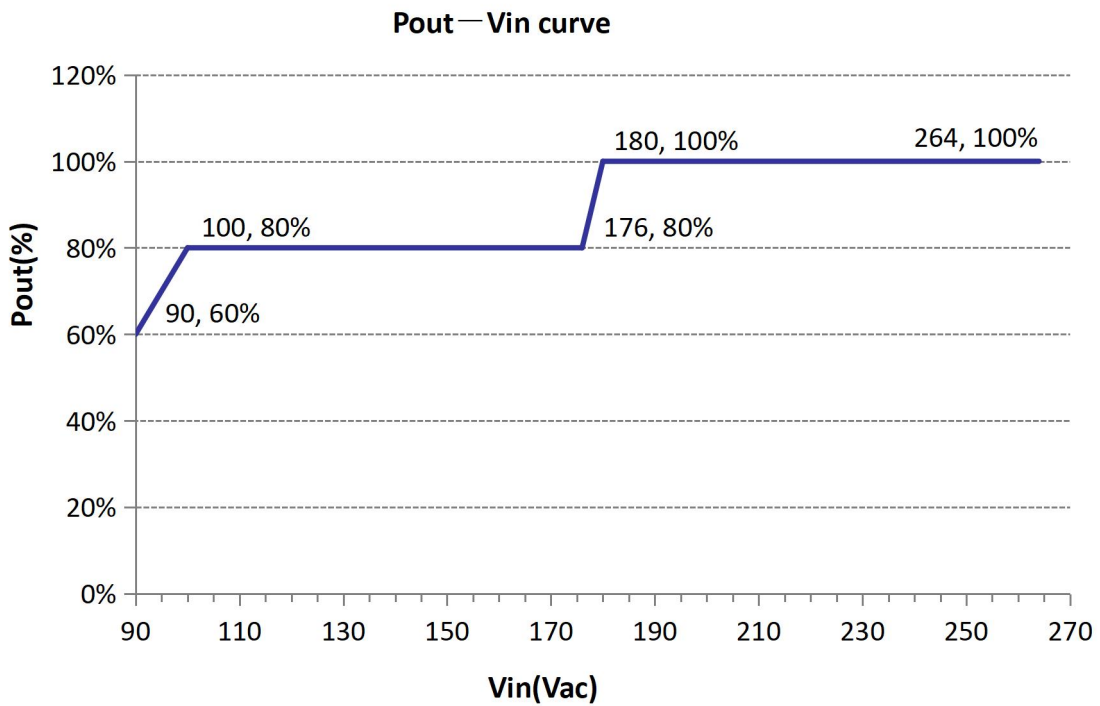
INRUSH CURRENT WAVEFORM



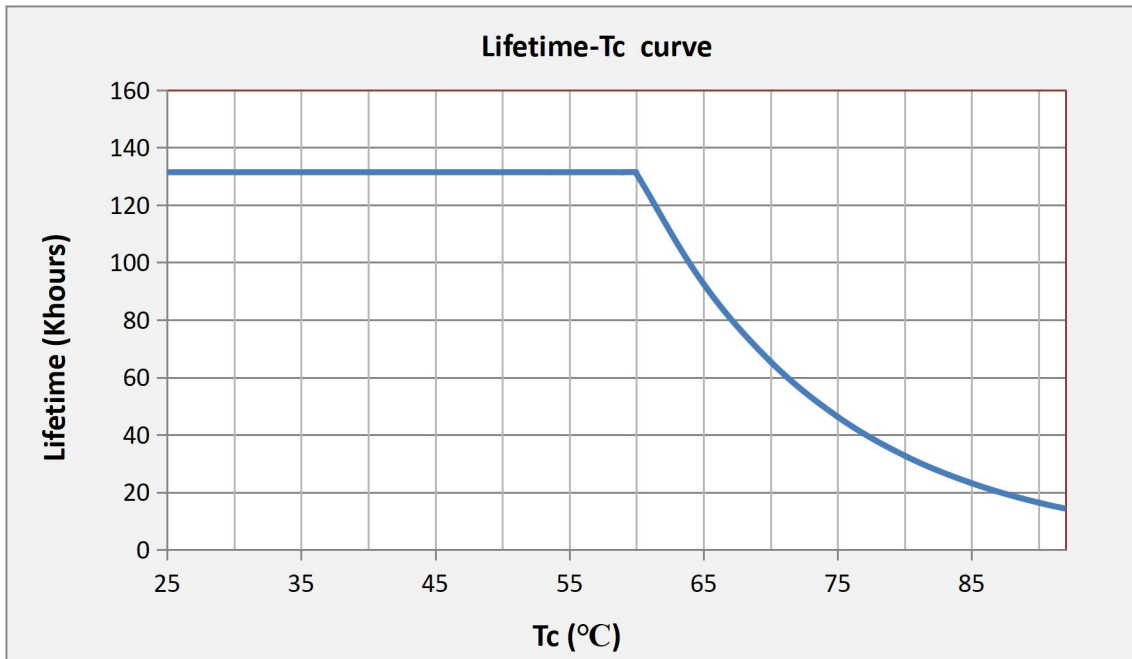
DERATING CURVE



OUTPUT POWER VS INPUT VOLTAGE

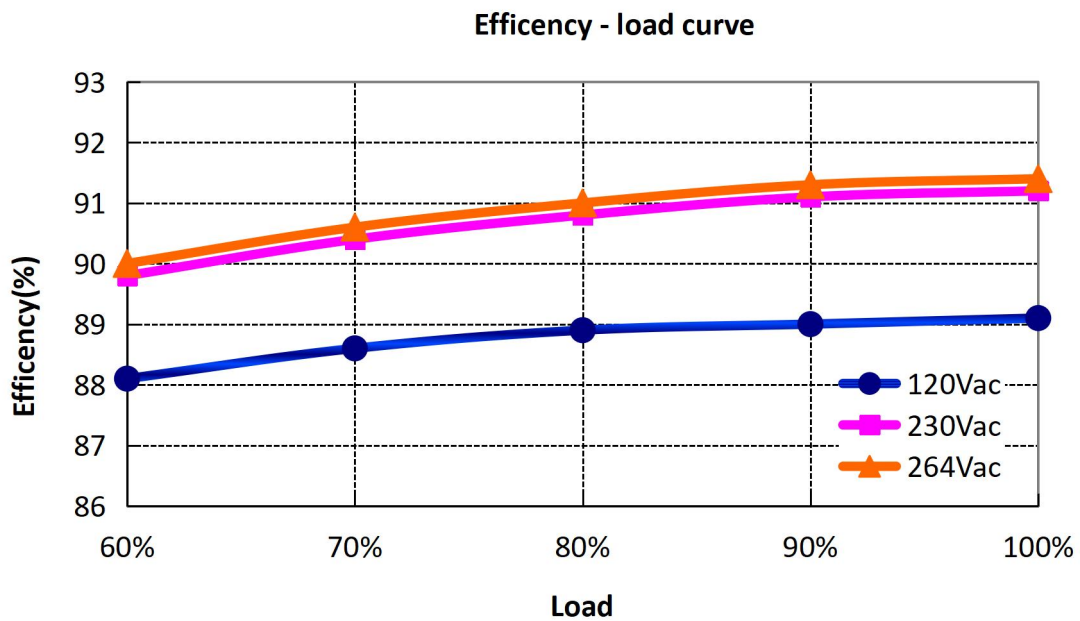


