

Moving Test – MT3305/MT3307

Three-phase Reference Standard
with Measuring Module for 120 A Measurements



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MT3305 – Accuracy class 0.02

MT3307 – Accuracy class 0.05

General

The Measuring Module MT3305/MT3307 serves for direct measurement of voltages up to 600 V and currents up to 120 A. The module is equipped with three voltage and three current channels.

All current clamps of the Moving Test Series can be directly connected to the MT3305/MT3307 module in order to increase the measuring range in the current path.

All data refer to MT3000 Reference Meter with integrated module MT3305/MT3307.

Technical Data

MT3000 Series Measuring Modules	MT3305 Class 0.02	MT3307 Class 0.05
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 (DxWxH)	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	2L-W/ 2L-B / 2L-S 3L-W / 3L-B / 3L-BKA / 3L-BKB / 3L-S 4L-W / 4L-Wb / 4L-B / 4L-Bb/ 4LBK / 4L-S / 4L-Sb	
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 ...12 A < 0.02 % @ 10 mA ... < 20 mA < 0.04 % @ 5 mA ... < 10 mA	< 0.02 % @ 20 mA ...12 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) 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
 11: From 45 Hz ... 65 Hz

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Subjects to alteration.