

COM5002 – Technical Data

General

Power supply	115 V / 230 V $\pm 15\%$, 50 ... 60 Hz
Power consumption	max. 200 VA
Temperature range, operation	+5 ... +45 °C
Temperature range, storage	-15 ... +65 °C
Relative humidity (not condensing)	max. 95 %
Dimensions (LxWxH)	47 cm x 48 cm x 20 cm
Weight	~ 25 kg

Safety

IP class according to DIN EN 60529	IP40
Declaration of conformity	CE conform
Protection class according to DIN EN 61140	I

Reference meter

Measuring modes	2WA, 2WR, 2WAP, 3WA, 3WR, 3WAP, 4WA, 4WR, 4WAP
Fundamental frequency	15 ... 70 Hz
Sampling	24 bit 504 samples/period
Accuracy class for measuring of power/energy 3) 4) 6) 11) 25)	0.008 %
Angle measurement accuracy 3) 4)	< 0.005°
Frequency measurement deviation	± 0.001 Hz

Voltage Measurement

Voltage measurement	100 mV ... 580 V \approx
Voltage range(s)	480 V, 240 V, 120 V, 60 V, 12 V, 5 V
Voltage channels input impedance (@ range)	478 kΩ @ 480 V ... 5 V
Voltage measurement accuracy 5) 11) 25)	< 0.003 % @ 30 V ... 480 V < 0.005 % @ 10 V ... < 30 V < 0.005 % @ 1 V ... < 10 V, I \leq 10 A
Voltage measurement temperature drift 3)	< 0.5 x 10E-6 / K
Voltage measurement long term stability 2) 3)	< 0.0015 % / Year

Current measurement

Current measurement	0.5 mA ... 160 A \approx
Current range(s)	160 A, 100 A, 50 A, 25 A, 10 A, 5 A, 2.5 A, 1 A, 500 mA, 250 mA, 100 mA, 50 mA, 25 mA, 10 mA, 5 mA
Current channels input impedance (@ range)	< 4 mΩ @ 160 A ... 25 A < 40 mΩ @ 10 A ... 2.5 A < 2 Ω @ 1 A ... 250 mA < 5 Ω @ 100 mA ... 5 mA 22)
Current measurement accuracy 5) 11) 25)	< 0.005 % @ 50 mA ... 100 A < 0.007 % @ 10 mA ... < 50 mA / > 100 A ... 160 A < 0.01 % @ 1 mA ... < 10 mA
Current measurement temperature drift 4)	
Current measurement long term stability 2)	< 0.0015 % / Year

Power Measurement

Power/energy measurement accuracy 3) 5) 6) 11) 25)	< 0.008 % @ 50 mA ... 100 A < 0.01 % @ 10 mA ... < 50 mA / > 100 A ... 160 A < 0.015 % @ 1 mA ... < 10 mA
Power/energy measurement temperature drift 3) 4)	< 1 x 10E-6 / K
Power/energy measurement long term stability 2) 3) 4)	< 0.003 % / Year

2: Stability over 1 year (every month one measurement over one hour)

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3: From 30 V ... 480 V

4: From 50 mA ... 100 A

5: % related to the read value + % related of end of range

6: Related to the active power with power factors from 1 to 0.5 i and from 1 to 0.8 c

10: Option

11: From 45 Hz ... 65 Hz

22: Only at 50 Hz, compensated

25: Measurement uncertainties of the laboratory has to be considered separately

Subjects to alteration.