

150W Dimmable LED Driver



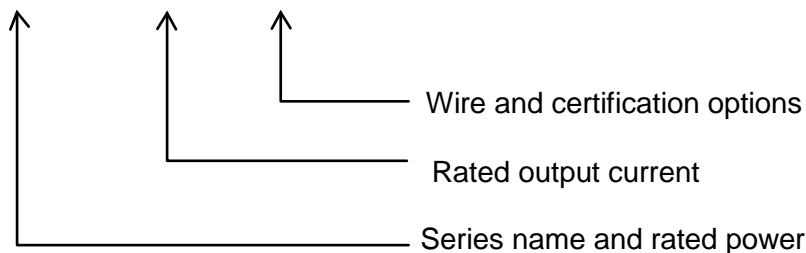
Features



- General AC Input Voltage (90 to 305Vac)
- Built-in active PFC function
- Ultra High Efficiency (Up to 93.5%)
- Constant current wide output range; Output adjustable via potentiometer; 3 in 1 dimming(1~10Vdc, 10V PWM signal and resistance)
- IP65 rating for indoor or outdoor installations
- Input surge protection: 4KV DM, 4KV CM
- High power supply auxiliary capability 12Vdc/50mA
- Typical Lifetime > 50000 hours
- 5 years warranty

Model and code

BUC150 - 0700L - U0



Model	Wire and certification options
U0	UL standard wire, meet UL certification
T0	VDE standard wire, meet CE/CB certification

Electrical specifications

	Model	BUC150-0700L
Output	Output power	150W Max
	Output voltage	150-214Vdc
	Max. no-load voltage	250Vdc
	Rated output current	0.7A
	Max. output current	0.77A
	Output current tolerance	±5% Max
	Ripple & Noise Pk-Pk	5% * max. output current
	Efficiency (Typ.)	93.5%@230Vac/full load
	Aux output voltage (Typ)	12Vdc
	Aux output current (Max.)	50mA
Input	Input current	1.5A rms Max
	Voltage range	Rated 100-277Vac; Limitation 90-305Vac
	Frequency range	47-63Hz
	Power Factor (Typ.)	PF>0.99@120Vac, PF>0.965@230Vac, PF>0.93@277Vac , @full load; Other load conditions, please refer to power factor curve
	Total harmonic distortion	THD<15%, @230Vac,full load; Please refer to: total harmonic distortion curve
	Inrush current (Typ.)	45A @230Vac, Ta=25°C, Cold start
	Leakage current	<0.75mA @ 277Vac
Protection	Short circuit	Hiccup mode, recovers automatically after fault condition is removed
	Over voltage	250Vdc; recovers automatically after fault condition is removed
	Over temperature	Power derating, recovers automatically after fault condition is removed
Environment	Ambient temp.	Ta: -40~55°C, Please refer to "Power Derating" section
	Working case temp.	Tc : -40~85°C
	Max. case temp.	89°C max
	Working humidity	20~90% RH, No condensation
	Storage temp. and humidity	-40~+85°C, 10~95% RH
	Environmental protection	UL Dry, Damp or Wet Location, IP65
	Vibration protection	10~500Hz, 5G 12 min./cycle, period for 72min. each along X, Y, Z axes

