

# YSDT240 SERIES 240W



YSDT series are designed with metal housing and for three phase system with wide range from 340V AC to 550 V AC..

The series offer built-in constant current limiting circuit and active PFC function, 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



3-Phase 340~550VAC Wide Range Input  
(2-phase operation possible)



Built-in Passive PFC Function



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



DC OK Relay Contact



Bulit-in Constant Current Limiting Circuit



High Efficiency 92% and  
Low Power Dissipation



Full Power Between -30~+60 °C



Three Years Warranty

## Model Information

Yingjiao Part number	DC VOLTAGE	RATED CURRENT	RATED POWER	VOLTAGE ADJ. RANGE
YSDT240-24	24V	10A	240W	24 ~ 28V
YSDT240-48	48V	5A	240W	48 ~ 55V

## Input

<b>RATED INPUT (Certified Voltage)</b>	Three-Phase 380~ 480VAC (Dual phase operation possible in connecting L1,L3,FG or L2,L3,FG) or 480 ~ 780VDC
<b>NOMINAL INPUT VOLTAGE RANGE</b>	340 ~ 550VAC/450 ~ 850VDC
<b>FREQUENCY RANGE</b>	47~63Hz
<b>POWER FACTOR (Typ.)</b>	PF ≥ 0.53/400VAC at full load PF ≥ 0.52/500VAC at full load
<b>EFFICIENCY (Typ.)</b>	92%
<b>AC CURRENT (Typ.)</b>	0.69A/400VAC 0.6A/500VAC
<b>INRUSH CURRENT (Typ.)</b>	COLD START 50A
<b>LEAKAGE CURRENT</b>	<2mA / 530VAC

## Output

<b>RIPPLE &amp; NOISE (max.)</b>	100mVp-p	YSDT240-24
	120mVp-p	YSDT240-48
<b>VOLTAGE TOLERANCE</b>	± 1.0%	
<b>LINE REGULATION</b>	± 0.5%	
<b>LOAD REGULATION</b>	± 1.0%	
<b>SETUP, RISE TIME</b>	2000ms, 60ms/400VAC at full load 1500ms, 60ms/500VAC at full load	
<b>HOLD UP TIME (Typ.)</b>	20ms / 400VAC at full load 40ms / 500VAC at full load	

## Protection

<b>OVER LOAD</b>	105 ~ 130% rated output power Protection type : Constant current limiting, unit will hiccup after 3 sec.
<b>OVER VOLTAGE</b>	30~36V YSDT240-24 56~65V YSDT240-48 Protection type : Hiccup mode, recovers automatically after fault condition is removed.
<b>OVER TEMPERATURE</b>	Shut down o/p voltage, recovers automatically after temperature goes down

## Function

<b>DC OK REALY CONTACT RATINGS (max.)</b>	60VDC/0.3A, 30VDC/1A, 30VAC/0.5A resistive load
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## Environment

<b>WORKING TEMP.</b>	-30 ~ +70 °C (Refer to "Derating Curve")
<b>WORKING HUMIDITY</b>	20 ~ 95% RH non-condensing
<b>STORAGE TEMP., HUMIDITY</b>	-40 ~ +85 °C, 10 ~ 95% RH non-condensing
<b>COLD START</b>	-40 °C
<b>TEMP. COEFFICIENT</b>	±0.05%/°C (0 ~ 60 °C)
<b>VIBRATION</b>	Component: 10 ~ 500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes; Mounting: Compliance to IEC60068-2-6
<b>OPERATING ALTITUDE</b>	5000 meters
<b>OVER VOLTAGE CATEGORY</b>	III; According to EN61558, EN50178, EN60664-1, EN62477-1, EN60204-1; altitude up to 2000 meters
<b>MTBF</b>	1500K hrs min. Telcordia SR-332(Bellcore)

## SAFETY & EMC

SAFETY STANDARDS	UL61010-1, UL61010-2-201, BS EN/EN61010-1
WITHSTAND VOLTAGE	I/P-O/P:4.87KVAC I/P-FG:2.4KVAC 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	BS EN/EN55032(CISPR32)
EMC IMMUNITY	BS EN/EN61000-4-2, 3, 4, 5, 6, 8

### 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:	113mm / 4.45in
Height:	125mm / 4.92in
Weight:	1kg

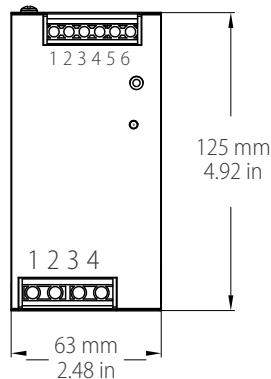
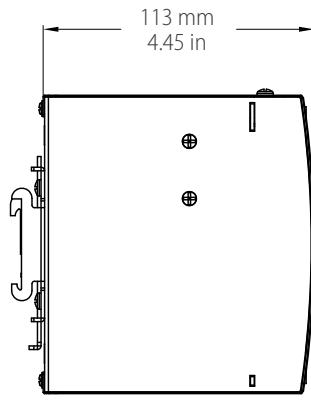
## Packing

