

AC/DC power supplies

MAA Family

MAA1200, 1200 W



Basic specifications

| | |
|---------------------------------|----------------------------|
| Power | 1200 W |
| Input current | up to 80 A |
| Input voltage | ~220 (187...264) VAC |
| Output voltage | =24 VDC, =28VDC, =60VDC |
| Efficiency..... | 89-92% |
| Case operating temperature..... | -40...+85 °C; -50...+85 °C |
| Dimensions | 250x140x41 mm |
| Warranty | 2 years |

Advantages

- ◀ Design to meet MIL-STD-810G and MIL-STD-461E
- ◀ Parallel and series operation
- ◀ Output voltage adjustment
- ◀ Conductive cooling



Description of MAA1200 on the manufacturer's website:
eng.kwsystems.ru/catalog/acdc/models/12

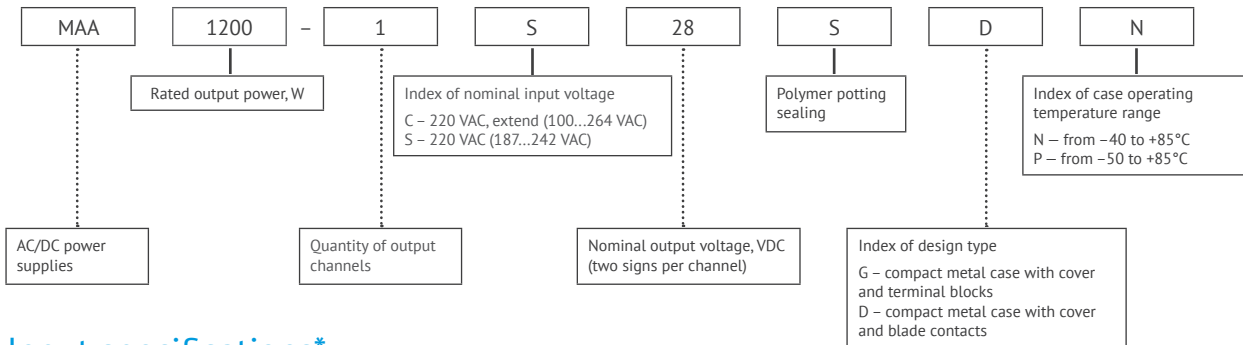
Order registration

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Technical support

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Ordering information



Input specifications*

| Parameter | Value |
|--------------------------------|---------------------------|
| Input voltage range, VAC** | C ~100...264 (=141...372) |
| | S ~187...242 (=263...340) |
| Transient deviation range, VAC | C ~100...264 |
| | S ~176...264 |
| Transient time | S 1 s. |
| | C - |
| Mains frequency range, Hz | C, S 47...440 |
| Power factor corrector | + |

Output specifications*

| Parameter | Value |
|---------------------------------|---|
| Nominal output voltage, VDC | 24 28 48 60 |
| Output voltage adjustment | 10 % |
| Efficiency, % | 89 89 90 92 |
| Rated output current, A | 50 42.86 25 20 |
| Ripple and noise (peak-to-peak) | <2% |
| Line and load regulation | max 2% |
| Start-up time, ms | <2000 |
| Parallel operation | redundancy, and boost of power |
| Remote on/off | Off at 3.5...4.5 VDC (15...30 mA) output «REMOTE OFF» |
| Maximum load capacity | 33000 µF (Uout=5 VDC) |

* All specifications are valid for normal climatic conditions (ambient temp. +15...+35°C; relative humidity 45...80%; air pressure 8.6*10⁴...10.6*10⁴ Pa), U_{in}. nom., I_{out}. nom., unless otherwise noted.

** Maximum output power for input voltage range C (wide range) at U_{out} 100...187 VDC is reducing according to power derating VS input voltage diagram.

