

Project :

Date :

Cat. No. :

Type :

Notes :

Volts :

## LED POWER SUPPLY CONSTANT VOLTAGE

### Features :

- Universal AC input / Full range (up to 295VAC)
- Built-in active PFC function
- High efficiency up to 91%
- Protections: Short circuit / Over current / Over voltage / Over temperature
- Cooling by free air convection
- OCP point adjustable through output cable or internal potentiometer
- IP65 / IP67 design for indoor or outdoor installations
- Suitable for LED lighting and moving sign applications
- Compliance to worldwide safety regulations for lighting



E334687  
E183223  
E127738



|                |   |
|----------------|---|
| CLG-150-12 [A] | Blank : IP67 rated. Cable for I/O connection.<br>A : IP65 rated. Output voltage and constant current level can be adjusted through internal potentiometer.<br>B : IP67 rated. Constant current level adjustable through output cable.<br>C : Terminal block for I/O connection. Output voltage and constant current level can be adjusted through internal potentiometer. |
|----------------|---|

### SPECIFICATION

| MODEL                          | NTPSUCLG-150W-12  | NTPSUCLG-150W-15 | NTPSUCLG-150W-20 | NTPSUCLG-150W-24                    | NTPSUCLG-150W-30 | NTPSUCLG-150W-36 | NTPSUCLG-150W-48 |
|--------------------------------|---|------------------|------------------|-------------------------------------|------------------|------------------|------------------|
| DC VOLTAGE                     | 12V   | 15V              | 20V              | 24V                                 | 30V              | 36V              | 48V              |
| CONSTANT CURRENT REGION Note.4 | 9 ~ 12V   | 11.25 ~ 15V      | 15 ~ 20V         | 18 ~ 24V                            | 22.5 ~ 30V       | 27 ~ 36V         | 36 ~ 48V         |
| RATED CURRENT                  | 11A   | 9.5A             | 7.5A             | 6.3A                                | 5A               | 4.2A             | 3.2A             |
| RATED POWER                    | 132W  | 142.5W           | 150W             | 151.2W                              | 150W             | 151.2W           | 153.6W           |
| RIPPLE & NOISE (max.) Note.2   | 150mVp-p  | 150mVp-p         | 150mVp-p         | 150mVp-p                            | 150mVp-p         | 150mVp-p         | 200mVp-p         |
| VOLTAGE ADJ. RANGE Note.6      | 9 ~ 13V   | 13 ~ 17V         | 17 ~ 22V         | 22 ~ 27V                            | 26 ~ 32V         | 31 ~ 41V         | 40 ~ 56V         |
| CURRENT ADJ. RANGE             | Can be adjusted by internal potentiometer A type and C type only  |                  |                  |                                     |                  |                  |                  |
| VOLTAGE TOLERANCE Note.3       | ±2.0%   | ±2.0%            | ±2.0%            | ±1.0%                               | ±1.0%            | ±1.0%            | ±1.0%            |
| LINE REGULATION                | ±0.5%   | ±0.5%            | ±0.5%            | ±0.5%                               | ±0.5%            | ±0.5%            | ±0.5%            |
| LOAD REGULATION                | ±1.0%   | ±1.0%            | ±1.0%            | ±0.5%                               | ±0.5%            | ±0.5%            | ±0.5%            |
| SETUP, RISE TIME               | 3000ms, 80ms at full load 230VAC / 115VAC   |                  |                  |                                     |                  |                  |                  |
| HOLD UP TIME (Typ.)            | 50ms / 230VAC 16ms / 115VAC at full load  |                  |                  |                                     |                  |                  |                  |
| VOLTAGE RANGE Note.5           | 90 ~ 295VAC 127 ~ 417VDC  |                  |                  |                                     |                  |                  |                  |
| FREQUENCY RANGE                | 47 ~ 63Hz   |                  |                  |                                     |                  |                  |                  |
| POWER FACTOR (Typ.)            | PF>0.98/115VAC, PF>0.95/230VAC, PF>0.93/277VAC at full load (Please refer to "Power Factor Characteristic" curve)   |                  |                  |                                     |                  |                  |                  |
| EFFICIENCY (Typ.)              | 88%   | 88%              | 90%              | 90%                                 | 91%              | 91%              | 91%              |
| AC CURRENT (Typ.)              | 2A / 115VAC   | 1A / 230VAC      | 0.68A / 277VAC   |                                     |                  |                  |                  |
| INRUSH CURRENT(max.)           | COLD START 65A (width=595μs measured at 50% Ipeak) at 230VAC  |                  |                  |                                     |                  |                  |                  |
| LEAKAGE CURRENT                | <1mA / 240VAC   |                  |                  |                                     |                  |                  |                  |
| OVER CURRENT (Typ.) Note.4     | 95 ~ 108%<br>Protection type : Constant current limiting, recovers automatically after fault condition is removed   |                  |                  |                                     |                  |                  |                  |
