

# MT30 – Technical Data

General	
Power supply	15 ... 16 V DC, 2.5 A
Power consumption	~ 20 VA
Rechargeable battery operation : operating time	~ 1 h
Rechargeable battery operation : recharging time 7)	~ 3 h
Temperature range, operation	-15° ... + 50° C
Temperature range, storage	-15° ... + 65° C
Relative humidity (not condensing)	max. 95 %
Dimensions (LxWxH)	190 x 190 x 80 mm
Weight	~ 1.6 kg
External power supply unit	Type: Mascot 9921 (90 ... 264 V / 47 ... 63 Hz / max 0.9 A)
Safety	
IP class according to DIN EN 60529	IP40
Declaration of conformity	CE conform
Overvoltage category voltage measurement 16)	CAT III 300 V
Overvoltage category current measurement (MT3460)	CAT IV 300 V
Reference meter	
Measuring modes 10)	1-ph 2 WA / WR / WAP 3-ph 3 WA / WR / WRCA / WRCA / WAP 3-ph 4 WA / WAb / WR / WRb / WRC / WAP / WAPb
Fundamental frequency	15 ... 70 Hz
Bandwidth	3000 Hz
Sampling	16 bit 504 samples/period
Accuracy class for measuring of power/energy	0.2
Rotary field indication	yes
Angle measurement accuracy 3) 4)	< 0.1°
Frequency measurement deviation	± 0.01 Hz
Voltage Measurement	
Voltage measurement	10 ... 300 V
Voltage range(s)	250 V
Voltage channels input impedance (@ range)	264,5 kΩ @ 250 V
Voltage measurement accuracy 3) 5)	< 0.05 % @ 30 ... 300 V
Voltage measurement temperature drift 3)	< 15 x 10 E-6 / K
Voltage measurement stability 1)	< 50 x 10 E-6
Voltage measurement long term stability 2) 3)	< 100 x 10 E-6 / Year
Current measurement via AC current clamps MT3460	
Current measurement	5 mA ... 120 A
Current range(s)	100 A, 50 A, 10 A, 5 A, 1 A, 500 mA, 100 mA, 50 mA
Usage of ranges	10 ... 120 %
Current measurement accuracy 5)	< 0.15 % @ 500 mA ... 120 A < 0.3 % @ 100 mA ... < 500 mA
Current measurement temperature drift 4)	< 50 x 10 E-6 / K
Current measurement stability 1) 4)	< 150 x 10 E-6
Current measurement long term stability 2) 4)	< 600 x 10 E-6 / Year
Clamp for max. Ø	16 mm
Power Measurement (@MT3460)	
Power/energy measurement accuracy 3) 4) 5) 6)	< 0.2 %
Power/energy measurement temperature drift 3) 4)	< 65 x 10 E-6
Power/energy measurement stability 1)	< 200 x 10 E-6
Power/energy measurement long term stability 2)	< 700 x 10 E-6 / Year

1: Stability over 1 hour (every minute one measurement with  $t_i = 60$  s)  
 2: Stability over 1 year (every month one measurement over one hour)  
 3: From 30 V ... 300 V (45 ... 65 Hz)  
 4: From 500 mA ... 120 A (45 ... 65 Hz)  
 5: Related to the read value at optimum range selection  
 6: Related of apparent power  
 7: At cells with different charge up to max.30 h  
 10: Depending on the selected option  
 16: Option CAT IV 300V

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Subjects to alteration.

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