



### ■ Features :

- Universal AC input / Full range
- Fully isolated plastic case with IP64 level
- Built-in constant current limiting circuit with adjustable OCP level
- Protections: Short circuit/Over load/Over voltage/Over temperature
- Built-in active PFC function
- IP64 design for indoor or outdoor installations
- Cooling by free air convection
- 100% full load burn-in test
- High reliability
- Suitable for LED lighting and moving sign applications (Note.2)
- Compliance to worldwide safety regulations for lighting
- 2 years warranty

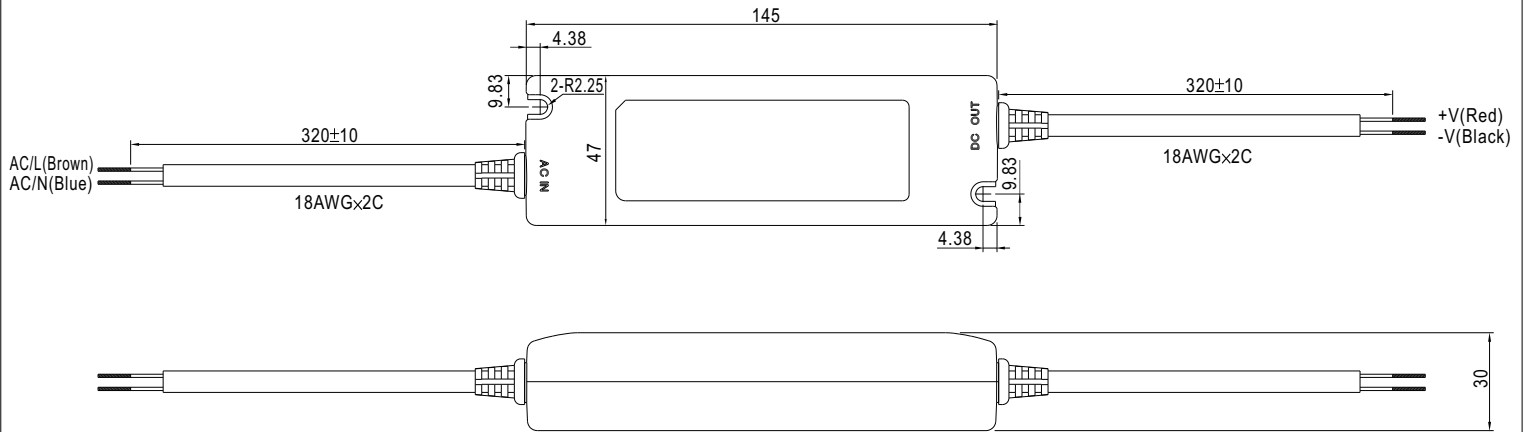


### SPECIFICATION

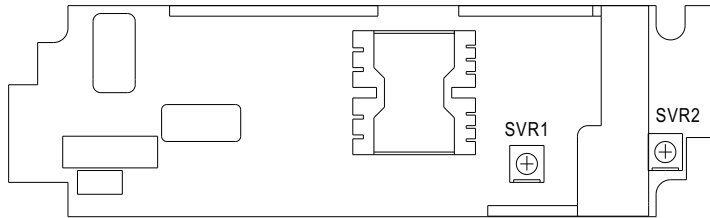
| MODEL           | PLN-30-9  | PLN-30-12  | PLN-30-15 | PLN-30-20  | PLN-30-24 | PLN-30-27  | PLN-30-36  | PLN-30-48  |            |
|-----------------|---|--|-----------|------------|-----------|------------|------------|------------|------------|
| OUTPUT          | DC VOLTAGE  | 9V   | 12V       | 15V        | 20V       | 24V        | 27V        | 36V        | 48V        |
|                 | CONSTANT CURRENT REGION Note.6  | 6.3 ~ 9V   | 8.4 ~ 12V | 10.5 ~ 15V | 14 ~ 20V  | 16.8 ~ 24V | 18.9 ~ 27V | 25.2 ~ 36V | 33.6 ~ 48V |
|                 | RATED CURRENT   | 3.3A   | 2.5A      | 2A         | 1.5A      | 1.25A      | 1.12A      | 0.84A      | 0.63A      |
|                 | CURRENT RANGE   | 0 ~ 3.3A   | 0 ~ 2.5A  | 0 ~ 2A     | 0 ~ 1.5A  | 0 ~ 1.25A  | 0 ~ 1.12A  | 0 ~ 0.84A  | 0 ~ 0.63A  |
|                 | RATED POWER   | 29.7W  | 30W       | 30W        | 30W       | 30W        | 30.24W     | 30.24W     | 30.24W     |
|                 | RIPPLE & NOISE (max.) Note.2  | 2.6Vp-p  | 2Vp-p     | 2.6Vp-p    | 2.6Vp-p   | 2.6Vp-p    | 2.3Vp-p    | 4.5Vp-p    | 3.7Vp-p    |
|                 | VOLTAGE ADJ. RANGE Note.5   | -5% ~ 10%. Can be adjusted by internal potential meter SVR1  |           |            |           |            |            |            |            |
|                 | CURRENT ADJ. RANGE Note.5   | 3% ~ -25%. Can be adjusted by internal potential meter SVR2  |           |            |           |            |            |            |            |
|                 | VOLTAGE TOLERANCE Note.3  | ±10%   |           |            |           |            |            |            |            |
|                 | LINE REGULATION   | ±3.0%  |           |            |           |            |            |            |            |
| LOAD REGULATION | ±5.0%   |  |           |            |           |            |            |            |            |
| SETUP TIME      | 1500ms / 230VAC 3000ms / 115VAC at full load  |  |           |            |           |            |            |            |            |
| INPUT           | VOLTAGE RANGE   | 90 ~ 264VAC 127 ~ 370VDC   |           |            |           |            |            |            |            |
|                 | FREQUENCY RANGE   | 47 ~ 63Hz  |           |            |           |            |            |            |            |
|                 | POWER FACTOR  | PF ≥ 0.9 at 75 ~ 100% load, 115VAC / 230VAC  |           |            |           |            |            |            |            |
|                 | EFFICIENCY(Typ.)  | 80%  | 82.5%     | 83.5%      | 84%       | 84%        | 84.5%      | 85%        | 85.5%      |
|                 | AC CURRENT  | 0.4A/115VAC 0.2A/230VAC  |           |            |           |            |            |            |            |
|                 | INRUSH CURRENT(max.)  | 40A/230VAC   |           |            |           |            |            |            |            |
|                 | LEAKAGE CURRENT   | <0.5mA / 240VAC  |           |            |           |            |            |            |            |
