

AC/DC power supplies

MAA Family MAA2000-SG(SD), 2000W



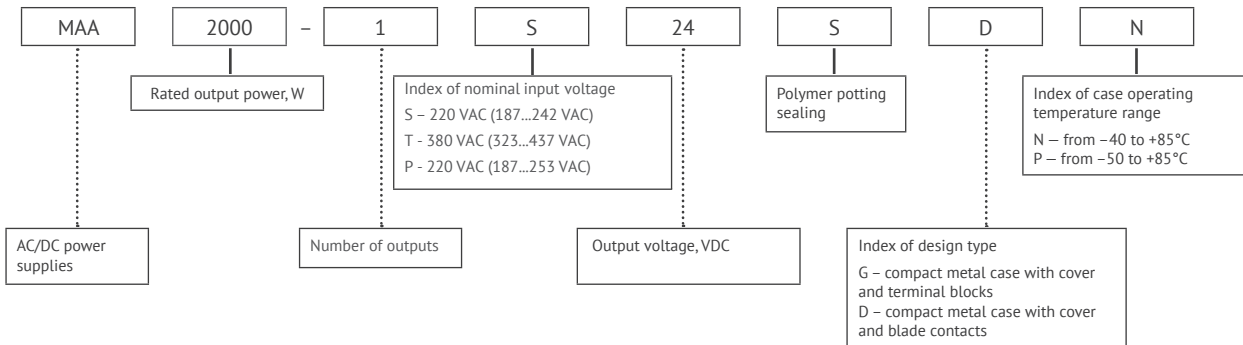
Features

Power.....	2000 W
Input voltage.....	~220(187...242)V ~380 (323...437) B ~220 (187...253) B 3φ
Output voltage.....	=24 V; =28 V; =48 V
Efficiency.....	no less than 80%
Case operating temperature.....	-40...+85°C; -50...+85°C
Dimensions.....	250x140x50 mm
Warranty.....	2 years

Advantage

- ◀ For severe operating conditions
- ◀ Parallel connection
- ◀ Conductive cooling
- ◀ Adjust output voltage

Ordering information



Output specifications*

Parameter	Value		
Nominal output voltage, VDC	24	28	48
Output voltage adjustment	±10 %		
Efficiency, %	no less than 80		
Rated output current, A	83	74	41,6
Ripple and noise (peak-to-peak)	<2% Uout nom		
Line and load regulation	no more than 2%		
Start-up time, s	2 sec. (Uout=220 VAC)		
Serial connection	-		
Parallel operation	redundancy, and boost of power		
Remote on/off	Off at 3.5...4.5 VAC (15...30 mA) output «REMOTE OFF»		
Maximum load capacity	33000 µF at Uout from 24 to 28 V on. 12100 µF at Uout= 48 V		

Input specifications*

Parameter	Value	
Input voltage range, VAC	S	~187...242
	T	~323...437
	P	~187...253
Transient deviation range, VAC	S	~176...264
	T	~304...456
	P	~176...264
Transient time	1 s.	
Mains frequency range, Hz	47...440	
Power factor corrector	0,9	
Inrush current	S	15
	T	8,7
	P	15

* All specifications are valid for normal climatic conditions, Uin. nom., Iout. nom., unless otherwise noted.

