

MMS

EHS STANDARD

VERSATILE HIGH VOLTAGE MODULE IN MULTIPLE FLOATING VERSIONS

- ▶ 4 / 8 / 16 / 32 channel, 100 V - 20 kV versions
- ▶ Low ripple and noise, very low noise option VLN
- ▶ Hardware voltage and current limits
- ▶ Voltage and current control per channel
- ▶ Programmable parameters (delayed trip etc.)



SPECIFICATIONS

	EHS CG	EHS CFG	EHS FG
Polarity	factory fixed, positive or negative	factory fixed, positive or negative	factory fixed, positive or negative
Potential difference	-	56 V channel/GND	20 V channel/channel/GND, opt. up to 2 kV
Ripple and noise [f > 10 Hz]	< 20 mV _{p-p} < 3-5 mV _{p-p} **	< 10 mV _{p-p}	< 10 mV _{p-p}
Temperature coefficient	50 ppm / K	50 ppm / K	50 ppm / K
Resolution voltage setting	$2 \cdot 10^{-6} \cdot V_{nom}$	$2 \cdot 10^{-5} \cdot V_{nom}$	$4 \cdot 10^{-5} \cdot V_{nom}$
Resolution current setting	$2 \cdot 10^{-6} \cdot I_{nom}$	$2 \cdot 10^{-5} \cdot I_{nom}$	$4 \cdot 10^{-5} \cdot I_{nom}$
Resolution voltage measurement	$2 \cdot 10^{-6} \cdot V_{nom}$	$2 \cdot 10^{-5} \cdot V_{nom}$	$4 \cdot 10^{-5} \cdot V_{nom}$
Resolution current measurement	$2 \cdot 10^{-6} \cdot I_{nom}$	$2 \cdot 10^{-5} \cdot I_{nom}$	$4 \cdot 10^{-5} \cdot I_{nom}$
Accuracy' voltage measurement	$\pm (0.01 \% \cdot V_{out} + 0.02 \% \cdot V_{nom})$	$\pm (0.01 \% \cdot V_{out} + 0.02 \% \cdot V_{nom})$	$\pm (0.01 \% \cdot V_{out} + 0.02 \% \cdot V_{nom})$
Accuracy' current measurement	$\pm (0.02 \% \cdot I_{out} + 0.02 \% \cdot I_{nom})$	$\pm (0.02 \% \cdot I_{out} + 0.02 \% \cdot I_{nom})$	$\pm (0.02 \% \cdot I_{out} + 0.02 \% \cdot I_{nom})$
Voltage ramp up / down	up to $0.2 \cdot V_{nom} / s$	up to $0.2 \cdot V_{nom} / s$ opt. up to $0.75 \cdot V_{nom} / s$	up to $0.2 \cdot V_{nom} / s$ opt. up to $0.75 \cdot V_{nom} / s$
Protection	Safety loop, opt. INHIBIT per channel (ID / IU)	Safety loop, opt. INHIBIT per channel (ID / IU)	Safety loop, opt. INHIBIT per channel (ID / IU)
HV connector	R51	R51 SHV	R51 SHV
Case	6U cassette, width 8 HP	6U cassette, width 8 HP	6U cassette, width 8 HP

¹⁾ All specifications guaranteed from $1\% \cdot V_{nom} < V_{out} < V_{nom}$ | ²⁾ With option VLN

OPTIONS & ORDER INFO

OPTION	ORDER INFO	EXAMPLE
POLARITY	positive: x = p , negative: x = n	EHS 80 05 p
FLOATING	common floating ground CFG: y = 0 , floating ground: y = 6	EHS 86 05 p F
VERY LOW NOISE (only EHS CG Series)	VLN	
SINGLE CHANNEL INHIBIT - down	ID	
SINGLE CHANNEL INHIBIT - up	IU	
VOLTAGE CORRECTION by TEMPERATURE	VCT	
ACTIVE SAFETY LOOP	SLA	
INTERNALLY POWERED SAFETY LOOP	SLP	
200 V ISOLATION FOR FLOATING GND	F02	
2,000 V ISOLATION FOR FLOATING GND	F20	

EHS STANDARD

VERSATILE HIGH VOLTAGE MODULE IN MULTIPLE FLOATING VERSIONS



EHS modules are multichannel high voltage power supplies in MMS system (Eurocard format). With up to 32 channels each single channel has an independent voltage and current control. The module is made of high-precision components such as 24 bit ADC and up to 20 bit DAC and provides comprehensive safety features.

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 standard module is available in three floating versions, Common Ground (CG), Common Floating Ground (CFG) and Floating Ground (FG).

CONFIGURATIONS

MODEL	CHANNELS	OUTPUT VOLTAGE	OUTPUT CURRENT	RIPPLE AND NOISE (10Hz-1kHz)
EHS COMMON GROUND				
EHS F1 01x	16	100 V	10 mA	10 mV
EHS 201 01x	32	100 V	80 mA	10 mV
EHS F1 05x	16	500 V	8 mA	10 mV
EHS 201 05x	32	500 V	8 mA	10 mV
EHS F1 10x	16	1 kV	4 mA	15 mV
EHS 201 10x	32	1 kV	4 mA	15 mV
EHS F1 20x	16	2 kV	2 mA	20 mV
EHS 201 20x	32	2 kV	2 mA	20 mV
EHS F1 30x	16	3 kV	1.3 mA	20 mV
EHS 201 30x	32	3 kV	1.3 mA	20 mV
EHS F1 40x	16	4 kV	1 mA	20 mV
EHS 201 40x	32	4 kV	1 mA	20 mV
EHS COMMON FLOATING GROUND / FLOATING GROUND				
EHS 8y 01x	8	100 V	10 mA	5 mV
EHS Fy 01x	16	100 V	10 mA	5 mV
EHS 8y 05x	8	500 V	15 mA	10 mV
EHS Fy 05x	16	500 V	15 mA	10 mV
EHS 8y 10x	8	1 kV	8 mA	10 mV
EHS Fy 10x	16	1 kV	8 mA	10 mV
EHS 8y 20x	8	2 kV	4 mA	10 mV
EHS Fy 20x	16	2 kV	4 mA	10 mV
EHS 8y 30x	8	3 kV	3 mA	10 mV
EHS Fy 30x	16	3 kV	3 mA	10 mV
EHS 8y 40x	8	4 kV	2 mA	10 mV
EHS Fy 40x	16	4 kV	2 mA	10 mV
EHS 8y 60x	8	6 kV	1 mA	10 mV
EHS Fy 60x	16	6 kV	1 mA	10 mV
EHS 4y 80x	4	8 kV	1 mA	10 mV
EHS 4y 100x	4	10 kV	0.7 mA	10 mV
EHS 4y 150x	4	15 kV	0.5 mA	10 mV
EHS 4y 200x	4	20 kV	0.4 mA	10 mV