MT320 – Technical Data

General	
Power supply	85 … 265 V, 47 … 63 Hz
Power consumption	~ 26 VA
Temperature range, operation	-10° … + 50° C
Temperature range, storage	-15° … + 65° C
Relative humidity (not condensing)	max. 95 %
Dimensions (LxWxH)	220 x 290 x 80 mm
Weight	2.7 kg
Safety	
IP class according to DIN EN 60529	IP30
Declaration of conformity	CE conform
Protection class according to DIN EN 61140	II
Overvoltage category voltage measurement 16)	CAT III 300 V
Overvoltage category current measurement	CAT III 300 V
Reference meter	
Measuring modes	2WA / 2WR / 2WAP 3WA / 3WR / 3WAP / 3WRCA / 3WRCB 4WA / 4WAb / 4WR / 4WRb / 4 WAP / 4 WAPb / 4WRC
Fundamental frequency	15 … 70 Hz
Bandwidth	3000 Hz
Sampling	16 bit 504 samples/period
Accuracy class for measuring of power/energy	0.05
Angle measurement accuracy 3) 4)	< 0.010° [< 0.1°]
Frequency measurement deviation	± 0.01 Hz
Voltage Measurement	
Voltage measurement	100 mV ... 300 V
Voltage range(s)	250 V, 5 V
Voltage channels input impedance (@ range)	245 kΩ @ 250 V 10 MΩ @ 5 V
Voltage measurement accuracy 5)	< 0.03 % @ 30V .. 300 V < 0.2 % @ 500 mV .. < 30 V < 1 % @ 100 mV .. < 500 mV
Voltage measurement temperature drift 3)	< 5 x 10 E-6 / K
Voltage measurement stability 1)	< 50 x 10 E-6
Voltage measurement long term stability 2) 3)	< 80 x 10 E-6 / Year
Current measurement	**direct or [with MT3460]**
Current measurement	1 mA ... 12 A [5 mA … 120 A]
Current range(s)	10 A, 5 A, 2.5 A, 1 A, 500 mA, 250 mA, 100 mA, 50 mA [100 A, 50 A, 10 A, 5 A, 1 A, 500 mA, 100 mA, 50 mA]
Usage of ranges	10 ... 120 %
Current channels input impedance (@ range)	~ 40 mΩ @ 50 mA .. 10 A
Current measurement accuracy 5)	< 0.03 % @ 10 mA ... 12 A < 0.2 % @ 5 mA ... < 10 mA [< 0.15 % @ 500 mA … 120 A] [< 0.3 % @ 100 mA … < 500 mA]
Current measurement temperature drift 4)	< 5 x 10 E-6 / K [< 50 x 10 E-6 / K]
Current measurement stability 1)	< 70 x 10 E-6 [<150 x 10 E-6]
Current measurement long term stability 2) 4)	< 80 x 10 E-6 / Year [< 600 x 10 E-6] / Year
Clamp for max. Ø	[16 mm]
Power Measurement	**direct or [with MT3460]**
Power/energy measurement accuracy 3) 5) 6)	< 0.05 % @ 10 mA … 12 A [< 0.2 % @ 500 mA … 120 A]
Power/energy measurement temperature drift 3) 4)	< 10 x 10 E-6 / K [< 65 x 10 E-6]
Power/energy measurement stability 1)	< 100 x 10 E-6 [< 200 x 10 E-6]
Power/energy measurement long term stability 2)	< 100 x 10 E-6 / Year [< 700 x 10 E-6] / Year

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1: Stability over 1 hour (every minute one measurement with ti = 60 s)
2: Stability over 1 year (every month one measurement over one hour)
3: From 30 V … 300 V
4: From 10 mA … 12 A [500 mA … 120 A]
5: Related to the read value at optimum range selection
6: Related of apparent power
[ ] ≙ with AC current clamps MT3460
16: Option CAT IV 300 V

Subjects to alteration.