

## Features

- Input Voltage 90~264V AC
- Optional: DC OK Signal & Redundant Function
- Built in Active PFC Function
- Working Temperature 30~+70°C
- Efficiency up to 95%
- Protection: OLP, OVP, OTP SCP
- 3 Years Warranty



Certified to & Standards and complies with the relevant Efficiency Regulations. These are primarily used in ITE, Audio & Video Industries and customised solutions are available upon request.

### Models

Model Number	DC Voltage (V)	Rated Current (A)	Rated Power (W)	Voltage Adj. Range (V)	Efficiency (%)	Ripple & Noise (mVp-p)
56YEF500-05	5	80	400	4.5~5.5	90	200
56YEF500-12	12	41.7	500.4	11.4~12.6	94	200
56YEF500-15	15	33.4	501	14.3~15.8	94	200
56YEF500-24	24	20.9	501.6	22.8~25.2	94.5	240
56YEF500-36	36	13.9	500.4	34.2~37.8	95	360
56YEF500-48	48	10.45	501.6	45.6~50.4	95	360
56YEF500-55	55	8.9	489.5	49.5~60.5	95	

### Models – With Redundant Feature

Model Number	DC Voltage (V)	Rated Current (A)	Rated Power (W)	Voltage Adj. Range (V)	Efficiency (%)	Ripple & Noise (mVp-p)
56YEF500R-05	5	80	500.4	4.5~5.5	90	200mVp-p
56YEF500R-12	12	41.7	501	11.4~12.6	94	200mVp-p
56YEF500R-15	15	33.4	501.6	14.3~15.8	94	200mVp-p
56YEF500R-24	24	20.9	500.4	22.8~25.2	94.5	240mVp-p
56YEF500R-36	36	13.9	501.6	34.2~37.8	95	360mVp-p
56YEF500R-48	48	10.45	489.5	45.6~50.4	95	360mVp-p
56YEF500R-55	55	8.9	400	49.5~60.5	95	

### Input Specifications

Voltage Range	90~264VAC 127~370VDC
Frequency Range	47~63Hz
Power Factor	PF>0.95/230VAC PF>0.98/115VAC at full load
AC Current (Typ.)	4.85A/115VAC 2.6A/230VAC
Inrush Current (Typ.)	Cold Start 30A/115VAC Cold Start 60A/230VAC
Leakage Current	<0.75mA/240VAC

### Output Specifications

Voltage Tolerance	±2.0% 5v ±1.0% Others
Line Regulation	±0.5%
Load Regulation	±1.0% 5v ±0.5% Others
Setup, Rise Time	1000ms, 80ms/230VAC at full load 1000ms, 80ms/115VAC at full load
Hold Up Time (Typ.)	12ms/230VAC at full load 12ms/115VAC at full load

### Protection

Overload	110%-140% Rated Output Power Protection type: Hiccup mode, recovers automatically after fault condition is removed
Over Voltage	5.75~6.75v 5v
	13.2~15.6v 12v
	16.5~19.5v 15v
	26.4~31.2v 24v
	39.6~46.8v 36v
	52.8~62.4v 48v
	60.5~71.5v 55v
	Protection type: Shut down O/P voltage, re-power on to recover
Over Temperature	Protection type: Shut down O/P voltage, recover automatically after temperature goes down

### Function

DC OK Signal (optional)	Contact close: PSU turns on/DC ok
	Contact open: PSU off/DC fail.
	Contact rating (max.): 30Vdc/1A resistive load
Redundant (optional)	For parallel connection protection: For parallel applications, when one PSU cannot work, the other one will automatically be enabled. This can prevent system crashes and ensure the system's reliability.

### Environmental Characteristics

Working Temp	-30 °C to +70 °C (Refer to "Derating Curve")
Working Humidity	20 ~ 95% 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

### Safety

Safety Standards	Pending
Withstand Voltage	I/P-O/P:3.75KVAC 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

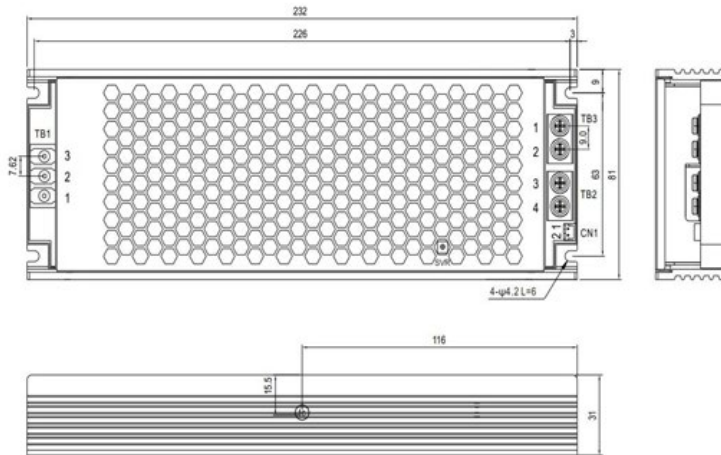
### Other Specifications

MTBF	1508.9K hrs min. Telcordia SR-332 (Bellcore) ;
Dimension	232x81x31mm(L*W*H)
Weight	900G
Packing	54x30x24cm
Carton Quantities	20pcs/Carton

