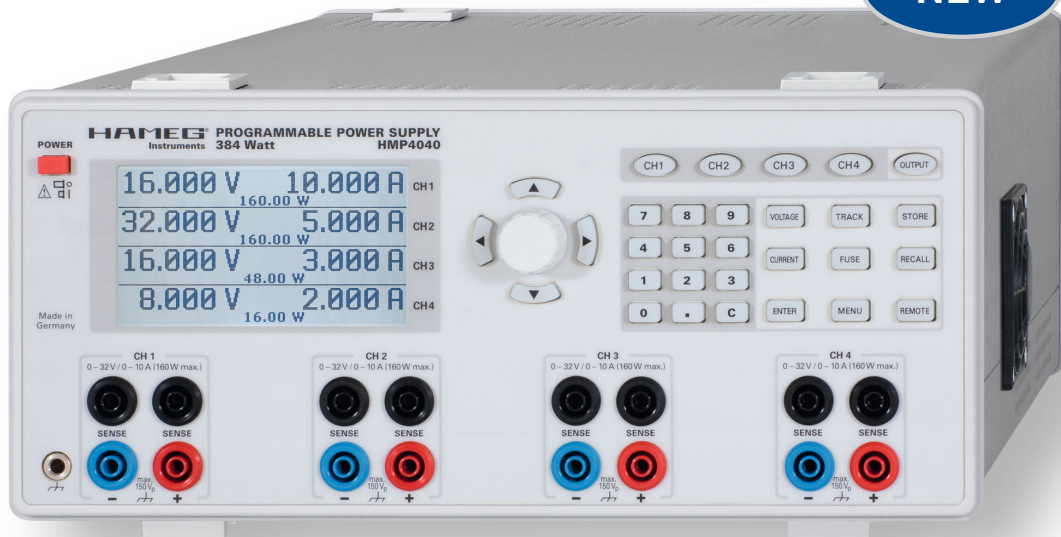


Programmable 3/4 Channel High-Performance Power Supply HMP4030/HMP4040

NEW



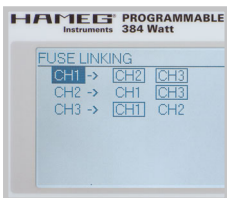
HMP4040



3 channel derivative
HMP4030



Individual linking of single
channels using FuseLink



Ethernet/USB-interface
H0730 for industrial use
(Option)



- ✓ HMP4030: 3x0...32V/0...10A, 384W max.
- ✓ HMP4040: 4x0...32V/0...10A, 384W max.
- ✓ 384W 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/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 3 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) |
|-------------------|--|

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|---------------|-----------|
| Output power: | 384W max. |
|---------------|-----------|

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|---|----|
| 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): | |
| Voltage | < 150µV _{rms} |
| 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 U _{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 graphical) |
| Memory: | Non volatile memory for 3 Arbitrary functions and 10 device settings |
| Interface: | Dual-Interface USB/RS-232 (H0720) |
| 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°C...+40°C |
| Storage temperature: | -20°C...+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 (H0720), CD

Optional 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) |
| HZ43 | 3RU 19" Rackmount Kit |

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