

High voltage cassette power supplies EURO-size

Series HCE from 125 V to 35 kV / 7 W to 350 W



Design examples

from left:

HCE 7 - 6500
6,5kV / 1 mA

HCE 7 - 20000
20kV / 0,3 mA

HCE 35 - 35000
35kV / 1 mA

HCE 350 - 2000
2kV / 150 mA

Features:

- Compact size
- Light-weight
- For units from 6.5kV nominal voltage on, all HV components are moulded in (removable) silicon
- Short circuit and flashover proof
- Unlimited operation with rated current in a short-circuit condition
- Unlimited operation with rated power
- Voltage regulation
- Adjustable current limit
- Control mode indicated by LEDs
- Screwdriver adjustment of voltage and current on the front panel
- Standard analogue programming plus HV ON/OFF input and monitor outputs
- Measuring terminals for voltage and current monitors on the front panel
- Suitable for use with capacitive loads
- Suitable for use with photomultipliers

Function:

In principle, the rectified line voltage drives a square wave generator of fixed frequency, whose AC voltage is transformed, rectified and filtered, producing the output voltage. For regulation, the square wave voltage is pulse width modulated.

Design:

- EURO-cassette design. Width depending on type.
- 19" frames are available as an option.

Output:

- Output isolation:
The polarity is positive or negative and has to be indicated with the order.
The "0V" - terminal of the output is connected to earth but may be disconnected as needed. When disconnected, the "0V" (earthy) terminal may float with respect to earth up to $\pm 125V$.
- Output terminals:
Outputs are located on the rear of the units.
For units up to 650V nominal voltage, the output is on 4 mm safety connectors.
From 1250V nominal voltage on, HV-connectors are provided. The mating HV-connectors are delivered with the unit.

Technical Data:

- Mains connection:
230V $\pm 10\%$ 47Hz to 63Hz
- Ambient temperature:
0°C to +40°C

The following data applies for voltage and current regulation, and refers to the rated value (unless otherwise stated): (For explanations please refer to Definitions and Terms on page 61.)

- Setting range:
from approx. 0,1% to 100%
- Setting resolution:
 $\pm 1 \times 10^{-4}$
- Residual ripple:
 $< 1 \times 10^{-4} \text{pp} + 50 \text{mVpp}$,
typ. $5 \times 10^{-5} \text{pp}$
- Recovery time:
 $< 1 \text{ms}$ for load changes from 10% to 100% or from 100% to 10%.
- Setting time at nominal load:
 $< 200 \text{ms}$ for changes of the output voltage from 10% to 90% or 90% to 10%
- Discharging time constant for output without load:
approx. 0,5sec. to 5sec., depending on type

- Deviation:
for $\pm 10\%$ mains voltage variation:
 $< \pm 1 \times 10^{-5}$
for no load / full load:
 $< 2 \times 10^{-4}$
over 8 h under constant conditions:
 $< \pm 1 \times 10^{-4}$
within the temperature range:
 $< \pm 1,5 \times 10^{-4} / K$

Voltage and current adjustment by screwdriver or via analogue programming.

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Rear side with mains connection, high voltage output and analogue programming as a standard

Type	Voltage	Current	Width	Height	Depth	Weight
HCE 7 - 125	● 0 - 125 V	0 - 50 mA	14 U / 71 mm	3 U / 133 mm	170 mm	1,2 kg
HCE 35 - 125	● 0 - 125 V	0 - 250 mA	21 U / 107 mm	3 U / 133 mm	170 mm	1,5 kg
HCE 140 - 125	● 0 - 125 V	0 - 1 A	21 U / 107 mm	6 U / 262 mm	230 mm	3,0 kg
HCE 350 - 125	● 0 - 125 V	0 - 2,5 A	21 U / 107 mm	6 U / 262 mm	230 mm	4,0 kg
HCE 7 - 200	● 0 - 200 V	0 - 30 mA	14 U / 71 mm	3 U / 133 mm	170 mm	1,2 kg
HCE 35 - 200	● 0 - 200 V	0 - 150 mA	21 U / 107 mm	3 U / 133 mm	170 mm	1,5 kg
HCE 140 - 200	● 0 - 200 V	0 - 600 mA	21 U / 107 mm	6 U / 262 mm	230 mm	3,0 kg
HCE 350 - 200	● 0 - 200 V	0 - 1,5 A	21 U / 107 mm	6 U / 262 mm	230 mm	4,0 kg
HCE 7 - 350	● 0 - 350 V	0 - 20 mA	14 U / 71 mm	3 U / 133 mm	170 mm	1,2 kg
HCE 35 - 350	● 0 - 350 V	0 - 100 mA	21 U / 107 mm	3 U / 133 mm	170 mm	1,5 kg
HCE 140 - 350	● 0 - 350 V	0 - 400 mA	21 U / 107 mm	6 U / 262 mm	230 mm	3,0 kg
HCE 350 - 350	● 0 - 350 V	0 - 1 A	21 U / 107 mm	6 U / 262 mm	230 mm	4,0 kg
HCE 7 - 650	● 0 - 650 V	0 - 10 mA	14 U / 71 mm	3 U / 133 mm	170 mm	1,2 kg
HCE 35 - 650	● 0 - 650 V	0 - 50 mA	21 U / 107 mm	3 U / 133 mm	170 mm	1,5 kg
HCE 140 - 650	● 0 - 650 V	0 - 200 mA	21 U / 107 mm	6 U / 262 mm	230 mm	3,0 kg
HCE 350 - 650	● 0 - 650 V	0 - 500 mA	21 U / 107 mm	6 U / 262 mm	230 mm	4,0 kg
HCE 7 - 1250	● 0 - 1250 V	0 - 5 mA	14 U / 71 mm	3 U / 133 mm	170 mm	1,2 kg
HCE 35 - 1250	● 0 - 1250 V	0 - 25 mA	21 U / 107 mm	3 U / 133 mm	170 mm	1,5 kg
HCE 140 - 1250	● 0 - 1250 V	0 - 100 mA	21 U / 107 mm	6 U / 262 mm	230 mm	3,0 kg
HCE 350 - 1250	● 0 - 1250 V	0 - 250 mA	21 U / 107 mm	6 U / 262 mm	230 mm	4,0 kg
HCE 7 - 2000	● 0 - 2000 V	0 - 3 mA	14 U / 71 mm	3 U / 133 mm	170 mm	1,2 kg
HCE 35 - 2000	● 0 - 2000 V	0 - 15 mA	21 U / 107 mm	3 U / 133 mm	170 mm	1,5 kg
HCE 140 - 2000	● 0 - 2000 V	0 - 60 mA	21 U / 107 mm	6 U / 262 mm	230 mm	3,0 kg
HCE 350 - 2000	● 0 - 2000 V	0 - 150 mA	21 U / 107 mm	6 U / 262 mm	230 mm	4,0 kg

