

MT3000 – Technical Data

	MT3301	MT3302
General		
Power supply	85 ... 265 V, 47 ... 63 Hz	
Power consumption	~ 50 VA	
Temperature range, operation	-10° ... + 50° C	
Temperature range, storage	-15° ... + 65° C	
Relative humidity (not condensing)	max. 95 %	
Dimensions (LxWxH)	448 x 321 x 168 mm	
Weight	~ 9 kg	
Safety		
IP class according to DIN EN 60529	IP30	
Declaration of conformity	CE conform	
Protection class according to DIN EN 61140	I	
Reference meter		
Measuring modes	2WA / 2WR / 2WAP 3WA / 3WR / 3WRCA / 3WRCA / 3WAP 4WA / 4WAb / 4WR / 4WRb / 4WRC / 4WAP / 4WAPb	
Fundamental frequency	15... 70 Hz	
Bandwidth	DC ... 3000 Hz	
Sampling	16 bit 504 samples/period	
Accuracy class for measuring of power/energy	0.02	0.05
Angle measurement accuracy 3) 4) 11)	< 0.01°	
Frequency measurement deviation	± 0.01 Hz	
Voltage Measurement		
Voltage measurement	40 mV... 300 V ≈	
Voltage range(s)	2 V, 15 V, 60 V, 125 V, 250 V	
Voltage measurement accuracy 5)	< 0.01 % @ 30V .. 300 V (AC) < 0.1 % @ 30 V .. 300 V (DC)	< 0.02 % @ 30V .. 300 V (AC) < 0.1 % @ 30 V .. 300 V (DC)
Voltage measurement temperature drift 3)	< 3 x 10 E-6 / K	
Voltage measurement stability 1) 3) 11)	< 25 x 10 E-6	
Voltage measurement long term stability 2) 3) 11)	< 40 x 10 E-6 / Year	
Current measurement		
Current measurement	4 mA ... 12 A ≈	
Current range(s)	25 mA, 50 mA, 100 mA, 250 mA, 500 mA 1 A, 2.5 A, 5 A, 10 A	
Current measurement accuracy 5)	< 0.01 % @ 20 mA ... 12 A (AC) < 0.1 % @ 4 mA ... < 20 mA (AC) < 1 % @ 20 mA... 12 A (DC)	< 0.02 % @ 20 mA ... 12 A (AC) < 0.2 % @ 4 mA ... < 20 mA (AC) < 1 % @ 20 mA... 12 A (DC)
Current measurement temperature drift	< 2 x 10 E-6 / K @ 20 mA ... 12 A (AC) < 0.025 % / K @ 20 mA ... 12 A (DC)	< 4 x 10 E-6 / K @ 20 mA ... 12 A (AC) < 0.025 % / K @ 20 mA ... 12 A (DC)
Current measurement stability 1) 4) 11)	< 35 x 10 E-6	
Current measurement long term stability 2) 4) 11)	< 40 x 10 E-6 / Year	
Power Measurement		
Power/energy measurement accuracy 3) 4) 5) 6) 11)	< 0.02 %	
Power/energy measurement temperature drift 3) 4) 11)	< 5 x 10 E-6 / K	
Power/energy measurement stability 1) 3) 4) 11)	< 60 x 10 E-6	
Power/energy measurement long term stability 2) 3) 4) 11)	< 80 x 10 E-6 / Year	

1: Stability over 1 hour (every minute one measurement with $t_i = 10$ s)
 2: Stability over 1 year (every month one measurement over one hour)10 s)
 3: From 30 V ... 300 V
 4: From 20 mA ... 12 A
 5: Related to the read value at optimum range selection
 6: Related of apparent power
 11: From 45 Hz ... 65 Hz

Subjects to alteration.

08.08.2019

MT3000_SPECS_EXT_GB_V400

MT3000 – Technical Data

	MT3305	MT3307
General		
Power supply	85 ... 265 V, 47 ... 63 Hz	
Power consumption	~ 50 VA	
Temperature range, operation	-10° ... + 50° C	
Temperature range, storage	-15° ... + 65° C	
Relative humidity (not condensing)	max. 95 %	
Dimensions (LxWxH)	448 x 321 x 188 mm	
Weight	~ 10 kg	
Safety		
IP class according to DIN EN 60529	IP30	
Declaration of conformity	CE conform	
Protection class according to DIN EN 61140	I	
Overvoltage category voltage measurement	CAT IV 600 V	
Reference meter		
Measuring modes	2WA / 2WR / 2WAP 3WA / 3WR / 3WRCA / 3WRCA / 3WAP 4WA / 4WAb / 4WR / 4WRb / 4WRC / 4WAP / 4WAPb	
Fundamental frequency	40 ... 70 Hz	
Bandwidth	40 ... 3000 Hz	
Sampling	16 bit 504 samples/period	
Accuracy class for measuring of power/energy	0.02	0.05
Angle measurement accuracy 3) 4) 11)	< 0.01°	
Frequency measurement deviation	± 0.01 Hz	
Voltage Measurement		
Voltage measurement	40 mV... 600 V ≈	
Voltage range(s)	2 V, 15 V, 60 V, 125 V, 250 V, 500 V	
Voltage measurement accuracy 5)	< 0.01 % @ 10V .. 500 V < 0.1 % @ 10 V .. 500 V (DC)	< 0.02 % @ 10V .. 500 V (AC) < 0.1 % @ 10 V .. 500 V (DC)
Voltage measurement temperature drift 3)	< 4 x 10 E-6 / K	
Voltage measurement stability 1) 3) 11)	< 25 x 10 E-6	
Voltage measurement long term stability 2) 3) 11)	< 40 x 10 E-6 / Year	
Current measurement		
Current measurement	1 mA ... 120 A ~	
Current range(s)	25 mA, 50 mA, 100 mA, 250 mA, 500 mA 1 A, 2.5 A, 5 A, 10 A, 25 A, 50A, 100 A	
Current measurement accuracy 5)	< 0.01 % @ 20 mA ... 120 A < 0.02 % @ 10 mA ... < 20 mA < 0.04 % @ 5 mA ... < 10 mA	< 0.02 % @ 20 mA ... 120 A < 0.04 % @ 10 mA ... < 20 mA < 0.1 % @ 5 mA ... < 10 mA
Current measurement temperature drift	< 4 x 10 E-6 / K @ 20 mA ... 120 A	
Current measurement stability 1) 4) 11)	< 25 x 10 E-6	
Current measurement long term stability 2) 4) 11)	< 40 x 10 E-6 / Year	
Power Measurement		
Power/energy measurement accuracy 3) 4) 5) 6) 11)	< 0.02 %	
Power/energy measurement temperature drift 3) 4) 11)	< 8 x 10 E-6 / K	
Power/energy measurement stability 1) 3) 4) 11)	< 50 x 10 E-6	
Power/energy measurement long term stability 2) 3) 4) 11)	< 80 x 10 E-6 / Year	

1: Stability over 1 hour (every minute one measurement with $t_i = 10$ s)
 2: Stability over 1 year (every month one measurement over one hour)10 s)
 3: From 10 V ... 500 V
 4: From 20 mA ... 120 A
 5: Related to the read value at optimum range selection
 6: Related of apparent power
 11: From 45 Hz ... 65 Hz

08.08.2019

Subjects to alteration.