

YEP600 SERIES 600W



YEP series are designed with lower profile housing and for wide range AC input from 90 VAC to 305V AC.

The series have built-in active function 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



Built-in Active PFC Function



Built-in Remote ON-OFF Control



High Efficiency Up To 90%



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	Max.Capacitive Load
YEP600-12	12V	50A	600W	10~13.2V	45000uF
YEP600-15	15V	40A	600W	13.5~18V	40000uF
YEP600-24	24V	25A	600W	20~26.4V	10000uF
YEP600-36	36V	16.7A	601.2W	28~40V	6000uF
YEP600-48	48V	12.5A	600W	41~56V	4000uF
YEP600-60	60V	10A	600W	56~64V	3000uF

Input

VOLTAGE RANGE	90-305VAC/127-430VDC
FREQUENCY RANGE	47-63Hz
POWER FACTOR(Typ.)	PF>0.95/230VAC at full load PF>0.98/115VAC at full load
AVERAGE EFFICIENCY	90% YEP600-12 90% YEP600-15 91% YEP600-24 91% YEP600-36 92% YEP600-48 92% YEP600-60
AC CURRENT(Typ.)	12A/115VAC 7.5A/230VAC
INRUSH CURRENT(Typ.)	35A/115VAC 60A/230VAC
LEAKAGE CURRENT	<2mA/240VAC

Output

RIPPLE & NOISE(max.)	200mVp-p	YEP600-12
	200mVp-p	YEP600-15
	240mVp-p	YEP600-24
	270mVp-p	YEP600-36
	360mVp-p	YEP600-48
	360mVp-p	YEP600-60
VOLTAGE TOLERANCE	± 1.5%	YEP600-12
	± 1.5%	YEP600-15
	± 1.0%	YEP600-24
	± 1.0%	YEP600-36
	± 1.0%	YEP600-48
	± 1.0%	YEP600-60
LINE REGULATION	± 0.5%	
LOAD REGULATION	± 1.0%	YEP600-12
	± 1.0%	YEP600-15
	± 0.5%	YEP600-24
	± 0.5%	YEP600-36
	± 0.5%	YEP600-48
	± 0.5%	YEP600-60
SETUP, RISE TIME	1300ms, 50ms/230VAC	at full load
	1300ms, 50ms/115VAC	at full load
HOLD UP TIME(Typ.)	20ms/230VAC	at full load
	16ms/115VAC	at full load

Protection

SHORT CIRCUIT	Protection type: Hiccup mode, recovers automatically after fault condition is removed
OVER LOAD	105%-130% Rated Output Power Protection type: Constant current limiting recovers automatically after fault condition is removed.
OVER VOLTAGE	12V: 13.8 ~ 16.2V 15V: 18.8 ~ 21.8V 24V: 27.6 ~ 32.4V 36V: 41.4 ~ 48.6V 48V: 55.2~ 64.6V 60V: 65.2~ 76.8V Protection type : Shut down o/p voltage, re-power on to recover.
OVER TEMPERATURE	Protection type : Shut down o/p voltage, recovers automatically after temperature goes down.

Environment

WORKING TEMP.	-30 °C to +70 °C (Refer to "Derating Curve")
WORKING HUMIDITY	20 ~ 90% RH non-condensing
STORAGE TEMP., HUMIDITY	-40 °C to +85 °C , 10 ~ 95% RH non-condensing
TEMP. COEFFICIENT	± 0.03%/ °C (0~50 °C)
VIBRATION	10 ~ 500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes
MTBF	180K hrs min. MIL-HDBK-217F(25 °C)
OVER VOLTAGE CATEGORY	III;According to EN62368-1;altitude up to 2000 meters
SAFETY PROTECTION	CLASS I

Function

REMOTE CONTROL	POWER ON:open or 0~0.8VDC between RC+(Pin 4)&RC-(Pin3) on CN100 POWER OFF: 4~10VDC between RC+(Pin 4)&RC-(Pin3) on CN100
REMOTE SENSE	Compensate voltage drop on the load wiring up to 0.3V

Safety & EMC

SAFETY STANDARDS	UL62368-1, TUV BS EN/EN62368-1 approved.
WITHSTAND VOLTAGE	I/P-O/P: 3KVAC 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 Class A ,BS EN/EN61000-3-3
EMC IMMUNITY	Compliance to BS EN/EN61000-4-11 Criteria B BS EN/EN61000-4-2,3,4,5,6,8 Criteria A

