YINGJIAO®

YSDT480 SERIES 480W

YSDT series are designed with metal housing and for there 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 Active 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℃
- Three Years Warranty

Model Information

Yingjiao Part number	DC VOLTAGE	RATED CURRENT	RATED POWER	VOLTAGE ADJ. RANGE
YSDT480-24	24V	20A	480W	24 ~ 28V
YSDT480-48	48V	10A	480W	48 ~ 55V

Input

RATED INPUT (Certified Voltage)	Three-Phase 380~ 480VAC (Dual phase operation possible)
	480 ~ 780VDC
NOMINAL INPUT VOLTAGE RANGE	340 ~ 550VAC/450 ~ 850VDC
FREQUENCY RANGE	47~63Hz
POWER FACTOR (Typ.)	PF ⩾0.9/400VAC at full load
	PF ⩾0.88/500VAC at full load
EFFICIENCY (Typ.)	92.5% YSDT480-24
	93.0% YSDT480-48
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	±1.0%
LINE REGULATION	±0.5%
LOAD REGULATION	±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 YSDT480-24 56~65V YSDT480-48 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℃ (Refer to "Derating Curve")
WORKING HUMIDITY	20 ~ 95% RH non-condensing
STORAGE TEMP., HUMIDITY	-40 ~ +85℃, 10 ~ 95% RH non-condensing
COLD START	-40℃
TEMP. COEFFICIENT	±0.03%/℃ (0 ~ 50℃)
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/EN61010-1
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 / 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℃ 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 ℃/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."

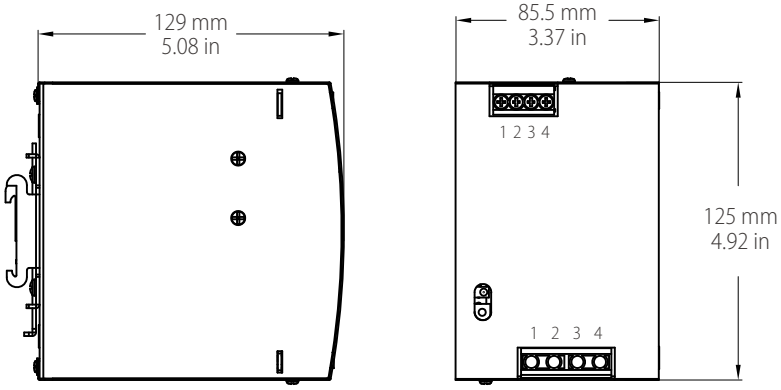
Dimensions & Weight

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



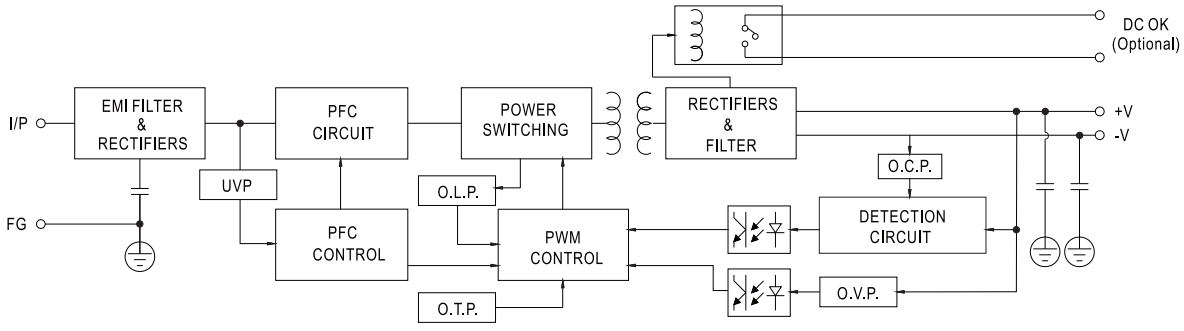
Input

No.	Description
1	PE ⏚
2	AC/L3
3	AC/L2
4	AC/L1

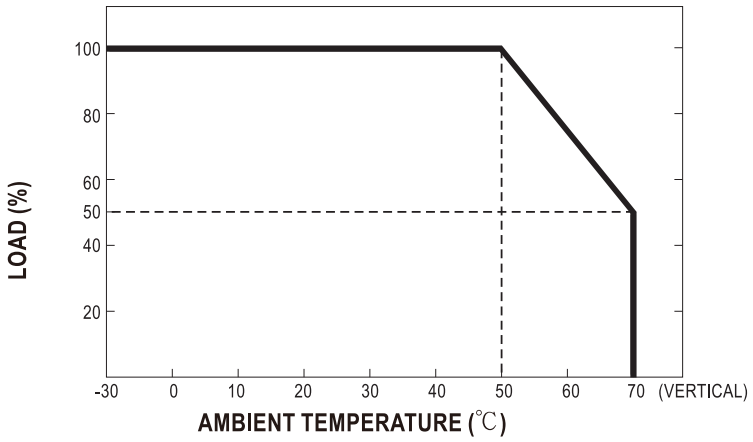
Output

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

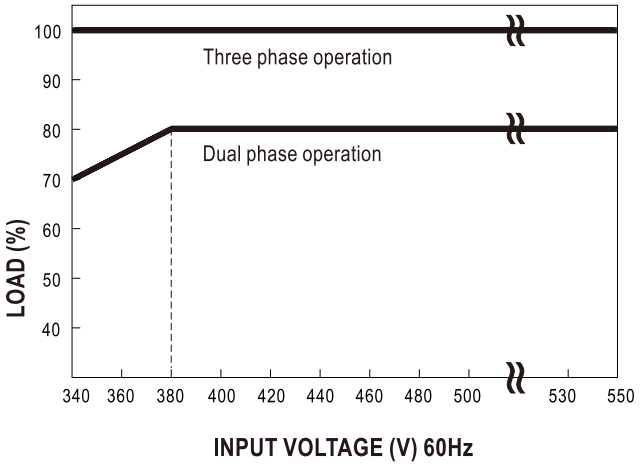
Block Diagram



Deduction Curve and Temperature



Minus Output and Input Voltage Curves



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)