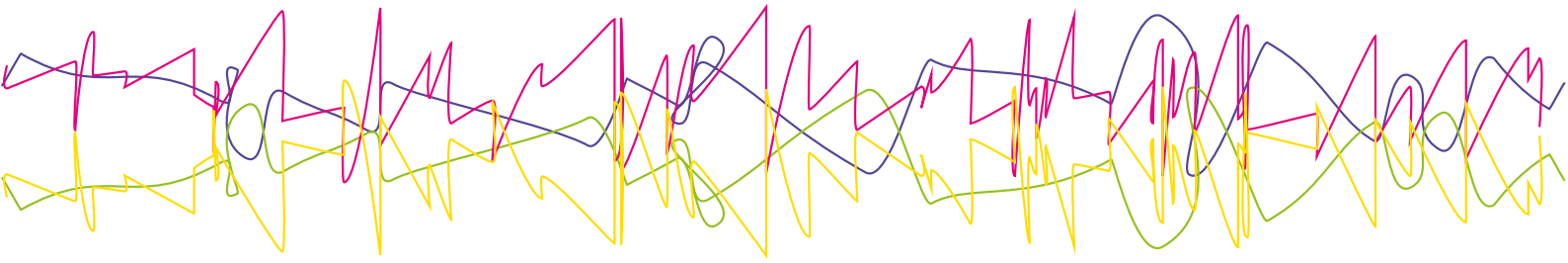
Specification of the STACC

Accuracy makes the difference



Main characteristics		
Rated input current (I_{PN})	up to ±6000 A (customer defined)	
Permissible overcurrent[1] (10 s)	115 % of I_{PN}	
Permissible overcurrent (0.1 s)	1000 % of I_{PN}	
Output transfer ratio	10 V at I_{PN}	
Output load	< 5 mA (equals 2 kΩ at 10V)	
Output max.	13.5 V (no load)	
Output impedance	< 50 mΩ	
Output rise/fall time (10…90 % of step height)	< 4 µs	
Small signal bandwidth[2] (5 % of I_{PN}) see note	500 kHz (-3 dB)	
Output noise[3] (related to I_{PN})	I_{PN} < 1000 A	I_{PN} ≥ 1000 A
BW = 10 Hz	< 0.5 ppm_{RMS}	< 0.25 ppm_{RMS}
BW = 100 Hz	< 2 ppm_{RMS}	< 0.5 ppm_{RMS}
BW = 10 kHz	< 5 ppm_{RMS}	< 2 ppm_{RMS}
Output offset error at 23 °C (related to I_{PN})	< 10 ppm (delivery figure, adjustable at site)	
Offset drift (TC)	< 1 ppm/K	
Offset error versus time	< 5 ppm/year	
Offset error versus supply voltage	< 1 ppm (for 5 % change in supply voltage)	
Offset error versus external magnetic field (< 5 mT)	< 2 ppm/mT (DC-field)	
Output ratio error at 23 °C (related to actual I_P)	< 50 ppm (delivery figure, adjustable at site)	
Ratio drift (TC)	< 1 ppm/K	
Ratio error versus time	< 10 ppm/year	
Linearity error (related to actual I_P)	< 10 ppm	
Distance (E) return bar to measuring head	E (mm) > 50 * I_P (I_P in kA)	
Induced voltage into a 1-turn primary busbar	< 0.4 mV_{PP}	

[1] Above 115% the measuring head might saturate, resulting in an undefined output value

[2] Full power bandwidth 1kHz. Derate from 100% at 1kHz to 5% at 20kHz.

[3] The noise peak-to-peak value aprox. is 5 times the RMS-value

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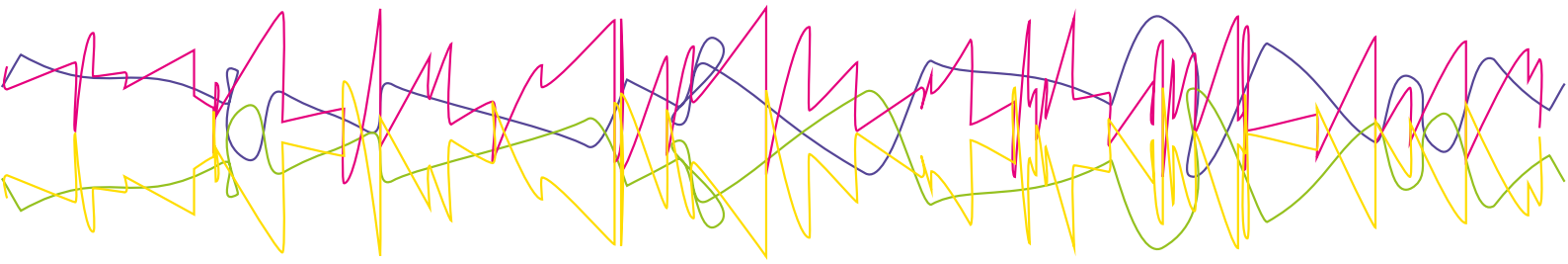

General data	
Supply voltage (±10 %)	230 Vac - 1 ph - 50 Hz (alternative ±24, ±32 or ±40 V_{DC})
Power consumption at I_{PN}	< 80 VA (max. 50 W if DC-supplied)
Output valid indicator (lit at normal operation)	LED (green)
Output valid signal (closed at normal operation)	Relay contact (I_{MAX} = 0.5 A, V_{MAX} = 60 V)
Zero current indicator (lit if I_P < 0.1 % of I_{PN})	LED (green)
Zero current signal (closed if I_P < 0.1 % of I_{PN})	Relay contact
Ambient operating temp. electronics / measuring head	10 … 40 °C / 0 … 55 °C
Relative Humidity (operating)	20 … 80 % (non condensing)
Ambient storage temperature	0 … 55 °C
Relative Humidity (storage)	20 … 80 % (non condensing)
Pollution degree	2

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