




YEL50 SERIES 50W



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



Cooling by free air convection



High operating temperature up to 70 °C



Higher Efficiency/Low Power Dissipation



Protection: Short Circuit/Overload/
Over Voltage



Three Years Warranty

Model Information

Yingjiao Part Number	DC Voltage	Rated Current	Rated Power	VOLTAGE ADJ.RANGE
YEL50-5	5V	10A	50W	4.5~5.5V
YEL50-12	12V	4.2A	50.4W	10.2~13.8V
YEL50-15	15V	3.4A	51W	13.5~18V
YEL50-24	24V	2.2A	52.8W	21.6~28.8V
YEL50-36	36V	1.45A	52.2W	32.4~39.6V
YEL50-48	48V	1.1A	52.8W	43.2~52.8V

Input

VOLTAGE RANGE	90-264VAC/127-370VDC
FREQUENCY RANGE	47-63Hz
EFFICIENCY(Typ.)	83% YEL50-5
	86% YEL50-12
	88% YEL50-15
	88% YEL50-24
	89% YEL50-36
	90% YEL50-48
AC CURRENT(Typ.)	0.95A/115VAC
	0.56A/230VAC
INRUSH CURRENT(Typ.)	COLD START 45A/230VAC
LEAKAGE CURRENT	<0.75mA/240VAC

Output

RIPPLE & NOISE(max.)	80mVp-p	YEL50-5
	120mVp-p	YEL50-12
	120mVp-p	YEL50-15
	150mVp-p	YEL50-24
	200mVp-p	YEL50-36
	200mVp-p	YEL50-48
VOLTAGE TOLERANCE	±2.0%	YEL50-5
	±1.0%	YEL50-12
	±1.0%	YEL50-15
	±1.0%	YEL50-24
	±1.0%	YEL50-36
	±1.0%	YEL50-48
LINE REGULATION	±0.5%	
LOAD REGULATION	±1.0%	YEL50-5
	±0.5%	YEL50-12
	±0.5%	YEL50-15
	±0.5%	YEL50-24
	±0.5%	YEL50-36
	±0.5%	YEL50-48
SETUP,RISE TIME	1000ms, 30ms/230VAC at full load	
	2000ms, 30ms/115VAC at full load	
HOLD UP TIME (Typ.)	30ms/230VAC at full load	
	12ms/115VAC at full load	

Protection

OVER LOAD	110%-150% Rated Output Power
	Protection type: Hiccup mode, recovers automatically after fault condition is removed
OVER VOLTAGE	5V:5.75~6.75V
	12V:13.8~16.2V
	15V:18.75~21.75V
	24V:28.8~33.6V
	36V:41.4~48.6V
	48V:55.2~64.8V
	Protection type : Shut down 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	3149.8K 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:1.25KVAC
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).

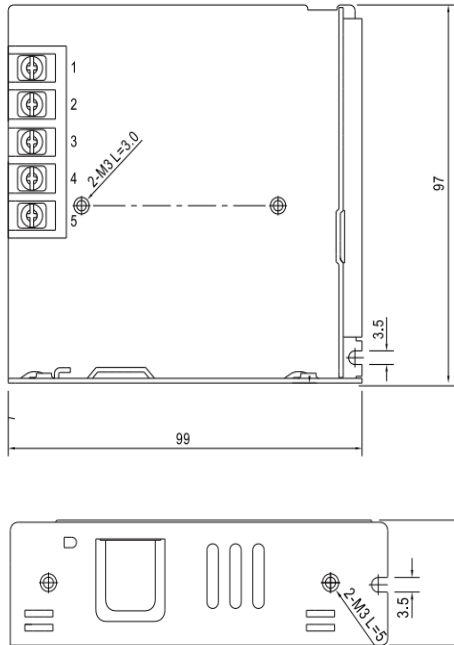
Dimensions & Weight

Length:	99mm/3.89in
Width:	82mm/3.22in
Height:	30mm/1.18in
Weight:	230g

Packing

Carton Size:	36 × 32.5 × 18.5 CM
	14.17 × 12.80 × 7.28 in
Master Carton Quantities:	60pcs/Carton

Dimensions and Installation



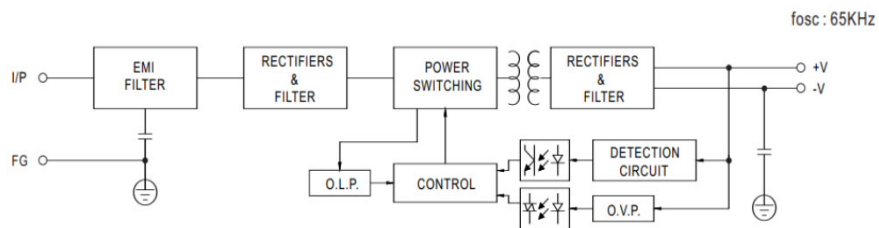
Input

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

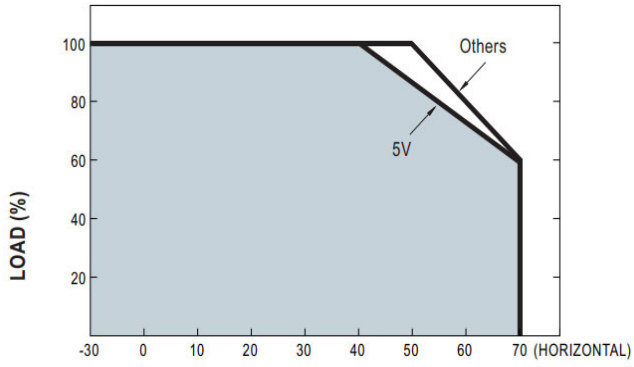
Output

No.	Description
4	DC OUTPUT -V
5	DC OUTPUT +V

Block Diagram



Deduction curve and temperature



Minus output and input voltage curves

