

Factory Light 160 Watt Data Sheet

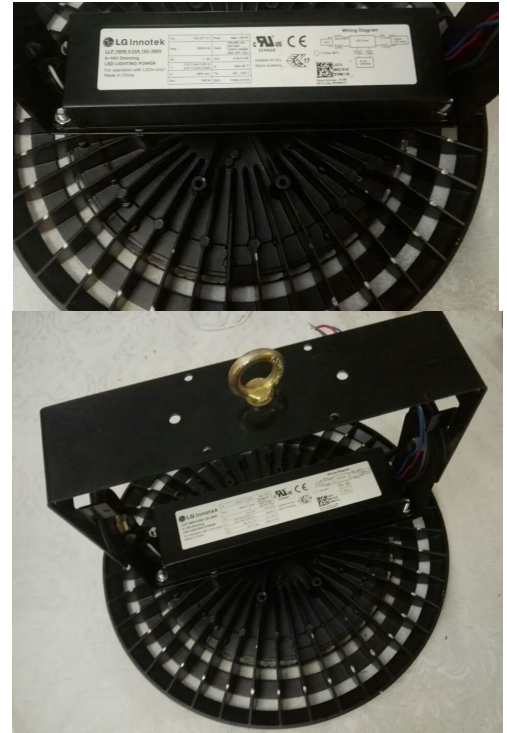


POWERED BY



Features

- Lamp Type: Factory / warehouse light
- Lighting technology: SMD PCB Made In Egypt
- Total wattage: 160W
- Lumen per 1 watt: >155LM
- Total luminance: 23250LM
- Lighting source: LED package 5630 G4
- Power Factor: >0.98
- Color temperature: 5700K
- Dimmable Type: 1 -10 Dimming
- Input Cable: Double or Reinforced Insulation
- Selectable Output Current (0.35A / 0.5A / 0.7A)
- Constant Voltage / Constant Current Control
- High Efficiency & Active Power Factor Correction
- Protection: UVP, OVP, SCP, OTP and OCP
- UL8750, UL1012, EN61347, BIS R-41033308 Output Safety Certifications Approved

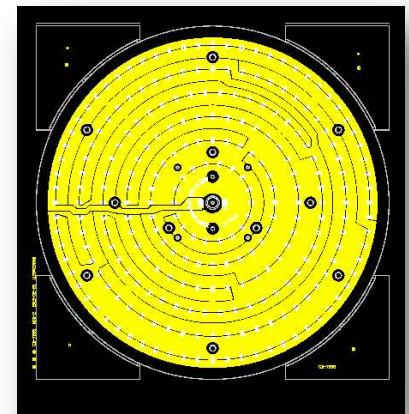


- **PCB specification**

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- 1- PCB Dimensions: 190mm Diameter 1.6mm length
- 2 - LED Chips Quantity 270 Packages
- 3 - Chip type 5630 fourth generations G4
- 4 - maximum LED potential 179LM/W



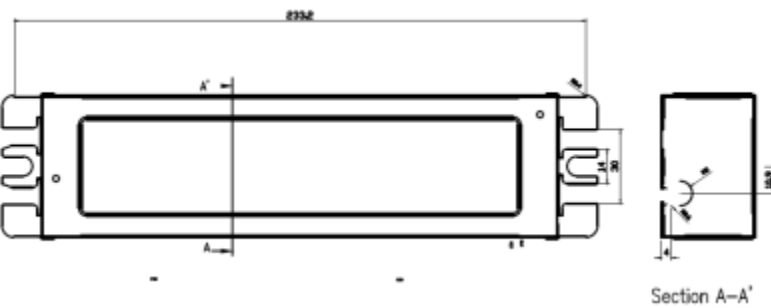
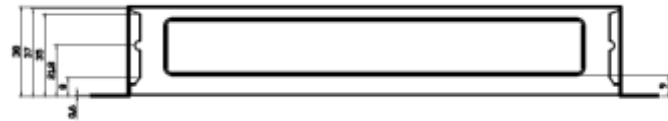
5630 G4 Family



SMPS LG Innotek-A150A (Pb-Free)150W Selectable(Power Driver)



1.SMPS Case Dimension



Input Specifications

Input Voltage	Output Voltage	Output Current	Output Power	Efficiency	THD	Surge		PF
						Com.	Diff.	
108 - 305	125 - 280	0.35 - 0.7A	Max. 150W	Up to 93%	< 20%	6kV	4kV	> 0.95
Parameter		Min.	Typ.	Max.	Unit	Remark		
Input Voltage		108	-	305	VAC			
Input Current		-	-	1.6	A	@ Vin=108V / Max. Load		
Input Frequency		47	-	63	Hz			
Power Factor		0.9	-	-	PF	@ Over 75% Output Load		
Inrush Current		-	-	100	Apk	Based on IEC60555		

