

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

HMP2030



2 Channel Version
HMP2020



Individual Linking of single Channels using FuseLink



Rear Outputs
for simple Integration
in Rack Systems



- 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: <150µV_{rms} 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)

Programmable 2 Channel High Performance Power Supply HMP2020
[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 independent 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:	<10ms	

32V channels

Output values:	
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.]
Resolution:	
Voltage	1mV
Current HMP2030	<1A: 0,1mA; ≥1A: 1mA
Current HMP2020	<1A: 0,2mA; ≥1A: 1mA, (10A Channel, CH1) <1A: 0,2mA; ≥1A: 1mA, (5A Channel, CH2)
Setting accuracy:	
Voltage	<0,05% + 5mV (typ. ±2mV)
Current HMP2030	<0,1% + 5mA (typ. ±0,5mA at I <500mA)
Current HMP2020	<0,1% + 5mA (typ. ±1mA at I <500mA), (10A Channel, CH1)
Current HMP2020	<0,1% + 5mA (typ. ±0,5mA at I <500mA), (5A Channel, CH2)
Measurement accuracy:	
Voltage	<0,05% + 2mV
Current HMP2030	<500mA: <0,05% + 0,5mA, typ. ±0,2mA ≥500mA: <0,05% + 2mA, typ. ±1mA
Current HMP2020	<500mA: <0,05% + 0,5mA, typ. ±0,5mA, (10A Channel, CH1)
Current HMP2020	<500mA: <0,05% + 0,5mA, typ. ±0,2mA, (5A Channel, CH2)
Current HMP2020	≥500mA: <0,05% + 2mA, typ. ±2mA, (10A Channel, CH1)
Current HMP2020	≥500mA: <0,05% + 2mA, typ. ±1mA, (5A Channel, CH1)
Residual ripple	3Hz...100kHz 3Hz...20MHz
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 V _{nom})	<100µs

Arbitrary Function EasyArb

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 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:	<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 6A 230V: 2 x 3,15A
Power consumption:	350VA 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:	8,5kg

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) 1.8m
HZ14	Interface cable (serial) 1:1
HZ42	2RU 19" Rackmount Kit
HZ72	GPIB-Cable 2m