

 ABB Oy, Drives Service		<h1>Service Product Description</h1>		Document nbr 4FPS10000074346
				Related to material
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Preventive maintenance service for low voltage AC drives

Preventive maintenance consists of regular inspections and component replacements according to the product specific maintenance schedule. On-site preventive maintenance is carried out by certified field service engineers. The engineers utilize preventive maintenance material for performing all scheduled maintenance tasks.

1. Service provides

- Maintenance work by certified field service engineer
- 100% genuine spare parts
- Maintenance according to the product specific maintenance schedule. Typical tasks include:
 - Air cooled units
 - Inspection and replacement of cooling fans
 - Cleaning of heat sink
 - Liquid cooled units
 - Inspection and replacement of cooling liquid pumps
 - Inspection and adding coolant inhibitor
 - Cleaning of heat exchanger
 - Inspection and replacement of expansion tank
 - Inspection of pipe connections
 - Inspection and replacement of cooling fans
 - Aging
 - Replacement of capacitors
 - Replacement of control boards that have aging capacitors
 - Replacement of backup batteries
 - Replacement of resistors and diodes
 - Connections and environment
 - Inspection and replacement of flat cables
 - Inspection of terminals and connectors
 - Inspection and replacement of air filters
 - Inspection of contactors and breakers
 - Inspection of optic cables (connections)
 - Inspection for dust ingress, corrosion and temperature
- Test run of the drive under normal conditions
- Service report including recommendations for future actions

Additional services to be agreed separately

- Inspection of the drive spare part inventory
- Reforming of spare module capacitors
- ESD protected cleaning of the drive

2. Service does not include

- Repair work and spare parts for repair
- Waiting time caused by the customer or his actions

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3. Customer responsibilities

- Plan maintenance in advance to reserve maintenance resources and service parts
- Provide all available information about the equipment's maintenance history
- Site health and safety introduction and provision of work permits
- Provision of electrically qualified personnel when assistance is required
- Ensure safety of the working area (zero energy state, grounding, safety locking)
- Delivery of maintenance materials next to the installation location
- Assistance when moving and lifting heavy objects
- Access to equipment for maintenance during commissioning
- Enable to test run

4. Other terms

- According to local legislation and terms of delivery