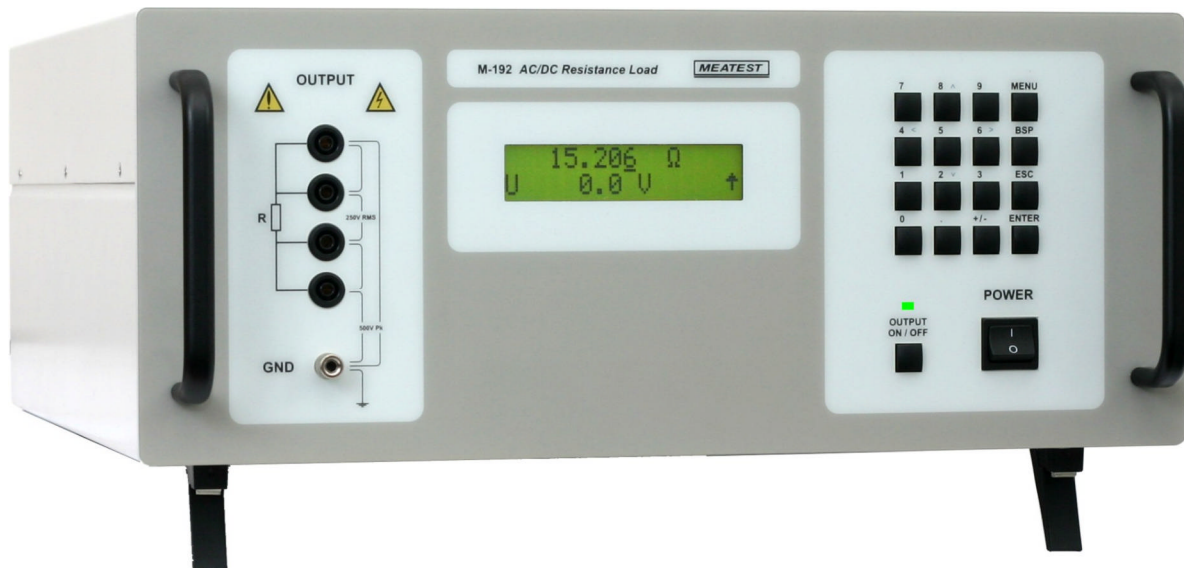


M-192/192A Programmable AC/DC load

3000 W



- Resistance range from 15 Ω to 300 k Ω
- Maximal load 3kW, maximal voltage 250V RMS
- Accuracy 0.1%
- Temperature coefficient < 10 ppm/ $^{\circ}\text{C}$
- 2, 4 – wire connection
- Interface RS - 232 (IEEE488 optionally)
- Table version (19" module as option)

M-192 AC/DC load is determined for testing voltage sources, transformers or generally as power load up to 3kW. Load is especially suitable for automated testing systems.

Thanks to good accuracy and remote control feature M-192 load can be used in calibration laboratories, production lines, service centers and development departments. For use in industry is designed version in 19" module with height 4HE.

Among advantages belongs features like simple control from the front panel, indication of set-up values on LCD display, resistance, power and current modes, remote control via RS-232 or IEEE488 bus.

Technical data

Resistance range	:	15 Ω - 4700 Ω / 15 Ω - 300 k Ω (version M-192A)
Resolution	:	0.1 Ω to 1 Ω for M-192 version 0.001 Ω to 1 k Ω for M192A version
Temperature coefficient	:	< 10 ppm/ $^{\circ}$ C
Maximal dissipation power	:	3000 W
Maximal voltage	:	250 V RMS
Internal voltmeter (M-192A only)	:	range 300V AC/DC, AC/DC automatic selection, resolution 0.1V
Connection	:	2, 4 wires
Range of reference temperatures	:	+18 $^{\circ}$ C ... +28 $^{\circ}$ C
Range of operating temperatures	:	+5 $^{\circ}$ C ... +45 $^{\circ}$ C
Storing temperatures	:	-10 $^{\circ}$ C ... +60 $^{\circ}$ C
Housing	:	metal
Dimensions and weight	:	W 460 mm, H 190 mm, D 440 mm (without holders), 15 kg
Isolation resistance between signal outputs and housing	:	> 2 G Ω (at 1000Vdc)

Resistance accuracy (M192A only up to 4700 Ω)

Range	Accuracy		
	DC...120Hz	120Hz...1kHz	1kHz...10kHz
15.000 Ω - 99.999 Ω	0.1 % + 30 m Ω	0.2 % + 30 m Ω	0.2 % + 30 m Ω
100.000 Ω - 3.000 k Ω	0.1 %	0.1 %	0.2 %
3.001 k Ω - 30.00 k Ω	0.1 %	0.1 %	2 %
30.1 k Ω - 100.0 k Ω	0.2 %	0.2 %	--
101 k Ω - 300 k Ω	0.5 %	2 %	--

Internal voltmeter (M192A only)

Range	Accuracy	
	DC	AC
1.0 - 299.9 V	0.1 % + 0.2 V	0.2 % + 0.2 V

Typical frequency response (M-192A)

Rnom		100Hz	1kHz	10kHz	100kHz	1MHz
15 Ω	Z [Ω]	15,00	15,00	15,00	15,03	15,15
	\emptyset [$^{\circ}$]	0,002	0,03	0,26	2,4	23
100 Ω	Z [Ω]	100,00	100,01	100,02	99,97	91,50
	\emptyset [$^{\circ}$]	0,001	0,01	0,08	0,75	9,1
330 Ω	Z [Ω]	330,00	330,02	330,03	329,73	301,30
	\emptyset [$^{\circ}$]	0,000	0,001	0,01	0,08	4,1
1000 Ω	Z [Ω]	1000,00	1000,00	999,90	997,00	854,00
	\emptyset [$^{\circ}$]	-0,001	-0,018	-0,18	-1,7	-9
10 k Ω	Z [k Ω]	10,00	10,00	9,97	9,21	3,15
	\emptyset [$^{\circ}$]	-0,02	-0,23	-2,2	-19	-57
100 k Ω	Z [k Ω]	100,00	99,78	91,70	27,00	N.A.
	\emptyset [$^{\circ}$]	-0,18	-2,3	-20,5	-70,4	

Content of delivery

M-192/192A Programmable AC/DC Load
Operation manual
Power cable
Test report

Versions

Interface M192-V1xxx - RS232
M192-V2xxx - IEEE488
Housing M192-Vxx0x - table version
M192-Vxx1x - module 19", 4HE