MU100CxxxAQ_0-10V Series General - Outdoor

DWG NO. : MSSD-5727 A0

■ Features

- · Input voltage: 90-305VAC
- · Built-in active PFC function: 0.98 Typ.
- · High efficiency: 92% Typ.
- · IP67 design for indoor or outdoor installations
- · High surge immunity
- · Support 0-10V
- · Compliance to worldwide safety regulations for lighting
- · Suitable for dry/damp locations

■ Specification

Model (MU100CxxxAQ_0-10V)		035	045	053	070	085	105	140	175	210	245	280	315	350	420
Input	Efficiency(120Vac)(Typ.)Note.1	90.0%	90.0%	90.0%	89.0%	89.0%	89.0%	89.0%	89.0%	89.0%	88.0%	88.0%	88.0%	88.0%	88.0%
	Efficiency(230Vac)(Typ.)Note.1	92.0%	92.0%	92.0%	91.0%	91.0%	91.0%	91.0%	91.0%	91.0%	90.0%	90.0%	90.0%	90.0%	90.0%
	Voltage Range (V)Note.2	90～305Vac, OR 127~ 430Vdc (Derating may be need under low inputs, Refer to 'Derating Curve')													
	Voltage Rate (V)Note.2	100Vac-277Vac													
	Frequency Range (Hz)	47~63													
	Power Factor(Typ.)	0.98 (Typ.) with 80%-100% load,at 120Vac													
		0.95 (Typ.) with 80%~100% load,at 230Vac													
		>0.9 with 80%~100% load,at 277Vac													
	THD(Typ.)	<20% with 80%～100% load, at 100Vac~277Vac													
	AC Current(Typ.)	1.2A at 100VAC input, 0.6A at 230VAC													
	Inrush Current(Max.)	65A at 230Vac input 25℃ Cold Start (time wide=500uS, measured at 50% Ipeak,Not applicable for the inrush current to Noise Filter for less than 0.2ms)													
	Leakage Current(Max.)	1mA at 277Vac/60Hz													
Output	DC Voltage (V)	286	222	189	143	118	95	71	57	48	41	36	32	28	24
	Rated Current(mA)	350	450	530	700	850	1050	1400	1750	2100	2450	2800	3150	3500	4200
	Voltage Range(V)	143~286	111~222	94~189	71~143	59~118	47~95	35~71	28~57	24~48	20~41	18~36	16~32	14~28	12~24
	Rated Power (W)	100	100	100	100	100	100	100	100	100	100	100	100	100	100
	Ripple&Noise Current(Typ.)	<10%((PK-AV) /AV) with LED default mode and full load)													
	Current Tolerance	0.05													
	Line Regulation	0.01													
	Load Regulation	0.03													
	Current ADJ. Range	-													
	Turn on delay Time	<3s, at 120Vac; <1.5s, at 277Vac													
Protection	Over Voltage(V)	Protection type : Hiccup mode.The power supply shall be self-recovery when the fault is removed.													
	Short Circuit	Protection type : Recovers automatically after fault condition is removed.													
	Over Temperature	Protection type : The power supply shall return to normal operation only after the power is turn-on again.													
Environment	Operating Temp.	-40~+70℃(Refer to 'Derating Curve')													
	Tc	90℃ max													
	Operating Humidity	20~95%RH													
	Storage Temp., Humidity	-40~+85℃ , 10-95%RH													
	Temp. Coefficient	0.03%/℃ (0~50℃)													
	Vibration	10-55-500Hz, 2G(10~55Hz),5G(55~500Hz) 1 octave/minute, period for 1hour each along X、Y、Z axes													
Safety & EMC	Safety Standard	UL 8750,UL1012,IEC61347-1,IEC61347-2-13													
	Withstand Voltage	I/P-O/P:3.75KVAC I/P-FG:1.875KV O/P-FG:1.5KV													
	Isolation Resistance	I/P-O/P ,I/P-FG,O/P-FG:100M Ohms/500VDC/25℃/70%RH													
	EMC Emission	EN55015/FCC Part 15 Class B，EN61000-3-2 Class C，EN61000-3-3													
	EMC Immunity	EN61000-4-2,3,4,5,6,8,11，EN61547（Surge L,N-FG 6KV，L-N 4KV）													
Others	MTBF	300,000 Hours,measured at full load,25℃ ambient temperature													
	Lifetime	50,000 Hours at Tc 75℃(Refer to"Life Time VS. Tcase (Ref.)")													
	Dimension	221 x 67.5 x 37 (mm) (LxWxH)													
	Weight	0.95kg													

