

# MS Series 20A - 120A

MPPT Solar Controller MS Series 20A-120A

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## Key Features:

- MPPT Technology
- Built-in DSP Controller With High Performance
- Automatic Battery Voltage Detection for 12V / 24V / 36V / 48V / 96V
- 3-Stage Charging Optimizes Battery Performance
- Overcharge Protection and Input PV Polarity Reverse Protection
- Suitable for Battery Types Such as Sealed Lead Acid, Vented Gel and Lithium Battery
- Can be Mounted Easily

**Shenzhen UPSen Electronic CO., Ltd.**  
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# Technical Specification:

| Model   | MS 20A   | MS 30A | MS 40A | MS 50A | MS 60A | MS 100A | MS 120A     | MS 80A              | MS 100A |  |
|---|--|--------|--------|--------|--------|---------|-------------|---------------------|---------|--|
| System Voltage  | 12V / 24V / 48V  |        |        |        |        |         |             | 48V / 96V           |         |  |
| Charging Type   | MPPT Automatic Maximum Power Point Tracking  |        |        |        |        |         |             |                     |         |  |
| Charging Mode   | Three - Stage: Constant Current (MPPT), Constant Pressure, Floating Charge.                                    |        |        |        |        |         |             |                     |         |  |
| System Mode   | DC12V / 24V / 36V / 48V Automatic  |        |        |        |        |         |             | 48V / 96V Automatic |         |  |
| Efficiency  | 97%  |        |        |        |        |         |             |                     |         |  |
| Battery Voltage Range   | 9V-16V (12VDC)<br>18V-30V (24VDC)<br>27V-48V (36VDC)<br>36V-60V (48VDC)<br>72V-120V (96VDC)                    |        |        |        |        |         |             |                     |         |  |
| <b>PV Input</b>   |  |        |        |        |        |         |             |                     |         |  |
| MPPT Operating Voltage and Range                              | 14VDC-80VDC 12V (SYSTEM) / 38VDC-100VDC 24V (SYSTEM)<br>72VDC-150VDC 48V (SYSTEM) / 144VDC-180VDC 96V (SYSTEM) |        |        |        |        |         |             |                     |         |  |
| Low Voltage Protection  | 16V 12V (SYSTEM) / 30V 24V (SYSTEM) / 60V 48V (SYSTEM) / 120V (96V SYSTEM)                                     |        |        |        |        |         |             |                     |         |  |
| Low Pressure Recovery   | 22V 12V (SYSTEM) / 34V 24V (SYSTEM) / 65V 48V (SYSTEM) / 130V(96V SYSTM)                                       |        |        |        |        |         |             |                     |         |  |
| Overvoltage Protection  | 105V 12V (SYSTEM) / 105V 24V (SYSTEM)<br>160V 48V (SYSTEM) / 285V 96V (SYSTEM)                                 |        |        |        |        |         |             |                     |         |  |
| Overvoltage Recovery  | 80V 12V / 24V (SYSTEM) / 145V 48V (SYSTEM) / 200V (96V SYSTEM)   |        |        |        |        |         |             |                     |         |  |
| <b>Charging Characteristics</b>                               |  |        |        |        |        |         |             |                     |         |  |
| Selectable Battery Type                                       | Lead-acid Battery, Lithium Battery   |        |        |        |        |         |             |                     |         |  |
| Undervoltage Shutdown   | 10.2V(12VDC) / 20.4V(24VDC) / 40.8V(48VDC) / 81.6V(96VDC)  |        |        |        |        |         |             |                     |         |  |
| Undervoltage Recovery   | 11.5V(12VDC) / 23V(24VDC) / 46V(48VDC) / 92V(96VDC)  |        |        |        |        |         |             |                     |         |  |
| Float Voltage   | 13.5V(12VDC) / 27V(24VDC) / 54V(48VDC) / 108V(96VDC)   |        |        |        |        |         |             |                     |         |  |
| Battery Overcharge Protection                                 | 14.6V(12VDC) / 29.2V(24VDC) / 58.4V(48VDC) / 116.8V(96VDC)   |        |        |        |        |         |             |                     |         |  |
| Charging Current  | 20A  | 30A    | 40A    | 50A    | 60A    | 100A    | 120A        | 80A                 | 100A    |  |
| Over Temperature Alarm  | 75°C   |        |        |        |        |         |             |                     |         |  |
| Over Temperature Recovery                                     | 65°C   |        |        |        |        |         |             |                     |         |  |
| Size (mm)   | 270*190*98   |        |        |        |        |         | 390*260*140 |                     |         |  |
| Packing Size(mm)  | 325*265*160  |        |        |        |        |         | 470*355*205 |                     |         |  |
| Weight (kg)   | 2.3  | 2.4    | 2.5    | 3      | 3.1    | 10      | 11          | 10                  | 11      |  |
| *Product Specifications are Subject to Change Without Notice. |  |        |        |        |        |         |             |                     |         |  |