

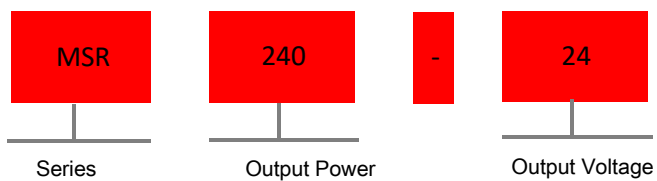
## MSR240-□ Series



### ▲ Features

- Peak load capability up to 150%
- Built-in active PFC function,  $PF > 0.93$
- Efficiency  $> 94\%$ , Low power dissipation
- Protections: short circuit/overload/over voltage/over temperature
- Cooling by free air convection
- Mounting: DIN rail TS-35/7.5 or 15
- Built-in DC OK relay contact
- 100% full load burn-in test
- 3 years warranty

### ▲ Model Encoding

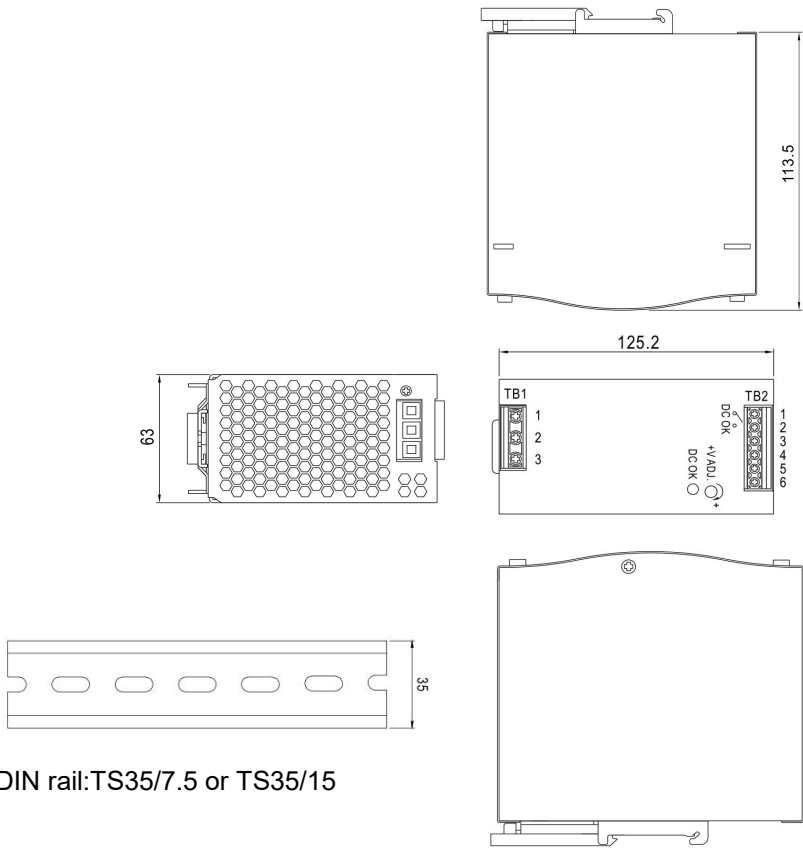




## Specification

Input			
Inpout voltage	88-264VAC 124-370VDC		
AC current	2.6A/115VAC 1.3A/230VAC		
Frequency range	47-63Hz		
Inrush current(max.)	33A/115VAC 65A/230VAC		
Output			
DC voltage	24V	48V	
Rated current	10A	5A	
Current range	0-10A	0-5A	
Rated power	240W	240W	
Peak current	15A	7.5A	
Peak power *1	360W(3s)		
Rippl & noise(max.) *3	100mVp-p	120mVp-p	
Voltage ADJ. range	24-28V	48-55V	
Voltage tolerance *4	±1%	±1%	
Line regulation	±0.5%	±0.5%	
Load regulation	±1%	±1%	
Efficiency *5	94%	94%	
Start up, rise time	1500ms 60ms/230VAC ; 3000ms 60ms/115VAC (@Full load)		
Hold up time	20ms/230VAC 20ms/115VAC (@Full load)		
Status indicator	Green LED		
Protection			
Over load	Normally works within 110 ~ 150% rated output power for 3 seconds and then shut down o/p voltage, and recover automatically. >150% of rated power, constant current limiting within 2s and recover automatically. Shut down O/P in 2s		
Over voltage	29-33V	56-65V	
	Protection type:Shut down O/P voltage and auto-recover.		
Over temperature	95°C±5°C(TSW) (Detect on the heat sink of power supply) Protection type: Shut down O/P voltage, automatically recover after the temperature goes down		
DC OK relay contact capacity	60Vdc/0.3A, 30Vdc/1A, 30Vac/0.5A resistive load		
Safety & EMC			
Withstand voltage	I/P-O/P:3KVAC I/P-FG:2KVAC O/P-FG:0.5KVAC O/P-DC OK:0.5KVAC		
Isolation resistance	I/P-O/P, I/P-FG, O/P-FG:>100M Ohms/500VDC/25°C/70%RH		
Safety standards	Design refer to EN IEC 62368-1、GB4943.1		
EMC emission	Parameter	Standard	Test level
	Conducted	EN 55032	Class B
	Radiated	EN 55032	Class B
	Voltage Flicker	EN 61000-3-3	Design refer to Class A
	Harmonic Current	EN IEC 61000-3-2	Class A
EMC immunity	Parameter	Standard	Test level
	ESD	EN 61000-4-2	Level 3 8KV air;Level 2 4KV contact
	Radiated Susceptibility	EN 61000-4-3	Level 3 10V/m
	EFT/Burest	EN 61000-4-4	Level 3 2KV/5KHZ
	Surge	EN 61000-4-5	Level 3 2KV/L-N;Level3 4kV/L-N-FG
	Conducted	EN 61000-4-6	Level 3 10V
	Magnetic Field	EN 61000-4-8	Level 4 30A/m
	Voltage Dips and interruptions	EN 61000-4-11	<=5% residual voltage for 0.5 cycles, 70% residual voltage for 25 cycles, <=5% residual voltage for 250 cycles:
Environment			
Operating temperature *8	- 25~+70 °C (Refer to "Derating curve")		
Storage temp & humidity	- 40~+85°C, 10~95%RH		
Operating humidity	20~95%RH, Non-condensing		
Vibration	10-500Hz,2G 10min/1 cycle, 60 min along with each X,Y,Z axes		
Others			
MTBF	≥169.3Khrs MIL-HDBK-217F(25°C)		
Installation	TS35 DIN rail		
Protection class	IP20		
Weight	About 1.03kg		
Dimension	125.2*63*113.5mm		
Data	Description	Model	
	MSR 240W 10A/24V	MSR240-24	
	MSR 240W 5A/48V	MSR240-48	

