



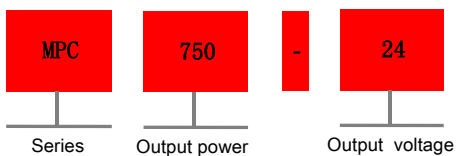
### ▲ Features

- Universal AC input / Full range
- Built-in active PFC function
- High efficiency up to 92%
- Forced air cooling by built-in DC fan
- Output voltage & constant current Level programmable
- Remote ON/OFF control, remote sense, Aux power, DC OK signal
- Protections: Short circuit/Overload/Over voltage/Over temp.
- optional conformal coating
- 5-year warranty

### ▲ Applications

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

### ▲ Model encoding

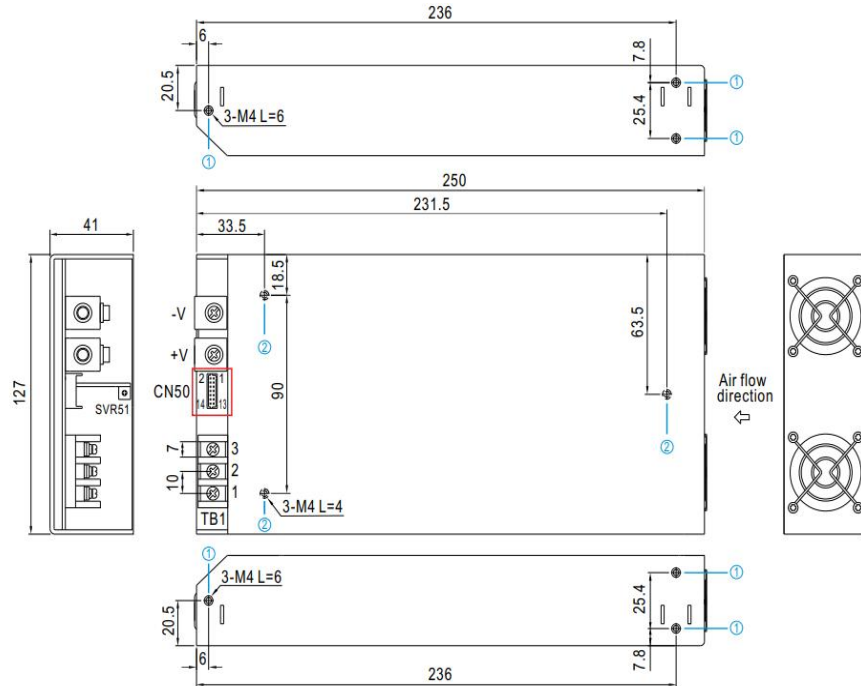




## Specification

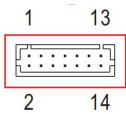
Input				
Input voltage *4	90-264VAC 127-370VDC			
AC current	8.2A/115VAC 3.9A/230VAC			
Frequency range	47-63Hz			
Inrush current (max)	25A/115VAC 40A/230VAC			
Leakage current	< 2.0mA/240VAC			
Output				
DC voltage ( V )	12V	24V	27V	48V
Efficiency	87%	91%	91%	92%
Voltage ADJ. range	10-13.5V	20-26.4V	24-30V	43-55V
Current range (A)	0-62.5A	0-31.3A	0-27.8A	0-15.7A
Rated current (A)	62.5A	31.3A	27.8A	15.7A
Rated power (W)	750W	751.2W	750.6W	753.6W
Rippl & noise(max.)*2	150mVp-p	150mVp-p	150mVp-p	150mVp-p
Voltage tolerance *3	±1%	±1%	±1%	±1%
Line regulation	±0.5%	±0.5%	±0.5%	±0.5%
Load regulation	±0.5%	±0.5%	±0.5%	±0.5%
Start up, rise time	1000ms 50ms(@Full load)			
Hold up time	16ms/230VAC 16ms/115VAC(@Full load)			
Status indicator	Green LED			
Protection				
Overload	105%-125% of rated output power			
	Constant current limiting, recover automatically after the fault condition is removed			
Over voltage(V)	13.8-16.8V	27.6-32.4V	31-36.5V	56.6-66.2V
	Shut down o/p voltage. Re-power on to recover			
Over temperature	Shut down O/P voltage , recover automatically after the temperature goes down			
Output voltage programmable ( PV )	Output voltage can be adjusted within 40-110% of rated output voltage , please refer to Function manual			
Constant current level programmable ( PC )	Constant current level can be adjusted within 40-110% of rated current , please refer to Function manual			
Aux. power	12V @ 0.1A ; tolerance: ±10%			
Remote ON/OFF control	Power ON:Short between Remote ON-OFF(pin13)&12V-AUX(pin14) on CN50; Power OFF:Open between Remote ON-OFF(pin13)&12-AUX(pin14) on CN50			
DC OK signal	TTL signal: PSU ON=0 ~ 1V; PSU OFF= 3.3 ~ 5.6V			
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	UL62368-1, CSA C22.2 No. 62368-1, TUV BS EN/EN62368-1, CCC GB4943.1, BSMI CNS14336-1,AS/NZS62368.1			
