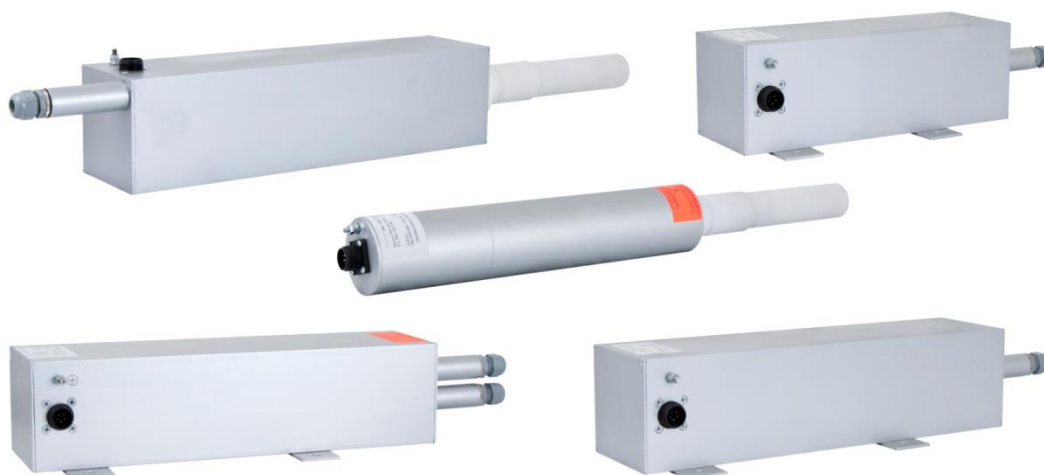
 REMO-HSE	HE-36 Series	Datasheet
	High Voltage Units	



Description:

- Fully encapsulated high voltage units with one or two high voltage outputs.
- Different maximum voltage ratings from 50kV to 150kV with positive or negative polarity.
- Maximum output power up to 120W.
- The high voltage units are operated by REMO-HSE control units HV-Control 140M or HV-Control 140C.

Features:

- 0 to 36 VDC operating voltage.
- Compact design.
- All high voltage units come with a completely closed aluminum housing.
- Protection class IP65
- All high voltage units permanently operate at maximum rated voltage even at maximum rated current.

- Integrated overvoltage and overcurrent protection circuits ensure that rated voltage and current values do not exceed by more than 10%.
- There is no high voltage in case of cable break of the supply line.

Options:


- Some units are available with a second high voltage output.
- Completely closed stainless steel housing (IP67)

Typical Applications:

- Surface treatment, for example oiling,
- Surface finishing with powder, wet paint or flocking
- Etc.

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Technical Specifications

Input and Output (Standard rated output values see model selection table)	
Input:	Operating voltage: 0 to 36 VDC (-10 %, +10%) Auxiliary voltage: ca. +15 VDC bis +18 VDC Operating current: max. 3,5A (100W), 4A (120W) Auxiliary current: max. 50mA
Output:	Continuous adjustment from 0% to 100% of the rated voltage or current via the control unit HV-Control 140M or HV-Control 140C. Available with either positive or negative polarity with respect to chassis ground.
Efficiency:	Better than 80% at rated values

Special Features	
Automatic Safety Shutdowns:	The unit features a voltage ramp-up protection as well as an overcurrent protection. If the output voltage exceeds ca. 110% of the rated voltage or the current in the high voltage circuit ca. 110% of the rated current, an automatic safety shutdown is activated. To restart the high voltage unit the operating voltage must be reduced to zero Volt for a few seconds.
Line Interruption Detection:	In case of interruption of the supply line (ground, operating voltage or auxiliary voltage) no voltage is applied at the high voltage output. An interruption of the sense lines detects the external control unit HV-Control 140M or HV-Control 140C which then shuts down.
Shielded Measuring Outputs:	Actual voltage: analogue 0 to 10 V for 0 to rated output voltage. (output resistor: 50 Ohm) Actual current: analogue 0 to 10 V for 0 to rated current (output resistor: 50 Ohm)
Undervoltage shutdown:	The operating voltage must be at least 3V.
High Voltage Connection:	Dry plug connection with 4mm socket (insertion depth depends on the rated voltage).