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 $> 85^{\circ}C$

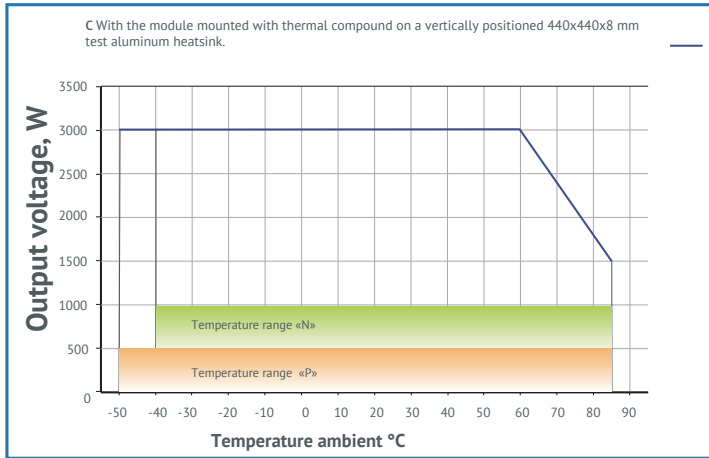
Basic specifications

Parameter		Value
Type of connection		plug-in screw terminals (G) and blade contacts (D)
Derating power		$-3,3\%/^{\circ}C$ at $t^{\circ}t < -40^{\circ}C$ and $> +70^{\circ}C$
Degree of protection		IP20
Ambient temperature, operating	«N»	$-40...+85^{\circ}C$
	«P»	$-50...+85^{\circ}C$
Ambient temperature storage		$-60...+70^{\circ}C$
Permissible humidity(operation)		98% at t° ambient $+35^{\circ}C$
Isolation voltage, V	in /case	~ 1500 VAC
	in /out	~ 1500 VAC
	out /case, out/out	~ 500 VAC
Isolation resistance @ 500 VDC		≥ 20 MOhm min
Cooling		conductive
EMC requirements		EN55022 (CISPR22)
MTBF		75000 hrs*
Case material		metal
Dimensions, mm		250x140x50
Weight, kg		no more than 2,9
Warranty		2 year

*When $U_{out} = I_{n nom.}$, $P_{in} = 0.5 * P_{max}$, $T_{case} \leq 0.5 * T_{case max.}$

