

CT High Precision Current Transducers

Specifications



Sensor Specifications

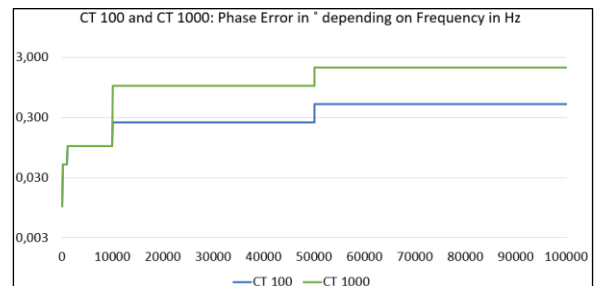
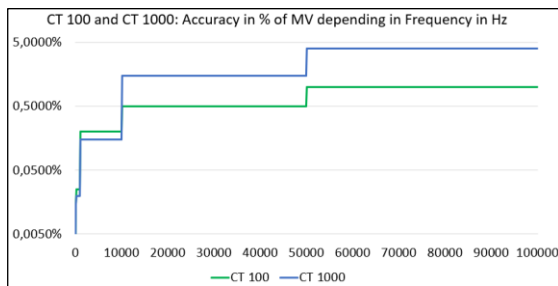
Type	CT 100	CT 200	CT 400	CT 500	CT 1000	CT 2000
Current Range	100 A	200 A	400 A	500 A	1000 A	2000 A
DC / AC_{rms} (Crestfactor 2)						
100 ms Overload	20 kA _{pk}	20 kA _{pk}	20 kA _{pk}	3 kA _{pk}	5 kA _{pk}	10 kA _{pk}
Ratio	500 : 1	1000 : 1	1500 : 1	750 : 1	1500 : 1	2000 : 1
Output Range	0 ... 200 mA _{rms}	0 ... 200 mA _{rms}	0 ... 266.667 mA _{rms}	0 ... 666.667 mA _{rms}	0 ... 666.667 mA _{rms}	0 ... 1 A _{rms}
Max. Measuring Resistance¹	25 Ω	20 Ω	10 Ω	5 Ω	4 Ω	3.5 Ω
Bandwidth (-3 dB)	DC ... 2 MHz	DC ... 1.1 MHz	DC ... 800 kHz	DC ... 520 kHz	DC ... 440 kHz	DC ... 140 kHz
Step Response (0 ... 90 %)	0.2 μs	0.2 μs	1 μs	1 μs	1 μs	1 μs
DC Accuracy (of MR)²	0.002 %	0.001 %	0.0008 %	0.00115 %	0.0012 %	0.0012 %
AC Accuracy (of MV)³						
> 0 ... ≤ 100 Hz	0.015 %	0.015 %	0.015 %	0.015 %	0.015 %	0.015 %
> 100 ... ≤ 1000 Hz	0.025 %	0.02 %	0.02 %	0.02 %	0.02 %	0.05 %
> 1000 ... ≤ 10000 Hz	0.2 %	0.15 %	0.15 %	0.1 %	0.15 %	0.25 %
> 10000 ... ≤ 50000 Hz ⁴	0.5 %	0.5 %	0.5 %	0.2 %	1.5 %	1 % ⁴
> 50000 ... ≤ 100000 Hz	1 %	1 %	1 %	0.5 %	4 %	
Angular Accuracy						
> 0 ... ≤ 100 Hz	0.01 °	0.01 °	0.01 °	0.01 °	0.01 °	0.01 °
> 100 ... ≤ 1000 Hz	0.05 °	0.02 °	0.01 °	0.01 °	0.01 °	0.05 °
> 1000 ... ≤ 10000 Hz	0.1 °	0.05 °	0.1 °	0.05 °	0.1 °	0.1 °
> 10000 ... ≤ 50000 Hz ⁴	0.25 °	0.25 °	0.5 °	0.5 °	1 °	1 ° ⁴
> 50000 ... ≤ 100000 Hz	0.5 °	0.5 °	1 °	1 °	2 °	
Temp.-Coefficient (of MR)	0.2 ppm/K	0.2 ppm/K	0.1 ppm/K	1 ppm/K	0.3 ppm/K	0.1 ppm/K
Temperature Range	-40 ... 85 °C	-40 ... 85 °C	-40 ... 85 °C	-40 ... 85 °C	-40 ... 85 °C	-40 ... 85 °C
Test Voltage 50 Hz	4.95 kV	4.95 kV	4.95 kV	4.2 kV	4.2 kV	6 kV
Inner Diameter	28 mm	28 mm	28 mm	38 mm	38 mm	70 mm
Mass	0.275 kg	0.295 kg	0.305 kg	1.3 kg	1.3 kg	4.2 kg

¹ At full scale and 25 °C. For other current values and temperatures see graphs below. Max measuring resistance = cable loop resistance + burden resistance.

