

YSDW120 SERIES 120W



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 Ultra Wide Input
Range 180~550VAC



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



Built-in DC OK Relay Contact



Bulit-in Constant Current Limiting Circuit



Three Years Warranty

Model Information

Yingjiao Part number	DC VOLTAGE	RATED CURRENT	RATED POWER	VOLTAGE ADJ. RANGE
YSDW120-12	12V	10A	120W	12 ~ 15V
YSDW120-24	24V	5A	120W	24 ~ 29V
YSDW120-48	48V	2.5A	120W	48 ~ 58V

Input

RATED INPUT (Certified Voltage)	220 ~ 480VAC
NOMINAL INPUT VOLTAGE RANGE	180 ~ 550VAC or 254 ~ 780VDC
FREQUENCY RANGE	47~63Hz
EFFICIENCY (Typ.)	89.5%/400Vac YSDW120-12 91.0%/400Vac YSDW120-24 92.0%/400Vac YSDW120-48
AC CURRENT	0.7A/400Vac 1.2A/230Vac
INRUSH CURRENT (max.)	COLD START 50A
LEAKAGE CURRENT	<3.5mA / 530Vac

Output

RIPPLE & NOISE (max.)	120mVp-p	YSDW120-12
	120mVp-p	YSDW120-24
	150mVp-p	YSDW120-48
VOLTAGE TOLERANCE	$\pm 2\%$	
LINE REGULATION	$\pm 0.5\%$	
LOAD REGULATION	$\pm 0.5\%$	
SETUP, RISE TIME	2000ms, 70ms, 50ms/400Vac at full load	
HOLD UP TIME	2000ms, 70ms, 10ms/230Vac at full load	

Protection

OVER LOAD	105 ~ 130% rated output power. Protection type : Constant current limiting, recovers automatically after fault condition is removed.	
OVER VOLTAGE	14~17V	YSDW120-12
	29~33V	YSDW120-24
	56~65V	YSDW120-48
OVER TEMPERATURE		Protection type : Shut down o/p voltage, re-power on to recover Shut down o/p voltage, recovers automatically after temperature goes down.

Environment

WORKING TEMP.	-25 ~ +70 °C (Refer to "Derating Curve")
WORKING HUMIDITY	20 ~ 90% RH non-condensing
STORAGE TEMP., HUMIDITY	-40 ~ +85 °C, 10 ~ 95% RH
COLD START	-40 °C
TEMP. COEFFICIENT	± 0.03% / °C (0 ~ 50 °C)
VIBRATION	Component: 10 ~ 500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes; Mounting clip: Compliance to IEC60068-2-6.
MTBF	1300K hrs min. Telcordia SR-332 (Bellcore)

Function

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

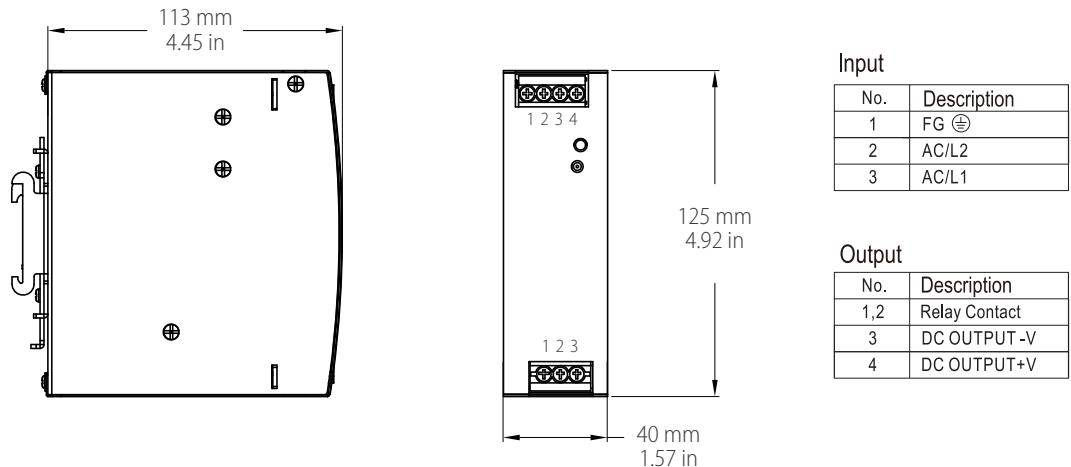
Note

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."

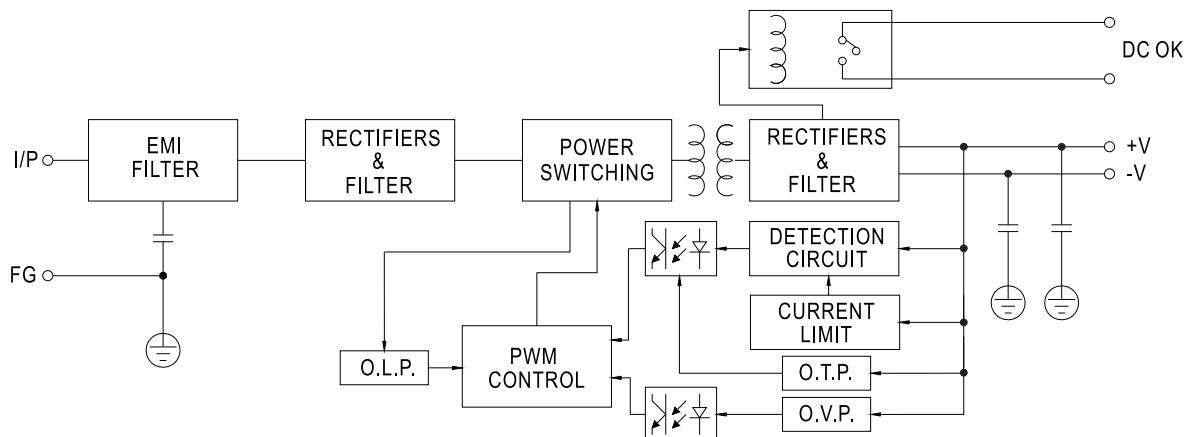
Dimensions & Weight

Length:	40mm / 1.57in
Width:	113mm / 4.45in
Height:	125mm / 4.92in
Weight:	0.65kg

Mechanical Specification



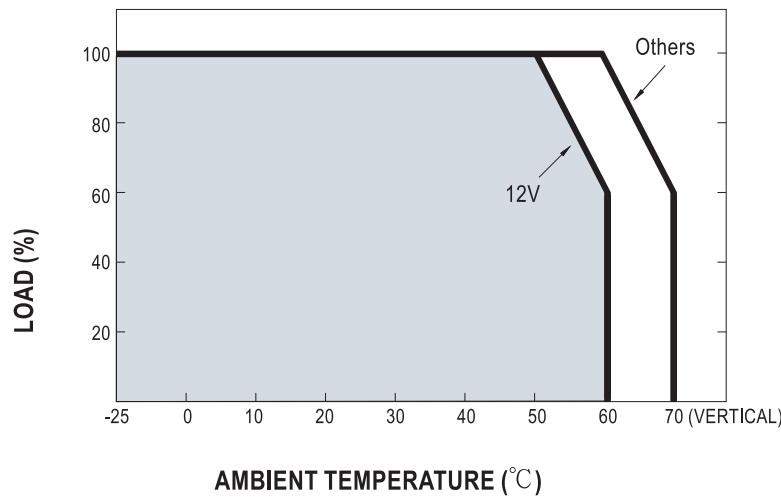
Block Diagram



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



Minus Output and Input Voltage Curves

