# ARPJ-DIM241750-R
# (42W, 1750mA, 0-10V, PFC)

## FEATURES:

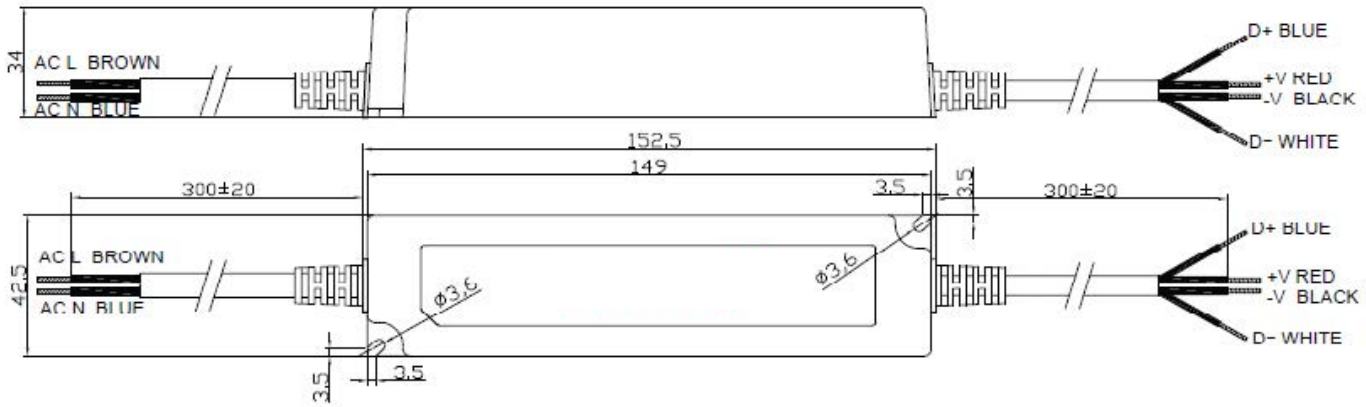
- 2 Optional dimming (PWM / Resistance)
- Universal AC input/Full range(100-277VAC)
- Protections: Short circuit / Overload / Over voltage / Over temperature
- Built_in active PFC function
- Fully encapsulated with IP65 level
- UL60950 Class 2 power unit, pass LPS
- Cooling by free air convection
- 100% full load burn-in test
- High reliability
- Suitable for LED lighting and moving sign applications
- Compliance to worldwide safety regulations for lighting
- Damp / wet location outdoor application
- 2 years warranty

## PARAMETERS:

| | | |
|---|---|---|
| OUTPUT | DC VOLTAGE | 24V |
| | RATED CURRENT | 1750mA |
| | CONSTANT CURRENT RE-GION | 15~24V |
| | RATED POWER | 42W |
| | RIPPLE&NOISE(MAX) | 2Vp-p |
| | CURRENT RIPPLE | <20% |
| | VOLTAGE TOLERANCE | ±2% |
| | LINE REGULATION | ±1% |
| | LOAD REGULATION | ±2% |
| | SETUP,RISE TIME | 1000ms, 80ms / 230VAC 1000ms, 80ms / 115VAC at full load |
| | HOLD UP TIME(Typ.) | 60ms / 230VAC 30ms / 115VAC at full load |
| INPUT | VOLTAGE RANGE | 100-277VAC |
| | FREQUENCY RANGE | 47~63Hz |
| | POWER FACTOR | PF>0.95/230VAC PF>0.99/115VAC at full load<br>PF≥0.9 at 75 ~ 100% load, 115VAC / 230VAC |
| | EFFICIENCY(Typ) | 86% |
| | AC CURRENT | 0.65A / 115VAC 0.35A / 230VAC |
| | INRUSH CURRENT(MAX) | Cold-start current 65A/230V |
| | LEAKAGE CURRENT | <2mA/240VAC |
| PROTECTION | OVER CURRENT | 95-108% |
| | | Protection type: Hiccup model,recovers automatically after fault condition is removed |
| | SHORT CIRCUIT | Hiccup mode, recovers automatically after fault condition is removed |
| | OVER VOLTAGE | 30~36V |
| | | Protection type : Shut down o/p voltage, re-power on to recover |
| | OVER TEMPERATURE | Tj 140°C typically(IC1) Detect on main control IC |
| | | Protection type : Shut down o/p voltage, recovers automatically after temperature goes down |