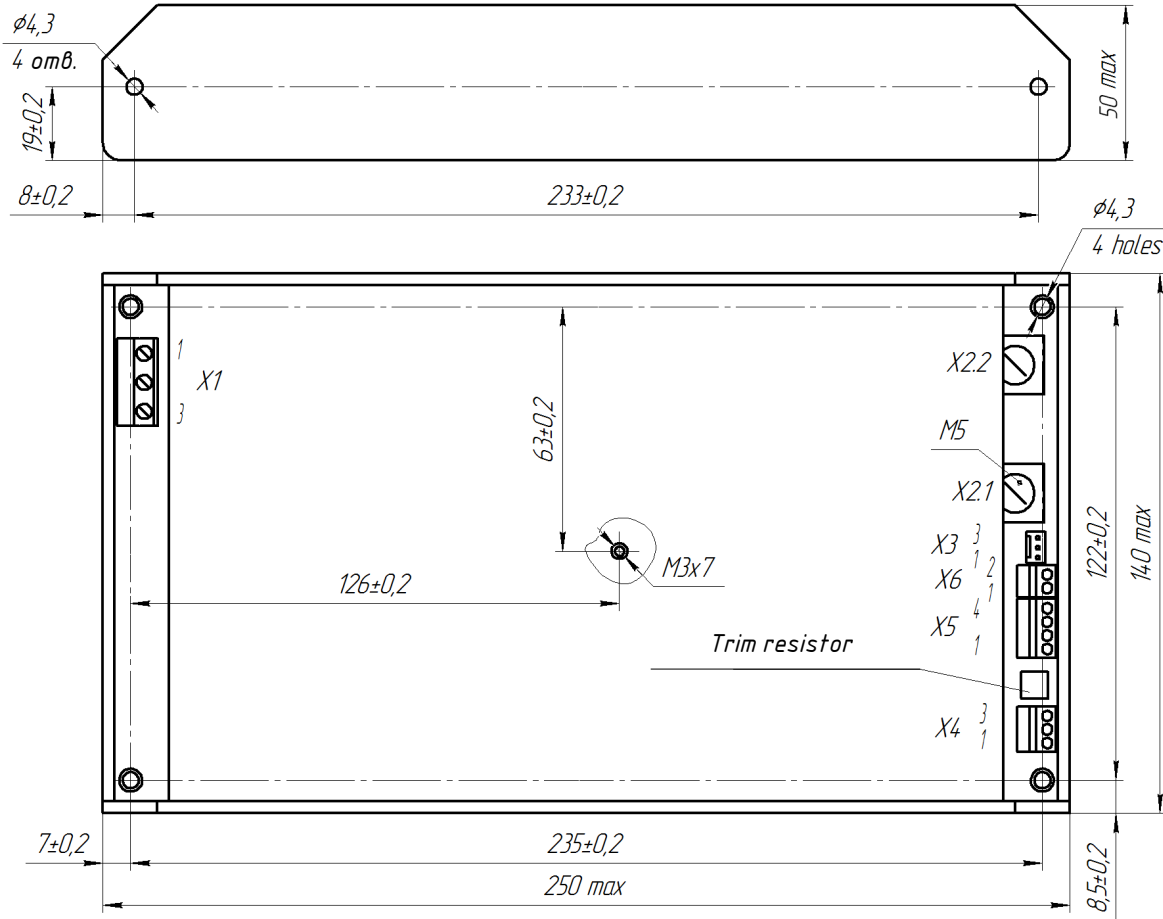
Derating

Temperature Dependence



Dimensions

Single-channel design with terminal blocks

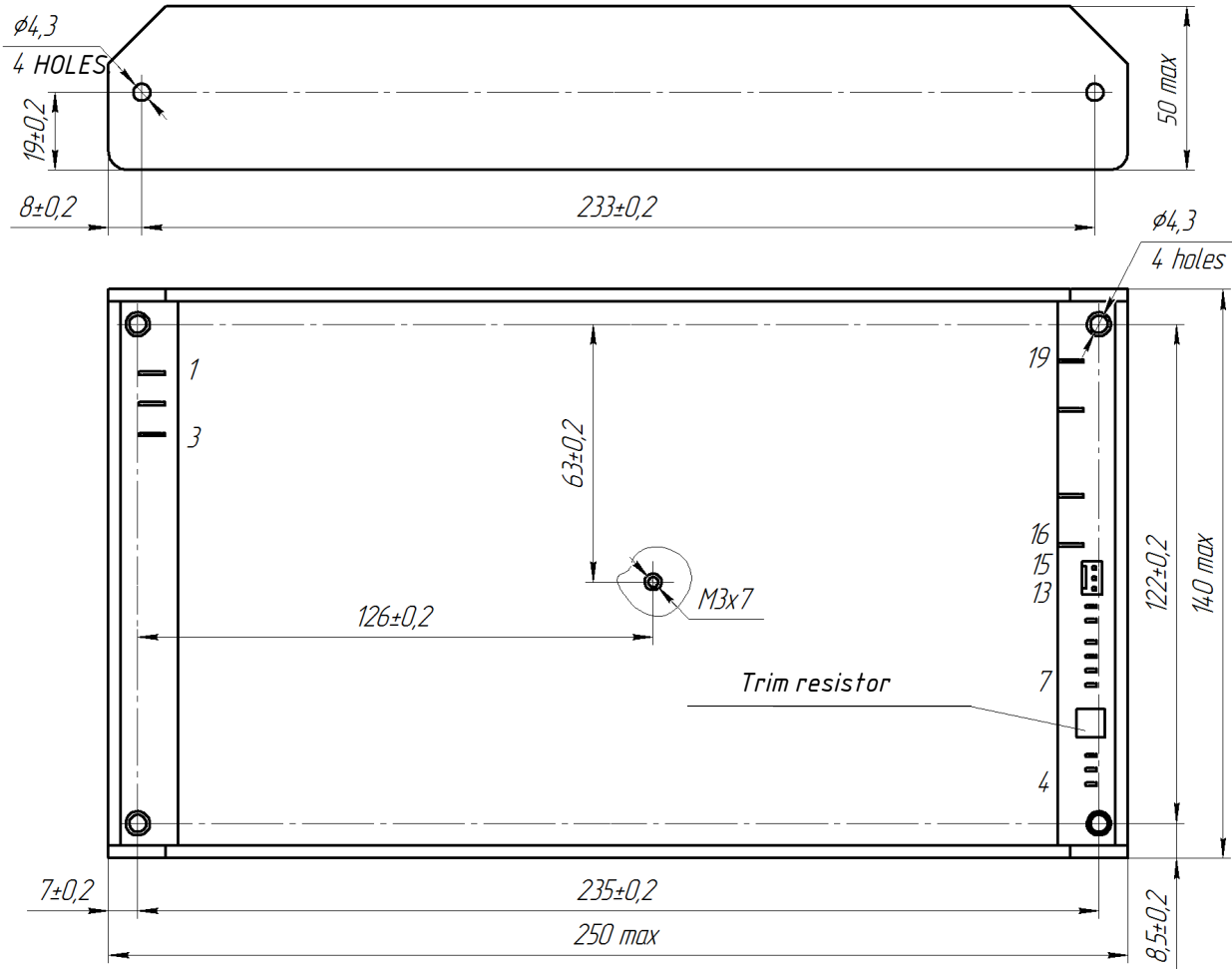


