

EHS F 20 16 or 32 Channel Common GND HV Modules

Description

This range of 16 or 32 channel common GND 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 & monitoring the V and I. All channels can be fully controlled via the potential free CAN interface. The EDCP protocol includes flexible group and event handling (e.g. For time delayed processing). Protection includes a safety loop and modules with integrated discharge relays to provide a fast ramp down of the voltage at the load. Up to 8 units can be fitted into either the ECH 228 or 238 19" crate (voltage between module GND & PE = 25V).



- Measurement & setting values in floating points single precision
- Hardware current trip and voltage limit per module
- Other voltage & current combinations on request
- Each channel controllable via interface
- 16 or 32 channels with common GND
- Low ripple & noise ($< 10\text{mV}_{\text{p-p}}$)
- Very compact (6U x 8HP)

Selection Table

| Part Number | Output Voltage | Output Current | Number of Channels |
|------------------|----------------|--|--------------------|
| EHS F 005x-105 | 0 - 500V | 0 - 1mA | 16 Channels |
| EHS F4 005x-105 | 0 - 500V | 0 - 1mA (with discharge relay) | 16 Channels |
| EHS 20 005x-105 | 0 - 500V | 0 - 1mA | 32 Channels |
| EHS 204 005x-105 | 0 - 500V | 0 - 1mA (with discharge relay) | 32 Channels |
| EHS F 030x-504 | 0 - 3kV | 0 - 500 μ A | 16 Channels |
| EHS F4 030x-504 | 0 - 3kV | 0 - 500 μ A (with discharge relay) | 16 Channels |
| EHS 20 030x-504 | 0 - 3kV | 0 - 500 μ A | 32 Channels |
| EHS 204 030x-504 | 0 - 3kV | 0 - 500 μ A (with discharge relay) | 32 Channels |
| EHS F 0xx | On Request | On Request | 16 Channels |
| EHS 20 0xx | On Request | On Request | 32 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.



sales@etps.co.uk
0800 612 95 75

EHS F 20 16 or 32 Channel Common GND HV Modules

Technical Data

| | |
|---|--|
| Ripple & noise..... | < 10mV _{p-p} |
| Output current trip..... | Potentiometer per module (I_{trip} is the same for all channels) |
| Output voltage limit..... | Potentiometer per module (V_{max} is the same for all channels) |
| INHIBIT..... | Per channel (TTL Low) |
| Interface..... | CAN interface (potential free) |
| Voltage & current setting resolution..... | $10^{-5} \times V_{NOM}$ resp. I_{NOM} |
| Voltage & current measurement resolution..... | $(10^{-5} \text{ to } 10^{-6}) \times V_{NOM}$ resp. I_{NOM} noise free, dependant on integration time |
| Accuracy of voltage measurement..... | $\pm (0.01\% \times V_O + 0.02\% \times V_{NOM})$ for one year |
| Accuracy of current measurement..... | $\pm (0.1\% \times I_O + 0.4\% \times I_{NOM})$ for one year |
| Rate of voltage change..... | Up to 0.2 (option up to 0.75) $\times V_{NOM}/s$ |
| Safety loop (2 pole Lemo connector)..... | 5mA < I_s < 20mA: module "on" I_s < 0.5mA: module "off" |
| Power requirements..... | +24V (< 1A/2A) and +5V (<200/400mA) |
| HV connector..... | 51 pin Redel HV connector (option 16 SHV connectors for EHS Fxxx only) |
| Mechanical construction..... | 16/32 channels in 6U = 8HP cassette (40.3mm) |

Options Table

| Code | Description |
|---------------|--|
| /ECH 228..... | Unit placed in 8 slot mainframe (see below for more information) |
| /ECH 238..... | Unit placed in 8 slot mainframe (see below for more information) |

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