



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 63W LED Controlgear : PA-1600-32 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
- IP66 Waterproof Grade
- Adjustable Output Current by Dimming Input
- RoHS Compliant

AC Input / DC Output

• AC Input Voltage	100 ~ 305Vac (110 ~ 277Vac)
• AC Input Frequency	47 ~ 63Hz (50-60Hz)
• Max. Input Current @ 110Vac (60Hz)	1.0A
• Min. PF @ 230Vac (50Hz) / 90V Output	0.95
• Min. PF @ 230Vac (50Hz) / 63V Output (70% load)	0.92
• Min. PF @ 240Vac (60Hz) / Output > 40W	0.9
• Max. THD @ 110~277Vac / 90V Output	20%
• Min. Eff. @ 220Vac (50Hz) / 90V Output	90%
• Turn On Delay Time	<1 second
• DC Output Current	700mA
• Line Regulation	±3%
• Load Regulation	±5%
• DC Output Voltage Range	35 ~ 90V
• Ripple Current	±20%
• DC Output Isolation	yes

EMC

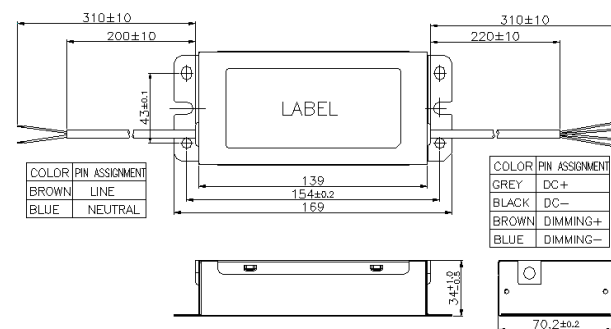
• EMI	EN55015
• Harmonic Current Emissions	EN61000-3-2
• Voltage Fluctuations & Flicker	EN61000-3-3
• Electrostatic Discharge (ESD)	EN61000-4-2
	±4KV (Contact), ±8KV (Air)
• RS Immunity Test	EN61000-4-3
	80MHz ~ 1GHz, 3V/m, 80% AM (1KHz)
• Electrical Fast Transient	EN61000-4-4
	±1KV for AC power line, ±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
• Life Time (Note 3)	43,000 Hrs
• MTBF (Note 4)	50,000 Hrs while Tc ≤ 75°C 100,000 Hrs while Tc ≤ 65°C
• Tc	85°C
• Cooling	free air convection
• Waterproof Grade	IP66

Mechanical

• AC Input Terminal	310mm / brown(L) & blue(N) color / H05BB-F 1.5mm ²
• DC Output Terminal	310mm / gray(DC +) & black(DC -) color / H05BB-F 1.0mm ²
• Dimming Input Terminal	310mm / brown(dim +) & blue(dim -) color / H05BB-F 1.0mm ²
• Weight (typ.)	700g
• Outline Dimension	169mm(L) * 70.2mm(W) * 34mm(H)



Protections

• OVP or Open Circuit	auto recovery, 125V max.
• SCP	auto recovery
• OTP	Output power decrease

Safety / Certifications

• Hi Pot (AC I/P to Case)	3750Vac / 10mA / 60Sec.
• Hi Pot (AC I/P to O/P)	3750Vac / 10mA / 60Sec.
• Insulation (AC I/P to O/P)	>20MΩ, 500Vac
• Complied with IEC 61347-2-13:2006	
• Complied with IEC 61347-1(Second Edition):2007+A1:2010	
• Complied with IEC 62384:2006(1 Edition)	
• Complied with CE	



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%	43KΩ ±1%
Output Current	540mA	330mA
Tolerance	±10%	±10%

Voltage Dimming	7.7V	5V
Output Current	540mA	330mA
Tolerance	±10%	±10%

Notes :

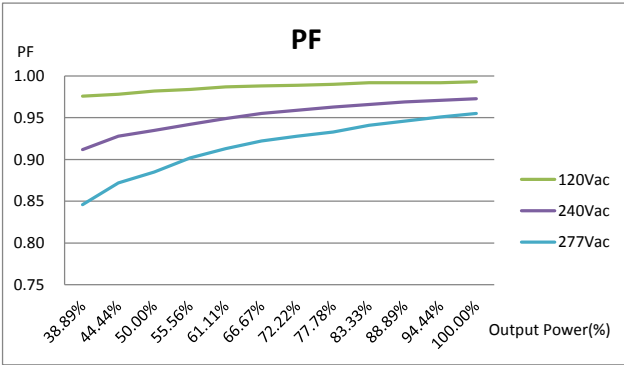
- (1) above definition is based on 25°C ambient if not specified
- (2) this LED driver is designed and intended for operating with LED load only
- (3) the condition of E-cap life evaluation are 110Vac/60Hz or 230Vac/50Hz @ max. load & 25°C ambient
- (4) MTBF evaluation is based on SR-332 method, 115Vac/60Hz, max. load
- (5) to measure efficiency after burn-in 30 minutes with full output load
- (6) recommend to install the controlgear inside the enclosure



