



ENERGIA Y AUTOMATIZACION

Switch Power Supply

Reliable , Convenient , Powerful
Superb Technology of Industrial Power Supply

Product Selection Guide



CCC UL CE TÜV RoHS
ISO9001 : 2015



Manufacturing Products for QA Customers



10/20W



40/60W



100W

■ Features

- Universal AC input / Full range
- Protections: Over voltage / overload / short circuit
- LED indicator for power on
- Installed on DIN rail TS-35
- Built-in active PFC function
- Natural heat dissipation
- Small-volume, Exquisite and beautiful,
- High-efficiency, High-reliability
- 2 years warranty

Model No	MGR010	MGR020	MGR040	MGR060	MGR100
Input Voltage	85 ~ 264VAC; 120 ~ 370VDC				
Output Voltage Adjustment Range	5V: 4.5 ~ 5.5V, 12V: 10.8 ~ 13.8V, 15V: 13.5 ~ 18V, 24V: 21.6 ~ 29V, 48V: 43.2 ~ 55.2V				
Overload Protection	105% ~ 150%				
Over Voltage Protection	5V: 5.75 ~ 6.75V, 12V: 13.8 ~ 16.2V, 15V: 17.25 ~ 20.25V, 24V: 27.6 ~ 32.4V, 48V: 43.2 ~ 55.2V				
Safety Standards	GB4943.1				
EMC Standards	EN55022(CISPR22) Class B; EN61000-4-2, 3, 4, 5, 6, 8, 11, EN61000-6-1, light industry level, criteria A				
Withstand Voltage	I/P-O/P: 3KVAC I/P-FG: 1.5KVAC O/P-FG: 0.5KVAC				
Working Temperature	- 20 ~ +70°C (Pass off "technical specifications")				- 10 ~ +60°C (Pass off "technical specifications")
Storage Humidity	- 20 ~ +85°C				
Storage Humidity	10-95%RH				
Vibration	10-500Hz, 2G 10min./1 cycle, period for 60 min. each along X, Y, Z axes				
(W*H*D)(mm)	90*22.5*100		90*40*100		90*55*100
Weight Kg	about 0.18	about 0.2	about 0.32	about 0.35	about 0.45

Remark: For more technical specifications, please ask the business department for "technical specifications"

■ 10W				
Model No.	Output	Tol.	R&N	Effi.
MGR010-05F	2A 5V	±5%	80mV	76%
MGR010-12F	0.84A 12V	±3%	120mV	80%
MGR010-15F	0.67A 15V	±3%	120mV	80%
MGR010-24F	0.42A 24V	±2%	150mV	83%

■ 40W				
Model No.	Output	Tol.	R&N	Effi.
MGR040-05F	6A 5V	±2%	80mV	78%
MGR040-12F	3.33A 12V	±1%	120mV	86%
MGR040-24F	1.7A 24V	±1%	150mV	88%
MGR040-48F	0.83A 48V	±1%	200mV	88%

■ 100W				
Model No.	Output	Tol.	R&N	Effi.
MGR100-12C	7.5A 12V	±1%	120mV	83%
MGR100-24C	4A 24V	±1%	150mV	86%
MGR100-48C	2A 48V	±1%	200mV	87%

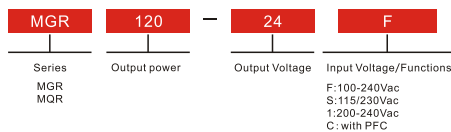
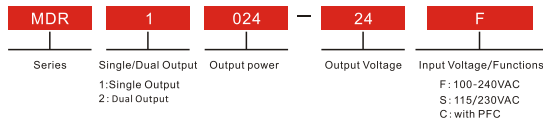
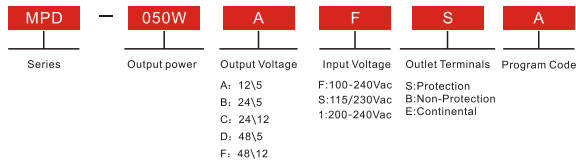
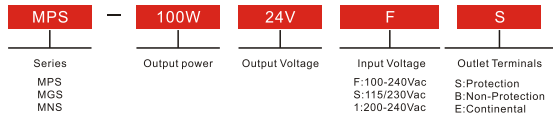
■ 20W				
Model No.	Output	Tol.	R&N	Effi.
MGR020-05F	3A 5V	±2%	80mV	76%
MGR020-12F	1.67A 12V	±1%	120mV	80%
MGR020-15F	1.34A 15V	±1%	120mV	80%
MGR020-24F	1A 24V	±1%	150mV	83%

