

LARGE AC MOTORS

STATE-OF-THE-ART TEST LAB



MEETS OR EXCEEDS: IEC, IEEE, NEMA, JEC, AND API STANDARDS



LARGE AC MOTOR

WEG has invested over US\$3.3 million in state-of-the-art equipment for its 20 MVA test facilities.

Tests Performed:

ROUTINE

- Cold winding resistance measurement
- Secondary voltage
- No load
- Locked rotor
- Hi-pot
- Insulation resistance
- Thermal protection components verification

TYPE

- Cold winding resistance measurement
- Secondary voltage
- Locked rotor
- Temperature rise
- Load
- Breakdown
- No load
- Hi-pot
- Insulation resistance
- Thermal protection components verification

SPECIAL

- Vibration
- Vibration per API 541 (ADRE Bently Nevada System1)
- Noise level
- Bearing insulation resistance
- Shaft voltage
- Overspeed

Other tests may be done under customer's request.



WEG's Supermotor operates at 42,000 hp, which is equivalent to fifty-two Formula One racing cars.

TEST LABORATORY



20 MVA Test Lab



10MVA Test Lab Control Room



Testing a WEG Supermotor

End User: ARA Bedford – UK

Application: Aerodynamic Wind Testing Tunnel

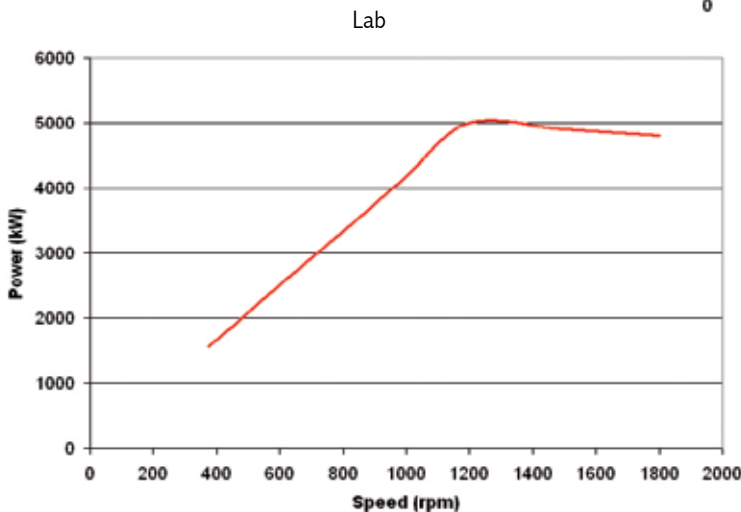
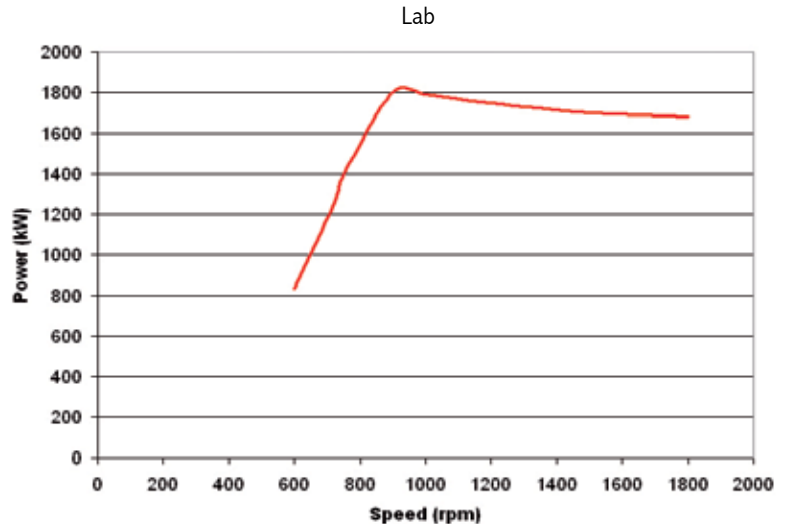
Scope: 27,000kW (42,000HP) , 12poles, 11kV, 50Hz, Frame: MAV 1600M



