

# 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

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

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

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

DC OK REALY CONTACT RATINGS (max.)	60Vdc/0.3A, 30Vdc/1A, 30Vac/0.5A resistive load
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## SAFETY & EMC

<b>SAFETY STANDARDS</b>	UL61010-1, UL61010-2-201, BS EN/EN62368-1
<b>WITHSTAND VOLTAGE</b>	I/P-O/P:3KVAC I/P-FG:2KVAC O/P-FG:0.5KVAC O/P-DC OK:0.5KVAC
<b>ISOLATION RESISTANCE</b>	I/P-O/P, I/P-FG, O/P-FG:>100M Ohms / 500VDC / 25 °C / 70% RH
<b>EMC EMISSION</b>	Compliance to BS EN/EN55032, BS EN/EN61000-3-2,-3
<b>EMC IMMUNITY</b>	Compliance to BS EN/EN61000-4-2, 3, 4, 5, 6, 8, 11

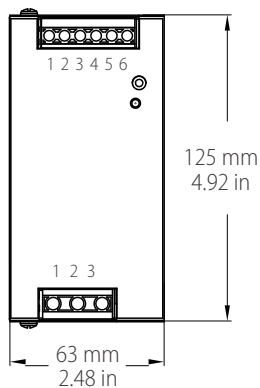
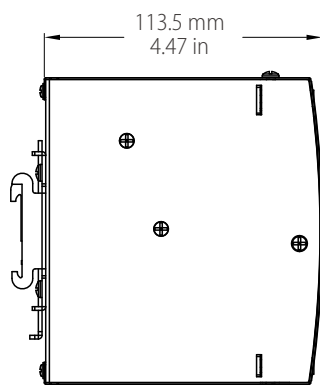
### Note

- 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

<b>Length:</b>	63mm / 2.48in
<b>Width:</b>	113.5mm / 4.47in
<b>Height:</b>	125mm / 4.92in
<b>Weight:</b>	1kg

## Mechanical Specification



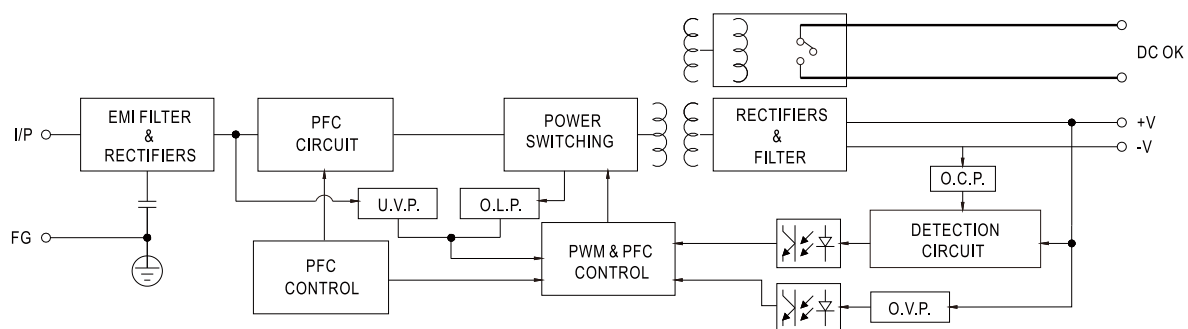
Input

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



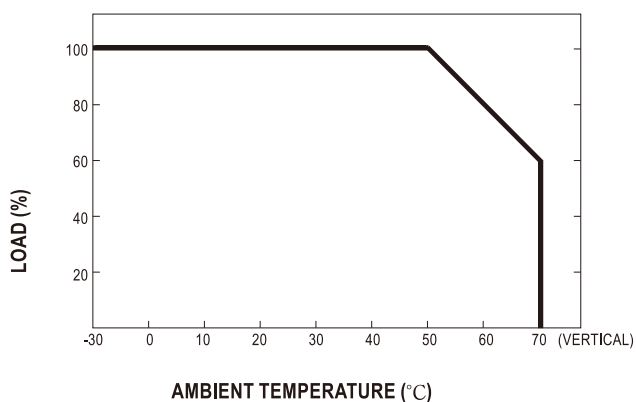
## DC OK Relay Contact

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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

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## Minus Output and Input Voltage Curves

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