LIFETIME VS CASE TEMPERATURE

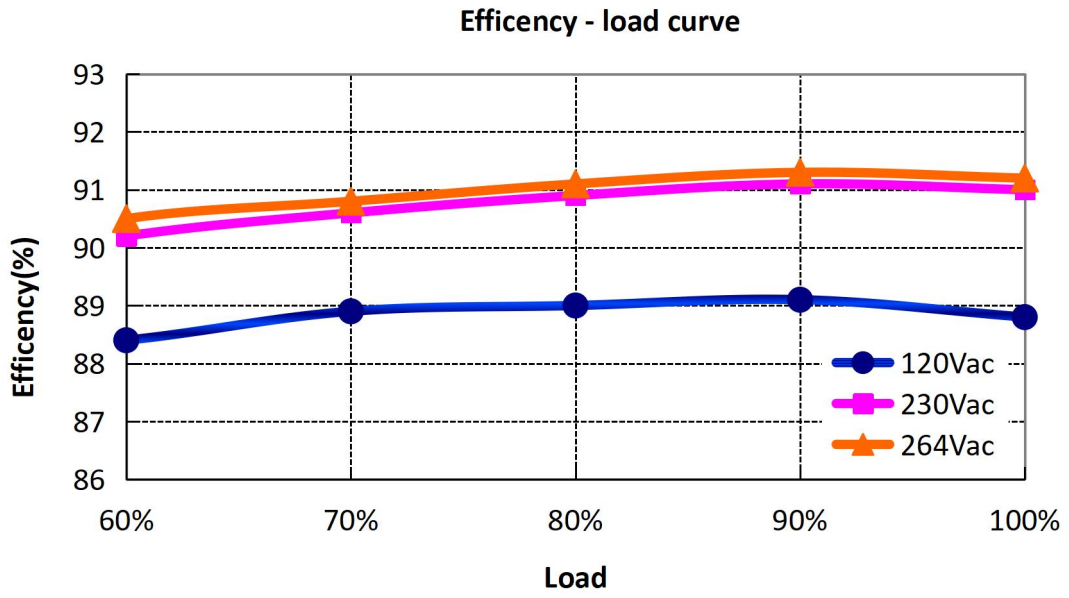


EFFICIENCY VS LOAD

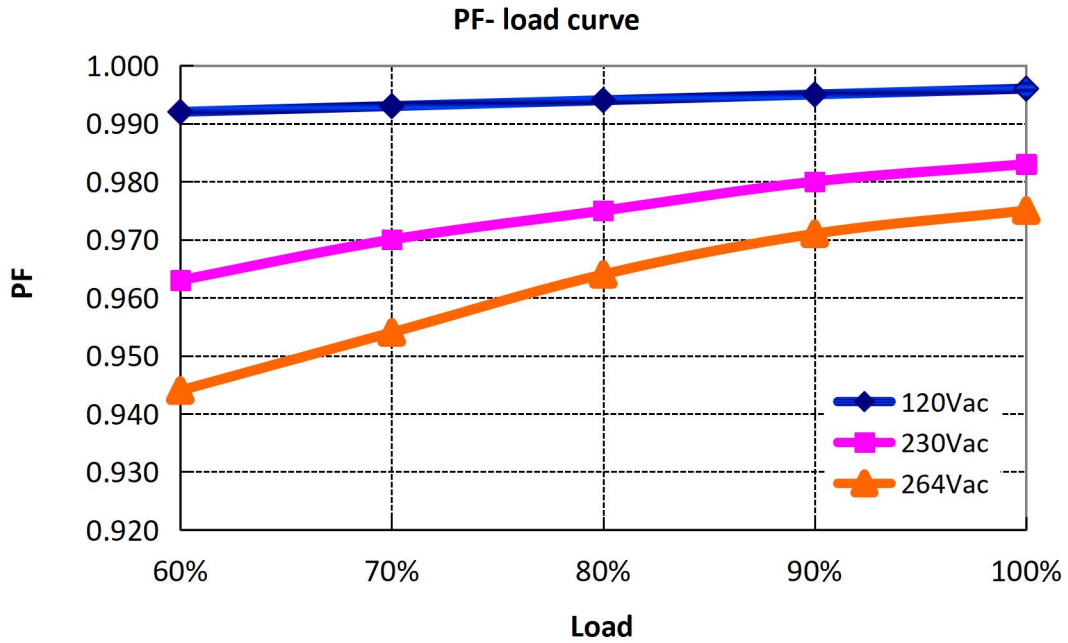
Io=1.75A



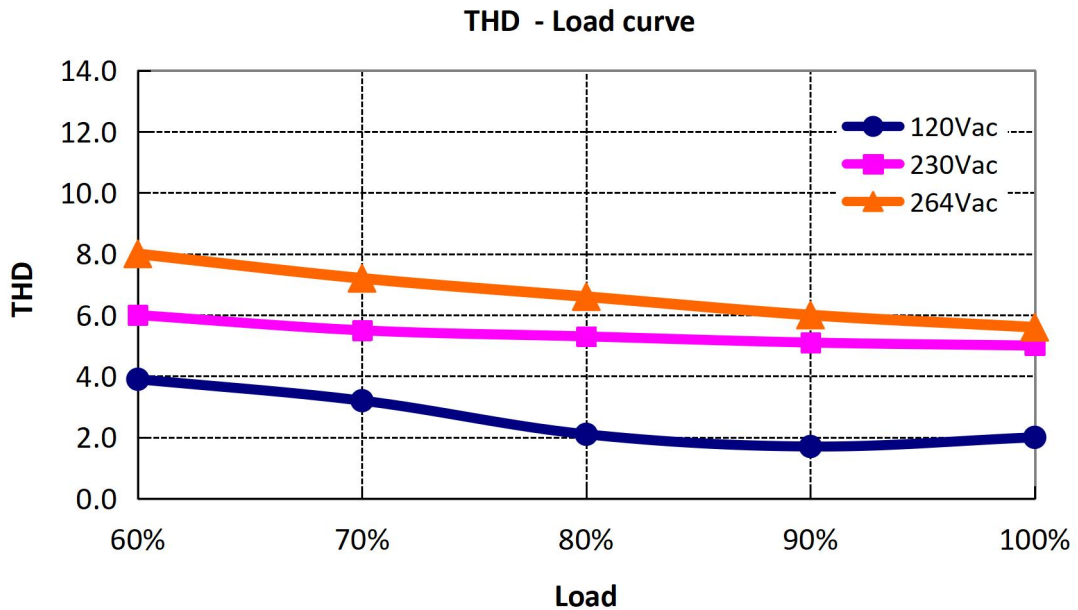
$I_o=1.32A$



Power factor curve



