

AC/DC power supplies

MAA Family MAA3000 NEW, 3000 W



Basic specifications

Power	3000 W
Input current	up to 125 A
Input voltage	~220 (187...264) VAC
Output voltage	=24 VDC, =28VDC, =48VDC
Efficiency.....	91-92%
Case operating temperature.....	-40...+85 °C; -50...+85 °C
Dimensions	284x174x54 mm
Warranty	2 years

Advantages

- ◀ Parallel and series operation
- ◀ Output voltage adjustment
- ◀ Conductive cooling
- ◀ DC OK
- ◀ Stand-by power supply
- ◀ Design to meet MIL-STD-810G and MIL-STD-461E



Description of MAA3000 on the manufacturer's website:
eng.kwsystems.ru/catalog/acdc/models/76

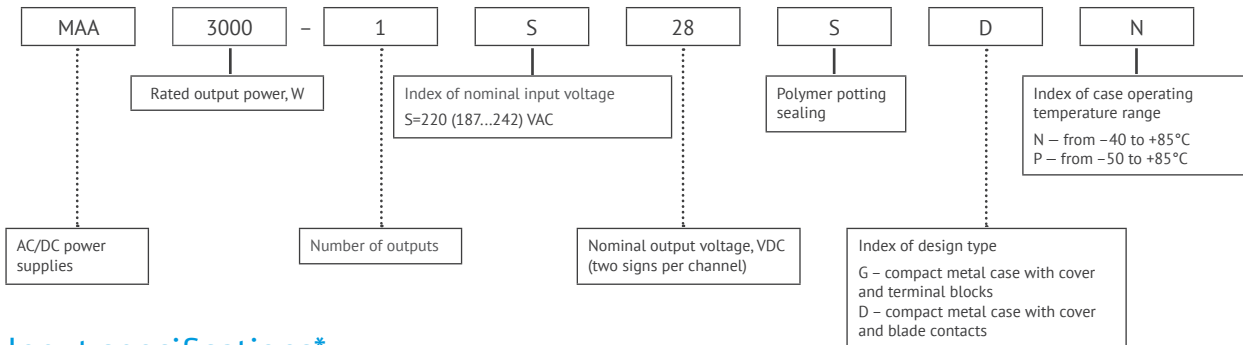
Order registration

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Technical support

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Ordering information



Input specifications*

Parameter	Value
Input voltage range, VAC*	187...242 (263...340 VDC)
Transient deviation range, VAC	~176...264
Transient time	1 s.
Mains frequency range, Hz	47...440
Consumed current, A	15
Power factor corrector	+
Power factor	0.9

Output specifications*

Parameter	Value		
Model	MAA3000-1S24-SXX	MAA3000-1S28-SXX	MAA3000-1S48-SXX
Nominal output voltage, VDC	24	28	48
Output voltage adjustment	10 %		
Rated output power, W	3000**		
Efficiency, %	91	91	92
Output voltage adjustment range, MBCB	by built-in trim resistor	-10...+10 %	-10...+10 %
Rated output current, A	125	107.14	62.5
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...5.5 VDC (15...30 mA) output «REMOTE OFF»		
Maximum load capacity	36500 µF (Uout=28 VDC, Pout=50%)		

* 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), Uin. nom., Iout. 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 $> 85^{\circ}C$

