



Ordering information

MAA 300 – 3 S 05 15 15 S U N
① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩

- ① - MAA Series
- ② - Nominal output power, Watt
- ③ - Channel quantity (1, 2, 3)
- ④ - Input voltage
S - 220VAC
K - 115VAC
- ⑤ - Output voltage channel 1, VDC
- ⑥ - Output voltage channel 2, VDC
- ⑦ - Output voltage channel 3, VDC
- ⑧ - Execution with sealing
- ⑨ - Embodiment
B - uniform case with priming
- ⑩ - Operating temperature range of case
N - - 40°C...+85°C
P - - 50°C...+85°C

- Rugged environment in operation in technical equipment of industrial and special purpose.
- Low-profile construction
- Metal case
- Cooling by heat sink or free air convection
- Electromagnetic compatibility index to GOST V 25803-91 for group 1.2.1 (curve 2)
- Stability to external factors of group 1U GOST RV 20.39.414.1-97 (additional)
- Short circuit protection, overload, overvoltage and thermal protection
- Galvanic isolated outputs
- Output voltage regulation
- Parallel operation function
- External feedback
- Acceptance «5»

Single-output models

Module	MAA300-1S12SXX	MAA300-1S15SXX	MAA300-1S24SXX	MAA300-1S27SXX	MAA300-1S48SXX	MAA300-1S68SXX
Output power	300 W					
Output voltage	12 VDC	15 VDC	24 VDC	27 VDC	48 VDC	68 VDC
Выходной ток	25 A	20 A	12,5 A	11,1 A	6,25 A	4,41 A

Dual-output models

Module	MAA300-2S1212SXX		MAA300-2S1515SXX		MAA300- 2S2424XX		MAA300-2S2727SXX	
Output power	300 W							
Channel number	1	2	1	2	1	2	1	2
Output voltage	12 VDC	12 VDC	15 VDC	15 VDC	24 VDC	24 VDC	27 VDC	27 VDC
Output current	12,5 A	12,5 A	10 A	10 A	6,25 A	6,25 A	5,5 A	5,5 A

Triple-output models

Module	MAA300-3S051212SXX			MAA300-3S051515SXX		
Output power	300 W					
Channel number	1	2	3	1	2	3
Output voltage	5 VDC	12 VDC	12 VDC	5 VDC	15 VDC	15 VDC
Output current	20 A	8,3 A	8,3 A	20 A	6,67 A	6,67 A

★ by request can be delivered modules with non-standard output voltage from 3 to 70 VDC and maximal output current to 40A.

Input specifications

Parameter	Conditions of dimensions		MIN	NOM	MAX	Unit
Input voltage	Steady-state deviation	S	187	220	242	VAC
		K	80	115	140	VAC
	Transient deflection, 1 sec	S	176		264	VAC
		K	80		150	VAC
Input frequency		S	47	400	440	Hz
		K				

Output specifications

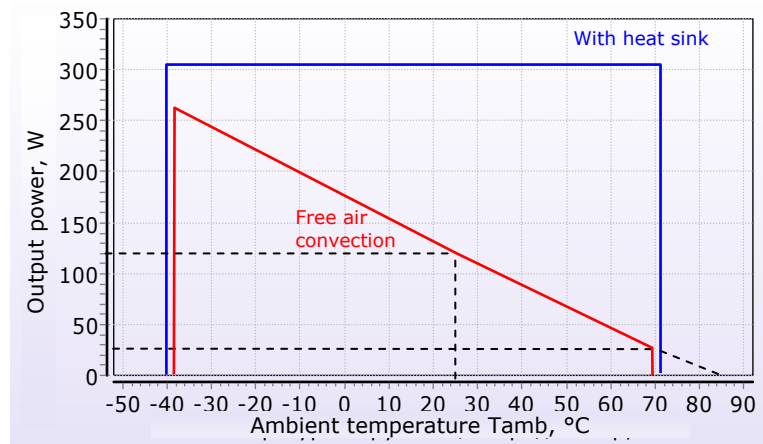
Parameter	Conditions of dimensions	MIN	NOM	MAX	Unit	
Total output voltage instability	Single-output execution (Inom 10 – 100%)				±3	%
	Uout2&3 differs from Uout1 less than 20%	Output 1 multi-output execution (Inom 10 – 100%)			±3	%
		Output 2 and 3 multi-output execution (Inom 10 – 100%)			±13	%
	Uout2&3 differs from Uout1 more than 20%	Output 1 multi-output execution (Inom 30 – 100%)			±3	%
Output 2 and 3 multi-output execution (Inom 50-100%)				±15	%	
Output voltage pulsations ripple (peak-to-peak)	Dimension by device for pulsation control			2	% Uout.nom.	
Current overload protection actuation level		110			% Iout.nom.	
Short circuit protection	Autorepair	150			% Iout.nom.	
Overvoltage protection		120			% Uout.nom.	
Thermal protection		90-95			°C	