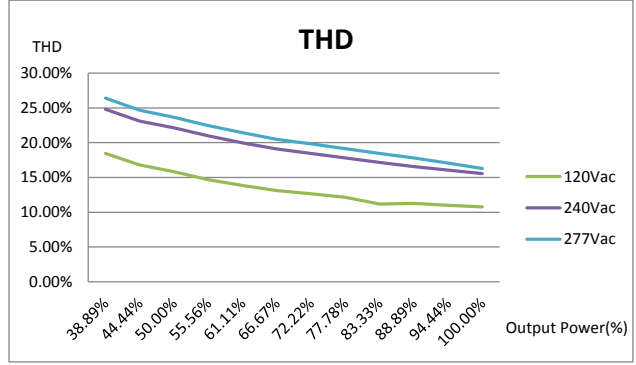
ClassII 63W LED Controlgear : PA-1600-32 Series

Performance Curves

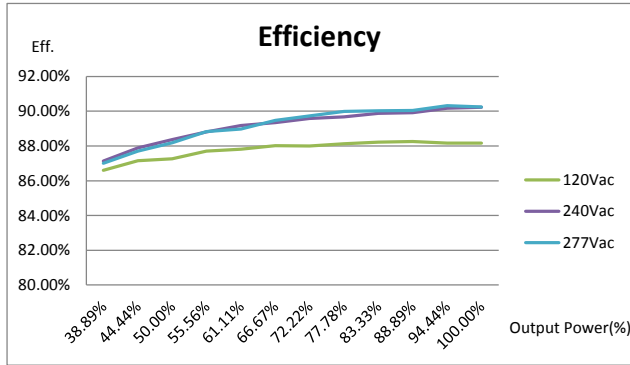
• Power Factor (PF / Output Power)



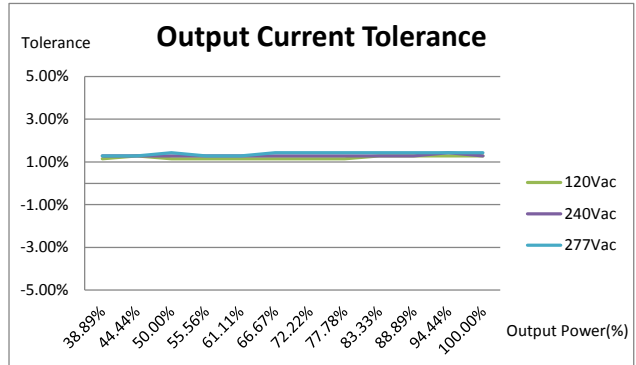
• THD (THD / Output Power)



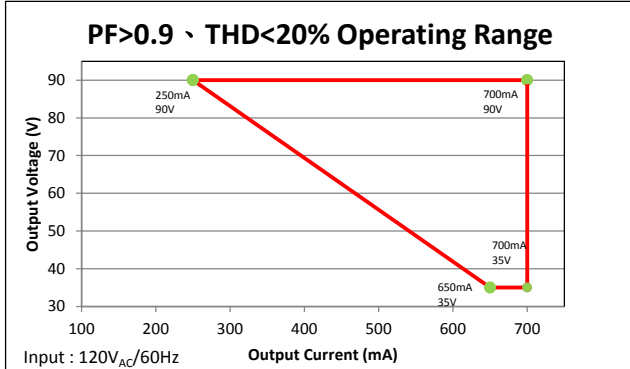
• Efficiency (Eff. / Output Power)



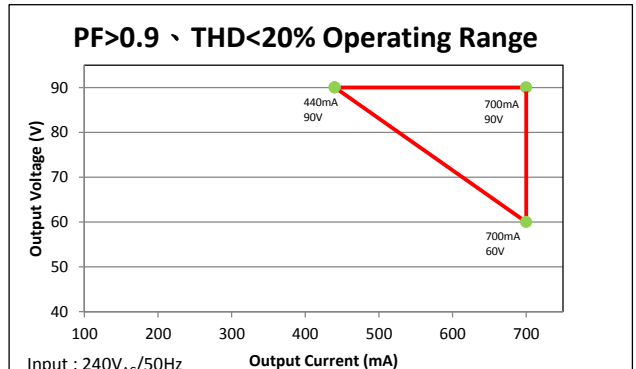
• Output Current Tolerance (Tolerance / Output Power)



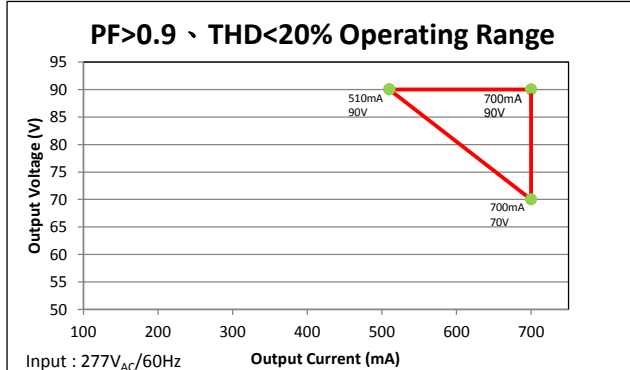
• PF>0.9 & THD<20% Operating Range (120Vac/60Hz Input)



• 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