| PROTECTION      | OVER CURRENT Note.4   | 100 ~ 110%<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  | 10 ~ 14V   | 14 ~ 16V  | 17 ~ 22V   | 23 ~ 26V  | 27 ~ 34V   | 31 ~ 35V   | 40 ~ 50V   | 53 ~ 63V   |
|                 | OVER TEMPERATURE  | 95°C ±10°C (TSW1)<br>Protection type : Shut down o/p voltage, re-power on to recover                               |           |            |           |            |            |            |            |
| ENVIRONMENT     | WORKING TEMP.   | -30 ~ +50°C (Refer to output load derating curve)  |           |            |           |            |            |            |            |
|                 | WORKING HUMIDITY  | 20 ~ 95% RH non-condensing   |           |            |           |            |            |            |            |
|                 | STORAGE TEMP., HUMIDITY   | -40 ~ +80°C, 10 ~ 95% RH   |           |            |           |            |            |            |            |
|                 | TEMP. COEFFICIENT   | ±0.06%/°C (0 ~ 50°C)   |           |            |           |            |            |            |            |
|                 | VIBRATION   | 10 ~ 500Hz, 2G 12min./1cycle, period for 72min. each along X, Y, Z axes  |           |            |           |            |            |            |            |
| SAFETY & EMC    | SAFETY STANDARDS  | TUV EN61347-1, EN61347-2-13, CAN/CSA C22.2 No. 223-M91(except for 48V), IP64 approved                              |           |            |           |            |            |            |            |
|                 | WITHSTAND VOLTAGE   | I/P-O/P:3.75KVAC   |           |            |           |            |            |            |            |
|                 | ISOLATION RESISTANCE  | I/P-O/P:100M Ohms / 500VDC / 25°C / 70% RH   |           |            |           |            |            |            |            |
|                 | EMI CONDUCTION & RADIATION  | Compliance to EN55015  |           |            |           |            |            |            |            |
|                 | HARMONIC CURRENT  | Compliance to EN61000-3-2 Class C (pin ≥ 25W), Class D (>70% load) ; EN61000-3-3                                   |           |            |           |            |            |            |            |
|                 | EMS IMMUNITY  | Compliance to EN61000-4-2,3,4,5,6,8,11; ENV50204, EN55024, EN61547, light industry level, criteria A               |           |            |           |            |            |            |            |
| OTHERS          | MTBF  | 621.4Khrs min. MIL-HDBK-217F (25°C)  |           |            |           |            |            |            |            |
|                 | DIMENSION   | 145*47*30mm (L*W*H)  |           |            |           |            |            |            |            |
|                 | PACKING   | 0.22Kg; 60pcs/14.2Kg/1.25CUFT  |           |            |           |            |            |            |            |
| NOTE            | <ol style="list-style-type: none"> <li>1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature.</li> <li>2. Ripple &amp; noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf &amp; 47uf parallel capacitor.<br/>Direct connecting to LEDs is not suggested for models with "RIPPLE &amp; NOISE" &gt;±10% and using additional drivers is highly recommended.</li> <li>3. Tolerance : includes set up tolerance, line regulation and load regulation.</li> <li>4. Please refer to OLP characteristics.</li> <li>5. Output voltage can be adjusted through the SVR1 on the PCB; limit of output constant current level can be adjusted through the SVR2 on the PCB.</li> <li>6. Constant current operation region is within 70% ~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>7. 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> |  |           |            |           |            |            |            |            |

