HAMEG®
Instruments

Programmable 3/4 Channel High-Performance Power Supply HMP4030/HMP4040

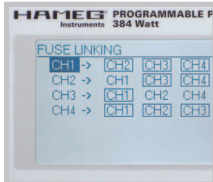**NEW**

HMP4040

Made in Germany

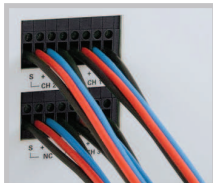**USB** | **RS-232** | optional **TCP/IP** | optional **IEEE-488** | inclusive
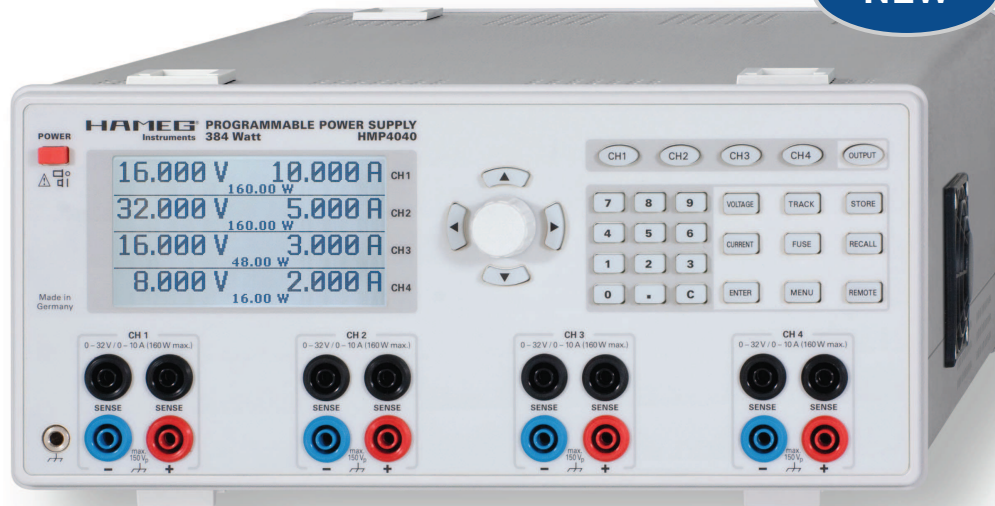
3 channel derivative HMP4030

Individual linking of single channels using FuseLink

Rear outputs for simple integration in rack systems

☑ HMP4030: 3 x 0...32V/0...10A, 384W max.

☑ HMP4040: 4x 0...32V/0...10A, 384W max.

☑ 384W output power realized by intelligent power management

☑ Low residual ripple: ‹150µV_{rms} due to linear post regulators

☑ High setting- and read-back resolution of 1mV/0.2mA

☑ Keypad for direct parameter entry

☑ Galvanically isolated, earth-free and short circuit protected output channels

☑ Advanced parallel- and serial operation via V/I tracking

☑ EasyArb function for free definable V/I characteristics

☑ FuseLink: individual channel combination of electronic fuses

☑ Free adjustable overvoltage protection (OVP) for all outputs

☑ All parameters clearly displayed via LCD/glowing buttons

☑ Rear connectors for all channels including sense

☑ USB/RS-232 Interface, optional Ethernet/USB or IEEE-488

Programmable 3 Channel High Performance Power Supply HMP4030
Programmable 4 Channel High Performance Power Supply HMP4040

All data valid at 23°C after 30 minute warm-up

Outputs

Advanced parallel and series operation: simultaneously switch on/off of active channels via 'Output' button, common voltage- and current control using tracking mode (individual channel linking), individual mapping of channels which shall be affected by FuseLink overcurrent protection (switch-off), all channels galvanically isolated and independant from protective earth

HMP4030	3 x 0...32V/0...10A
HMP4040	4 x 0...32V/0...10A
Output terminals:	4mm safety sockets frontside Screw-type terminal rear side (4 units per channel)
Output power:	384W max.
Compensation of lead resistances (Sense):	1V
Overvoltage/overcurrent protection (OVP/OCP):	Adjustable for each channel
Electronic fuse:	Adjustable for each channel, combinable via FuseLink
Response time:	‹10ms

32V channels

Output values:		
HMP4030	3 x 0...32V/0...10A, (5A at 32V, 160W max.)	
HMP4040	4 x 0...32V/0...10A, (5A at 32V, 160W max.)	
Resolution:		
Voltage	1mV	
Current	‹1A: 0.2mA; ≥1A: 1mA	
Setting accuracy:		
Voltage	‹0.05%+5mV (typ. ±2mV)	
Current	‹0.1%+5mA (typ. ±1mA at I ‹500mA)	
Measurement accuracy:		
Voltage	‹0.05%+2mV	
Current	‹500mA: ‹0.05%+0.5mA, typ. ±0.5mA	
Current	≥500mA: ‹0.05%+2mA, typ. ±2mA	
Residual ripple	3Hz...100kHz:	3Hz...20MHz:
Voltage	‹150µV$_{rms}$	1,5mV$_{rms}$ typ.
Current	‹1mA$_{rms}$	
Stabilisation at load change (10...90%):		
Voltage	‹0.01%+2mV	
Current	‹0.01%+250µA	
Stabilisation at line voltage variation (±10%):		
Voltage	‹0.01%+2mV	
Current	‹0.01%+250µA	
Entire load regulation: (at 10...90% load peak, balance time to match within 10mV V$_{nom.}$)	‹100µs	

Arbitrary Function easyARB (32V and 5V channels)

Parameters of points:	Voltage, current, time
Number of points:	128
Dwell time:	10ms ...60s
Repetition rate:	Continuously or burst mode with 1...255 repetitions
Trigger:	Manually via keyboard or via Interface

Maximum ratings

Reverse voltage:	33V max.
Reverse polarized voltage:	0.4V max.
Max. permitted current in case of reverse voltage:	5A max.
Voltage to earth:	150V max.

Miscellaneous

Temperature coefficient/°C:	
Voltage	0.01%+2mV
Current	0.02%+3mA
Display:	240 x 128 Pixel LCD (full grafical)
Memory:	Non volatile memory for 3 Arbitrary function and 10 device settings
Interface:	Dual-Interface USB/RS-232 (HO720)
Process time:	‹50ms
Protection class:	Safety class I (EN61010-1)
Power supply:	115...230V ±10%; 50/60Hz, CAT II
Mains fuse:	Microfuse 5 x 20mm slow blow 115V: 2 x 10A 230V: 2 x 5A
Power consumption:	550VA max.
Operating temperature:	+5...+40°C
Storage temperature:	-20...+70°C
Rel. humidity:	5...80% (non condensing)
Dimensions (W x H x D):	285 x 125 x 365mm
Weight:	approx. 10kg

Accessories supplied: Line cord, Operating manual, Dual-Interface USB/RS-232 (HO720), CD

Optional accessories:

HO730	Dual-Interface Ethernet/USB
HO740	Interface IEEE-488 (GPIB), galvanically isolated
HZ10S	5 x silicone test lead (measurement connection in black)
HZ10R	5 x silicone test lead (measurement connection in red)
HZ10B	5 x silicone test lead (measurement connection in blue)
HZ13	Interface cable (USB) 1,8m
HZ14	Interface cable (serial) 1:1
HZ43	3RU 19'' Rackmount Kit
HZ72	GPIB-Cable 2m

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