

High Voltage PS in 3U Cassette

Serie EHQ



OVERVIEW

- Compact HV Power Supply in 3U cassette, 160 mm depth
- LCD display for voltage or current
- Switchable polarity
- Voltage and current limits via 10 % step switches
- Output over load and short circuit protected
- To be integrated into 3U Crate
- Remote control via RS232- (opt. CAN-) Interface or analogue voltages
- Modified versions (e.g. other voltages / currents) on request

TECHNICAL DATAS - STANDARD EHQ

Interface	RS232	102M	103M	104M	105M
	CAN	132M	133M	134M	135M
	analog				
Output voltage	$V_{O\ max}$	2 kV	3 kV	4 kV	5 kV
Output current	$I_{O\ max}$	6 mA	4 mA	3 mA	2 mA
Ripple and noise	max.	2 mV _{p-p}			5 mV _{p-p}
Resolution of voltage measurement		1 V			
Resolution of current measurement	Range	IO max 1 μ A	opt.: IOmax = 100 μ A 100 nA		
Accuracy (for one year)	Voltage	$\pm (0.05\% V_O + 0.02\% V_{O\ max} + 1\ \text{digit})$			
	Current	$\pm (0.05\% I_O + 0.02\% \text{ of range} + 1\ \text{digit})$			
Stability (load to no load)	$\Delta V_O / \Delta V_{IN}$	$< 5 * 10^{-5} * V_{O\ max}$			
	ΔV_O	$< 5 * 10^{-5} * V_{O\ max}$			
Temperature coeff.		$< 5 * 10^{-5} * K$			
LCD display		4-digit plus polarity, switchable: voltage or current			
Voltage setting		selected by switch CONTROL – manual: 10-turn potentiometer – DAC: via Interface EHQ LOW COST: analogue I/O voltages			
Ramp speed at	HV -ON/OFF via Interface	Hardware ramp 500 V/s Software ramp 2 - 255 V/s			
Schutzrichtungen		- separate current and voltage limit (hardware, rotary switch in 10%-steps) - INHIBIT (ext. signal, TTL level, Low=active) - programmable current trip (not for EHQ LOW COST)			
Protection	V_{IN}	DC: $\pm 24\ V$ (< 500 mA) AC: 230 V-AC (opt. 88 bis 264 V) with crate ECH104/108			

TECHNICAL DATAS - LOW COST EHQ

Interface	RS232 CAN analog	112M	113M	114M	115M
Output voltage	$V_{O\ max}$	2 kV	3 kV	4 kV	5 kV
Output current	$I_{O\ max}$	6 mA	4 mA	3 mA	2 mA
Ripple and noise	max.	50 mV _{p,p}			
Resolution of voltage measurement		1 V			
Resolution of current measurement	Range	IO max 1 μ A	opt.: IOmax = 100 μ A 100 nA		
Accuracy (for one year)	Voltage	$\pm (0.01\% V_0 + 1\ \text{digit})$			
	Current	$\pm (0.01\% I_0 + 1\ \text{digit})$			
Stability (load to no load)	$\Delta V_0 / \Delta V_{IN}$	$< 1 * 10^{-4} * V_{O\ max}$			
	ΔV_0	$< 2 * 10^{-4} * V_{O\ max}$			
Temperature coeff.		$< 1 * 10^{-4} * K$			
LCD display		4-digit plus polarity, switchable: voltage or current			
Voltage setting		selected by switch CONTROL			
		– manual: 10-turn potentiometer			
		– DAC: via Interface			
		EHQ LOW COST: analogue I/O voltages			
Ramp speed at HV -ON/OFF via Interface		Hardware ramp 500 V/s			
		Software ramp 2 - 255 V/s			
Schutzeinrichtungen		- separate current and voltage limit (hardware, rotary switch in 10%-steps)			
		- INHIBIT (ext. signal, TTL level, Low=active)			
		- programmable current trip (not for EHQ LOW COST)			
Protection	V_{IN}	DC: $\pm 24\ V (< 500\ mA)$			
		AC: 230 V-AC (opt. 88 bis 264 V) with crate ECH104/108			