

YEF350 SERIES

350W



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~+70 C under air convection without fan.

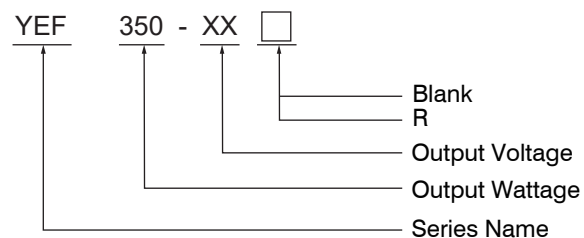
This series serves as a high performance power supply solution for various industrial applications.

RoHS    Pending

Features

- Universal AC Input/ Full Range
- Built-in Active PFC Function
- Fanless design,350W 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



Type	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
YEF350-3.3	3.3V	60A	198W	88.5%	150mVp-p	12000uF	3.2~3.5V
YEF350-4.2	4.2V	60A	252W	89%	150mVp-p	12000uF	3.6~4.4V
YEF350-5	5V	60A	300W	89.5%	200mVp-p	12000uF	4.5~5.5V
YEF350-12	12V	29.2A	350.4W	90%	200mVp-p	10000uF	11.4~12.6V
YEF350-15	15V	23.4A	351W	90.5%	200mVp-p	9000uF	14.3~15.8V
YEF350-24	24V	14.6A	350.4W	90%	240mVp-p	8000uF	22.8~25.2V
YEF350-36	36V	9.75A	351W	90.5%	240mVp-p	6000uF	34.2~37.8V
YEF350-48	48V	7.3A	350.4W	91%	240mVp-p	4000uF	45.6~50.4V
YEF350-55	55V	6.4A	352W	91.5%	300mVp-p	3000uF	45~58V

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Specification

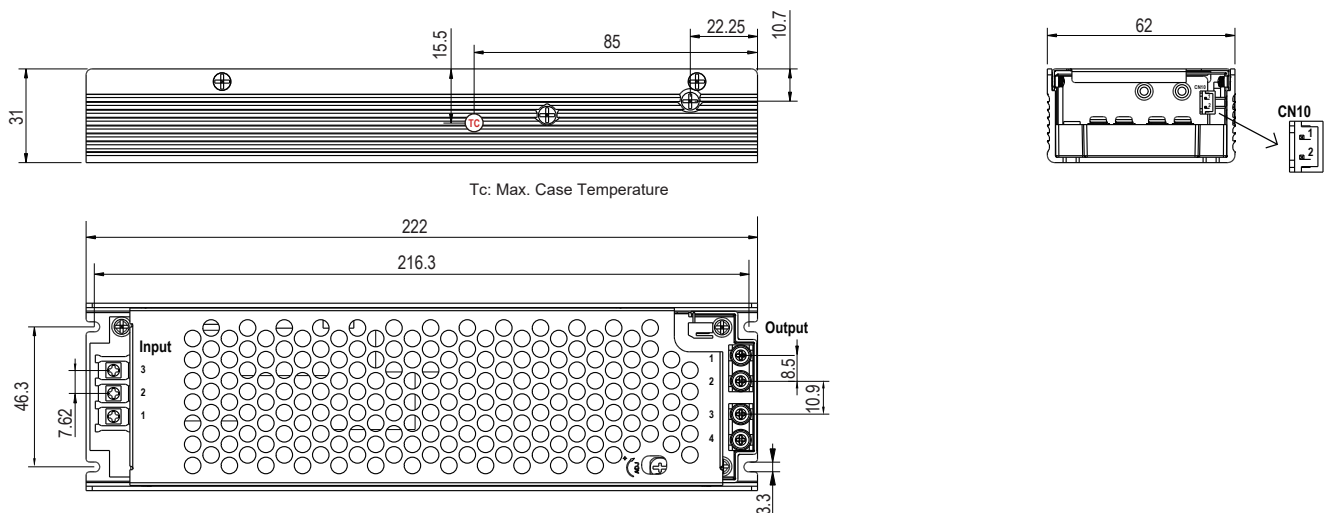
Model	Safety Model No.	YEF350-XX□			
Output	Setup,Rise,Hold up Time	2.0s,80ms,10ms/230VAC(at full load)		3.0s,80ms,10ms/115VAC(at full load)	
	Voltage Tolerance	± 2.0%	YEF350-3.3/4.2/5□	± 1.0%	YEF350-12/15/24/36/48/55□
	Line Regulation	±0.5%	YEF350-3.3/4.2/5□	±0.3%	YEF350-12/15/24/36/48/55□
	Load Regulation	± 1.0%	YEF350-3.3/4.2/5□	±0.5%	YEF350-12/15/24/36/48/55□
Input	Rated Voltage Range	100-277VAC			
	Voltage Range	90-305VAC/127-430VDC			
	Frequency Range	50/60Hz			
	AC Current	4.6A/115VAC	2.3A/230VAC		
	Inrush Current	Cold Start 60A/200us at 230VAC 50Hz		Cold Start 30A/200us at 115VAC 50Hz	
	Leakage Current	<0.75mA/240VAC			
	Power Factor(Typ.)	>0.94/230VAC at full load		>0.98/115VAC at full load	
Protection	Over Load	110~140%Rated Output Power			
		Hiccup mode, recovers automatically after fault condition is removed.			
	Short Circuit	Hiccup mode, recovers automatically after fault condition is removed.			
	Over Voltage	115~135%Rated Output Voltage			
		Shut down o/p voltage, re-power on to recover.			
	Over Temperature	Shut down o/p voltage, recovers automatically after temperature goes down.			
Ambient	Working TEMP.	-30 ~ +70 ℃ (Please refer to “Derating Curve”section)			
	Working Humidity	20 ~ 95%RH Non-condensing			
	Storage TEMP. Humidity	-40 ~ +85 ℃ ,10 ~ 95%RH Non-condensing			
	TEMP. Coefficient	±0.03%/(0 ~ 50 ℃) 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	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 ℃ / 70% RH			
EMC	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			
Others	Packing	700g/pcs; 30 x 28.5 x 23.5 cm; 20pcs/carton			
	Dimension (LxWxH)	222 x 62 x 31 mm			
	MTBF	188.4Khrs min. MIL-HDBK-217F(25 ℃)			
	Housing material	Aluminium / steel			
Note	1.All parameters NOT specially mentioned at 230VAC input, rated load and 25 ℃ of ambient temperature. 2.Ripple & 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 ℃). 3.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. 4.Derating may be needed under low input voltage .Please check the derating curve for more details. 5.Strongly recommended that external output capacitance should not exceed 10000uF(Only for the models with output voltage 5/12V) 6.The ambient temperature derating of 3.5 ℃ /1000m for operating altitude higher than 2000m(6500ft). 7. Only for Blank type,R type efficiency slightly less than the Blank type 8. Inrush current parameter has 10% tolerance				

