Typhoon HIL GmbH is the market and technology leader in the rapidly-growing field of ultra-high-fidelity controller-Hardware-in-the-Loop (C-HIL) simulation for power electronics, microgrids, and distribution networks. We provide industry-proven, vertically integrated test solutions along with highest-quality customer support.

The company was founded in 2008 and since then has been creating products distinguished by the ultimate ease of use, unrivaled performance, leading-edge technology, and affordability.

Designed with love, from ground up, Typhoon HIL tools offer a unique user experience free of third-party software and hardware complexities. As a result, Typhoon HIL Control Center with all the libraries installs with a single click, models compile in seconds, digital inputs are sampled with a 20ns resolution, and real-time simulation runs with a time step as low as 500ns on all Typhoon HIL products.

We deeply believe that less is more when it comes to test equipment that our customers love.

We stand behind our seamlessly integrated technology stack, from Typhoon HIL’s application specific processors and ultra-robust numerical solver all the way to the schematic editor and SCADA system. The complete technology stack that empowers our customers to continuously exceed their controller software quality, performance, and time-to-market goals.

Hardware and software that work as one.

You can finally forget about constantly troubleshooting compatibility and integration issues among different elements of your HIL setup. You can focus entirely on the engineering tasks that you want to get done. Simply drag-and-drop components in Schematic Editor to model the power stage, compile and send the model to the HIL, control and interact with the emulation in HIL SCADA, automate collection of as many data points you want with Typhoon API and Python scripts, and automatically generate test reports. All from the same window. Intuitive and easy to master, our software provides a unified environment for power electronics design, test automation and quality assurance.

Test your power electronics controls until you run out of ideas, not time and money.