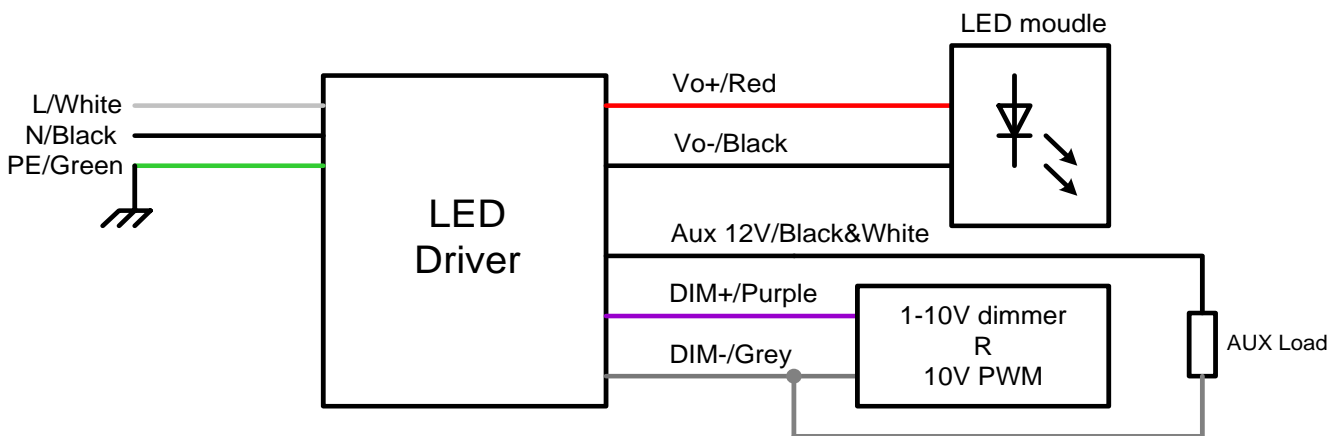
Safety & EMC	Safety standard	IEC/EN61347-1(GB19510-1-2009), IEC/EN61347-2-13(GB 19510.14-2009), UL8750, CSA C22.2 NO. 250.13-12; IP65
	Withstand voltage	I/P&O/P-Aux O/P:3.75KVac, I/P&O/P-PE:1.5KVac, Aux O/P-PE:0.5KVac
	Insulated resistance	I/P-PE, O/P-PE>100M Ohms/500VDC/25°C/70%RH
	EMI	EN55015 , FCC PART15-CLASSB
	Harmonic current	EN61000-3-2 Class C
	Surge Immunity	Line-to-Line: 4KV, Line-to-PE: 4KV
	EMS	EN61000-4-2,3,4,5,6,8,11; EN61547 Industry standard
Others	MTBF	≥200.0Khrs MIL-HDBK-217F(25°C)
	Weight/Size (Typ.)	1.28kg/ for more details, please refer to mechanical structure data
	Shell colour	Black shell、white shell optional

Notes:

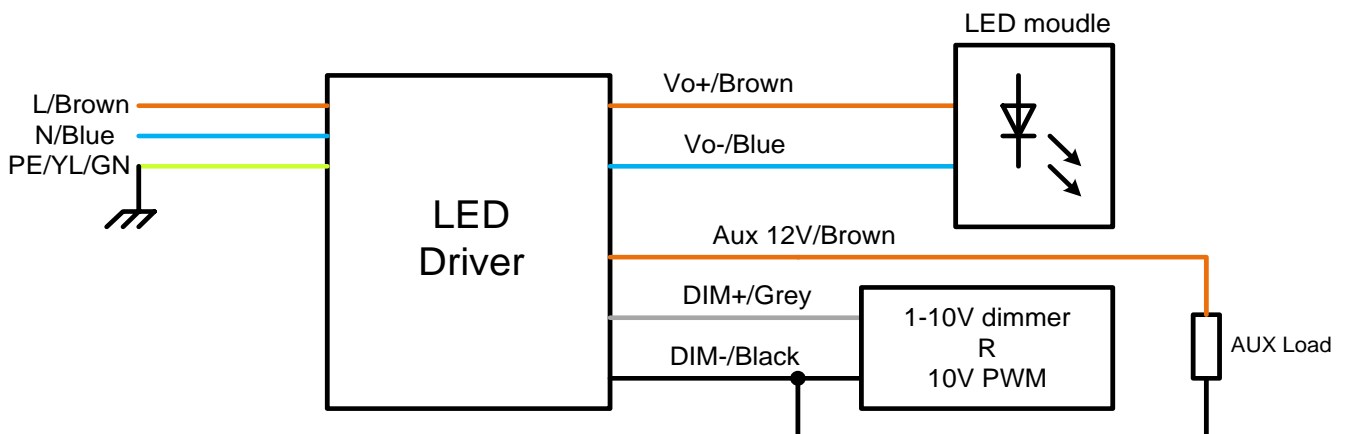
All parameters not specially mentioned are measured at 230Vac input, full load, 50% of humidity, and 25°C of ambient temperature.

