

Preventive maintenance kits for ACS503 AC drives

Preventive maintenance kits contain all the necessary replacement parts for the specific scheduled maintenance. The content of each kit is carefully defined to match to ACS503 maintenance schedule. The kits have been specified based on ABB's extensive drive and component maintenance experience.



Preventive maintenance kit is a selected package of necessary parts needed for ACS503 preventive maintenance service.

Benefits

- Pre-defined, genuine service parts are provided according to the maintenance schedule
- Easy-to-order bundled material package
- Kit pricing is more economical than the cost of purchasing individual parts
- Reduced maintenance costs
- Easy-to-plan long-term maintenance material budget
- Increased maintenance performance efficiency

Service provides

The preventive maintenance (PM) kits contain the service parts for preventive maintenance. See table below:

	Years from start-up			
	3	6	15	12
	-	-	-	-
	9	18	21	24
Cooling fan	X	X	X	X
Electrolytic capacitors (DC circuit)				X
Electrolytic capacitors (SNAT 7261 INT)				X

PM kits can be selected and ordered according to the number of drives in use and their age, ensuring that all the required parts are available for maintenance.

Every PM kit has a type code, which makes ordering straightforward and easy.

Preparations before preventive maintenance

PM kits are delivered on lead-time basis, contrary to normal spare parts, hence the PM kits must be ordered well in advance of the planned preventive maintenance.

More information regarding PM kits, their content, delivery time and price visit: www.abb.com/partsonline.

- Product Lifecycle Services
- Installation & Commissioning
 - Training
 - Support & Remote Services
 - Spare Parts & Repairs
 - Maintenance & Field Services
 - Migration & Retrofits
 - Optimization





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Service notes

Maintenance schedule

There is still a commonly held belief that industrial products equipped with electronic components do not require specific maintenance. Based on ABB's experience, however, failure probability of such equipment increases after years of operation. For electric drives this period is typically 5 to 10 years. The main reason for failures is aging of components, but it is also highly affected by operational conditions. A component failure may cause consequential damage to other parts of the drive including power semiconductors.

A maintenance schedule provides a systematic and functional means of maintaining a specific drive type. It is based on extensive experi-

ence and knowledge of manufacturing and maintaining electric drives. Specifications of component suppliers are observed carefully.

The environmental and operational conditions of the drive are also considered. Demanding environment, such as high ambient temperature, humidity, dirtiness or heavy load, can measurably shorten the component lifetime and also the maintenance and component replacement intervals.

ABB recommends an annual inspection in addition to regular maintenance to be carried out to ensure optimum drive performance through its entire lifetime.

	Years from start-up																				
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Start-up	P																				
Cooling																					
➢ Cooling fan	I	I	R	I	I	R	I	I	R	I	I	R	I	I	R	I	I	R	I	I	I
Aging																					
➢ Electrolytic capacitors (DC circuit)										(R)		R									(R)
➢ Electrolytic capacitors (SNAT 7261 INT)										(R)		R									(R)
Connections & Surroundings																					
➢ Ribbon cables (connections)						I					I					I					I
➢ Tightness of IGBT modules (3Nm)						I					I					I					I
➢ Tightness of terminals						I					I					I					I
➢ Dustiness, corrosion and temperature		I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I
➢ Quality of supply voltage		I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I
Improvements																					
➢ SW/HW upgrade		I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I
➢ Based on product notes		I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I
Measurements																					
➢ Basic measurements with supply voltage		P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
Spare Parts																					
➢ Spare Parts		I	P	I	P	I	P	I	P	I	P	I	P	I	P	I	P	I	P	I	P



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Legend:
 R = Replacement of component
 I = Inspection (visual inspection, correction and replacement if needed)
 P = Performance of on-site work (commissioning, tests, measurements, etc.)
 (R) = Replacement if high ambient temperature or cyclic heavy duty