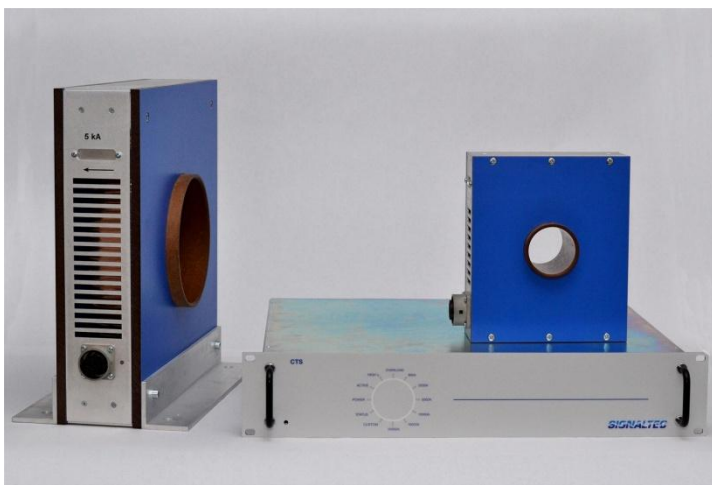


CTS 2000 / CTS 5000

High Precision Current Transducer Systems

- High Linearity
- Low Offset
- High Bandwidth
- Low Phase Error

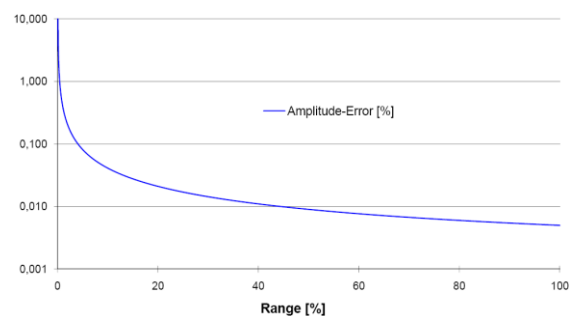


The CTS transducers are special versions of the LEM ITZ transducer system. The transducers are dedicated for range extension of wideband power analyzers. Compared to the ITZ version the CTS sensors have a higher compensation current and therefore work up to a higher primary current (rms value vs. peak value). The LOW IP sense circuit (LED & internal relay) has been deactivated since these components can be destroyed at low frequent AC current signals.

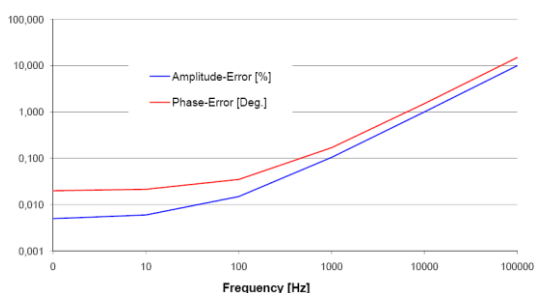
Specifications

Model	CTS 2000	CTS 5000
Primary Current Range		
DC, RMS Sinus	2000 A _{rms}	5000 A _{rms}
Peak	2828 A _{pk}	7071 A _{pk}
Overload Ability		
Short Time (100 mS)	10000 A _{pk}	25000 A _{pk}
Bandwidth	DC ... 300 kHz	DC ... 80 kHz
Temperature Influence	1 ppm/K	1 ppm/K
Output Ratio	2 A _{rms} at 2000 A _{rms}	2 A _{rms} at 5000 A _{rms}
Linearity	0.001 %	0.001 %
Offset	0.004 %	0.004 %
Frequency Influence	0.1 %/kHz	0.5 %/kHz
Angular Influence	0.02° + 0.15°/kHz	0.02° + 0.9°/kHz

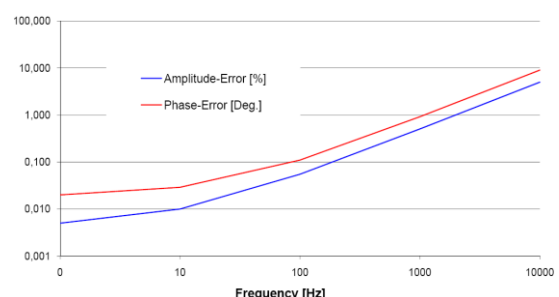
Amplitude-Error vs. Range (DC)