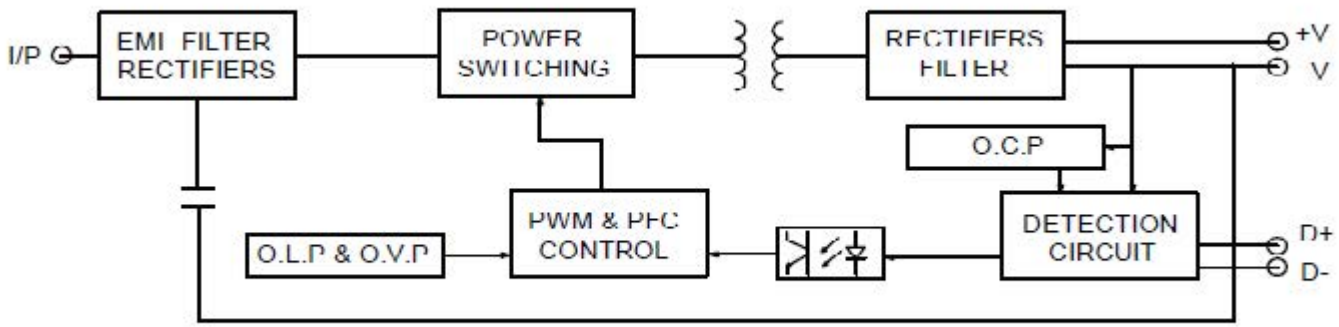
| | | |
|---|---|---|
| ENVIRONMENT | WORKING TEMP. | —30°C ~ +60°C @ full load ; +90°C @ 60% load |
| | WORKING HUMIDITY | 20% ~ 95%RH non-condensing |
| | STORAGE TMP.,HUMIDITY | —40°C ~ +80°C, 10-95%RH |
| | TEMP.COEFFICIENT | ±0.03%/°C(0-50°C) |
| | VIBRATION | 10 ~ 500Hz, 5G 12min./1cycle, period for 72min. each along X, Y, Z axes |
| SAFETY EMC | SAFETY STANDARDS | Design refer to UL1310 Class 2,TUV EN60950-1, EN61347-2-13, CAN/CSA C22.2 No. 223-M91, meet IP65 |
| | WITHSTAND VOLTAGE | I/P-O/P;3KVAC |
| | ISOLATION RESISTANCE | I/P-O/Pl: > 100M Ohms/500VDC/25~70%RH |
| | EMI CONDUCTION & RADIATION | Compliance to EN55015, EN55022 (CISPR22) Class B |
| | HARMONIC CURRENT | Compliance to EN61000-3-2 Class C ( ≥75% load) ; EN61000-3-3 |
| | EMC IMMUNITY | Compliance to EN61000-4-2,3,4,5,6,8,11; ENV50204, EN55024, EN61547, light industry level , criteria A |
| OTHERS | MTBF | ≥400KHours (25°C) |
| | DIMENSION | 150*43*34mm (L*W*H)) |