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Environmental Data

Operating Temperature Range:	0 to +45°C (type T80 up to +80°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

- ❖ Automatic over-voltage and over-current shutdown.
- ❖ In case of a cable break in the supply line no high voltage is applied to the output.
- ❖ High Voltage Output 100 % short-circuit proof against ground.

Connection to HV-Control 140M or HV-Control 140C

Pin	Designation	Function	Voltage
A	P-GND	Power Ground	0 V
B	V1	Operating voltage	0 to 36 VDC
C	V2	Auxiliary voltage	15 to 18 VDC
D	V _{FB}	Actual Voltage	0 to 10 VDC
E	C _{FB}	Actual Current	0 to 10 VDC

Mechanical Data


Housing:	Aluminum case
Dimensions(approx.):	See model selection table
Weight:	See model selection table
Classification:	IP 65









Options

- ❖ Some units are also available with a second high voltage output (fixed ratio as compared to first high voltage output e.g. 50% or 75%)
- ❖ Some units have an extended operating temperature range up to +80°C
- ❖ Completely closed stainless steel housing with protection class IP67
- ❖ Reduced insertion depth of the high voltage connection using high voltage grease

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Model Selection Table*):					
	Model designation for positive and negative Polarity	Rated Voltage (kV)	Rated Current (mA)	Dimensions LxBxH (mm)	Weight (kg)
Single Output					
	HE-36-50k-2m HE-36-(-50k)-2m	50	2	393x100x100	3,5
	HE-36-100k-1m HE-36-(-100k)-1m	100	1	494x100x100	5,6
	HE-36-120k-1m HE-36-(-120k)-1m	120	1	494x100x100	5,6
	HE-36-150k-750 HE-36-(-150k)-750	150	0,75	580x100x100	6,5
Two Outputs					
	HE-36-100/40k-1m HE-36-(-100/-40k)-1m	100/40	1	589x100x100	5,7
	HE-36-100/40k-1m HE-36-(-100/-40k)-1m (customized design)	100/40	1	724x100x100	5,7
	HE-36-120/110k-1m HE-36-(-120/-110k)-1m	120/110	1	494x100x100	5,7
Single Output, T80					
	HE-36-100k-500-T80 HE-36-(-100k)-500-T80	100	0,5	500, Ø 72	2,5

*) Further models are available on request.

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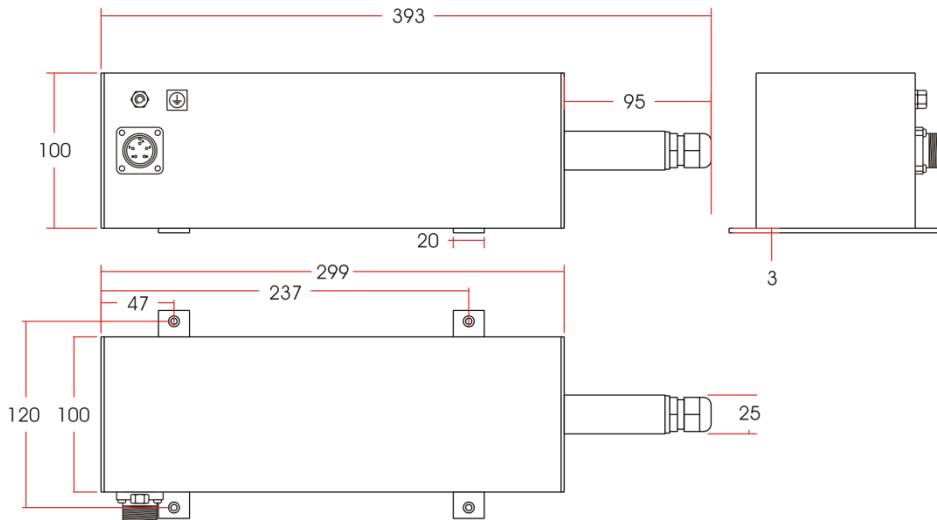
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HE-36 Series