General specifications

Parameter	Conditions of dimensions	MIN	NOM	MAX	Unit
Temperature	- operating of case	N	- 40	+85	°C
		P	- 50	+85	
	- power loss	См. график			
	- storage	- 50		+85	
Efficiency			78		%
Conversion frequency			50		kHz
Isolation	~ in/out	1500			VAC
	~ in/case	1500			VAC
	~ out/case	500			VDC
	~ out/out	500			VDC
Insulation resistance	Voltage 500VDC	20			Ohm
High humidity	Temperature 35°C			98	%
Cyclic overpatching of temperature		- 60		+85	°C
Multiple mechanical shocks	Speeding-up 15g	2		15	ms
Sinusoidal vibration	Speeding-up 5g	50		500	Hz
Atmosphere pressure		6x10 ⁴		1,2x10 ⁵	Pa
Time to failure	Temperature 35°C	10 ⁵			hour
Mass				0,7	kg

★ all specifications reduced for normal climatic conditions, Uin.nom., Iout.nom., if it is not specified differently.

Power loss diagram

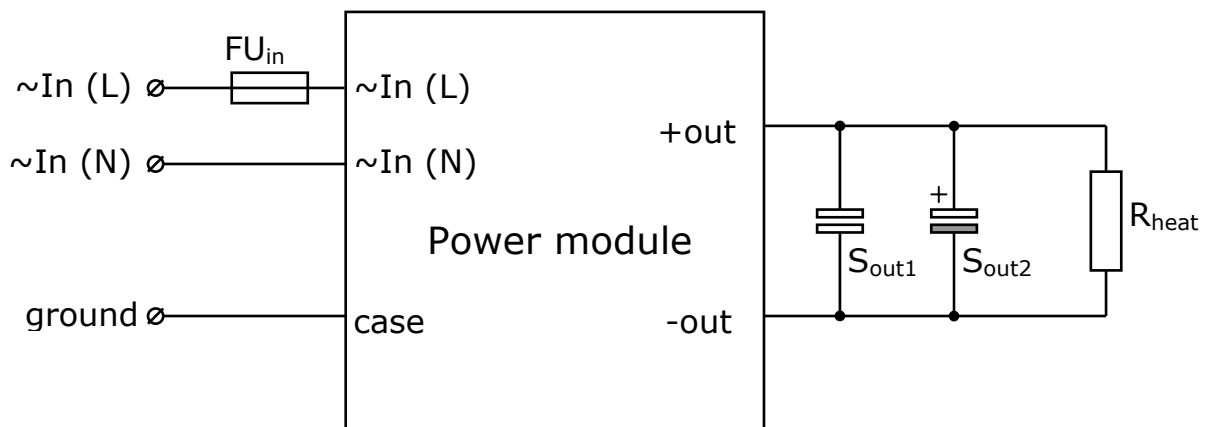


Output settings

Nº pin	1	2	3	4	5
Single-channel	case	~IN (N)	~IN (L)	+ feedback	- feedback
Dual-channel	case	~IN (N)	~IN (L)	+ feedback	- feedback
Triple-channel	case	~IN (N)	~IN (L)	- on/off	+ on/off

