Beams & Plasmas
Laboratory of vacuum technologies plus, LLC

BP-357

Arc evaporator power supply unit

The unit is designed to supply two arc evaporators with regulated direct current. The unit includes a control and monitoring system providing control of two current channels with arc ignition systems and two evaporator coil control units (BUEL).

Control is carried out via the RS485 interface (ModBus RTU protocol).

Parameter	Value
Channel Specifications	
Arc current source	
Open circuit output voltage	85V ± 5%
Output current range	20-100 A
Output current ripple amplitude,	no more, % 5
Discreteness of change of the output current,	no more, A 2
Arc discharge output voltage,	V at In = 80 A 25-40
Ignition source	
Voltage of initiating impulses	not less than 600 V
Initiating pulse frequency	25 Hz
Energy of initiating pulses	not less than 2.5 J
Magnetic coil current source	
Maximum coil current	5 A
Number of coil control outputs	2
Maximum output voltage	24 (48) V
Unit specifications	
Supply voltage	3-ph. 50/60 Hz, V 380 V ± 10%
Maximum power consumption	no more than 8.0 kW
Continuous operating mode	
Cooling liquid consumption, l / min,	not less than 1 l/min
Overall dimensions	482x560x230 mm (6U)
Weight, kg no more than	24 kg

ARC EVAPORATOR WITH END CATHODE

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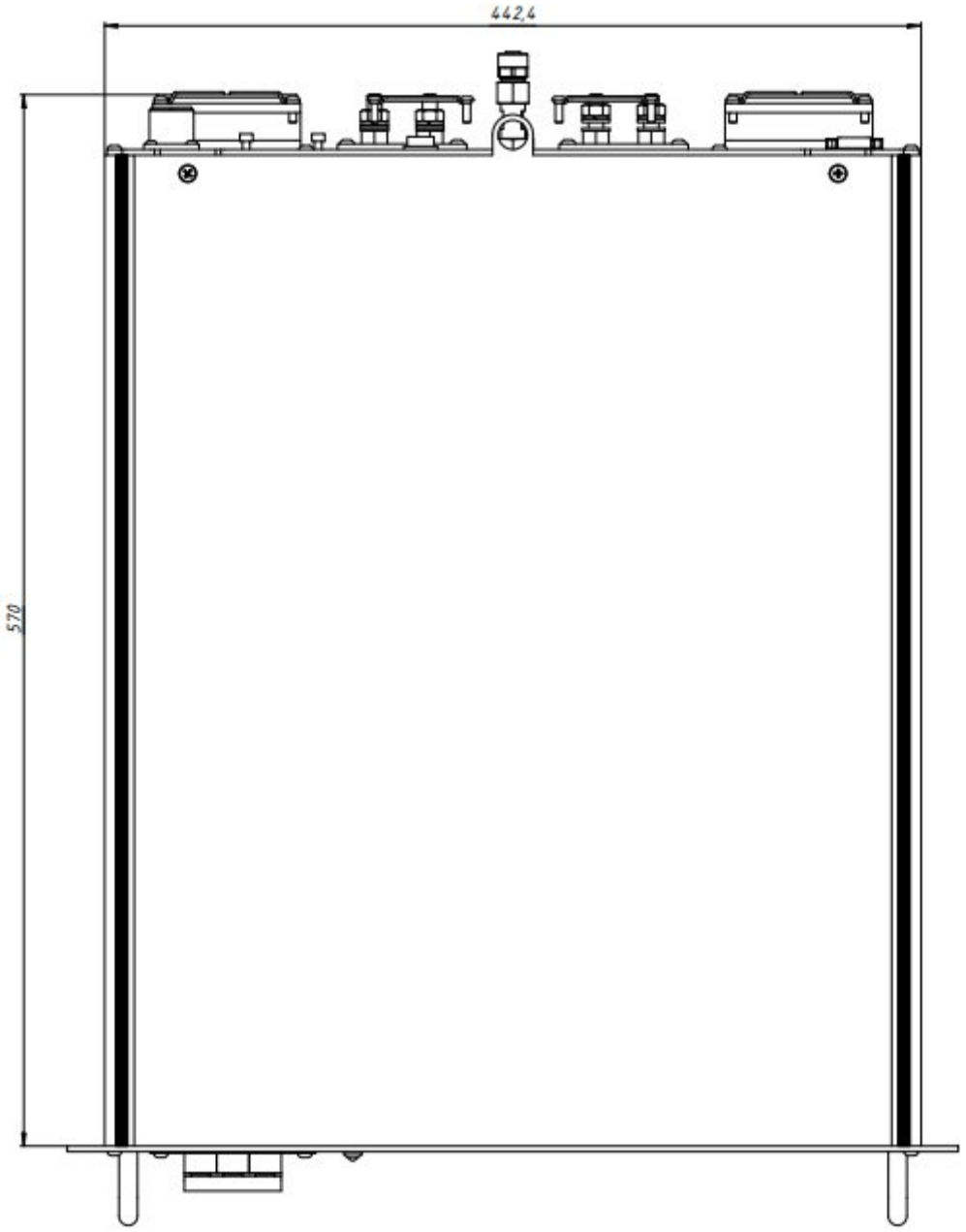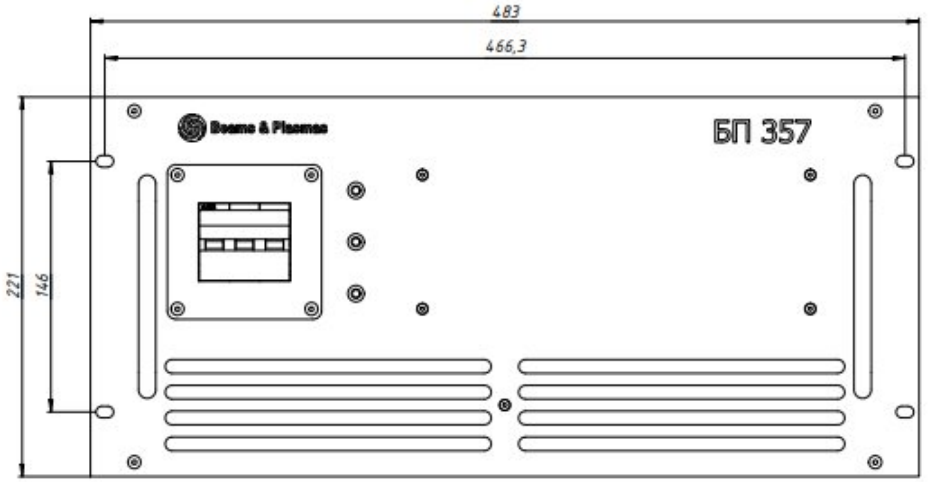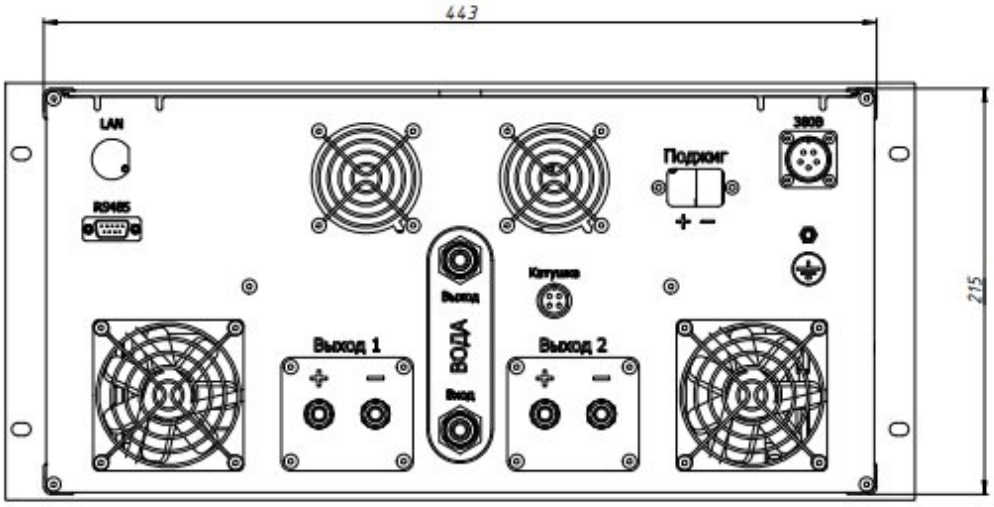
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