TITAN ePowertrain
The E-mobility Solution

The TITAN ePowertrain is an extension of the modular based TITAN Powertrain series. It is specifically designed to support the testing of E-mobility powertrains with a variety of degrees of electrification. Whether a BEV (battery electric vehicle) with no internal combustion engine (ICE), hybrid powertrains, or driveline components, this system covers state of the art test applications for the ground vehicle market in LD (light-duty), MD (medium-duty) and HD (heavy-duty), for on-road or off-road vehicles.

FEATURES

- DC Supply up to 1,200 V, 1,400 A
- Embedded simulation tools like Virtual Battery, Virtual Engine or Vehicle RLS (Road Load Simulation)
- Integrated instrumentation for emissions, efficiency, power management, analog and digital IO and vehicle data buses
- High performance dynamometer systems for testing at boundary conditions
- Fully integrated test suites
- Open interface for external simulations (HILS), and replications test methods
The TITAN ePowertrain guarantees future-proof testing equipment. The modular design offers a wide range of extensions and additional modules. A prime mover module from the Virtual Engine portfolio can be added. Likewise, the specially designed, ultra-low inertia wheel dynamometer extends the testing regime to zero speed at maximum torque, peak torque impacts, wheel spin, and resonance reproduction.

**KEY BENEFITS**

**Made for Testing E-mobility**

The TITAN ePowertrain guarantees future-proof testing equipment. The modular design offers a wide range of extensions and additional modules. A prime mover module from the Virtual Engine portfolio can be added. Likewise, the specially designed, ultra-low inertia wheel dynamometer extends the testing regime to zero speed at maximum torque, peak torque impacts, wheel spin, and resonance reproduction.

**FLEXIBLE**
- Modular design
- Variable powertrain and vehicle configuration
- Quick and easy customization of dynamometer configurations, DC power and simulation modules
- Spindle or free-wheeling hub wheel & tire assembly for connection to driveline or vehicle

**FOCUSED**
- Natural frequency simulation by HORIBA patented wheel slip technology
- Field measured load replication (curb impact and hill start)
- Applications for electrified powertrain testing

**INTEGRATED**
- Powerful tools like battery or wheel slip simulation integrated in the controller SPARC®
- Seamless integration of a wide range of HORIBA’s product portfolio
- Standard interfaces to 3rd party equipment or simulation software

**SPECIFICATIONS**

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<tr>
<th></th>
<th>DYNAS_3-Series WM3200LI</th>
<th>WM4200LI</th>
<th>WM3000ULI</th>
<th>WM4000ULI</th>
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<tbody>
<tr>
<td>TORQUE / OVERLOAD [Nm]</td>
<td>3,200 / 4,800</td>
<td>4,200 / 5,000</td>
<td>3,000 / 5,000</td>
<td>4,000 / 5,000</td>
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<tr>
<td>POWER [kW]</td>
<td>220 / 330</td>
<td>290 / 348</td>
<td>340 / 544</td>
<td>420 / 530</td>
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<tr>
<td>SPEED [rpm]</td>
<td>640</td>
<td>660</td>
<td>1,020</td>
<td>810</td>
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<tr>
<td>SPEED [rpm]</td>
<td>3,200</td>
<td>4,200</td>
<td>3,000</td>
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<tr>
<td>INERTIA [kgm²]</td>
<td>3.5</td>
<td>4.3</td>
<td>0.85</td>
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**Battery Simulation: One or Two Channel Distribution**

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<tr>
<th></th>
<th>250</th>
<th>350</th>
<th>500</th>
<th>1,000</th>
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<tbody>
<tr>
<td>POWER [kW]</td>
<td>20 – 600</td>
<td>20 – 800</td>
<td>20 – 1,000</td>
<td>20 – 1,200</td>
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<tr>
<td>VOLTAGE [V]</td>
<td>500</td>
<td>700</td>
<td>1,000</td>
<td>1,400</td>
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<tr>
<td>CURRENT [A]</td>
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* Technical specifications are subject to change.
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