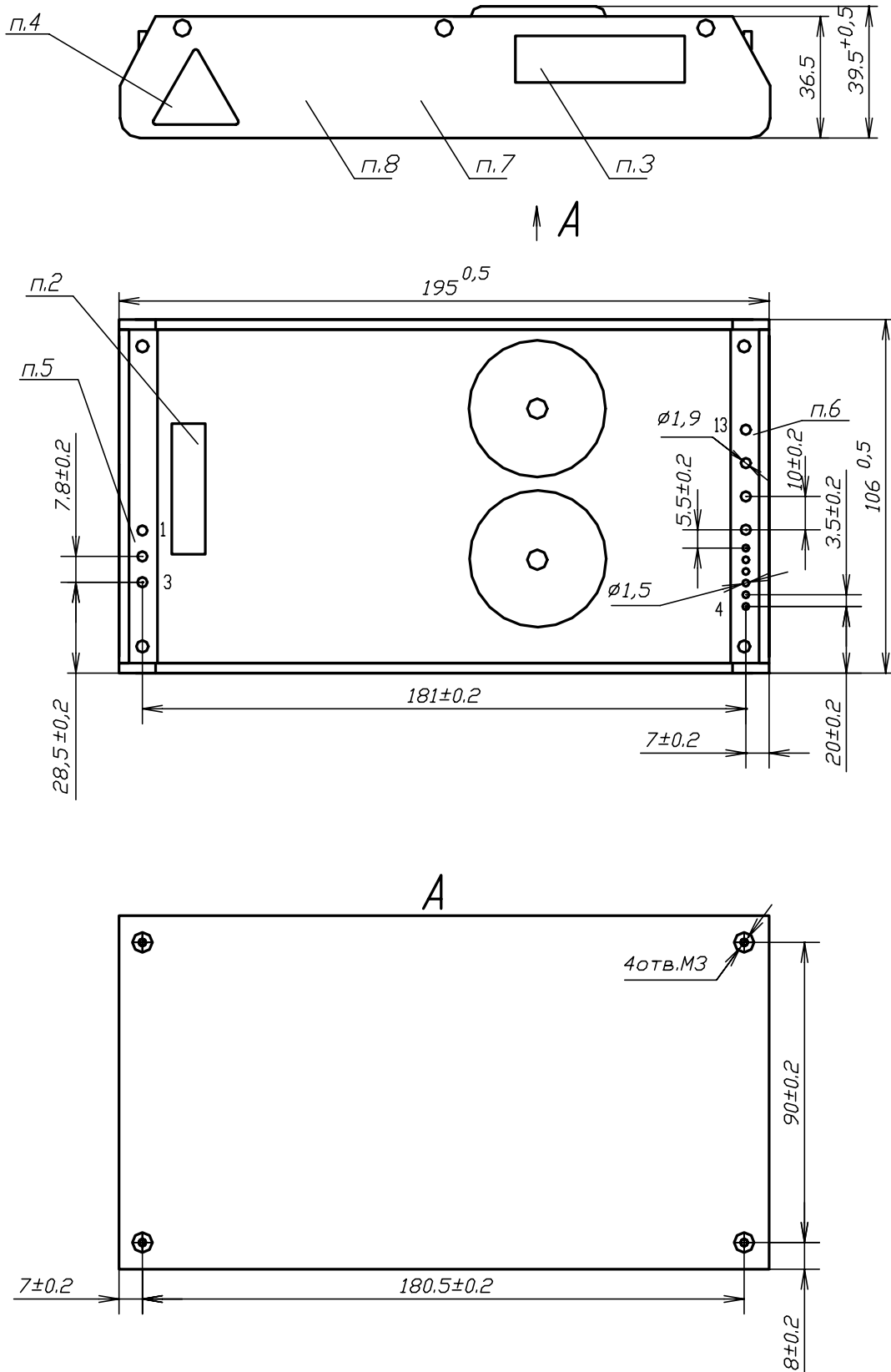
Nº pin	6	7	8	9	10	11	12	13
Single-channel	Parallel	- on/off	+ on/off	trimmer	+ out 1	- out 1	- out 1	+ out 1
Dual-channel	Parallel	- on/off	+ on/off	trimmer	+ out 1	- out 1	-out2	+ out 2
Triple-channel	- out 1	+ out 1	+ out 2	-out2	+ out 3	- out 3	Not use	Not use