## Installation instruction



DIN rail: TS35/7.5 or TS35/15

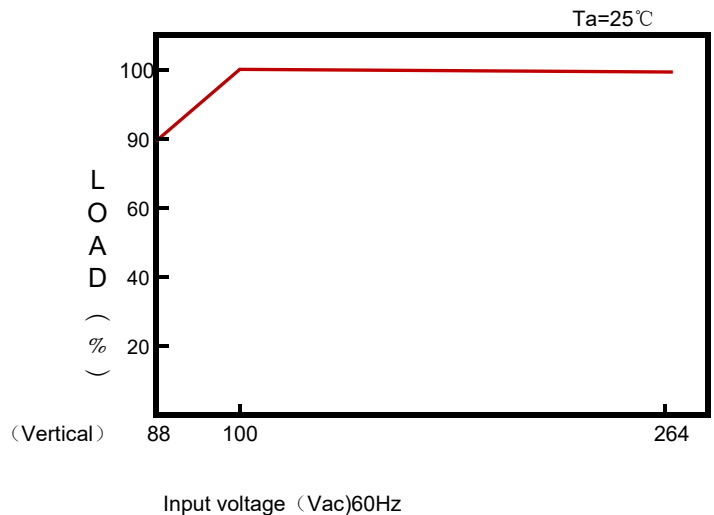
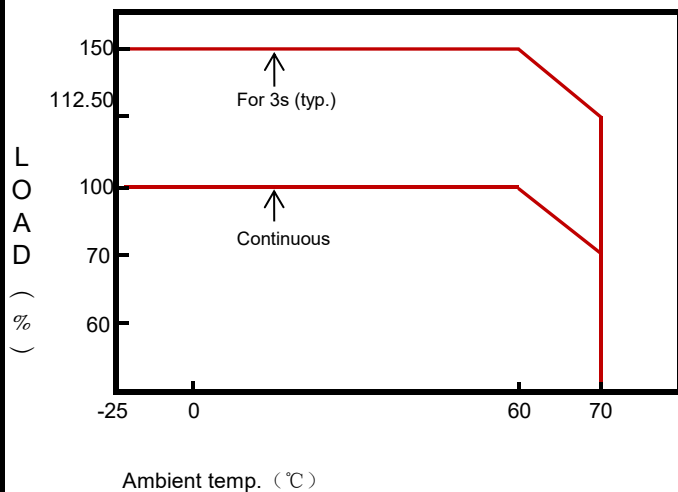
### Terminal PIN No. assignment (TB1)

PIN No.	Assignment
1	FG $\oplus$
2	AC/N
3	AC/L

### Terminal PIN No. assignment (TB2)

PIN No.	Assignment
1,2	Relay contact
3,4	DC OUTPUT +V
5,6	DC OUTPUT -V

## Derating curve



**Note:** 1. 3s max. and the average power is not allowed to surpass rating power

2. All parameters are measured at 230VAC input, rated load and 25°C of ambient temperature unless otherwise specified.

3. Ripple & noise are measured at 20MHz of bandwidth by using a 12' twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor.

4. Tolerance: includes set up tolerance, line regulation and load regulation.

5. After burn-in 30min

6. Installation clearances: 40mm on top, 20mm on the bottom, 5mm on the left and right side are recommended when loaded permanently with

full

power, In case the adjacent device is a heat source, 15mm clearance is recommended.

7. 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).

8. Derating may be needed under low input voltage. Please refer to derating curve for more details.