

YSDW240 SERIES 240W



YSDW series are designed with metal housing and for single or two phase system with wide range from 180V AC to 550 V AC.

The series offer DC OK relay contact , built-in constant current limiting circuit and active PFC function(except YSDW60&120) , and operating in wide temperature range.

They are suitable for industrial-related applications such as industrial control, semiconductor fabrication equipment, and factory automation etc.

Features



Single and Two Phase Ultra Wide Input Range 180~550VAC



Built-in Active PFC Circuit



Built-in DC OK Relay Contact



Protection:Short Circuit/Overload /Over Voltage/Over Temperature



Built-in Constant Current Limiting Circuit



High Efficiency 91% and Lower Power Dissipation



Three Years Warranty

Model Information

| Yingjiao Part number | DC VOLTAGE | RATED CURRENT | RATED POWER | VOLTAGE ADJ. RANGE |
|-------------------------|---------------|------------------|----------------|-----------------------|
| YSDW240-24010000 | 24V | 10A | 240W | 24 ~ 48V |
| YSDW240-48005000 | 48V | 5A | 240W | 48 ~ 55V |

Input

| | |
|-----------------------|--|
| VOLTAGE RANGE | 180 ~ 550VAC 254 ~ 780VDC |
| FREQUENCY RANGE | 47~63Hz |
| POWER FACTOR (Typ.) | PF \geq 0.84/400VAC PF \geq 0.84/230VAC |
| EFFICIENCY (Typ.) | 91% |
| AC CURRENT | 1A/400Vac 2A/230Vac |
| INRUSH CURRENT (max.) | COLD START 50A |
| LEAKAGE CURRENT | <3.5mA / 530Vac |

Output

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|-----------------------|---|
| RIPPLE & NOISE (max.) | 150mVp-p |
| VOLTAGE TOLERANCE | \pm 2.0% |
| LINE REGULATION | \pm 0.5% |
| LOAD REGULATION | \pm 1.0% |
| SETUP, RISE TIME | 800ms, 150ms/400Vac at full load 1500ms, 150ms/230Vac at full load |
| HOLD UP TIME(Typ.) | 18ms/400Vac at full load 18ms/230Vac at full load |

Protection

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|-------------------------|--|
| OVER LOAD | 105 ~ 130% rated output power. Protection type : Constant current limiting, unit will shut down after 3 sec., auto-recovery after 1 minute if the fault condition is removed. |
| OVER VOLTAGE | 29~33V YSDW240-24010000 56~65V YSDW240-48005000 Protection type : Shut down o/p voltage, auto-recovery after 1 minute if the fault condition is removed. |
| OVER TEMPERATURE | 90 °C ± 5 °C (TSW) detect on heatsink of power switch. Protection type : Shut down o/p voltage, recovers automatically after temperature goes down. |

Environment

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|-------------------------------|---|
| WORKING TEMP. | -30 ~ +70 °C (Refer to "Derating Curve") |
| WORKING HUMIDITY | 20 ~ 95% RH non-condensing |
| STORAGE TEMP, HUMIDITY | -40 ~ +85 °C , 10 ~ 95% RH |
| TEMP. COEFFICIENT | ± 0.03%/°C (0 ~ 50 °C) |
| VIBRATION | Component: 10 ~ 500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes; Mounting clip: Compliance to IEC60068-2-6. |
| MTBF | 900K hrs min. Telcordia SR-332 (Bellcore) |

Function

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|---|---|
| DC OK REALY CONTACT RATINGS (max.) | 60Vdc/0.3A, 30Vdc/1A, 30Vac/0.5A resistive load |
|---|---|

SAFETY & EMC

| | |
|-----------------------------|--|
| SAFETY STANDARDS | UL61010-1, UL61010-2-201, BS EN/EN62368-1 |
| WITHSTAND VOLTAGE | I/P-O/P:3KVAC I/P-FG:2KVAC O/P-FG:0.5KVAC O/P-DC OK: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 BS EN/EN55032, BS EN/EN61000-3-2,-3 |
| EMC IMMUNITY | Compliance to BS EN/EN61000-4-2, 3, 4, 5, 6, 8, 11 |