Switching on standart diagram

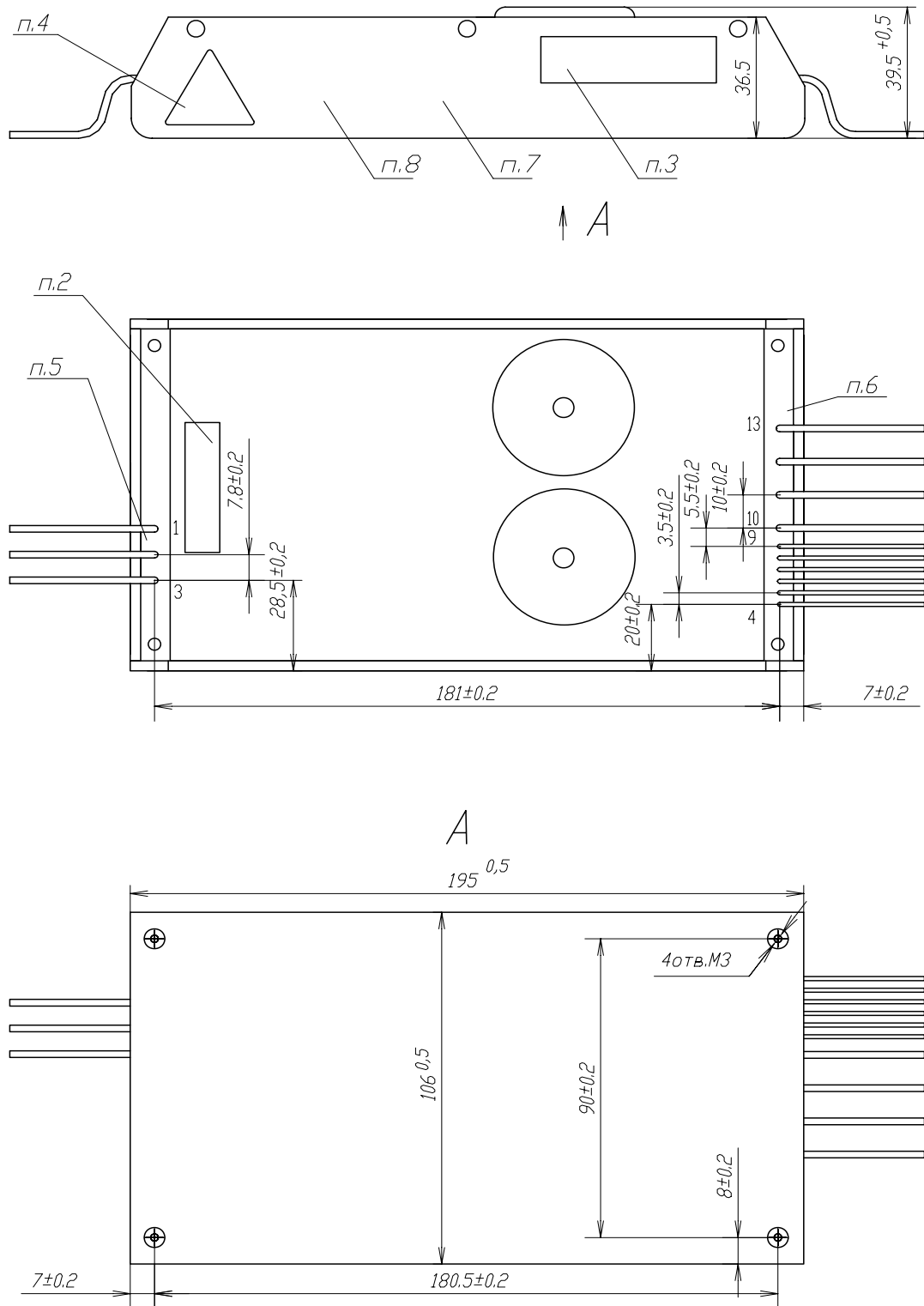


- ★ FU_{in} – current safety device 5A for input voltage 220VAC, 10A for input voltage 115VAC.
- ★ S_{out} – ceramic condenser capacity 0,47-15 mcF with corresponding operating voltage to decrease high-frequency noise level.
- ★ S_{out2} – electronic condenser capacity 22-100 mcF in consideration with operating voltage and polarity. It makes for purpose to decrease dynamic instability when module work at dynamic load.