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 3 10V/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 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	:30~+70°C ( Refer to "Derating curve" )			
Operating humidity	20 ~ 90%RH Non-condensing			
Storage temp & humidity	:40~+85°C 10~95%RH			
Vibration	10-500Hz,2G 5min/1 cycle, 60 min along with each X,Y,Z axes			
Others				
MTBF	≥109.1K hrs,MIL-HDBK-217F(25°C)			
Weight	1.64Kg			
Dimension(L*W*H)	250*127*41mm			
Ordering		Description		
		MPC 750W 62.5A 12V	MPC750-12	
		MPC 751.2W 31.3A 24V	MPC750-24	
		MPC 750.6W 27.8A 27V	MPC750-27	
		MPC 753.6W 15.7A 48V	MPC750-48	

## Installation instruction

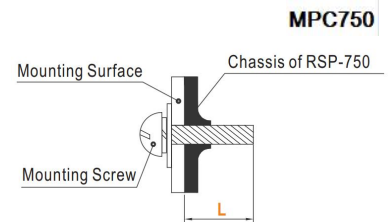


Hole No.	Recommended screw size	Max. penetration depth L	Recommended mounting torque
①	M4	6mm	7~11Kgf-cm
②	M4	4mm	7~11Kgf-cm

Control PIN No. assignment (CN50):HRS DF11-14DP-2DS or equivalent



Mating housing	HRS DF11-14DS or equivalent
Terminal	HRS DF11-14SC or equivalent



Pin No.	Assignment	Description
1	+S	Positive sensing for remote sense.
2	+VS	+V signal, +VS should be connected to +S to reduce noise when "output voltage programming" function is active
3	-S	Negative sensing for remote sense
4	-VS	-V signal, -VS should be connected to -S to reduce noise when "output voltage programming" function is active
5	PV	Connect to external DC voltage source for output voltage programming, refer to pin 10,11 (GND)
6	PS	Reference pin regarding output voltage programming. Refer to Function Manual
7	PC	Connect to external DC voltage source for output current programming
8	PO	Reference pin regarding output current programming. Refer to Function Manual
9	DC-OK	Open collector signal, refer to pin10,11(GND). Low when PSU turns ON.The Max. sink current is 10mA and the Max. external voltage is 5.6V.
10,11	GND	These pins connect to the negative terminal (-V).Return for DC-OK signal output
12	G-AUX	Aux. voltage output ground. The signal is isolatec from the output terminal
13	REMOTE ON-OFF	Turns the outpt ON/OFF by electrical or dry contact between pin 13(ON/OFF) & pin14(12V-AUX). Colse: Power ON/ Open: Power OFF
14	12V-AUX	Aux. voltage output., 10.8~13.2V, reference to pin12(G-AUX).The Max. load current is 0.1A.. This output is not controlled by the Remote ON/OFF control"

