PX8000: Evaluation of Instantaneous and Regenerative Power in Pump Development

Measurement of instantaneous voltage, current, and power by observing waveforms

As pumps are used in various places, saving energy of pumps contributes to reducing the power consumption of the entire society. The PX8000 Precision Power Scope can capture voltage and current waveforms of input and output signals of a pump at the maximum sampling rate of 100 MS/s and display instantaneous power waveforms. By measuring instantaneous power waveforms with the PX8000, instantaneous power consumption can be analyzed. Also, the power value in a range specified by the cursor can be calculated, which cannot be measured by general power analyzers. Since the power synchronized with a gate period can be calculated by using external gate signals, the power synchronized with a cycle can be measured if the cycle of a measurement target changes.

Measurement of instantaneous power/efficiency of input and output with the PX8000

#The current sensor (CT series) can be powered with the /PD2 option of PX8000. (See the image on the right.)

#If current input is small, the current can be inputted directly.

Power analysis limited to the gate period

A measurement period can be specified arbitrary; When External Gate is set up as a calculation period, the pulse width of a signal entered in Trigger IN is the measurement period.

*The images are for illustrative purposes only. They are different from actual waveforms.