

with Universal
Inverter Driver

THIS and THAT can be measured!

Highly accurate measurement
various motors' characteristics!

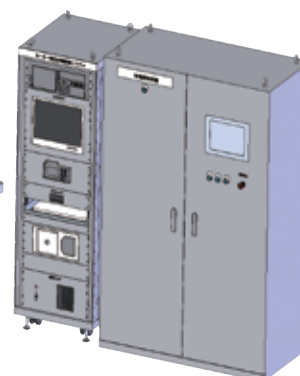
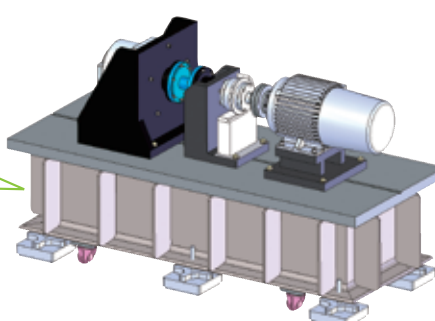
SMACH

SMART TECHNOLOGY

Motor Testing System



Universal Inverter Driver



SMACH CO., Ltd.

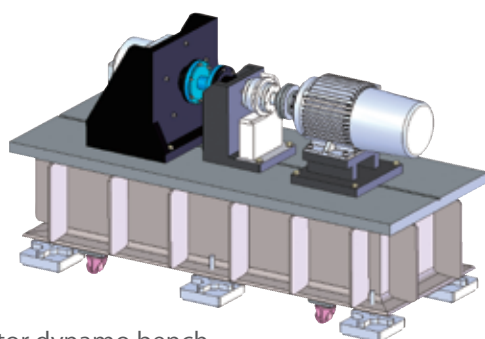


Universal Inverter Driver

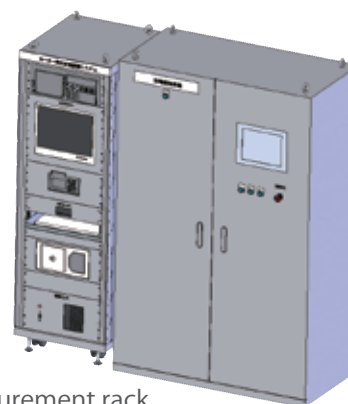
with Universal Inverter Driver, Characteristics testing "can" be easy. 6

Wide variety of motor characteristics "can" be tested with Universal Inverter Driver (brushless DC motor, reluctance motor, induction motor, etc.)

- Arbitrarily control the test motor and load motor to support various measurements.
- Graphic display of various characteristics of torque, rotation speed, power, etc. measured with high accuracy.
- Support drive control of sensorless motors.
- Compatible with energy saving measurement systems with the energy circulation system
- Compatible with test equipment systems with constant temperature baths and magnetic bearings.
- Capable of handling high-speed and high-power bench tests.
(Maximum torque: 500 Nm, Maximum rotation speed: 30,000 rpm)



Motor dynamo bench

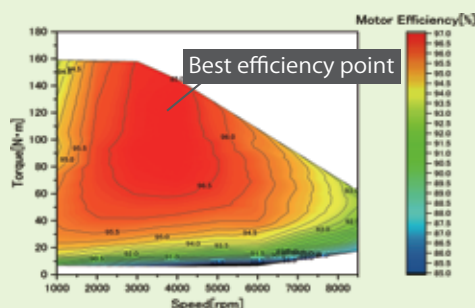


Measurement rack

Motor characteristics "can" be displayed graphically. 6

With the multifunctional graphing tool, motor characteristics can be easily displayed graphically.

Motor efficiency map



Evaluation Center

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Development Equipment

- Power regeneration type DC power supply (DC650V 250kVA class)
- Cooling Tower
- Cooling chiller (Water, Oil)
- Oil temperature control system



Motor Testing System
(500Nm class)

Easy operation with measurement software **MCAT**



Easy operation



1 Easy to set up for measurements

1 System settings

Easy GUI operation.

2 Measurement preparation

Motor tuning, offset of sensor position, mechanical loss can be done easily.



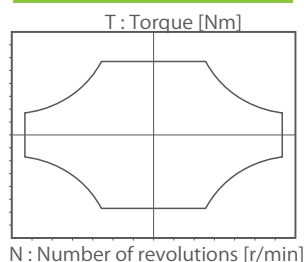
2 Easy to measure

All operations can be controlled through the measurement software "MCAT".

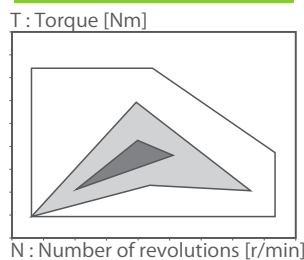


Various tests "can" be done with high accuracy

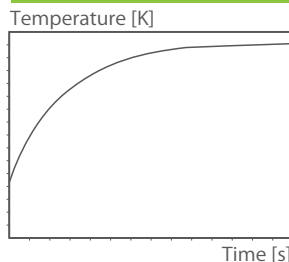
NT Characteristics



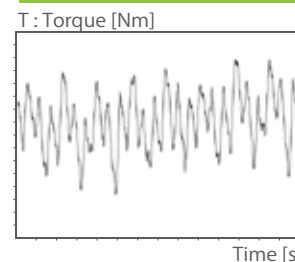
Efficiency distribution map



Thermal Characteristics



Cogging torque

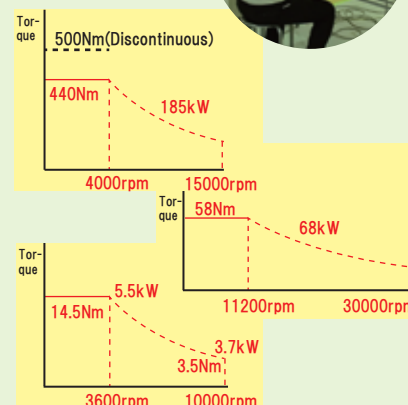


SMACH "can" Motor Testing Services.

