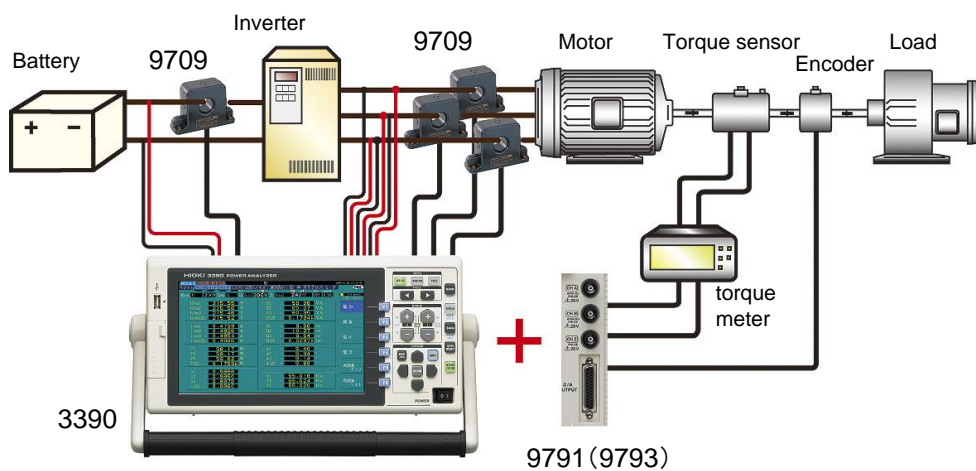


# Comprehensive Evaluation of Inverter Motors

One instrument can measure the voltage, torque, rotation, frequency, slip, motor output and electric angle required for motor analysis.

- Measure all data can be simultaneously, and collect data and evaluate characteristics at the industry's fastest speed of 50 ms.
- A-phase and Z-phase pulse inputs for an incremental encoder are available, which allow detecting and measuring the home position of a motor more accurately and simply so that the electric angle that is important for motor analysis can be measured more accurately.
- Analyze 0.5 Hz to 5 kHz harmonics without using an external clock.



- Step1. Connect the voltage cord and the current sensor.
- Step2. Connect the outputs of the torque meter and incremental rotary encoder to the input terminals of the motor option.
  - CH A torque input terminal ← Torque output of the torque meter
  - CH B rotation signal input terminal ← A-phase pulse output of the incremental rotary encoder
  - CH Z rotation signal input terminal ← Z-phase pulse output of the incremental rotary encoder
- Step3. Rotate the motor from the load side without energizing the motor and measure the induced voltage generated in the input terminal of the motor.
- Step4. Adjust the phase difference between the rotation input signal and fundamental wave component of U1 to zero using the phase zero adjustment function.
- Step5. Energize the motor to rotate it and then perform measurements.  
All parameters can be measured while measuring the phase in reference to the induced voltage.

## Products used

Power meter :POWER ANALYZER 3390  
 MOTOR TESTING OPTION 9791  
 MOTOR TESTING & D/A OUTPUT OPTION 9793  
 AC/DC CURRENT SENSOR CT6862 (50Aac/dc)  
 AC/DC CURRENT SENSOR CT6863 (200Aac/dc)  
 AC/DC CURRENT SENSOR 9709 (500Aac/dc)  
 AC/DC CURRENT SENSOR CT6865 (1000Aac/dc)

Torque meter :Please prepare an incremental rotary encoder (voltage output) separately.