



ASTRA-100

GEOPHYSICAL CURRENT SOURCE FOR EM METHODS



MULTIFUNCTIONAL

HIGHLY PORTABLE

USER FRIENDLY

HIGHLY RELIABLE

APPLICATION: Geophysical current source ASTRA-100 can be used for geophysical exploration by methods of direct current, induced polarization, frequency sounding, impedance frequency sounding, electrical transient and other methods.

RESOLVED TASKS: ASTRA-100 can provide transmission distance from the first few meters up to first hundred meters. ASTRA-100 can be used to solve the following tasks:

- Mineral deposit exploration (oil-and-gas, ore, coal, diamonds, uranium, etc.)
- Geological mapping (determination of **environmental** geological structure and lithological composition of rocks)
- Geological engineering (groundwater exploration, karst mapping, landslide mapping, etc.)
- Groundwater exploration (detection of underground waters, including thermal, estimation of the rocks water saturation and the fluid mineralization);
- Permafrost and glacier research;
- Ecological problems (research of the underground waters, pollution areas, detection of fracture zones. etc.);
- geotechnical tasks (studying of the construction bases and pipelines condition, research of underground communications and other industrial objects).

ADDITIONAL FEATURES: ASTRA-100 can help acquire information about the geoelectric structure of the **cross-section top part** which is useful at interpretation of deep regional, explorative and other researches with the use of artificial and natural fields.



SPECIFICATION:

Maximum power output:	100 W
Maximum output voltage, not less:	250 V
Output current values and corresponding resistance range RAB:	1.0 mA, 5.0 - 250 kΩ 3.16 mA, 1.5 – 80 kΩ 10.0 mA, 0.5 - 25 kΩ 31.6 mA, 150 - 8000 kΩ 100 mA, 50 - 2500 kΩ 316 mA, 15 - 800 kΩ 1000 mA, 5 - 100 kΩ
Output waveform:	Rectangular pulse
Frequency list:	0.076, 0.153, 0.305, 0.610, 1.22, 2.44, 4.88, 9.77, 19.5, 39.1, 78.1, 156, 313, 625, 1250, 2500 Hz 0.042, 0.063, 0.083, 0.125, 0.167, 0.250, 0.333, 0.500, 0.667, 1.00, 1.33, 2.00, 2.67, 4.00, 5.33, 8.00, 10.7, 16.0, 21.3, 32.0, 42.7, 64.0, 85.3, 128, 171, 256, 341, 512, 683, 1024, 1365, 2048 Hz
Efficiency:	Up to to 80 %
Stabilization fault on active load:	0.5%
Fall time on active load:	2 mcs
LCD Panel:	4 lines x 16 symbols
Indication:	<ul style="list-style-type: none">- work frequency- output current- the voltage of power supply- status (wait, work, line break)- load power
Sound indication:	<ul style="list-style-type: none">- generating- overload- underload (e.g. short circuit)- low power supply voltage
Keyboard:	12 button
I/O:	<ul style="list-style-type: none">- AB- shunt 1 kΩ- synchronization- power supply
Temperature range:	from - 20°C to + 50°C
Power supply voltage:	~ 12 V (min 9.5 V, max 15.5 V)
Weight (without power supply)	~ 2 kg
Size	200 x 173 x 113 mm
Case:	Standard IP-65