

CUSTOMER DOCUMENT

Preventive maintenance schedule

ACS580MV

Overview

The recommended intervals for drive inspection and component replacement are based on the maximum ratings for the operational and environmental conditions.

To ensure the highest reliability and optimum performance of your drive, ABB highly recommends regular inspections by qualified personnel. Such inspections are crucial in detecting performance related issues due to the potential premature aging of components.

ABB drives have been designed to continuously operate for long periods of time between maintenance and inspection intervals. If the recommended maintenance or inspection schedule is inadequate for a specific application, a different schedule can be created through mutual agreement during the sales phase.

For more detailed maintenance information, see the product manuals at:

<http://new.abb.com/drives/medium-voltage-ac-drives>

Legend

| | |
|---|--------------------------------------------------------------------------------|
| I | Inspection (visual inspection and maintenance action if required) |
| P | Performance of on-site work (commissioning, tests, measurements or other work) |
| R | Preventive replacement |

Regular inspection

The following table contains an overview of the most relevant inspection checks for the drive. ABB recommends that inspections be carried out whenever the drive has been shut down, i.e., to replace components or for any other field intervention.

| Inspection action | Interval [years] | Inspection Type |
|--------------------------------------------|------------------|-----------------|
| Filter mats (replacement) | 0.5 ¹ | R |
| Power Module R1-R9 | 1 | I or P |
| Transformer | 1 | I or P |
| Optical fibers | 1 | P |
| Cable connections, bolted connections | 1 | I |
| Dustiness, Corrosion and overheating | 1 | I |
| Software, hardware upgrades | 2 | I or P |
| Spare parts | 2 | P |
| Auxiliary voltage verification | 1 | I or P |
| Insulation test | 4 | P |
| Safety circuits | 1 | P |
| Isolator knife switch for Manual bypass | 1 | I or P |
| Contactors for auto bypass (Non ABB brand) | 1 | I or P |
| Contactors for auto bypass (ABB brand) | 1 | I or P |

Foot notes:

- 1 Inspection and replacement of filter mats depend on the ambient air quality, i.e. dustiness, humidity. Monthly filter inspection recommended, 3 months interval for filter replacement recommended.



Preventive replacement schedule

The following table highlights the recommended replacement intervals for drive components, starting from the completion date of the commissioning².

This scheduled can be adapted and optimized for applications that require non-stop operation of the drive over several years. To discuss the available options, please contact your ABB sales representative.

| Years from commissioning: | 2 | 4 | 5 | 6 | 8 | 10 ³ | 12 | 14 | 15 | 16 | 18 |
|--------------------------------|---|---|---|---|---|-----------------|----|----|----|----|----|
| Cooling fans (no redundancy) | | R | | | R | | R | | | R | |
| Cooling fans (redundant setup) | | | | | R | | | | | R | |
| Power Module R1-R9 | | | | | | R | | | | | |
| PCBA, power supplies | | | | | | R | | | | | |
| Control HW Batteries | | | R | | | R | | | R | | |
| UPS batteries | R | R | | R | R | R | R | R | | R | R |

Foot notes:

- 2 The start date for the preventive replacement schedule is the commissioning completion date or 2 years after delivery, whichever comes first.
- 3 Due to the shorter life cycle of the control hardware, ABB strongly recommends combining an eventually available life cycle upgrade service with the 10-year preventive maintenance.

The drive has been designed for a lifetime of 20 years. However, if the drive is operated according to ABB's instructions in a location where the environment parameters are below the rated limits for the drive, it is also suitable for applications of higher lifetime. In order to guarantee the highest drive reliability during this longer period, a site audit is required 20 years after commissioning to define the specific maintenance actions that need to be taken.

For more information please contact:

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