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# EHS 8-F0

# 8 or 16 Channel HV Modules

## Description

This range of 8 or 16 channel common GND HV modules offer a compact (6U x 8HP) solution for HV systems. The modules are simple to setup with front panel mounted potentiometer to set the voltage limit and current trip point for all channels simultaneously. The units offer high resolution for both setting a measuring of the voltage and current. All channels can be fully controlled via the potential free CAN interfaces. The EDCP protocol includes flexible group & event handling (e.g. Time delayed trip processing). Protection includes safety loop & optional INHIBIT per channel. Up to 8 units can be fitted into either the ECH 228 or 238 19" crate (voltage between module GND & PE = 25V).



- Other voltage & current combinations on request
- Each channel controllable via interface
- 8 or 16 channels with common GND
- Low ripple & noise (<5mV<sub>p-p</sub> upto 4kV)
- Very compact (6U x 8HP)

## Selection Table

Part Number	Output Voltage	Output Current	Number of Channels
EHS 80-05x-156	0 - 500V	0 - 15mA	8 Channels
EHS F0-05x-106	0 - 500V	0 - 10mA	16 Channels
EHS 80-10x-805	0 - 1kV	0 - 8mA	8 Channels
EHS F0-10x-605	0 - 1kV	0 - 6mA	16 Channels
EHS 80-20x-405	0 - 2kV	0 - 4mA	8 Channels
EHS F0-20x-305	0 - 2kV	0 - 3mA	16 Channels
EHS 80-30x-305	0 - 3kV	0 - 3mA	8 Channels
EHS F0-30x-205	0 - 3kV	0 - 2mA	16 Channels
EHS 80-40x-205	0 - 4kV	0 - 2mA	8 Channels
EHS F0-40x-155	0 - 4kV	0 - 1.5mA	16 Channels
EHS 80-60x-105	0 - 6kV	0 - 1mA	8 Channels
EHS 80-xx	On Request	On Request	8 Channels
EHS F0-xx	On Request	On Request	16 Channels

Replace x in part number with P for positive or N for negative output polarity

Different output ranges and application/user specific options are possible. Please contact ET to discuss your requirements.



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# 8 or 16 Channel HV Modules

## Technical Data

Ripple & noise.....	< 5mV <sub>pp</sub> (6kV: < 50mV <sub>pp</sub> )
Hardware limits (current).....	Potentiometer per module
Hardware limits (voltage).....	(I <sub>TRIP</sub> /V <sub>MAX</sub> is the same for all channels)
INHIBIT.....	Per channel (TTL Low)
Interface.....	CAN interface (potential free)
Voltage & current setting resolution.....	10 <sup>-6</sup> x V <sub>NOM</sub> resp. I <sub>NOM</sub>
Voltage & current measurement resolution.....	(10 <sup>-5</sup> to 10 <sup>-6</sup> ) x V <sub>NOM</sub> resp. I <sub>NOM</sub> noise free, dependant on integration time
Hardware current trip resolution.....	10 <sup>-6</sup> x I <sub>NOM</sub>
Accuracy of voltage measurement.....	± (0.01% x V <sub>O</sub> + 0.02% x V <sub>NOM</sub> ) for one year
Accuracy of current measurement.....	± (0.01% x I <sub>O</sub> + 0.02% x I <sub>NOM</sub> ) for one year
Rate of voltage change.....	Up to 0.2 (option up to 0.75) x V <sub>NOM</sub> /s
Safety loop (2 pole Lemo connector).....	5mA < I <sub>S</sub> < 20mA: module "on"      I <sub>S</sub> < 0.5mA: module "off"
Power requirements.....	+24V (< 3.5A/6A) and +5V (<200/400mA)
HV connector.....	51 pin Redel HV connector (option SHV connectors)
Mechanical construction.....	8/16 channels in 6U x 8HP cassette (40.3mm)

## Options Table

Code	Description
/SHV.....	SHV connectors in place of Redel connector
/ECH 228.....	Unit placed in 8 slot mainframe (see below for details)
/ECH 238.....	Unit placed in 8 slot mainframe (see below for details)

## 19" Mainframes

Type	Slots	Power	Dimensions (H x W x D)
ECH 228	8	700W	6U - ½ 19" - 450mm
ECH 238	8	700W	6U - 19" - 450mm



ECH 228



Mpod