

## AC/DC power supplies

### KWant Family KWant250 NEW, 250 W



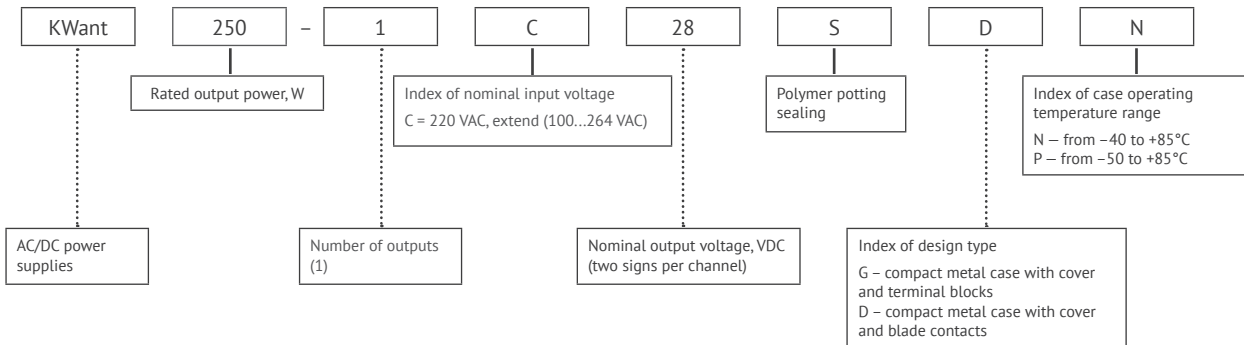
#### Basic specifications

Power .....	250 W
Output current .....	up to 30 A
Input voltage .....	~220 (100...264) VAC
Output voltage .....	=5 VDC, =12 VDC, =15 VDC, =24 VDC, =28 VDC, =30 VDC, 48 VDC, 60 VDC
Efficiency.....	94 %
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
- ◀ Active PFC

### Ordering information



### Output specifications\*

Parameter	Value								
Nominal output voltage, VDC	5	12	15	24	28	30	48	60	
Adjusting the output voltage, %	±10								
Rated output current, A	30	20,83	16,66	10,41	9,25	8,33	5,2	4,16	
Efficiency, %	86	92	92	93	93	93	93	93	94
Ripple and noise (peak-to-peak)	<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	30000 µF	15000 µF				5000 µF		
Conversion frequency, kHz	50...250								

### Input specifications\*\*

Parameter	Value
Input voltage range, VAC	C ~100...264 (=140...375)
Minimum starting voltage, V	Alternating current 100
Current consumption, A	< 3
Mains frequency range, Hz	C 47...53
Starting current, A	< 40
Mains frequency range, Hz	C 47...53
Power coefficient	>0,95

\*All specifications are valid for normal climatic conditions (ambient temp. +15...+35°C; relative humidity 45...80%; air pressure 8.6\*10<sup>4</sup>...10.6\*10<sup>4</sup> Pa), U<sub>in</sub>. nom., I<sub>out</sub>. nom., unless otherwise noted.

### Protections

Type of protection	
Short-circuit protection*	auto recovery
Overload protection	$P_{max} < 1.2 P_{nom}$ (auto recovery during 60 sec. after remove of overload)
Overvoltage protection level*	$< 125\% U_{out\ nom.}$
Overheat protection	triggers at case temperature $> 85^{\circ}C$

### Basic specifications\*\*

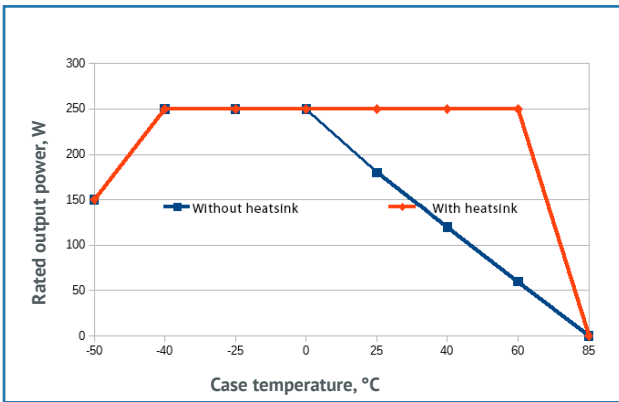
Parameter		Value
Type of connection		screw terminals and blade contacts
Protection level		IP20
Case temperature, operating	«N»	$-40...+85^{\circ}C$
	«P»	$-50...+85^{\circ}C$
Case temperature, storage		$-50...+70^{\circ}C$
Humidity		98% / $35^{\circ}C$
Isolation voltage	in /case	$\sim 1500\ VAC$
	in /out	$\sim 1500\ VAC$
	out /case, out/out	$\sim 500\ VAC$
Isolation resistance @ 500 VDC		$\geq 20\ M\Omega\ min$
Cooling		conductive
Environmental influence standards		design to meet MIL-STD-810G
EMC standards		MIL-STD-461E (EN55022 class B) CE102
Thermal resistance case-ambient		$2.7\ ^{\circ}C / W$
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.