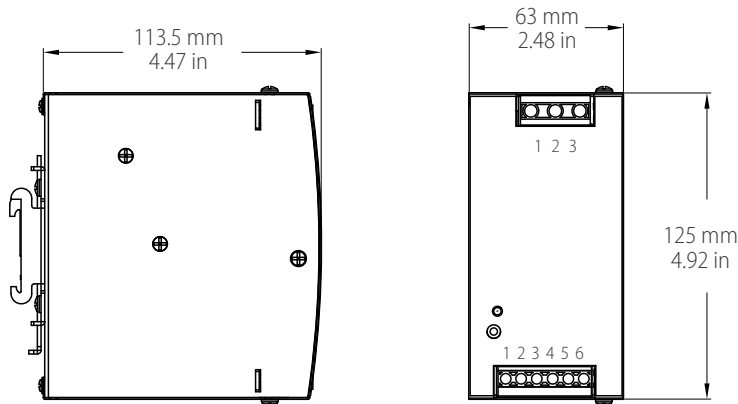
Note

- 1.All parameters NOT specially mentioned at 400VAC input, rated load and 25 °C of ambient temperature.
- 2.Ripple&noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uF & 47uF parallel capacitor.
- 3.Installation clearances: top with 40mm, bottom with 20mm, left and right with 5mm. Increase the space to 10-15mm when the adjacent device is heat source.
- 4.The ambient temperature derating of 3.5 °C /1000m for operating altitude higher than 2000m(6500ft).
- 5.The power supply is considered a component which will be installed into a final equipment. The final equipment must be re-confirmed that it still meets EMC directives. For guidance on how to perform these EMC tests, please refer to "EMI testing of component power supplies."

Dimensions & Weight

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|---------|------------------|
| Length: | 63mm / 2.48in |
| Width: | 113.5mm / 4.47in |
| Height: | 125mm / 4.92in |
| Weight: | 1kg |

Mechanical Specification



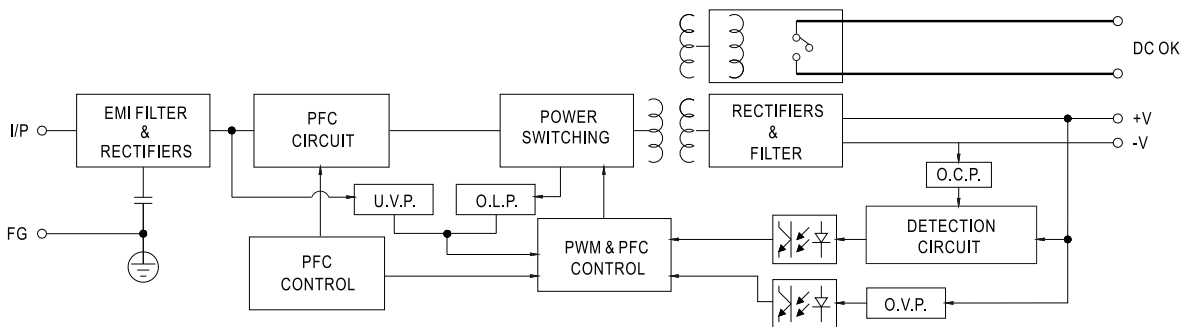
Input

| No. | Description |
|-----|-------------|
| 1 | FG ⊕ |
| 2 | AC/L2 |
| 3 | AC/L1 |

Output

| No. | Description |
|-----|---------------|
| 1,2 | Relay Contact |
| 3,4 | DC OUTPUT +V |
| 5,6 | DC OUTPUT -V |

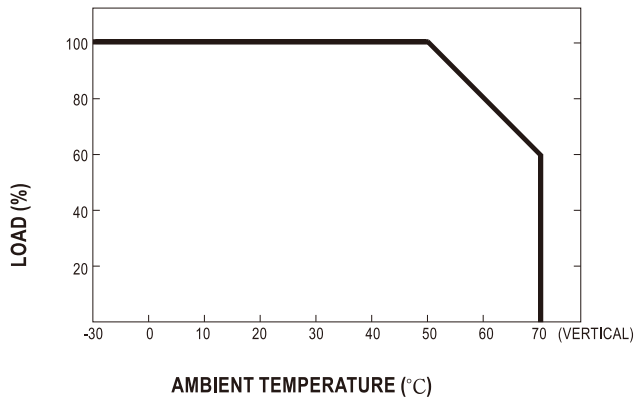
Block Diagram



DC OK Relay Contact

| | |
|------------------------|--------------------------|
| Contact Close | PSU turns ON / DC OK. |
| Contact Open | PSU turns OFF / DC Fail. |
| Contact Ratings (max.) | 30V/1A resistive load. |

Derating Curve



Output Derating Vs Input Voltage

