

YEL50 SERIES 50W



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



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).

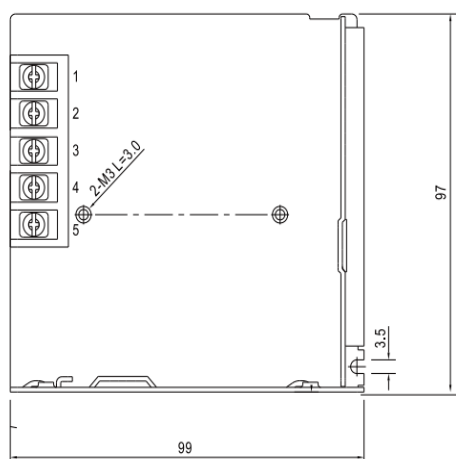
Dimensions & Weight

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 x 12.80 x 7.28 in
Master Carton Quantities:	60pcs/Carton

Dimensions and Installation

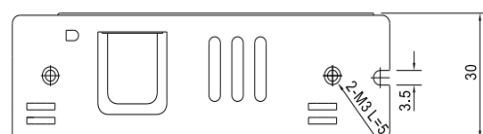


Input

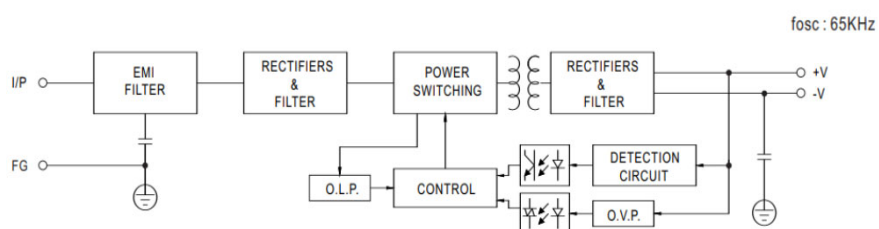
No.	Description
1	AC/L
2	AC/N
3	FG \perp

Output

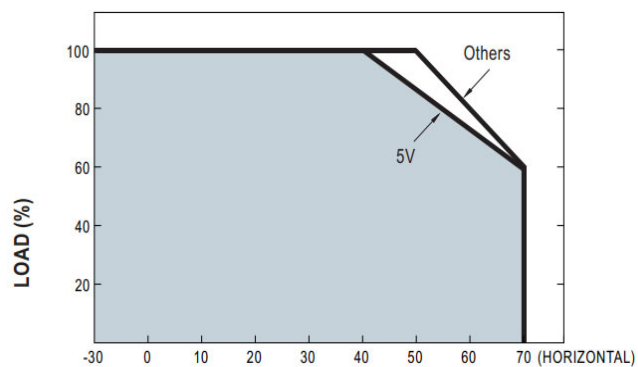
No.	Description
4	DC OUTPUT -V
5	DC OUTPUT +V



Block Diagram



Deduction curve and temperature



Minus output and input voltage curves

