

# YEL450 SERIES 450W



UL CE UK RoHS

YEL series are designed with lower profile housing and for wide range AC input from 90VAC to 264VAC.

The series withstand 300VAC surge input for 5 second and operate for the temperature up to 70 °C.

The good performance can be used for industrial automation & control systems, varied equipments etc.

## Features



Universal AC Input/ Full Range



Forced air cooling by built-in DC fan



High operating temperature up to 70 °C



Higher Efficiency



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



Three Years Warranty

## Model Information

Yingjiao Part Number	DC Voltage	Rated Current	Rated Power	VOLTAGE ADJ.RANGE
YEL450-5	5V	75A	375W	4.75~5.5V
YEL450-12	12V	37.5A	450W	11.4~13.2V
YEL450-15	15V	30A	450W	13.5~18V
YEL450-24	24V	18.8A	451.2W	22.8~26.4V
YEL450-36	36V	12.5A	450W	34.2~39.6V
YEL450-48	48V	9.4A	350.4W	45.6~52.8V

## Input

VOLTAGE RANGE	90-264VAC/127-370VDC	
FREQUENCY RANGE	47-63Hz	
EFFICIENCY(Typ.)	87%	YEL450-5
	90%	YEL450-12
	90%	YEL450-15
	91%	YEL450-24
	92%	YEL450-36
	92%	YEL450-48
AC CURRENT(Typ.)	10A/115VAC	
	6A/230VAC	
INRUSH CURRENT(Typ.)	COLD START 35A/115VAC	
	COLD START 60A/230VAC	
LEAKAGE CURRENT	<2mA/240VAC	

## Output

RIPPLE & NOISE(max.)	200mVp-p	YEL450-5
	200mVp-p	YEL450-12
	200mVp-p	YEL450-15
	240mVp-p	YEL450-24
	360mVp-p	YEL450-36
	360mVp-p	YEL450-48
VOLTAGE TOLERANCE	±2.0%	YEL450-5
	±1.0%	YEL450-12
	±1.0%	YEL450-15
	±1.0%	YEL450-24
	±1.0%	YEL450-36
	±1.0%	YEL450-48
LINE REGULATION	±0.5%	
LOAD REGULATION	±2.0%	YEL450-5
	±1.0%	YEL450-12
	±0.5%	YEL450-15
	±0.5%	YEL450-24
	±0.5%	YEL450-36
	±0.5%	YEL450-48
SETUP,RISE TIME	1500ms, 50ms/230VAC at full load	
	1500ms, 50ms/115VAC at full load	
HOLD UP TIME (Typ.)	16ms/230VAC at full load	
	12ms/115VAC at full load	

## Protection

OVER LOAD	105%-150% Rated Output Power
	Constant current limiting, unit will shutdown after 3 sec, re-power on to recover
OVER VOLTAGE	5V:5.75~6.75V
	12V:13.8~16.2V
	15V:18~21V
	24V:27.6~32.4V
	36V:41.4~48.6V
	48V:55.2~64.8V
	5-36V Hiccup mode, recovers automatically after fault condition is removed.
OVER TEMPERATURE	48V Shut down and latch off o/p voltage, re-power on to recover.
	5-36V Hiccup mode, recovers automatically after fault condition is removed.
	48V Shut down and latch off o/p voltage, re-power on to recover.

## Environment

WORKING TEMP.	-30 °C to +70 °C (Refer to "Derating Curve")
Working Humidity	20 ~ 90% RH Non-Condensing
STORAGE TEMP, HUMIDITY	-40°C ~ +85°C, 10 ~ 95% RH non-condensing
TEMP. COEFFICIENT	± 0.03%/°C(0~50°C)
VIBRATION	10~ 500Hz, 5G 10min./1cycle, 60min. each along X, Y,Z axes
OVER VOLTAGE CATEGORY	III; According to BS EN/EN61558, BS EN/EN50178, BS EN/EN60664-1, BS EN/EN62477-1; altitude up to 2000 meters.
MTBF	1508.9K hrs min. Telcordia SR-332 (Bellcore);

## SAFETY & EMC

SAFETY STANDARDS	BS EN/EN62368-1, BS EN/EN61558-1
WITHSTAND VOLTAGE	I/P-O/P:4KVAC I/P-FG:2KVAC O/P-FG:0.5KVAC
ISOLATION RESISTANCE	I/P-O/P, I/P-FG, O/P-FG:100M Ohms/ 500VDC/25 °C/70% RH
EMC EMISSION	Compliance to BS EN/EN55032 (CISPR32) Class B, BS EN/EN61000-3-2,-3,
EMC IMMUNITY	Compliance to BS EN/EN61000-4-2,3,4,5,6,8,11,BS EN/EN55035

## Note

1.All parameters NOT specially mentioned are measured 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.Derating may be needed under low input voltages. Please check the derating curve for more details.

