hpower
high power actuators by piezosystem jena

ABOUT HPOWER

hpower actuators combine fastest response times in µs, superior kHz dynamics, high force generation in the range of tens of kN and nanometer precision in a way that is unmatched by any other linear driving system. The actuation can be obtained without any mechanical wear, making the actuators extremely durable. hpower products include ring and stack type actuators, as well as shakers, shock generators and high power amplifiers. hpower is the result of the collaboration between piezosystem jena and Piezomechanik GmbH and therefore combines centuries of piezo expertise with new innovations.

HPOWER AMPLIFIER RCV 1000/3

Switching amplifier with 3A output current

analog amplifier RCV 1000/3

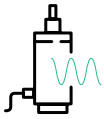
Concept

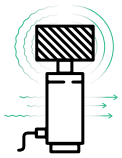
The switching amplifier **RCV 1000/3** is specially designed to be used with hpower actuators or other capacitive loads with at least 0.6 µF capacitance. With an output power of **3 kW** and its energy recovery principle, **RCV 1000/3** provides high performance for dynamic applications.

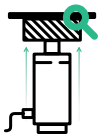
Product highlights

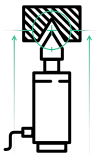
- high power for dynamic operations
- output current: 3 A
- output voltage: 0 ... 1000 V
- Noise ≤ 1 Vpp
- bandwidth: 2,000 Hz
- for actuators with 0.6 µF capacity and higher

Applications:


MODAL ANALYSIS


VIBRATION CONTROL


MATERIAL TESTING


MECHANICAL ENGINEERING

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Technical data of RCV 1000/3

	unit	RCV 1000/3
output		
voltage range	V	0 ... +1000
DC-offset range	V	0 ... +1000
gain	-	100
max. output current	A	3
signal noise	Vpp	≤ 1 (depends on the capacity of the load)
plug	-	D-SUB 5W1
input		
voltage range	V	0 ... +10
input resistance	kΩ	1
plug	-	BNC
monitor output		
voltage range	V	0 ... +10
plug	-	BNC
voltage supply		
mains voltage	V AC	230 ± 10% @ 50/60 Hz
power switch	-	trigger switch/front panel
fuse	-	2 micro fuses 5 × 20 anti-surge fuse means 6A integrated into main socket
LED's	-	HV: the high voltage output is activated IL: automated switching off of the voltage output because of overheat or overload shortage: automated switching off of the voltage output because of short circuit
dimensions (w × d × h)	mm / inch	380 ×450 ×150 / 15 ×18 × 6
weight	kg / lbs	12.1 / 26.7

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HPOWER AMPLIFIER RCV 1000/7

Switching amplifier with 7A output current

analog amplifier RCV 1000/7

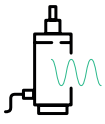
Concept

The switching amplifier **RCV 1000/7** is specially designed to be used with hpower actuators or other capacitive loads with at least 2 µF capacitance. With an output power of **7 kW** and its energy recovery principle, **RCV 1000/7** provides highest performance for dynamic applications.

Product highlights

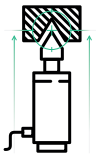
- highest power for dynamic operations
- for large actuators
- output current: 7A
- output voltage: 0 ... 1000 V
- bandwidth: 2,000 Hz
- for actuators with 2 µF capacity and higher

Applications:


MODAL ANALYSIS


VIBRATION CONTROL


MATERIAL TESTING


MECHANICAL ENGINEERING

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Technical data of RCV 1000/7

	unit	RCV 1000/7
output		
voltage range	V	0 ... +1000
DC-offset range	V	0 ... +1000
gain	-	100
max. output current	A	7
signal noise	Vpp	≤ 2 (depends on the capacity of the load)
plug	-	D-SUB 5W1
input		
voltage range	V	0 ... +10
input resistance	kΩ	10
plug	-	BNC
monitor output		
voltage range	V	0 ... +10
plug	-	BNC
voltage supply		
mains voltage	V AC	230 ± 10% @ 50/60 Hz
power switch	-	trigger switch / front panel
fuse	-	2 micro fuses 5 × 20 anti-surge fuse means 5A integrated into main socket
LED's	-	HV: the high voltage output is activated IL: automated switching off of the voltage output because of overheat or over load shortage: automated switching off of the voltage output because of short circuit
dimensions (w × d × h)	mm / inch	340 ×440 ×230 / 13.5 ×17.3
weight	kg / lbs	16.5 / 36.5

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HPOWER AMPLIFIER LE 1000/035

Analog power amplifier with 350mA output current

analog amplifier LE 1000/035

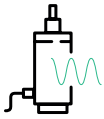
Concept

The power amplifier **LE 1000/035** is specially designed to be used with hpower actuators or other capacitive loads at high working frequencies. The power amplifier **LE 1000/035** has an idle bandwidth of 5000 Hz with an output current of 350 mA.

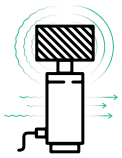
Product highlights

- high bandwidth amplifier combining high voltage and current for dynamic operations
- high power for small and midsize actuators
- output current: 350 mA
- output voltage: 0 ... 1000 V
- noise ≈ 200 mVpp
- bandwidth 5,000 Hz

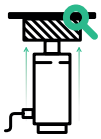
Applications:



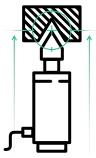
MODAL ANALYSIS



VIBRATION CONTROL



MATERIAL TESTING



MECHANICAL ENGINEERING

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Technical data of LE 1000/035

	unit	LE 1000/035
output		
voltage range	V	0 ... +1000
DC-offset range	V	0 ... +1000
gain	-	100
max. output current	mA	350
signal noise	mVpp	≈ 200 (depends on the capacity of the load)
plug	-	D-SUB 5W1
input		
voltage range	V	0 ... +10
plug	-	BNC
monitor output		
voltage range	V	0 ... +10
plug	-	BNC
voltage supply		
mains voltage	V AC	230 ± 10% @ 50/60 Hz
power switch	-	trigger switch/front panel
fuse	-	4 A, medium time-lag
LED's	-	HV: the high voltage output is activated IL: automated switching off of the voltage output because of overheat or overload
dimensions (w × d × h)	mm / ''	260 × 270 ×210 / 10.5 ×11 × 8.5
weight	kg / lbs	6.5 / 14.5