

YSDW480 SERIES 480W



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



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

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

INPUTVOLTAGE RANGE	180 ~ 550vAC or 254 ~ 780vDC
FREQUENCY RANGE	47~63Hz
POWER FACTOR(TYP.)	PF≥0.84/400vAC PF≥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
VOLTAGETOLERANCE	±2.0%
LINE REGULATION	±0.5%
LOAD REGULATION	±1.0%
SETUP, RISE TIME	800ms, 150ms/400vac at full load 2000ms, 150ms/230vac at full load
HOLD UPTIME(TYP.)	18ms/400vac at full load 16ms/230vac at full load

Protection

OVER LOAD	105 ~ 130% rated output power. protection type : constant current limiting, unit will shutdown 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 : Shutdown 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 : Shutdown 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. TelcordiaSR-332 (Bellcore) ; 112.8k hrs min. MIL-HDBk-217F (25°C).

Function

DC OK RELAY CONTACT RATINGS (max.)	60vdc/0.3A, 30vdc/1A, 30vac/0.5A resistive load
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SAFETY & EMC

SAFETY STANDARDS	.UL61010-1 I UL61010-2-2011 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/PI I/P-FGIO/P-FG:>100M Ohms / 500VDC / 25°C/ 70% RH
EMC EMISSION	Compliance to BS EN/EN55032 I BS EN/EN61000-3-2I-3
EMC IMMUNITY	Compliance to BS EN/EN61000-4-2I 3I 4I 5I 6I 8I 11

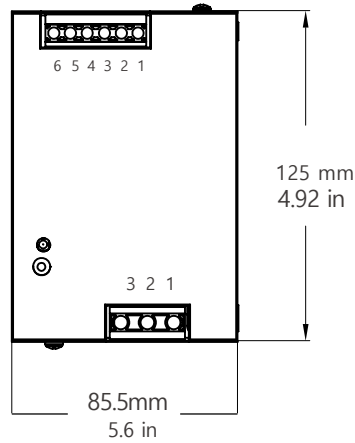
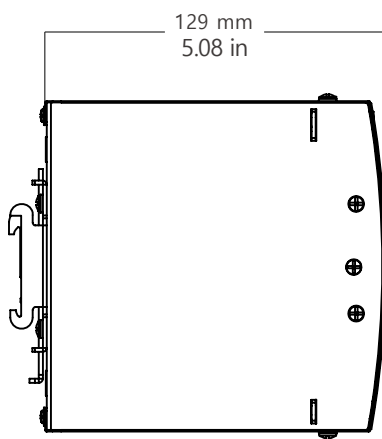
Note

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 I EMI testing of component power supplies."

Dimensions & Weight

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

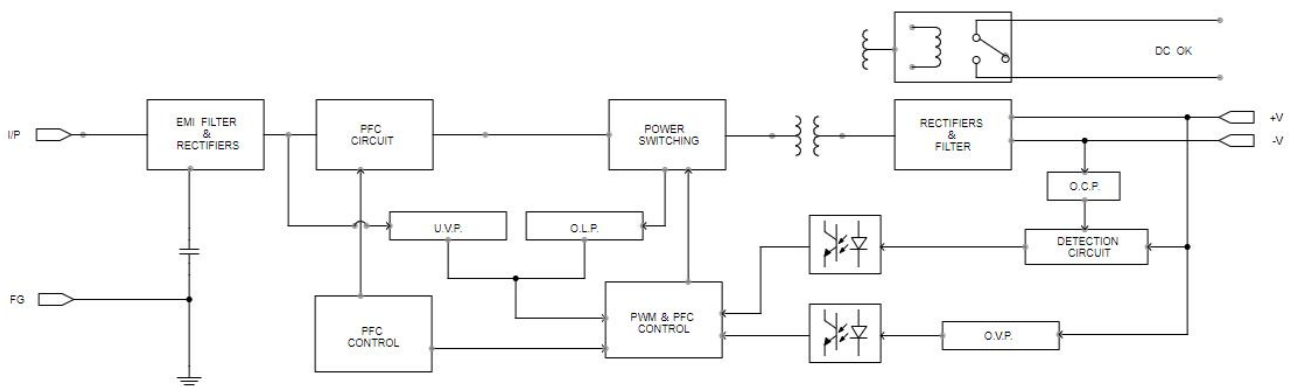
Mechanical Specification



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

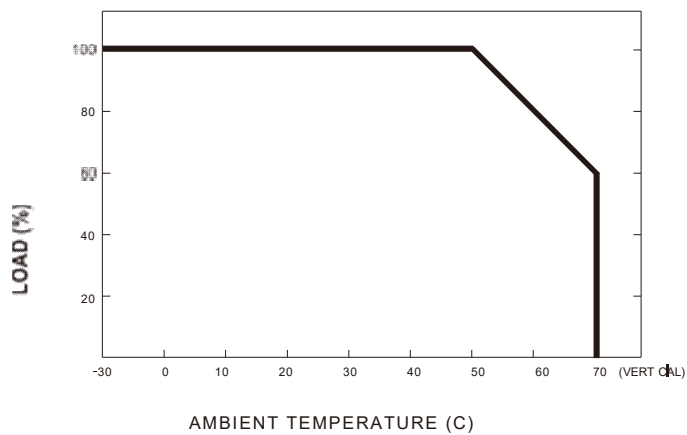
Block Diagram



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

