

EHS HIGH PRECISION

VERSATILE HIGH PRECISION HV MODULES IN MULTIPLE FLOATING VERSIONS

- ▶ 4 / 8 / 16 channel, 100 V - 20 kV versions
- ▶ Extreme high stability, low temperature coefficient
- ▶ Very low ripple and noise
- ▶ Second current measurement range 20 μ A for high resolution
- ▶ Hardware voltage and current limits
- ▶ Voltage and current control per channel
- ▶ Programmable parameters (delayed trip etc.)



SPECIFICATIONS

	EHS HP CFG
Polarity	factory fixed, positive or negative
Potential difference	56 V channel/GND
Ripple and noise [f > 10 Hz]	< 3 - 10 mV optional with low output current -L: < 1 - 2 mV
Temperature coefficient	30 ppm/K 10 ppm/K (option TC)
Resolution voltage setting	$2 \cdot 10^{-6} \cdot V_{nom}$
Resolution current setting [$I_{out} > 20 \mu A$]	$2 \cdot 10^{-6} \cdot I_{nom}$
Resolution voltage measurement	$1 \cdot 10^{-6} \cdot V_{nom}$
Resolution current measurement [$I_{out} > 20 \mu A$]	$1 \cdot 10^{-6} \cdot I_{nom}$
Resolution current measurement [$I_{out} < 20 \mu A$]	50 pA
Accuracy* voltage measurement	$\pm (0.01 \% \cdot V_{out} + 0.01 \% \cdot V_{nom})$
Accuracy* current measurement [$I_{out} > 20 \mu A$]	$\pm (0.01 \% \cdot I_{out} + 0.02 \% \cdot I_{nom})$
Accuracy* current measurement [$I_{out} < 20 \mu A$]	$\pm (0.01 \% \cdot I_{out} + 4 nA)$
Voltage ramp up / down	up to $0.2 \cdot V_{nom} / s$ opt. up to $0.75 \cdot V_{nom} / s$
Protection	Safety loop, opt. INHIBIT per channel (D / IU, NID / NIU)
HV connector	R51 SHV
Case	6U cassette, width 8 HP

	EHS HP FG
Polarity	factory fixed, positive or negative
Potential difference	20 V channel/channel/GND, opt. up to 2 kV
Ripple and noise [f > 10 Hz]	< 3 - 10 mV optional with low output current -L: < 1 - 2 mV
Temperature coefficient	30 ppm/K 10 ppm/K (option TC)
Resolution voltage setting	$2 \cdot 10^{-6} \cdot V_{nom}$
Resolution current setting [$I_{out} > 20 \mu A$]	$2 \cdot 10^{-6} \cdot I_{nom}$
Resolution voltage measurement	$1 \cdot 10^{-6} \cdot V_{nom}$
Resolution current measurement [$I_{out} > 20 \mu A$]	$1 \cdot 10^{-6} \cdot I_{nom}$
Resolution current measurement [$I_{out} < 20 \mu A$]	50 pA
Accuracy* voltage measurement	$\pm (0.01 \% \cdot V_{out} + 0.01 \% \cdot V_{nom})$
Accuracy* current measurement [$I_{out} > 20 \mu A$]	$\pm (0.01 \% \cdot I_{out} + 0.02 \% \cdot I_{nom})$
Accuracy* current measurement [$I_{out} < 20 \mu A$]	$\pm (0.01 \% \cdot I_{out} + 4 nA)$
Voltage ramp up / down	up to $0.2 \cdot V_{nom} / s$ opt. up to $0.75 \cdot V_{nom} / s$
Protection	Safety loop, opt. INHIBIT per channel (D / IU, NID / NIU)
HV connector	R51 SHV
Case	6U cassette, width 8 HP

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

EHS HIGH PRECISION

VERSATILE HIGH PRECISION HV MODULE IN MULTIPLE FLOATING VERSIONS



The EHS High Precision modules are multichannel high voltage power supplies in MMS system (Eurocard format) with best stability, temperature coefficients and very low ripple and noise characteristics. With up to 16 channels each single channel has an independent voltage and current control. Compared to a standard module the High Precision EHS is equipped with a second current measurement range to precisely meter low currents. Switching of measurement ranges is done automatically. By offering different configurations and options this module perfectly covers various types of applications such as detector supply, experimental setup or lab use.

The EHS High Precision module is available in two floating versions, Common Floating Ground (CFG) and Floating Ground (FG).

CONFIGURATIONS

MODEL	CHANNELS	OUTPUT VOLTAGE	OUTPUT CURRENT	RIPPLE AND NOISE (10Hz-1kHz)	RIPPLE AND NOISE ON OPTION L
EHS 8y 01x	8	100 V	10 mA	3 mV	2 mV / CFG: 1 mV
EHS Fy 01x	16	100 V	10 mA	3 mV	2 mV / CFG: 1 mV
EHS 8y 05x	8	500 V	10 mA	5 mV	2 mV / CFG: 1 mV
EHS Fy 05x	16	500 V	10 mA	5 mV	2 mV / CFG: 1 mV
EHS 8y 10x	8	1 kV	8 mA	5 mV	2 mV / CFG: 1 mV
EHS Fy 10x	16	1 kV	8 mA	5 mV	2 mV / CFG: 1 mV
EHS 8y 20x	8	2 kV	4 mA	5 mV	2 mV / CFG: 1 mV
EHS Fy 20x	16	2 kV	4 mA	5 mV	2 mV / CFG: 1 mV
EHS 8y 30x	8	3 kV	3 mA	5 mV	2 mV / CFG: 1 mV
EHS Fy 30x	16	3 kV	3 mA	5 mV	2 mV / CFG: 1 mV
EHS 8y 40x	8	4 kV	2 mA	5 mV	2 mV / CFG: 1 mV
EHS Fy 40x	16	4 kV	2 mA	5 mV	2 mV / CFG: 1 mV
EHS 8y 60x	8	6 kV	1 mA	10 mV	2 mV / CFG: 1 mV
EHS Fy 60x	16	6 kV	1 mA	10 mV	2 mV / CFG: 1 mV
EHS 4y 80x	4	8 kV	1 mA	5 mV	2 mV / CFG: 1 mV
EHS 4y 100x	4	10 kV	0.7 mA	5 mV	2 mV / CFG: 1 mV
EHS 4y 150x	4	15 kV	0.5 mA	5 mV	2 mV / CFG: 1 mV
EHS 4y 200x	4	20 kV	0.4 mA	7 mV	2 mV / CFG: 1 mV

OPTIONS & ORDER INFO

OPTION	ORDER INFO	EXAMPLE
POLARITY	positive: x = p , negative: x = n	EHS 82 05p
FLOATING	common floating ground CFG: y = 2 floating ground FG: y = 4	EHS 82 05p EHS 84 05p F
LOWER TEMPERATURE COEFFICIENT	TC	
SINGLE CHANNEL INHIBIT - down	ID	
SINGLE CHANNEL INHIBIT - up	IU	
VOLTAGE CORRECTION by TEMPERATURE	VCT	
VERY LOW NOISE (only EHS CG Series)	VLN	
ACTIVE SAFETY LOOP	SLA	
INTERNALLY POWERED SAFETY LOOP	SLP	
LOWER OUTPUT CURRENT	L (lower nominal output current)	