## MECHANICAL SPECIFICATION:



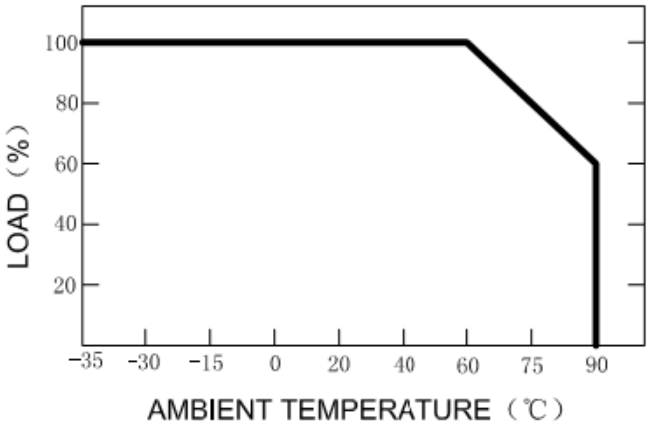

***Note:*** *AC Input line can be increased FG (GREEN & YELLOW) line*

## BLOCK DIAGRAM

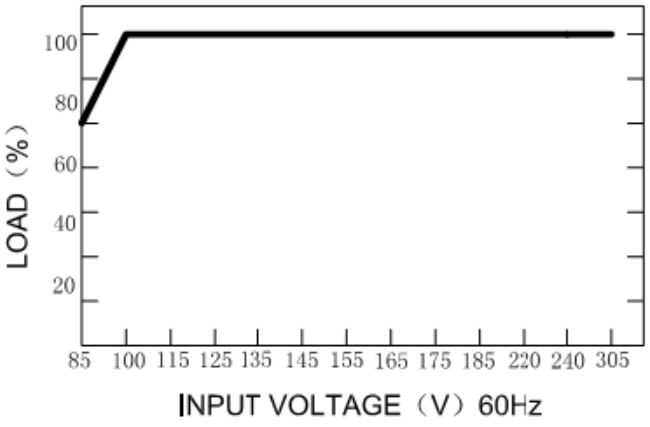


## CHARACTERISTIC DIAGRAM:

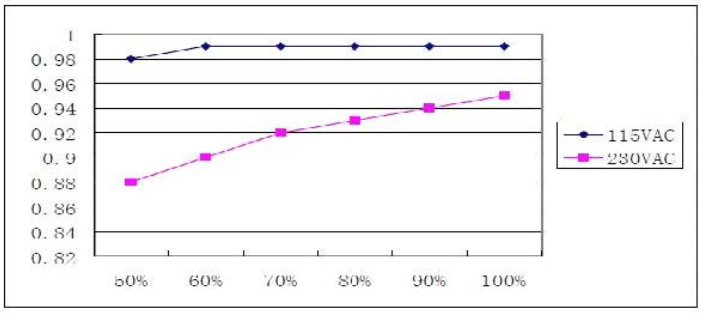
- **LOAD & TEMPERATURE FEATURE**



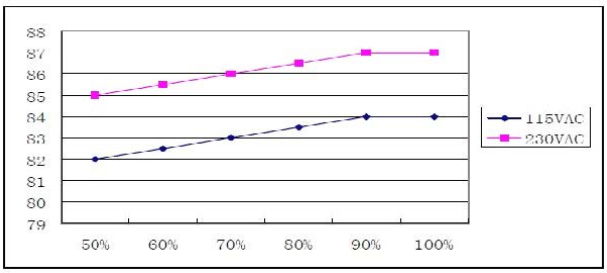

- **LOAD & AC INPUT VOLTAGE**



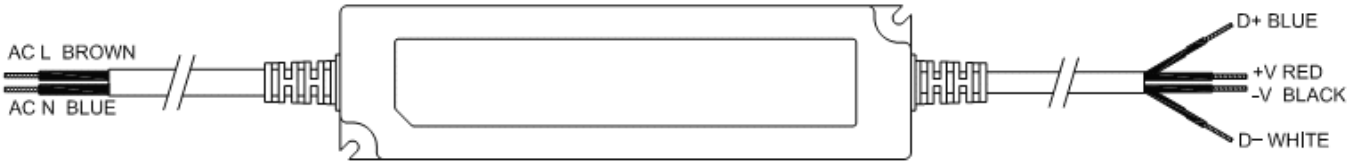

- **LOAD & POWER FACTOR**




- **LOAD & EFFICIENCY**




## DIMMER OPERATION:




***Note:*** *Connected a resistor or 10V PWM signal between D+ and D- ,LED. Driver can output constant current.*

Adjust the value of the resistance value (Typical value)

| Resistor value | 10kΩ | 20kΩ | 30kΩ | 40kΩ | 50kΩ | 60kΩ | 70kΩ | 80kΩ | 90kΩ | 100kΩ | Open |
|---|---|---|---|---|---|---|---|---|---|---|---|
| LED current | 10% | 20% | 30% | 40% | 50% | 60% | 70% | 80% | 90% | 100% | 100% |

10V PWM signal (Typical value) Frequency range: >10kHz

| 0~10V | 10% | 20% | 30% | 40% | 50% | 60% | 70% | 80% | 90% | 100% | Open |
|---|---|---|---|---|---|---|---|---|---|---|---|
| LED current | 10% | 20% | 30% | 40% | 50% | 60% | 70% | 80% | 90% | 100% | 100% |