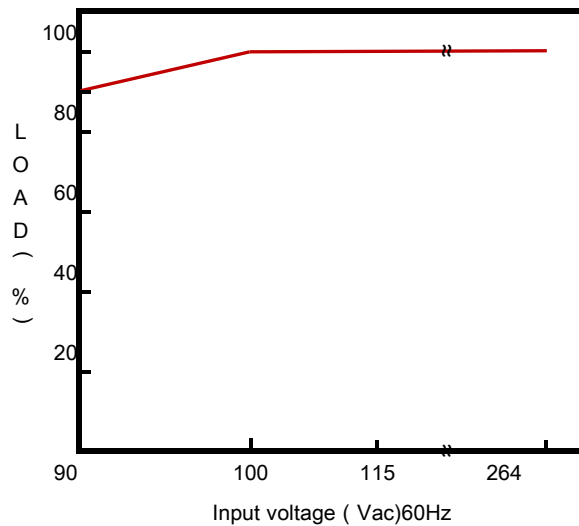
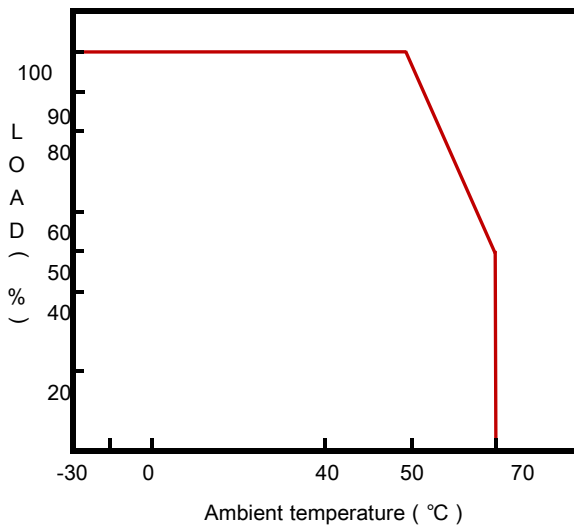
## AC Input terminal PIN No. assignment

Pin No.	Assignment	Diagram	Max. mounting torque
1	AC/N		18Kgf-cm
2	AC/L		
3	FC		

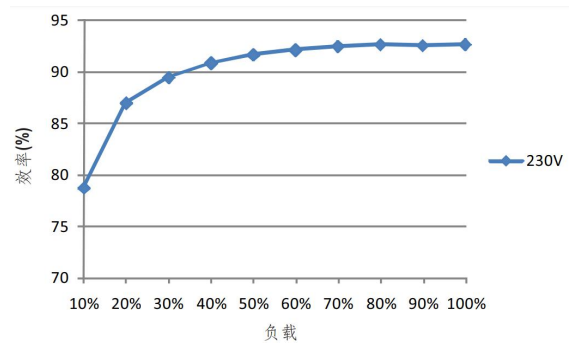
## DC output terminal PIN No. assignment

Pin No.	Diagram	Max. mounting torque
+V,-V		10Kgf-cm

## Derating curve



Model \ Input	12V	24V	27V	48V
100-264VAC	500W 100A	750W 62.5A	750.6W 27.8A	753.6W 15.7A
90VAC	450W 90A	675W 56.25A	675.54W 25.02A	678.24W 14.13A



- Note**
- 1: All parameters are measured at 230VAC input, rated load and 25°C of ambient temperature unless otherwise specified.
  - 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: 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: There is high possibility to trigger the floating over voltage protection when PV voltage is trimmed from a high voltage level to a lower voltage level at light load or no load condition. It's suggested that turn OFF the power supply and set PV voltage to the lowest level, then adjust output voltage to a desired value.
  - 6: 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 720mm\*360mm metal plate with 1mm of thickness. The final equipment must be re-confirmed that it still meets the EMC directives
  - 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).