Wiring diagram

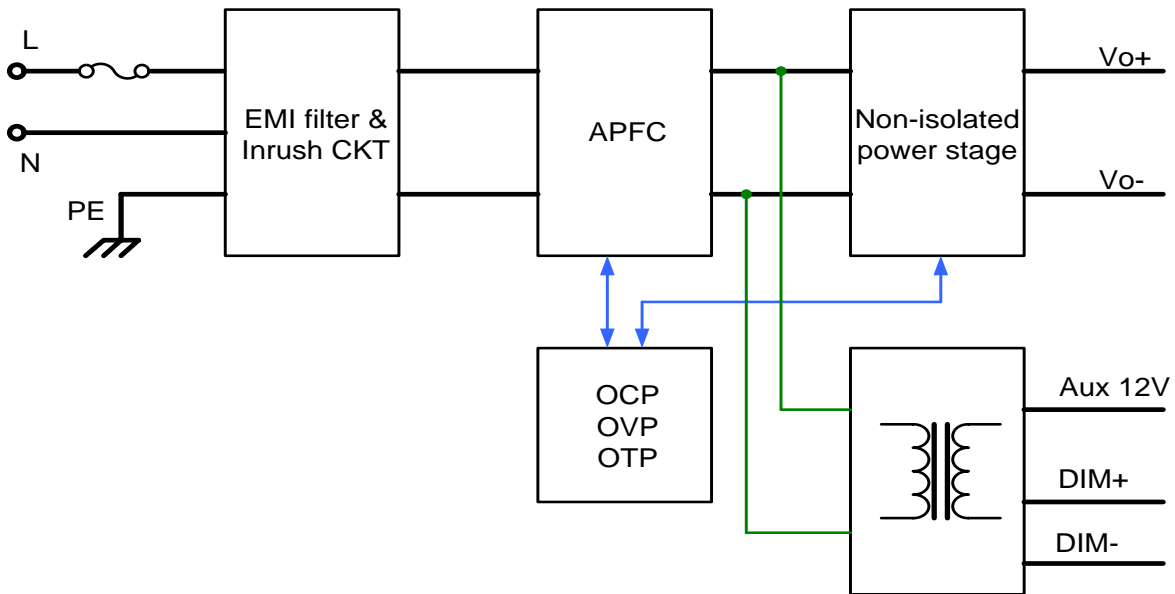
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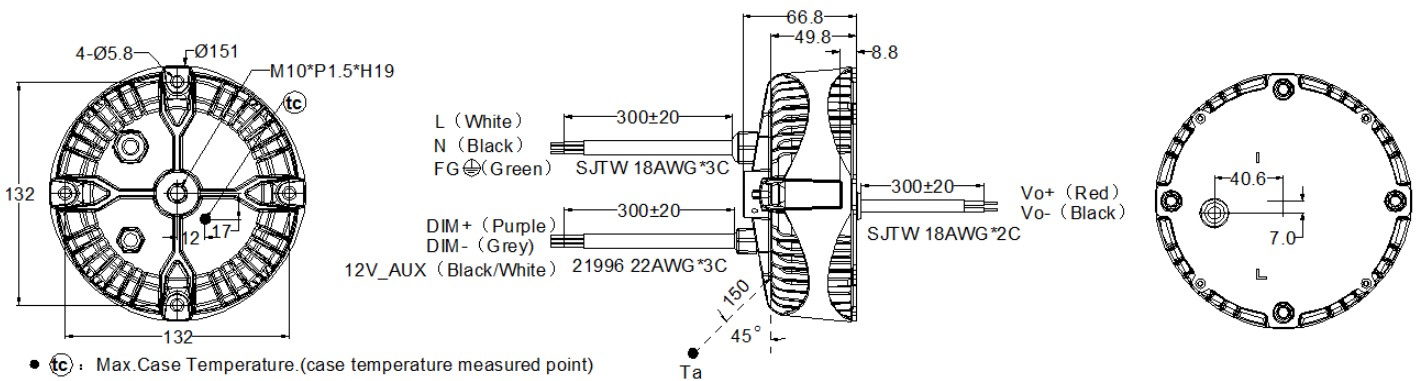


