

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



Built-in Constant Current Limiting Circuit



Three Years Warranty

Model Information

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

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

Output

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

Function

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

OVER LOAD	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.
OVER VOLTAGE	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
OVER TEMPERATURE	Protection type : Shut down o/p voltage, re-power on to recover

Environment

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

SAFETY & EMC

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

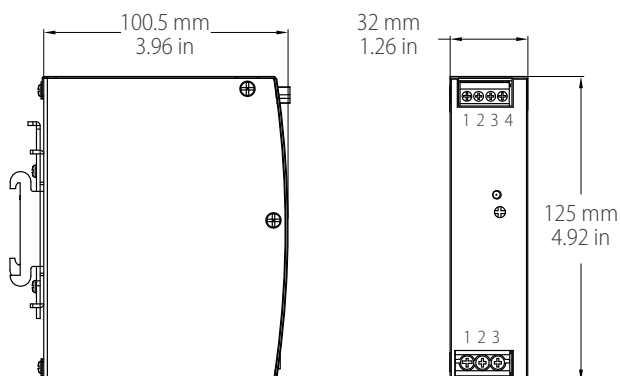
Note

- 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

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

Mechanical Specification



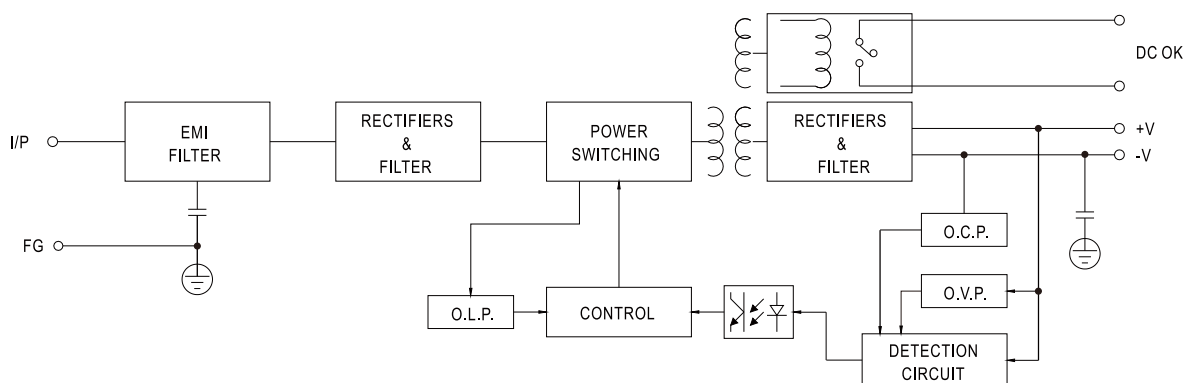
Input

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

Output

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

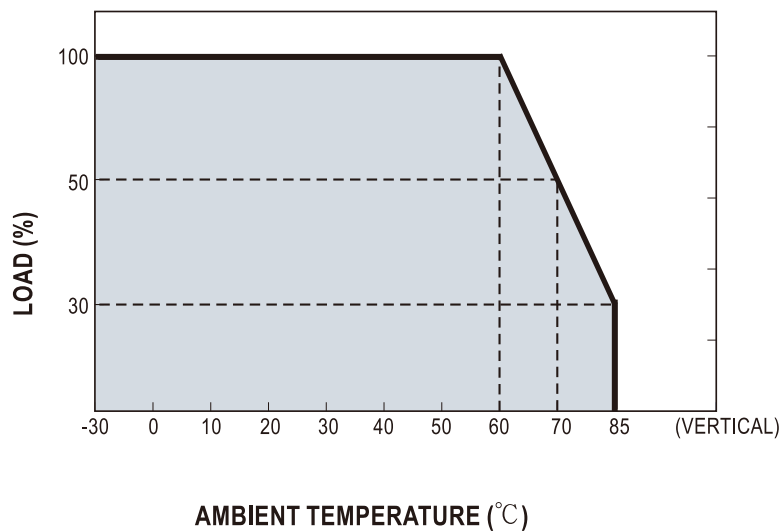
Block Diagram



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

