

# Programmable 2[3] Channel High-Performance Power Supply HMP2020 [HMP2030]



HMP2030

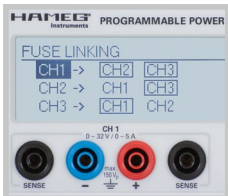


2 Channel Version  
HMP2020



- ✓ 1 x 0...32V/0...10A    1 x 0...32V/0...5A    188W max.  
[3 x 0...32V/0...5A    188W max.]
- ✓ 188W 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 0.1mA
- ✓ 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 (GPIB)

Individual Linking of single  
Channels using FuseLink



Rear Outputs  
for simple Integration  
in Rack Systems



**Programmable 2 Channel High Performance Power Supply HMP200**  
**[Programmable 3 Channel High Performance Power Supply HMP2030]**  
 All data valid at 23 °C after 30 minutes 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.

HMP2020	1 x 0...32V/0...10A	1 x 32V/0...5A
HMP2030	3 x 0...32V/0...5A	
Output terminals:	4 mm safety sockets frontside, Screw-type terminal rear side (4 units per channel)	
Output power:	188W 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:	<10 ms	

**32V channels**

<b>Output values:</b>		
HMP2020	1 x 0...32V/0...10A, (5A at 32V, 160W max.) 1 x 0...32V/0...5A, (2,5A bei 32V, 80W max.)	
HMP2030	3 x 0...32V/0...5A, (2,5A at 32V, 80W max.)	
<b>Resolution:</b>		
Voltage	1 mV	
Current HMP2030	<1 A: 0.1 mA; ≥1 A: 1 mA	
Current HMP2020	<1 A: 0.2 mA; ≥1 A: 1 mA, (10A Channel, CH1) <1 A: 0,2 mA; ≥1 A: 1 mA, (5A Channel, CH2)	
<b>Setting accuracy:</b>		
Voltage	<0.05 % + 5 mV (typ. ±2 mV)	
Current HMP2030	<0.1 % + 5 mA (typ. ±0.5 mA at I <500 mA)	
Current HMP2020	<0.1 % + 5 mA (typ. ±1 mA at I <500 mA), (10A Channel, CH1)	
Current HMP2020	<0.1 % + 5 mA (typ. ±0,5 mA at I <500 mA), (5A Channel, CH2)	
<b>Measurement accuracy:</b>		
Voltage	<0.05 % + 2 mV	
Current HMP2030	<500 mA: <0.05 % + 0.5 mA, typ. ±0.2 mA	
Current HMP2030	≥500 mA: <0.05 % + 2 mA, typ. ±1 mA	
Current HMP2020	<500 mA: <0,05 % + 0,5 mA, typ. ±0,5 mA, (10A Channel, CH1)	
Current HMP2020	<500 mA: <0,05 % + 0,5 mA, typ. ±0,2 mA, (5A Channel, CH2)	
Current HMP2020	≥500 mA: <0,05 % + 2 mA, typ. ±2 mA, (10A Channel, CH1)	
Current HMP2020	≥500 mA: <0,05 % + 2 mA, typ. ±1 mA, (5A Channel, CH1)	
<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>Stabilisation at load change (10...90 %):</b>		
Voltage	<0.01 % + 2 mV	
Current	<0.01 % + 250 μA	
<b>Stabilisation at line voltage variation (±10 %):</b>		
Voltage	<0.01 % + 2 mV	
Current	<0.01 % + 250 μA	
<b>Entire load regulation:</b> (at 10...90 % load peak, balance time to match within 10 mV V <sub>nom</sub> )		
	<100 μs	

**Arbitrary Function EasyArb**

Parameters of points:	Voltage, current, time
Number of points:	128
Dwell time:	10 ms...60 s
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. permittted current in case of reverse voltage:	5A max.
Voltage to earth:	150V max.

**Miscellaneous**

<b>Temperature coefficient/°C:</b>	
Voltage	0.01 % + 2 mV
Current	0.02 % + 3 mA
Display:	240 x 64 Pixel LCD (full graphical)
Memory:	Non volatile memory for 3 Arbitrary function and 10 device settings
Interface:	Dual-Interface USB/RS-232 (H0720)
Process time:	<50 ms
Protection class:	Safety class I (EN61010-1)
Power supply:	115...230V±10%; 50/60 Hz, CAT II
Mains fuse:	Microfuse 5 x 20 mm slow blow 115V: 2 x 6 A 230V: 2 x 3.15 A
Power consumption:	350 VA 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 75 x 365 mm
Weight:	8,5 kg

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

**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
HZ42	2RU 19" Rackmount Kit
HZ72	GPIB-Cable 2 m