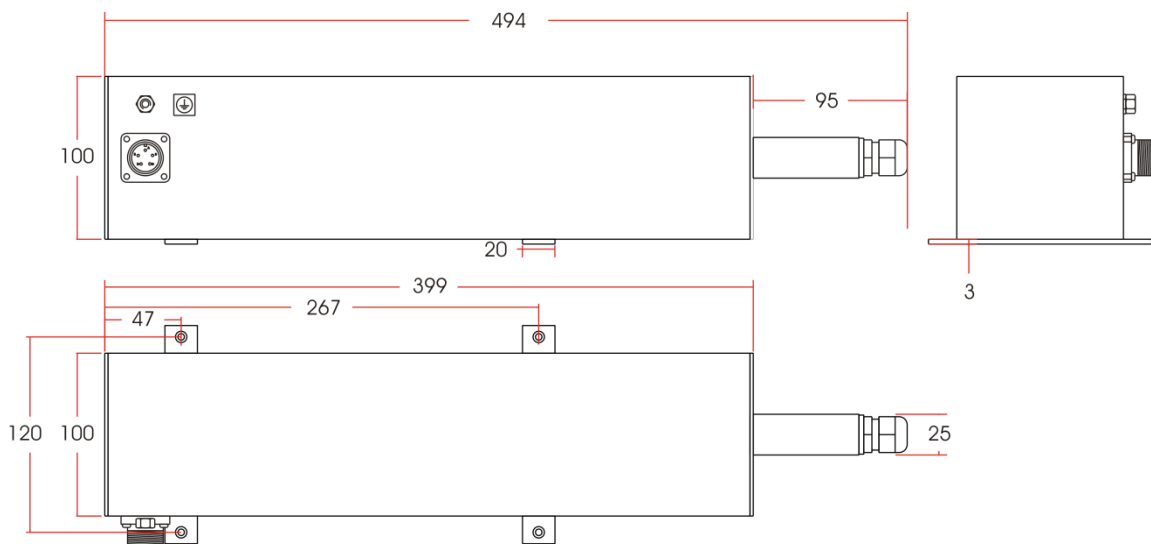
High Voltage Units

Datasheet

Mechanical Drawings: HE-36 Series with a single output



HE-36-50k-2m / HE-36-(-50k)-2m: Dimensions: +/- 1,0mm



HE-36-100k-1m / HE-36-(-100k)-1m / HE-36-120k-1m / HE-36-(-120k)-1m: Dimensions: +/- 1,0mm

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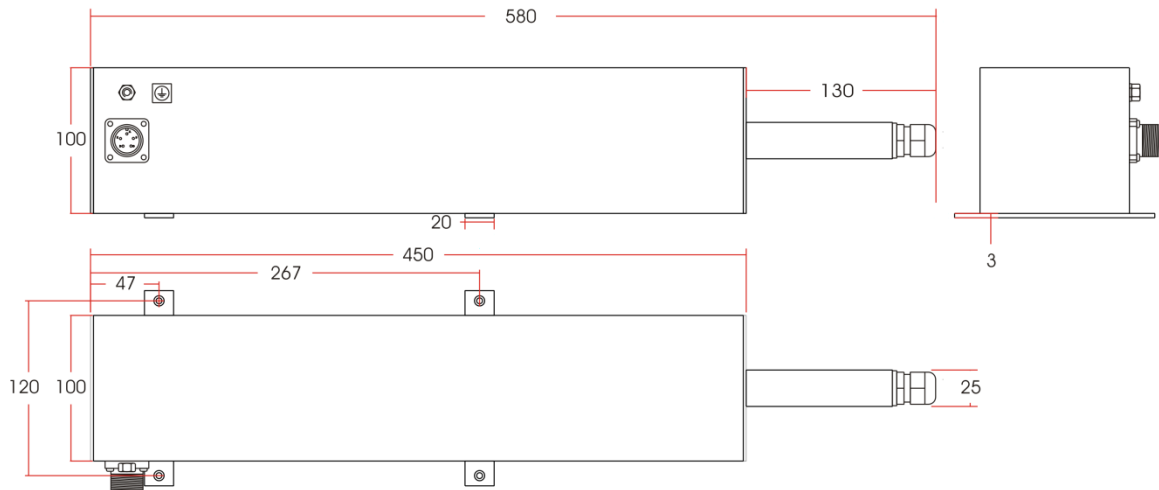
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HE-36 Series

