

Test Equipment Solutions Datasheet

Test Equipment Solutions Ltd specialise in the second user sale, rental and distribution of quality test & measurement (T&M) equipment. We stock all major equipment types such as spectrum analyzers, signal generators, oscilloscopes, power meters, logic analysers etc from all the major suppliers such as Agilent, Tektronix, Anritsu and Rohde & Schwarz.

We are focused at the professional end of the marketplace, primarily working with customers for whom high performance, quality and service are key, whilst realising the cost savings that second user equipment offers. As such, we fully test & refurbish equipment in our in-house, traceable Lab. Items are supplied with manuals, accessories and typically a full no-quibble 2 year warranty. Our staff have extensive backgrounds in T&M, totalling over 150 years of combined experience, which enables us to deliver industry-leading service and support. We endeavour to be customer focused in every way right down to the detail, such as offering free delivery on sales, covering the cost of warranty returns BOTH ways (plus supplying a loan unit, if available) and supplying a free business tool with every order.

As well as the headline benefit of cost saving, second user offers shorter lead times, higher reliability and multivendor solutions. Rental, of course, is ideal for shorter term needs and offers fast delivery, flexibility, try-before-you-buy, zero capital expenditure, lower risk and off balance sheet accounting. Both second user and rental improve the key business measure of Return On Capital Employed.

We are based near Heathrow Airport in the UK from where we supply test equipment worldwide. Our facility incorporates Sales, Support, Admin, Logistics and our own in-house Lab.

All products supplied by Test Equipment Solutions include:

- No-quibble parts & labour warranty (we provide transport for UK mainland addresses).
- Free loan equipment during warranty repair, if available.
- Full electrical, mechanical and safety refurbishment in our in-house Lab.
- Certificate of Conformance (calibration available on request).
- Manuals and accessories required for normal operation.
- Free insured delivery to your UK mainland address (sales).
- Support from our team of seasoned Test & Measurement engineers.
- ISO9001 quality assurance.

Test equipment Solutions Ltd
Unit 8 Elder Way
Waterside Drive
Langley
Berkshire
SL3 6EP

T: +44 (0)1753 596000
F: +44 (0)1753 596001

Email: info@TestEquipmentHQ.com
Web: www.TestEquipmentHQ.com



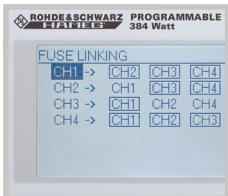
Programmable 3[4] Channel High-Performance Power Supply HMP4030 [HMP4040]



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: <150µV_{rms} 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 freely 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 and Illuminated Buttons
- ✓ Rear Connectors for all Channels including SENSE
- ✓ USB/RS-232 Dual-Interface, optional Ethernet/USB Dual-Interface 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
Output terminals:	4 mm safety sockets frontside, Screw-type terminal rear side (4 units per channel)
Output power:	384 W max.
Compensation of lead resistances (SENSE):	1 V
Overvoltage/overcurrent protection (OVP/OCP):	Adjustable for each channel
Electronic fuse:	Adjustable for each channel, may be combined using FuseLink
Response time:	<10 ms

32 V 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	1 mV
Current	<1 A: 0.2 mA; ≥1 A: 1 mA
Setting accuracy:	
Voltage	<0.05 % + 5 mV (typ. ±2 mV)
Current	<0.1 % + 5 mA (typ. ±1 mA at I <500 mA)
Measurement accuracy:	
Voltage	<0.05 % + 2 mV
Current	<500 mA: <0.05 % + 0.5 mA, typ. ±0.5 mA
Current	≥500 mA: <0.05 % + 2 mA, typ. ±2 mA
Residual ripple:	
Voltage	3 Hz...100 kHz 3 Hz...20 MHz
Voltage	<150 μ V _{rms} 1.5 mV _{rms} typ.
Current	<1 mA _{rms}
Residual deviation after a load change (10...90 %):	
Voltage	<0.01 % + 2 mV
Current	<0.01 % + 250 μ A
Residual deviation after a line voltage change (±10 %):	
Voltage	<0.01 % + 2 mV
Current	<0.01 % + 250 μ A
Recovery time after a load step from 10...90 % for return within a ±10 mV window:	
	<100 μ s

Arbitrary Function EasyArb

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

Maximum ratings

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

Miscellaneous

Temperature coefficient/°C:	
Voltage	0.01 % + 2 mV
Current	0.02 % + 3 mA
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)
Processing time:	<50 ms
Protection class:	Safety class I (EN61010-1)
Power supply:	115/230V ±10 %; 50...60 Hz, CAT II
Mains fuses:	115V: 2 x 10 A slow blow 5 x 20 mm 230V: 2 x 5 A slow blow 5 x 20 mm
Power consumption:	550 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 125 x 365 mm
Weight:	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