



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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Class II 100W LED Controlgear : PA-1101-18 Series

Product Features

- Universal AC Input
- High Power Factor
- Low Total Harmonic Distortion
- Short Circuit / Open Circuit / Over Voltage / Over Temperature Protections
- Suitable for Dry & Damp Location
- Adjustable Output Current by Dimming Input
- RoHS Compliant

AC Input / DC Output

• AC Input Voltage	90 ~ 305Vac (100 ~ 277Vac)
• AC Input Frequency	47 ~ 63Hz (50-60Hz)
• Max. Input Current @ 90Vac (50Hz)	1.5A
• Min. PF @ 120Vac (50Hz) / 140V Output	0.96
• Min. PF @ 230Vac (50Hz) / 140V Output	0.95
• Min. PF @ 277Vac (60Hz) / 79V Output	0.9
• Max. THD @ 120-277Vac / Output at 55.3W	20%
• Min. Eff. @ 120 & 277Vac / 140V Output	88%
• Turn On Delay Time	<3 second
• DC Output Current	700mA
• Line Regulation	±3%
• Load Regulation	±5%
• DC Output Voltage Range	56 ~ 140V
• Ripple Current	±20%
• DC Output Isolation	yes

EMC

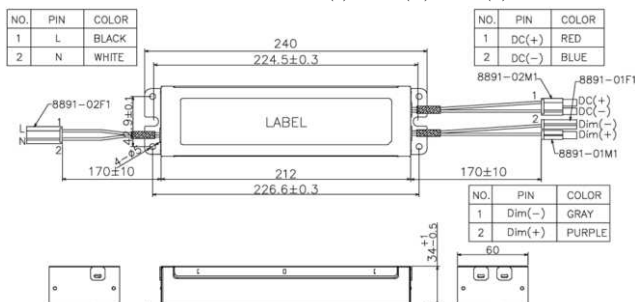
• EMI	FCC Class A
• Harmonic Current Emissions	EN61000-3-2
• Voltage Fluctuations & Flicker	EN61000-3-3
• Electrostatic Discharge (ESD)	EN61000-4-2 ±4KV (Contact), ±8KV (Air)
• RS Immunity Test	EN61000-4-3 80MHz ~ 1GHz, 3V/m, 80% AM (1KHz)
• Electrical Fast Transient	EN61000-4-4 ±1KV for AC power line, ±0.5KV for DC / signal line
• Lighting Surge	EN61000-4-5 ±4KV (Com.), ±4KV (DiF)
• CS Immunity Test	EN61000-4-6 0.15MHz ~ 80MHz, 3V, 80% AM (1KHz)
• Voltage Dips & Short Interruptions	EN61000-4-11 30%, 25 cycles voltage reduction 100%, 0.5 cycles voltage reduction

Operating Environments / Reliability

- Operating Temperature / Humidity -40 ~ 60°C / 10 ~ 95% RH
- Storage Temperature / Humidity -40 ~ 80°C / 10 ~ 95% RH
- Vibration (with shipping container) 1.146Grms / 5~200Hz / six sides
30 minutes / side
- Vibration (operation) 6Grms / 10~1000Hz / X/Y/Z axis
15 minutes / axis
- MTBF (Note 3) 50,000 Hrs while Tc ≤ 75°C
100,000 Hrs while Tc ≤ 65°C
80°C
- Tc free air convection
- Cooling meet Class A sound rating
- Sound Level

Mechanical

- AC Input Terminal 170mm / black(L) & white(N) color / UL1316
- DC Output Terminal 170mm / red(DC +) & blue(DC -) color / UL1316
- Dimming Input Terminal 170mm / purple(dim +) & gray(dim -) color / UL1316
- Weight (typ.) 900g
- Outline Dimension 240mm(L) * 60mm(W) * 34mm(H)



Protections

- OVP or Open Circuit constant voltage, 173V max.
- SCP auto recovery
- OTP output power decrease

