

Class II 150W LED Controlgear : PA-1151-18 Series

Product Features

- Universal AC Input
- High Power Factor
- Low Total Harmonic Distortion
- High Efficiency
- 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

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|--|----------------------------|
| • AC Input Voltage | 90 ~ 305Vac (100 ~ 277Vac) |
| • AC Input Frequency | 47 ~ 63Hz (50~60Hz) |
| • Max. Input Current @ 90Vac | 2.3A |
| • Min. PF @ 120Vac (50Hz) / Full Output Load | 0.96 |
| • Min. PF @ 230Vac (50Hz) / Full Output Load | 0.95 |
| • Max. THD @ 120~277Vac / Half Output Load | 20% |
| • Min. Eff. @ 120 & 277Vac / 280V & 0.53A Output | 91.0% |
| • Turn On Delay Time | <3 seconds |
| • DC Output Current | 530mA |
| • Line Regulation | ±3% |
| • Load Regulation | ±7% |
| • DC Output Voltage Range | 56 ~ 280V |
| • DC Output Isolation | yes |

EMC

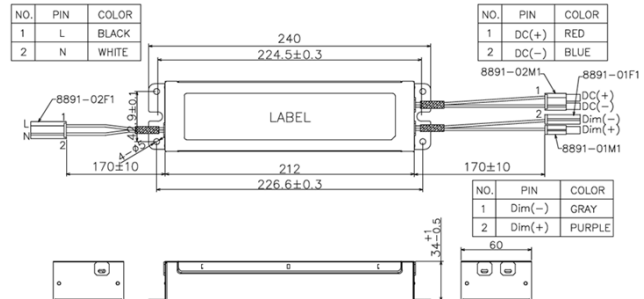
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|--------------------------------------|--|
| • EMI | FCC Class A |
| • Harmonic Current Emissions | EN61000-3-2 |
| • Voltage Fluctuations & Flicker | EN61000-3-3 |
| • Electrostatic Discharge (ESD) | EN61000-4-2 ±4KV (Contact), ±8KV (Air) |
| • RS 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

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|---------------------------------------|---|
| • Operating Temperature / Humidity | -40 ~ 55°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 Life (Note 3) | 50,000 Hrs while Tc ≤ 75°C 100,000 Hrs while Tc ≤ 65°C |
| • Tc | 80°C |
| • Cooling | free air convection |
| • Sound Level | meet Class A sound rating |

Mechanical

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| • 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.) | 1000g |
| • Outline Dimension | 240mm(L) * 60mm(W) * 34mm(H) |



Protections

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|-----------------------|-----------------------------|
| • OVP or Open Circuit | constant voltage, 350V max. |
| • SCP | auto recovery |
| • OTP | output power decrease |

Safety / Certifications

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|---|-------------------------|
| • 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 UL1012, 8th Edition | |
| • Complied with CSA C22.2 No.107.1, 3rd Edition | |
| • Complied with UL935, 10th Edition | |



Dimming Input

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

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|------------------|------------|
| Resistor Dimming | 63.4KΩ ±1% |
| Output Current | 350mA |
| Tolerance | ±10% |

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|-----------------------------------|-------|
| • Voltage Dimming Reference Table | |
| Voltage Dimming | 6.3V |
| Output Current | 350mA |
| Tolerance | ±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