PIN#	X1.1	X1.2	X1.3	X2.1	X2.2	X3.1	X3.2	X3.3
SINGLE-CHANNEL	L	N	\oplus	+OUT 1	-OUT 1	+U FAN	-U FAN	NOT USED

PIN #	X4.1	X4.2	X4.3	X5.1	X5.2	X5.3	X5.4	X6.1	X6.2
SINGLE-CHANNEL	-REMOTE	+REMOTE	NOT USED	+RS	-RS	PARAL	TRIM	+DC OK	-DC OK

Dimensions

Single-channel design with blade contacts



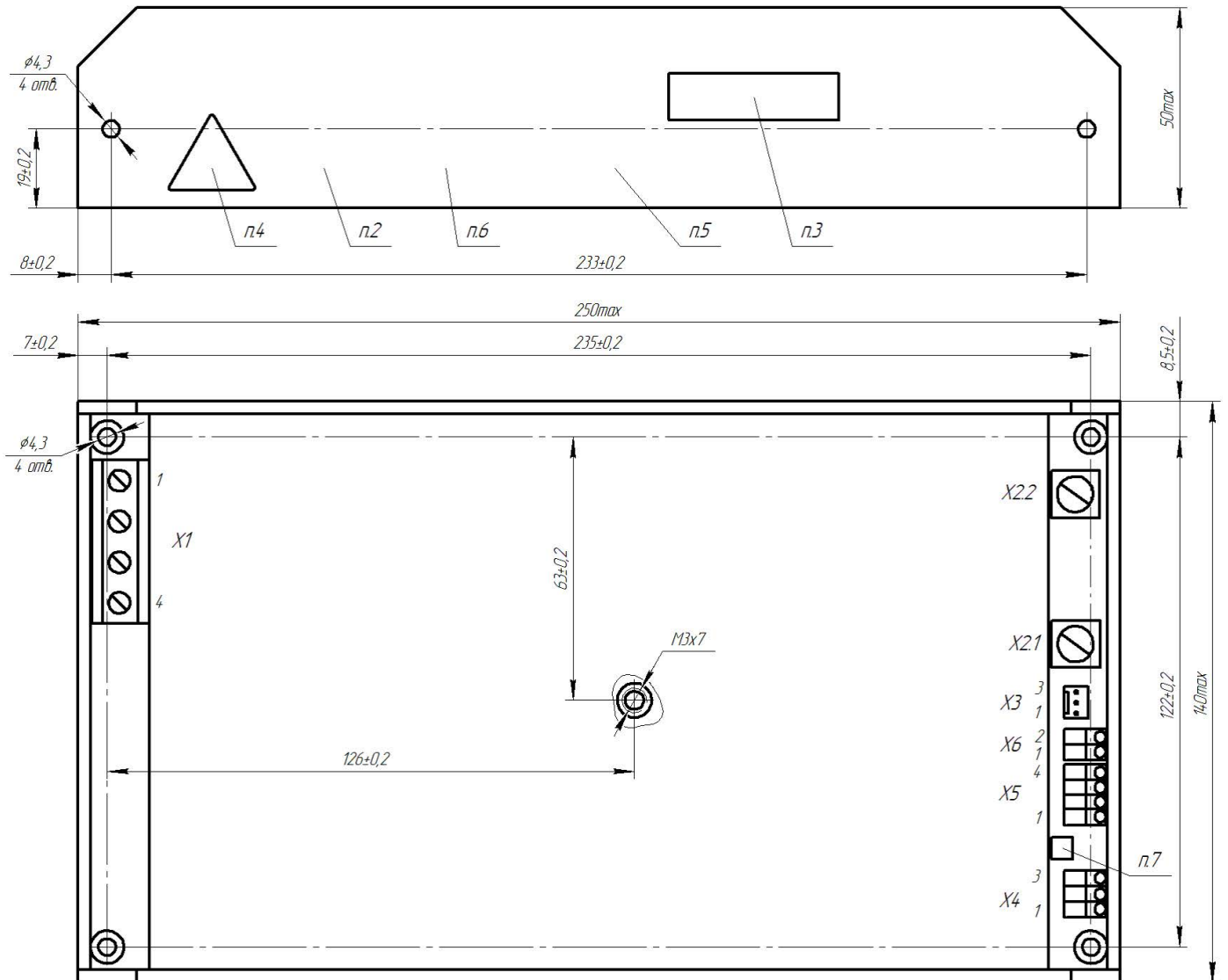
PIN #	1	2	3	4	5	6	7
SINGLE-CHANNEL	L	N		-REMOTE	+REMOTE	NOT USED	+RS