Note.1: Measured at full load and steady-state temperature in 25℃ ambient(Efficiency will be about 2% lower if measured immediately after startup); Note. 2: Derating may be needed under low input voltages , Please Refer to 'Derating Curve' ; Note. 3: All parameters NOT specially mentioned are measured at 230VAC input , rated load and 25℃ of ambient temperature ;

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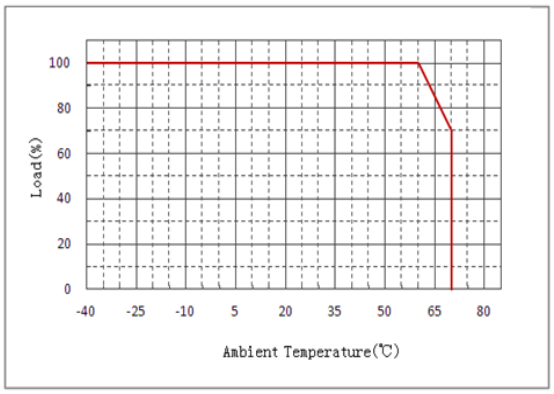
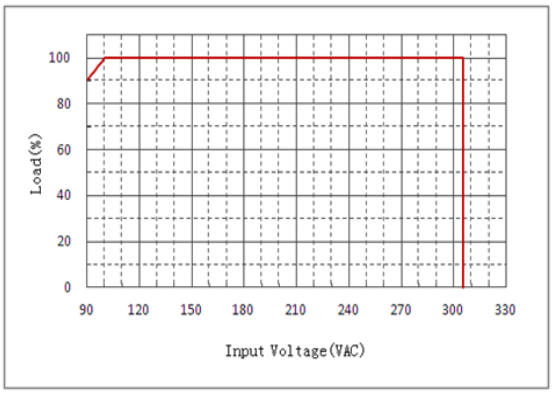
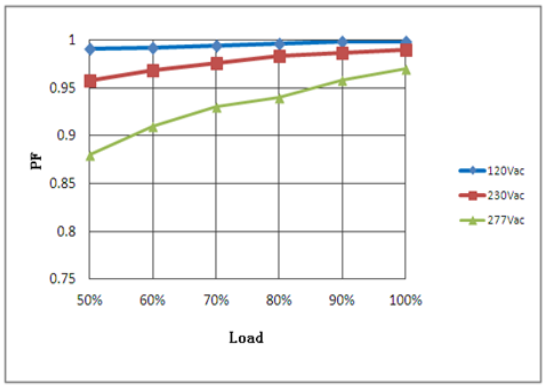
Derating Curve

