

Data sheet

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RP (Resopower) High Voltage Laboratory Power Supplies / Cap. Chargers

5kV - 70 kV
500W - 1,8kW



Resopower laboratory power supplies are rugged, high performance laboratory power supplies, which are based on the operating principle of series resonant conversion. These units are distinguished by a low ripple and good electromagnetic compatibility (EMC), especially in full load operation.

The short circuit current is limited for physical reasons of the working principle. This leads to an excellent reliability of the units is even in complicated application cases.

A special feature of these units is there simple polarity reversal by changing the output plugs.

The units are available as laboratory power supplies (Version "L") or as capacitor chargers (Version "C").



Ausführungsbeispiel RP 501 - 070



Please note that at the rear side must be provided about 200mm of additional clearance for high voltage connectors, polarity change cables and ventilation.

Type	Power max.	Voltage max.	Current max.	Dimensions B x T x H [mm]
RP 501 - 005	500 W	5,00 kV	100 mA	520 x 400 x 140
RP 501 - 010	500 W	10,00 kV	50 mA	520 x 400 x 140
RP 501 - 015	500 W	15,00 kV	33 mA	520 x 400 x 140
RP 501 - 020	500 W	20,00 kV	25 mA	520 x 400 x 140
RP 501 - 030	500 W	30,00 kV	16 mA	520 x 500 x 140
RP 501 - 040	500 W	40,00 kV	12 mA	520 x 500 x 140
RP 501 - 050	500 W	50,00 kV	10 mA	520 x 500 x 140
RP 501 - 070	500 W	70,00 kV	7 mA	520 x 500 x 140
RP 102 - 005	1000 W	5,00 kV	200 mA	520 x 500 x 220
RP 102 - 010	1000 W	10,00 kV	100 mA	520 x 500 x 220
RP 102 - 015	1000 W	15,00 kV	66 mA	520 x 500 x 220
RP 102 - 020	1000 W	20,00 kV	50 mA	520 x 500 x 220
RP 102 - 030	1000 W	30,00 kV	33 mA	520 x 500 x 220
RP 102 - 040	1000 W	40,00 kV	25 mA	520 x 500 x 220
RP 102 - 050	1000 W	50,00 kV	20 mA	520 x 500 x 220
RP 102 - 070	1000 W	70,00 kV	14 mA	520 x 500 x 220
RP 182 - 005	1800 W	5,00 kV	360 mA	520 x 500 x 290
RP 182 - 010	1800 W	10,00 kV	180 mA	520 x 500 x 290
RP 182 - 015	1800 W	15,00 kV	120 mA	520 x 500 x 290
RP 182 - 020	1800 W	20,00 kV	90 mA	520 x 500 x 290
RP 182 - 030	1800 W	30,00 kV	60 mA	520 x 600 x 290
RP 182 - 040	1800 W	40,00 kV	45 mA	520 x 600 x 290
RP 182 - 050	1800 W	50,00 kV	36 mA	520 x 600 x 290
RP 182 - 070	1800 W	70,00 kV	25 mA	520 x 600 x 290

**Higher
voltages and special
designs on request!**

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All units equipped as a standard with:

- Polarity reversal by interchanging output connectors
- Key switch for mains ON / OFF
- HV ON / OFF Button
- Big Ten-turn potentiometers for adjustment of voltage and current
- Two analog pointer meters to indicate voltage and current
- Analogue control interface with automatic check
- Interlock circuit for fast switching off

Possible optional equipment:

- Computer interface combined with floating analogue interface (RS232, USB, Ethernet selectable) for units above 1 kW
- Arc detection and switch-off with counter (Blanking on arc/ discharge 0,7...7 ms adjustable)
- Version „C“ for capacitor charging: In this version the units have only a minimum output capacitance to ensure free wheeling capability. Further a circuit is provided to protect the unit against oscillating discharges.

Technical data:

Mains: 230 V \pm 10 % / 47-63 Hz
PE (Safety earth) always necessary

High Voltage:

Voltage and current adjustable from zero to nominal value

Polarity: reversible

Rise time for „L“- units: < 100ms (on resistive load)

Start up ramp for „C“- units: < 0,5ms

Residual ripple: < 0,5% (for „C“- units depending on load)

Regulation accuracy

with \pm 10% mains change: < 0,5%

Regulation accuracy with no load / full load: < 0,5 %

Adjustment resolution: < 0,01 %

Reproducibility: < 0,5 %

Environmental conditions:

Max. ambient temperature: 40°C

Rel. humidity: max. 80% (non condensing)

free of aggressive. explosive dusts and gases

Cooling: forced air

Possible application fields:

- High voltage tests
- Ion sources
- Electron sources
- Plasma applications
- Operation of tubes
- Capacitor charging - especially also for pulsed applications

Scope of delivery:

19“- table top unit
1 x 3 m HV-coaxial cable with connectors
1x Mains cable with IEC connector
Documentation