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Drawing & Label

(Unit: mm , tolerance: $\pm 1\text{mm}$)



Tc: Max. Case Temperature

AC Input Terminal pin NO.Assignment

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

DC Output Terminal pin NO.Assignment

Pin No.	Assignment	Terminal	Max mounting torque
1,2	-V	MFR 06426-T2	9.5N-m
3,4	+V		

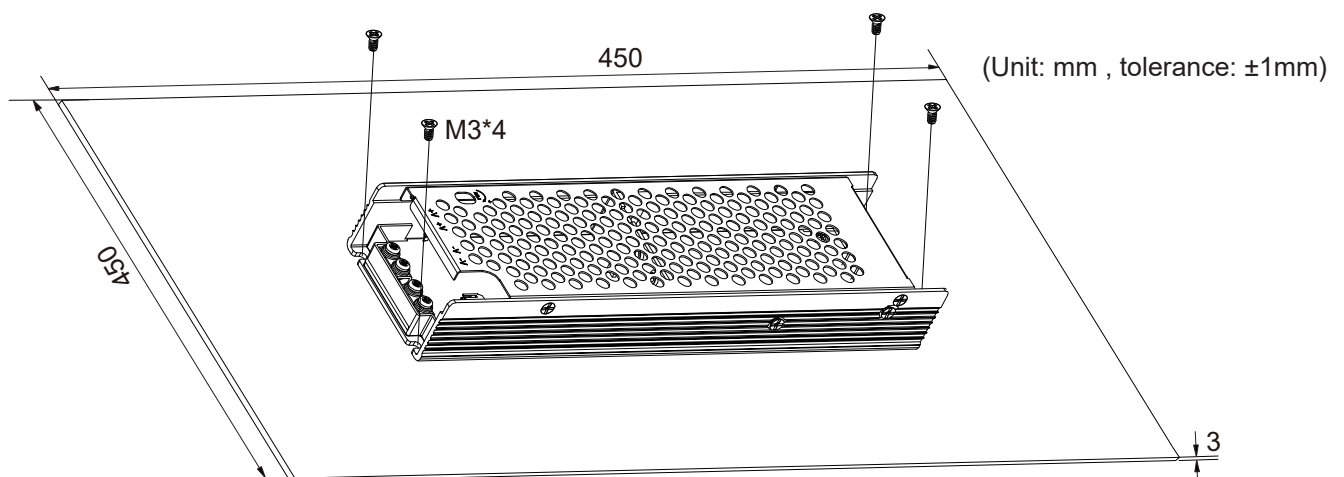
DC OK Connector(CN10): DL20001-AWD or requivalent

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

Installation

1. Operate with additional aluminum plate

In order to meet the "Derating Curve" and the "static Characteristics", YEF350 series must be installed onto an aluminum plate (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 YEF350 series must be firmly mounted at the center of the aluminum plate.