TEST LAB CAPACITY

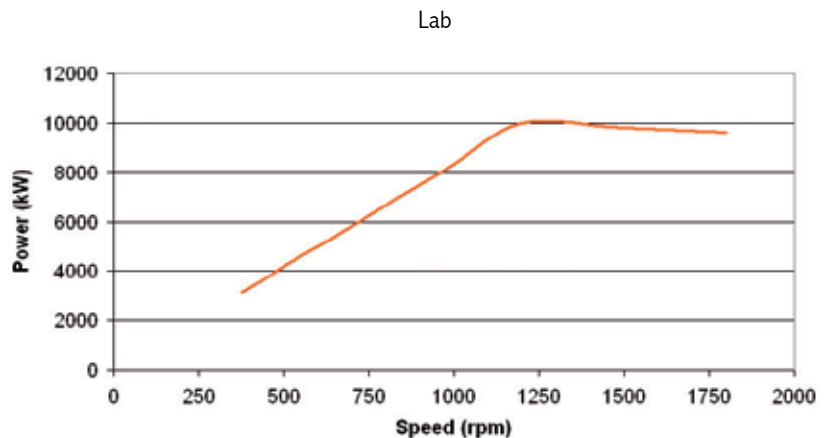
5,000 kVA Test Lab

Voltage: 220V to 13,800V
Frequency: 30 Hz to 60 Hz
Installed Power: 5,000 kVA
Full Load Power: See graph to right.
Dynamometer: 1 x DC 1.5 MW



10,000 kVA Test Lab

Voltage: 2,300V to 13,800V
Frequency: 30 Hz to 60 Hz
Installed Power: 10,000 kVA
Full Load Power: See graph to left.
Dynamometer: 1 x AC 5 MW



20,000 kVA Test Lab

Voltage: 2,300V to 13,800V
Frequency: 30 Hz to 60 Hz
Installed Power: 20,000 kVA
Full Load Power: See graph to right
Dynamometer: 2 x AC 5 MW

WEG's large AC motors test labs also allow testing of motors using equivalent load methods such as dual frequency and forward short circuit. All test data is collected in "real time."

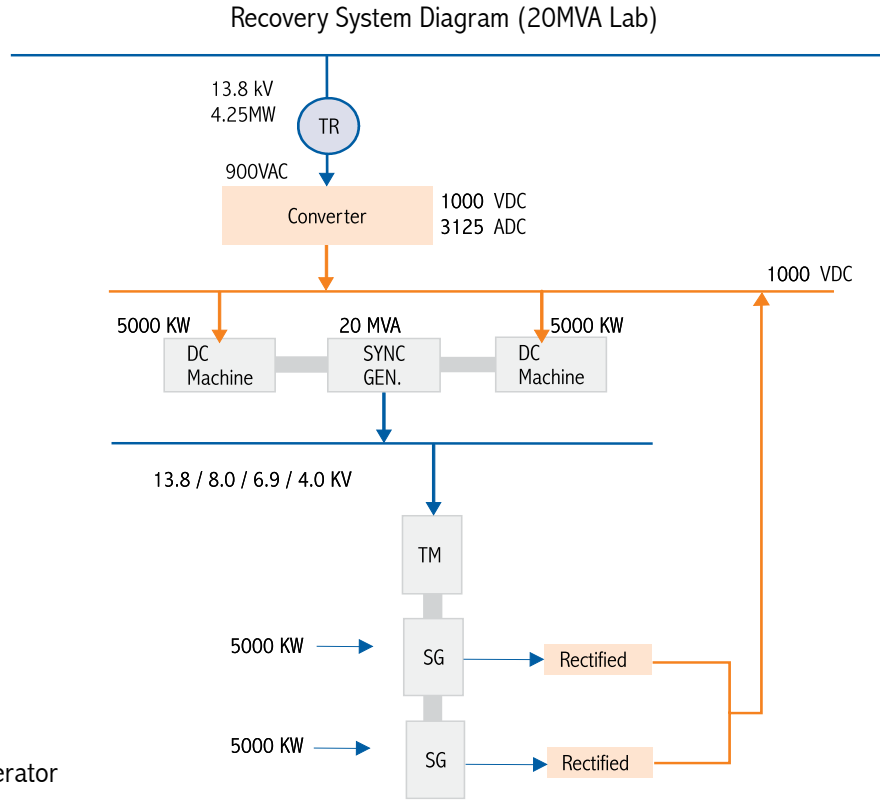
Energy Conservation

AN ENVIRONMENTALLY COMPANY

WEG is an environmentally friendly company. We are always concerned with the proper management of natural resources, and we make it a point to recycle many of the materials we use in our various industrial processes. Up to 85% of the energy used in the test lab can be recovered, which saves energy, and helps to protect the environment.

INDEX

- TR - Transformer
- TM - Test motor
- SG - Synchronous generator



SYNERGY:

WEG has diverse and integrated product lines that are divided into three main categories.

Energy: Generators and Transformers

Automation: VFDs, Soft Starters, LV Controls, and Switchgear

Motors: LV and HV Electric Motors.



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