Safety / Certifications

- Hi Pot (AC I/P to O/P) 3750Vac / 10mA / 60Sec.
- Hi Pot (AC I/P to Case) 3750Vac / 10mA / 60Sec.
- Insulation (AC I/P to O/P) >20MΩ, 500Vdc
- Complied with UL8750, 1st Edition
- Complied with UL60950-1, 2nd Edition
- Complied with CAN/CSA-C22.2 No.250.13-14
- Complied with CAN/CSA-C22.2 No.60950-1-07,2nd Edition
- Complied with IEC 61347-2-13:2006(First Edition)
- Complied with IEC 61347-1:2007(Second Edition) +A1:2010+A2:2012

Dimming Input

- Support 2 in 1 Dimming Function
- Resistor Dimming Range (10~100K)
- Voltage Dimming Range (1~10V)
- Resistor Dimming Reference Table

Resistor Dimming	75KΩ ±1%	48.7KΩ ±1%
Output Current	540mA	350mA
Tolerance	±10%	±10%

- Voltage Dimming Reference Table

Voltage Dimming	7.7V	5V
Output Current	540mA	350mA
Tolerance	±10%	±10%



Notes :

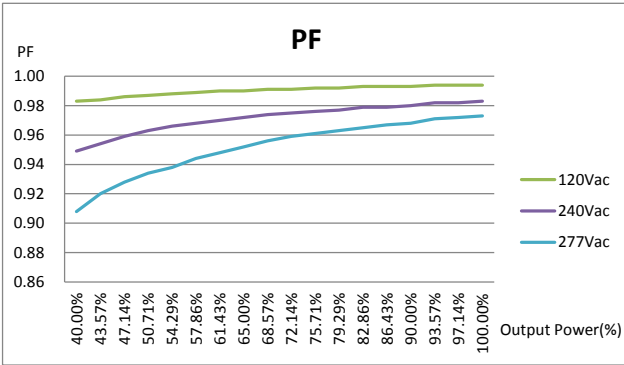
- (1) above definition is based on 25°C ambient if not specified
- (2) this LED driver is designed and intended for operating with LED load only
- (3) MTBF evaluation is based on SR-332 method, 115Vac/60Hz, max load
- (4) to measure efficiency after burn-in 30 minutes with full output load
- (5) recommend to install the controlgear inside the enclosure



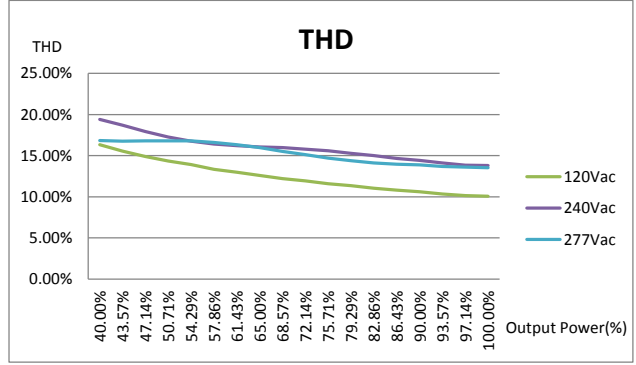
ClassII100W LED Controlgear : PA-1101-18 Series

Performance Curves

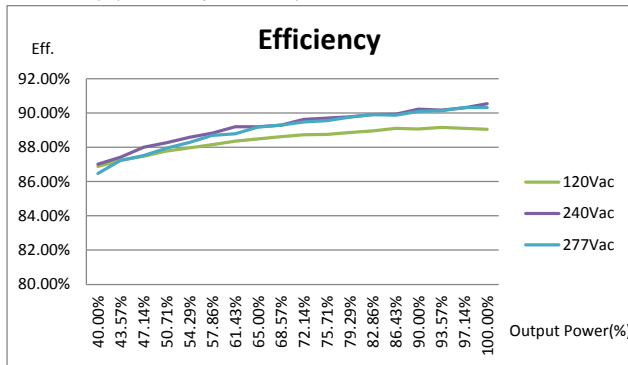
• Power Factor (PF / Output Power)