Protections

| Type of protection | |
|----------------------------|---|
| Short-circuit protection* | auto recovery |
| Overcurrent protection | $P_{max} < 1.8 P_{nom}$ |
| Overload protection level* | $< 125\% U_{out, nom.}$ |
| Overheat protection | triggers at case temperature $> 85^{\circ}\text{C}$ |

Basic specifications**

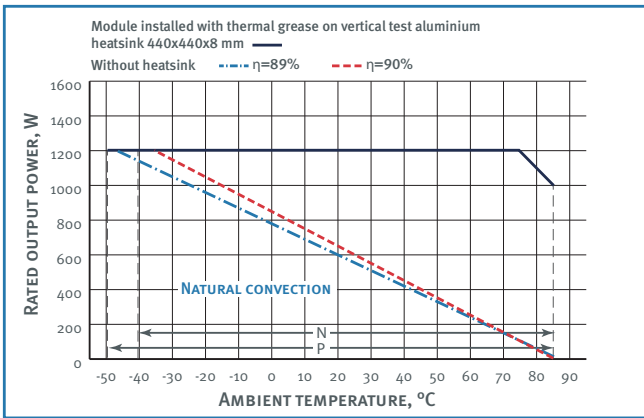
| Parameter | | Value |
|-----------------------------------|--------------------|--|
| Type of connection | | screw terminals and blade contacts |
| Protection level | | IP20 |
| Case temperature, operating | «N» | $-40 \dots +85^{\circ}\text{C}$ |
| | «P» | $-50 \dots +85^{\circ}\text{C}$ |
| Case temperature, storage | | $-50 \dots +70^{\circ}\text{C}$ |
| Humidity | | 98% / 35°C |
| Isolation voltage | in /case | $\sim 1500 \text{ VAC}$ |
| | in /out | $\sim 1500 \text{ VAC}$ |
| | out /case, out/out | $\sim 500 \text{ VAC}$ |
| Isolation resistance @ 500 VDC | | $\geq 20 \text{ MOhm min}$ |
| Cooling | | conductive, forced air |
| Environmental influence standards | | design to meet MIL-STD-810G |
| EMC standards | | EN55022 (CISPR22); design to meet MIL-STD-461E |
| Typical MTBF | | 3 000 000 Hrs |
| Case material | | metal |
| Dimensions, mm | | 250x140x41 |
| Weight, kg | | < 2.4 |
| Warranty | | 2 year |

* Parameters are stated for the information purposes and could not be used at long term work, exceeding maximum output current, operating outside of a working temperatures range or when output voltage is over the range of adjustment.

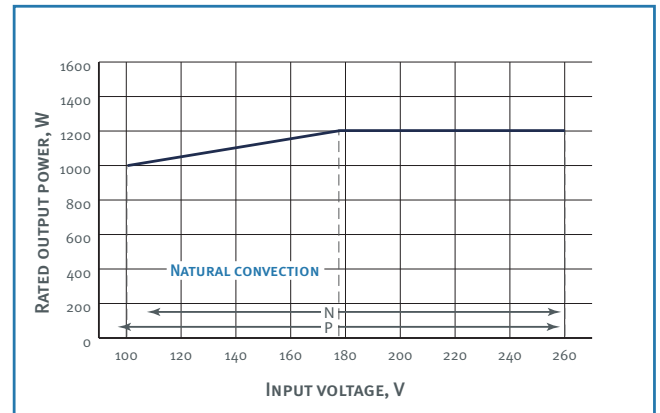
** All specifications are valid for normal climatic conditions, $U_{in, nom.}$, $I_{out, nom.}$, unless otherwise noted.