Single, Dual-output execution SBN

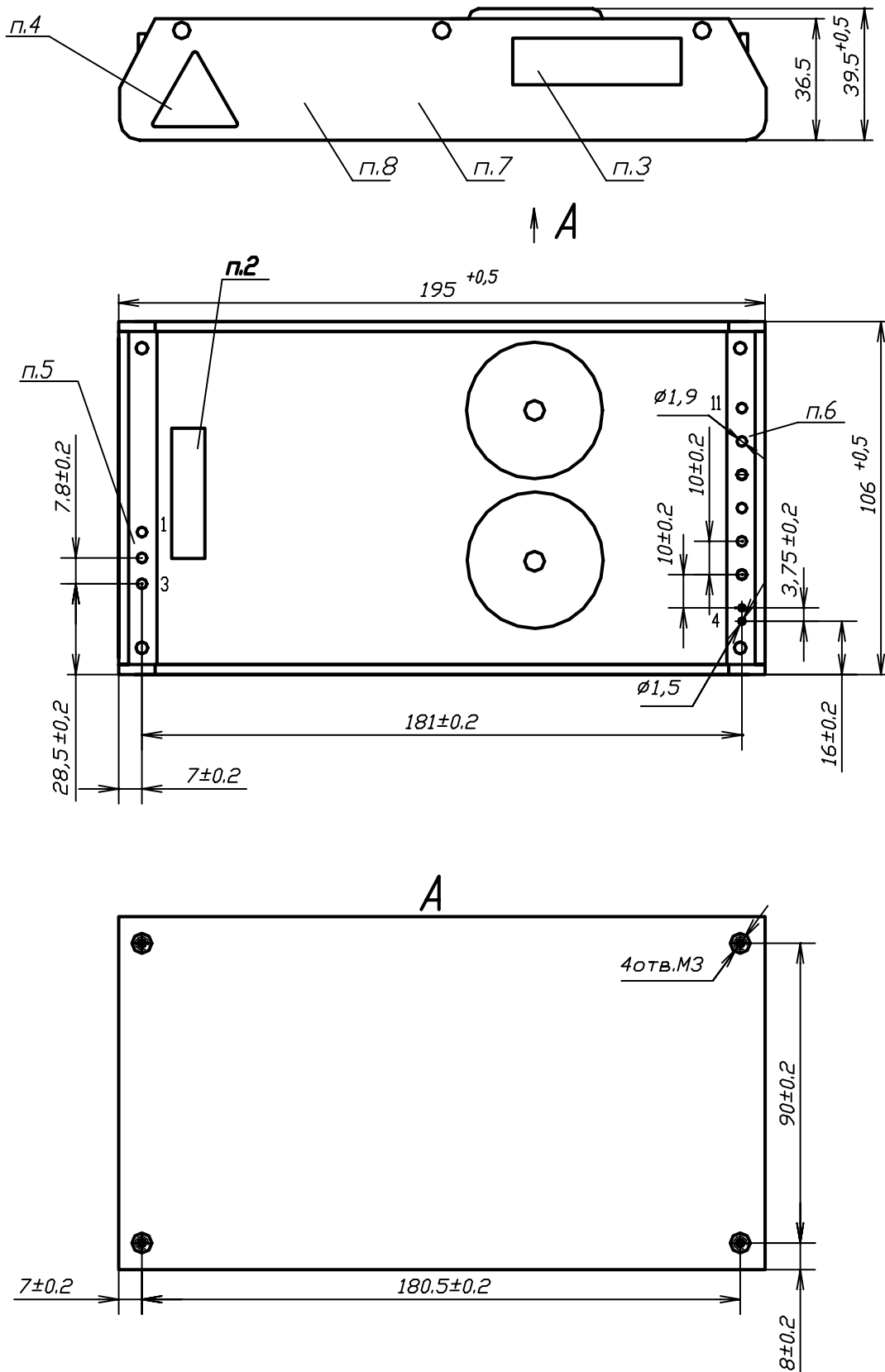


Single, Dual-output execution SVN (with flexible erection joints)