PIN #	8	9	10	11	12	13	14	15
SINGLE-CHANNEL	-RS	PARAL	TRIM	+DC OK	-DC OK	+U FAN	-U FAN	NOT USED

PIN #	16	17	18	19
SINGLE-CHANNEL	+OUT	+OUT	-OUT	-OUT

Dimensions

Three-phase module design with terminal blocks

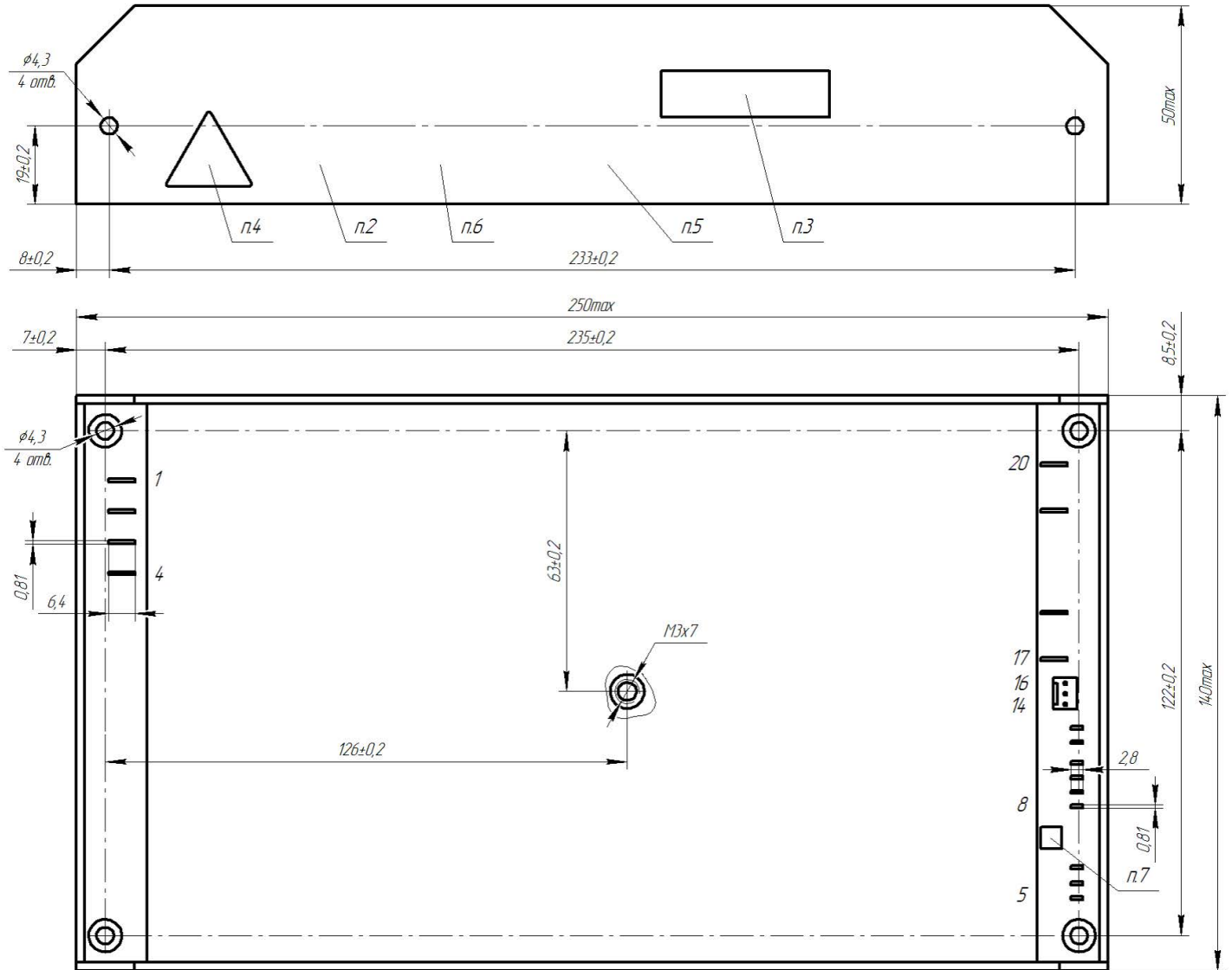


PIN #	X1.1	X1.2	X1.3	X1.4	X2.1	X2.2	X3.1	X3.2
SINGLE-CHANNEL	A	B	C		+Uout1	-Uout1	+FAN	-FAN

PIN #	X3.3	X4.1	X4.2	X4.3	X5.1	X5.2	X5.3	X5.4	X6.1	X6.2
SINGLE-CHANNEL	HE ИСП	-REMOTE	+REMOTE	STB-BY SRS	+RS	-RS	PARAL	TRIM	+DIAG	-DIAG

Dimensions

Three-phase module design with blade contacts



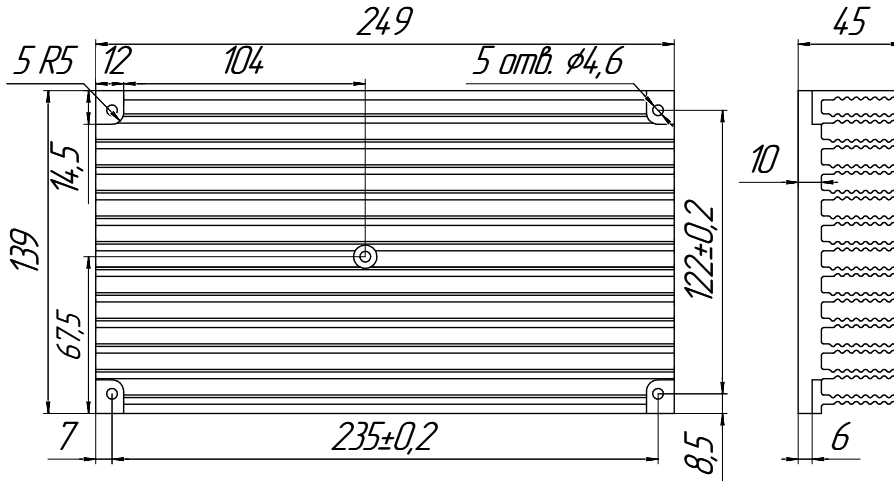
PIN #	1	2	3	4	5	6	7
SINGLE-CHANNEL	A	B	C	\oplus	-REMOTE	+REMOTE	STB-BY SRC

PIN #	8	9	10	11	12	13	14	15
SINGLE-CHANNEL	+RS	-RS	PARAL	TRIM	+DIAG	-DIAG	+U FAN	-U FAN

PIN #	16	17	18	19	20
SINGLE-CHANNEL	NOT USED	+OUT	+OUT	-OUT	-OUT

Dimensional drawing radiator

Radiator BKYAU.752695.056



This datasheet is valid for the following units: MAA2000-1S24SXX, MAA2000-1S28SXX, MAA2000-1S48SXX.