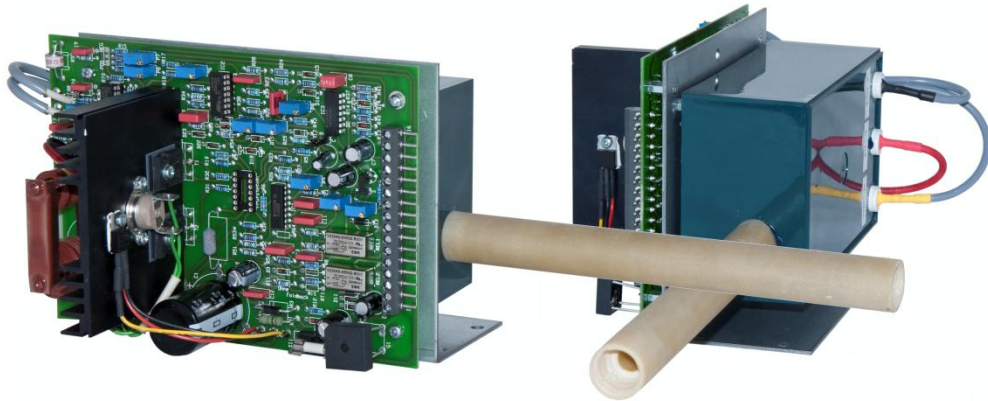
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	Regulated High Voltage Assembly Group	



Description:

- Regulated high voltage assembly group for OEM applications
- 100kV maximum output voltage with positive (**HBR-30-100k-500-(R0)**) or negative (**HBR-30-(-100k)-500-(R0)**) polarity
- 50W maximum output power
- The output voltage is adjustable between 0% and 100% of the rated output

Features:

- Assembly group consisting of high voltage cascade and control board mounted on a mounting bracket
- 30V AC input
- 20MΩ terminating resistance
- Constant voltage regulated
- Adjustable current-voltage characteristic

- Adjustable high voltage ramp-up time
- High voltage output 100% short-circuit proof to ground


Options:

- Reduction of the short-circuit current well below maximum current (Fold-Back-Mode)

Typical Applications:

- Wet paint coating
- Powder coating
- Flock coating
- Electrostatic charging and discharging
- Etc.

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Technical Specifications

Input and Output

Input:	30 VAC (-5 %, +5%) ungrounded 50 to 60 Hz 100VA max
Output:	0 to 100kV ($\pm 10\%$) adjustable by use of an external potentiometer Maximum output current: 500 μ A Constant voltage regulation Terminating resistance approx. 20M Ω Available with either positive or negative polarity with respect to mounting bracket ground.
Efficiency:	Typically 50% (at rated conditions: 100kV, 500 μ A).

Special Features

Adjustable Characteristic:	The slope of the current-voltage characteristic is adjustable
Adjustable high voltage ramp-up time:	Ramp-up time adjustable between 0.5 and 5 seconds
Integrated Voltage Supply (ca. 15VDC, max. 50mA)	Auxiliary voltage supply to turn high voltage on (HV-ON) and operate the RESET function

Environmental Data


Operating Temperature Range:	0 to +45°C (optional up to +50°C)
Storage Temperature Range:	-25 to +70°C
Humidity:	80% maximum relative humidity up to +31°C, reducing linearly to 50% at +45°C Non condensing (ref. EN61010-1)
Altitude:	0 to 2000m

Protection

- ❖ Overvoltage and overcurrent warning signal and shutdown; when the fault is removed the warning signal must be cleared by setting a „RESET“ signal
- ❖ Over-temperature shutdown in case of prolonged thermal overload; after approx. 5 minutes the high voltage assembly group is ready for operation again
- ❖ High voltage output 100% short-circuit proof to ground

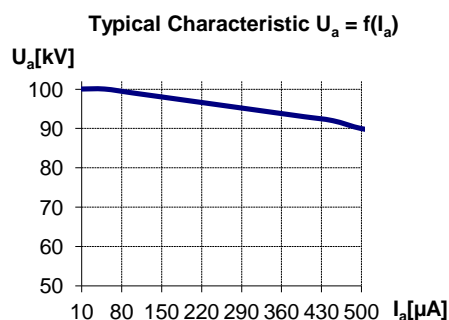
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Possible Pre-adjustments via Potentiometer on the Circuit Board

- ❖ Softness of the current voltage characteristic is adjustable (output voltage decreases with increasing output current)



- ❖ The maximum output current is adjustable between 200 and 500µA (this does not affect the over-current shutdown threshold)
- ❖ The maximum output voltage is adjustable between 70 and 100kV.
- ❖ The high voltage ramp-up time is adjustable between 0.5 and 5 seconds (the ramp-up time depends on the load).

