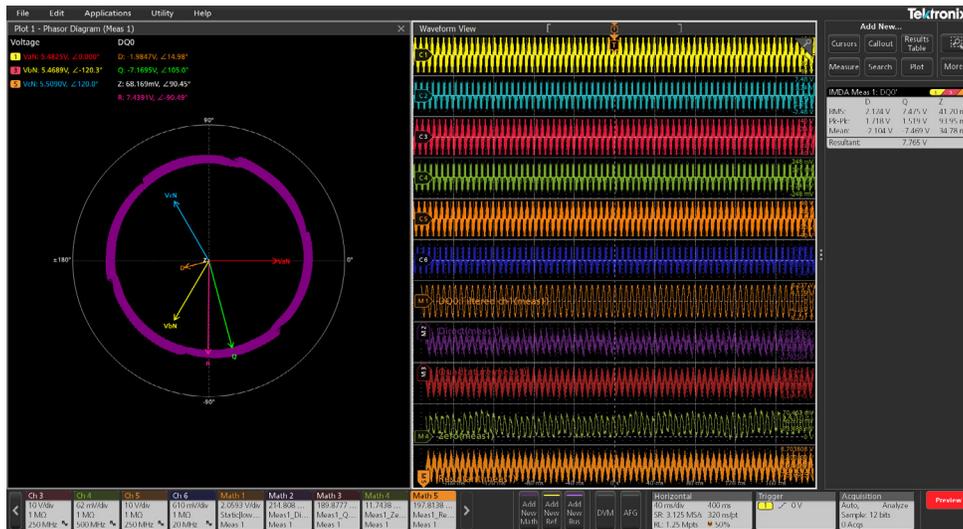




EV Powertrain Analysis and Troubleshooting

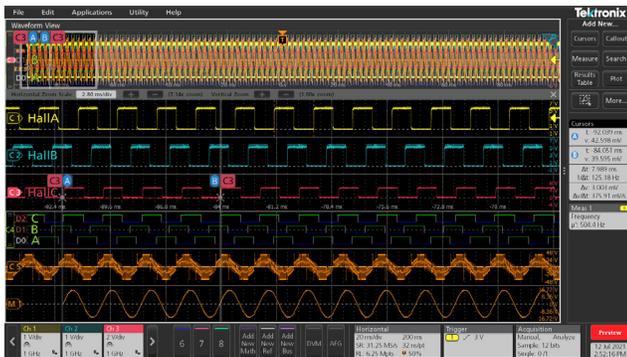
Comprehensive visibility into your electric vehicle traction inverters and motor systems

Oscilloscopes, probes and analysis packages combine to provide accurate, repeatable measurements, along with easy collaboration and easy documentation. All measurements can be performed manually, or automated using programming commands.



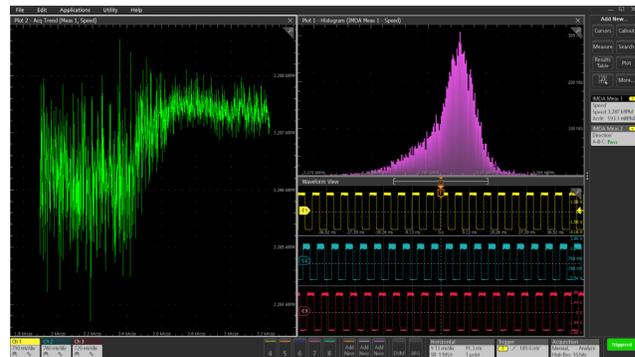
Traction drive output waveforms with DQ0 control parameter display

Achieve stable PWM waveform displays quickly and easily. Phasor diagrams are available for output voltage and current. Phasor diagrams are also available to show the relationship between rotor and stator vectors on induction, permanent magnet and BLDC motors.



Traction motor speed and torque sensor measurements

Measure mechanical parameters such as speed, angle and torque using appropriate sensors. Measure electro-mechanical efficiency.

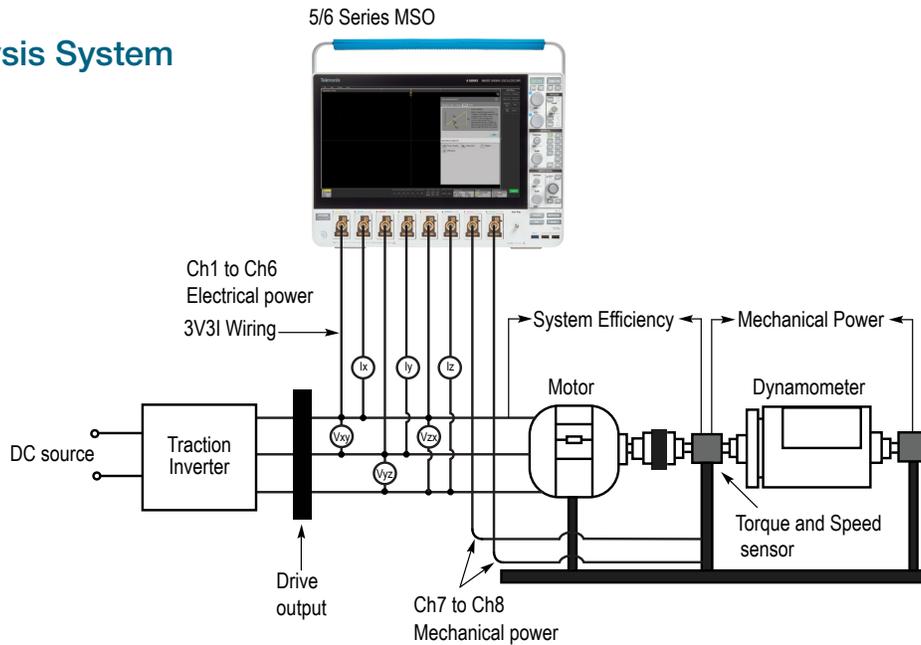


Measurement trend, statistics and histograms.

Trending and statistical tools help to validate system performance during acceleration, deceleration and other dynamic conditions.

Tools for EV Traction Inverter and Motor Analysis

Inverter Analysis System



Model	Description
MSO58B-BW1000	1 GHz, 8 channel oscilloscope (includes 8 ea. TPP1000 1 GHz passive voltage probes)
Opt. 5-IMDA Opt. 5-IMDA-DQ0 Opt. 5-IMDA-MECH	Inverter, Motor and Drive Analysis with DQ0 and mechanical measurements
Opt. 5-PS2	Power Solution Bundle <ul style="list-style-type: none"> • Opt. 5-PWR Advanced Power Analysis • TCP0030 Current Probe • THDP0200 Differential Voltage Probe • 067-1686-xx Deskew Fixture
THDP0200 x 2	Differential Voltage Probes
TCP0030A x 2	Current Probes

Optimize efficiency with switching loss and magnetics analysis with Advanced Power Analysis (Opt. 4/5/6-PWR)

- Switching timing and losses
- In-circuit inductor and transformer measurements, including B-H curves
- DC/DC converter efficiency measurements

Accurate, repeatable Double Pulse Testing on switching devices (Opt. 4/5/6-WBT-DPT)

- 13+ measurements per JEDEC and IEC standards for switching, timing and reverse recovery
- Quick, easy setup through the 4, 5 or 6 Series MSO intuitive controls
- Configurable settings to test beyond specifications and understand margins

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