| SHORT CIRCUIT                  | Hiccup mode, recovers automatically after fault condition is removed  |                  |                  |                                     |                  |                  |                  |
| OVER VOLTAGE                   | 13.5 ~ 16V  | 18 ~ 20V         | 23 ~ 27V         | 28 ~ 34V                            | 33 ~ 38V         | 42 ~ 48V         | 59 ~ 70V         |
|                                | Protection type : Shut down and latch off o/p voltage, re-power on to recover   |                  |                  |                                     |                  |                  |                  |
| OVER TEMPERATURE               | 100°C ±10°C (RTH2)<br>Protection type : Shut down o/p voltage, re-power on to recover   |                  |                  |                                     |                  |                  |                  |
| WORKING TEMP.                  | -30 ~ +70°C (Refer to "Derating Curve")   |                  |                  |                                     |                  |                  |                  |
| WORKING HUMIDITY               | 20 ~ 95% RH non-condensing  |                  |                  |                                     |                  |                  |                  |
| STORAGE TEMP., HUMIDITY        | -40 ~ +80°C, 10 ~ 95% RH  |                  |                  |                                     |                  |                  |                  |
| TEMP. COEFFICIENT              | ±0.03%/°C (0 ~ 50°C)  |                  |                  |                                     |                  |                  |                  |
| VIBRATION                      | 10 ~ 500Hz, 5G 12min./1cycle, period for 72min. each along X, Y, Z axes   |                  |                  |                                     |                  |                  |                  |
| SAFETY STANDARDS Note.7        | UL8750, CSA C22.2 No. 250.0-08, UL1012, CAN/CSA-C22.2 No. 107.1-01, EN61347-1, EN61347-2-13 independent (except for CLG-150 C type), UL60950-1, I/P65 or IP67, J61347-1 (option, except for CLG-150 C type), J61347-2-13 approved   |                  |                  |                                     |                  |                  |                  |
| WITHSTAND VOLTAGE              | I/P-O/P: 3.75KVAC I/P-FG: 2KVAC O/P-FG: 0.5KVAC   |                  |                  |                                     |                  |                  |                  |
| ISOLATION RESISTANCE           | I/P-O/P, I/P-FG, O/P-FG: 100M Ohms / 500VDC / 25°C / 70% RH   |                  |                  |                                     |                  |                  |                  |
| EMC EMISSION                   | Compliance to EN55015, EN55022 (CISPR22) Class B, EN61000-3-2 Class C (≥ 75% load) ; EN61000-3-3  |                  |                  |                                     |                  |                  |                  |
| EMC IMMUNITY                   | Compliance to EN61000-4-2, 3, 4, 5, 6, 8, 11, EN61547, EN55024, light industry level (surge 4KV), criteria A  |                  |                  |                                     |                  |                  |                  |
| MTBF                           | 303.7K hrs min. MIL-HDBK-217F (25°C)  |                  |                  |                                     |                  |                  |                  |
| DIMENSION                      | 222.2*68*38.8mm (L*W*H)(CLG-150-Blank/A/B)  |                  |                  | 229*68*38.8mm (L*W*H)(CLG-150-C)    |                  |                  |                  |
| PACKING                        | 1.0Kg; 12pcs/13Kg/0.58CUFT(CLG-150-Blank/A/B)   |                  |                  | 1Kg; 12pcs/13Kg/0.96CUFT(CLG-150-C) |                  |                  |                  |
| NOTE                           | <ol style="list-style-type: none"> <li>All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature.</li> <li>Ripple &amp; noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1μf &amp; 47μf parallel capacitor.</li> <li>Tolerance : includes set up tolerance, line regulation and load regulation.</li> <li>Constant current operation region is within 75% ~ 100% rated output voltage. This is the suitable operation region for LED related applications, but please reconfirm special electrical requirements for some specific system design.</li> <li>Derating may be needed under low input voltages. Please check the static characteristics for more details.</li> <li>A type and C type only.</li> <li>Safety and EMC design refer to EN60598-1, subject 8750(UL), CNS15233, GB7000.1, FCC part18.</li> <li>The power supply is considered as a component that will be operated in combination with final equipment. Since EMC performance will be affected by the complete installation, the final equipment manufacturers must re-qualify EMC Directive on the complete installation again.</li> </ol> |                  |                  |                                     |                  |                  |                  |

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