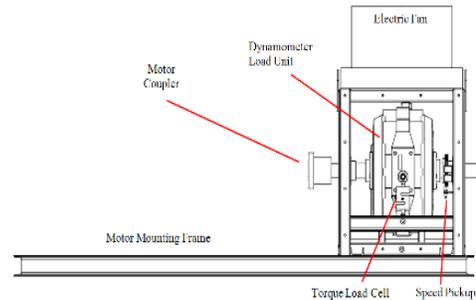


Electric Motor Dynamometer EMD-100

This Electric Motor Dynamometer is capable of extracting over 400Nm at 3000rpm, for a power over 100kW. 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, Torque 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

- 100kW (133hp) mechanical power absorption
- Over 250Nm 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 5 to 100kW. 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.

Electric Motor Dynamometer EMD-100

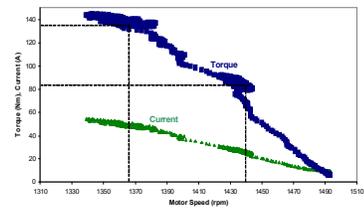


11kW Motor on test

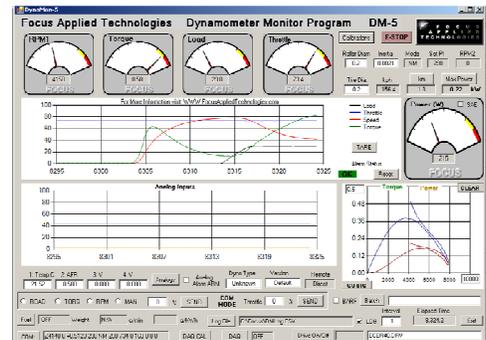
Focus Applied Technologies AC Motor Testing

Customer: **Papita** Motor: Eurodyr RF87 DV160M/BWHR Rating: 11 kW
 Date: 25-Oct-2018 Tech: Ye Speed: 1400 rpm
 Frict Ch: 1.7 Nm Inertia: 0.59 Dyno ID:200 Cos Phi: 0.86 V: 415 V
 Frict Fac: 0.0028 Newipm Dyno ID:200 Current: 25 A Hz: 50

Test Point	Load %	Speed rpm	Torque Nm	Pinch kW	Volts Ph-Ph V	Current A	Pe kW	Efficiency %
1	0%	1493	6.62	1.9	430	9.3	5.8	17.8%
2	100%	1435	86.3	12.8	414	24	18.8	86.6%
3	150%	1381	132	18.9	410	45.9	28.0	70.7%

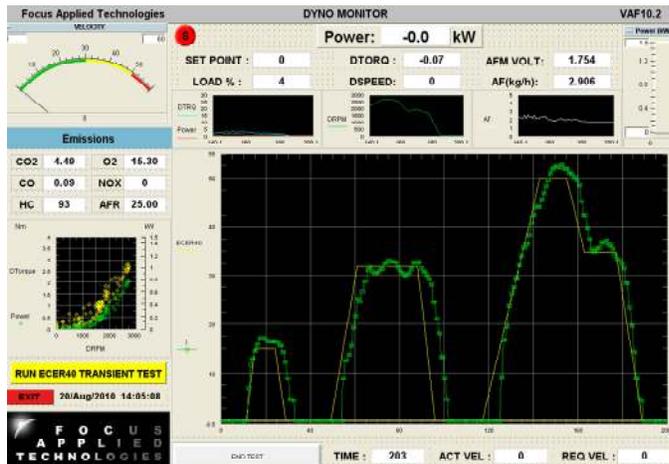


50% Over Torque Certification



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

SPECIFICATIONS

PHYSICAL

Weight: 350kg (approx)
 LxWxH: 55 x 60 x 60 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: 120kW max
 Torque: 400Nm 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