

YSDW120 SERIES 120W



YSDW series are designed with a metal housing and are for single or two phase system with wide input 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 operate over a 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/over load /over Voltage/over Temperature



Built-in DC OK Relay contact



Built-in constant current Limiting circuit



Three years warranty

Model Information

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

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	±2%	
LINE REGULATION	±0.5%	
LOAD REGULATION	±0.5%	
SETUP, RISE TIME	2000ms, 70ms, 50ms/400vac at full load	
HOLD UPTIME	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 : Shutdown o/p voltage, re-power on to recover
OVER TEMPERATURE	Shutdown 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

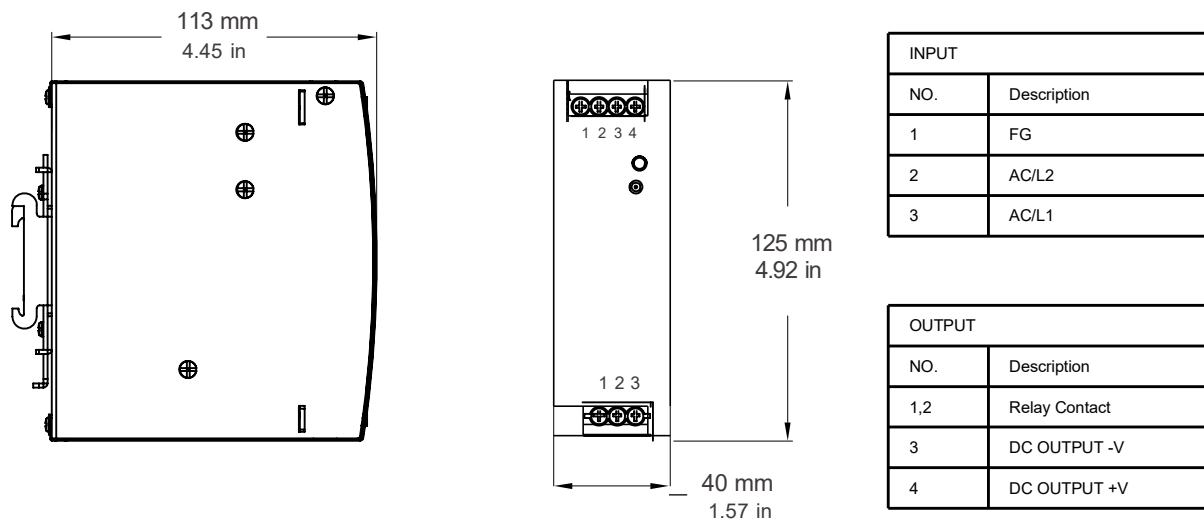
Note

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

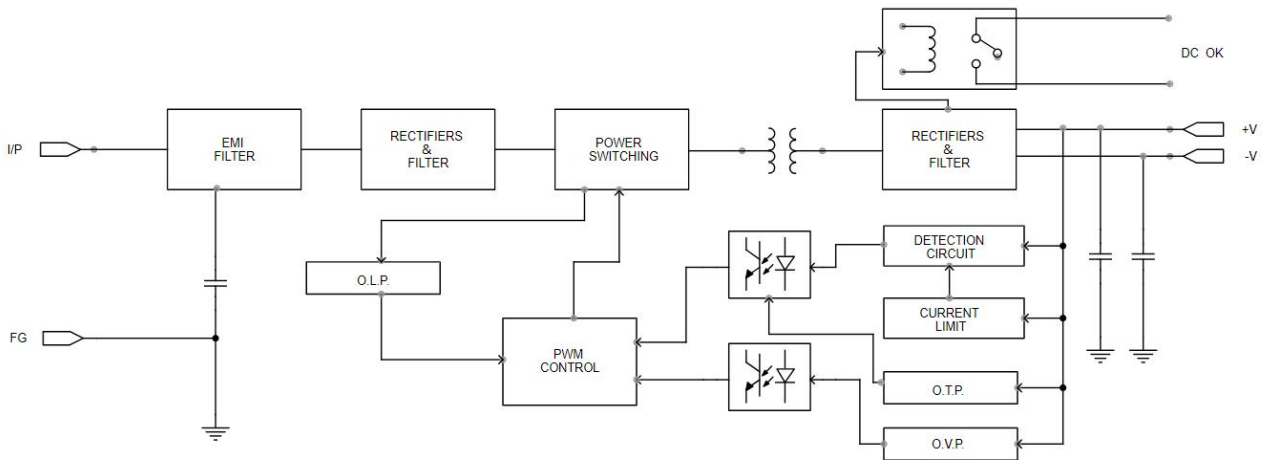
Dimensions & weight

Length:	40mm / 1.57in
width:	113mm / 4.45in
Height:	125mm / 4.92in
weight:	0.65kg

Mechanical Specification



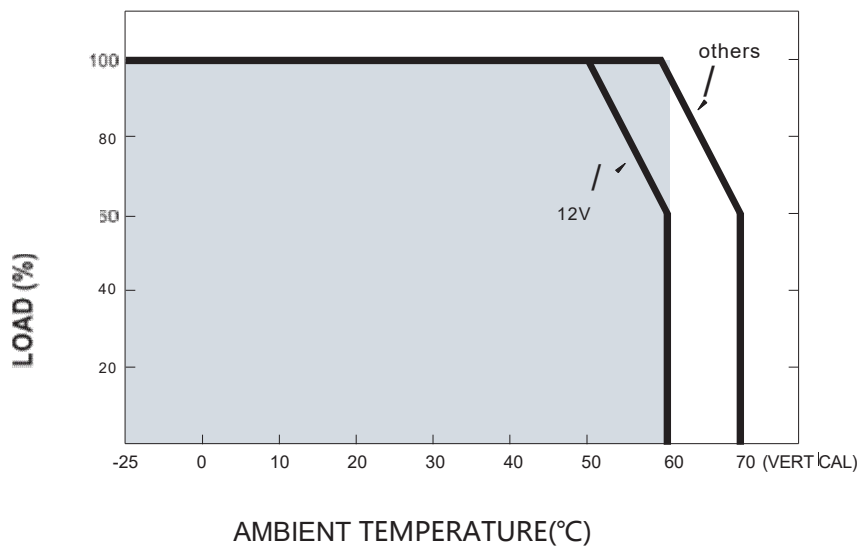
Block Diagram



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

