

Fleet Testing: Electrics/Electronics

For Hybrid and Electric Vehicles



Fleet Testing - Services from IAV

New technologies and systems are seeing more and more electronic components being interconnected in the vehicle. The complexity of functions, the high level of interconnection and use of many different bus systems are increasing the probability of malfunctions. The work involved in analyzing faults is growing too. Testing system integration in the vehicle and validating all functions and components within set deadlines and budgets are the key to achieving developer goals and delivering quality in the field.

With many years of experience in customer projects, IAV can provide a wealth of expertise in fleet testing. Our particular strength lies in hybrid vehicles and electromobility, where we have no shortage of OEM references. Offering you a full range of services on a one-stop shop basis, we can provide support wherever you need it.

Recording and Analyzing Data Measured

Analyzing malfunctions involves measuring data on a large scale. Some cases make it necessary to record the full scope of vehicle communication. Our approach continuously measures data from every kilometer traveled, allowing accurate analysis.

IAV has developed a range of tools - IAV AMeDA and IAV Measurement Data Platform.

Our Services

- ▶ *Testing concept*
- ▶ *Test engineers//trained drivers*
- ▶ *Organizing fleet and test drives*
- ▶ *Selecting and installing measuring equipment, interconnecting components, adapters, etc.*
- ▶ *Conducting tests and taking full responsibility*
- ▶ *Evaluating measurement data*
- ▶ *Compiling customized reports*

Our Credentials

- ▶ *Over 2 million kilometers of road testing*
- ▶ *Over 200 terabytes of measured data*
- ▶ *Testing on four continents and in all climate zones*

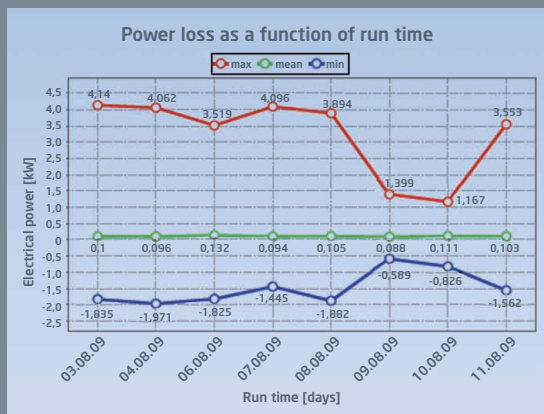




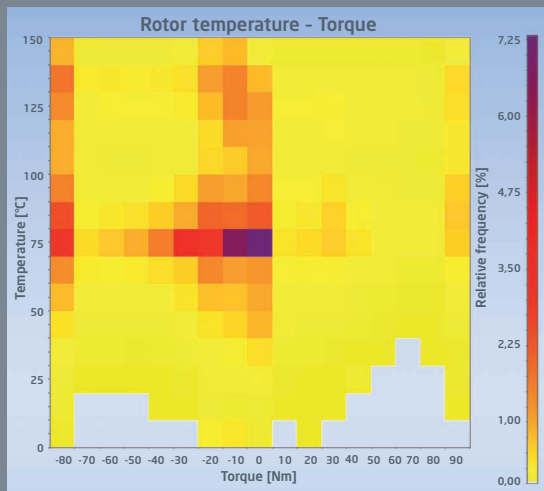
Test driving



Selecting test persons



2-D evaluation



3-D evaluation

Fleet Test Services Available from IAV

Test Driving

- ▶ Advising the selection of test persons
- ▶ Providing test persons from a test-subject pool
- ▶ Test driving on tracks and public roads

Definition and Selection of Measuring Equipment

- ▶ Identifying and analyzing measurements
- ▶ Recommending best possible measuring equipment with hardware and software independent advice
- ▶ Procuring measuring instruments, wiring and equipment
- ▶ Providing measuring equipment

Installation of Measuring Equipment

- ▶ Planning where to fit measuring equipment, including a measurement-point plan
- ▶ Fitting measuring equipment into test vehicles
- ▶ Customizing wiring harnesses and special adapters for measuring equipment
- ▶ Initializing measuring equipment
- ▶ Servicing measuring equipment during the test period
- ▶ Back-fitting vehicles after testing

Fleet Management

- ▶ Test planning with attention being paid to the overall process of fleet testing (vehicle planning and workshop service)
- ▶ Fully documenting and updating development status for each vehicle
- ▶ Generating user and driver profiles
- ▶ Status reporting for visualizing test coverage

Handling of Measured Data

- ▶ Transferring of measured data via data link by Intranet or Internet
- ▶ Checking plausibility of measured data with regard to measurement task and vehicle
- ▶ Keeping/backing up/filing measured data
- ▶ Managing rights for working with measured data/reports
- ▶ Access to measured data and reporting via Intranet and Internet
- ▶ Initiating configuration updates for measuring equipment

Fault Analysis and Fault Tracking

- ▶ Client-specific, automated evaluation and event identification using IAV's AMeDA modular analysis software
- ▶ Capability of realizing complex logical and mathematical evaluations
- ▶ Ability to import existing evaluation definitions (CANoe)
- ▶ Evaluating measured data with attention focused on individual systems and overall vehicle
- ▶ Analyzing irregularities with the support of networking experts
- ▶ Tracking and documenting faults through to monitoring remedial action