Basic specifications**

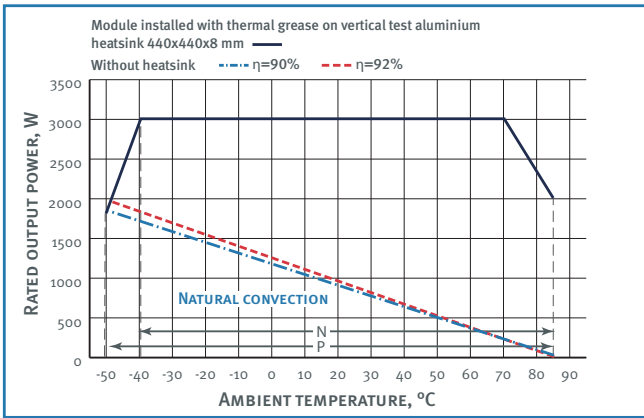
Parameter	Value
Type of connection	screw terminals and blade contacts
Derating	$-3.3\% / ^{\circ}C$ ($t^{\circ} < 40^{\circ}C$ and $> 70^{\circ}C$)
Protection level	IP20
Case temperature, operating	«N» $-40...+85^{\circ}C$
	«P» $-50...+85^{\circ}C$
Case temperature, storage	$-50...+70^{\circ}C$
Humidity	98% / $35^{\circ}C$
Isolation voltage	in /case ~ 1500 VAC
	in /out ~ 1500 VAC
	out /case, out/out ~ 500 VAC
Isolation resistance @ 500 VDC	≥ 20 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	284×174×54
Weight, kg	< 3.4
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

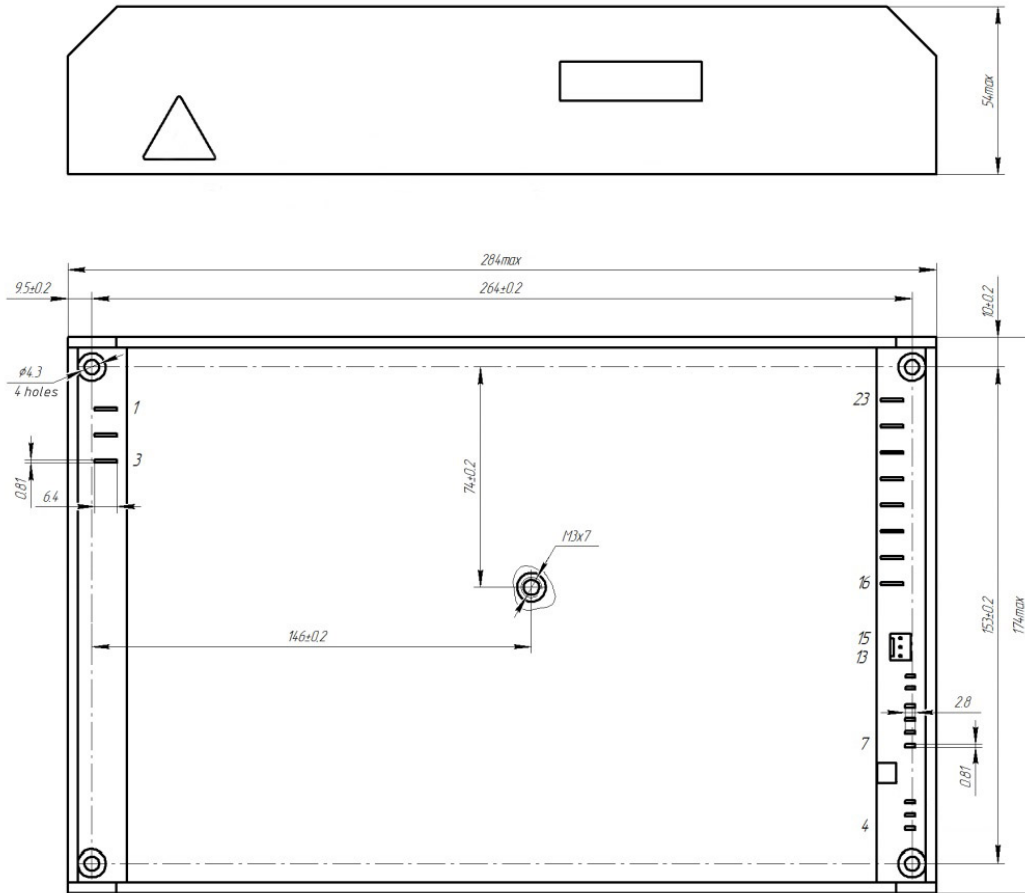


Decreasing parts of the dashed and dash-dotted curves correspond to the maximum case temperature (+85°C for models with index "N" and "P"). Output power must not exceed the values limited by curve for a given ambient temperature.

