

YSDW120 SERIES 120W



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



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



Built-in DC OK Relay Contact



Built-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 or 240 ~ 780VDC
NOMINAL INPUT VOLTAGE RANGE	180 ~ 550VAC or 254 ~ 848VDC
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	± 2%
LINE REGULATION	± 0.5%
LOAD REGULATION	± 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
Protection type : Shut down o/p voltage, re-power on to recover		
OVER TEMPERATURE	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

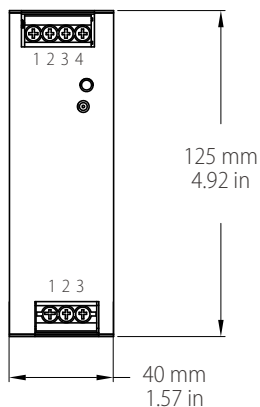
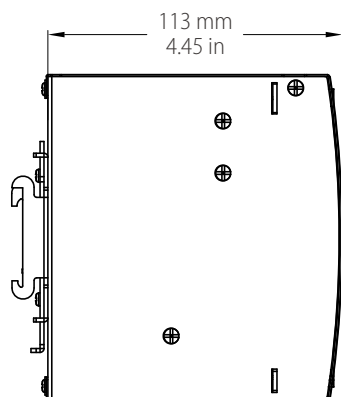
Note

- 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



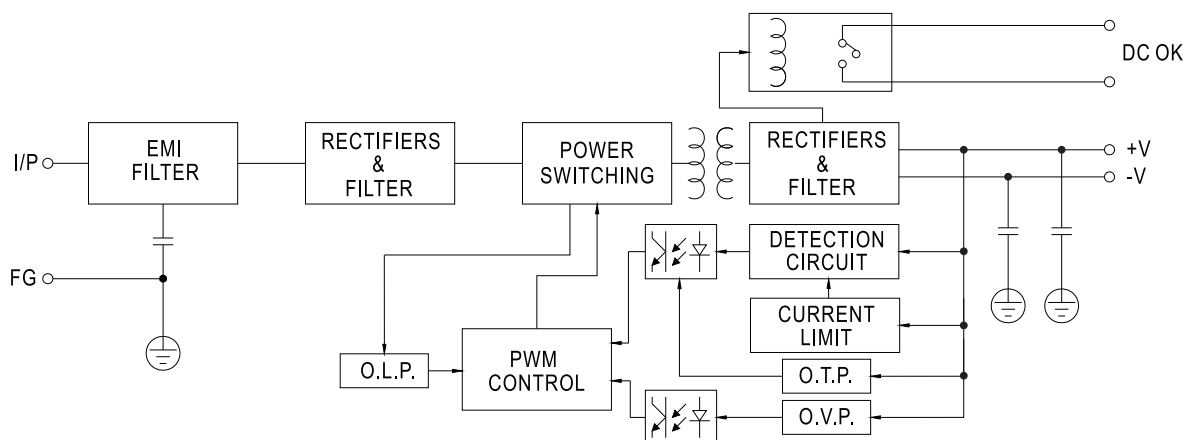
Input

No.	Description
1	FG $\oplus$
2	AC/L2
3	AC/L1

Output

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

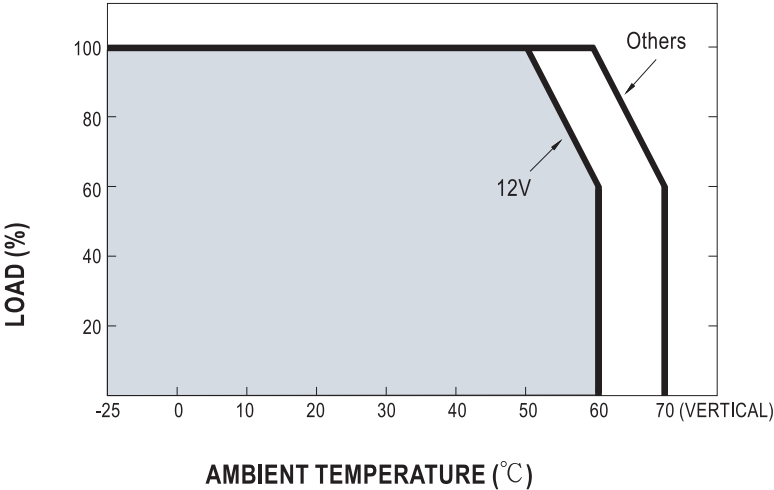
Block Diagram



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

