Mibbo

MSR120-□ Series

▲ Features

Peak load capability up to 150%

Built-in active PFC function，PF＞0.93

Efficiency >91%，Low power dissipation

Protections:short circuit/overload/over voltage/over temperature

Cooling by free air convection

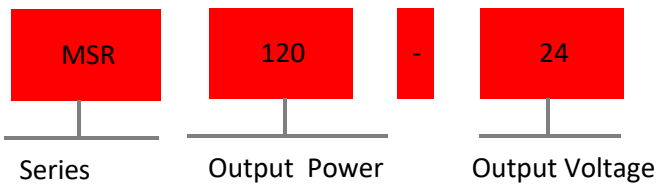
Mounting：DIN rail TS-35/7.5 or 15

Built-in DC OK relay contact

100% full load burn-in test

3 years warranty

▲ Model Encoding



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Specification

Input			
Inpout voltage *1	88-264VAC 124-370VDC		
AC current	1.4A/115VAC 0.7A/230VAC		
Frequency range	47-63Hz		
Inrush current(max.)	35A/115VAC 70A/230VAC		
Output			
DC voltage	12V	24V	48V
Rated current	10A	5A	2.5A
Current range	0-10A	0-5A	0-2.5A
Rated power	120W	120W	120W
Peak current	15A	7.5A	3.75A
Peak power *2	180W(3s)		
Rippl & noise(max.) *4	100mVp-p	100mVp-p	120mVp-p
Voltage ADJ. range	12-14V	24-28V	48-55V
Voltage tolerance	±1%	±1%	±1%
Line regulation	±0.5%	±0.5%	±0.5%
Load regulation	±1%	±1%	±1%
Efficiency *5	89%	91%	90.5%
Start up, rise time	1500ms 60ms 20ms/230VAC ； 3000ms 60ms 20ms/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		
	>150% of rated power, constant current limiting within 3s and recover automatically. Shut down O/P in 3s		
Over voltage	14-17V	29-33V	56-65V
	Protection type:Shut down O/P voltage。 Repower On to recover.		
Over temperature	95℃±5℃(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:1.5KVAC O/P-FG:0.5KVAC O/P-DC OK:0.5KVAC		
Isolation resistance	I/P-O/P:3KVAC I/P-FG:2KVAC O/P-FG:0.5KVAC O/P-DC OK:0.5KVAC		
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	- 25～+70 ℃（Refer to "Derating curve"）		
Storage temp & humidity	- 40～+85℃, 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	≥289.9Khrs MIL-HDBK-217F(25℃)	
Installation	TS35 DIN rail	
Protection class	IP20	
Weight	About 0.67kg	
Dimension	125.2*40*113.5mm	
Data	**Description**	**Model**
	MSR 120W 10A/12V	MSR120-12
	MSR 120W 5A/24V	MSR120-24
	MSR 120W 2.5/48V	MSR120-48

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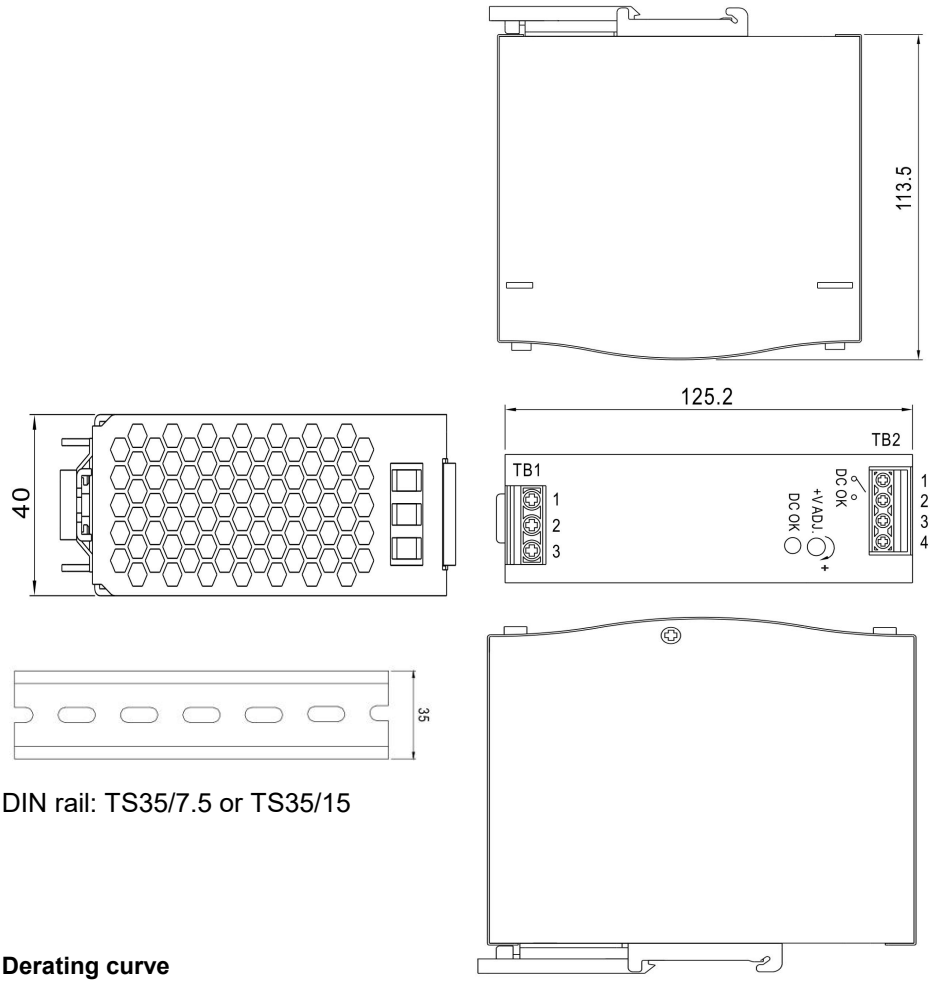
Installation instruction