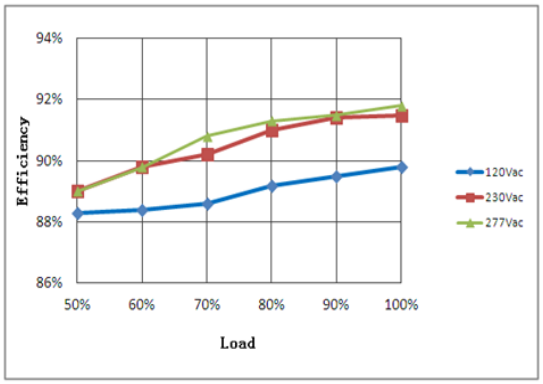




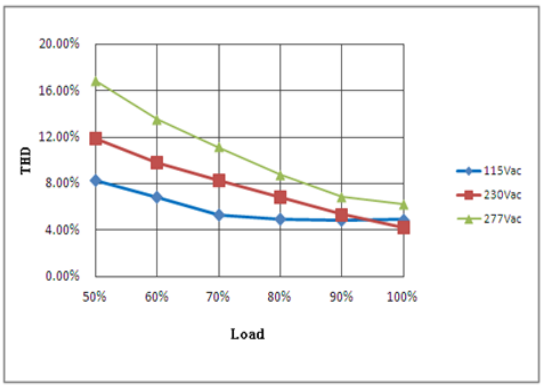
Power Factor VS. Load Curve



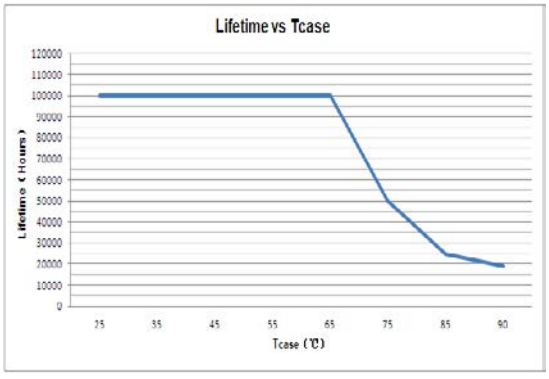
Efficiency VS. Load Curve



THD Curve



Life Time VS. Tcase (Ref.)



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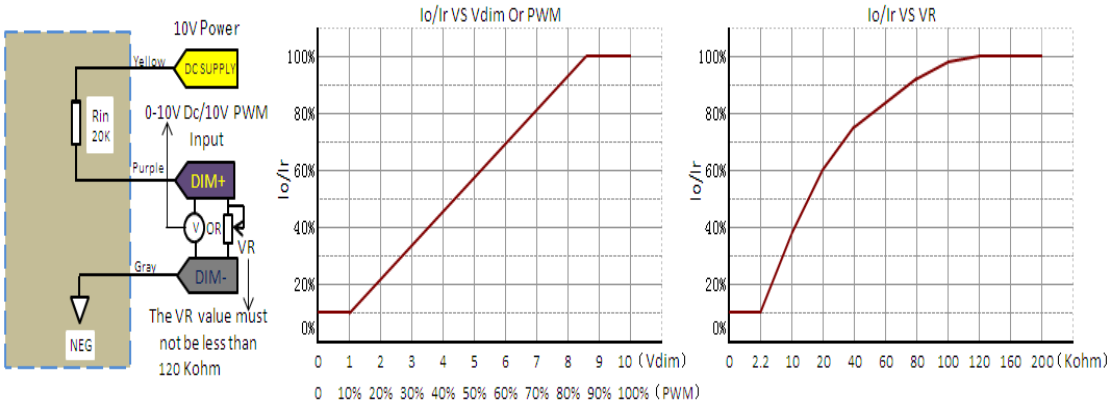
Dimming function description:

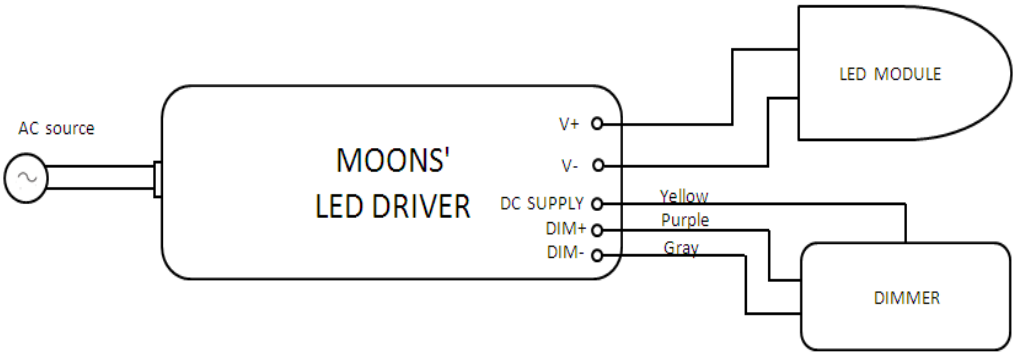
1.The dimming control may be operated from an input signal of 0(1)-10 Vdc / 10V PWM（Frequency range:500Hz to 5KHz,Duty:0-100%）.

