



■ **Features**

- Input voltage: 90-305VAC
- Built-in active PFC function: 0.99 Typ.
- High efficiency: 91% Typ.
- IP67 design for indoor or outdoor installations
- High surge immunity
- Support 0-10V / 10V PWM
- Compliance to worldwide safety regulations for lighting
- Suitable for dry/damp locations



■ **Specification**

Model (MU060CXXXAQ_0-10V)		035	045	053	070	085	105	120	140	175	210	245	280	300	315	350	375	420	500
Input	Efficiency(120Vac)(Typ.) _{Note.1}	88%	88%	88%	87%	87%	87%	87%	86%	86%	86%	86%	85%	85%	84%	84%	84%	83%	83%
	Efficiency(230Vac)(Typ.) _{Note.1}	91%	91%	91%	90%	90%	90%	90%	89%	89%	89%	89%	88%	88%	87%	87%	87%	86%	86%
	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.)	0.99 (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.)	<15% with 80%~100% load, at 100Vac~277Vac																	
		<20% with 50%~100% load, at 100Vac~277Vac																	
	AC Current(Typ.)	0.8A at 100VAC input, 0.4A at 230VAC																	
Output	Inrush Current(Max.)	50A 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.)	0.75mA at 277Vac/60Hz																	
	Voltage range (V)	170	134	113	86	71	58	50	43	35	29	25	21	20	19	17	20	14	12
	Rated Current(mA)	350	450	530	700	850	1050	1200	1400	1750	2100	2450	2800	3000	3150	3500	3750	4200	5000
	Rated Power (W)	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60
	Voltage ADJ. Range (V)	85-170	67-134	56~113	43~86	36~71	29~58	20-50	21~43	17~35	14~29	12~25	11~21	10~20	9~19	8~17	10~20	7~14	6~12
	Ripple&Noise Current(Typ.)	≤10%((PK-AV)/AV) with LED default mode and full load)																	
	Current Tolerance	±5%																	
	Line Regulation	±1%																	
	Load Regulation	±3%																	
Protection	Current ADJ. Range	-																	
	Turn on delay Time	<2s, at 120Vac; <1s, at 277Vac																	
	Over Voltage(V)	184	146	119	95	80	66	58	50	42	36	31	27	26	25	23	26	20	18
	Over Current	Protection type: Voltage limiting.output will not exceed the upper limit voltage , recovers automatically after fault condition is removed.																	
	Short Circuit	Protection type: Constant current limiting.																	
Environment	Over temperature	Protection type : Decrease output current . When TC reaches 105±10℃ , the output current decrease to 50% rate value until the TC reaches 75±15℃																	
	Operating Temp.	-40~+70℃(Refer to 'Derating Curve')																	
	Tc	90℃ max																	
	Operating Humidity	20~95%RH																	
	Storage Temp., Humidity	-40~+80℃ , 10-95%RH																	
	Temp. Coefficient	0.03%/℃ (0~50℃)																	
Safety & EMC	Vibration	10-500Hz,5G 12min/cycle , period for 72min each along X、 Y、 Z axes																	
	Safety Standard	UL 8750, UL1012, EN61347-1, EN61347-2-13, GB19510.1;GB19510.14																	
	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 , EN61000-3-2 Class C, EN61000-3-3																	
Others	EMC Immunity	EN61000-4-2,3,4,5,6,8,11 (Surge L,N-FG 6KV, L-N 4KV) , EN61547																	
	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	177 x 67.5 x 37 mm (LxWxH)																	
Weight		0.75kg																	

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 ;

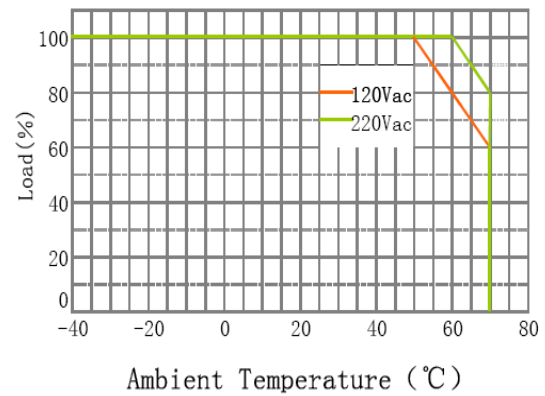
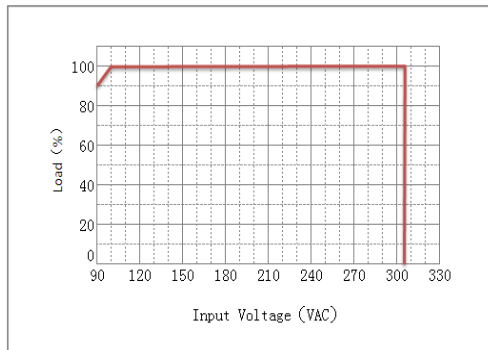
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Page 1 of 4