Derating

vs Temperature

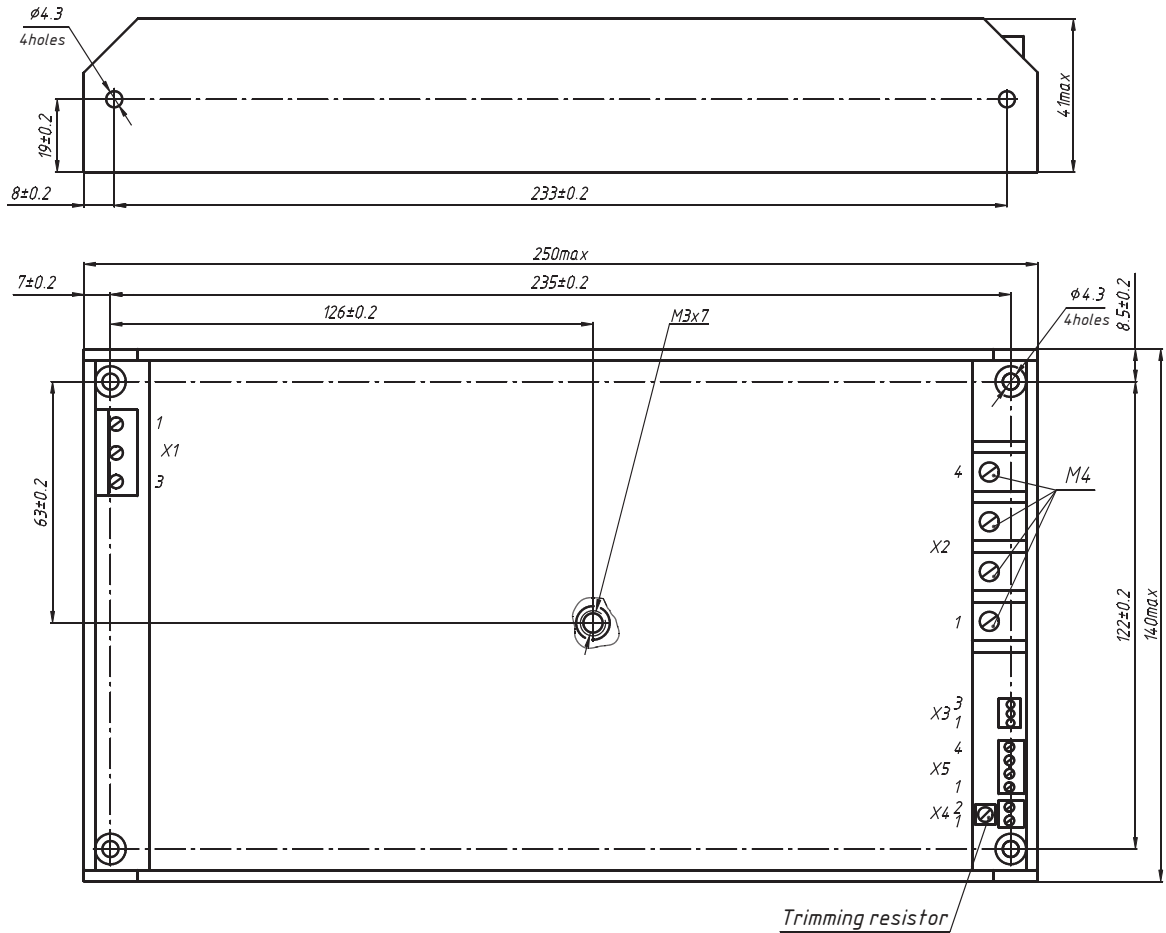



vs Input Voltage



Dimensions

Single-channel design with terminal blocks



| PIN # | X1.1 | X1.2 | X1.3 | X2.1 | X2.2 | X2.3 | X2.4 | X3.1 |
|----------------|------|------|---|---------|---------|--------|--------|--------|
| SINGLE-CHANNEL | L | N |  | + OUT 1 | + OUT 1 | -OUT 1 | -OUT 1 | +U FAN |

| PIN # | X3.2 | X3.3 | X4.1 | X4.2 | X5.1 | X5.2 | X5.3 | X5.4 |
|----------------|--------|---------|-------------|-------------|------|------|-------|---------|
| SINGLE-CHANNEL | -U FAN | NOT USE | -REMOTE OFF | +REMOTE OFF | +RS | -RS | PARAL | NOT USE |



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KW Systems, LLC is the leading Russian developer and manufacturer of AC/DC converters and power supply systems for mission critical applications.

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This datasheet is valid for the following units:

MAA1200-1C24CXX, MAA1200-1C28CXX, MAA1200-1C48CXX, MAA1200-1C60CXX, MAA1200-1S24CXX, MAA1200-1S28CXX, MAA1200-1S48CXX, MAA1200-1S60CXX.