## Function manual

### 1.Remote sense

The Remote Sense compensates voltage drop on the load wiring up to 0.5V

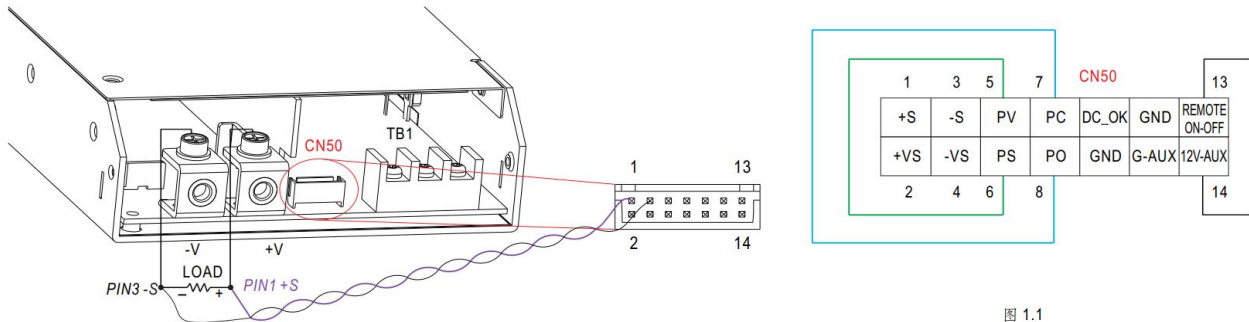


图 1.1

- ◆The +S signal should be connected to the positive terminal of the load whereas -S signal to the negative terminal
- ◆By factory default, Remote ON-OFF(pin13) & 12V-AUX (pin14) , PV(pin5) & PS(pin6),PC(pin7) & PO (pin8) on CN50 are shorted when shipped.The power will have no output if the shorting connector is not assembled unless certain function needs to be activated

### 2. Remote ON/OFF

The PSU can be turned ON/OFF by using the "Remote ON/OFF" function

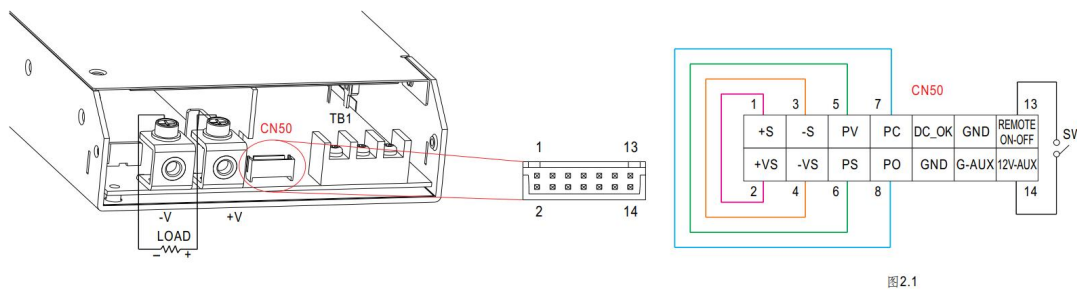


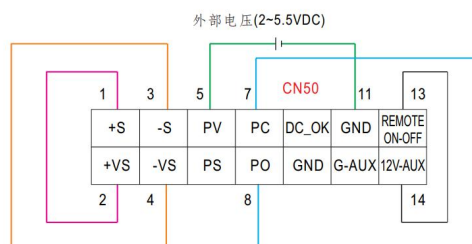
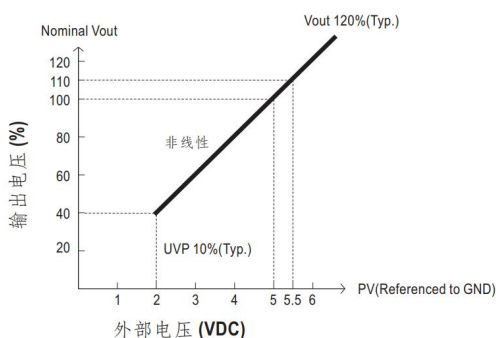
图2.1

Between Remote ON-OFF(pin13)&12V-AUX(pin14)	Output
SW close (Short)	ON
SW open (Open)	OFF

- ◆ -S & -V as well as +S & +V on CN50 should be connected when multiple PSU need to turn ON/OFF simultaneously by "Remote ON/OFF" function.

### 3.Output voltage programming(or PV/Remote voltage programming/Remote adjust/Margin programming/Dynamic voltage trim)

In addition to the adjustment via the built-in potentiometer, the output voltage can be trimmed to 40~110% of the nominal voltage by applying "External Voltage"



- ◆If the external voltage(VDC) <0.5V, the power supply may enter low voltage protection. It need re-power ON to recover
- Note:The output voltage programming is not activated by the factory default , and PV(pin5) & PS(pin6) are shorted by connector. If the output voltage programming is not needed to activated, please be sure to keep PV (pin5)& PS(pin6) shorted, other wise the power supply will have no output

## 4 Constant Current Level programming(or PC/Remote current programming/Dynamic current trim)

The constant current level can be trimmed to 40~110% of the rated current by applying External Voltage