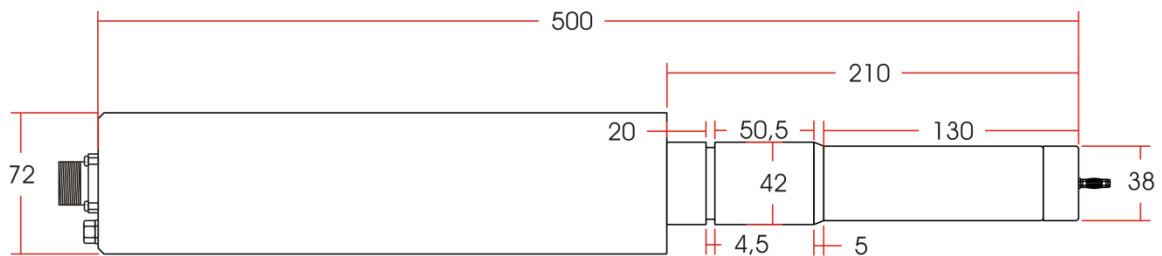
High Voltage Units

Datasheet

Mechanical Drawings: HE-36 Series with a single output



HE-36-150k-750 / HE-36-(-150k)-750: Dimensions: +/- 1,0mm



HE-36-100k-500-T80 / HE-36-(-100k)-500-T80: Dimensions: +/- 1,0mm



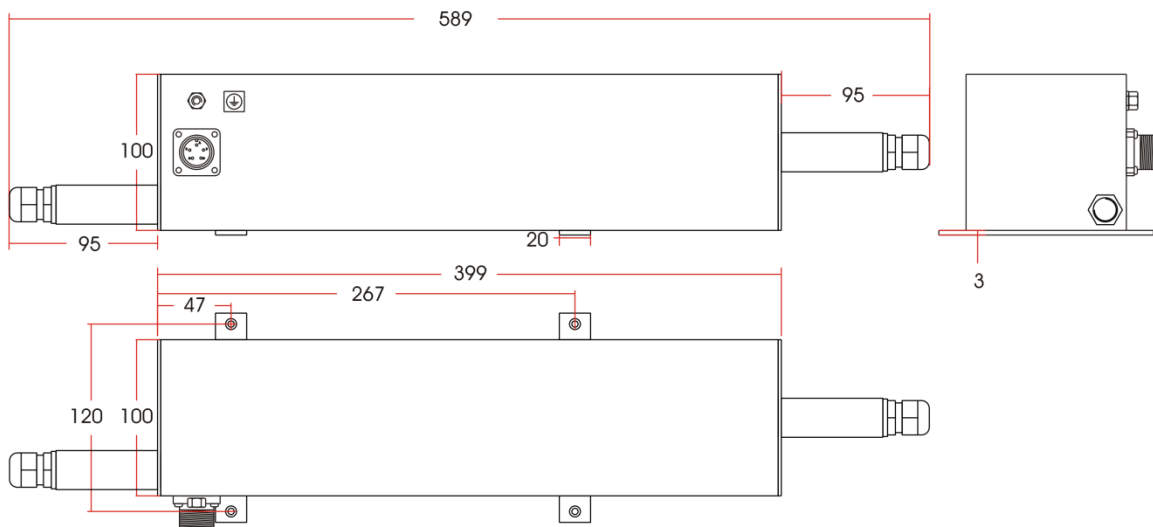
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HE-36 Series

