



Unit 111, Dunston Innovation Centre
 Chesterfield, S41 8NG, U.K.
 T e l : + 44 (0) 1246 452909
 F a x : + 44 (0) 1246 452942
 W e b : w w w . e t p s . c o . u k
 E m a i l : s a l e s @ e t p s . c o . u k
 S a l e s : 0 8 0 0 6 1 2 9 5 7 5

EHS 8-F6 8 or 16 Channel Floating GND HV Modules

Description

This range of 8 or 16 channel floating ground (potential difference $20V_{ch-ch}$ & channel-CGND) HV modules offer a compact (6U x 8HP) solution for HV systems. The modules are simple to setup with front panel mounted potentiometers to set the voltage limit and current trip point for all channels, simultaneously. The units offer high resolution for both setting and measuring the voltage and current. All channels can be fully controlled via the potential free CAN interface which includes flexible group & event handling (e.g. Time delayed trip processing). Protection includes safety loop And optional INHIBIT/channel. Up to 8 units can be fitted into either the ECH 228 or 238 19" crate.



- Measurements & setting values in floating point single precision
- Other voltage & current combinations on request
- Each channel controllable via interface
- 8 or 16 channels with floating GND
- Low ripple & noise ($10mV_{p-p}$ up to 4kV)

Selection Table

Part Number	Output Voltage	Output Current	Number of Channels
EHS 86-05x-156-F	0 - 500V	0 - 15mA	8 Channels
EHS F6-05x-106-F	0 - 500V	0 - 10mA	16 Channels
EHS 86-10x-805-F	0 - 1kV	0 - 8mA	8 Channels
EHS F6-10x-605-F	0 - 1kV	0 - 6mA	16 Channels
EHS 86-20x-405-F	0 - 2kV	0 - 4mA	8 Channels
EHS F6-20x-305-F	0 - 2kV	0 - 3mA	16 Channels
EHS 86-30x-305-F	0 - 3kV	0 - 3mA	8 Channels
EHS F6-30x-205-F	0 - 3kV	0 - 2mA	16 Channels
EHS 86-40x-205-F	0 - 4kV	0 - 2mA	8 Channels
EHS F6-40x-155-F	0 - 4kV	0 - 1.5mA	16 Channels
EHS 86-60x-105-F	0 - 6kV	0 - 1mA	8 Channels
EHS 86-xx	On Request	On Request	8 Channels
EHS F6-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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Technical Data

Potential difference.....	20V channel to channel, 20V channel to C-GND (option up to 2kV channel to channel and to C-GND)
Ripple & noise.....	< 10mV _{pp} (6kV: < 50mV _{pp})
Hardware limits (current).....	Potentiometer per module
Hardware limits (voltage).....	(I _{MAX} /V _{MAX} is the same for all channels)
INHIBIT.....	Per channel (TTL Low)
Interface.....	CAN interface (potential free)
Voltage & current setting resolution.....	2 x 10 ⁻⁵ x V _{NOM} resp. I _{NOM}
Voltage & current measurement resolution.....	(10 ⁻⁵ to 10 ⁻⁶) x V _{NOM} resp. I _{NOM} noise free, dependant on integration time
Accuracy of voltage measurement.....	± (0.02% x V _o + 0.01% x V _{NOM}) for one year
Accuracy of current measurement.....	± (0.01% x I _o + 0.01% x I _{NOM}) for one year
Rate of voltage change.....	Up to 0.2 (option up to 0.75) x V _{NOM} /s
Safety loop (2 pole Lemo connector).....	5mA < I _s < 20mA: module "on" I _s < 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