**Mechanical Specification**

Case No.964A Unit:mm

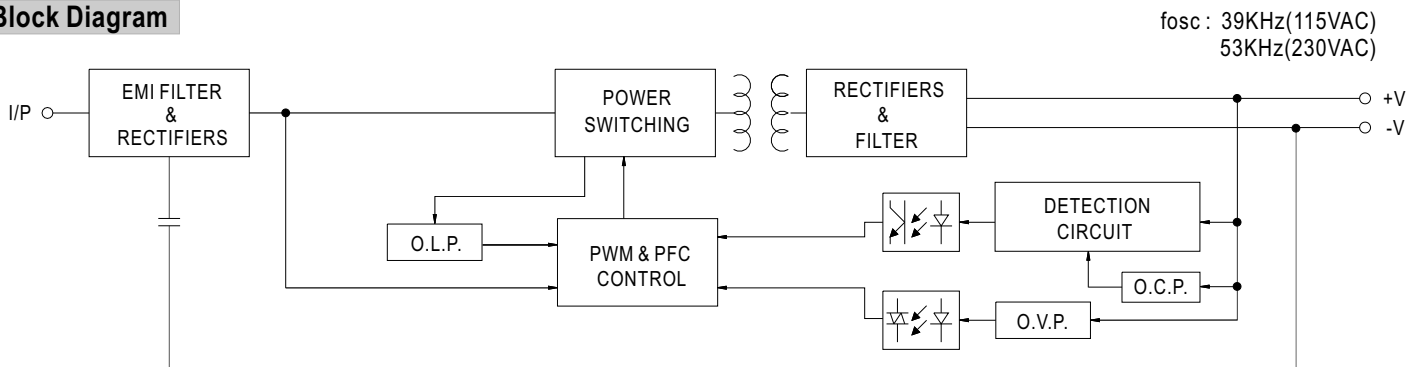


Output voltage and current adjustment : remove the upper case and adjust through SVR1 & SVR2 shown in the diagram.



|      |                           |
|------|---------------------------|
| SVR1 | Output voltage adjustment |
| SVR2 | Output current adjustment |

**Block Diagram**



**Derating Curve**