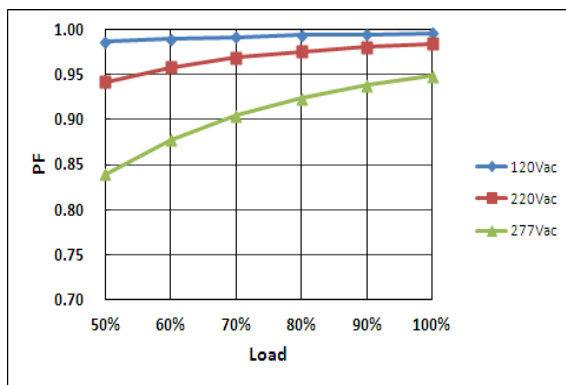
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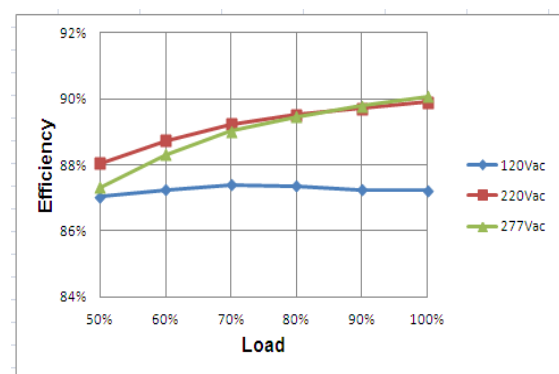
Derating Curve



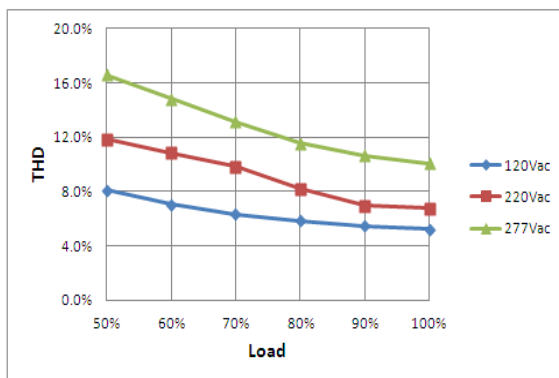
Power Factor VS. Load Curve



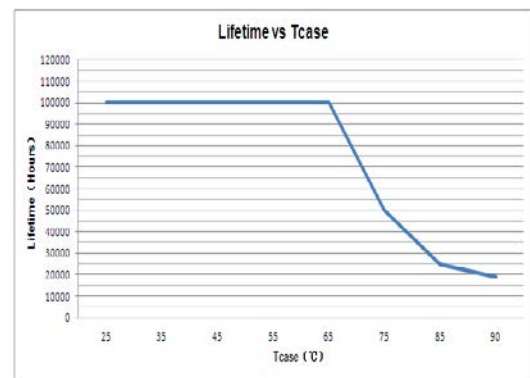
Efficiency VS. Load Curve



THD Curve



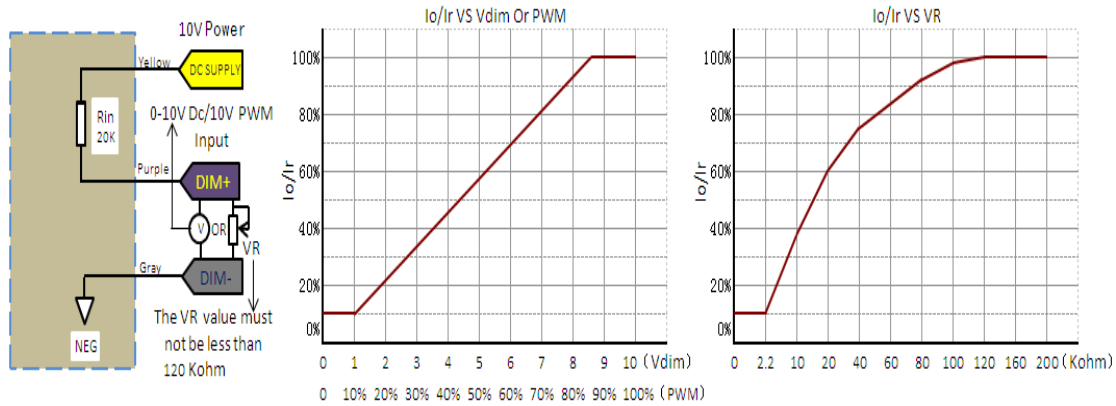
Life Time VS. Tcase (Ref.)



