

AC/DC power supplies

KWant Family

KWant250 NEW, 250 W



Basic specifications

| | |
|---------------------------------|----------------------------|
| Power | 250 W |
| Input current | up to 10.4 A |
| Input voltage | ~220 (100...264) VAC |
| Output voltage | =24 VDC, =28 VDC |
| Efficiency..... | 89-90% |
| Case operating temperature..... | -40...+85 °C; -50...+85 °C |
| Dimensions | 134x84x33 mm |
| Warranty | 2 years |

Advantages

- ◀ MIL-STD-461E (EN55022 class B) without external components
- ◀ MIL-STD-810G
- ◀ Series operation
- ◀ Conductive cooling



Description of KWant250 on the manufacturer's website:
eng.kwsystems.ru/catalog/acdc/models/7

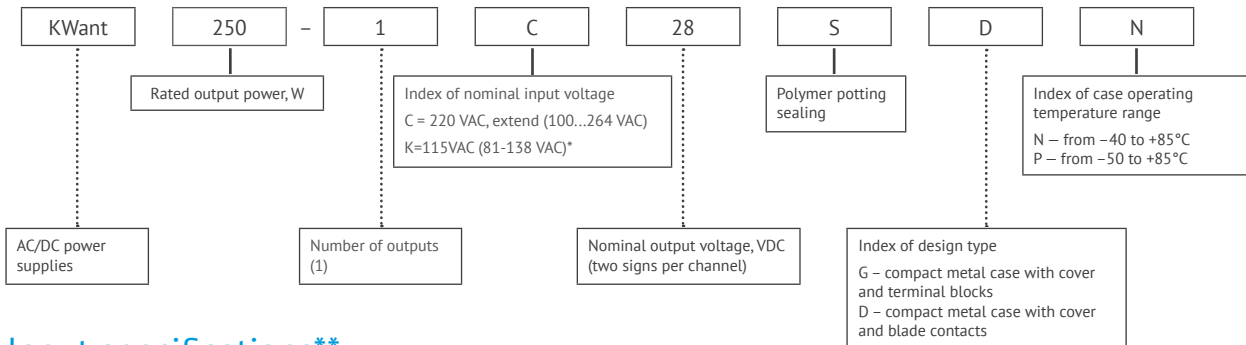
Order registration

+7 473 200 87 80, Global Operations Team

Technical support

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Ordering information



Input specifications**

| Parameter | | Value |
|--------------------------------|---|-------------------------|
| Input voltage range, VAC | C | ~100...264 (=141...372) |
| Transient deviation range, VAC | C | ~100...264 |
| Transient time | C | - |
| Mains frequency range, Hz | C | 47...440 |

Output specifications**

| Parameter | | Value |
|---------------------------------|--|---|
| Nominal output voltage, VDC | | 24 28 |
| Efficiency, % | | 89 90 |
| Rated output current, A | | 10.41 8.92 |
| Ripple and noise (peak-to-peak) | ambient temperature +25 °C | <0.5% |
| | ambient temperature range -50...+70 °C | <2% |
| Line and load regulation | | max 2% |
| Start-up time, ms | | <500 |
| Remote on/off | | Off at 3.5...4.5 VDC (15...30 mA) output «REMOTE OFF» |
| Maximum load capacity | | 10000 µF |

* Input voltage range K=115VAC (81-138 VAC) - call

**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.

Protections

| Type of protection | |
|-------------------------------|---|
| Short-circuit protection* | auto recovery |
| Overload protection | $P_{max} < 1.2 P_{nom}$ |
| Overvoltage protection level* | $< 125\% U_{out\ nom.}$ |
| Overheat protection | triggers at case temperature $> 85^{\circ}\text{C}$ |

Basic specifications**

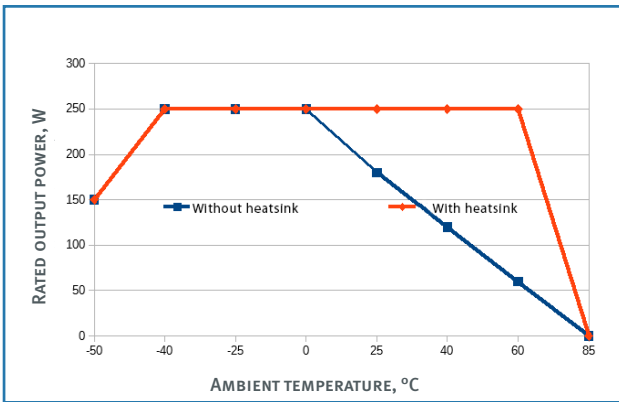
| Parameter | | Value |
|-----------------------------------|--------------------|------------------------------------|
| Type of connection | | screw terminals and blade contacts |
| Protection level | | IP20 |
| Case temperature, operating | «N» | $-40...+85^{\circ}\text{C}$ |
| | «P» | $-50...+85^{\circ}\text{C}$ |
| Case temperature, storage | | $-50...+70^{\circ}\text{C}$ |
| 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 | | MIL-STD-461E (EN55022 class B) |
| Thermal resistance case-ambient | | $2.7^{\circ}\text{C} / \text{W}$ |
| Typical MTBF | | 3 000 000 Hrs |
| Case material | | metal |
| Dimensions, mm | | 134×84×33 |
| Weight, kg | | < 0.6 |
| 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.

