

# YSDN150 SERIES 150W



This metal case power family is designed with slim housing and for full range AC input from 90V AC to 264V AC. The series are single phase PSU, providing an adjustable DC output voltage. They have high efficiency and operate over a wide temperature range. The series can widely be used for industrial automation & control systems, and various equipment etc.



## Features



DC O/P Voltage Adjustable



Universal AC Input 90-264V



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



Free Air Convection Design



Installation: DIN Rail TS-35/7.5 & 15



Three Years Warranty

## Model Information

Part number	DC VOLTAGE	RATED CURRENT (Max.)	RATED POWER	VOLTAGE ADJ. RANGE
YSDN150-12010000	12V	10A	120W	12-14V
YSDN150-24005000	24V	5A	120W	24-28V
YSDN150-48002500	48V	2.5A	120W	48-55V
YSDN150-24006250	24V	6.25A	150W/230V AC	24-28V

## Input

<b>RATED INPUT (Certified Voltage)</b>	100 ~ 240VAC
<b>NOMINAL INPUT VOLTAGE RANGE</b>	90~ 264VAC or 127-370VDC [DC input by connecting AC/L(+),AC/N(-)]
<b>FREQUENCY RANGE</b>	47~63Hz
<b>EFFICIENCY (Typ.)</b>	85.5%    YSDN150-12010000 88%        YSDN150-24005000 89%        YSDN150-48002500 87%        YSDN150-24006250
<b>AC CURRENT (Typ.)</b>	2.25A/115VAC 1.3A/230VAC
<b>INRUSH CURRENT (Typ.)</b>	20A/115VAC 35A/230VAC
<b>LEAKAGE CURRENT</b>	<1mA / 240VAC

## Output

<b>RIPPLE &amp; NOISE (max.)</b>	100mVp-p	YSDN150-12010000
	120mVp-p	YSDN150-24005000
	150mVp-p	YSDN150-48002500
	150mVp-p	YSDN150-24006250
<b>VOLTAGE TOLERANCE</b>	± 2.0%	
<b>LINE REGULATION</b>	± 0.5%	
<b>LOAD REGULATION</b>	± 1.0%	
<b>SETUP, RISE TIME</b>	1200ms, 60ms/230VAC at full load	
	2500ms, 60ms/115VAC at full load	
<b>HOLD UP TIME (Typ.)</b>	16ms/230VAC at full load	
	10ms/115VAC at full load	

## Protection

<b>OVER LOAD</b>	105 ~ 130% rated output power	
	Protection type : Hiccup mode, recovers automatically after fault condition is removed.	
<b>OVER VOLTAGE</b>	14 ~ 17V	YSDN150-12010000
	29 ~ 33V	YSDN150-24005000
	56 ~ 65V	YSDN150-48002500
	29 ~ 33V	YSDN150-24006250
Protection type : Shut down o/p voltage, re-power on to recover		
<b>OVER TEMPERATURE</b>	Shut down o/p voltage, re-power on to recover	

## Environment

<b>WORKING TEMP.</b>	-20 ~ +70 °C (Refer to "Derating Curve")
<b>WORKING HUMIDITY</b>	20 ~ 95% RH non-condensing
<b>STORAGE TEMP.</b>	-40 ~ +85 °C, 10 ~ 95% RH
<b>STORAGE HUMIDITY</b>	10 ~ 95% RH
<b>MTBF</b>	450K hrs min. MIL-HDBK-217F (25 °C)

## SAFETY & EMC

<b>SAFETY STANDARDS</b>	UL508, BS/EN62368-1
<b>WITHSTAND VOLTAGE</b>	I/P-O/P:3KVAC I/P-FG:2KVAC O/P-FG: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>	Compliance to BS EN/EN55032 , BS EN/EN61000-3-2,-3
<b>EMC IMMUNITY</b>	Compliance to BS EN/EN61000-4-2,3,4,5,6,8,11, BS EN/EN55035, BS EN/EN61000-6-2 (BS EN/EN50082-2)

## Note

- 1.All parameters NOT specially mentioned at 230VAC input, rated load and 25 °C of ambient temperature.
- 2.Ripple&noise are measured from peak to peak with band width limit of 20MHz(0.1uF and 47uF/50V parallel capacitor under DC output full load,AC nominal input 25 °C ambient temperature).
- 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.Derating may be needed under low input voltage. Please check the derating curve for more details.
- 5.Efficiency test after 30 minutes of burn-in.
- 6.The ambient temperature derating of 3.5 °C /1000m for operating altitude higher than 2000m(6500ft).

