

M3500A Specifications

DC Characteristics

Accuracy Specifications ± (% of reading+% of range) [1]

Function	Range[3]	Resolution	24Hr [2] (23°C±1°C)	90 day (23°C±5°C)	1 Year (23°C±5°C)
DCV (DC Voltage)	100.0000 mV	0.1 µV	0.0030+0.0030	0.0040+0.0035	0.0050 + 0.0035
	1.000000 V	1.0 µV	0.0020+0.0006	0.0030+0.0007	0.0040 + 0.0007
	10.00000 V	10 µV	0.0015+0.0004	0.0020+0.0005	0.0035 + 0.0005
	100.0000 V	100 µV	0.0020+0.0006	0.0035+0.0006	0.0045 + 0.0006
	1000.000 V	1 mV	0.0020+0.0006	0.0035+0.0010	0.0045 + 0.0010
DCI (DC Current)	10.00000 mA	10 nA	0.005+0.010	0.030+0.020	0.050 + 0.020
	100.0000 mA	100 nA	0.01+0.004	0.030+0.005	0.050 + 0.005
	1.000000 A	1 µA	0.05+0.006	0.080+0.010	0.100 + 0.010
	3.00000 A	10 µA	0.10+0.020	0.120+0.020	0.120 + 0.020
Resistance [4]	100.0000 Ω	100 µΩ	0.0030+0.0030	0.008+0.004	0.010 + 0.004
	1.000000 KΩ	1 mΩ	0.0020+0.0005	0.008+0.001	0.010 + 0.001
	10.00000 KΩ	10 mΩ	0.0020+0.0005	0.008+0.001	0.010 + 0.001
	100.0000 KΩ	100 mΩ	0.0020+0.0005	0.008+0.001	0.010 + 0.001
	1.000000 MΩ	1 Ω	0.002+0.001	0.008+0.001	0.010 + 0.001
	10.00000 MΩ	10 Ω	0.015+0.001	0.020+0.001	0.040 + 0.001
	100.0000 MΩ	100 Ω	0.300+0.010	0.800+0.010	0.800 + 0.010
Diode Test	1.0000 V	10 µV	0.002+0.010	0.008+0.020	0.010 + 0.020
Continuity (2W)	1000.00 Ω	10 mΩ	0.002+0.010	0.008+0.020	0.010 + 0.020

Note:

[1] Specifications are for 6 ½ digits and two hours warm up.

[2] Relative to calibration standards.

[3] 20% over range on all ranges except 1000Vdc and 3 A range.

[4] Specifications are for 4-wire ohms or 2-wire ohms using null.

Frequency and Period Characteristics

Accuracy Specifications ± (% of reading) [1]

Function	Range[3]	Frequency (Hz)	24Hr [2] (23°C±1°C)	90 day (23°C±5°C)	1 Year (23°C±5°C)
Frequency & Period	100 mV to 750V	3 -5	0.10	0.10	0.10
		5 -10	0.05	0.05	0.05
		10 -40	0.03	0.03	0.03
		40 -300K	0.006	0.01	0.01

Note:

[1] Specifications are for 6 ½ digits and two hours warm up.

[2] Relative to calibration standards.

[3] 20% over range on all ranges except 750 Vac range.

AC Characteristics**Accuracy Specifications** ± (% of reading+% of range) [1]

Function	Range[3]	Resolution	Frequency (Hz)	24Hr [2] (23°C±1°C)	90 day (23°C±5°C)	1 Year (23°C±5°C)
ACV (AC RMS Voltage)[4]	100.0000 mV	0.1 μV	3 -5	1.00+0.03	1.00+0.04	1.00 + 0.04
			5 -10	0.35+0.03	0.35+0.04	0.35 + 0.04
			10 -20K	0.04+0.03	0.05+0.04	0.06 + 0.04
			20k -50K	0.10+0.05	0.11+0.05	0.12 + 0.05
			50k-100K	0.55+0.08	0.60+0.08	0.60 + 0.08
			100k-300K	4.00+0.50	4.00+0.50	4.00 + 0.50
	1.000000 V to 750.000 V	1.0 μV to 1 mV	3 -5	1.00+0.02	1.00+0.03	1.00 + 0.03
			5 -10	0.35+0.02	0.35+0.03	0.35 + 0.03
			10 -20K	0.04+0.02	0.05+0.03	0.06 + 0.03
			20k -50K	0.10+0.04	0.11+0.05	0.12 + 0.05
			50k-100K[5]	0.55+0.08	0.60+0.08	0.60 + 0.08
			100k-300K	4.00+0.50	4.00+0.50	4.00 + 0.50
ACI (AC RMS Current)[4]	1.000000 A	1 μA	3 -5	1.00+0.04	1.00+0.04	1.00 + 0.04
			5 -10	0.30+0.04	0.30+0.04	0.30 + 0.04
			10 -5K	0.10+0.04	0.10+0.04	0.10 + 0.04
	3.00000 A	10 μA	3 -5	1.10+0.06	1.10+0.06	1.10 + 0.06
			5 -10	0.35+0.06	0.35+0.06	0.35 + 0.06
			10 -5K	0.15+0.06	0.15+0.06	0.15 + 0.06

Note :

[1] Specifications are for 6 ½ digits and two hours warm up, slow AC filter (3 Hz Bandwidth), sine wave input.

[2] Relative to calibration standards.

[3] 20% over range on all ranges except 750 Vac range and 3 A range.

[4] Specifications are for sine wave input>5% of range. When the inputs are from 1% to 5% of range and<50kHz,add the additional error for 0.1% of range. For 50kHz to 100kHz, add 0.13% of range.

[5] 750 Vac range is limited to 100 KHz.