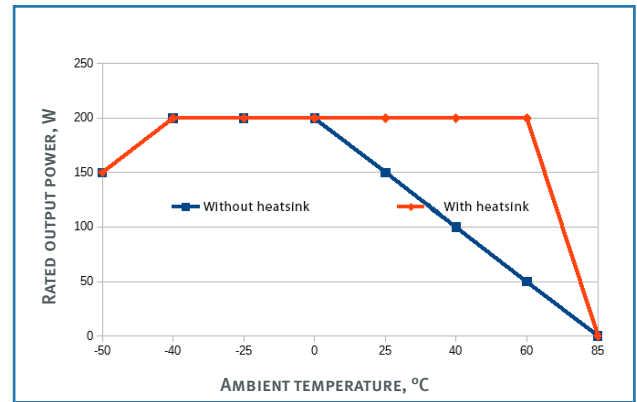
** All specifications are valid for normal climatic conditions, $U_{in\ nom.}$, $I_{out\ nom.}$, unless otherwise noted.

Derating

vs Temperature (input voltage 230 VAC)

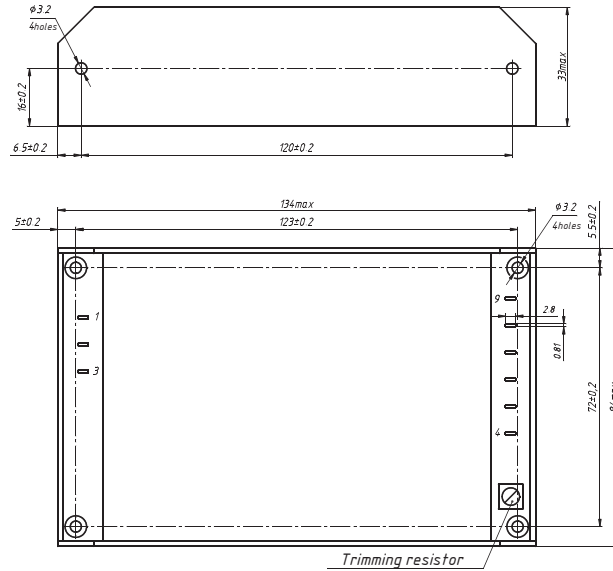


vs Temperature (input voltage 110 VAC)



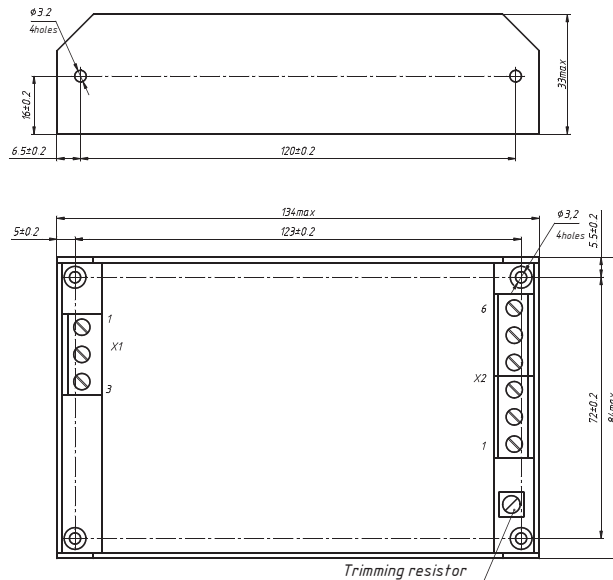
Dimensions


Single-channel design with blade contacts



| PIN # | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 |
|----------------|---|---|---|-------------|-------------|-------|-------|-------|-------|----|----|----|----|
| SINGLE-CHANNEL |  | L | N | -REMOTE OFF | +REMOTE OFF | -OUT1 | -OUT1 | +OUT1 | +OUT1 | - | - | - | - |

Single-channel design with terminal blocks



| PIN # | X1.1 | X1.2 | X1.3 | X2.1 | X2.2 | X2.3 | X2.4 | X2.5 | X2.6 | X2.7 | X2.8 | X2.9 | X2.10 |
|----------------|---|------|------|-------------|-------------|-------|-------|-------|-------|------|------|------|-------|
| SINGLE-CHANNEL |  | L | N | -REMOTE OFF | +REMOTE OFF | -OUT1 | -OUT1 | +OUT1 | +OUT1 | - | - | - | - |



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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: KWant250-1C24CXX, KWant250-1C28CXX.