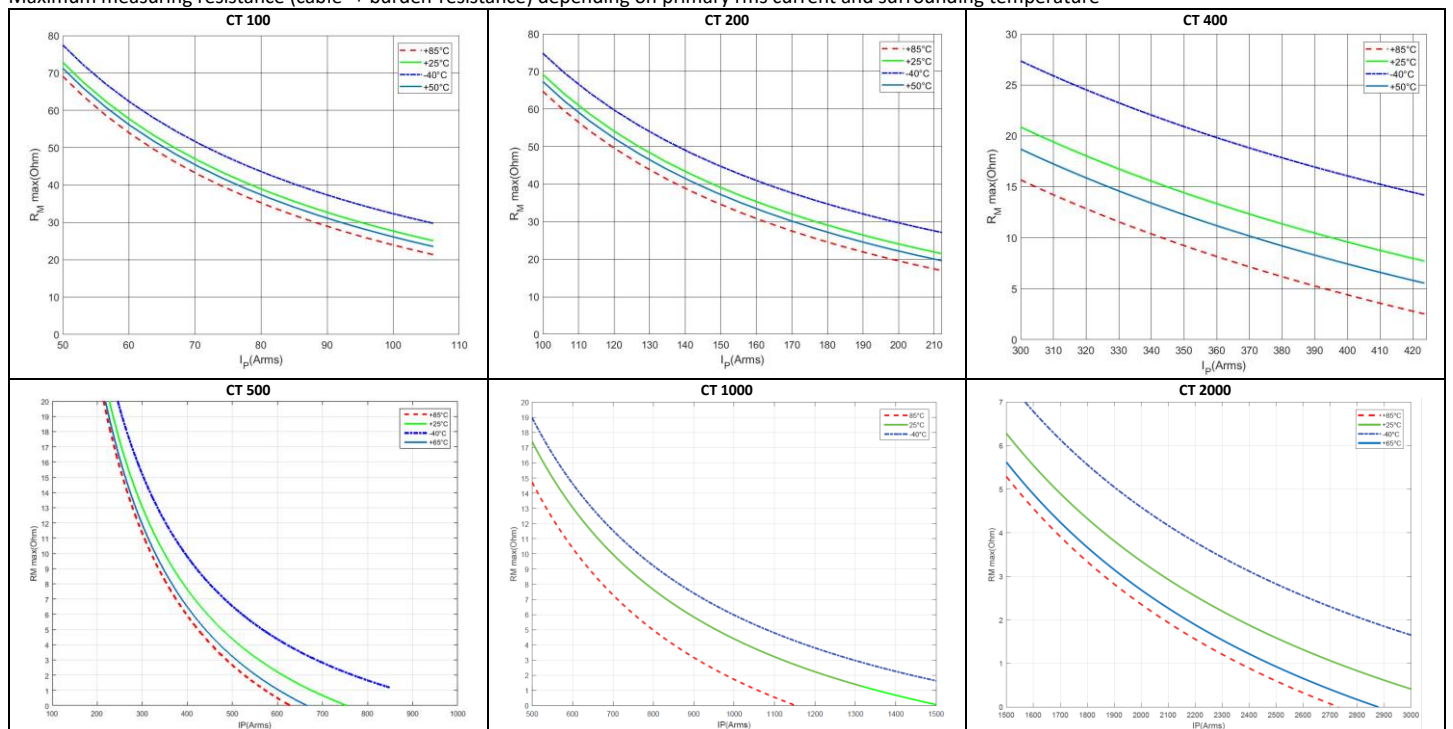
² Error of measuring range. At 25 °C.

³ Error of measured value. For range 3 % ... 100 %. Test current 0 ... 100 Arms, DC ... 100 kHz. At 25 °C.

⁴ CT 2000: 10000 ... ≤ 20000 Hz. The precision frequency range of CT 2000 is limited to 20 kHz.

