

# Specification of the STACC

Accuracy makes the difference



## Main characteristics

Rated input current ( $I_{PN}$ )	up to $\pm 6000$ A (customer defined)	
Permissible overcurrent <sup>1</sup> (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 k $\Omega$ at 10V)	
Output max.	13.5 V (no load)	
Output impedance	< 50 m $\Omega$	
Output rise/fall time (10...90 % of step height)	< 4 $\mu$ s	
Small signal bandwidth <sup>2</sup> (5 % of $I_{PN}$ ) see note	500 kHz (-3 dB)	
Output noise <sup>3</sup> (related to $I_{PN}$ )	$I_{PN} < 1000$ A	$I_{PN} \geq 1000$ A
BW = 10 Hz	< 0.5 ppm <sub>RMS</sub>	< 0.25 ppm <sub>RMS</sub>
BW = 100 Hz	< 2 ppm <sub>RMS</sub>	< 0.5 ppm <sub>RMS</sub>
BW = 10 kHz	< 5 ppm <sub>RMS</sub>	< 2 ppm <sub>RMS</sub>
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 <sub>pp</sub>	

<sup>1</sup>Above 115% the measuring head might saturate, resulting in an undefined output value

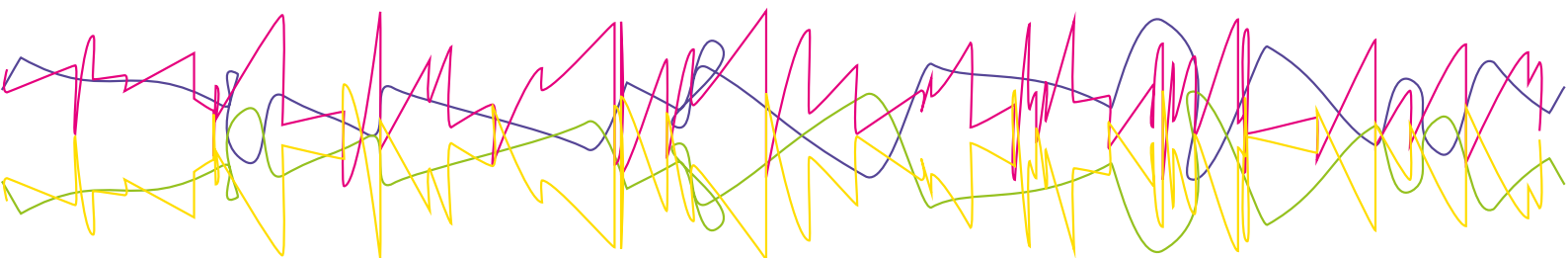
<sup>2</sup> Full power bandwidth 1kHz. Derate from 100% at 1kHz to 5% at 20kHz.

<sup>3</sup> The noise peak-to-peak value aprox. is 5 times the RMS-value



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## General data

Supply voltage ( $\pm 10\%$ )	230 Vac - 1 ph - 50 Hz (alternative $\pm 24$ , $\pm 32$ or $\pm 40$ V <sub>DC</sub> )
Power consumption at I <sub>PN</sub>	< 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 <sub>MAX</sub> = 0.5 A, V <sub>MAX</sub> = 60 V)
Zero current indicator (lit if I <sub>p</sub> < 0.1 % of I <sub>PN</sub> )	LED (green)
Zero current signal (closed if I <sub>p</sub> < 0.1 % of I <sub>PN</sub> )	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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