

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

Yingjiao Part number	DC VOLTAGE	RATED CURRENT	RATED POWER	VOLTAGE ADJ. RANGE
YSDW60-05010000	5V	10A	50W	5 ~ 6V
YSDW60-12005000	12V	5A	60W	12 ~ 15V
YSDW60-24002500	24V	2.5A	60W	24 ~ 29V
YSDW60-48001250	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 YSDW60-05010000 86.5%/400Vac YSDW60-12005000 89.0%/400Vac YSDW60-24002500 90.5%/400Vac YSDW60-48001250
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	YSDW60-05010000
	120mVp-p	YSDW60-12005000
	150mVp-p	YSDW60-24002500
	200mVp-p	YSDW60-48001250
VOLTAGE TOLERANCE(Note.3)	± 2.0%	YSDW60-05010000
	± 1.5%	YSDW60-12005000
	± 1.0%	YSDW60-24002500
	± 1.0%	YSDW60-48001250
LINE REGULATION	± 0.5%	
LOAD REGULATION	± 1.5%	YSDW60-05010000
	± 0.5%	YSDW60-12005000
	± 0.5%	YSDW60-24002500
	± 0.5%	YSDW60-48001250
SETUP, RISE, HOLD UP TIME	1000ms, 70ms, 20ms/400Vac	at full load
	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 YSDW60-05010000 16~18V YSDW60-12005000 31~37V YSDW60-24002500 58~60.5V YSDW60-48001250 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
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(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-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	BS EN/EN55032(CISPR32)
EMC IMMUNITY	BS EN/EN61000-4-2, 3, 4, 5, 6, 8

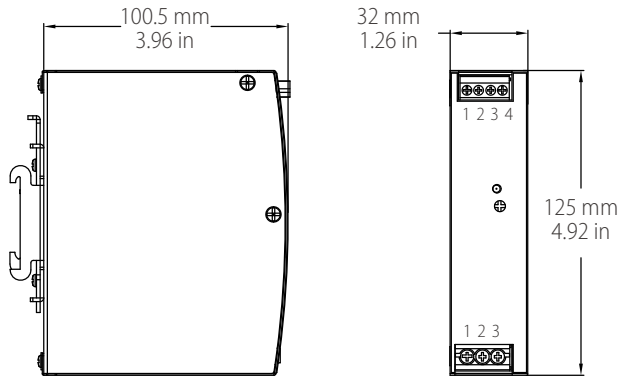
Note

- 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(6500ft).
- 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 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:	1kg

Mechanical Specification



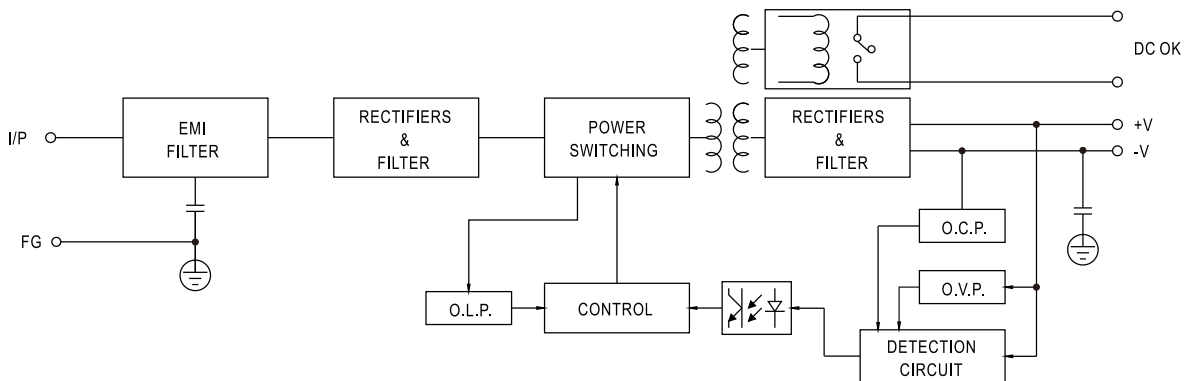
Input

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

Output

No.	Description
1	FG Ⓧ
2	L2
3	L1

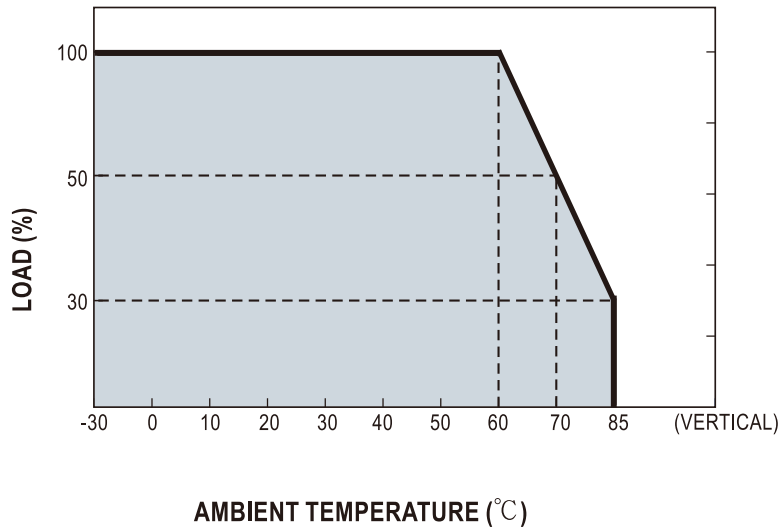
Block Diagram



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

