

## MPC320-□ Series



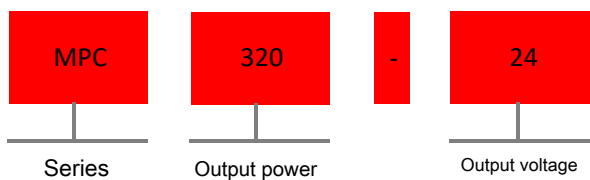
### ▲ Features

- Universal AC input / Full range
- Built-in active PFC function
- Forced air cooling by built-in DC fan
- Protections: Short circuit/Overload/Over voltage/Over temp.
- Moisture-proof operation available
- LED indicator for power ON
- 3C certificate
- 3-year warranty

### ▲ Applications

- Industrial automation control system
- Test and measurement instruments
- Laser related machine
- Burn-in facility
- RF application
- Suitable for inductive load

### ▲ Model encoding



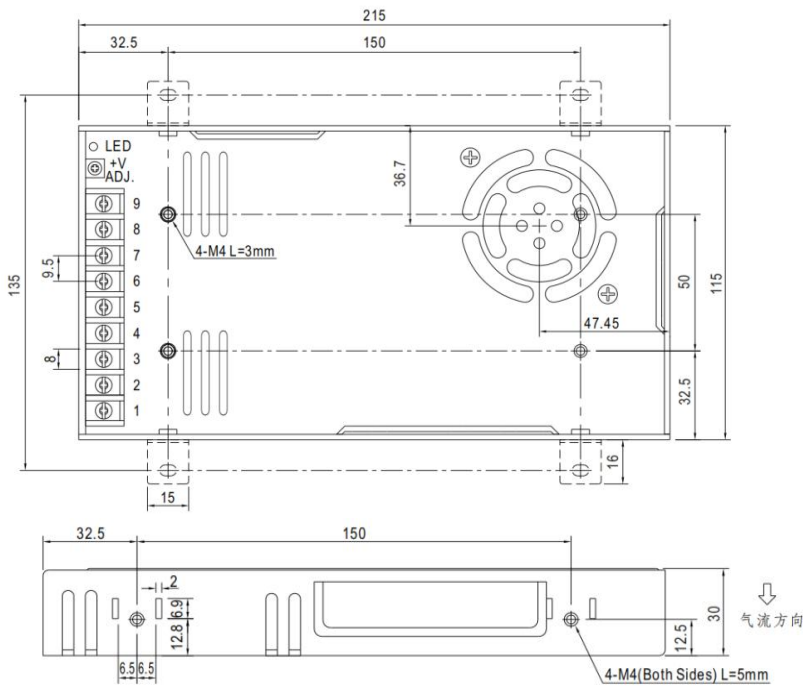
## Specification

Input					
Input voltage *1	88-264VAC 124-370VDC				
AC current	4A/115VAC 2A/230VAC				
Frequency range	47-63Hz				
Inrush current (max)	Cold start: 20A/115VAC 40A/230VAC				
Power factor(Typ.)	PF>0.95/230VAC PF>0.98/115VAC(@Full load)				
leakage current	<1.0mA/240VAC				
Output					
DC voltage (V)	5V	12V	24V	36V	48V
Efficiency (typ)	83.0%	88.0%	88.0%	88.0%	88.0%
Voltage ADJ. range	4.5~5.5V	10~13.2V	20~26.4V	32.4~39.6V	41~56V
Rated current (A)	60A	26.7A	13.4A	8.9A	6.7A
Current range	0~60A	0~26.7A	0~13.4A	0~8.9A	0~6.7A
Rated power (W)	300W	320.4W	321.6W	320.4W	321.6W
Ripple & noise(max.) *3	150mVp-p	150mVp-p	150mVp-p	220mVp-p	240mVp-p
Voltage tolerance *4	±2.0%	±1.0%	±1.0%	±1.0%	±1.0%
Line regulation	±0.5%	±0.3%	±0.2%	±0.2%	±0.2%
Load regulation	±1.0%	±0.5%	±0.5%	±0.5%	±0.5%
Start up, rise time	1500ms, 50ms/230VAC 3000ms, 50ms/115VAC (@Full load)				
Hold up time	8ms 230VAC/115VAC (@Full load)				
Protection					
Overload	105%-135% of rated output power				
	Hiccup mode, recover automatically after the fault condition is removed				
Over voltage(V)	5.75~6.75V	13.8~16.2V	27.6~32.4V	41.4~48.6V	58.4~68V
	Shut down O/P voltage, re-power ON to recover				
Over temperature	Shut down O/P voltage, recover automatically when the temperature goes down				
Safety & 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 refer to EN IEC 62368-1、GB4943.1				
EMC emission	<b>Parameter</b>	<b>Standard</b>			<b>Test level</b>
	Conducted	EN 55032			Class B
	Radiated	EN 55032			Class B
	Voltage Flicker	EN 61000-3-3			Design refer to Class A
EMC immunity	Harmonic Current	EN IEC 61000-3-2			Class A
	<b>Parameter</b>	<b>Standard</b>			<b>Test level</b>
	ESD	EN 61000-4-2			Level 3 8KV air;Level 2 4KV contact
	Radiated Susceptibility	EN 61000-4-3			Level 2 3V/m
	EFT/Burest	EN 61000-4-4			Level 3 2KV
	Surge	EN 61000-4-5			Level 3 2KV/Line-Line;Level3 4KV/Line-Line-FG
	Conducted	EN 61000-4-6			Level 2 3V
Magnetic Field	EN 61000-4-8			Level 2 3A/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	- 30~+70°C ( please refer to Derating Curve )				
Operating humidity	20~90% RH Non-condensing				
Storage temperature	- 40~+85°C				
Storage humidity	10~95% RH				
Vibration	10-500Hz,2G 10min/1 cycle, 60 min along with each X,Y,Z axes				