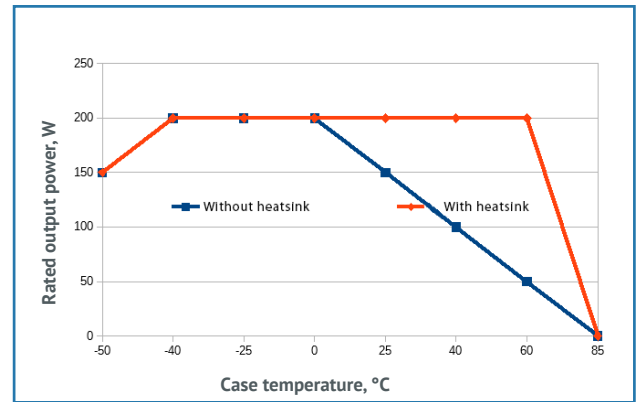
\*\* All specifications are valid for normal climatic conditions,  $U_{in\ nom.}$ ,  $I_{out\ nom.}$ , unless otherwise noted.

## Derating

vs Temperature (input voltage 230 VAC)

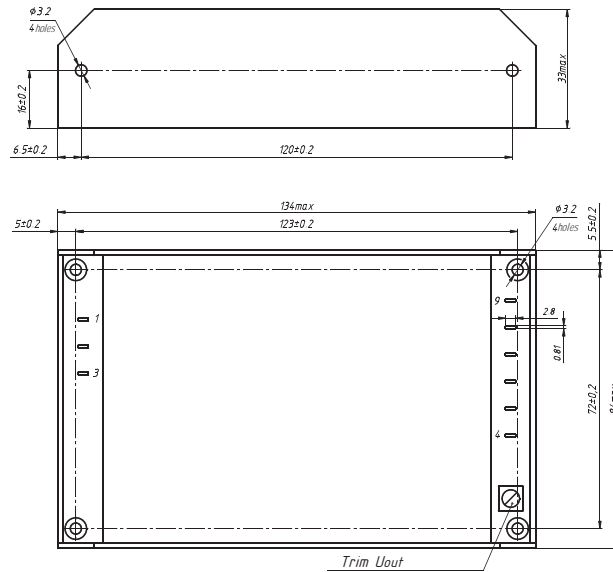



vs Temperature (input voltage 110 VAC)



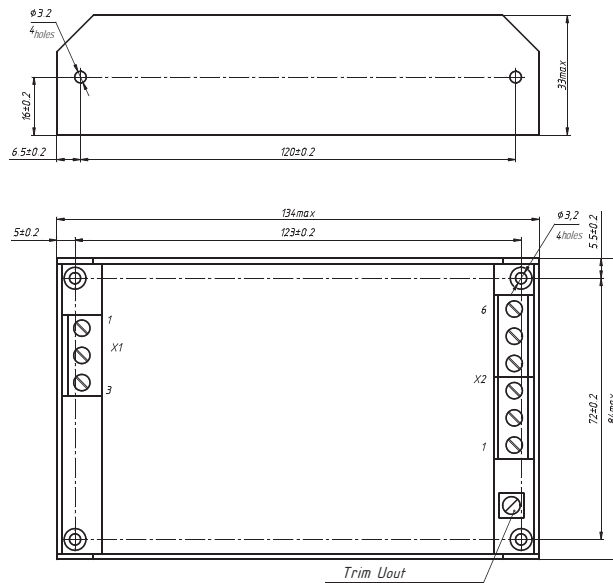
## Dimensions

### 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	-	-	-	-

This datasheet is valid for the following units: KWant250-1C12CXX, KWant250-1C24CXX, KWant250-1C28CXX.