

TITAN ePowertrain

Solutions for e-mobility powertrain and vehicle testing



CAV

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 1.200V, 2000 A
- Embedded simulation tools like Virtual Battery, Virtual Engine or Vehicle RLS (Road Load Simulation)
- Integrated instrumentation for power management, efficiency, emissions, analog and digital IO and vehicle data buses
- High performance dynamometer systems for testing at boundary conditions



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.

KEY BENEFITS

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^{pt}
- Seamless integration of a wide range of HORIBA's product portfolio
- Standard interfaces to 3rd party equipment or simulation software

SPECIFICATIONS*

DYNAS₃-Series

DYNAS_{3PM}-Series

	WM220M3200RI	WM290M4200RI	WM345M3000LC	WM420M4000LC
TORQUE/ OVERLOAD (Nm) 3,200 / 4,800	4,200 / 5,000	3,000 / 5,000	4,000 / 5,000
POWER (KW) 220/330	290 / 348	346 / 576	419 / 524
RATED SPEED (rpr	n) 657	660	1,100	1,000
MAXIMUM SPEED (rpr	n) 3,000	3,000	3,000	3,000
INERTIA (kgr	n ²) 3.6	4.3	1	1.1

Battery Simulation : One or Two Channel Distribution

POWER	(KW)	250	350	500	800
VOLTAGE	(V)	20- 600	20- 800	20- 1,000	20- 1,200
CURRENT	(A)	600	800	1,000	2,000

* Technical specifications are subject to change

HORIBA Automotive, a business segment within the HORIBA Group, provides advanced mobility leadership and comprehensive engineering and measurement expertise to support the gradual shift from traditional propulsion, to fully electrified solutions.

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THE HORIBA GLOBAL NETWORK

ASIA HORIBA Ltd. 2 Miyanohigashi Kisshoin Minami-ku Kyoto, Japan info@horiba.co.jp

EUROPE HORIBA Europe GmbH Hans-Mess-Straße 6 61440 Oberursel Germany info.he@horiba.com THE AMERICAS HORIBA Instruments Inc. 5900 Hines Drive Ann Arbor, MI 48108 USA sales-ats.us@horiba.com



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