

# Datasheet

## YSDW120 SERIES 120W

**FORTEC**  
UNITED STATES

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INTEGRATED

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UNITED KINGDOM

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# 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 Ultrawide 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

INPUTVOLTAGE 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
VOLTAGETOLERANCE	±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

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OVER LOAD	105 ~ 130% rated output power. protection tYpe : constant current limiting, recovers automaticallY after fault condition is removed.
OVERVOLTAGE	14~17V    YSDW120-12 29~33V    YSDW120-24 56~65V    YSDW120-48 protection tYpe : Shutdown o/p voltage, re-power on to recover
OVERTEMPERATURE	Shutdown o/p voltage, recovers automaticallY after temperature goes down.

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## Environment

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WORKINGTEMP.	-25 ~ +70 °C (Refer to "Derating curve")
WORKING HUMIDITY	20 ~ 90% RH non-condensing
STORAGETEMP., 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.TelcordiaSR-332 (Bellcore)

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## Function

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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
WITHSTANDVOLTAGE	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

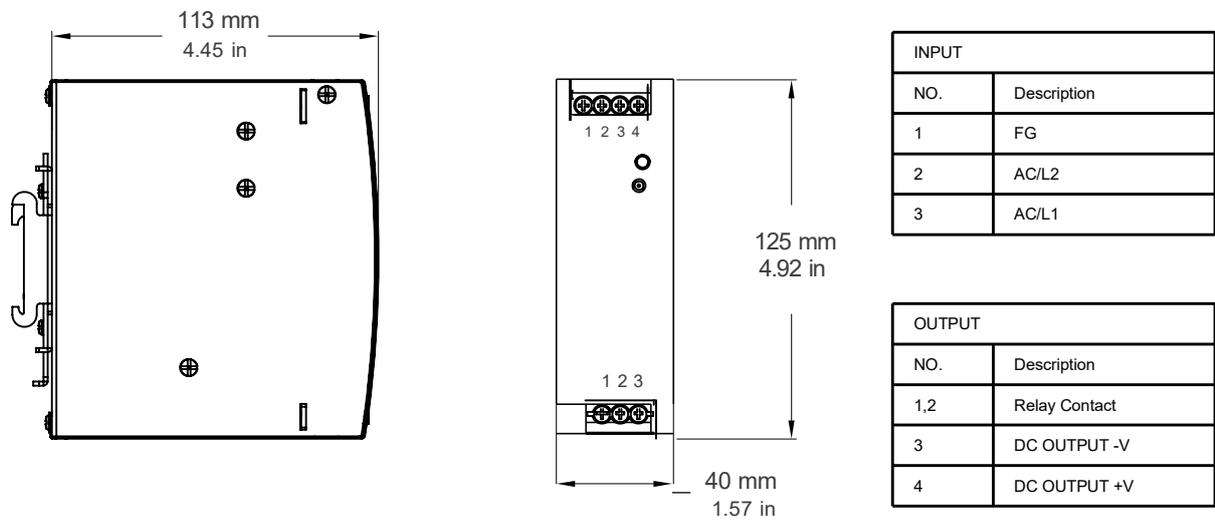
## Note

- 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.”