Electrical block diagram

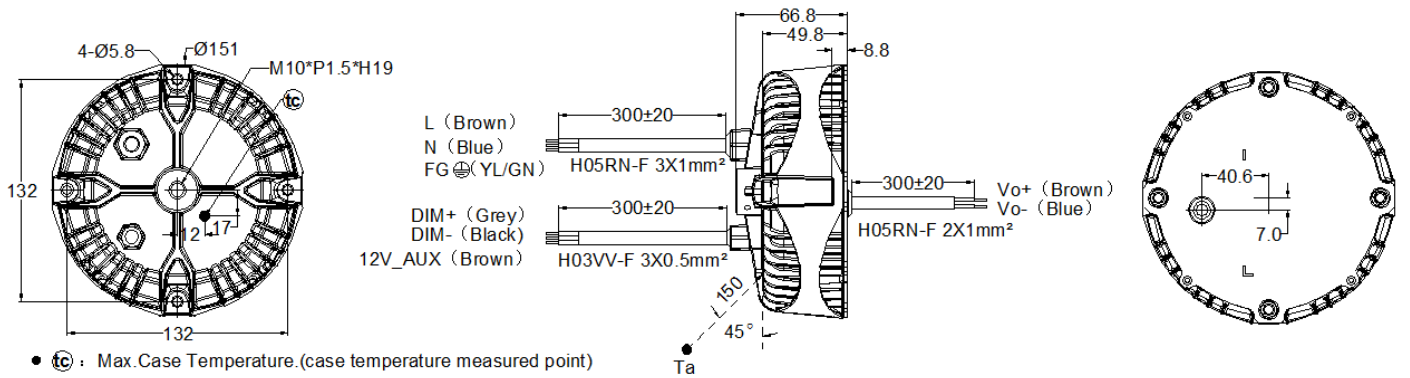


Mechanical structure

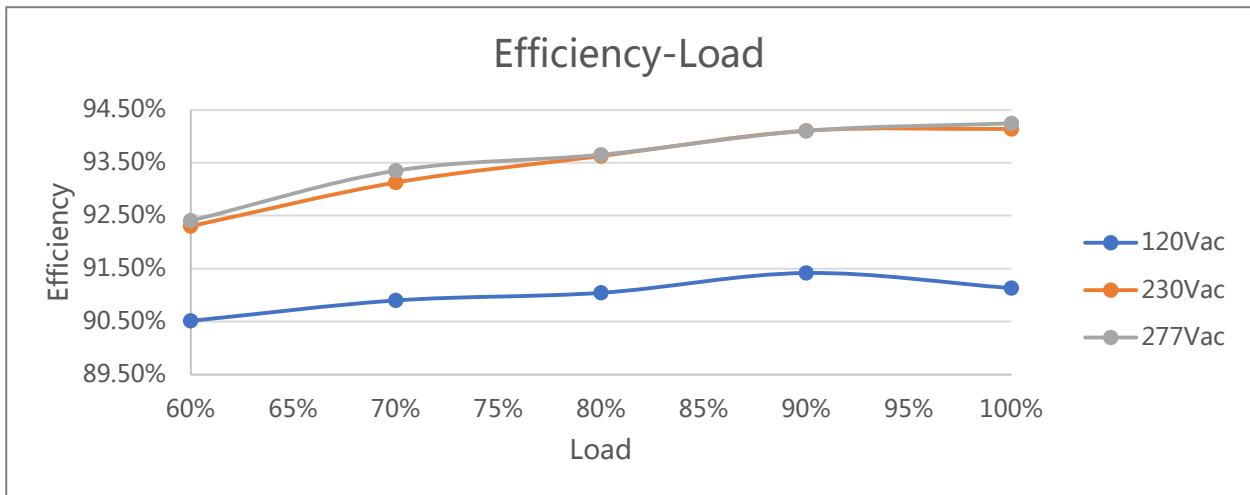
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