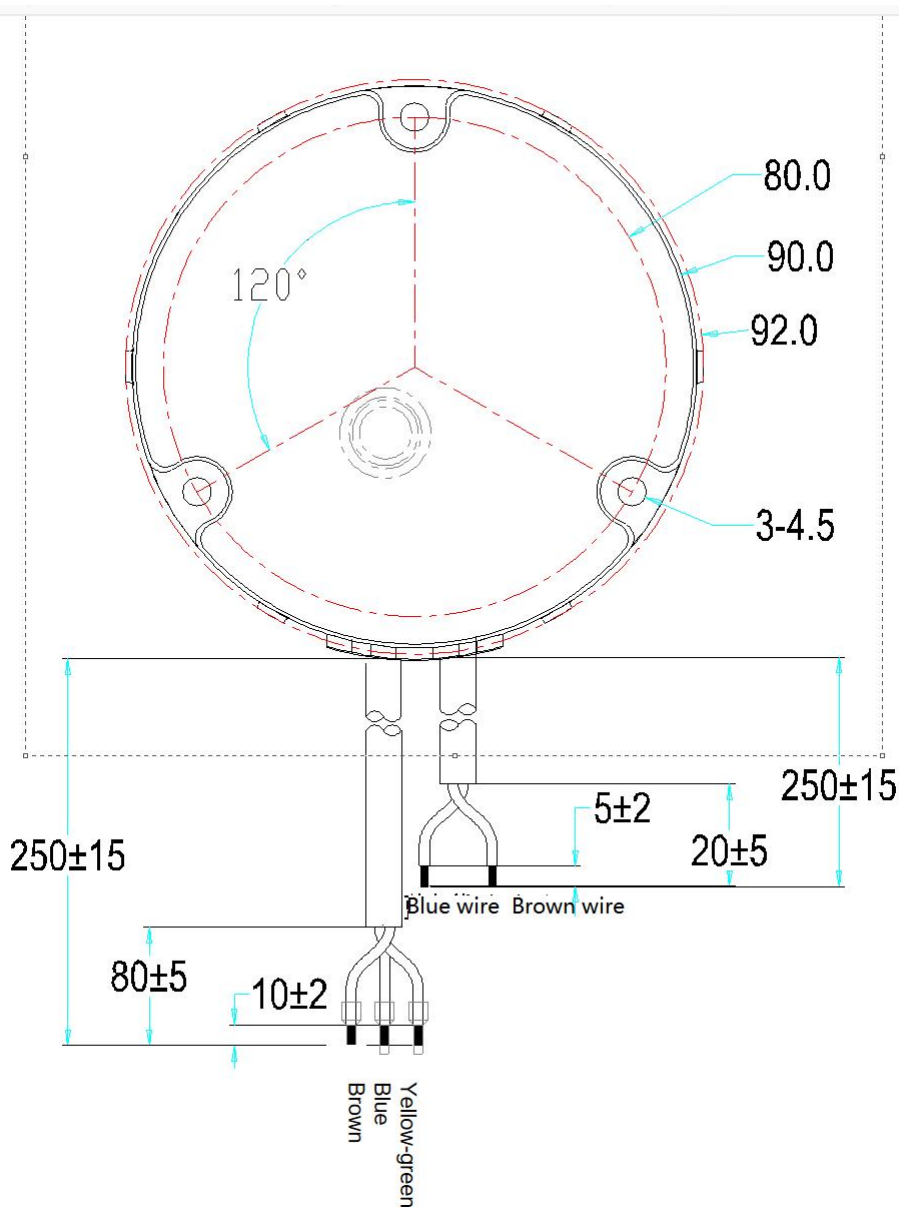
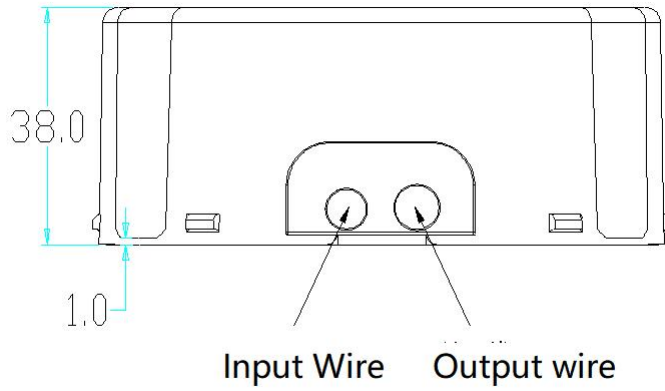
TOTAL HARMONIC DISTORTION



PROTECTION

Parameter	Notes
Over Temperature Protection	Decreases output current, returning to normal after over temperature is removed.
Short Circuit Protection	The input power shall decrease when the output rail short, the power supply shall not be damaged.
Over Voltage Protection	Run into protection model when output voltage exceeds limit, and return to normal when the fault

MECHANICAL OUTLINE



Wire	Specification	Note
Input wire	3C+VDE 3*1.0mm ² L=250±15mm	
Output wire	3C+VDE 2*1.0mm ² L=250±15mm	

