

# YSDW60 SERIES 60W



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



Over Voltage Category III



Built-in DC OK Relay Contact



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



Bulit-in Constant Current Limiting Circuit



Three Years Warranty

## Model Information

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Yingjiao Part number	DC VOLTAGE	RATED CURRENT	RATED POWER	VOLTAGE ADJ. RANGE
YSDW60-5	5V	10A	50W	5 ~ 6V
YSDW60-12	12V	5A	60W	12 ~ 15V
YSDW60-24	24V	2.5A	60W	24 ~ 29V
YSDW60-48	48V	1.25A	60W	48 ~ 57V

## Input

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<b>RATED INPUT (Certified Voltage)</b>	200 ~ 480VAC
<b>NOMINAL INPUT VOLTAGE RANGE</b>	180 ~ 550VAC or 254 ~ 780VDC
<b>FREQUENCY RANGE</b>	47~63Hz
<b>EFFICIENCY (Typ.)</b>	83.5%/400Vac YSDW60-5 86.5%/400Vac YSDW60-12 89.0%/400Vac YSDW60-24 90.5%/400Vac YSDW60-48
<b>AC CURRENT</b>	0.4A/400Vac 0.7A/230Vac
<b>INRUSH CURRENT (max.)</b>	COLD START 50A /400Vac 30A/230Vac
<b>LEAKAGE CURRENT</b>	<2mA / 530Vac

## Output

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<b>RIPPLE &amp; NOISE (max.)</b>	100mVp-p	YSDW60-5
	120mVp-p	YSDW60-12
	150mVp-p	YSDW60-24
	200mVp-p	YSDW60-48
<b>VOLTAGE TOLERANCE</b>	± 2.0%	
<b>LINE REGULATION</b>	± 0.5%	
<b>LOAD REGULATION</b>	± 1.5%	YSDW60-5
	± 0.5%	YSDW60-12
	± 0.5%	YSDW60-24
	± 0.5%	YSDW60-48
<b>SETUP, RISE TIME</b>	1000ms, 70ms, 20ms/400Vac at full load	
<b>HOLD UP TIME</b>	2000ms, 70ms, 10ms/230Vac at full load	

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## Function

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<b>DC OK SIGNAL</b>	Relay contact rating(max.) : 30V / 1A resistive
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## Protection

<b>OVER LOAD</b>	105 ~ 135% rated output power Hiccup mode when output voltage <50%, recovers automatically after fault condition is removed. Constant current limiting within 50% ~ 100% rated output voltage, recovers automatically after fault condition is removed.
<b>OVER VOLTAGE</b>	6.2~7.2V YSDW60-5 16~18V YSDW60-12 31~37V YSDW60-24 58~60.5V YSDW60-48 Protection type : Shut down o/p voltage, re-power on to recover
<b>OVER TEMPERATURE</b>	Protection type : Shut down o/p voltage, re-power on to recover

## Environment

<b>WORKING TEMP.</b>	-30 ~ +85 °C (Refer to "Derating Curve")
<b>WORKING HUMIDITY</b>	20 ~ 90% RH non-condensing
<b>STORAGE TEMP.</b>	-40 ~ +85 °C
<b>COLD START</b>	-40 °C
<b>TEMP. COEFFICIENT</b>	± 0.03%/°C (0 ~ 60 °C)
<b>VIBRATION</b>	Component: 10 ~ 500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes; Mounting clip: Compliance to IEC60068-2-6.
<b>OPERATING ALTITUDE</b>	2000 meters
<b>OVER VOLTAGE CATEGORY</b>	II ; According to EN61558, EN50178, EN60664-1, EN62477-1, EN60204-1; altitude up to 2000 meters.
<b>MTBF</b>	1600K hrs min. Telcordia SR-332 (Bellcore)

## SAFETY & EMC

<b>SAFETY STANDARDS</b>	UL61010-1, UL61010-2-201, BS EN/EN62368-1
<b>WITHSTAND VOLTAGE</b>	I/P-O/P:4.7KVAC I/P-FG:2.5KVAC 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