Output Specifications

1- Output Power 125V - 280V / 0.35A - 0.5A - 0.7A /

Parameter	Min.	Typ.	Max.	Unit	Remark
Output Voltage	125	-	280	VDC	
Output Current	-	0.35 / 0.5 / 0.7	-	A	Selectable Output Current
Output Dimming Current Range	10	-	100	%	1 -10 Dimming
Output Current Tolerance	-5	-	+5	%	@ Max. Output Current
Output Ripple Current	-	-	10	%	
Start-up Time	-	-	500	ms	
Output Power Tolerance	-5		+5		

2- Protection Functions

Parameter	Min.	Typ	Max.	Unit	Remark
Output Over Voltage Protection	-	290	-	VDC	Output Voltage
Output Short Circuit Protection	-	-	-	A	Auto Recovery
Internal Over Temp. Protection	-	90	-	°C(Tc)	Maintaining 10% dim. @ 100°C
External Over Temp. Protection	-	80	-	°C(Ta)	Maintaining 10% dim. @ 85°C

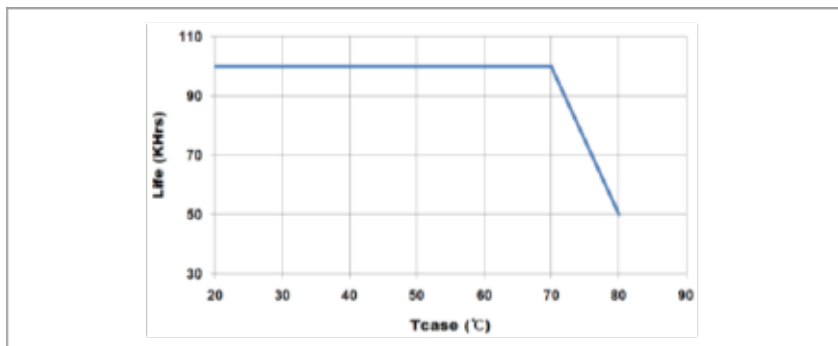
3- Environmental Specifications✖ The life time has been calculated based on Telcordia report.

Parameter	Min.	Typ.	Max.	Unit	Remark
Operation Temperature	-40	-	55	°C	@ Ta
	-	-	80	°C	@ Tc
Storage Temperature	-40	-	85	°C	@ Ta
Humidity	10	-	90	%	Relative humidity for operation
	-	-	90	%	Relative humidity for storage

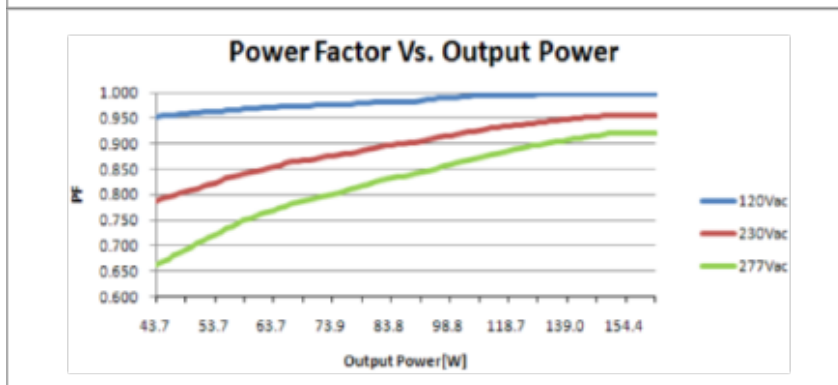
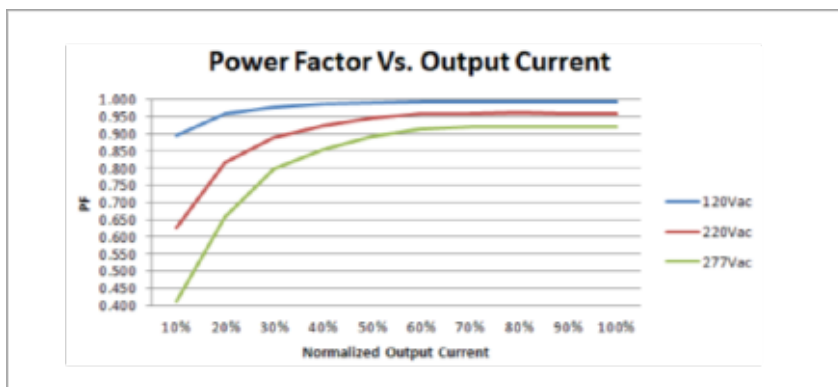
4- Standards