Others		
MTBF	≥206.5K hrs,MIL-HDBK-217F(25°C)	
Dimension(L*W*H)	215*115*30mm	
Weight	0.9kg	
订货数据	参数描述	订货型号
	MPC 320W 60A/5V	MPC320-05
	MPC 320.4W 26.7A/12V	MPC320-12
	MPC 321.6W 13.4A/24V	MPC320-24
	MPC 320.4W 8.9A/36V	MPC320-36
	MPC 321.6W 6.7A/48V	MPC320-48

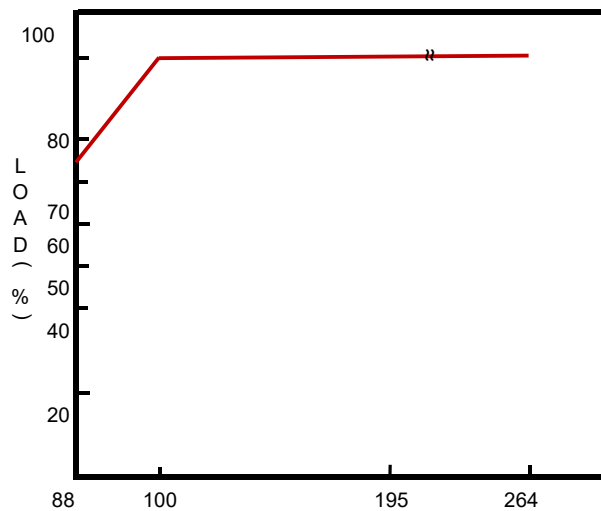
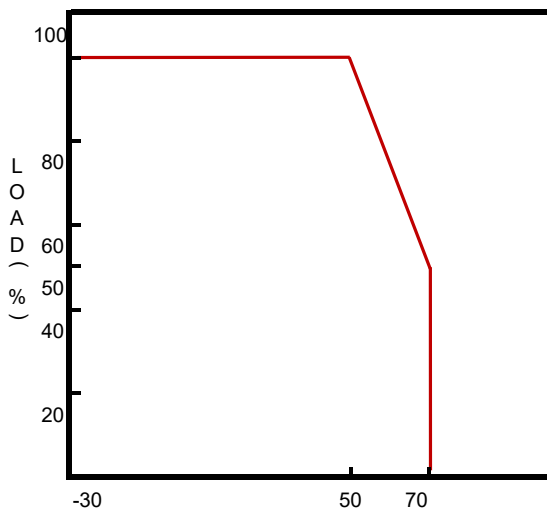
## Installation instruction



### Terminal PIN No. assignment

PIN NO.	Assignment	PIN NO.	Assignment
1	AC/L	4~6	DC OUTPUT-V
2	AC/N	7~9	DC OUTPUT+V
3	F <sub>1</sub> ⊥		

## Derating curve



Ambient temperature (°C)

Input voltage (Vac)60Hz

- Note:**
1. Derating may be needed under low input voltage, please check Derating Curve for more details
  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. The power supply is considered a component which will be installed into a final equipment. All the EMC tests are executed by mounting the unit on a length of 360mm\*width 360mm metal plate with 1mm of thickness. The final equipment must be re-confirmed that it still meets the EMC directives
  - 6: Strong recommend that the outside output capacitor do not exceed 5000uF (For MPC-320-5/-12/ only)
  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).