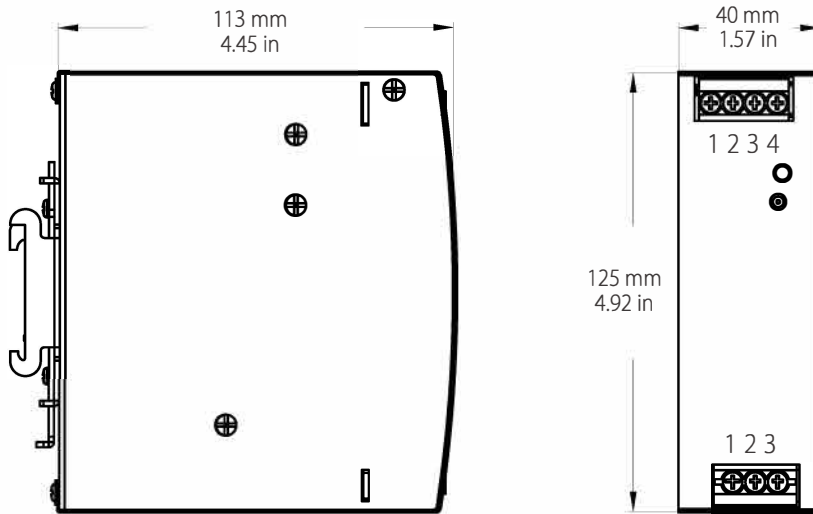
## Dimensions & Weight

<b>Width:</b>	40mm / 1.57in
<b>Height:</b>	125mm / 4.92in
<b>Depth:</b>	113mm / 4.45in
<b>Weight:</b>	0.6kg

## Packing

<b>Carton Size:</b>	31.5 x 30 x 30 CM 12.4 x 11.8 x 11.81 in
<b>Master Carton Quantities:</b>	20pcs / Carton

## Mechanical Specification



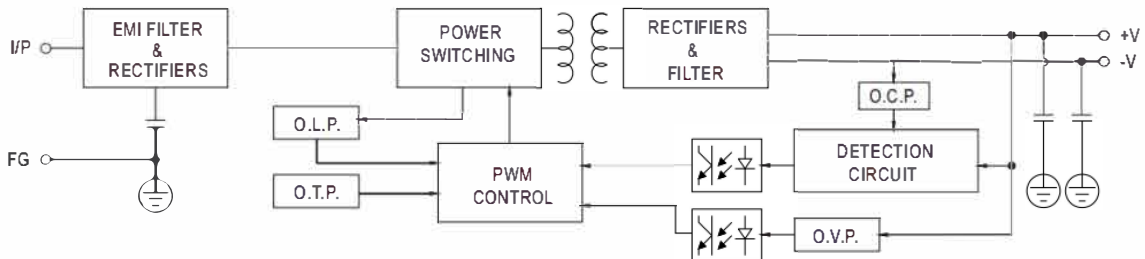
### Input

No.	Description
1	FG ⊕
2	AC/N
3	AC/L

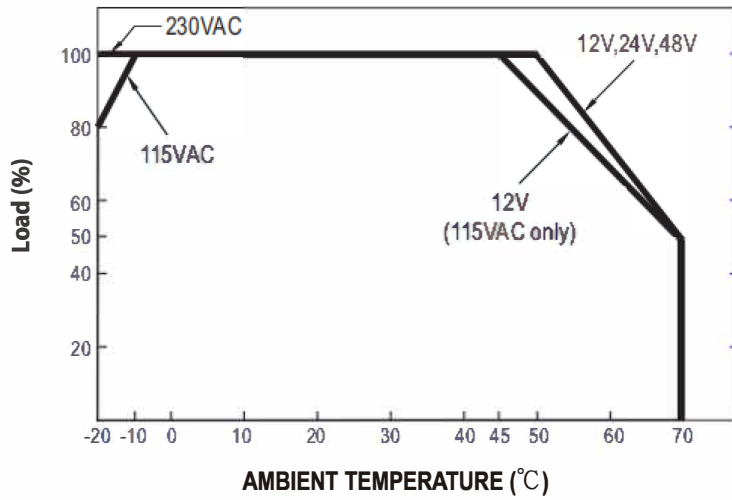
### Output

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

## Block Diagram



## Deduction Curve and Temperature



## Minus Output and Input Voltage Curves