■ 60W				
Model No.	Output	Tol.	R&N	Effi.
MGR060-05F	10A 5V	±2%	80mV	78%
MGR060-12F	5A 12V	±1%	120mV	86%
MGR060-24F	2.5A 24V	±1%	150mV	88%
MGR060-48F	1.25A 48V	±1%	200mV	87%

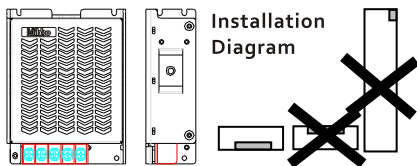
Specification of Technical Test Environment

1: If no special instructions, all specifications and parameters in the input is 230 vac, rated load and measured in 25 °C environment.
 2: Ripple and noise measurement method: using a 12 °C double glue line, at the same time terminal to 0.1 uF and 47 uF of capacitance in parallel, is measured under 20 MHZ bandwidth.

Product coding principle



Mounting

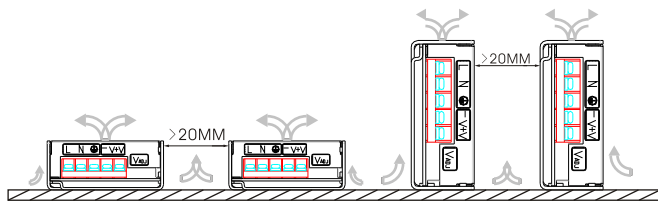


Installation Method: X Y Z

Notice:

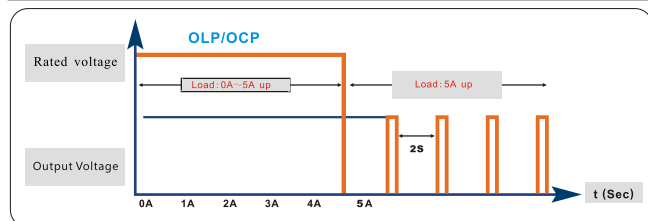
- Use the metal plate as the mounting panel.
- Improper mounting will interfere with heat dissipation and may occasionally result in deterioration or damage of internal parts. Use the standard mounting method only.
- Do not use in locations where the ambient temperature exceeds the range of the derating curve.

Heat dissipation



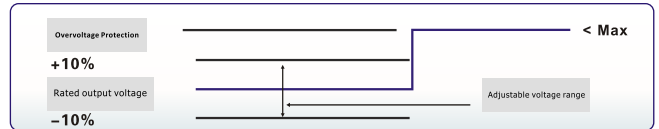
- Take adequate measures to ensure proper heat dissipation to increase the long-term reliability of the Product.
- Install the Power Supply so that the air flow circulates around the Power Supply, as the Power Supply is designed to radiate heat by means of natural air flow.
- When mounting two or more Power Supplies side-by-side, allow at least 20 mm spacing between them.

Overload Protection



When the output current exceeds the rated current, the "overload value" will trigger the protection to prevent excessive current from damaging the power source. Hiccup mode, recovers automatically after fault condition is removed; constant current mode, recovers automatically after fault condition is removed; shut-off mode; shut down o/p voltage, re-power on to recover. Different model has different protection mode. (see specification)

Over Voltage Protection



When the output voltage exceeds the "overvoltage value", the protection function is triggered, and the output voltage is cut off to prevent the load from being damaged by the large voltage. The "overvoltage" of each model is shown in the technical specification.

Short Circuit Protection

When short circuit, recovers automatically after fault condition removed, there are three protection types: hiccup mode, constant current mode, shut-off mode. (see specifications).