Amplitude- / Phase-Error vs. Frequency (CTS 2000)

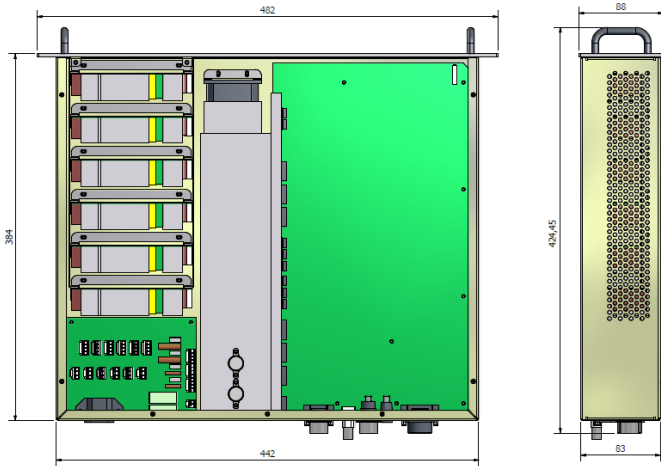


Amplitude- / Phase-Error vs. Frequency (CTS 5000)



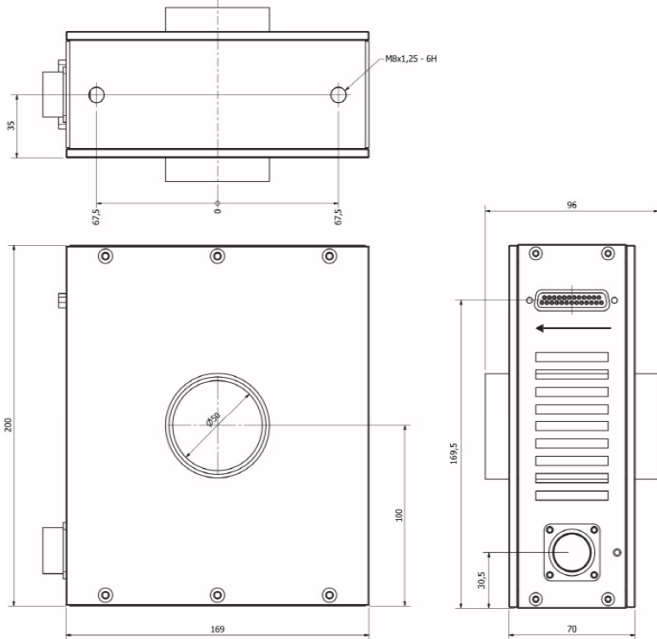
Dimensions (in mm)