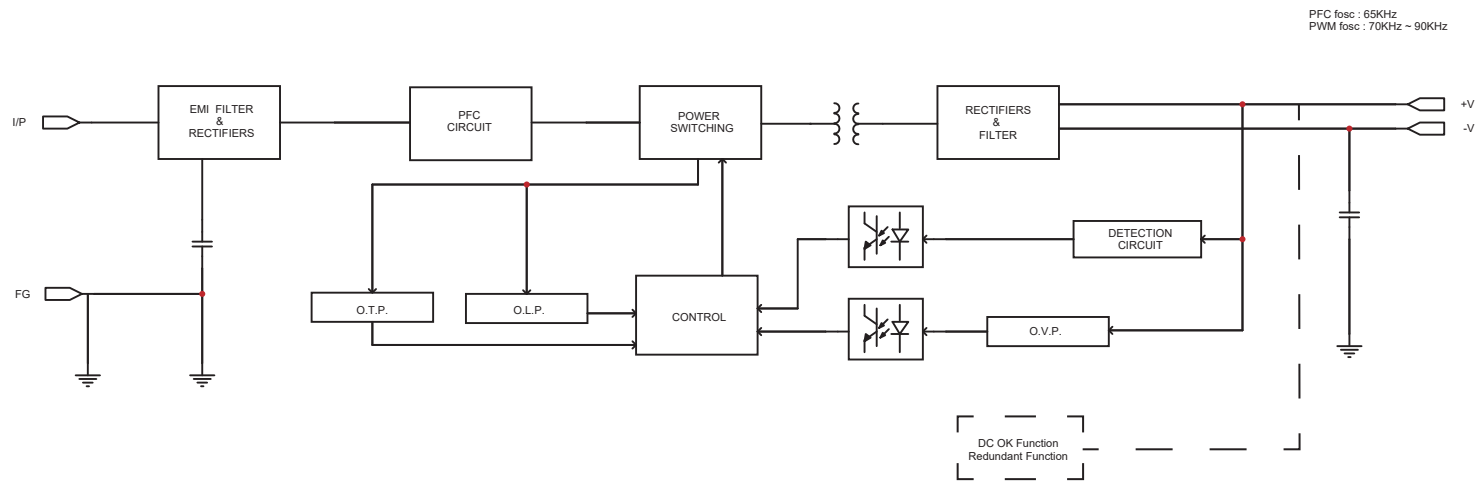


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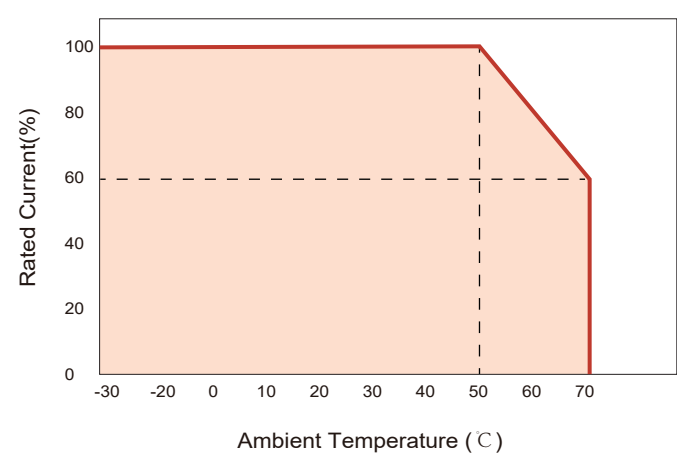
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Block Diagram