● all cassette power supplies available from stock

For 1250V and higher, mating high voltage connectors are included in the scope of delivery. Mating high voltage cables you'll find beginning with page 59.

High voltage cassette power supplies EURO-size

Series HCE from 125 V to 35 kV / 7 W to 350 W



19"- frames are available as an accessory

Type	Voltage	Current	Width	Height	Depth	Weight
HCE 7 - 3500	● 0 - 3500 V	0 - 2 mA	14 U / 71 mm	3 U / 133 mm	170 mm	1,2 kg
HCE 35 - 3500	● 0 - 3500 V	0 - 10 mA	21 U / 107 mm	3 U / 133 mm	170 mm	1,5 kg
HCE 140 - 3500	● 0 - 3500 V	0 - 40 mA	21 U / 107 mm	6 U / 262 mm	230 mm	3,0 kg
HCE 350 - 3500	● 0 - 3500 V	0 - 100 mA	21 U / 107 mm	6 U / 262 mm	230 mm	4,0 kg
HCE 7 - 6500	● 0 - 6500 V	0 - 1 mA	14 U / 71 mm	3 U / 133 mm	170 mm	1,3 kg
HCE 35 - 6500	● 0 - 6500 V	0 - 5 mA	21 U / 107 mm	3 U / 133 mm	170 mm	1,5 kg
HCE 140 - 6500	● 0 - 6500 V	0 - 20 mA	21 U / 107 mm	6 U / 262 mm	230 mm	5,0 kg
HCE 350 - 6500	● 0 - 6500 V	0 - 50 mA	21 U / 107 mm	6 U / 262 mm	230 mm	6,0 kg
HCE 7 - 12500	● 0 - 12500 V	0 - 0,5 mA	14 U / 71 mm	3 U / 133 mm	170 mm	1,3 kg
HCE 35 - 12500	● 0 - 12500 V	0 - 2,5 mA	21 U / 107 mm	3 U / 133 mm	170 mm	1,8 kg
HCE 140 - 12500	● 0 - 12500 V	0 - 10 mA	28 U / 142 mm	6 U / 262 mm	230 mm	5,0 kg
HCE 350 - 12500	● 0 - 12500 V	0 - 25 mA	28 U / 142 mm	6 U / 262 mm	230 mm	6,0 kg
HCE 7 - 20000	● 0 - 20000 V	0 - 0,3 mA	21 U / 107 mm	3 U / 133 mm	170 mm	2,3 kg
HCE 35 - 20000	● 0 - 20000 V	0 - 1,5 mA	21 U / 107 mm	3 U / 133 mm	170 mm	2,5 kg
HCE 140 - 20000	● 0 - 20000 V	0 - 6 mA	28 U / 142 mm	6 U / 262 mm	230 mm	5,0 kg
HCE 350 - 20000	● 0 - 20000 V	0 - 15 mA	28 U / 142 mm	6 U / 262 mm	230 mm	6,0 kg
HCE 7 - 35000	● 0 - 35000 V	0 - 0,2 mA	28 U / 142 mm	3 U / 133 mm	170 mm	2,5 kg
HCE 35 - 35000	● 0 - 35000 V	0 - 1 mA	28 U / 142 mm	3 U / 133 mm	170 mm	2,8 kg
HCE 140 - 35000	● 0 - 35000 V	0 - 4 mA	28 U / 142 mm	6 U / 262 mm	230 mm	5,0 kg
HCE 350 - 35000	● 0 - 35000 V	0 - 10 mA	28 U / 142 mm	6 U / 262 mm	230 mm	6,0 kg

● all cassette power supplies available from stock

For 1250V and higher, mating high voltage connectors are included in the scope of delivery. Mating high voltage cables you'll find beginning with page 59.