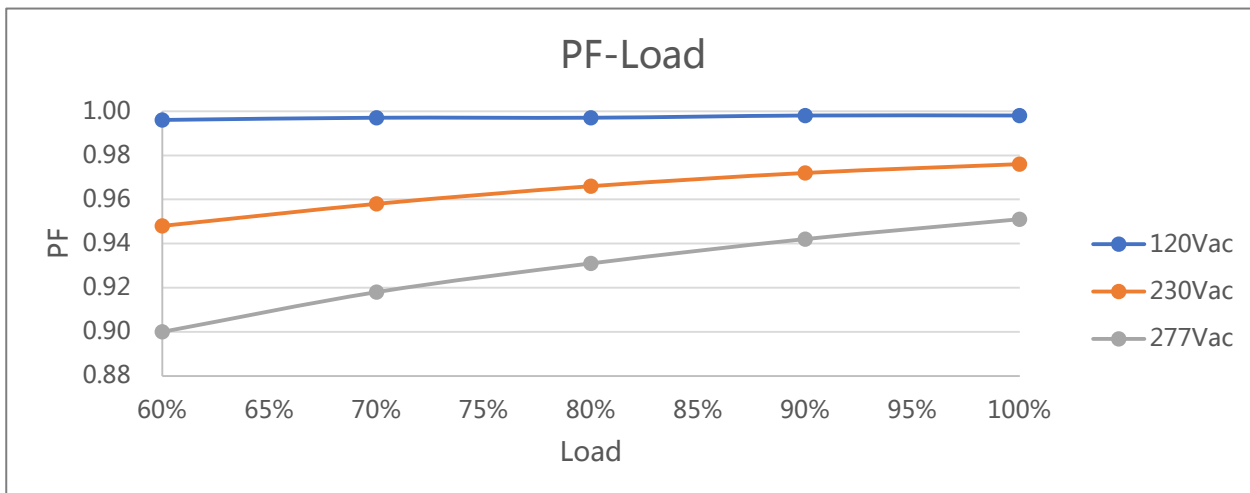
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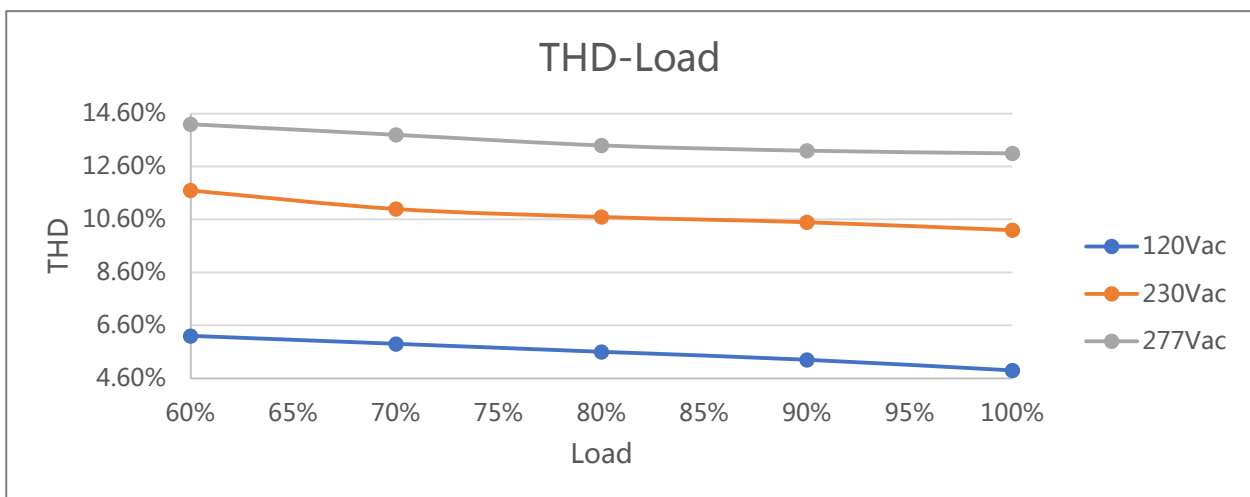
Efficiency vs Load



