

# Specification of the CURACC

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	1 A at $I_{PN}$
Output load	$< 2 \Omega$ (burden resistor at $I_{PN}$ )
Output max.	1.3 A
Output impedance	$> 10 M\Omega$
Output rise/fall time (10...90 % of step height)	$< 4 \mu s$
Small signal bandwidth <sup>2</sup> (5 % of $I_{PN}$ )	500 kHz (-3 dB)
Output noise <sup>3</sup> (related to $I_{PN}$ )	
BW = 10 Hz	$< 0.05 \text{ ppm}_{RMS}$
BW = 100 Hz	$< 0.3 \text{ ppm}_{RMS}$
BW = 10 kHz	$< 1 \text{ ppm}_{RMS}$
Output offset error at 23 °C (related to $I_{PN}$ )	$< 5 \text{ ppm}$ (delivery figure, adjustable at site)
Offset drift (TC)	$< 0.05 \text{ ppm/K}$
Offset error versus time	$< 0.5 \text{ ppm/year}$
Offset error versus supply voltage	$< 0.1 \text{ ppm}$ (for 5 % change in supply voltage)
Offset error versus external magnetic field ( $< 5 \text{ mT}$ )	$< 1 \text{ ppm/mT}$ (DC-field)
Linearity error (related to actual $I_p$ )	$< 2 \text{ ppm}$
Distance (E) return bar to measuring head	$E \text{ (mm)} > 50 * I_p$ ( $I_p$ in kA)
Induced voltage into a 1-turn primary busbar	$< 0.4 \text{ mV}_{pp}$

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

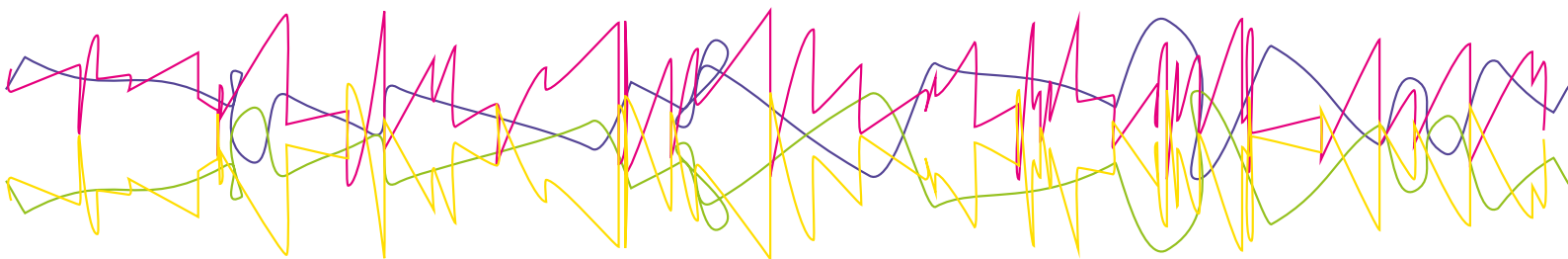
<sup>2</sup> Full power bandwidth 1kHz. Derate from 100% at 1kHz to 5% at 20kHz.

<sup>3</sup> The noise peak-to-peak value approx. 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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