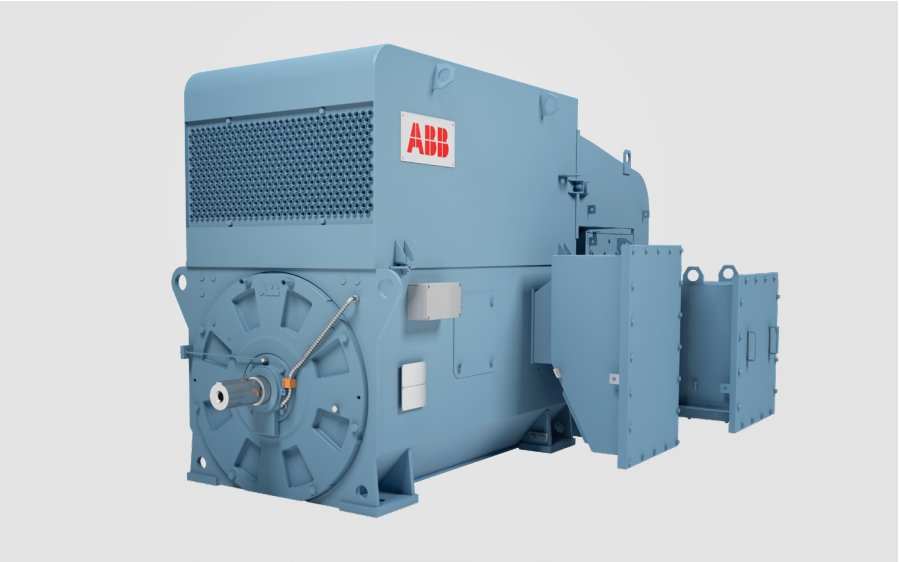
ABB MOTION SERVICES

Brush-lifting system for slip-ring motors

Reduced service costs and higher uptime



A state-of-the-art brush-lifting system for new and existing ABB slip-ring motors leads to less wear of the brushes and slip rings, while lowering maintenance costs and extending equipment lifetime.

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01 ABB slip-ring motor
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02 Brush-lifting system

Slip-ring motors
Slip-ring motors are ideal for applications requiring high inertia, such as hoists and lifts. The high starting torque produced by slip-ring motors helps applications to start first time, thereby avoiding repeated attempts that can stress the equipment.

Slip rings are typically used only during start-up. Continuing their use during normal operation results in lower efficiency and premature wear of slip rings and brushes.

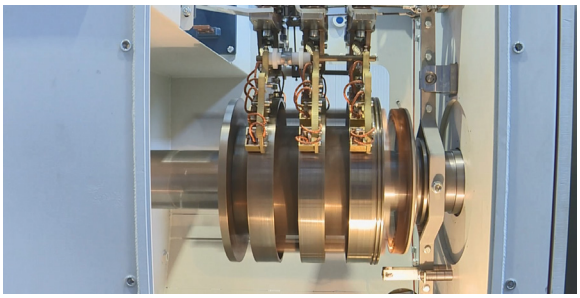
Brush-lifting system
A new generation of brush-lifting system is available for new and existing ABB slip-ring motors.

After the motor has reached its full speed and the start-up process is completed, the brush-lifting system first short-circuits the rotor winding and then raises the brushes from the slip rings. This considerably reduces the wear on brushes and slip rings, helping to increase maintenance intervals, reduce service costs, and boost reliability.

The brush-lifting system can be used for engineered ABB slip-ring motors. It can be mounted on new motors or retrofitted to existing motors (prior engineering checks required).

Key benefits

- **Higher production uptime**
  Production stops for maintenance and replacement of slip rings and brushes are considerably reduced.
- **Lower maintenance and spare part costs**
  Premature wear of slip rings and brushes is avoided.
- **Longer motor lifetime**
  Accumulation of dust on the brushes is avoided resulting in reduced earthfault risk.
- **Brushes arranged irrespective of loading**
  As load changes there is no longer any need to stop the motor and adjust brush set-up.



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How to upgrade your ABB slip-ring motors with the brush-lifting system

Contact ABB

Contact your local ABB representative and indicate the motor's serial number.

ABB checks upgrade possibility and defines an upgrade path

ABB checks the compatibility of an upgrade and advises on the upgrade path. The assessment shows the impact that the upgrade will have compared to the current maintenance routines.

Timing the upgrade with L4 maintenance

Whether installing a new or upgrading an existing brush-lifting system, the most efficient procedure is when carrying out L4 maintenance.

L4 and brush-lifting system installation

L4 and brush-lifting system installation is performed and tested in a motor workshop. This allows for all pre-planning and preparations to be tightly managed and controlled, minimizing downtime by completing two tasks at once – L4 maintenance and brush-lifting system installation.

Commissioning

Motor with brush-lifting system is commissioned at your site.

For more information, please contact your local ABB representative or visit:

new.abb.com/motors-generators/service

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