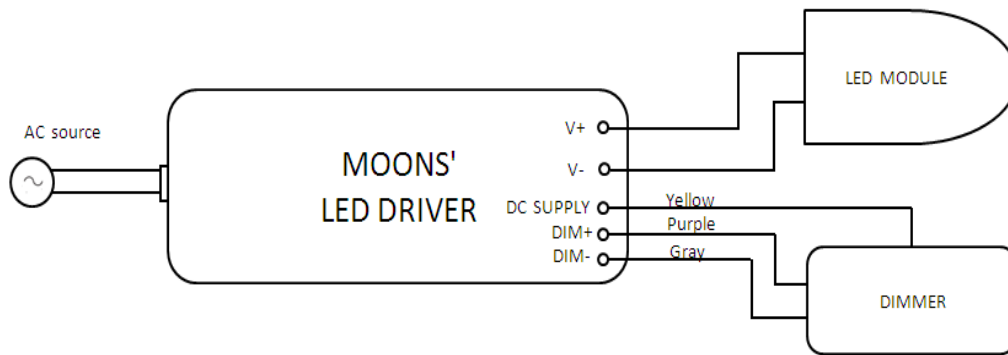
Dimming function description:

- 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:

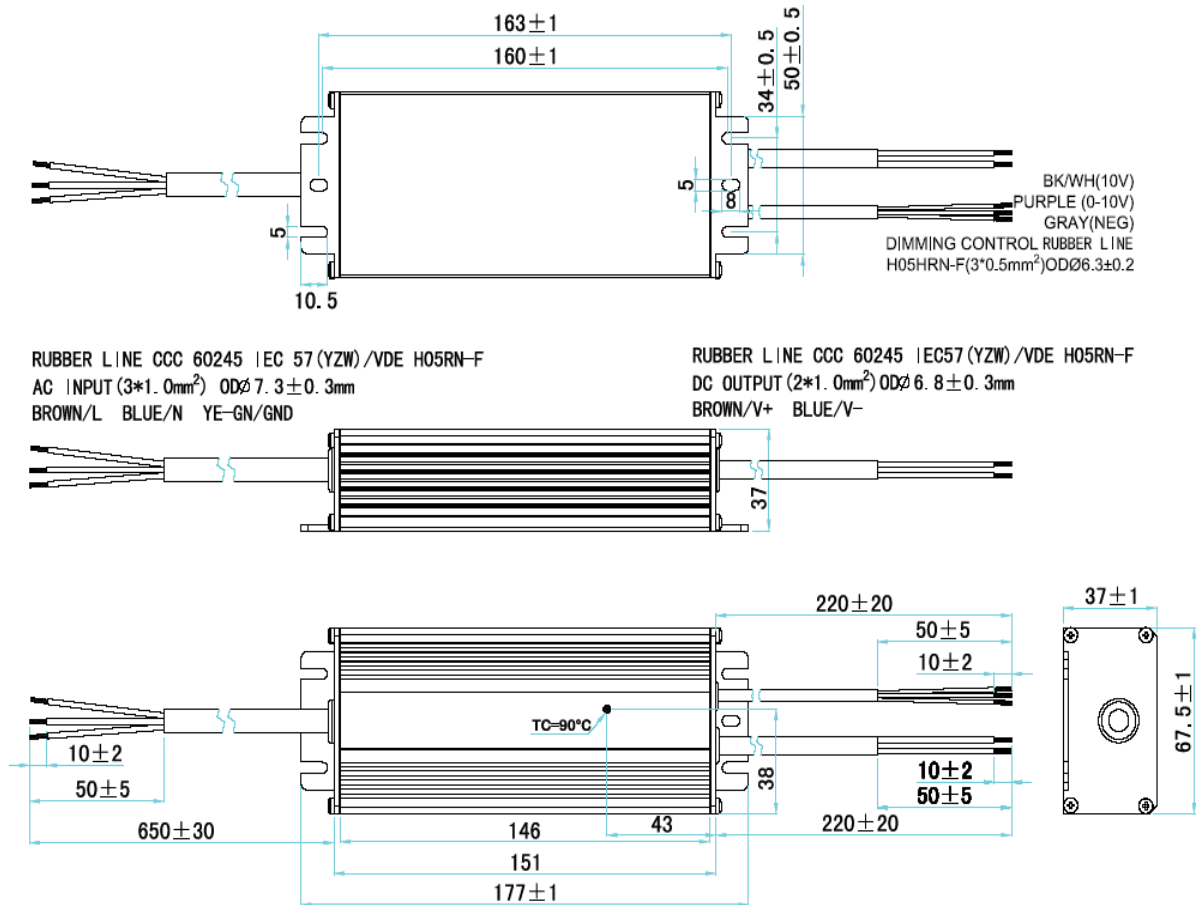
- 1.Io is actual output current with dimming control signal and Ir is rated output current.
- 2.The dimming control signal can be operated output current from 100% to 10% Ir,output voltage must be maintained above 50% of the rated output voltage.
- 3.Do not connect dimming wire to the output;otherwise,the 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	

■ 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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Page 4 of 4

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