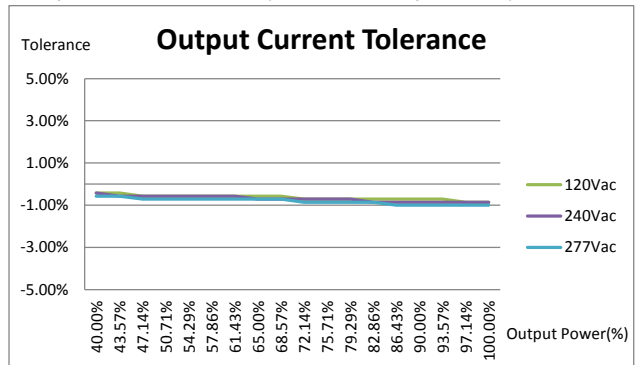
• THD (THD / Output Power)



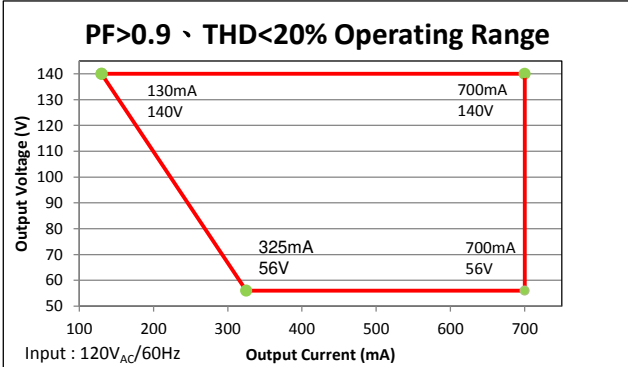
• Efficiency (Eff. / Output Power)



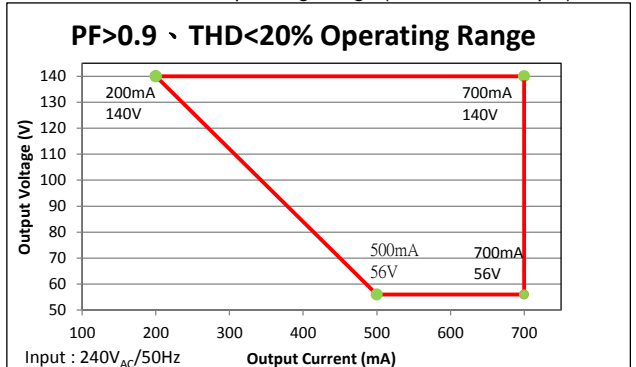
• Output Current Tolerance (Tolerance / Output Power)



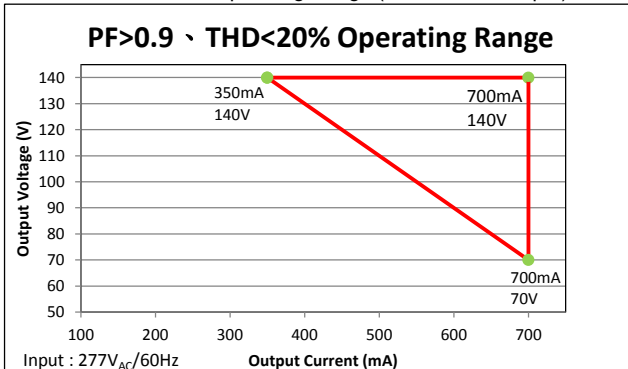
• PF>0.9 & THD<20% Operating Range (120Vac/60Hz Input)



• PF>0.9 & THD<20% Operating Range (240Vac/50Hz Input)



• PF>0.9 & THD<20% Operating Range (277Vac/60Hz Input)



Notes :

- (1) experimental instruments :
AC Source : Chroma 61604 / Power Analyzer : Chroma 6630 / Electrical LED Load : Prodigit 3312F / Oscilloscope : Tektronix TDS3014C / Multimeter : Fluke 287
- (2) all above curves are measured under 25°C ambient
- (3) all above curves are only for design reference