

Electric Motor Dynamometer EMD-300

This Electric Motor Dynamometer is capable of extracting over 1200Nm at 3000rpm, for a power over 300kW. It is used to measure motor performance, torque and efficiency (with optional current clamp meter and voltage probe). Other common usages are for incoming or re-worked motor checking and burn in including bearing slip check, overheating, vibrations and brush arcing. The air-cooled eddy current dynamometer requires no external cooling lines, and is easy to install and use. The sophisticated controller can operate the dynamometer from the front panel or from a computer via the remote mode. Control modes include Manual Load, Speed, Torgue and Pump Load control. The dynamometer can hold the motor under test at a given speed, or torque, or mimic actual load conditions. A throttle controller is included which outputs an analog voltage for controlling motor excitation voltage. Additional inputs are included for Data Acquisition, display and logging.

Features

- 300kW (133hp) mechanical power absorption
- Over 750Nm from 500 rpm
- 4000 rpm top speed
- 5th Generation controller included
- Integrated DAQ Input Channels for Logging
- Free computer software for Graphic Display
- 1 Year Warranty Included

Overview

This air cooled eddy current dynamometer is designed to directly couple to a wide variety of motors from 20 to 300kW. The load on the motor can be precisely controlled while measuring the motors speed and torque, to determine the actual power output. With a current clamp meter and voltage probe the input power and the motor's efficiency can be calculated.

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Torque Load Cell Speed Pickup





Electric Motor Dynamometer EMD-300



Adjustable Motor Mount Screws



50% Over Torque Cert



R&D Screen Shot

The Electric Motor Dyno is widely used by winding shops to prove power output, burn in new brushes and coils, certify over torque, check for bearing slip, brush arcing and vibrations before placing motors back on line. It is also extensively used by organizations trying to optimize their electrical power consumption as it can hold the motor at a constant load or speed while measuring efficiency. Pump load mode can simulate process performance for usage cycle testing, including energy efficiency and temperature testing.



OPTIONS

- High-volume, low noise blower and stand
- AC Current Clamp Meter
- AC Voltage Probe
- Motor Temperature Sensor
- Low speed motors coupled via multiple V-Belts

SPECIFICATIONS

PHYSICAL

Weight: 550kg (approx) LxWxH: 125 x 90 x 160 cm

MAINS POWER

Voltage: 120/240VAC Frequency: 50/60Hz Current Draw: 30/15A max

CONTROLLER OUTPUT

Controller Power: 3000W Coms: 9600 baud, 8bit, NP

DYNO

Mechanical Power: 320kW max Torque: 1200Nm max Speed: Hall Effect, 5V excitation 30 pulse per revolution 4,500 rpm maximum Load Cell:1250Nm, 200 to 500 ohm 4-wire Wheatstone bridge 5 or 10V excitation

ENVIRONMENTAL

Temp:10 to 40°C Operational 0 to 50°C Non-Operational Humidity:5 to 90% Non-condensing Shock/Vibe:<10g