



MOBILE POWER DUTY ALTERNATORS



It's a given that the most demanding and toughest applications in power generation are often those that require power that is always ready and always on the go.

Alternators in Mobile Duty applications must be designed to withstand a variety of factors including harsh environmental conditions, extraordinary levels of vibration, demanding and irregular load profiles that are usually not found in stationary generator applications.

Harsh environmental applications with varying weather exposure and corrosive and abrasive elements, demand a robust insulation system and an adequate protection for alternator winding coils. WEG's Mobile Duty design offers the exclusive Grade 3 winding protection along with Vacuum Pressure Impregnated (VPI) stators and class H winding insulation to guarantee the most reliable functionality for the toughest environments.

Applications



Rental



Mobile mining equipment (crushers, conveyors)



Vehicle mounted power



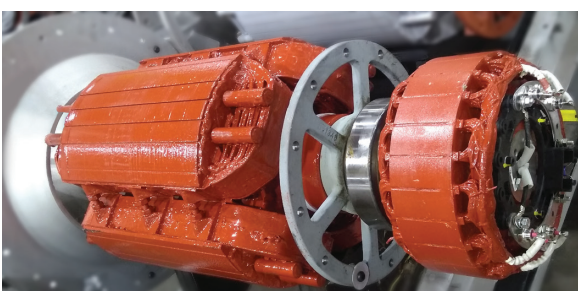
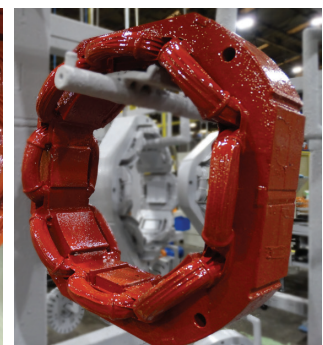
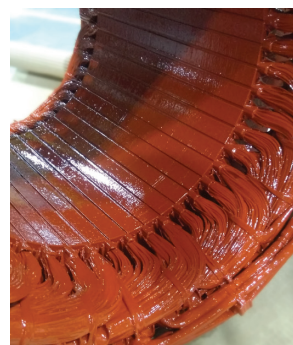
Trailed gen-sets

Demanding Environments

- Humidity over 95%
- Abrasive elements (dust, sand, solid particles)
- Chemical environments (ammonia, acids, sulfur dioxide)
- Salty atmosphere

WEG Grade 3® Technology

- Double insulation of the winding wires
- 2x epoxy paint layers (N1277 and 89PW, respectively) for protection of rotors and coiled stators
- 1x external finish paint layer
 - N2628 epoxy paint for environments with contaminating elements
 - N2677 polyurethane paint for environments without contaminants



VPI (Vacuum Pressure Impregnation)

- Coils submerged in resin
- Vacuum pressure cycles are applied so that the resin is assimilated by the insulation system
- Provides high mechanical and dielectric strength
- Superior protection against ingress of water and contaminating materials

WEG WINDING PROTECTIONS

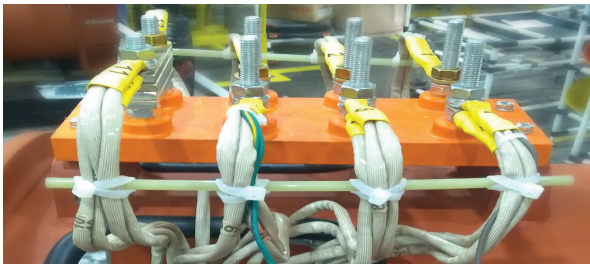


Mechanical Designs for High Vibration Applications

WEG has the capabilities to provide custom frame solutions to meet the most demanding mechanical requirements in both cast iron frame and rolled steel designs for optimized thermal and vibration dampening performance.

Lead Wires are Secured and Separated by Additional Fiberglass Support

Rods designed to avoid potential damage due to contact and rubbing that can be problematic for high vibration levels associated with mobile applications.



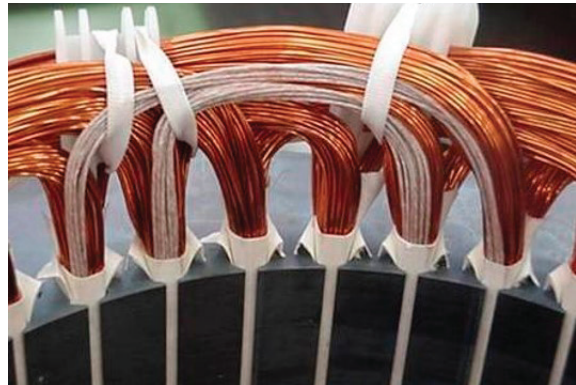
Mobile Gen-set Application



Preparedness for Demanding Loads

Brushless with Auxiliary Winding

WEG alternators are brushless with auxiliary winding as a standard design. The auxiliary coil system are totally isolated from the main phase coils ensuring that deformations caused by the load to do not interfere in the voltage regulation.



High Motor Starting and Short Circuit Capabilities

WEG alternators are especially designed to provide the highest starting kVA and having a short circuit withstand capability of 300% of the rated current during 10s. PMG excitation is also available and can be provided as an option if preferred.

Permanent Magnets in the Exciter Stator

All WEG exciter stators include permanent magnet inserts (PMI) that maintain the residual voltage of the excitation field, avoiding the need to field flash units that have been idle for extended periods.



WEG Group - Energy Business Unit
 Jaraguá do Sul - SC - Brazil
 Phone: +55 47 3276 4000
energia@weg.net
www.weg.net