

# ESS

## SINGLE CHANNEL 2 QUADRANT HV MODULE WITH FLOATING GROUND



SYSTEMS



- ▶ 1 channel, 10 / 20 / 30 kV and customized versions
- ▶ 2-quadrant capabilities, usable as unipolar current sink and source
- ▶ perfect for electron optical systems and capacitive loads
- ▶ low ripple and noise
- ▶ floating ground principle
- ▶ programmable parameters (delayed trip etc.)

The ESS module is a single channel high voltage power supply in MMS-system (Eurocard format) with 2-quadrant capabilities. It can be used as unipolar current sink and source, which perfectly covers requirements of electron optical systems or capacitive loads.

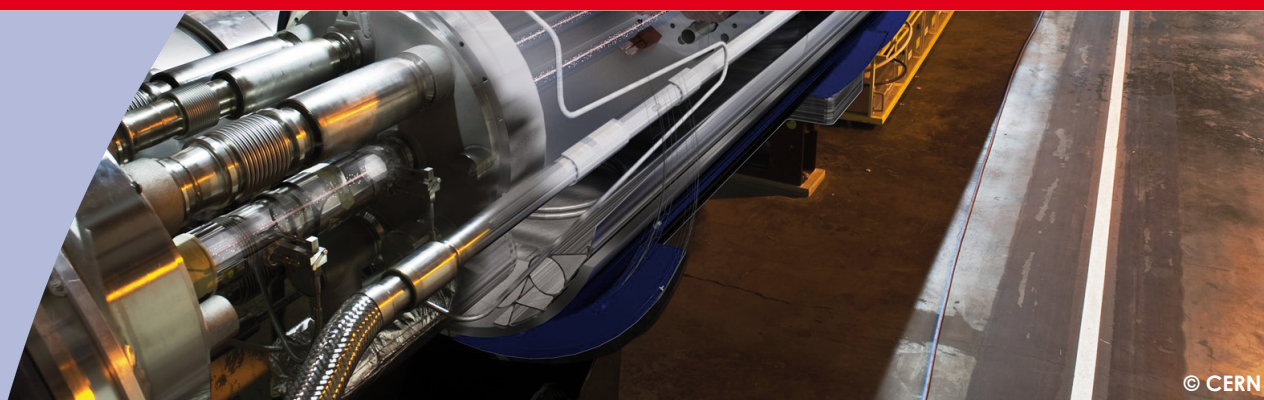
The ESS series is built in floating ground principle to reduce voltage noise level. The configuration of output voltage and current can be customized on request. The module is made of high precision components such as 24 bit ADC and 16 bit DAC and provides comprehensive security features.

**Cal Power**

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#### SPECIFICATIONS / SPEZIFIKATION

<b>Polarity</b>	factory fixed, positive or negative
<b>Ripple and noise</b>	$< 0.05 \% \cdot V_{nom}$
<b>Temperature coefficient</b>	$< 1 \cdot 10^{-4} / K$
<b>Resolution voltage setting</b>	$2 \cdot 10^{-5} \cdot V_{nom}$
<b>Resolution voltage measurement</b>	$1 \cdot 10^{-5} \cdot V_{nom}$
<b>Resolution current measurement</b>	$1 \cdot 10^{-5} \cdot I_{nom}$
<b>Accuracy voltage measurement *</b>	$\pm (0.01 \% \cdot V_{nom} + 0.5 \% \cdot V_{out})$
<b>Accuracy current measurement *</b>	$\pm (0.01 \% \cdot I_{nom} + 0.5 \% \cdot I_{out})$
<b>Rate of voltage change</b>	up to $0.4 \cdot V_{nom} / s$   opt. up to $0.75 \cdot V_{nom} / s$
<b>HV connector</b>	SHV   GES
<b>Case</b>	6U cassette, width 8 HP
<b>Protection</b>	Safety loop

\* All specifications guaranteed from  $1 \% \cdot V_{nom} < V_{out} < V_{nom}$

#### CONFIGURATIONS / KONFIGURATIONEN

	MODEL	CHANNELS	OUTPUT VOLTAGE	OUTPUT CURRENT	RIPPLE AND NOISE
NEW	ESS 10 100x	1	10 kV	$\pm 4mA$	$< 5 V_{p-p}$
NEW	ESS 10 200x	1	20 kV	$\pm 2mA$	$< 10 V_{p-p}$
NEW	ESS 10 300x	1	30 kV	$\pm 1mA$	$< 15 V_{p-p}$

#### ORDER & OPTIONS / BESTELLINFORMATIONEN

OPTION	ORDER INFO	EXAMPLE
<b>POLARITY</b>	positive: <b>x = p</b> , negative: <b>x = n</b>	ESS 10 100 <b>p</b>
<b>GES CONNECTOR</b>	<b>GES</b>	

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**iseg** is a manufacturer of very precise and stable High Voltage Power Supplies with focus on physics and industrial applications. The product portfolio includes AC/DC, DC/DC and modular High Voltage systems. The company was founded in 1995. Continuous growth and innovation strengthened the company's market position. **iseg** is well known for the development of outstanding custom specific solutions for various special applications.