YINGJIAO®

YSDW240 SERIES 240W

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	**PFC** Built-in Active PFC Circuit
DC Built-in DC OK Relay Contact	Protection:Short Circuit/Overload /Over Voltage/Over Temperature
CCL Bulit-in Constant Current Limiting Circuit	**91%** High Efficiency 91% and Lower Power Dissipation
3 Three Years Warranty	

Model Information

Yingjiao Part number	DC VOLTAGE	RATED CURRENT	RATED POWER	VOLTAGE ADJ. RANGE
YSDW240-24	24V	10A	240W	24 ~ 28V
YSDW240-48	48V	5A	240W	48 ~ 55V

Input

RATED INPUT (Certified Voltage)	220 ~ 480VAC
NOMINAL INPUT VOLTAGE RANGE	180 ~ 550VAC or 254 ~ 780VDC
FREQUENCY RANGE	47~63Hz
POWER FACTOR (Typ.)	PF≥0.84/400VAC
	PF≥0.84/230VAC
EFFICIENCY (Typ.)	91%
AC CURRENT	1A/400Vac
	2A/230Vac
INRUSH CURRENT (max.)	COLD START 50A
LEAKAGE CURRENT	<3.5mA / 530Vac

Output

RIPPLE & NOISE (max.)	150mVp-p
VOLTAGE TOLERANCE	±2.0%
LINE REGULATION	±0.5%
LOAD REGULATION	±1.0%
SETUP, RISE TIME	800ms, 150ms/400Vac at full load
	1500ms, 150ms/230Vac at full load
HOLD UP TIME(Typ.)	18ms/400Vac at full load
	18ms/230Vac 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 YSDW240-24
	56~65V YSDW240-48
	Protection type : Shut down o/p voltage, auto-recovery after 1 minute if the fault condition is removed.
OVER TEMPERATURE	90°C $\pm$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.	-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	$\pm$0.03%/$^\circ$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	900K hrs min. Telcordia SR-332 (Bellcore)

Function

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

SAFETY & EMC

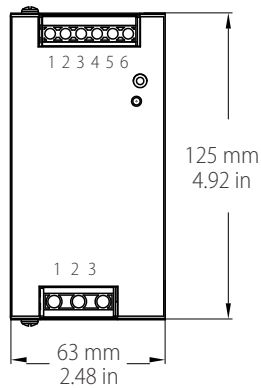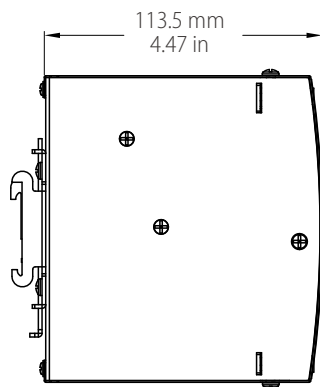| SAFETY STANDARDS	UL61010-1, UL61010-2-201, BS EN/EN62368-1
WITHSTAND VOLTAGE	I/P-O/P:3KVAC I/P-FG:2KVAC O/P-FG:0.5KVAC O/P-DC OK:0.5KVAC
ISOLATION RESISTANCE	I/P-O/P, I/P-FG, O/P-FG:>100M Ohms / 500VDC / 25°C / 70% RH
EMC EMISSION	Compliance to BS EN/EN55032, BS EN/EN61000-3-2,-3
EMC IMMUNITY	Compliance 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:	63mm / 2.48in
Width:	113.5mm / 4.47in
Height:	125mm / 4.92in
Weight:	1kg

Mechanical Specification

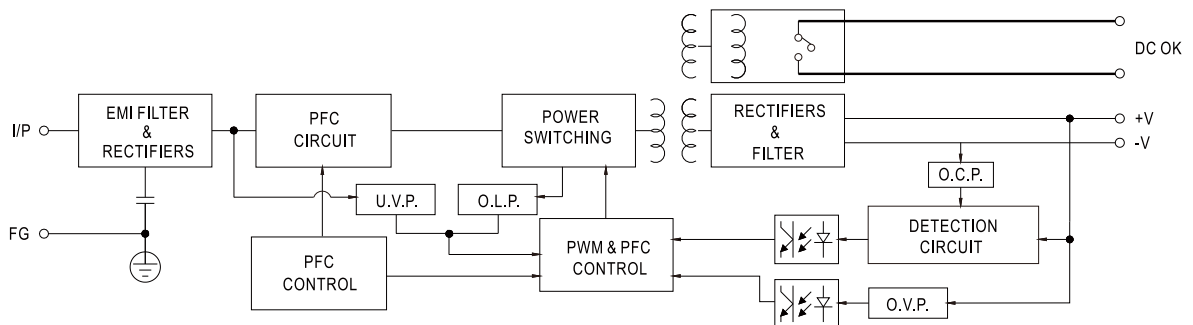
Input

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

Output

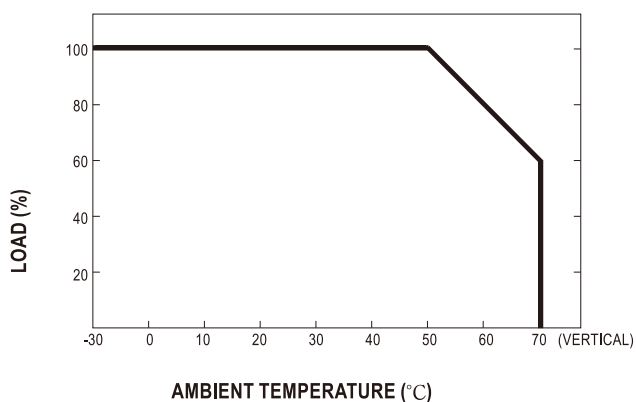| No.	Description
1,2	Relay Contact
3,4	DC OUTPUT +V
5,6	DC OUTPUT -V

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

LOAD (%)

AMBIENT TEMPERATURE (°C)

Minus Output and Input Voltage Curves

LOAD (%)

INPUT VOLTAGE (VAC) 60Hz