EVO
High Voltage up to 20kV DC

EVO Series
Highlights

- Voltage classes:
  0 ... 1,5 kV DC
  0 ... 5 kV DC
  0 ... 10 kV DC

- Power: 3kW or 2kW

- Currents from 0.2 to 2 A

- Fully digital regulation

- Usable as 19" or desktop chassis, with integrated adapter

- Compact (11.5 kg), 2U

- Widerange AC input, singlephase

- Ethernet and RS232 on board

- SCPI command set

- Predictive fan control

- Output polarity reversible, electrically

- Ramp control (Option)

- Arc detection (Option)

High Voltage Power Supplies of the EVO Series are the New Generation of DC Power Supplies

Simple handling is combined with speed and high precision.

The new high voltage supplies of the EVO series offer quick control at high precision. They are particularly comfortable to opera-te. Their compact build needs only 2U, which is extraordinary for their power density of 2kW and 3kW. A microcontroller, combined with an FPGA (Field Programmable Gate Array) permits particularly precise control. This makes complete and digital control of the EVO power supplies possible. FPGAs are used in high voltage power supplies since they permit quick signal pro-cessing and flexible adaptation to various load requirements. Sup-plies of the EVO series are optimal for many different user demands.

High performance without losing any speed or control precision characterizes the EVO high voltage power supplies. The polarity of the high voltage output can be electri-cally reversed depending on whet-her a positive or a negative high voltage is needed.

EVO power supplies have been designed to be suitable for various applications. Our customer use it e.g. for various kind of HV tests, in semiconductor production and verification, at manufacturing of photovoltaic cells and compo-nents, for end of line calibration processes, or in basic research and development.

EVO
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EVO Series
Technical data

Function

Digitally regulated DC high voltage power supply

Security

In addition to external interlock and analogue control signals, there is over vol-tage and over current protection. These features protect the user, the device and your load.

AC Input

230V ±10 % (3kW version)
187V - 253V (2kW version) 47Hz - 63Hz Active power factor correction
Mains socket on rear side (IEC 60320 Type C20)

Human Machine Interface

• Colored 3.5" TFT screen with LED backlight
• Input by 2 soft keys and one turn/press button
• Menu navigation by clear structure and sub menus
• Configurable code protection for sub menus
• Error and event monitoring including time tags (actual and shadow)

DC Output

Positive, negative or reversible polarity HV connector: Female Heinzinger HV connector on rear side

Precision

Overall accuracy class of 0.01 % (100ppm)

Typical values (for v/c)

Setting accuracy:	16bit
Setting range:	0.01% - 100% U_{nom}
Reproducibility:	0.1 % U_{nom}
Line regulation (±10 %):	±0.01 % U_{nom}
Ripple:	0.01 % pp
	U_{nom} ± 100mV
Load regulation: (10 % - 90 %)	0.05 % U_{nom}

Response time on changes: 1ms to 0.1 % U_{nom}
Stability: 0.01 % U_{nom} per 8h
Temperature coefficient: 0.01 % U_{nom}/K
Interfaces: RS232, Ethernet
SCPI command set (USB service port)

I/O terminal: Interlock, configurable I/Os

Enclosure

19" and/or desktop, height: 2U (89mm),
depth: 500mm,
steel chassis, RAL 9005,
weight: approx. 11.5 kg

Scope of delivery

Heinzinger EVO HV power supply
Male Heinzinger HV plug with 3m HV cable
Rubber feet for desktop application
Mains cord 1.5m, with connector Schuko (CEE7) on grid and terminal block for I/O plug

model	power (W)	max. voltage (V)	max. current (A)
EVO 1500 - 1400		1500	1.4
EVO 1500 - 1400 FLO		15000	1.4
EVO 5000 - 400	2000	5000	0.4
EVO 1000 - 200		10000	0.2
EVO 1500 - 2000		1500	2
EVO 5000 - 600	3000	5000	0.6
EVO 10000 - 300		10000	0.3
EVO 20000 - 25	500	20,000	.025

Polarity: positive, negative or reversible