

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 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-120-12	12V	10A	120W	12 ~ 15V
YSDW-120-24	24V	5A	120W	24 ~ 29V
YSDW-120-48	48V	2.5A	120W	48 ~ 58V

Input

VOLTAGE RANGE(Note.4)	180 ~ 550VAC 254 ~ 780VDC
FREQUENCY RANGE	47~63Hz
EFFICIENCY (Typ.)	89.5%/400Vac YSDW-120-12
	91.0%/400Vac YSDW-120-24
	92.0%/400Vac YSDW-120-48
AC CURRENT	0.7A/400Vac
	1.2A/230Vac
INRUSH CURRENT (max.)	COLD START 50A
LEAKAGE CURRENT	<3.5mA / 530Vac

Output

RIPPLE & NOISE (max)(Note.2)	120mVp-p	YSDW-120-12
	120mVp-p	YSDW-120-24
	150mVp-p	YSDW-120-48
VOLTAGE TOLERANCE (Note.3)	±1.5%	YSDW-120-12
	±1.0%	YSDW-120-24
	±1.0%	YSDW-120-48
LINE REGULATION	±0.5%	
LOAD REGULATION	±0.5%	
SETUP, RISE, HOLD UP TIME	2000ms, 70ms, 50ms/400Vac at full load 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 YSDW-120-12 29~33V YSDW-120-24 56~65V YSDW-120-48 Protection type: Shut down o/p voltage, re-power onto 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
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 o IEC60068-2-6.
MTBF	1509.6K hrs min. Telcordia SR-332 (Bellcore); 268.1K hrs min. MIL- HDBK-217F (25°C).

Function

DC OK SIGNAL	Relay contact rating(max.): 30V / 1A resistive
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SAFETY & EMC (Note 4)

SAFETY STANDARDS	UL508, approved, IEC62368-1 CB approved by SIQ; Design refer to BS EN/EN62368-1, AS/NZS 62368.1 EAC TP TC 004(meet BS EN/EN60204-1)
WITHSTAND VOLTAGE	I/P-0/P:3KVAC I/P-FG:2KVAC 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 / 70% RH
EMC EMISSION	Compliance o BS EN/EN55032 (CISPR32), BS EN/EN61204-3 Class B, EAC TP TC 020.
EMC IMMUNITY	Compliance o EN61000-4-2,3,4,5,6,8,11, EN61204-3, EN61000-6-2 (EN50082-2), heavy industry level, EAC TP TC 020.

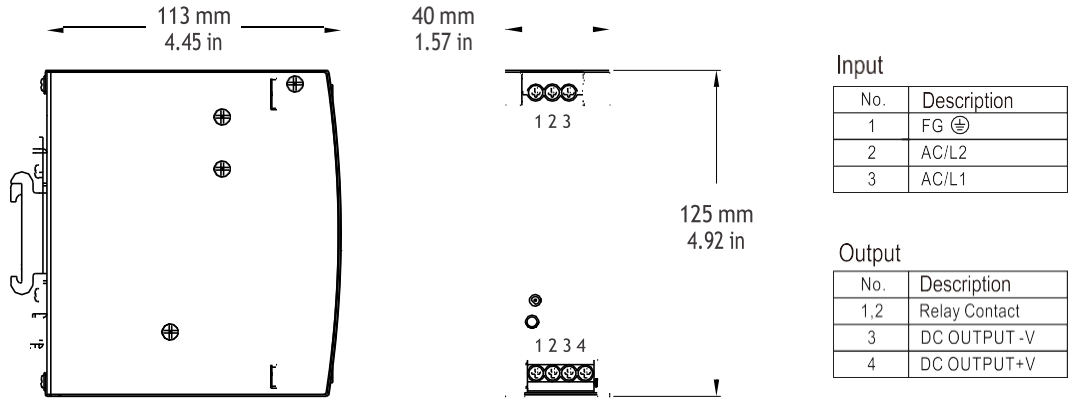
Note

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."

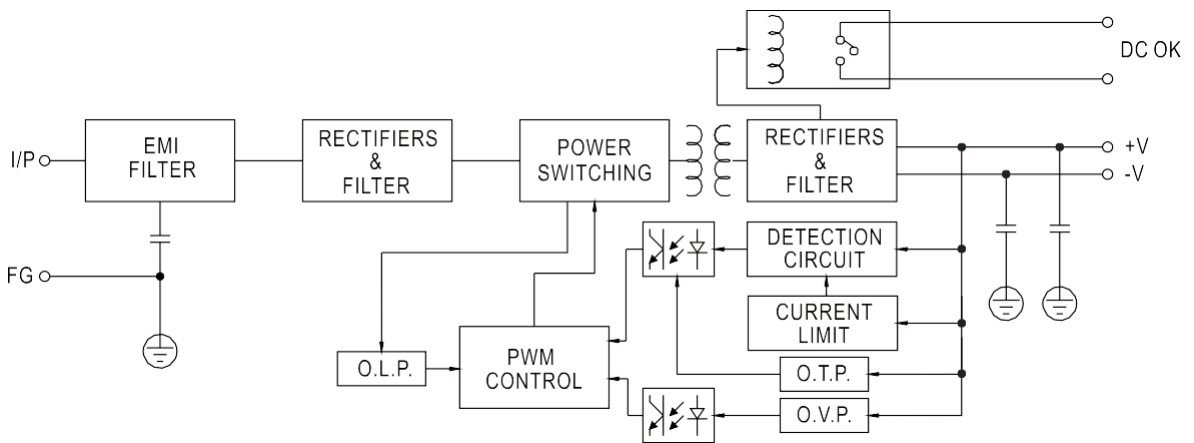
Dimensions & Weight

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

Mechanical Specification



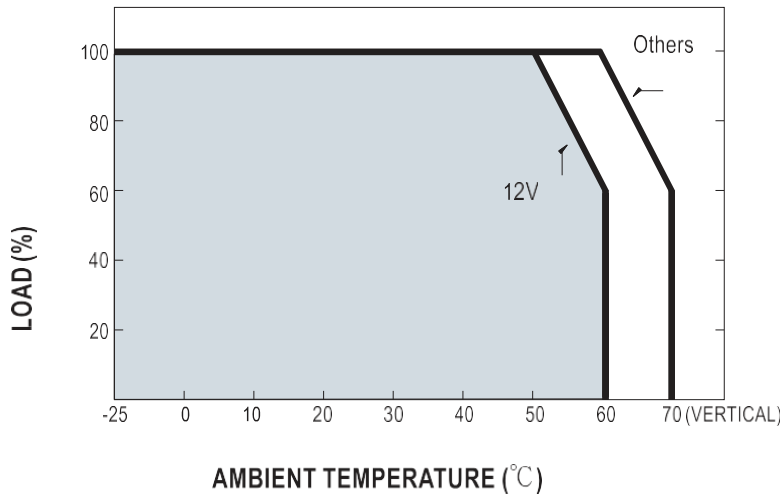
Block Diagram



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