4.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."

5.The ambient temperature derating of 5°C/1000m is needed for operating altitude greater than 2000m(6500ft).

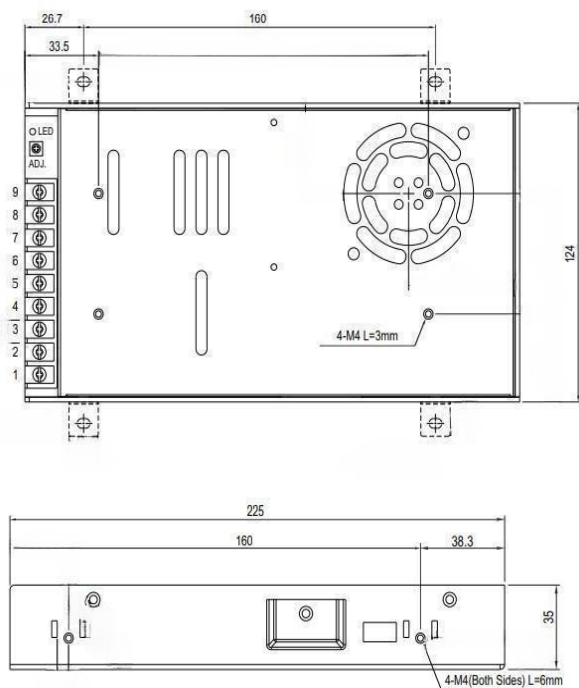
## Dimensions & Weight

Length:	225mm/8.85in
Width:	124mm/4.88in
Height:	41mm/1.61in
Weight:	850g

## Packing

Carton Size:	54 × 30 x 24 CM
	21.26 x 11.81 x9.45 in
Master Carton Quantities:	9pcs/Carton

## Dimensions and Installation



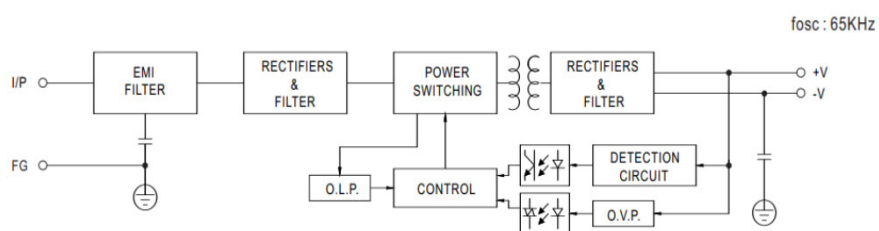
### Input

No.	Description
1	AC/L
2	AC/N
3	FG $\perp$

### Output :

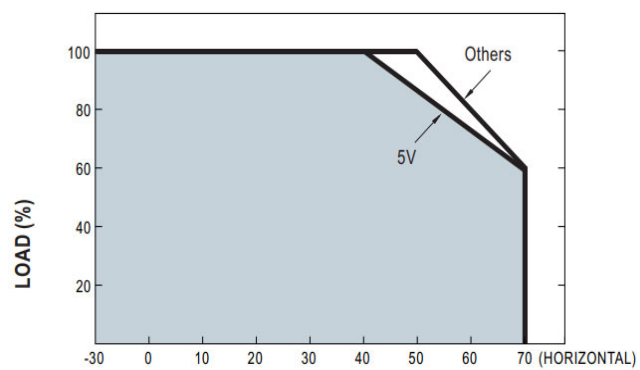
No.	Description
4-6	DC OUTPUT -V
7-9	DC OUTPUT +V

## Block Diagram



## Deduction curve and temperature

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## Minus output and input voltage curves

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