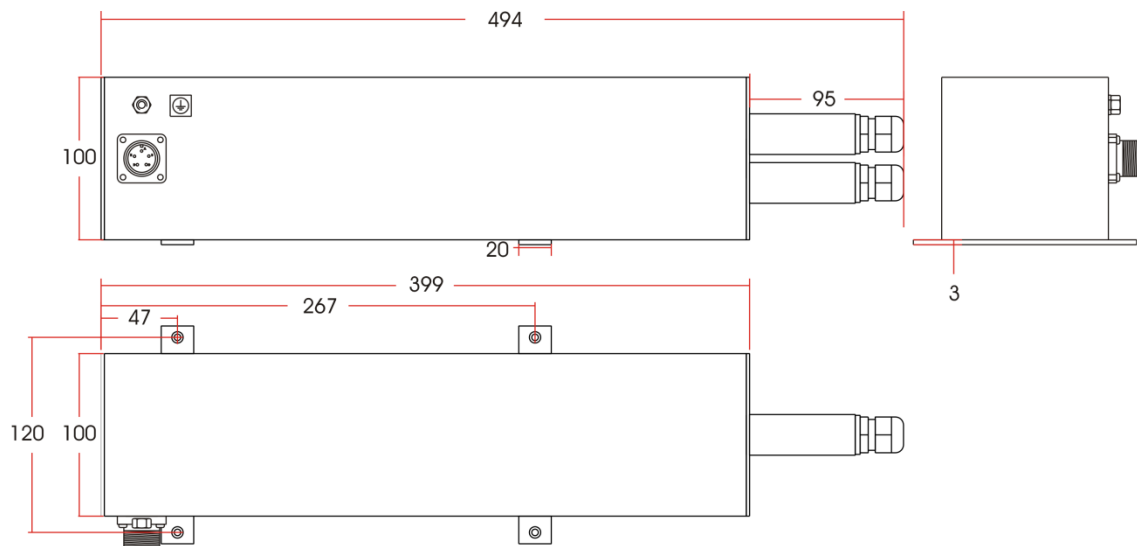
High Voltage Units

Datasheet

Mechanical Drawings: HE-36 Series with two outputs



HE-36-100/40k-1m / HE-36-(-100/-40k)-1m: Dimensions: +/- 1,0mm



HE-36-120/110k-1m / HE-36-(-120/-110k)-1m: Dimensions: +/- 1,0mm



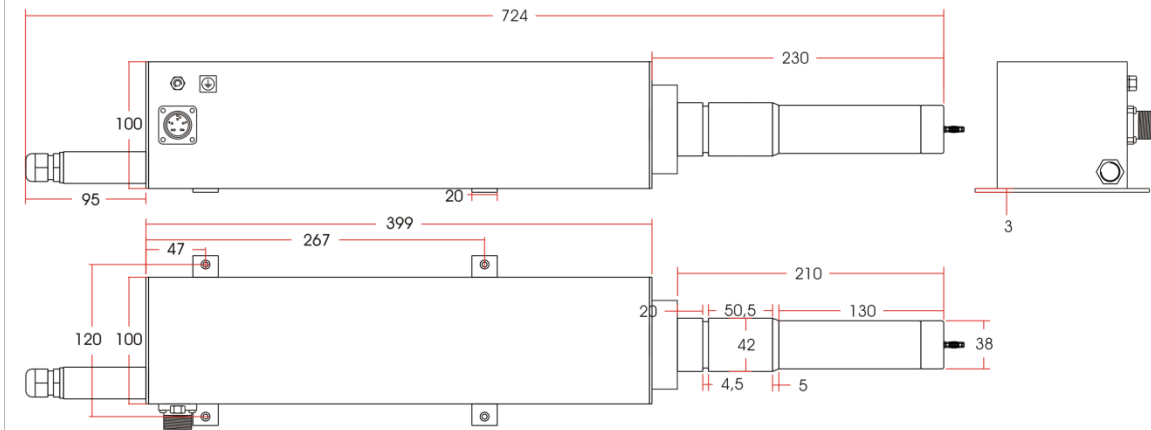
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HE-36 Series

High Voltage Units

Datasheet

Mechanical Drawings: HE-36 Series with two outputs



HE-36-100/40k-1m / HE-36-(-100/-40k)-1m customized design: Dimensions: +/- 1,0mm