DIN rail: TS35/7.5 or TS35/15

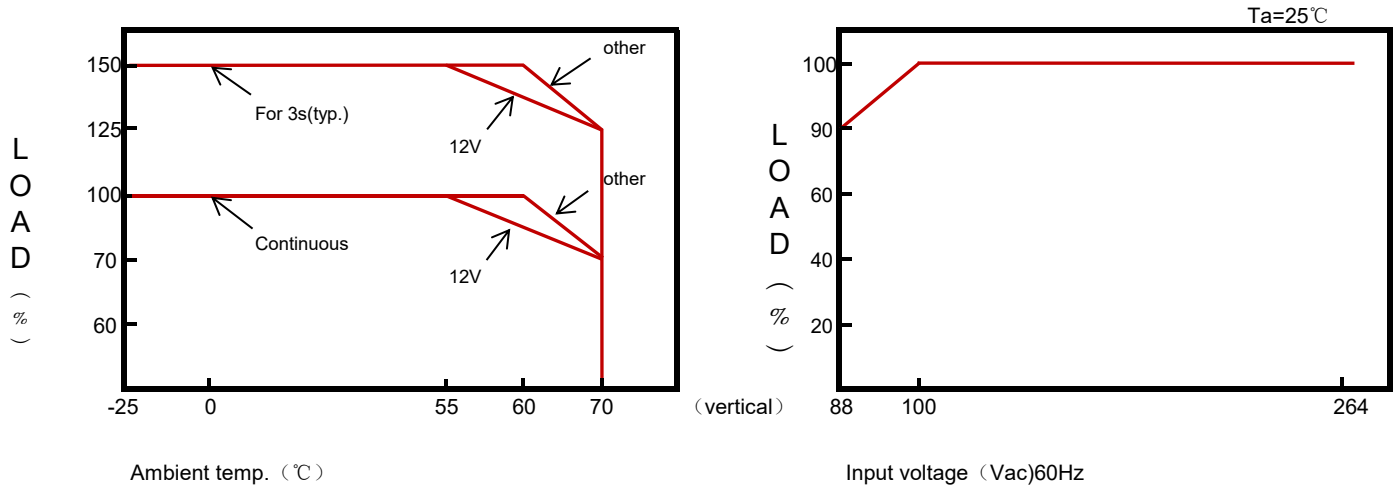
Terminal PIN No. assignment(TB1)

PIN No.	Assignment
1	FG⏚
2	AC/N
3	AC/L

Terminal PIN No. assignment(TB2)

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

Derating curve



Note: 1.Derating may be needed under low input voltage.Please refer to derating curve for more details.
2.3s max. please refer to the peak load curve
3.All parameters are measured at 230VAC input,rated load and 25℃ of ambient temperature unless otherwise specified.
4.Ripple & noise are measured at 20MHZ of bandwidth by using a 12' twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor.
5.Tolerance:includes set up tolerance,line regulation and load regulation.
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
theadjacent device is a heat source,15mm clearance is recommended.
7.The ambient temperature derating of 3.5℃/1000m with fanless models and of 5℃/1000m with fan models for operating altitude higher than 2000m(6500ft)