

## Class II 42W LED Controlgear : PA-1400-48 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
- Meet Class 2 Power Unit
- 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)              | 0.6A                        |
| • Min. PF @ 230Vac (50Hz) / 40V Output            | 0.95                        |
| • Min. PF @ 230Vac (50Hz) / 28V Output (70% load) | 0.92                        |
| • Min. PF @ 277Vac (60Hz) / Output > 25W          | 0.9                         |
| • Max. THD @ 110~277Vac / Output > 25W            | 20%                         |
| • Min. Eff. @ 120Vac & 220Vac / 40V Output        | 86%                         |
| • Turn On Delay Time                              | <1.5 seconds                |
| • DC Output Current                               | 1050mA                      |
| • Line Regulation                                 | ±3%                         |
| • Load Regulation                                 | ±5%                         |
| • DC Output Voltage Range                         | 18 ~ 40V                    |
| • Ripple Current                                  | ±20%                        |
| • DC Output Isolation                             | yes                         |

### EMC

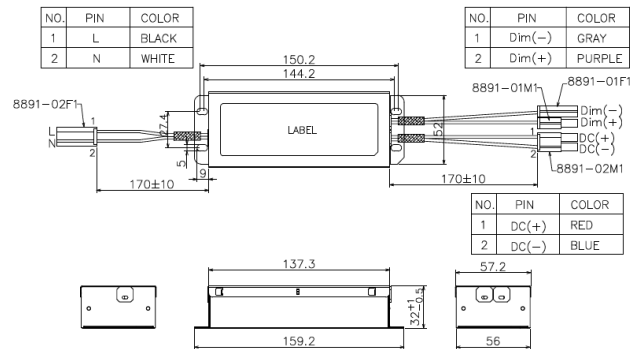
|                                      |                                                                                        |
|--------------------------------------|----------------------------------------------------------------------------------------|
| • EMI                                | FCC Class A                                                                            |
| • Harmonic Current Emissions         | EN61000-3-2                                                                            |
| • Voltage Fluctuations & Flicker     | EN61000-3-3                                                                            |
| • Electrostatic Discharge (ESD)      | EN61000-4-2<br>±4KV (Contact), ±8KV (Air)                                              |
| • RS Immunity Test                   | EN61000-4-3<br>80MHz ~ 1GHz, 3V/m, 80% AM (1KHz)                                       |
| • Electrical Fast Transient          | EN61000-4-4<br>±1KV for AC power line, ±0.5KV for DC / signal line                     |
| • Lighting Surge                     | EN61000-4-5<br>±4KV (Com.), ±4KV (Dif.)                                                |
| • CS Immunity Test                   | EN61000-4-6<br>0.15MHz ~ 80MHz, 3V, 80% AM (1KHz)                                      |
| • Voltage Dips & Short Interruptions | EN61000-4-11<br>30%, 25 cycles voltage reduction<br>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<br>30 minutes / side              |
| • Vibration (operation)               | 6Grms / 10~1000Hz / X/Y/Z axis<br>15 minutes / axis               |
| • MTBF Life (Note 3)                  | 50,000 Hrs while Tc ≤ 75°C<br>100,000 Hrs while Tc ≤ 65°C<br>85°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.)          | 550g                                               |
| • Outline Dimension      | 159.2mm(L) * 57.2mm(W) * 32mm(H)                   |



### Protections

|                       |                            |
|-----------------------|----------------------------|
| • OVP or Open Circuit | constant voltage, 56V 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, 500Vdc           |
| • Complied with UL8750, 1st Edition    |                         |
| • Complied with UL60950-1, 2nd Edition |                         |
| • Complied with CAN/CSA-C22.2          |                         |



### Dimming Input

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

|                  |            |            |
|------------------|------------|------------|
| Resistor Dimming | 63.4KΩ ±1% | 47.5KΩ ±1% |
| Output Current   | 700mA      | 530mA      |
| Tolerance        | ±10%       | ±10%       |

- Voltage Dimming Reference Table

|                 |       |       |
|-----------------|-------|-------|
| Voltage Dimming | 6.6V  | 5V    |
| Output Current  | 700mA | 530mA |
| 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