

VHQ

HIGH PRECISION DUAL CHANNEL HIGH VOLTAGE MODULE IN VME

Cal Power

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VME

VLN

L

CG

- ▶ 2 channels, 2/3/4/5 kV and customized versions
- ▶ LCD for voltage and current display
- ▶ switchable polarity
- ▶ very low ripple and noise
- ▶ front panel control with precise 10-turn potentiometers
- ▶ hardware voltage and current limits with 10% step
- ▶ VMEbus compliant
- ▶ programmable parameters (current trip, ramp speed,..)

The established VHQ dual channel HV module is cased in compact VME standard. VHQ series HV supplies are front panel controllable with a precise 10-turn potentiometer per channel for voltage setting and a common LCD for display of voltage or current. For remote control the VHQ is fully compliant with VMEbus. The voltage ramp is hardware fixed and can be changed in remote operation. The high voltage output is short circuit and overload protected, an INHIBIT input over external digital signal switches the HV off.



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SPECIFICATIONS / SPEZIFIKATION

	VHQ STANDARD	VHQ HIGH PRECISION
Polarity		switchable
Ripple and noise		< 2 - 5 mV _{p,p}
Temperature coefficient	< 5 • 10 ⁻⁵ / K	< 3 • 10 ⁻⁵ / K
Resolution voltage measurement - display		1 V
Resolution voltage measurement - remote	1V	100 mV / opt. 10mV [V _{nom} ≤ 4 kV]
Resolution current measurement - display		1µA
with options	L: 100 nA [I _{out} < 100 µA]	2MA: 10 nA [I _{out} < 65 µA]
with options		2MA0n1: 1 nA [I _{out} < 6.5 µA]
Resolution current measurement - remote	1µA	100 nA
with options	L: 100 nA [I _{out} < 100 µA]	2MA: 1 nA [I _{out} < 65 µA]
with options		2MA0n1: 100 pA [I _{out} < 6.5 µA]
Accuracy voltage measurement *	± (0.05 % • V _{out} + 0.02 % • V _{nom} + 1 digit)	
Accuracy current measurement *	± (0.05 % • I _{out} + 0.02 % • I _{nom} + 1 digit)	
Stability	< 5 • 10 ⁻⁵ • V _{nom}	
Rate of voltage change - hardware	500 V / s	
Rate of voltage change - software	2 - 255 V / s	
HV connector	SHV	
Case	VME cassette, width 2 HP	
Protection	INHIBIT, short circuit, overload, hardware V/I limits (10%steps)	
*All specifications guaranteed from 1% • V _{nom} < V _{out} < V _{nom}		

ORDER & OPTIONS / BESTELLINFORMATIONEN

OPTION	ORDER INFO	EXAMPLE
STANDARD	standard: y = 0	VHQ 202M
HIGH PRECISION	high precision: y = 2	VHQ 222M
LOWER OUTPUT CURRENT *	L (lower output current)	
2nd CURRENT MEAS. RANGE	2MA **	
2nd CURRENT MEAS. RANGE HIGH RESOLUTION	2MA0n1 **	
HIGH CURRENT	HCU	
*Standard only **High Precision only		

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CONFIGURATIONS / KONFIGURATIONEN

MODEL	OUTPUT VOLTAGE	OUTPUT CURRENT	RIPPLE AND NOISE
VHQ 2y2M	2 kV	3 mA	2 mV _{p,p}
VHQ 2y3M	3 kV	2 mA	2 mV _{p,p}
VHQ 2y4M	4 kV	1 mA	2 mV _{p,p}
VHQ 2y5M	5 kV	1 mA	5 mV _{p,p}
VHQ 2y2M HCU	2 kV	6 mA	2 mV _{p,p}
VHQ 2y3M HCU	3 kV	4 mA	2 mV _{p,p}
VHQ 2y4M HCU	4 kV	3 mA	2 mV _{p,p}
VHQ 2y5M HCU	5 kV	2 mA	5 mV _{p,p}



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iseg is a manufacturer of very precise and stable High Voltage Power Supplies with focus on physics and industrial applications. The product portfolio includes AC/ DC, DC/DC and modular High Voltage systems. The company was founded in 1995. Continuous growth and innovation strengthened the company's market position. iseg is well known for the development of outstanding custom specific solutions for various special applications.