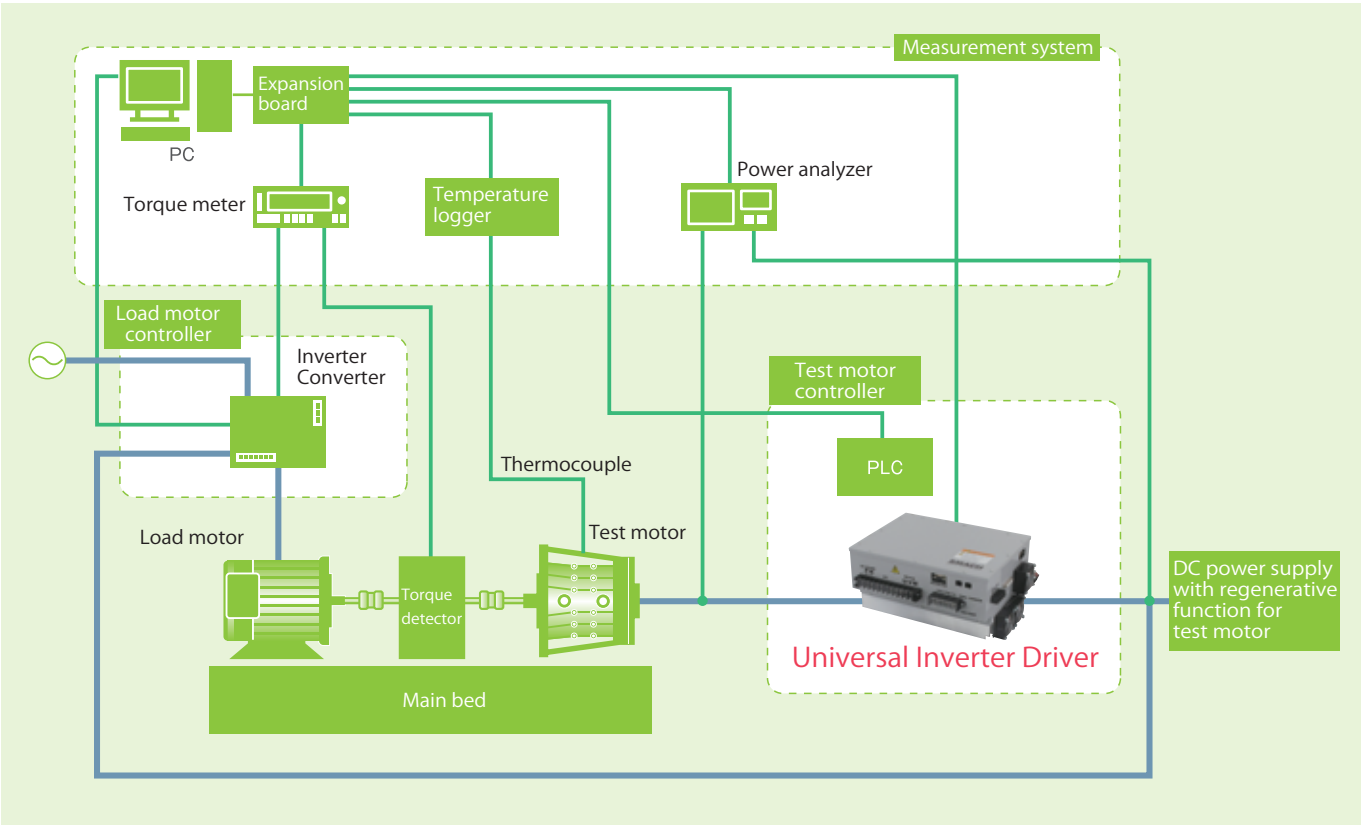


Maximum torque
500Nm
Maximum rotation speed
30,000rpm

Our Motor Testing System can measure up to the above ranges. Please feel free to contact us.



System Configuration



Basic Specification

Load	Motor	Maximum rotation speed : 30,000 rpm ; Maximum torque : 500 Nm
	Inverter	Universal Inverter Driver made by SMACH , etc
Setting Functions		- Electric constants auto-tuning - Automatic offset correction of sensor's zero position - Preliminary measurement of mechanical loss
Test Items		NT characteristics, Efficiency map, Thermal characteristics, Cogging torque , etc
Test Motor Driver	Universal Inverter Driver made by SMACH	Various types are available based on capacity Input voltage : DC 12 ~ 650V, AC 200V, AC 400V Motor current : ~ 400 A ※SMACH can deal with requested special specifications. Customer's inverter is also available.
Primary Power Supply		3Φ 200/400V 50/60Hz
Others		You can also install a constant temperature bath.

※Specifications, etc. are subject to change without notice.

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