

YSDT480 SERIES 480W



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
YSDT480-24020000	24V	20A	480W	24 ~ 28V
YSDT480-48010000	48V	10A	480W	48 ~ 55V

Input

VOLTAGE RANGE	Three-Phase 340 ~ 550VAC (Dual phase operation possible) 480 ~ 780VDC
FREQUENCY RANGE	47~63Hz
POWER FACTOR (Typ.)	PF $\geq$ 0.9/400VAC at full load PF $\geq$ 0.88/500VAC at full load
EFFICIENCY (Typ.)	92.5% YSDT480-24020000 93.0% YSDT480-48010000
AC CURRENT (Typ.)	0.85A/400VAC 0.7A/500VAC
INRUSH CURRENT (Typ.)	COLD START 50A
LEAKAGE CURRENT	<3.5mA / 530VAC

Output

RIPPLE & NOISE (max.)	150mVp-p
VOLTAGE TOLERANCE	$\pm$ 1.0%
LINE REGULATION	$\pm$ 0.5%
LOAD REGULATION	$\pm$ 1.0%
SETUP, RISE TIME	1200ms, 60ms/400VAC at full load 800ms, 60ms/500VAC at full load
HOLD UP TIME (Typ.)	20ms / 400VAC at full load 20ms / 500VAC at full load

Protection

OVER LOAD	105 ~ 130% rated output power. Protection type: Constant current limiting, unit will hiccup after 3 sec., re-power on to recover.	
OVER VOLTAGE	29~33V YSDT480-24020000 56~65V YSDT480-48010000	Protection type: Shut down o/p voltage, re-power on to recover.
OVER TEMPERATURE	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 non-condensing	
TEMP. COEFFICIENT	± 0.03%/°C (0 ~ 50 °C)	
VIBRATION	Component:10 ~ 500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes; Mounting: Compliance to IEC60068-2-6	
MTBF	1000K hrs min. Telcordia SR-332(Bellcore)	

SAFETY & EMC

SAFETY STANDARDS	UL61010-1, UL61010-2-201, BS EN/EN61558-1, BS EN/EN61558-2-16	
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 / 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."

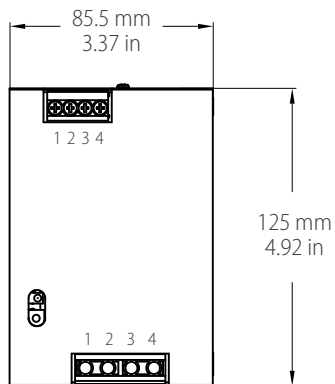
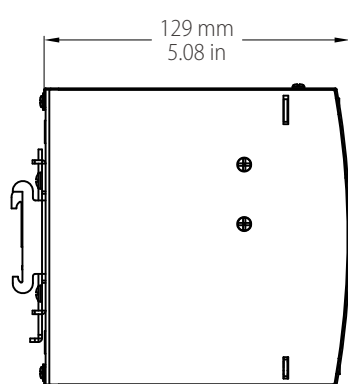
Dimensions & Weight

Length:	85.5mm / 3.37in
Width:	129mm / 5.08in
Height:	125mm / 4.92in
Weight:	1.51kg

Packing

Carton Size:	49 x 34.5 x 16.5 CM 19.3 x 13.6 x 6.5 in
Master Carton Quantities:	8pcs / Carton

Mechanical Specification



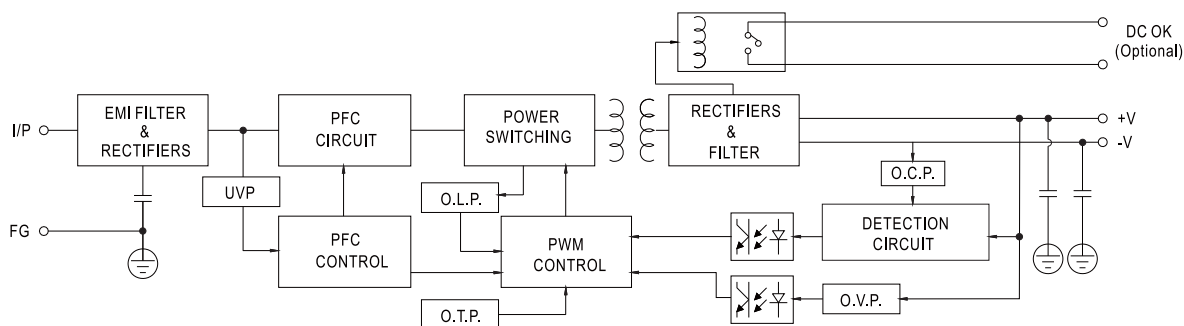
Input

No.	Description
1	PE $\oplus$
2	AC/L3
3	AC/L2
4	AC/L1

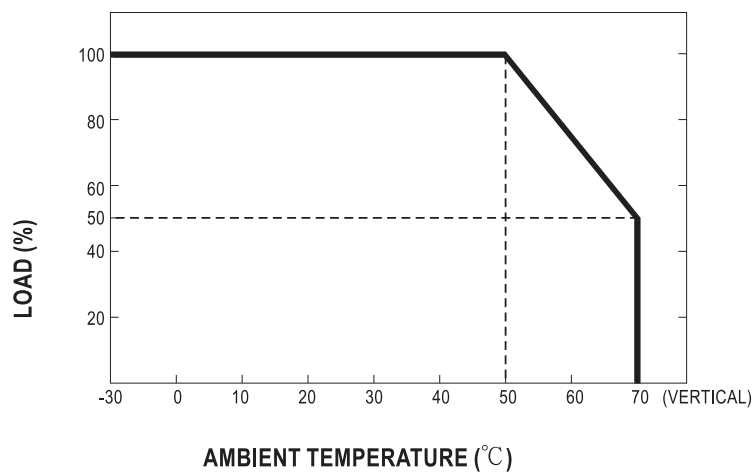
Output

No.	Description
1,2	DC OUTPUT +V
3,4	DC OUTPUT -V

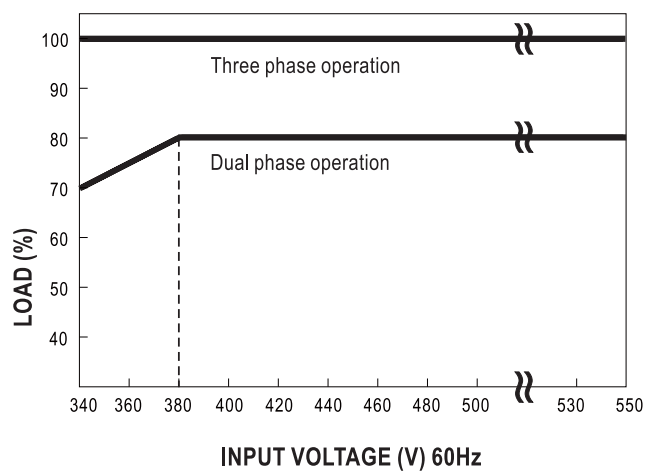
Block Diagram



DERATING CURVE



OUTPUT DERATING VS INPUT VOLTAGE



DC OK Relay Contact

Contact Close	PSU turns on / DC OK.
Contact Open	PSU turns off / DC Fail.
Contact Ratings (max.)	60VDC/0.3A, 30VDC/1A, 30VAC/0.5A resistive load.

Control Pin: DINKLE ECH250R-02P or equivalent (CN25)

Pin No.	Assignment	Mating Housing	Wire Diameter
1,2	DC OK Relay Contact	Dinkle ESC250V-02P or equivalent (Including in the package)	0.081~0.517mm ² (20~28AWG)