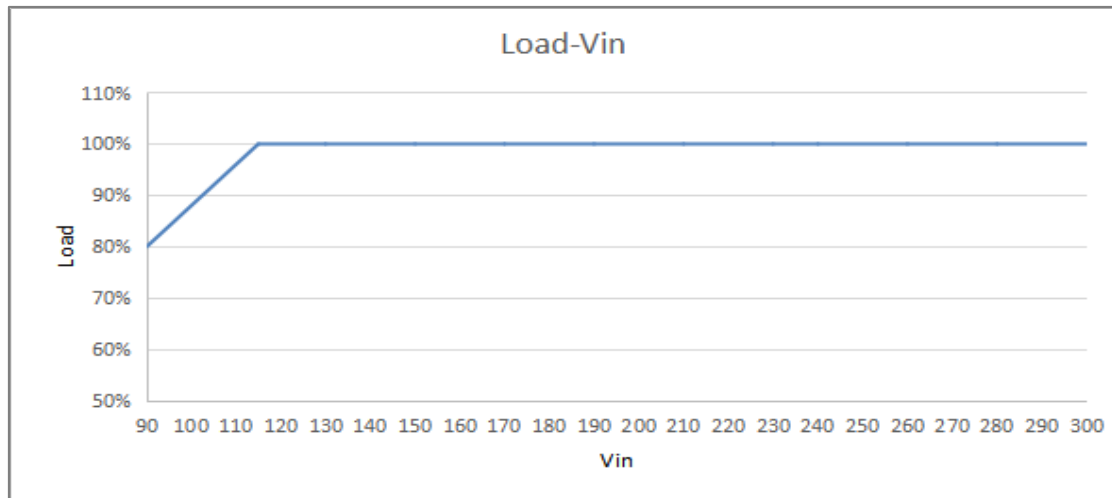
Power factor (PF) characteristic



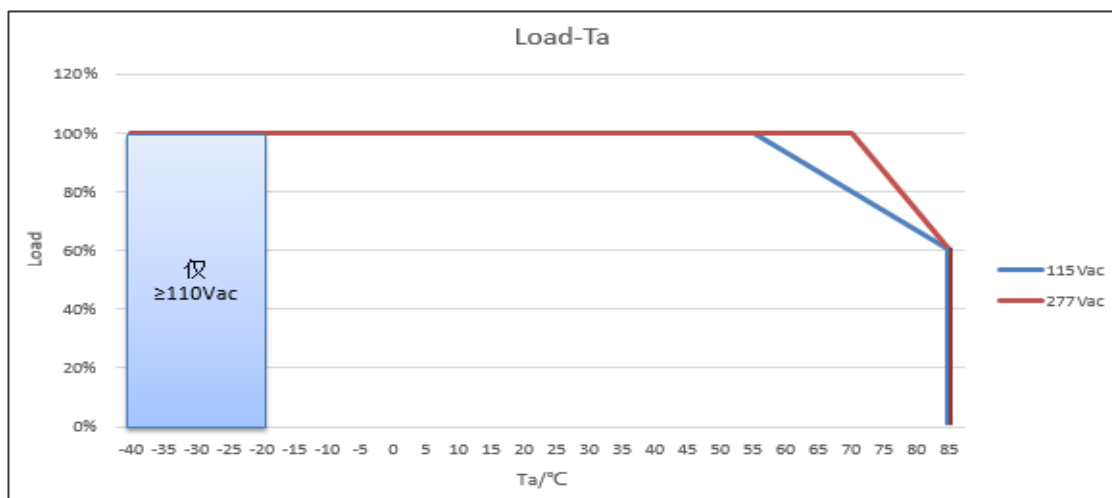
Total harmonic distortion (THD)



Power derating



Power derating curve VS input voltage

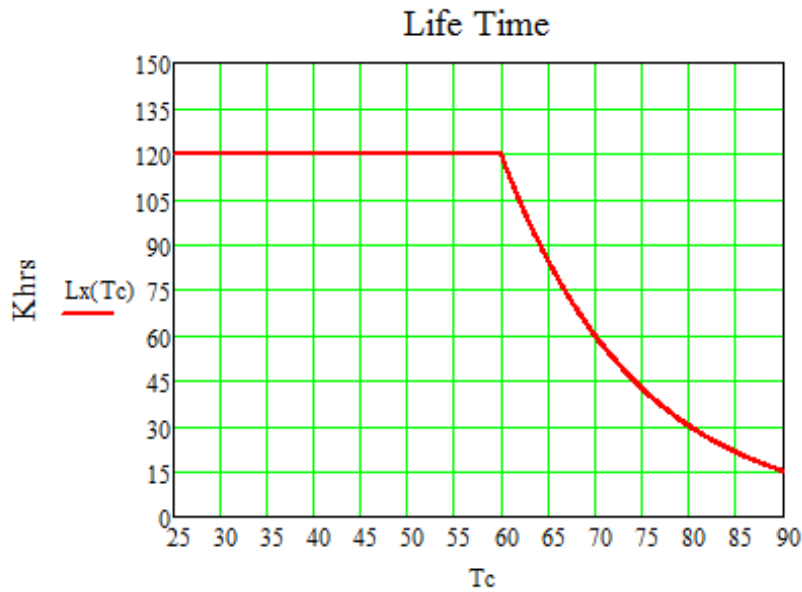


Power derating curve VS Ambient temperature

Notes:

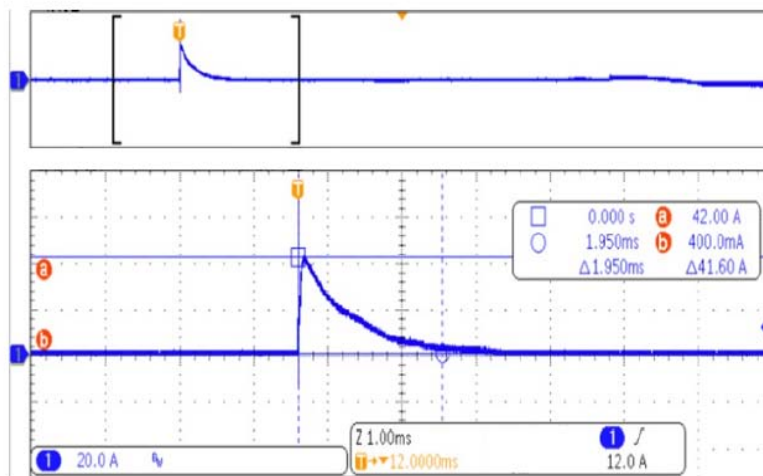
1. Derating is needed when the input voltage is lower than 115Vac, drop to 80%Load at 90Vac.
2. Ambient temperature means the temperature around the power supply.

