

## MQR120-□F Series



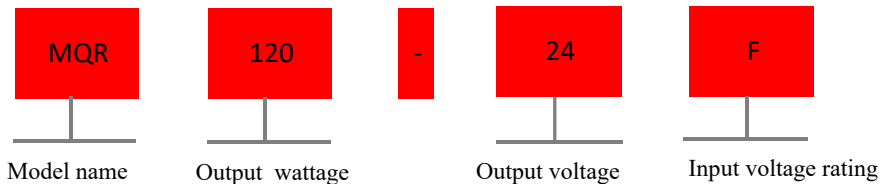
### ▲ Features

- Universal AC input/Full range
- Protections: short circuit/overload/over voltage/over temperature
- Cooling by free air convection
- Can be installed on DIN rail TS-35/7.5 or 15
- 100% full load burn in-test
- 3 years warranty

### ▲ Applications

- Industrial control system
- Semiconductor fabrication equipment
- Factory automation
- Electro-mechanical apparatus

### ▲ Model Encoding



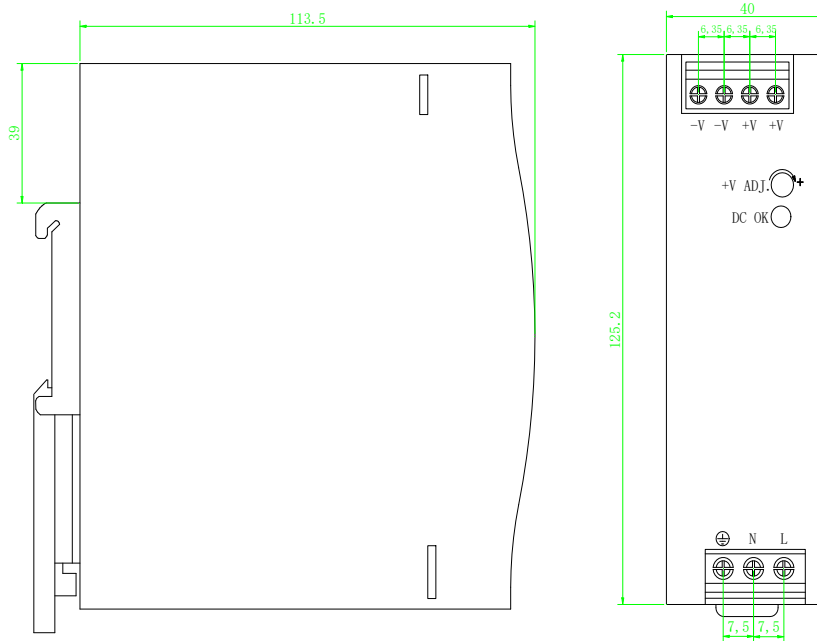


## Specifications

Input			
Voltage range <small>Note.1</small>	96-264VAC 120-370VDC		
AC current	2.25A/115VAC 1.3A/230VAC		
Frequency range	47-63Hz		
Inrush current (max)	20A/115VAC 35A/230VAC		
Output			
DC voltage (V)	12V	24V	48V
Efficiency	84%	87%	88%
Rated Current (A)	10A	5A	2.5A
Rated power(W)	120W	120W	120W
Voltage ADJ. range	12-14V	24-28V	48-55V
Ripple & noise(max ) <small>Note.2</small>	100mVp-p	120mVp-p	150mVp-p
Voltage tolerange <small>Note.4</small>	±2%	±1%	±1%
Line regulation	±0.5%	±0.5%	±0.5%
Load regulation	±1%	±1%	±1%
Setup, rise time	1200ms 60ms/230VAC 2500ms 60ms/115VAC(at full load)		
Hold up time	16ms/230VAC 10ms/115VAC(at full load)		
Status indicator	Green LED		
Protection			
Overload	105%-130% rated output power		
	Protection type: Constant current limiting, recovers automatically after fault condition is removed		
Over voltage(V)	14-17V	29-33V	56-65V
	Protection type:Shut down O/P voltage ,re-power on to recover		
Over temperature	Shut down O/P voltage ,re-power on to recover		
Safety and EMC			
Withstand voltage	I/P-O/P:3KVAC I/P-FG:2KVAC O/P-FG:0.5KVAC		
Isolation resistance	I/P-O/P,I/P-FG,O/P-FG :100M Ohms/500VDC/25°C/70 % RH		
Safety standards	Design reference EN IEC 62368-1、GB 4943.1		
EMC emission	Parameter	Standard	Test Level/Note
	Conducted	EN 55032	Class A
	Radiated	EN 55032	Class A
	Voltage Flicker	EN 61000-3-3	Design reference Class A
	Harmonic Current	EN IEC 61000-3-2	Design reference Class A
EMC immunity	Parameter	Standard	Test Level/Note
	ESD	EN 61000-4-2	Level 3 8KV air;Level 2 4KV contact
	Radiated Susceptibility	EN 61000-4-3	Level 2 10V/m
	EFT/Burest	EN 61000-4-4	Level 3 2KV/5KHZ
	Surge	EN 61000-4-5	Level 3 2KV/Line-Line;Level3 4kV/Line-Line-FC
	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	