Carton Size: 52.5 x 33 x 17.5 CM

20.7 x 13 x 6.9 in

Master Carton Quantities: 10pcs / Carton

## Mechanical Specification



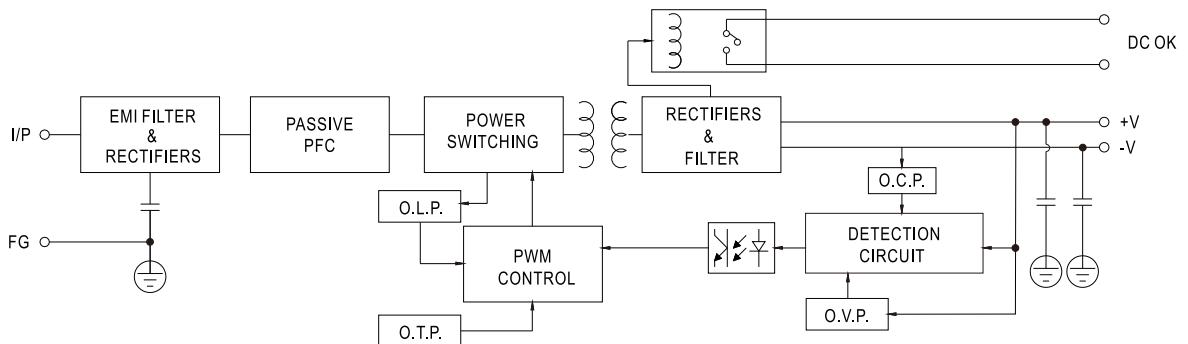
### Input

No.	Description
1	AC/L1
2	AC/L2 or DC -
3	AC/L3 or DC +
4	FG $\ominus$

### Output

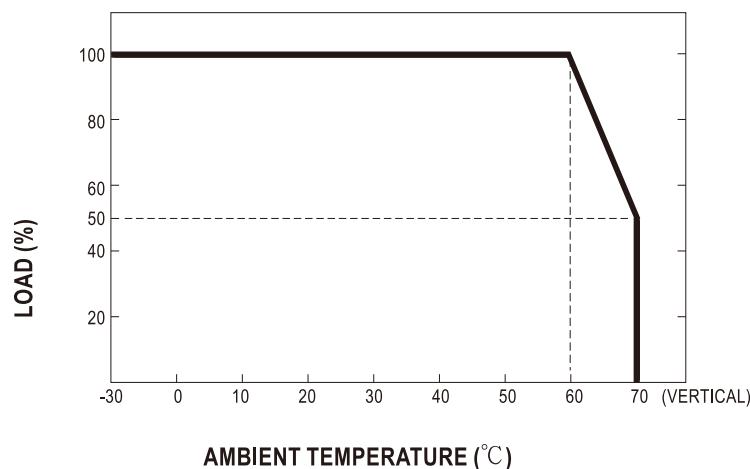
No.	Description
1,2	DC OUTPUT +V
3,4	DC OUTPUT-V
5,6	DC OK Relay Contact

## Block Diagram



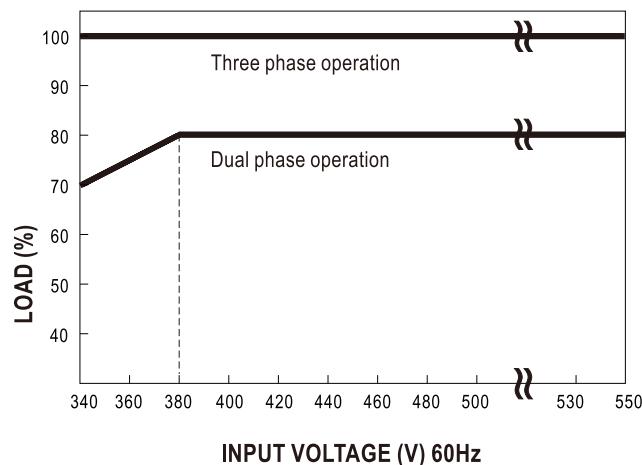
## Deduction Curve and Temperature

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## Minus Output and Input Voltage Curves

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## DC OK RELAY CONTACT

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Contact Close	PSU turns on / DC OK.
Contact Open	PSU turns off / DC Fail.
Contact Ratings (max.)	30VDC/1A, 30VAC/0.5A resistive load.

Output

No.	Description
5,6	DC OK Relay Contact