Life Time (230VAC Input/Full load)



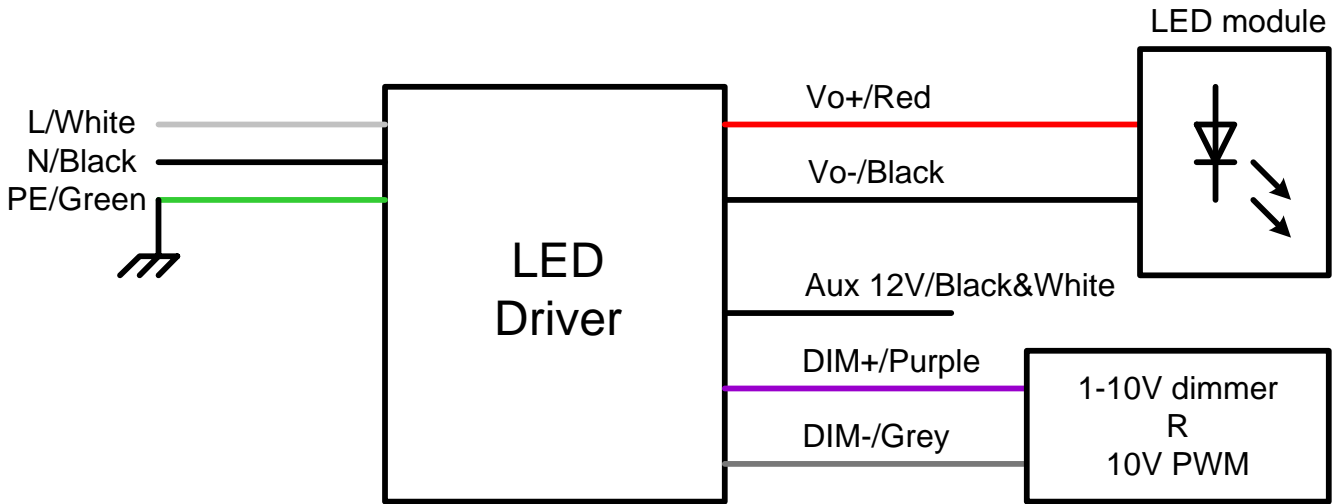
Note: different input voltage range, different application environment, different external heat dissipation design and other factors, which will lead to a certain difference in the temperature rise of the case. In any of the above application conditions, the temperature of the actual case (Tc) must be less than 89°C, and this reduction curve can be established. If there is any doubt about the actual application environment, please contact the relevant personnel in time.

Inrush current (Vin=230Vac at 25°C)

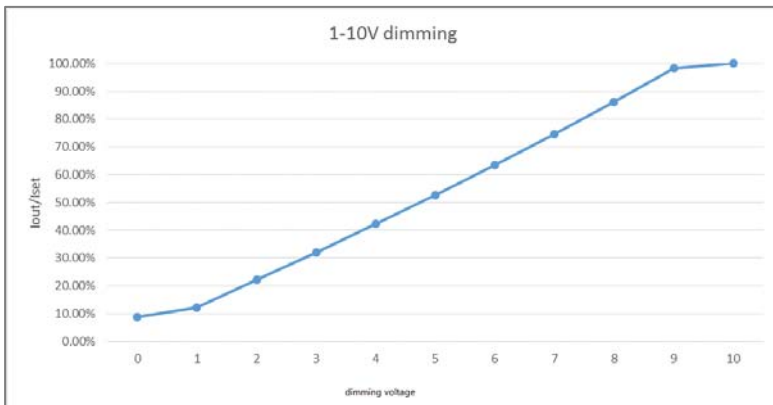
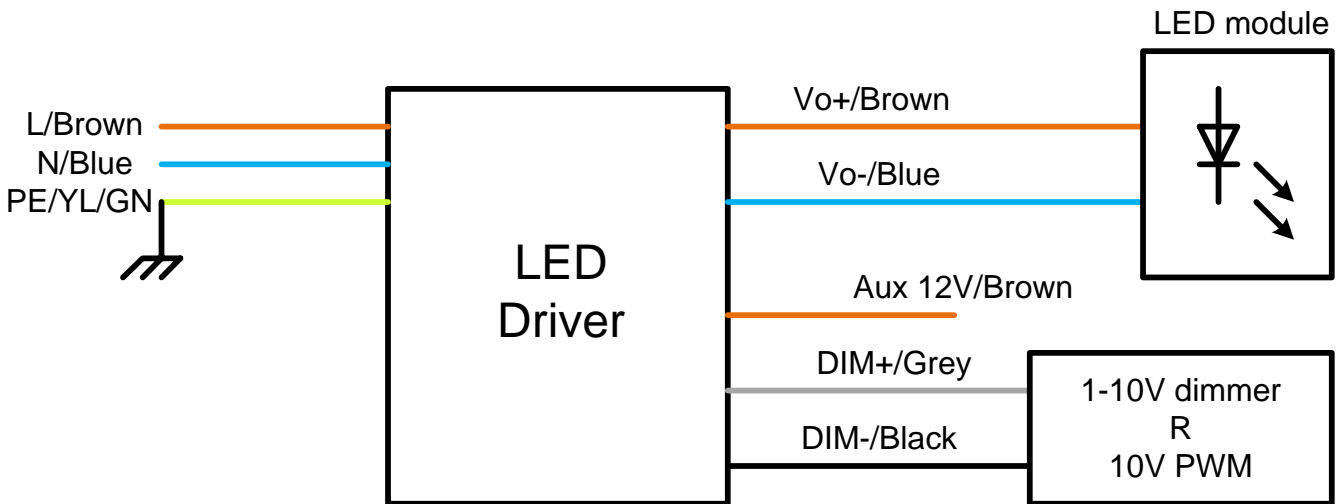