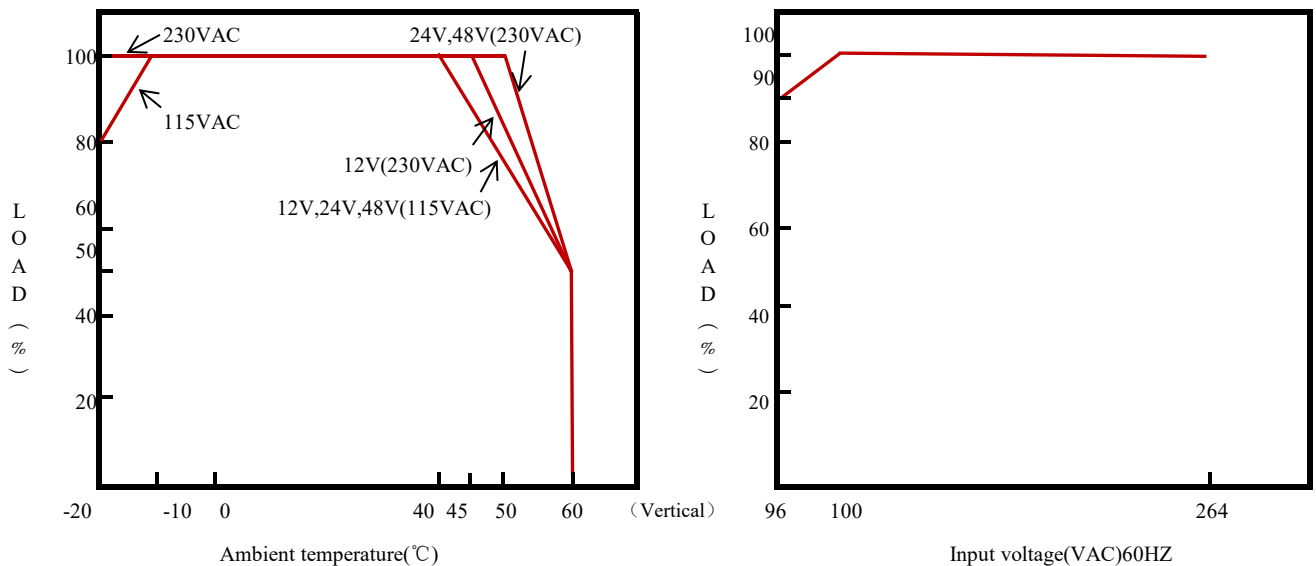
Environmental		
Working temperature	- 20~+60 °C (Refer to "Derating curve ")	
Storage temperature	- 40~+85°C	
Storage humidity	10-95% RH	
Vibration	Component:10-500Hz,2G 10 min/1cycle ,60 min each along X,Y,Z axes	
Others		
Mean time between failure	474.6K hrs min MIL-HDBK-217F(25°C)	
Installation	Install on DIN rail TS35	
Protection class	IP20	
Weight	0.65kg	
Length*width*height	125.2*40*113.5mm	
Data	Details	Model name
	MQR 120W 10A/12V	MQR120-12F
	MQR 120W 5A/24V	MQR120-24F
	MQR 120W 2.5A/48V	MQR120-48F

## Installation Instruction



Tightening Torque Max. :10.35 kgf-cm (9 Lb-in)

## Derating curve



- Note:**
1. Derating may be needed under low input voltage. Please check the derating curve for more details.
  2. Ripple & noise are measured at 20MHZ of bandwidth by using a "12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor.
  3. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature.
  4. Tolerance: includes set up tolerance, line regulation and load regulation.
  5. 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).
  6. 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
  7. 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.