Connections for ON/OFF, Voltage Demand, Displays and Signal Indicators

Enable and Set High Voltage

High Voltage OFF / ON:	0V / +12VDC (11..13VDC, ca. 10mA) active high e.g. operation via auxiliary voltage supply
RESET	0V / +12VDC (11..13VDC, ca. 0,5mA) active high e.g. operation via auxiliary voltage supply
Voltage Demand:	Adjustable via an external potentiometer; e.g., if a 2,2kOhm potentiometer is used, 0 to 2VDC demands 0 to 100kV

Voltage and Current Displays


Voltage:	Connection for external kV-display (1mA/ca. 200Ohm)
Current:	Connection for external µA-display (1mA/ca. 200Ohm)

Signal Indicators

High Voltage ON	Via relay contact against GND (30VAC, max. 1A)
Overvoltage and overcurrent warning:	Via potential-free relay contact (30V AC, max. 1A)

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Additional Information

EMC:	This high voltage assembly group is intended for installation as part of a system. In order to comply with the EMC regulations it is recommended to add a power line suppression filter.
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Mechanical Data

Housing:	Open Frame
Dimensions(approx):	Without cable bending radii and high voltage connection: ca. 132mm wide, 159mm high, 185mm deep; including cable bending radii and high voltage connection: ca. 132mm wide, 211mm high, 205mm deep + 190mm high voltage connection
Weight::	Approx. 2.4kg

Options

- ❖ Reduced short-circuit current (Fold-Back-Mode); factory adjustable

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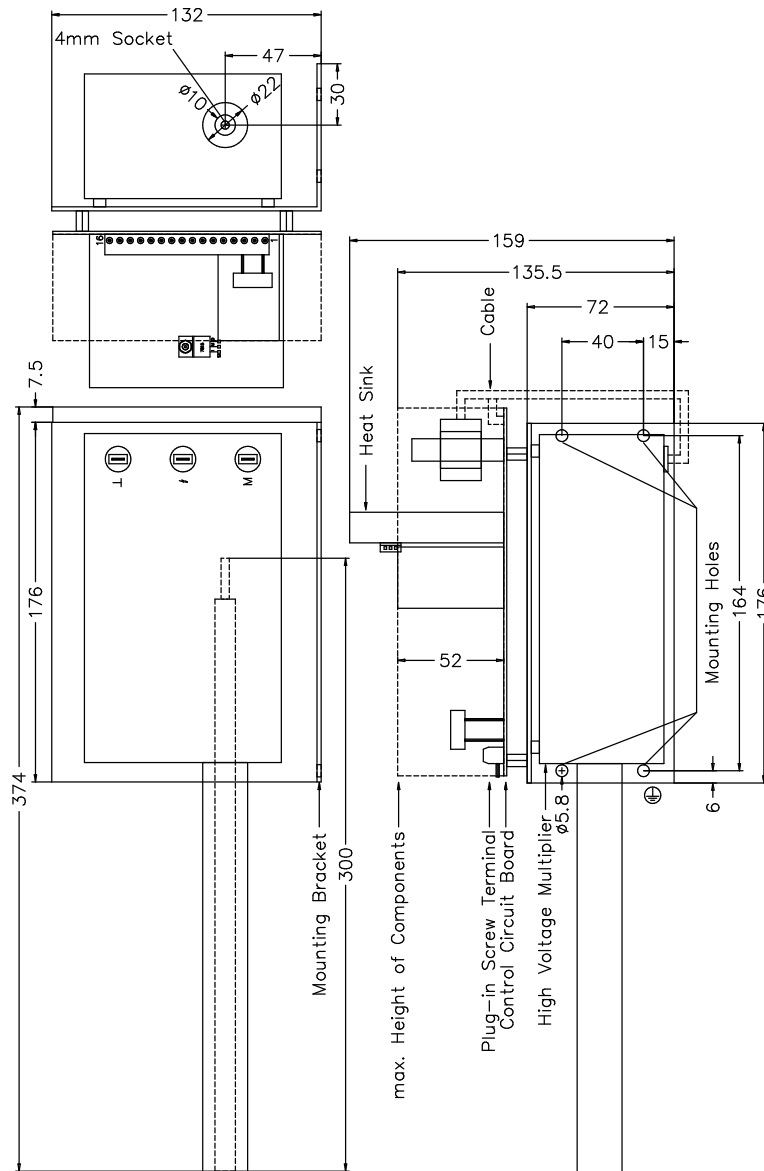
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Datasheet

Mechanical Drawing:



Dimensions: +/-1,0mm

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