Dimming Application

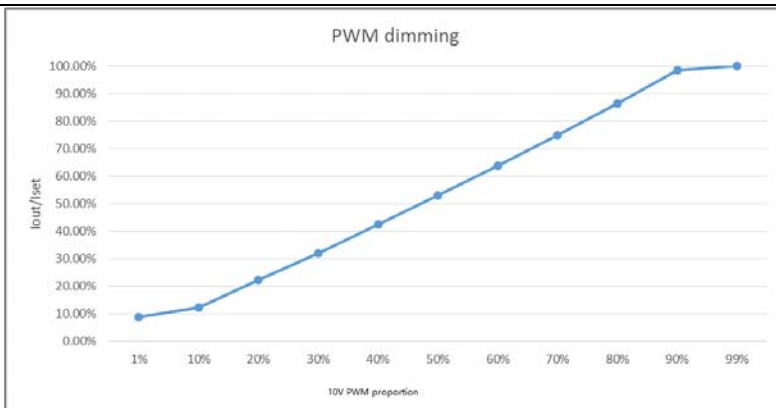
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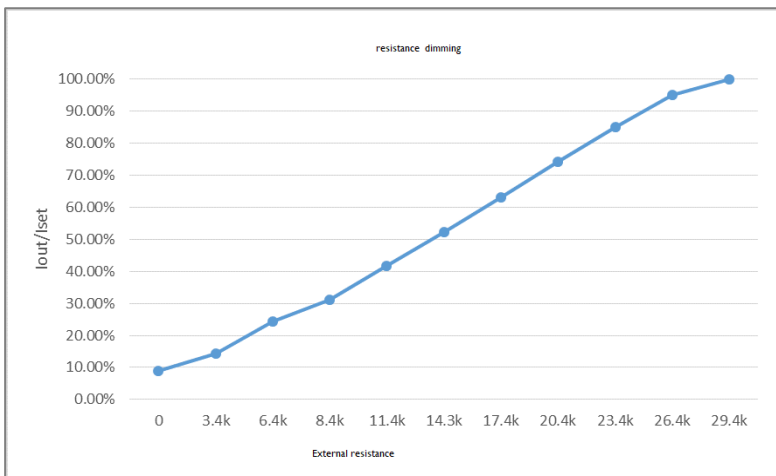
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Dimming input: Additive voltage



Dimming input: Duty cycle of additive 10V PWM signal dimming input



Dimming input: Additive resistance

Remarks:

1. Noted: Dim+ and Dim- signals can't be connected to Vo+, Vo-
2. If the dimming function is not used, the Dim+ and Dim- signals should be suspended.
3. Additional 10V PWM signal frequency range: 200Hz~3KHz

Attention:

1. The driver should be kept away from heat source and inflammable or explosive materials.
2. The driver should be installed in open space. In actual application, Tc temperature should not exceed the max allowed temperature(89°C) in the most extreme condition.
3. With high voltage danger! Please don't check under the condition of live working. Only professional electricians may carry out wiring and other operations.
4. Ensure that the input / output wires joint are completely sealed and waterproof-treated if required to prevent electric shock and leakage. The impedance caused by the connection mode in the application should not affect the normal function of the driver.
5. The driver lifespan is directly related to the driver working temperature. Please refer to the life&temperature curve to evaluate the applicability of the driver.
6. In practical application, please pay attention to the surge capacity of the front protector.
7. In the practical application of non-isolated driver, attention should be paid to isolation distance between the wire and heatsink.

■ Version history

Date	Version	Content	Reasons	Remark	
2018/05/02	P1	The first release			
Edited by	Hong Pan	Checked by	Joshua	Approved by	Files code
Date	2018/05/02	Date	2018/05/02	Date	

For any upgraded version, we will not inform specially. If needed, please contact us by sales@baldurspower.com