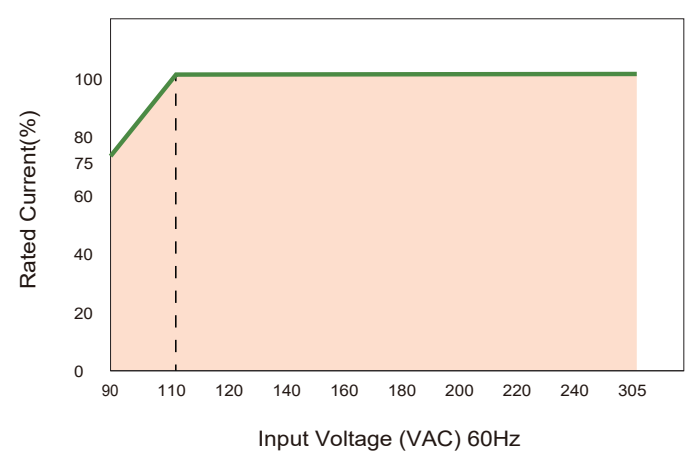


Engineering Data

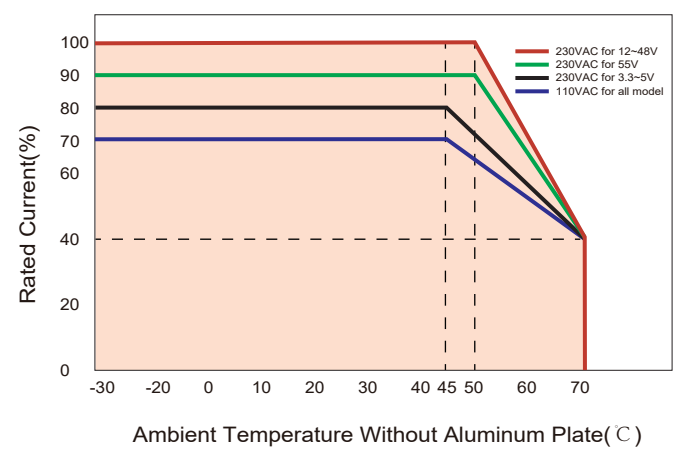
Derating Curve



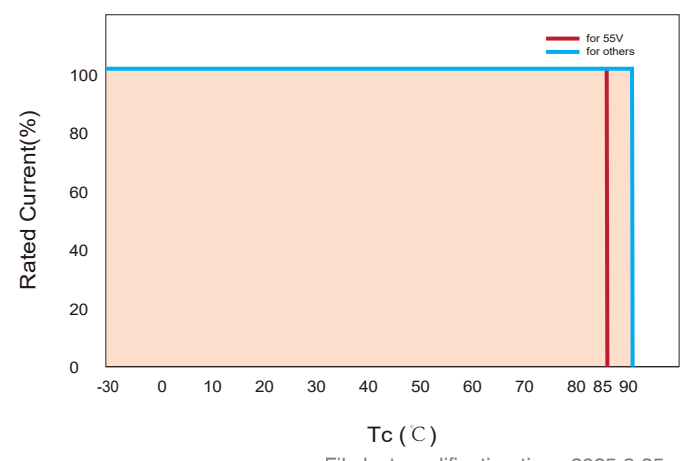
Static Characteristics



Derating Curve



Tc VS Rated Current



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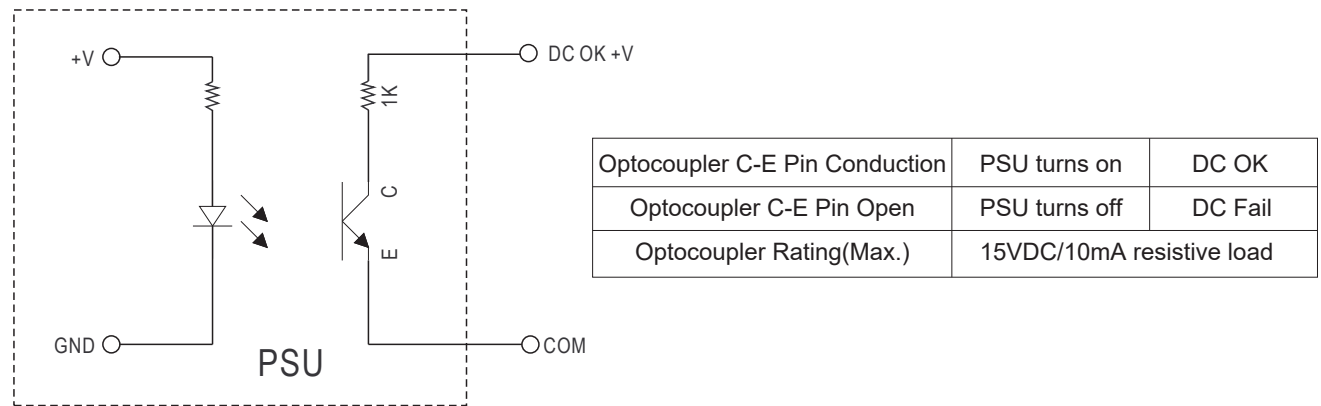
Function

DC OK Signal(Optional)	Contact rating(max.): 15VDC/10mA resistive load
Redundant(Optional)	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 Singal

DC OK is a collector shorted signal. It is used by an optocoupler in the power supply which indicates the output status of the power supply as exhibited below.



2. Redundant Function

- (1) YEF350-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.