Modules can be used without the heatsink only on condition of installation with thermal grease on heat-distribution baseplate with length and width not less than case's and with thickness not less than 8 mm.

Dimensions

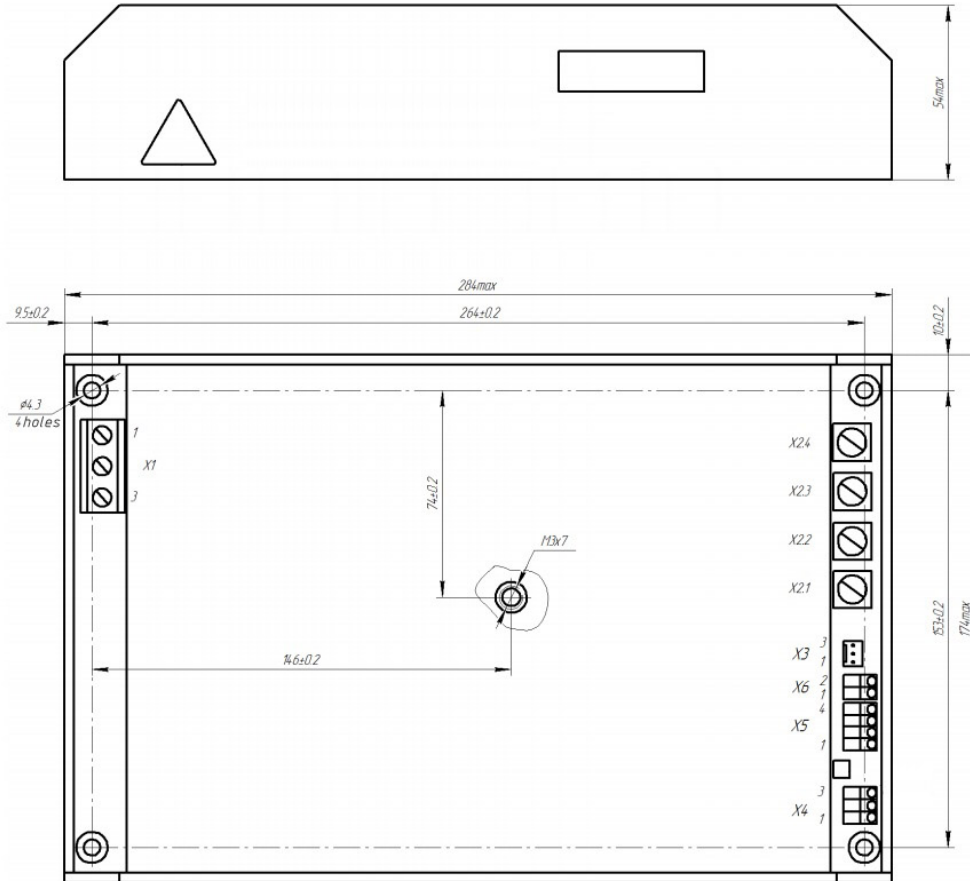
Single-channel design with blade contacts



1	2	3	4	5	6	7	8	9	10	11	12	13
L	N	GND	-REMOTE OFF	+REMOTE OFF	AUX	+RS	-RS	PARAL	TRIM	+DIAG OUT	-DIAG OUT	+FAN
14	15	16	17	18	19	20	21	22	23			
-FAN	NOT USE	+Uout1	+Uout1	+Uout1	+Uout1	-Uout1	-Uвых1	-Uout1	-Uout1			

Dimensions

Single-channel design with terminal blocks



X1			X2				X3			X4		
1	2	3	1	2	3	4	1	2	3	1	2	3
L	N	GND	+Uout1	+Uout1	-Uout1	-Uвых1	+FAN	-FAN	NOT USE	-REMOTE OFF	+REMOTE OFF	AUX

X5				X6	
1	2	3	4	1	2
+RS	-RS	PARAL	TRIM	+DIAG OUT	-DIAG OUT



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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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