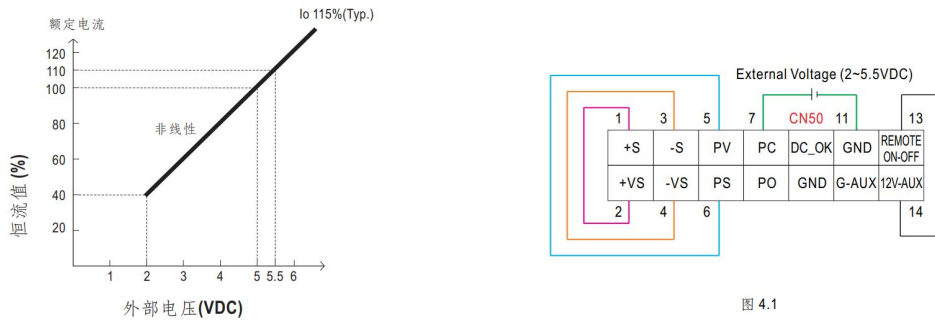
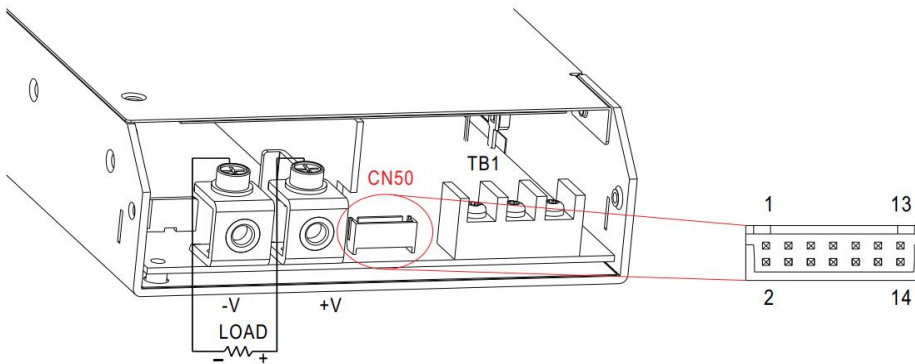


图 4.1

Note : :The output current programming is not activated by the factory default , and PC(pin7) & PO(pin8) are shorted by connector. If the output current programming is not needed to activated, please be sure to keep PC (pin7)& PO(pin8) shorted, other wise the power supply will have no output.



## 5.DC\_OK signal

"DC\_OK" is an open collector signal which indicates the output status of the power supply. It can operate in two ways: One is sinking current from external TTL signal, the other is sending out a TTL voltage signal

- ◆Sinking current from external TTL signal: The Max sink current is 10mA and the Max. external voltage is 5.6V
- ◆Sending out TTL voltage signal:

Between DC-OK(pin9)&GND(pin10&11)	Output status
0 ~ 1V	Power ON
3.3 ~ 5.6V	Power OFF

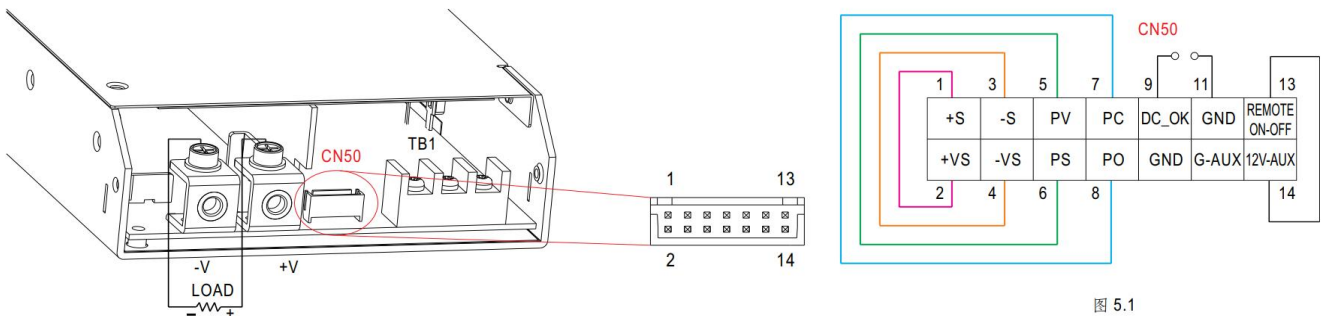


图 5.1