

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 YSDW120), 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



Over Voltage Category III



Built-in DC OK Relay Contact



DC Output Voltage Adjustable



Built-in Constant Current Limiting Circuit



Three Years Warranty

Model Information

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

Input

| | |
|-----------------------|--|
| VOLTAGE RANGE(Note.6) | 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

| | |
|-------------------------------|---|
| RIPPLE & NOISE (max.)(Note.2) | 150mVp-p |
| VOLTAGE TOLERANCE(Note.3) | \pm 1.0% |
| 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/400Vac at full load |

Protection

| | |
|------------------|--|
| OVER LOAD | 105 ~ 135% rated output power. Protection type: Constan current limiting, unit will shut down after 3 sec., auto-recovery after 1 minute if the fault condition is removed. |
| OVER VOLTAGE | 29~33V YSDW-240-24 56~65V YSDW-240-48 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

| | |
|-------------------------|---|
| WORKING TEMP. (Note.5) | -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 | 1062.8K hrs min. Telcordia SR-332 (Bellcore); 141.1K hrs min. MIL- HDBK-217F (25°C). |

Function

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

SAFETY & EMC (Note 4)

| | |
|----------------------|--|
| SAFETY STANDARDS | UL508, EAC TP TC 004 approved, IEC62368-1 CB approved by SIQ, design refer o BS EN/EN62368-1, AS/NZS 62368.1, GL; (mee BS EN/EN60204-1). |
| 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 o BS EN/EN55032 (CISPR32), BS EN/EN61204-3 Class B, BS EN/EN61000-3-2,-3, EAC TP TC 020. |
| EMC IMMUNITY | Compliance to BS EN/EN61000-4-2,3,4,5,6,8,11, BS EN/EN55035, BS EN/EN61000-6-2 (BS EN/EN50082-2), BS EN/EN61204-3, heavy industry level, EAC TP TC 020 approved. |

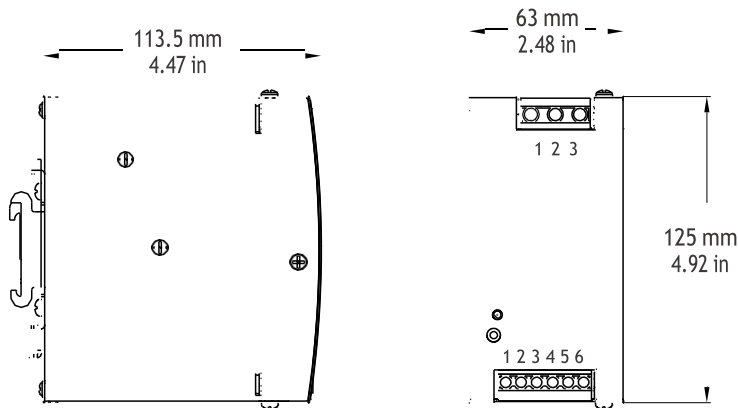
Note

1. All parameters NOT specially mentioned are measured 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. Tolerance: includes set up tolerance, line regulation and load regulation.
4. 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.
5. Installation clearances: 40mm on top, 20mm on the bottom, 5mm on the left and right side are recommended when loaded permanently with full power. In case the adjacent device is a heat source, 15mm clearance is recommended.
6. Derating may be needed under low input voltage. Please check t he derating curves for more details.
7. The ambient temperature derating of 3.5 °C/1000m with fanless models and of 5 °C/1000m with fan models for operating altitude higher than 2000m(6500f).

Dimensions & Weight

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

Mechanical Specification



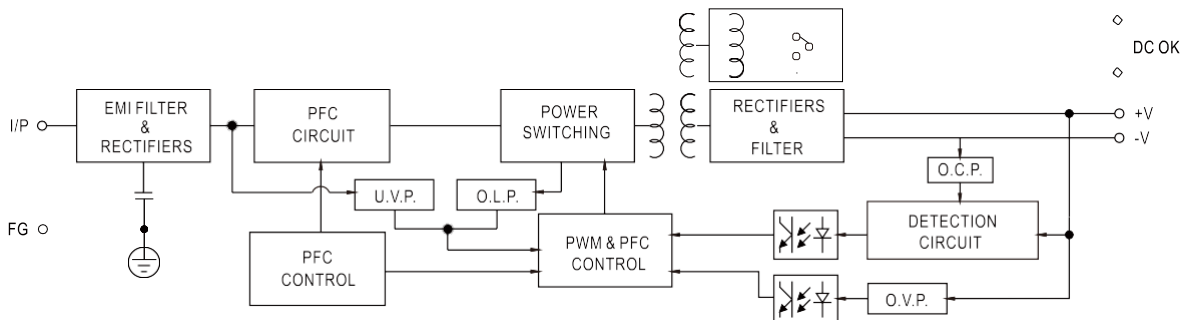
Input

| 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 |

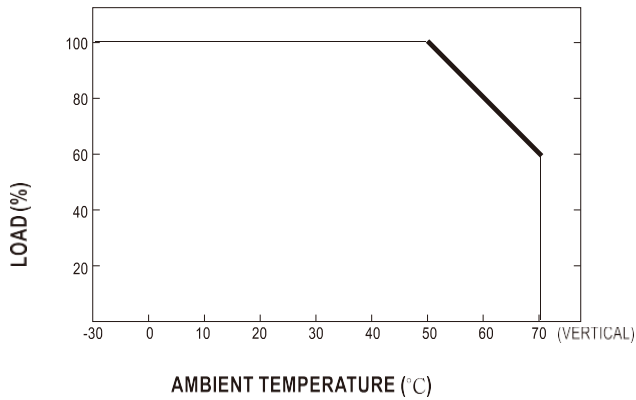
Block Diagram



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. |

Deduction Curve And Temperature



Minus Output And Input Voltage Curves