2.With one external variable resistor,the VR value must not be less than 120Kohm.

Dimming module diagram and dimming curve:



Dimming connection diagram:



Notes:

1.Io is actual output current with dimming control signal and Ir is rated output current.

2.The dimming control signal can be operated output current from 100% to 10% Ir,output voltage must be maintained above 50% of the rated output voltage.

3.Do not connect dimming wire to the output;otherwise,the LED driver can not work normally.

4.The dimming signal is allowed to be less than 1V/10% PWM ,the output current can be maintained 10% Ir.

(about on/off function specification ,please contact MOONS for details).

Dimming Control Module Parameter(On secondary side)

Parameter	Min.	Typ.	Max.	Notes
DC supply output voltage	8V	10V	12V	
DC supply output source current	0 mA	-	10mA	
Absolute maximum voltage on the DIM+	-2V	-	10V	
Source current on the DIM+	0 mA	-	0.5mA	
Value of Rin (the resistor inside the LED driver which locate between the DIM+ and the DC Supply）	19.8k	20k	20.2k	

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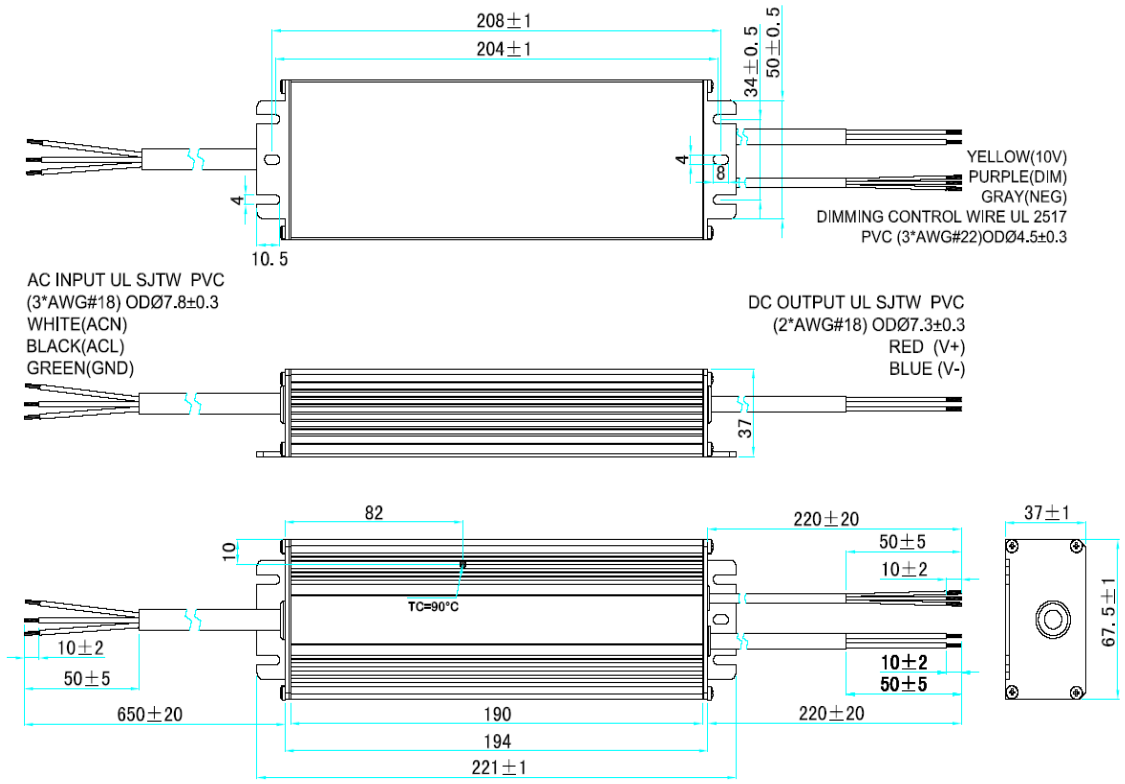
■ Mechanical Specification

Dimensions (Unit: mm)



RoHS Compliance:

Our products comply with the European Directive 2002/95/EC, calling for the elimination of lead and other hazardous substances from electronic products.

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