# 🔘 YINGJIAO

# YEF750 SERIES 750W



YEF series are single-output slim type power supply and for wide range AC input from 90VAC to 305VAC.

This series has high efficiency up to 90% and operates from -30 $\sim$ +70 $^\circ$ C under air convection without fan.

This series serves as a high performance power supply solution for various industrial applications.

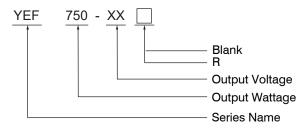




### Features

- Universal AC Input/ Full Range
- Built-in Active PFC Function
- Fanless design,750W convection
- High efficiency up to 90%
- DC OK active signal and redundant function(option)
- Protections: Short circuit/Over load/Over voltage/Over temperature
- LED indicator for power on
- Three years warranty

## **Model Description**



Туре	Description
Blank	Enclosed
R	Buit-in DC ok active signal and redundant function

## **Model Information**

Part number	DC Voltage	Rated Current(max.)	Rated Power	Average Efficiency	Ripple & Noise	Max Capacitive Load	Voltage ADJ Range
YEF750-12	12V	60A	720W	93%	150mVp-p	12000uF	12~14.4V
YEF750-24	24V	31.3A	751.2W	94%	200mVp-p	10000uF	24~28.8V
YEF750-36	36V	20.9A	752.4W	94.5%	250mVp-p	8000uF	36~43.2V
YEF750-48	48V	15.7A	753.6W	94%	250mVp-p	6000uF	48~57.6V

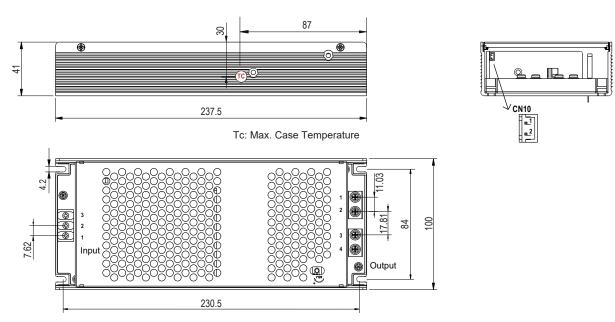
# YEF750 SERIES 750W

Safety Model No.	YEF750-XX			
Setup,Rise,Hold up Time	1.0s,50ms,12ms/230VAC(at full load) 1.0s,50ms,12ms/115VAC(at full load)			
Voltage Tolerance	±1.0%			
Line Regulation	±0.5%			
Load Regulation	±0.5%			
Rated Voltage Range	100-277VAC			
Voltage Range	90-305VAC/127-430VDC			
Frequency Range	50/60Hz			
AC Current	8.7A/115VAC 4.4A/230VAC			
Inrush Current	Cold Start 40A/200us at 230VAC 50Hz Cold Start 20A/200us at 115VAC 50Hz			
Leakage Current	<0.75mA/240VAC			
Power Factor(Typ.)	>0.95/230VAC at full load >0.98/115VAC at full load			
Quartend	105~125%Rated Output Power			
Over Load	Hiccup mode, recovers automatically after fault condition is removed.			
Short Circuit	Hiccup mode, recovers automatically after fault condition is removed.			
Ourse Maltana	115~145%Rated Output Voltage			
Over voltage	Shut down o/p voltage, re-power on to recover.			
Over Temperature	Shut down o/p voltage, recovers automatically after temperature goes down.			
Working TEMP.	-30 ~ +70 °C (Please refer to "Derating Curve"section)			
Working Humidity	20 ~ 90%RH Non-condensing			
Storage TEMP. Humidity	-40 ~ +85 C ,10 ~ 95%RH Non-condensing			
TEMP. Coefficient	±0.03%/(0 ~ 50°C) on load output			
Vibration	Component: 10 ~ 500Hz, 5G 10min./1cycle, 60min. each along X, Y, Z axes			
Safety Protection	Class I			
Over Voltage Category	OVC III / According to EN62368-1;altitude up to 2000 meters			
Safety Standards	EN62368-1 approved , design to meet :UL62368-1,BS EN62368-1,EN60335-1, EN61558-1			
Withstand Voltage	I/P-O/P:3.75KVAC/1min I/P-FG:2KVAC/1min O/P-FG:1.25KVAC/1min			
Isolation Resistance	I/P-O/P:100M Ohms / 500VDC / 25 C/ 70% RH			
EMC EMISSION	Compliance to BS EN/EN55032 (CISPR32) Class B, BS EN/EN61000-3-2 Class A-D,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, BS EN/EN55035			
Packing	1400g/pcs; 28 x 26 x 20 cm; 8pcs/carton			
Dimension (LxWxH)	237.5 x 100 x 41 mm			
MTBF	186.4Khrs min. MIL-HDBK-217F(25 <sup>°</sup> C)			
Housing material	Aluminium / steel			
<ol> <li>All parameters NOT specially mentioned at 230VAC input, rated load and 25 °C of ambient temperature.</li> <li>Ripple &amp; noise are measured from peak to peak with bandwidth limit of 20MHz (0.1uF and 47uF/50V parallel capacitor under DC output full load, AC nominal input 25 °C ).</li> <li>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.</li> <li>Derating may be needed under low input voltage .Please check the derating curve for more details.</li> <li>The ambient temperature derating of 3.5 °C /1000m for operating altitude higher than 2000m(6500ft).</li> <li>Only for Blank type, R type efficiency slightly less than the Blank type</li> </ol>				
	Setup,Rise,Hold up Time         Voltage Tolerance         Line Regulation         Load Regulation         Rated Voltage Range         Voltage Range         Frequency Range         AC Current         Inrush Current         Leakage Current         Power Factor(Typ.)         Over Load         Short Circuit         Over Voltage         Over Temperature         Working TEMP.         Working Humidity         Storage TEMP. Humidity         TEMP. Coefficient         Vibration         Safety Protection         Over Voltage         Isolation Resistance         EMC EMISSION         EMC IMMUNITY         Packing         Dimension (LxWxH)         MTBF         Housing material         1.All parameters NOT specially me         2.Ripple & noise are measured from nominal input 25 C ).         3.The power supply is considered a directives.         4.Derating may be needed under to 5.The ambient temperature deration			