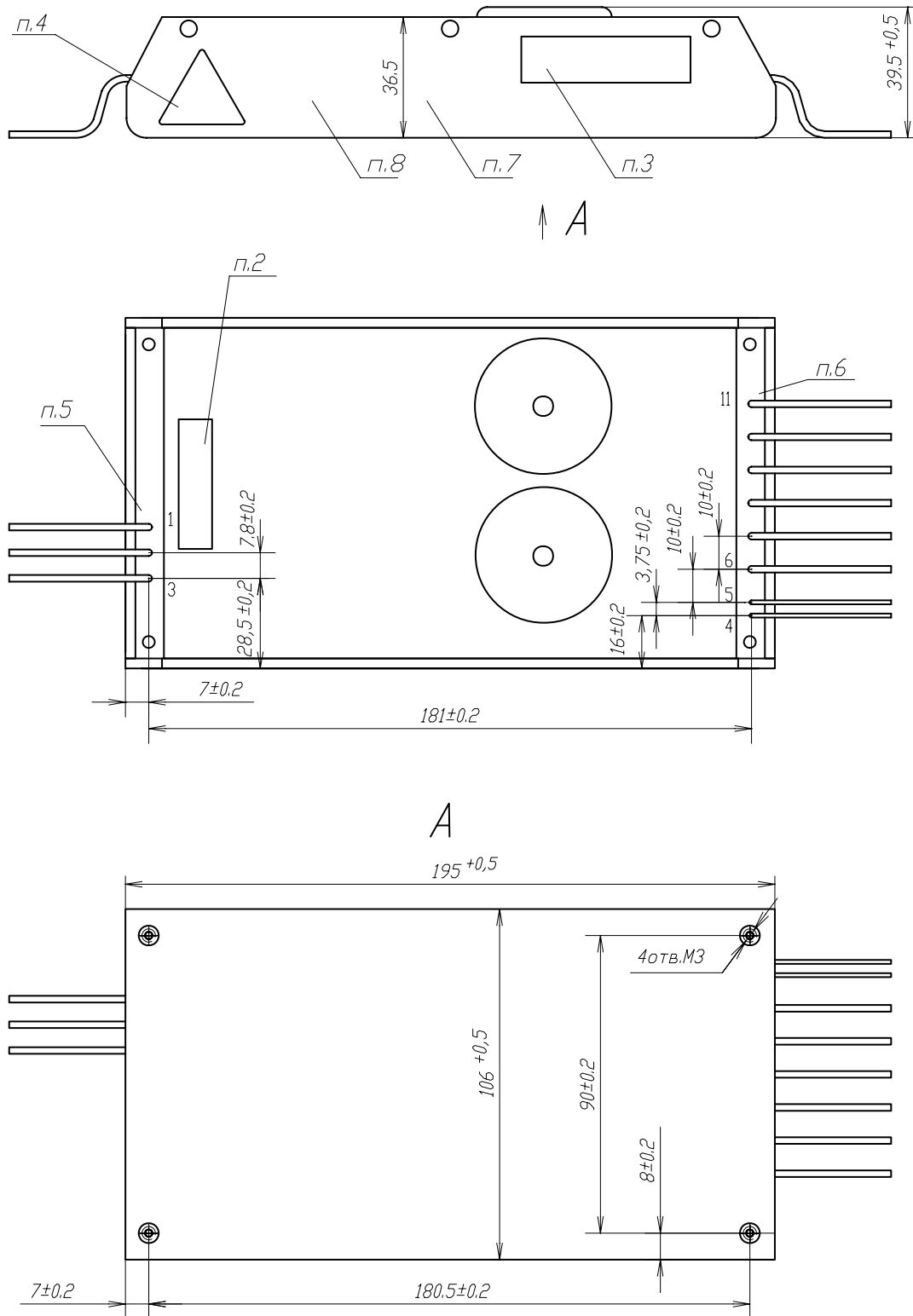


The Flexible erection joints by length (150 ± 5) mm is executed by wire section $(0.5 \dots 1.5) \text{ mm}^2$.

Triple-output execution SBN



Triple-output execution SVN(with flexible erection conclusion)



The Flexible erection findings by length (150 ± 5)mm is executed by wire by section ($0,5 \dots 1,5$)mm².