Parameter	Condition	Remark
Safety Standards	To be designed to meet the requirements as follows ; - UL 8750 - EN 61347-1/A1:2011/A2:2013 - EN 61347-2-13:2006	Protection Type : Manual Resetting Type
EMI / RFI Standards	To be designed to meet the requirements as follows ; - FCC part 15, Class B verification - EN 55015:2006+A1:2007+A2:2009 - EN 61000-3-2:2006+A1:2009+A2:2009 - EN 61000-3-3:2008 - EN 61547:2009	

Life Time vs. Case Temperature Curve

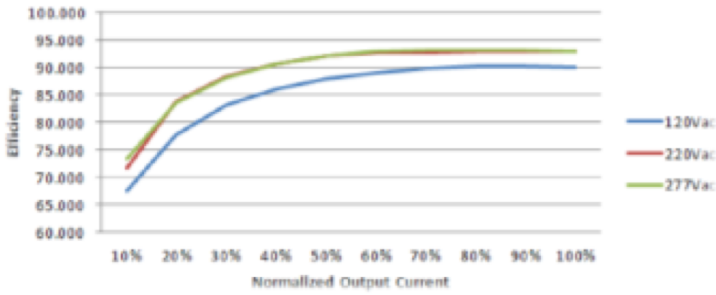


Power Factor Characteristics

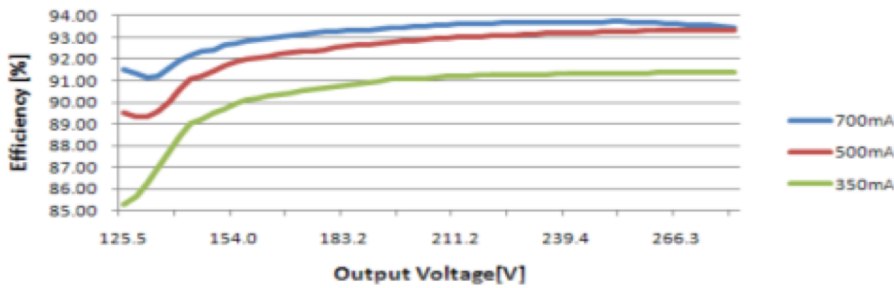


Efficiency Characteristics

Efficiency Vs. Output Current



Efficiency Vs. Output Voltage (@ Vin=230V)



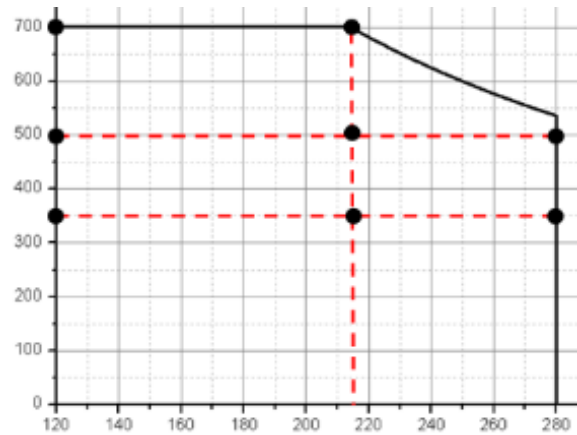
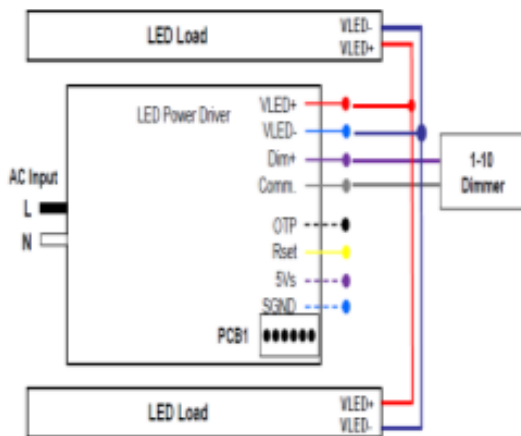
Dimming Control (1 - 10V Dimming)

Constant Power Control (Iout vs Vout Curve)

100% 80% 60% 40% 20% 0%

0 1 2 3 4 5 6 7 8 9 10

Output current vs. dimming voltage



Isolation

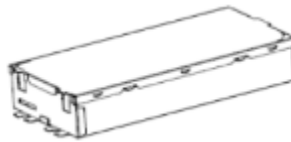
Isolation (V)	Mains Input	LED Output	NTC/Dim	Current Selection	Metal Housing
Mains Input	NA	4000	4000	4000	4000
LED Output	4000	NA	NA	NA	4000
NTC/Dim	4000	NA	NA	NA	4000
Current Selection	4000	NA	NA	NA	4000
Metal Housing	4000	4000	4000	4000	NA

Leakage Current

Functional GND Connection

Output Current Setting

- ▶ Functional GND is able to be connected with one of four holes which are located in each corner of the metal case.
- ▶ Saw tooth washer is recommended to be used in order to strengthen mechanical contact between the metal case and functional GND.