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## **Drawing & Label**

(Unit: mm , tolerance: ±1mm)



#### AC Input Terminal pin NO.Assignment

		0	
Pin No.	Assignment	Terminal	Max mounting torque
1	AC/L	BHN 1.5-XX-	
2	AC/N	7.62-02-T1-C	5.2N-m
3	÷	1.02 02 11 0	

#### DC OK Connector(CN10): DL20001-AWD or requivalent

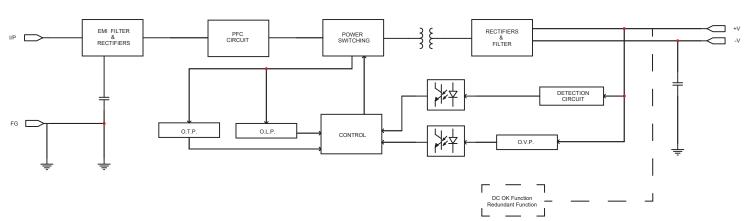
Pin No.	Assignment	Mating Housing	Terminal
1	DC COM	DL20001-AWD	DL20001-PH-AWD
2	DC OK+V	DL2000 I-AVVD	DL20001-FIT-AWD

#### DC Output Terminal pin NO.Assignment

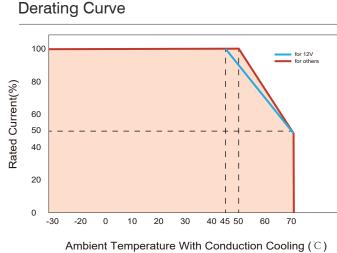
20 output remain printer longiment			
Pin No.	Assignment	Terminal	Max mounting torque
1,2	+V	MFR 06426-T2	9.5N-m
3,4	-V	WIFK 00420-12	9.511-111

# **Block Diagram**

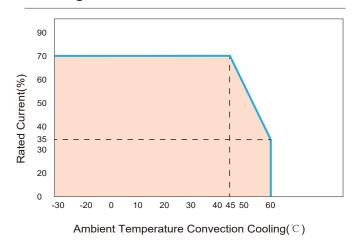
PWM fosc : 55KHz PFC fosc : 90KHz



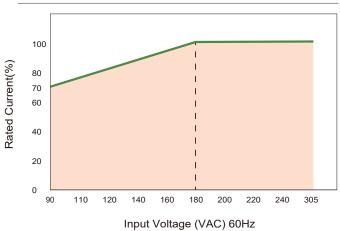
# **Engineering Data**



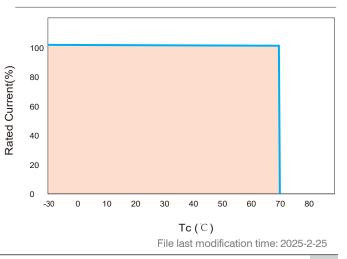




Static Characteristics





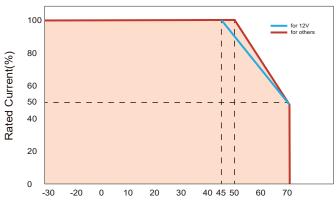




# YEF750 SERIES 750W

## **Engineering Data**

Derating Curve



Ambient Temperature With Forced Air Cooling (  $\circlearrowright$  )

## Function

DC OK Signal(Option)	Contact rating(max.): 30VDC/1A resistive load
Redundant(Option)	For parallel connection protection:For parallel applications, when one PSU can not work , the another one will be automatically enabled. This can prevent the system crash, and provide the reliability of system

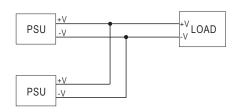
### **Function Manual**

1. DC OK Relay Contact

Contact Close	PSU turns on / DC OK
Contact Open	PSU turns off / DC Fail
Contact Rating(Max.)	30VDC/1A resistive load

#### 2. Redundant Function

- (1) YEF750-XXR is built-in redundant function and can be connected 2 units in parallel.
- (2) When in parallel operation the maximum load should not be greater than the rated power of any PSU.



## Installation

1. Operate with additional aluminum plate

In order to meet the "Derating Curve" and the "stalic Characlerisics", YEF750 series must be instaled onto an aluminum plale (or the cabinet of the same size) on the bottom. The size of the suggested aluminum plate is shown as below. And for optimizing thermal performance, the aluminum plate must have an even and smooth surface (or coated with thermal grease), and YEF750 series must be firmly mounted at the center of the aluminum plate.