#### Notes:

1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature.
2. Ripple and noise are measured at 20MHz of bandwidth using a 12" twisted pair wire terminated with a 0.1uf and 47uf parallel capacitor.
3. Tolerance includes set-up tolerance, line regulation and load regulation.
4. Derating may be needed under low input voltages. Please check the derating curve for more details.
5. The ambient temperature derating of 3.5°C/1000m is needed for operating altitude greater than 2000m(6500ft)
6. The power supply is considered a component which will be installed into the final equipment. The final equipment must be confirmed to meet EMC directives.
7. According to the actual measurement, R type efficiency is slightly less than the Blank type.
8. Inrush's current parameter has a 10% tolerance.

### Dimensions and Installation



• (C) : Max. Case Temperature

AC Input Terminal(TB1) pin NO. Assignment

Pin No.	Assignment	Terminal	Max mounting torque
1	AC/L	(DEGSON) DG28C-B-03P	5Kgf-cm
2	AC/N		
3	⊕		

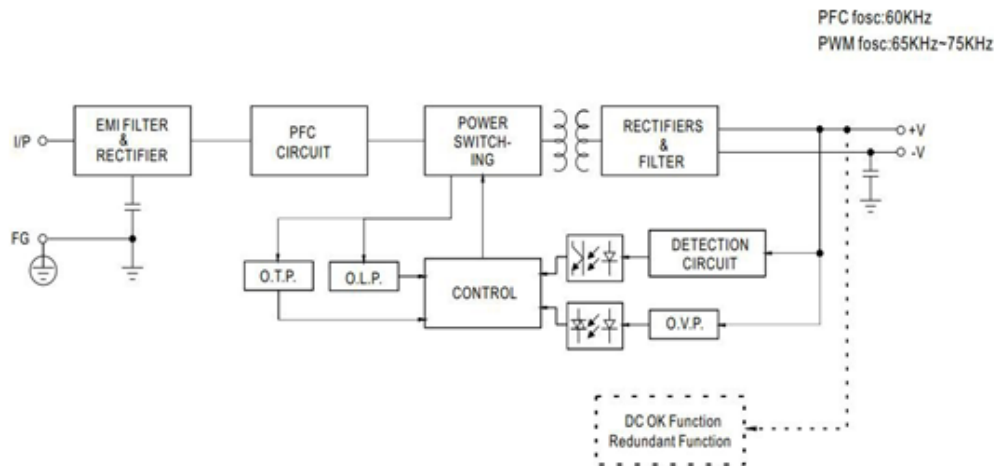
DC Output Terminal(TB2, TB3) pin NO. Assignment

Pin No.	Assignment	Terminal	Max mounting torque
1,2	-V	MEL-400-02P	8Kgf-cm
3,4	+V		

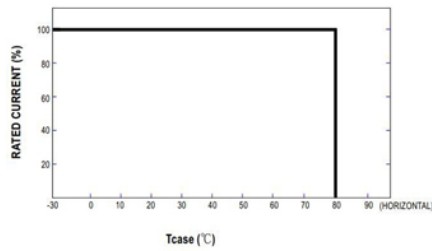
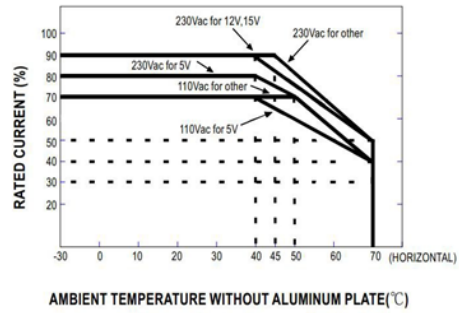
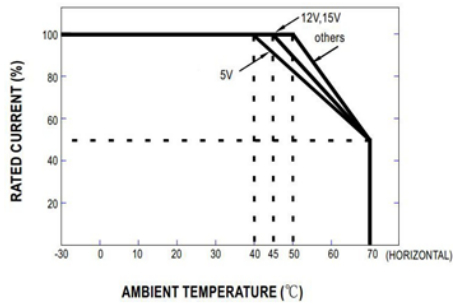
DC OK Connector(CN1):JST B2B-PH-K-S or equivalent