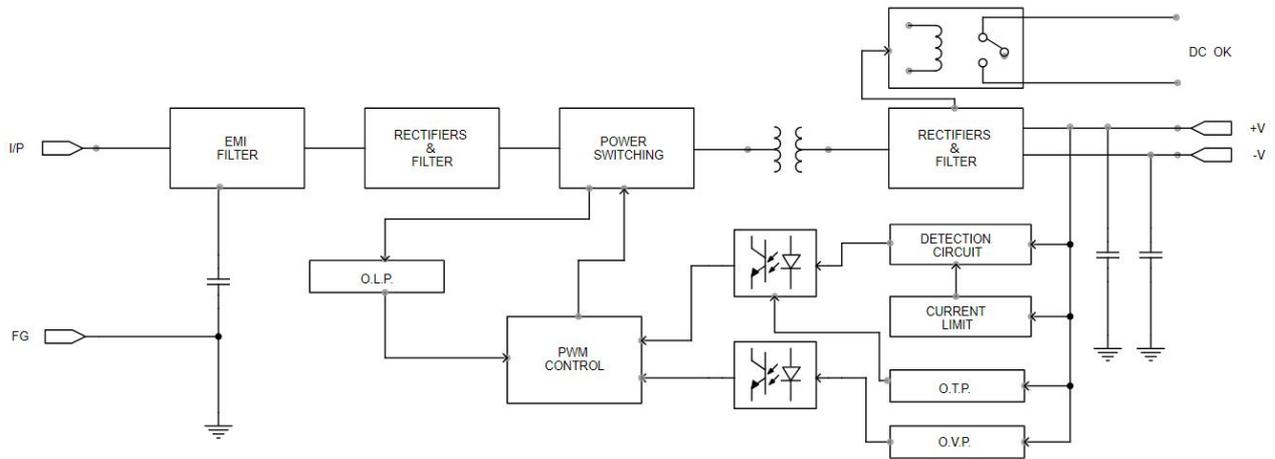
## Dimensions &weight

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

# Mechanical Specification



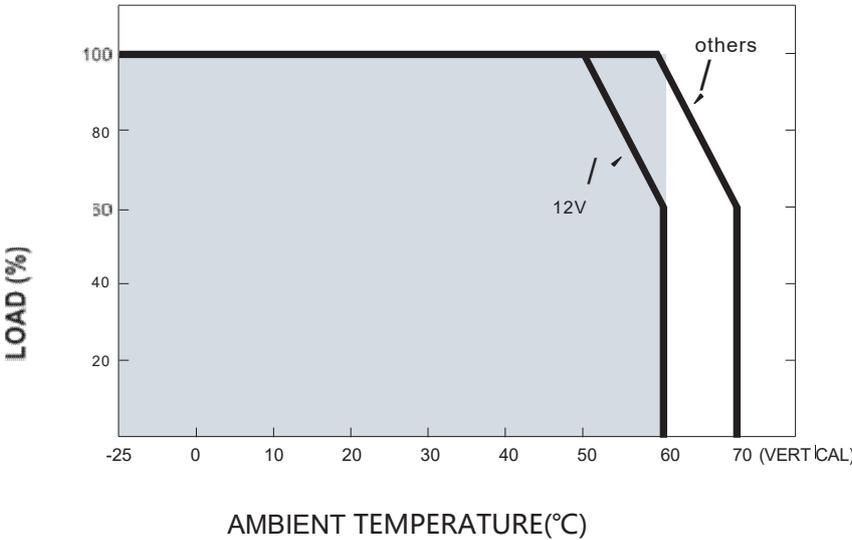
# Block Diagram



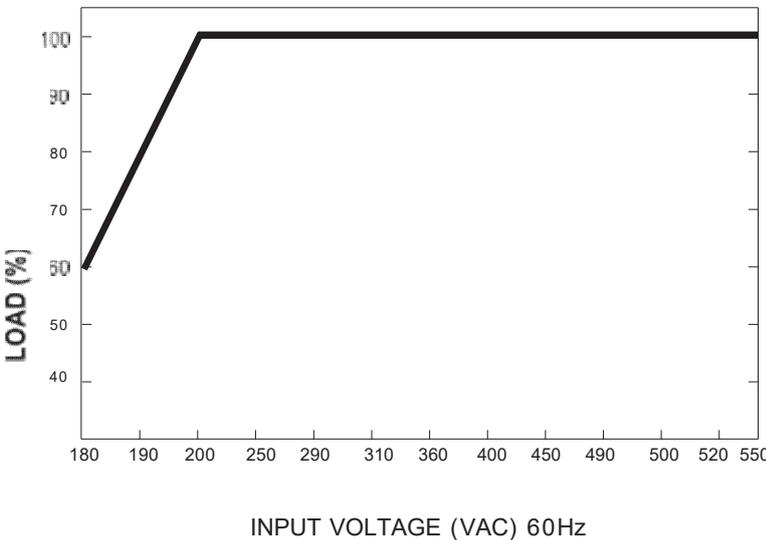
# DC OK Relay Contact

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



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