

Datasheet

YSDW60 SERIES 60W

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YSDW series are designed with metal housing and for single or two phase system with wide range from 180V AC to 550V 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 Ultrawide 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

INPUTVOLTAGE 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	±2.0%	
LINE REGULATION	±0.5%	
LOAD REGULATION	±1.5%	YSDW60-5
	±0.5%	YSDW60-12
	±0.5%	YSDW60-24
	±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.
OVERVOLTAGE	6.2~7.2V YSDW60-5 16~18V YSDW60-12 31~37V YSDW60-24 58~60.5V YSDW60-48 Protection tYpe : Shutdown o/p voltage, re-power on to recover
OVERTEMPERATURE	Protection tYpe : Shutdown o/p voltage, re-power on to recover

Environment

WORKINGTEMP.	-30 ~ +85 °C (Refer to "Derating curve")
WORKING HUMIDITY	20 ~ 90% RH non-condensing
STORAGETEMP.	-40 ~ +85 °C
COLD START	-40 °C
TEMP. COEFFICIENT	±0.03%/ °C (0 ~ 60 °C)
VIBRATION	component: 10 ~ 500Hz, 2G 10min./1cYcle, 60min. each alongX,Y, Z axes; Mounting clip: compliance to IEC60068-2-6.
OPERATING ALTITUDE	2000 meters
OPERATING ALTITUDE	II ; According to EN61558, EN50178, EN60664-1, EN62477-1, EN60204-1; altitude up to 2000 meters.
MTBF	1600k hrs min.TelcordiaSR-332 (Bellcore)

SAFETY & EMC

SAFETY STANDARDS	UL61010-1, UL61010-2-201, BS EN/EN62368-1
WITHSTAND VOLTAGE	I/P-O/P:3KVAC I/P-FG:2KVAC 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

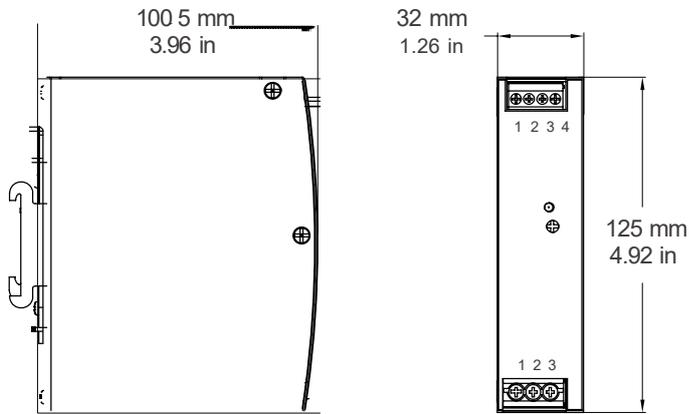
Note

- 1.All parameters NOT specially mentioned at 400VAC input, ratedload 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