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 3.5 °C/1000m with fanless models and of 5 °C/1000m with fan models for operating altitude higher than 2000m(6500ft).
-

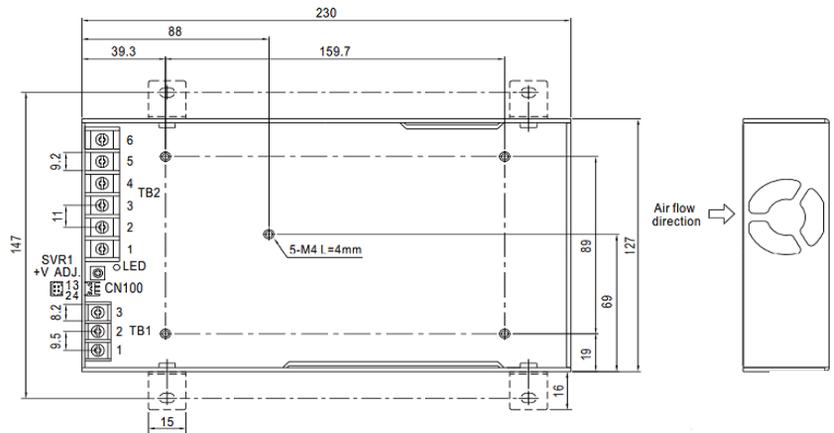
Dimensions & Weight

Length:	230mm / 9.06 in
Width:	127mm / 5.00 in
Height:	40.5mm / 1.59 in
Weight:	1.3kg

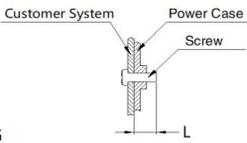
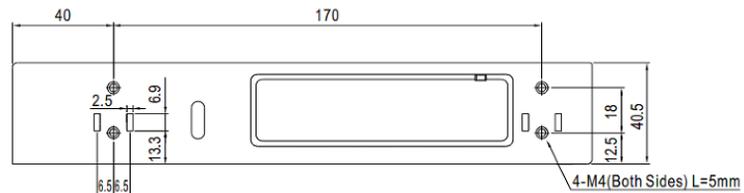
Packing

Carton Size:	54 x 30 x 24 CM 21.26 x 11.81 x 9.45 in
Master Carton Quantities:	9pcs / Carton

Mechanical Specification



Screw Spec.	L(max)	Torque(max)
M3	4mm	0.4N·m



Note:
 Unit: mm[inch]
 Wire range: 22-12AWG
 Connector tightening torque: M3.5 , 0.8N·m
 General tolerances: ± 1.00[± 0.039]

