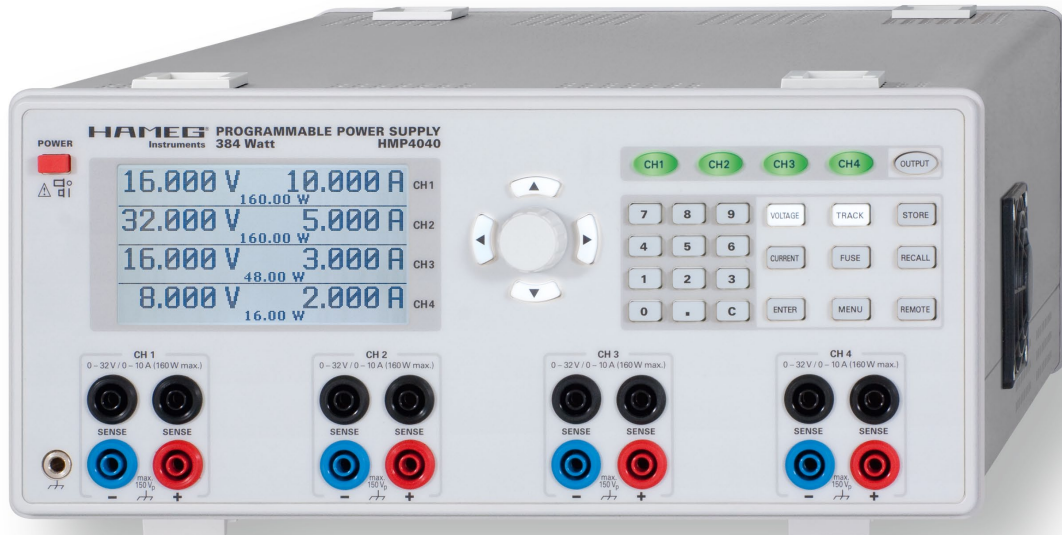


## Programmable 3[4] Channel High-Performance Power Supply HMP4030 [HMP4040]



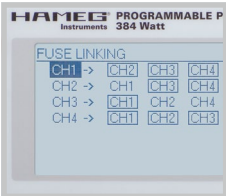
HMP4040



3 Channel Version  
HMP4030



Individual Linking of single  
Channels using FuseLink



Rear Outputs for simple  
Integration in Rack Systems



- ✓ 3 x 0...32V/0...10A 384W max.  
[4 x 0...32V/0...10A 384W max.]
- ✓ 384 W Output Power realized by intelligent Power Management
- ✓ Low Residual Ripple: <math><150\mu\text{V}\_{\text{rms}}</math> due to linear Post Regulators
- ✓ High Setting- and Read-Back Resolution of 1mV up to 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/Illuminated Buttons
- ✓ Rear Connectors for all Channels including Sense
- ✓ USB/RS-232 Interface, optional Ethernet/USB or IEEE-488 (GPIB)

**Programmable 3 Channel High Performance Power Supply HMP4030**  
**[Programmable 4 Channel High Performance Power Supply HMP4040]**  
 All data valid at 23 °C after 30 minutes warm-up.

**Outputs**

Advanced parallel and series operation: simultaneous switching 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 from each other and the protective earth.

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

**32V channels**

<b>Output values:</b>	
HMP4030	3 x 0...32V/0...10A, (5A at 32V, 160W max.)
HMP4040	4 x 0...32V/0...10A, (5A at 32V, 160W max.)
<b>Resolution:</b>	
Voltage	1 mV
Current	<1 A: 0.2 mA; ≥1 A: 1 mA
<b>Setting accuracy:</b>	
Voltage	<0.05 % + 5 mV (typ. ±2 mV)
Current	<0.1 % + 5 mA (typ. ±1 mA at I <500 mA)
<b>Measurement accuracy:</b>	
Voltage	<0.05 % + 2 mV
Current	<500 mA: <0.05 % + 1 mA, typ. ±0.5 mA
Current	≥500 mA: <0.05 % + 2 mA, typ. ±2 mA
<b>Residual ripple</b>	
Voltage	3 Hz...100 kHz 3 Hz...20 MHz
Current	<150 μV <sub>rms</sub> 1.5 mV <sub>rms</sub> typ.
<b>Residual deviation after a load change (10...90 %):</b>	
Voltage	<0.01 % + 2 mV
Current	<0.01 % + 250 μA
<b>Residual deviation after a line voltage change (±10 %):</b>	
Voltage	<0.01 % + 2 mV
Current	<0.01 % + 250 μA
<b>Recovery time after a load step from 10...90% for return within a ±10 mV window:</b>	
	<100 μs

**Arbitrary Function EasyArb**

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

**Maximum ratings**

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

**Miscellaneous**

<b>Temperature coefficient/°C:</b>	
Voltage	0.01 % + 2 mV
Current	0.02 % + 3 mA
<b>Display:</b>	240 x 128 Pixel LCD (full graphical)
<b>Memory:</b>	Non volatile memory for 3 Arbitrary functions and 10 device settings
<b>Interface:</b>	Dual-Interface USB/RS-232 (H0720)
<b>Processing time:</b>	<50 ms
<b>Protection class:</b>	Safety class I (EN61010-1)
<b>Power supply:</b>	115/230 V±10 %; 50...60 Hz, CAT II
<b>Mains fuses:</b>	5 x 20 mm slow blow 115V: 2 x 10 A 230V: 2 x 5 A
<b>Power consumption:</b>	550 VA max.
<b>Operating temperature:</b>	+5...+40 °C
<b>Storage temperature:</b>	-20...+70 °C
<b>Rel. humidity:</b>	5...80 % (non condensing)
<b>Dimensions (W x H x D):</b>	285 x 125 x 365 mm
<b>Weight:</b>	approx. 10 kg

**Accessories supplied:** Line cord, Operating manual, CD, Software

**Recommended accessories:**

H0730	Dual-Interface Ethernet/USB
H0740	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) 1.8 m
HZ14	Interface cable (serial) 1:1
HZ43	19" Rackmount Kit 3RU
HZ72	GPIB-Cable 2 m
HZP91	19" Rackmount Kit 4RU