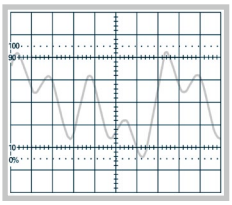
HAMEG Instruments
A Rohde&Schwarz Company

Arbitrary Power Supply
HM8143

HM8143

USB · RS-232 · optional IEEE-488 · Lab-VIEW · inclusive

AF Arbitrary Signal



HO880 IEEE-488 (GPIB) Interface (Option)

HZ42
19" Rackmount Kit 2RU

- ☑ 2 x 0...30V/0...2A 1 x 5V/0...2A
- ☑ Display Resolution 10mV/1mA
- ☑ Parallel (up to 6A) and Serial (up to 65V) Operation
- ☑ Electronic Load up to 60W per Channel (max. 2A)
- ☑ Arbitrary Waveform Power Supply (4,096 Points, 12 Bit): Creation of customized Waveforms
- ☑ Free of charge Software for Remote Control and for Creation of Arbitrary Waveforms
- ☑ Electronic Fuse and Tracking Mode for 30V Outputs
- ☑ External Modulation of Output Voltages: Input Voltage 0...10V, Bandwidth 50kHz
- ☑ SENSE Lines for Compensation of the Voltage drop across the Cables
- ☑ Multimeter Mode for all adjustable Outputs
- ☑ Galvanically isolated USB/RS-232 Dual-Interface, optional IEEE-488 (GPIB)

Arbitrary Power Supply HM8143

All data valid at 23 °C after 30 minutes warm-up.

Outputs	
2 x 0...30 V/2 A **1 x 5 V/2 A**	On/off pushbutton control, Floating outputs (allowing parallel and series operation), current limit, electronic fuse, tracking mode

Channels 1+3 (0...30 V)	
Output voltage:	2 x 0...30 V
Setting resolution:	10 mV
Setting accuracy:	±3 digits (typ. ±2 digit)
Measurement accuracy:	±3 digits (typ. ±2 digit)
Residual ripple:	<5 mV_{rms} (3 Hz...300 kHz)
Recovery time (10...90 % load variation):	
	45 µs within ±1 mV of nominal value
	16 µs within ±100 mV of nominal value
Max. transient deviation	typ. 800 mV
Recovery time (50 % basic load, 10 % load variation):	
	30 µs within ±1 mV of nominal value
	10 µs within ±100 mV of nominal value
Max. transient deviation	typ. 120 mV
Compensation of lead resistances (SENSE)**:**	up to 300 mV
Output current:	2 x 0...2 A
Setting resolution:	1 mA
Setting accuracy:	±3 digits (typ. ±2 digit)
Measurement accuracy:	±3 digits (typ. ±2 digit)
Recovery time:	<100 µs

Channel 2 (5 V)	
Accuracy:	5 V ±50 mV
Output current:	max. 2 A
Ripple:	≤100 $µV_{rms}$ (3 Hz...300 kHz)
Recovery time (10...90 % load variation):	
	30 µs within ±1 mV of nominal value
	0 µs within ±100 mV of nominal value
Max. transient deviation	typ. 60 mV
Recovery time (50 % basic load, 10 % load variation):	
	30 µs within ±1 mV of nominal value
	0 µs within ±100 mV of nominal value
Max. transient deviation	typ. 20 mV

Arbitrary Function (Channel 1 only)	
Number of points:	max. 4,096
Resolution:	12 Bit
Parameters of points:	Dwell time and Voltage
Dwell time:	100 µs...60 s
Repetition rate:	1...255 and continuous

Inputs	
Modulation input:	
(BNC socket):	0...10 V
Accuracy	1 % of full scale
Modulation bandwidth (-3 dB)	>50 kHz
Slew rate (dV/dt)	1 V/µs
Trigger input (BNC socket):	Triggering the arbitrary function
Level	TTL

Miscellaneous	
Max. voltage applicable to output terminals:	
CH 1 + CH 3:	30 V
CH 2:	5 V
Voltage to earth:	max. 150 V
Display:	4 x 4-digit 7-segment LEDs
Interface:	Dual-Interface USB/RS-232 (HO820), IEEE-488 (GPIB) (optional)
Protection class:	I acc. to EN 61010-1 (IEC 61010) with protective earth
Power supply:	115/230 V ±10 %; 50...60 Hz, CAT II
Mains fuse:	115 V: 2 x 6 A slow blow 5 x 20 mm 230 V: 2 x 3.15 A slow blow 5 x 20 mm
Power consumption:	approx. 300 VA
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:	approx. 9 kg

Accessories supplied: Operating manual, line cord, CD, Software

Recommended accessories:

HO880	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	19" Rackmount Kit 2RU
HZ72	GPIB-Cable 2 m

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