Electronics Rack



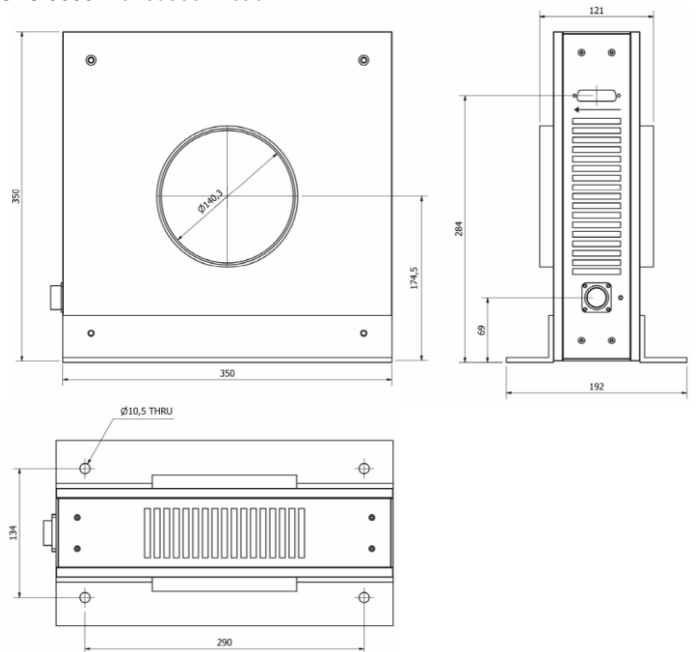
Weight: ~ 9 kg

CTS 2000 Transducer Head



Weight: ~ 4 kg

CTS 5000 Transducer Head



Weight: ~ 17 kg

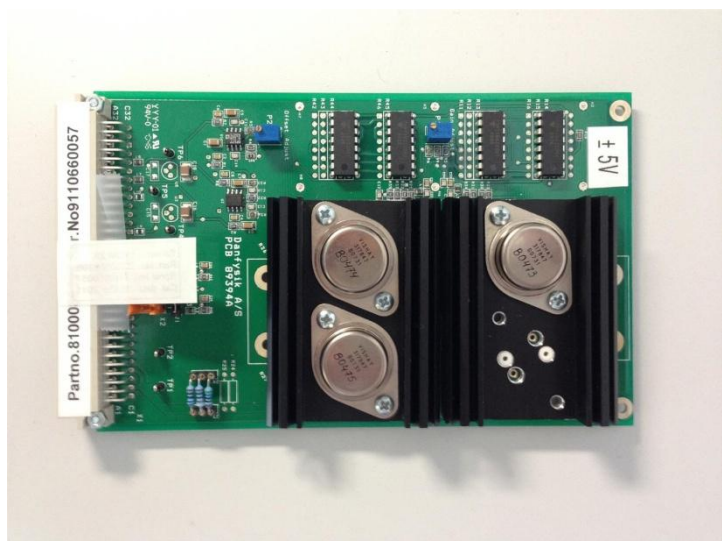
General Data

Model	CTS 2000	CTS 5000
Rated isolation voltage rms, reinforced isolation CAT III, pollution degree 2 IEC 61010-1 standards EN 50178 standards	1250 V _{rms} 1250 V _{rms}	2000 V _{rms} 2000 V _{rms}
Rated isolation voltage rms, single isolation CAT III, pollution degree 2 IEC 61010-1 standards EN 50178 standards	2500 V _{rms} 2500 V _{rms}	4000 V _{rms} 4000 V _{rms}
RMS voltage, AC isolation test 50/60 Hz, 1 min	10.8 kV _{rms}	16.2 kV _{rms}
Impulse withstand voltage 1.2/50 us	19.9 kV _{rms}	29.8 kV _{rms}
Operation temperature (Rack)	10 ... 40°C	
Operation temperature (Head)	0 ... 55°C	
Operation humidity	20 ... 85 %	
Supply voltage	100 - 240 V _{AC} , 50 - 60 Hz	
Power consumption	100 VA max.	
Warranty period	36 months	

One CTS 2000 / CTS 5000 package consists of:

- 19" Electronics rack
- Transducer head 2000 or 5000 A
- European Schuko mains cable
- Connection cable from rack to transducer
- Analogue output cable
- Manual

Additional Voltage Output Module 5 Vrms



The VOM 2A/5V is an optional burden resistor module with voltage output amplifier. When it's installed into the CTS rack the transducer system delivers 2 A_{rms} and 5 V_{rms} at full scale.

Specifications of CTS 5 Vrms Voltage Output

Model	CTS 2000	CTS 5000
Primary Current Range		
DC, RMS Sinus	2000 A _{rms}	5000 A _{rms}
Peak	2828 A _{pk}	7071 A _{pk}
Overload Ability		
Short Time (100 mS)	10000 A _{pk}	25000 A _{pk}
Bandwidth	DC ... 300 kHz	DC ... 80 kHz
Temperature Influence	1 ppm/K	1 ppm/K
Output Ratio	5 V _{rms} at 2000 A _{rms}	5 V _{rms} at 5000 A _{rms}
Linearity	0.002 %	0.002 %
Offset	0.005 %	0.005 %
Frequency Influence	0.2 %/kHz	0.6 %/kHz
Angular Influence	0.02° + 0.65°/kHz	0.02° + 1.4°/kHz