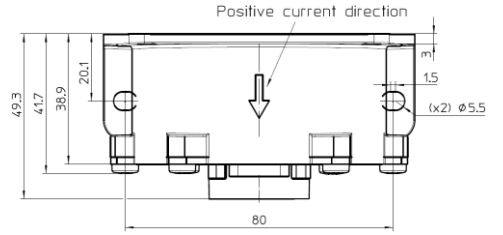
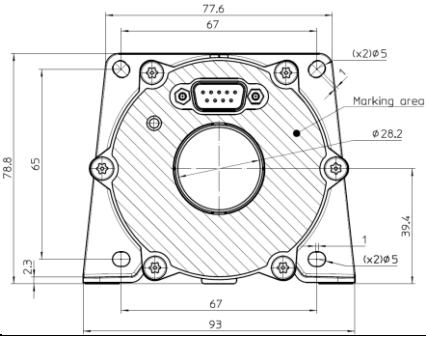


Maximum measuring resistance (cable- + burden-resistance) depending on primary rms current and surrounding temperature

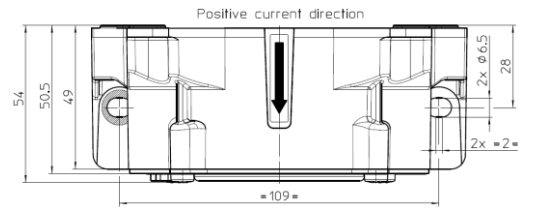
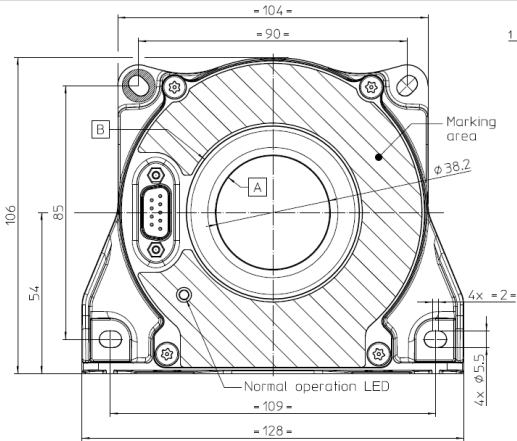


Dimensions

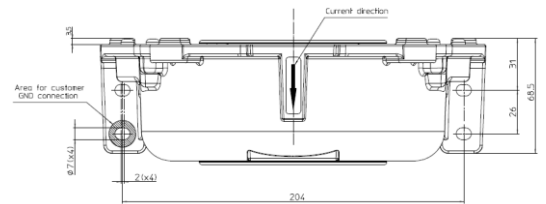
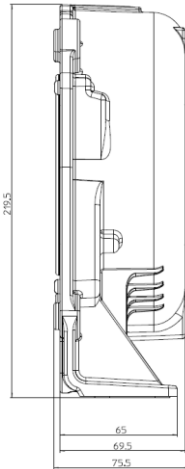
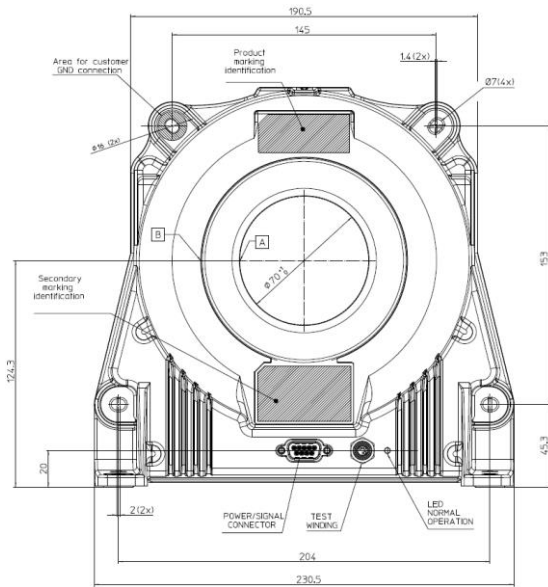
Transducers CT 100, CT 200, CT 400



Transducers CT 500, CT 1000



Transducer CT 2000



Order Numbers

CT 100	AC/DC current transducer 100 A _{rms}
CT 200	AC/DC current transducer 200 A _{rms}
CT 400	AC/DC current transducer 400 A _{rms}
CT 500	AC/DC current transducer 500 A _{rms}
CT 1000	AC/DC current transducer 1000 A _{rms}
CT 2000	AC/DC current transducer 2000 A _{rms}