

YSDW480 SERIES 480W



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



Built-in Active PFC Circuit



Built-in DC OK Relay Contact



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



Built-in Constant Current Limiting Circuit



High Efficiency 93% and
Lower Power Dissipation



Three Years Warranty

Model Information

Yingjiao Part number	DC VOLTAGE	RATED CURRENT	RATED POWER	VOLTAGE ADJ. RANGE
YSDW480-24	24V	20A	480W	24 ~ 28V
YSDW480-48	48V	10A	480W	48 ~ 55V

Input

RATED INPUT (Certified Voltage)	200 ~ 500VAC
NOMINAL INPUT VOLTAGE RANGE	180 ~ 550VAC or 254 ~ 780VDC
FREQUENCY RANGE	47~63Hz
POWER FACTOR(Typ.)	PF \geq 0.84/400VAC PF \geq 0.84/230VAC
EFFICIENCY(Typ.)	91% YSDW480-24 93% YSDW480-48
AC CURRENT(Typ.)	1.6A/400Vac 4A/230Vac
INRUSH CURRENT(Typ.)	COLD START 50A
LEAKAGE CURRENT	<3.5mA / 530Vac

Output

RIPPLE & NOISE (max.)	100mVp-p YSDW480-24 150mVp-p YSDW480-48
VOLTAGE TOLERANCE	\pm 2.0%
LINE REGULATION	\pm 0.5%
LOAD REGULATION	\pm 1.0%
SETUP, RISE TIME	800ms, 150ms/400Vac at full load 2000ms, 150ms/230Vac at full load
HOLD UP TIME(Typ.)	18ms/400Vac at full load 16ms/400Vac at full load

Protection

OVER LOAD	105 ~ 130% rated output power. Protection type : Constant current limiting, unit will shut down after 3 sec., auto-recovery after 1 minute if the fault condition is removed.
OVER VOLTAGE	29~33V YSDW480-24 56~65V YSDW480-48 Protection type : Shut down o/p voltage, auto-recovery after 1 minute if the fault condition is removed.
OVER TEMPERATURE	95 °C ± 5 °C (TSW) detect on heatsink of power switch. Protection type : Shut down o/p voltage, recovers automatically after temperature goes down.

Environment

WORKING TEMP. (Note.5)	-30 ~ +70 °C (Refer to "Derating Curve")
WORKING HUMIDITY	20 ~ 95% 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	700K hrs min. Telcordia SR-332 (Bellcore) ; 112.8K hrs min. MIL-HDBK-217F (25 °C).

Function

DC OK REALY CONTACT RATINGS (max.)	60Vdc/0.3A, 30Vdc/1A, 30Vac/0.5A resistive load
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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 °C / 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

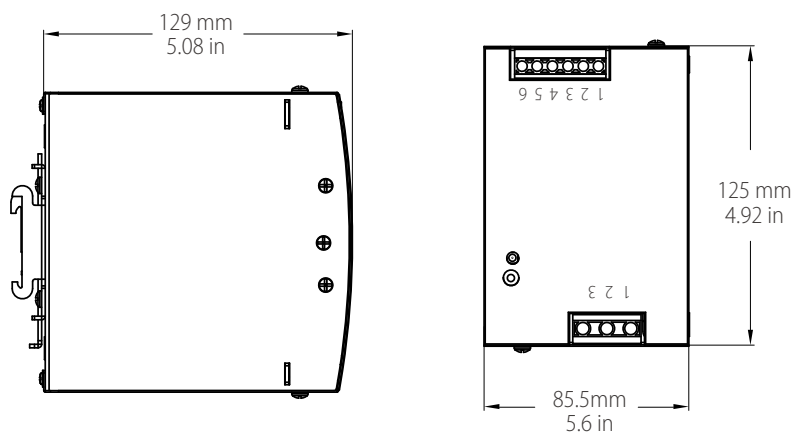
Note

- 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:	85.5mm / 3.37in
Width:	129mm / 5.08in
Height:	125mm / 4.92in
Weight:	1.7kg

Mechanical Specification



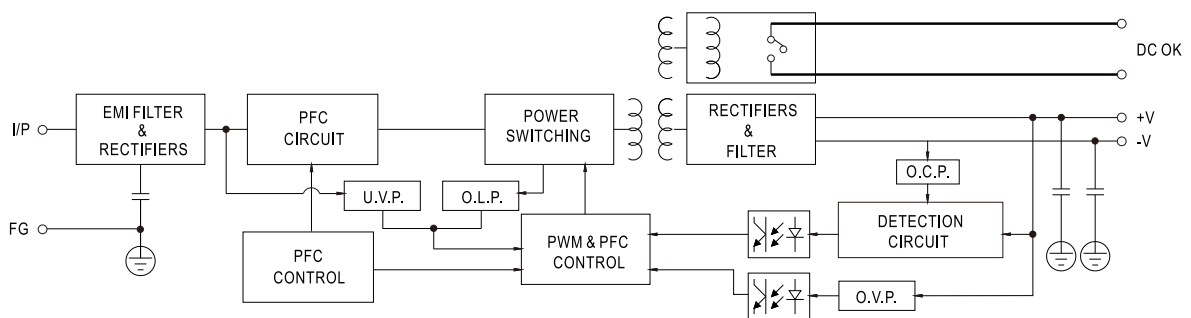
Input

No.	Description
1	FG ⚡
2	AC/L2
3	AC/L1

Output

No.	Description
1,2	DC OUTPUT +V
3,4	DC OUTPUT -V
5,6	Relay Contact

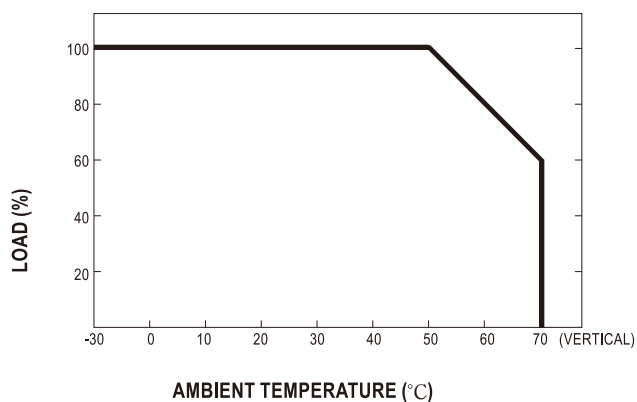
Block Diagram



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