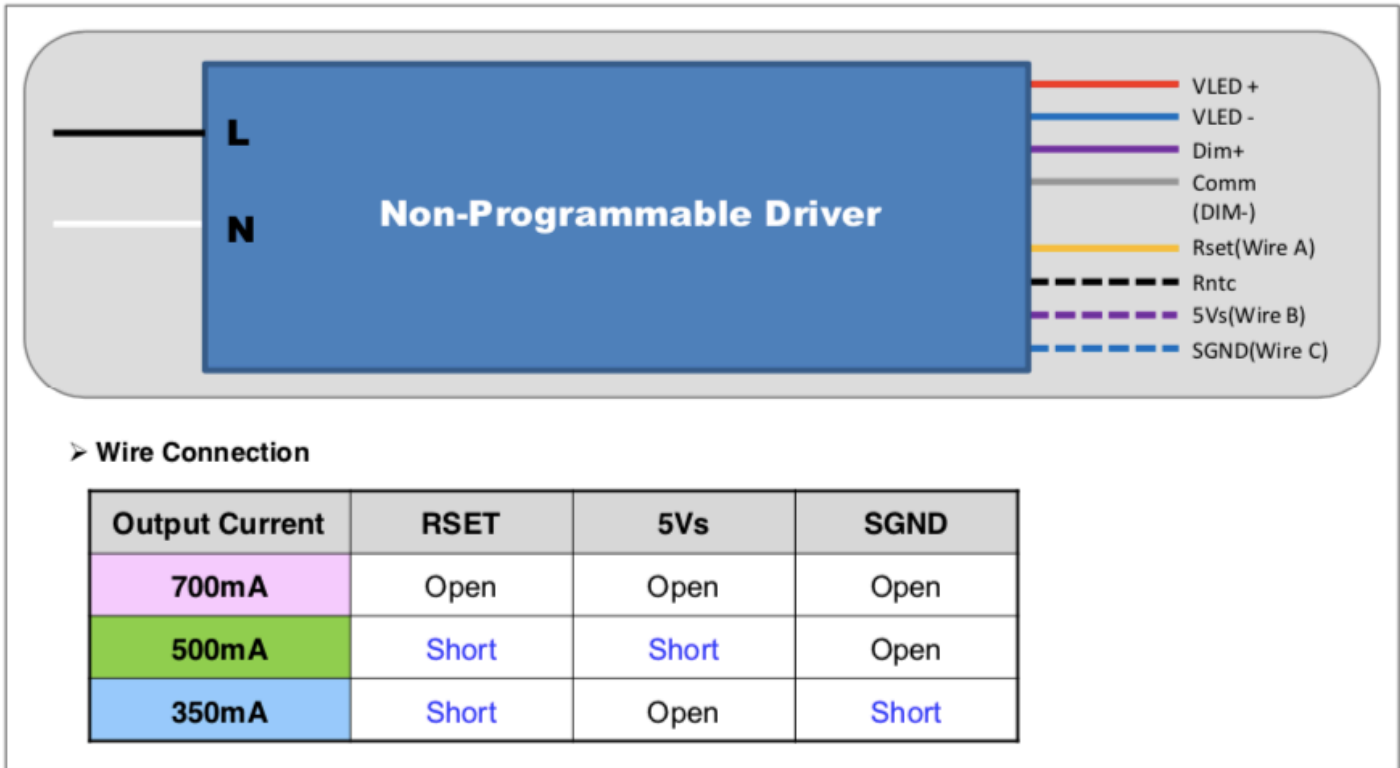


Guidelines for Driver Wire Length

Model	Output Wires (LED+, LED-)	Control Wires (DIM, COMM, NTC, RSET, 5Vs, SGND)
PISE-A150A	Max. 10 meter	Max. 0.5 meter

※ Maximum output cable length is limited by EMI and cross-sectional diameter. ※ All connections must be kept as short as possible to ensure good EMI performance.

Wiring:



Datasheet is subject to change without notice last up date at July 2019.



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