Input

No.	Description
1	AC/L
2	AC/N
3	FG ≡

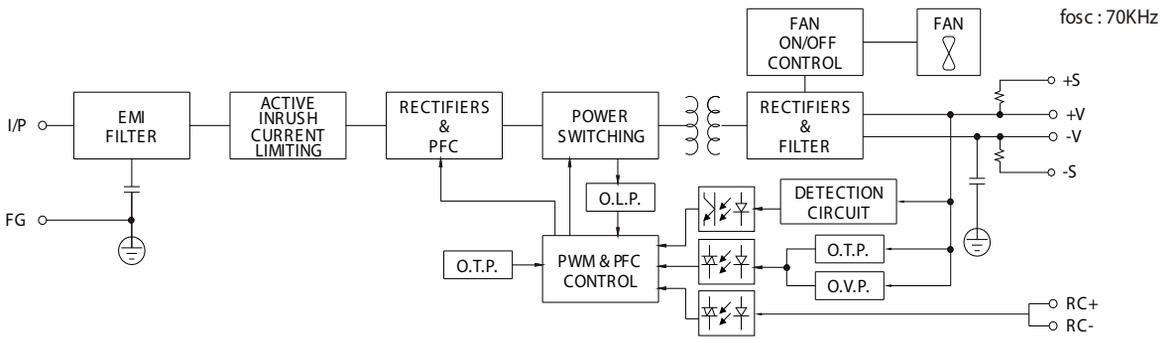
Output

No.	Description
1~3	-V
4~6	+V

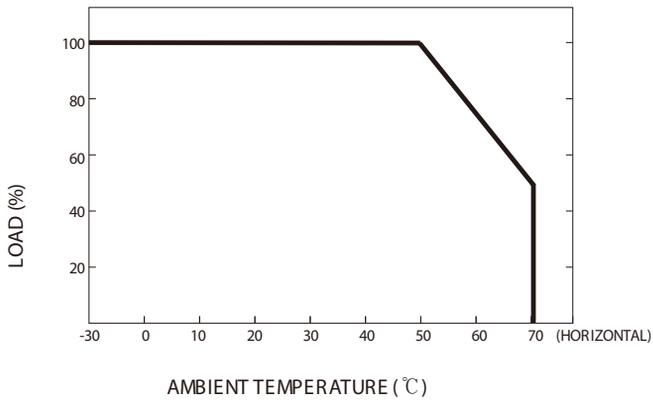
CN100

No.	Description	Mating Housing	Terminal
1	-S	HRS DF11-4DS or equivalent	HRS DF11-**SC or equivalent
2	+S		
3	RC-		
4	RC+		

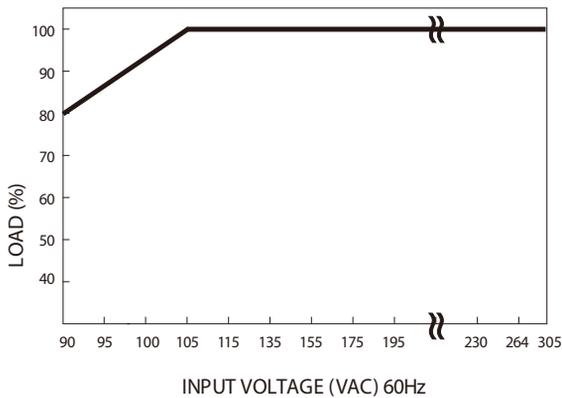
Block Diagram



Derating Curve



Static Characteristics



Function Description of CN100

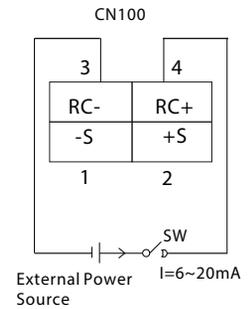
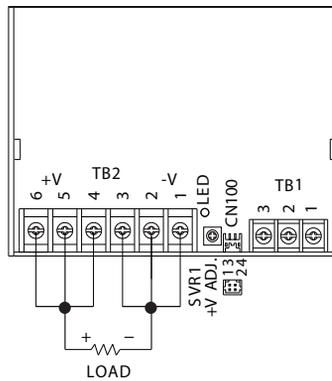
Pin No	Function	Description
1	-S	Negative sensing. The -S signal should be connected to the negative terminal of the load. The -S and +S leads should be twisted in pair to minimize noise pick-up effect. The maximum line drop compensation is 0.3V.
2	+S	Positive sensing. The +S signal should be connected to the positive terminal of the load. The +S and -S leads should be twisted in pair to minimize noise pick-up effect. The maximum line drop compensation is 0.3V.
3	RC-	Return for RC+ signal input.
4	RC+	Turns the output on and off by electrical or dry contact between pin 4 (RC+) and pin 3 (RC-). 0~0.8VDC or open: Power ON, 4~10DC: Power OFF.

Function Manual

1. Remote Control

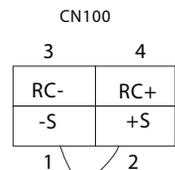
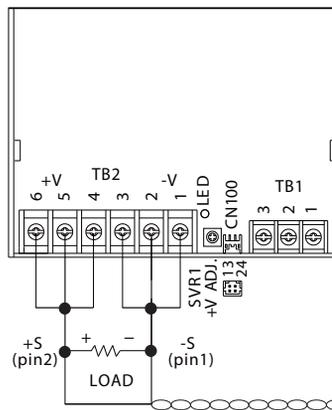
The PSU can be turned ON/OFF by using the "Remote Control" function.

Between RC-(pin3) and RC+(pin4) on CN100	PSU Status
SW OFF (0 ~ 0.8VDC) or open	ON
SW ON (4 ~ 10V)	OFF



2. Remote Sense

The remote sensing compensates voltage drop on the load wiring up to 0.3V



Sense lines should be twisted in pairs