



COMPACT CURRENT SENSING IN POWER ELECTRONICS // IPC-CII

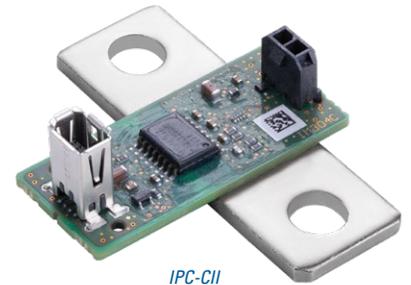


INTRODUCTION

Here's an AC and DC sensing solution that's ready for a wide range of challenges within today's power electronics revolution—in a compact, shunt-based design that can be deployed easily.

The IPC-CII is a fully calibrated phase current sensor that offers high precision and low offset in a compact footprint. The sensor's high bandwidth, high accuracy (0.2%), and wide temperature range (-40° to 85°F) make it well suited to a range of demanding applications.

The IPC's built-in delta-sigma ($\Delta-\Sigma$) modulation supports multiple analysis options in control units.



IPC-CII
Optional clip housing available

APPLICATIONS

- eVTOL aircraft
- Energy storage systems for wind and solar
- Frequency inversion in wind turbines/large drives
- Motion drives
- UPS systems
- Central inverters for PV systems

KEY FEATURES

- Shunt-based design
- Galvanic isolated (1500V for DC, for AC = 1000V)
- Connector for industrial environment
- Protection degree IP 40 (for IPC-SII with housing only)
- High long-term stability
- Direct connecting on high potential
- Communication signal LVDS

IPC-CII Series

	IPC-CII 220	IPC-CII 380	IPC-CII 600
Current measurement (nominal range)	220 A _{rms}	380 A _{rms}	600 A _{rms}
Shunt value ($\mu\Omega$ - $\pm 5\%$)	85	50	35
Max. power loss (W)	4	7	13
Extended measurement range (peak amps)	± 720	± 1245	± 1780
Initial accuracy (nominal range / room temp.)	$\pm 0.2\%$ rdg ²	$\pm 0.2\%$ rdg ²	$\pm 0.2\%$ rdg ²
Initial accuracy (extended range / room temp.)	$\pm 0.5\%$ rdg ²	$\pm 0.5\%$ rdg ²	$\pm 0.5\%$ rdg ²
Offset	180 mA	300 mA	480 mA
Physical resolution	22 mA	38 mA	54 mA
Bandwidth (3dB)	≤ 150 kHz	≤ 150 kHz	≤ 150 kHz
Noise (RMS)	≤ 3	≤ 3	≤ 3

Expect more from Isabellenhütte

Packing more electronics into every project is a daily challenge. Whether you need to drive performance in traditional applications or push the boundaries of tomorrow's energy landscape, Isabellenhütte helps you do more—in less space too! We combine 500 years of metallurgical excellence with next-gen engineering. "EXPECT MORE" from us at every turn & see how better quality & precision can take your projects further.

