CAS DATALOGGERS

Synchronized Acquisition of Power Data

Product Testing Applications Made Simpler

Product testing requires not only the conventional data acquisition of analog signals such as temperatures, pressures and flows, but also often the simultaneous acquisition of **power data**. This power data normally needs to be acquired in the form of AC values from the primary-side supply. Other relevant values include actual, apparent and idle power as well as cos phi, crest factor and TRMS for currents and voltages. For frequency converters, technicians also require a secondary-side measurement, ranging from DC values to high-frequency and distorted AC values.

Delphin Message devices are convenient solutions for these multi-value data acquisition applications. Single or 3-phase power measurement units can be connected to Delphin Message devices via a serial interface. This provides users with an optimal setup to **synchronously acquire, monitor and evaluate all data** in a single system.

Application features:

- Synchronous acquisition of power data and conventional process data in a single system

- Data acquisition of characteristic values for power measurement (TRMS, vertex, crest, peak values, etc.)

- Optional connection of power measuring units from different manufacturers

- Online computation of power data with other measurement data

- Measurements for energy efficiency according to the EN 50001 standard

Example: Electrical power and temperature measurement at a pump test stand:

A German pump manufacturer supplies its products with integrated frequency converters. Final product testing after production includes 100% testing of each pump at an automated end-of-line test stand. Technicians take measurements for temperatures, pressures, vibrations, and power input.

All their measurement data is acquired using a single **Delphin** data logger. The power data is acquired as 3-phased via an integrated power measurement unit using current clamps and voltage converters. Meanwhile connection to the Delphin Message device takes place via Modbus.

All relevant power data is acquired and recorded using an application generated by Delphin ProfiSignal software. This customer is using the ProfiSignal Klicks version designed for automation, and stores data according to serial numbers via reports. The system is connected to a PPS (Paint Preparation System) via an SQL interface.

Typical areas of application:

- Measurement of electrical power in pumps and drives

- Combined power measurement at motor test stands

- Electrical power measurement of household appliance testing stands

- Analysis of power parameters

- Acquisition of the energy footprint for frequency converters

- Measurement for refrigeration and cooling systems

Need Help? Call the Application Experts!

At **CAS DataLoggers** we offer hundreds of application-specific data loggers and universal DAQ systems. Whether you're just getting started or you know exactly what you're looking for, all the options when choosing a data logger or data acquisition system can be overwhelming. We can help.

To learn more about **Delphin systems**, or to find the ideal solution for your application-specific needs, contact a **CAS Data Logger Applications Specialist** at **(800) 956-4437** or visit our website at **www.DataLoggerInc.com**.