

# 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



Built-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
YSdT240-24010000	24V	10A	240W	24 ~ 28V
YSdT240-48005000	48V	5A	240W	48 ~ 55V

## Input

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

## Output

RIPPLE & NOISE (max.)	100mVp-p YSdT240-24010000 120mVp-p YSdT240-48005000
VOLTAGE TOLERANCE	$\pm$ 1.0%
LINE REGULATION	$\pm$ 0.5%
LOAD REGULATION	$\pm$ 1.0%
SETUP, RISE TIME	2000ms, 60ms/400VAC at full load 1500ms, 60ms/500VAC at full load
HOLD UP TIME (Typ.)	20ms / 400VAC at full load 40ms / 500VAC at full load

## Protection

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<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      YSDT240-24010000 56~65V      YSDT240-48005000 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

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## Function

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

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<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>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)

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## SAFETY & EMC

<b>SAFETY STANDARDS</b>	UL61010-1, UL61010-2-201, BS EN/EN61558-1, BS EN/EN61558-2-16
<b>WITHSTAND VOLTAGE</b>	I/P-O/P:4.87KVAC I/P-FG:2.4KVAC O/P-FG:0.5KVAC O/P-DC OK:0.5KVAC
<b>ISOLATION RESISTANCE</b>	I/P-O/P, I/P-FG, O/P-FG:>100M Ohms / 500VDC / 25 °C / 70% RH
<b>EMC EMISSION</b>	BS EN/EN55032(CISPR32)
<b>EMC IMMUNITY</b>	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."

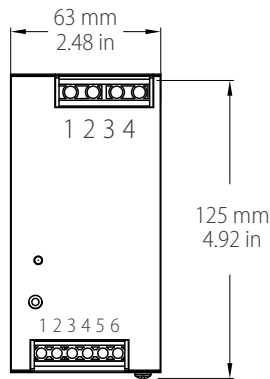
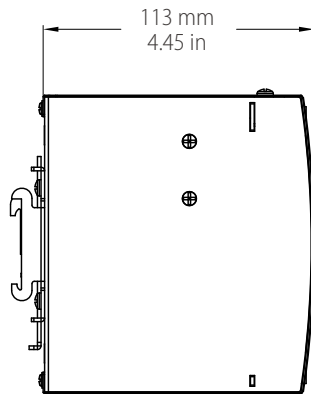
## Dimensions & Weight

<b>Length:</b>	63mm / 2.48in
<b>Width:</b>	113mm / 4.45in
<b>Height:</b>	125mm / 4.92in
<b>Weight:</b>	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



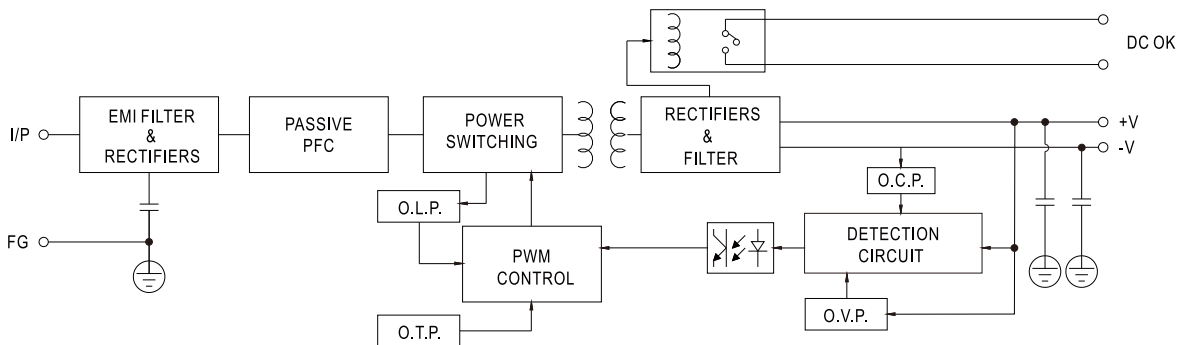
Input

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

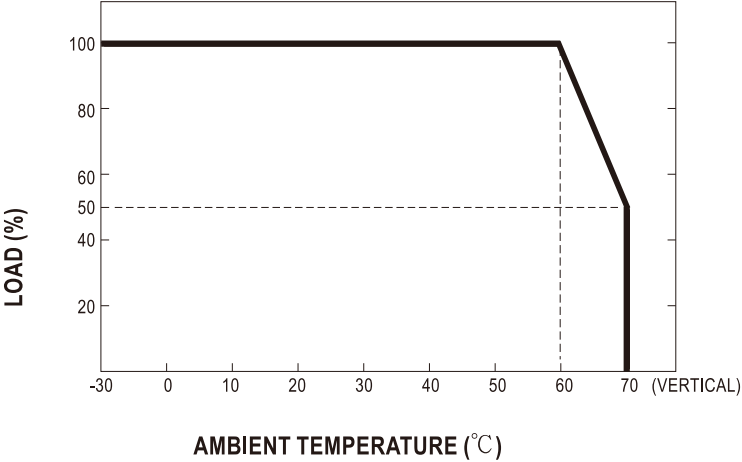
Output

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

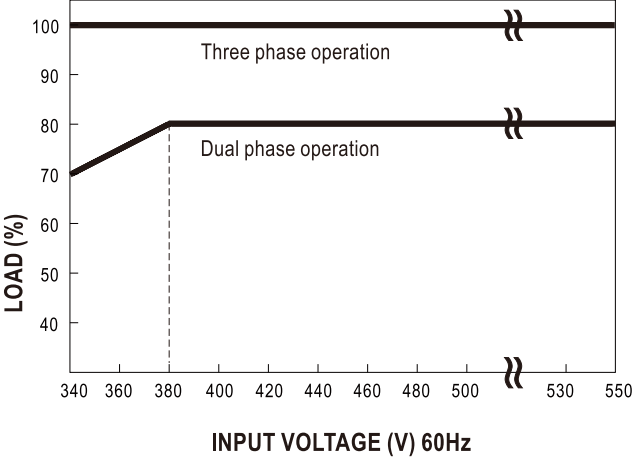
# Block Diagram



# DERATING CURVE



# OUTPUT DERATING VS INPUT VOLTAGE



## 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