Pin No.	Assignment	Mating Housing	Terminal
1	DC COM1	JST PHR-2	JST SPH-002T-P0.5S
2	DC COM2	or equivalent	or equivalent

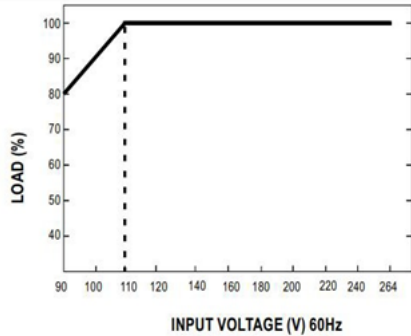
### Block Diagram



Derating Curves



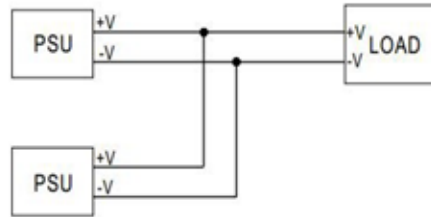
Minus output and input voltage curves



DC OK Relay Contact

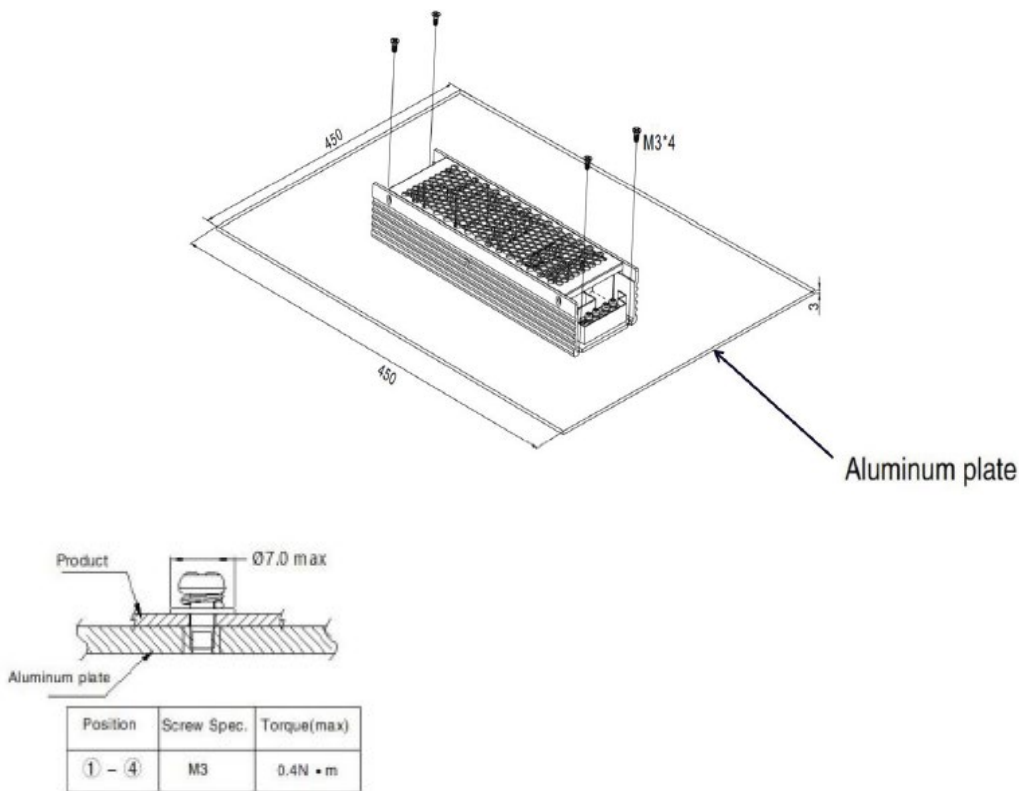
Contact Close	PSU turns on/DC ok
Contact Open	PSU turns off/DC fail
Contact Rating(max.)	30Vdc/1A resistive load

### Redundant Function



- (1) 56YEF Series is a built-in redundant function and can be connected to 2 units in parallel.
- (2) When in parallel operation, the maximum load should not be greater than the rated power of any PSU.

### Installation Diagram



**Note:**

1. Operate with an additional aluminium plate  
To meet the "Derating Curve" and the "Static Characteristics", the 56YEF series must be installed onto an aluminium plate (or a cabinet of the same size) on the bottom. The size of the suggested aluminium plate is shown below. For optimising thermal performance, the aluminium plate must have an even and smooth surface (or be coated with thermal grease), and the 56YEF series must be firmly mounted at the centre of the aluminium plate.
2. It is suggested to install the product with M3 combination screws, and the product must be firmly installed at the centre of the aluminium plate.