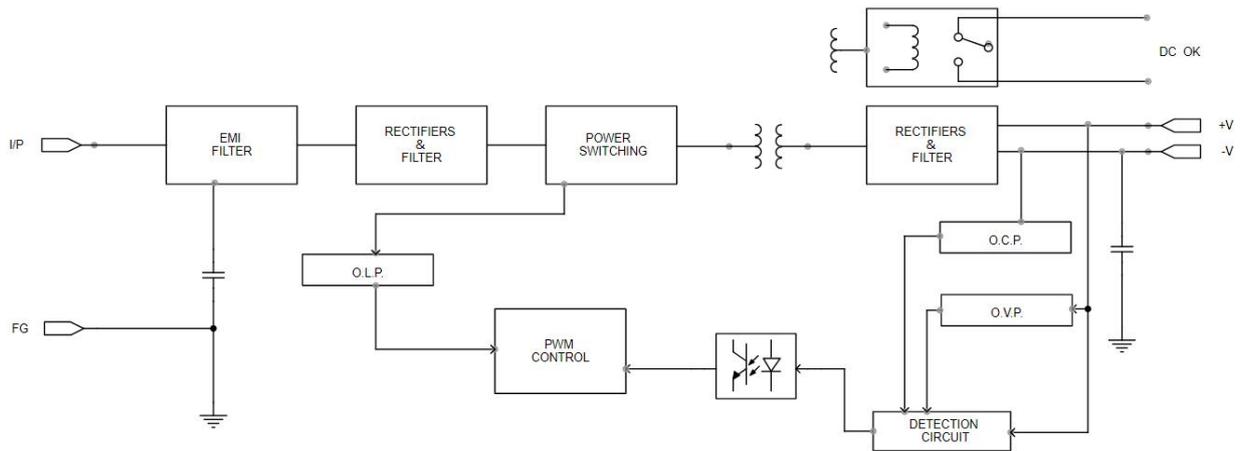
Mechanical Specification



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

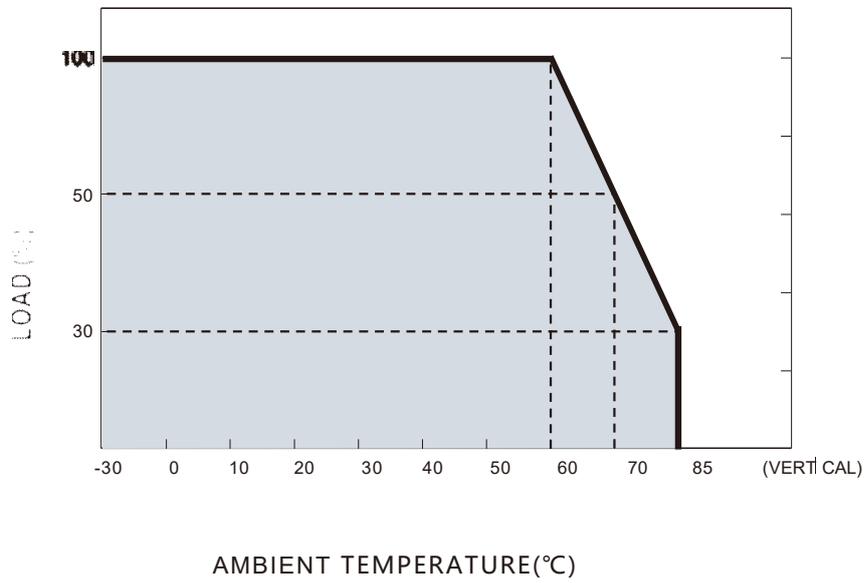
BLOCK DIAGRAM



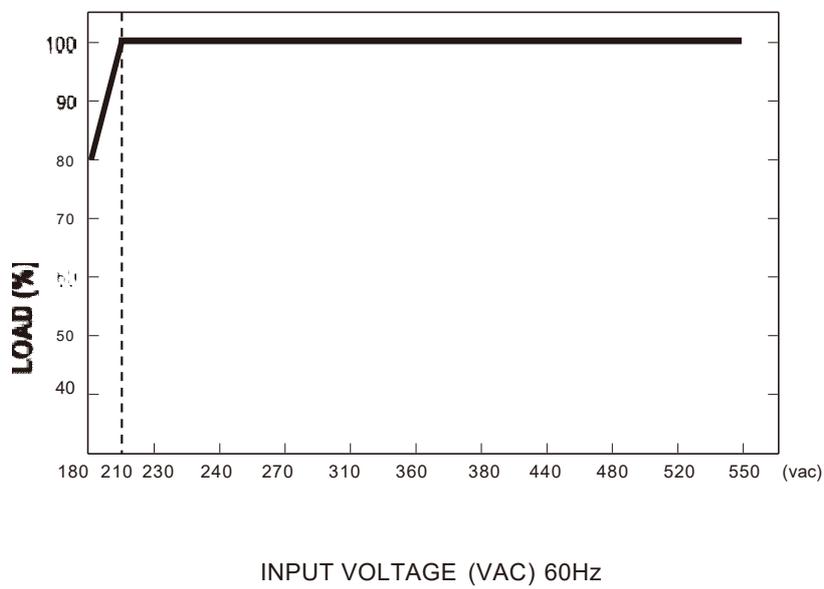
DC OK Relay Contact

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



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