

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 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-60-05	5V	10A	50W	5 ~ 6V
YSDW-60-12	12V	5A	60W	12 ~ 15V
YSDW-60-24	24V	2.5A	60W	24 ~ 29V
YSDW-60-48	48V	1.25A	60W	48 ~ 57V

Input

VOLTAGE RANGE(Note.4)	180 ~ 550Vac or 254 ~ 780Vdc
FREQUENCY RANGE	47-63Hz
EFFICIENCY (Typ.)	83.5%/400Vac YSDW-60-05 86.5%/400Vac YSDW-60-12 89.0%/400Vac YSDW-60-24 90.5%/400Vac YSDW-60-48
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.)(Note.2)	100mVp-p	YSDW-60-05
	120mVp-p	YSDW-60-12
	150mVp-p	YSDW-60-24
	200mVp-p	YSDW-60-48

VOLTAGE TOLERANCE(Note.3)	$\pm 2.0\%$	YSDW-60-05
	$\pm 1.5\%$	YSDW-60-12
	$\pm 1.0\%$	YSDW-60-24
	$\pm 1.0\%$	YSDW-60-48

LINE REGULATION	$\pm 0.5\%$
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LOAD REGULATION	$\pm 1.5\%$	YSDW-60-05
	$\pm 0.5\%$	YSDW-60-12
	$\pm 0.5\%$	YSDW-60-24
	$\pm 0.5\%$	YSDW-60-48

SETUP, RISE, HOLD UP TIME	1000ms, 70ms, 20ms/400Vac at full load 2000ms, 70ms, 10ms/230Vac at full load
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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 YSDW-60-05 16~18V YSDW-60-12 31~37V YSDW-60-24 58~60.5V YSDW-60-48 Protection type: Shut down o/p voltage, re-power onto recover
OVER TEMPERATURE	Protection type: Shut down o/p voltage, re-power onto recover

Environment

WORKING TEMP.	-30 ~ +85°C (Refer to "Derating Curve")
WORKING HUMIDITY	20 ~ 90% RH non-condensing
STORAGE TEMP.	-40 ~ +85°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 o IEC60068-2-6.
OPERATING ALTITUDE(Note.5)	2000 meters
OVER VOLTAGE CATEGORY	II ; According to EN61558, EN50178, EN60664-1, EN62477-1, EN60204-1; altitude up to 2000 meters.
MTBF	1900.1K hrs min. Telcordia SR-332 (Bellcore); 313.7K hrs min. MIL- HDBK-217F (25°C).

SAFETY & EMC (Note 7)

SAFETY STANDARDS	UL61010, BS EN/EN61558-2-16, AS/NZS 62368.1, EAC TP TC 004 approved; design refer to GL and BS EN/EN60204-1(By request)
WITHSTAND VOLTAGE	I/P-0/P:4.7KVAC I/P-FG:2.5KVAC O/P-FG:0.5KVAC O/P-DC OK:0.5KVAC
ISOLATION RESISTANCE	I/P-0/P, I/P-FG, O/P-FG:100M Ohms / 500VDC / 25°C/ 70% RH
EMC EMISSION	BS EN/EN55032(CISPR32)
EMC IMMUNITY	BS EN/EN61000-4-2, 3, 4, 5, 6, 8

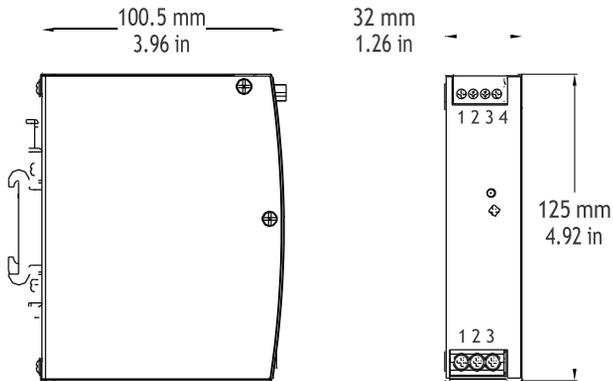
Note

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. Derating may be needed under low input voltage. Please check the derating curves for more details.
5. 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).
6. 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.
7. The power supply is considered a component which will be installed in o 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:	1kg

Mechanical Specification



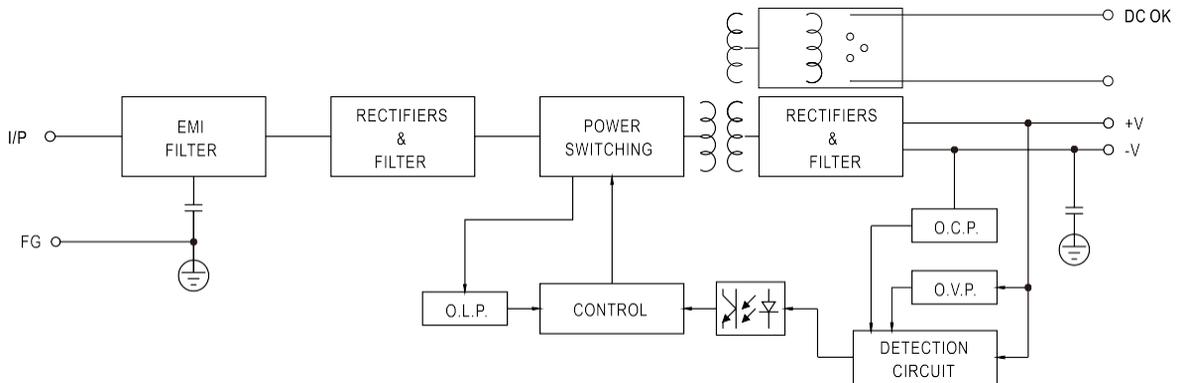
Input

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

Output

No.	Description
1	FG ⊕
2	L2
3	L1

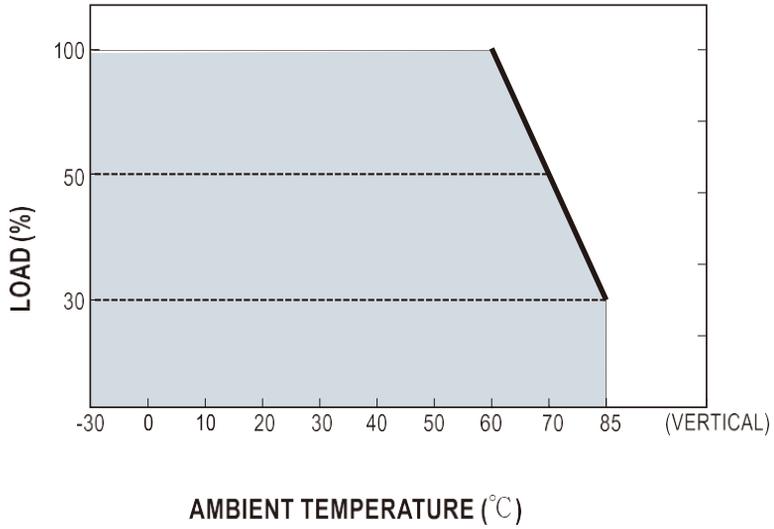
Block Diagram



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