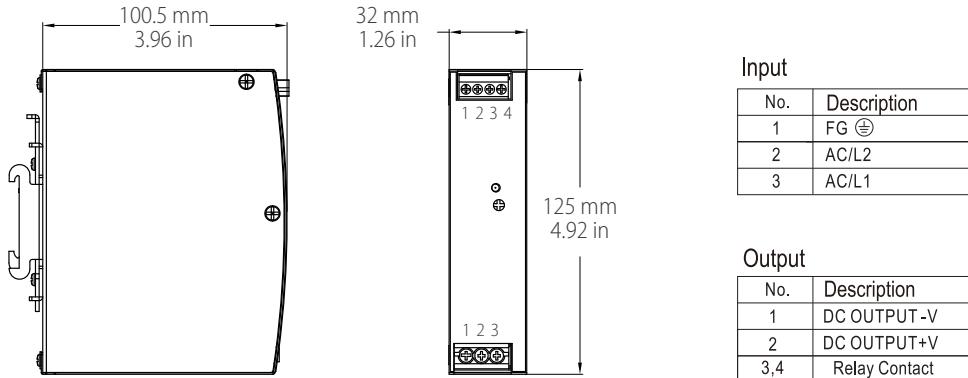
## Note

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."

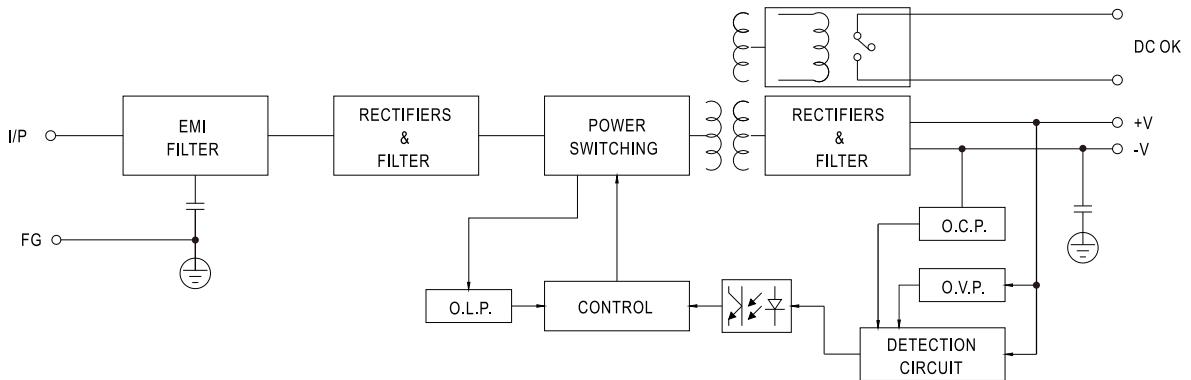
## Dimensions & Weight

<b>Length:</b>	32mm / 1.26in
<b>Width:</b>	100.5mm / 3.96in
<b>Height:</b>	125mm / 4.92in
<b>Weight:</b>	0.45kg

# Mechanical Specification



# Block Diagram

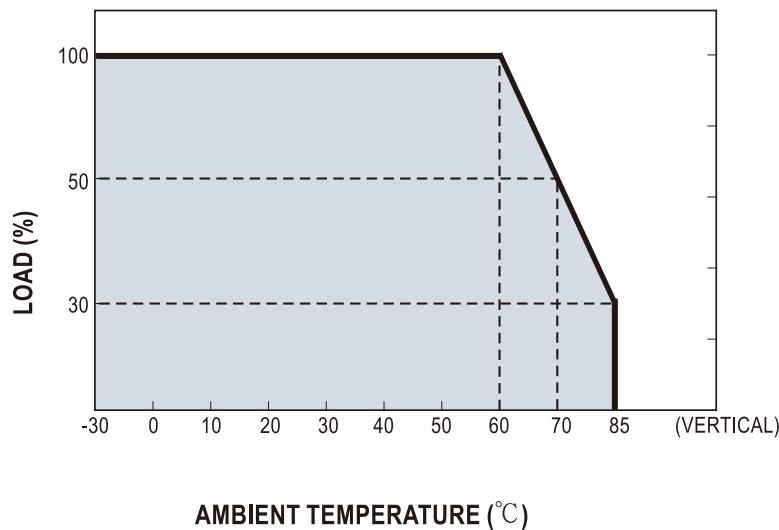


## DC OK Relay Contact

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

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## Minus Output and Input Voltage Curves

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