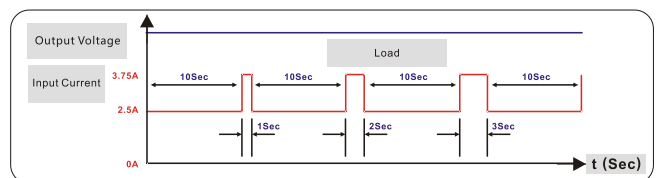
Over Temperature Protection

When the temperature rises to the alarm value, the protection will be started, the power supply will not be output, recovers automatically after temperature goes down

Smart Fan

With fan forced refrigeration products, when the temperature below 40 °C, fan doesn't start, when the temperature is higher than the fan smart start, to forced cooling inside the machine

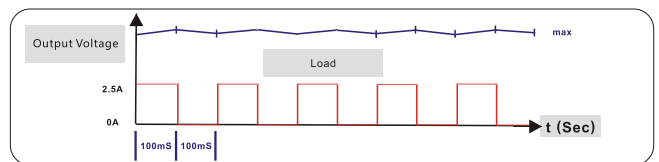
Impact Load



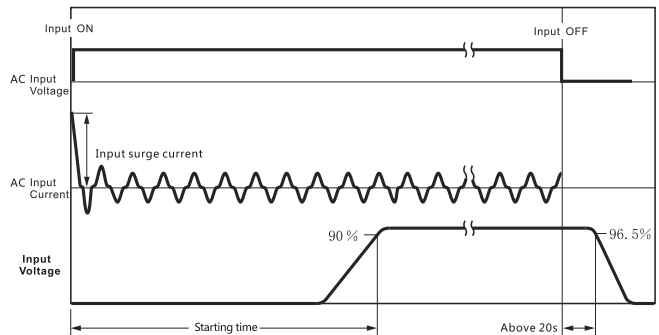
• Impact Load

After the output has reached its steady state set value, the power supply can support surge loads with a higher short-term power demand up to 120% of maximum rated load, for a maximum duration of 3 seconds

Tolerance, line regulation, load regulation

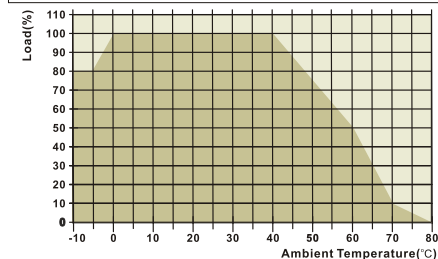


• Inrush Current, Startup Time, Output Hold Time



- Tolerance: includes set up tolerance, line regulation and load regulation
- Line Regulation, at full load, the input voltage is from low to high
- Load Regulation, Nominal output voltage, 0%~100% load

Load Reduction Curve



The internal parts may occasionally deteriorate or be damaged. Do not use the Power Supply outside the derating range (i.e., the area shown by shading). If there is a derating problem, use forced air-cooling.

Safety Precautions

Caution

Minor electric shock, fire, or Product failure may occasionally occur. Do not disassemble, modify, or repair the Product to touch the interior of the Product.



Minor burns may occasionally occur. Do not touch the Product while power is being supplied or immediately after power is turned OFF.



Minor injury due to electric shock may occasionally occur. Do not touch the terminals while power is being supplied. Always close the terminal cover after wiring.



Minor electric shock, fire, or Product failure may occasionally occur. Do not allow any pieces of metal or conductors or any clippings or cuttings resulting from installation work to enter the Product.



Precautions for Safe Use

Ambient Operating and Storage Environments

- Use each Product within the rated range for ambient operating temperature, ambient operating humidity.
- And storage temperature specified for that Product.
- Do not use the Power Supply in locations subject to direct sunlight.
- Do not use locations where liquids, foreign matter, or corrosive gases may enter the interior of the Product.

Wiring

- Connect the ground completely. A protective earthing terminal stipulated in safety standards is used. Electric shock or malfunction may occur if the ground is not connected completely.
- Minor fire may possibly occur. Ensure that input and output terminals are wired correctly.
- Do not apply more than 75 N force to the terminal block when tightening it.

In Case There Is No Output Voltage

- The possible cause for no output voltage may be that the overcurrent or overvoltage protection has operated. The internal protection may operate if a large amount of surge voltage such as a lightning surge occurs while turning ON the Power Supply.
- In case there is no output voltage, please check the following points before contacting us:
 1. Checking overcurrent protected status: Check whether the load is in overcurrent status or is shortcircuited. Remove wires to load when checking.
 2. Checking overvoltage or internal protection: Turn the power supply OFF once, and leave it OFF for at least 5 minutes. Then turn it ON again to see if this clears the condition.

Warranty

- Free warranty scope:
The average temperature is below 50 °C (Ambient temperature around the body) : At rated load range, At standard configuration; Non-human damaged, Non-force majeure damage.

Remarks

The information provided in this product description contains only general performance data, it may be changed depending on the usage and the environment or with further development of the product. Only under the terms of the contract we are obliged to provide the required performance data. The content is subject to change without prior notice.

