

# 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:  $< 150 \mu\text{V}_{\text{rms}}$  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 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
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Overvoltage / overcurrent protection (OVP/OCP):	Adjustable for each channel
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Electronic fuse:	Adjustable for each channel, combinable via FuseLink
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Response time:	< 10ms
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### 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 <sub>rms</sub>
Current	< 1mA <sub>rms</sub>

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 <sub>nom</sub> .)	< 100µs
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### 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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