

Maintenance schedule for ACS880 wind converters

ACS880-77LC/-87LC wind converters and modules



Recommended maintenance intervals and component replacements are based on specified operational and environmental conditions. ABB recommends annual drive inspections to ensure the highest reliability and optimum performance.

Note

Long term operation near or over the maximum specified ratings or environmental conditions may require shorter maintenance intervals. Check the device specific technical specifications in the relevant hardware manual and consult your local ABB Service for maintenance recommendations at: [/new.abb.com/channel-partners/search](https://new.abb.com/channel-partners/search)

More detailed maintenance information can be found in maintenance instructions, product manuals and on the Internet: [/new.abb.com/drives](https://new.abb.com/drives)

See the below listed technical notes for more details on component aging and possible effects on the drive.

Electrolytic capacitors	4FPS10001015180
Film capacitors	4FPS10001454838
Cooling fans	4FPS10001147616
Power supplies	4FPS10001454842

FUNCTIONAL SAFETY ACTIONS

Safety function test interval	I	The drive can be a part of a safety system or application which requires periodic testing. The customer defines the test interval of the complete safety system or application. Use this test interval to test the safety function.
Safety component expiry (Mission time T _M) 20 years	R	The mission time of the ABB LV AC drive safety component is 20 years in the safety data of the drive product. The safety data is introduced in the product hardware manual.

RECOMMENDED ACTIONS BY THE USER

	Years from startup																				
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
Connections and environment																					
Air outlet meshes, dustiness and ambient temperature	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I
Cooling liquid pipe connections (main pipes and internal pipes)	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I
Tightness of terminals	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I
Spare parts																					
Spare parts	I/P	I/P	I/P	I/P	I/P	I/P	I/P	I/P	I/P	I/P	I/P	I/P	I/P	I/P	I/P	I/P	I/P	I/P	I/P	I/P	I/P
Electrical component																					
ABB-SACE Air circuit breaker maintenance, see Note 2 below	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
Condition of contactors, Note 3 below	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
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	P
Memory backup battery replacement in the BCON unit	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I
LCL-filter capacitor	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I
Smoke detector	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
Customer specific																					
UPS (SGRE)	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
UPS battery (SGRE)	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I
Cooling station pump and thermos valve (SGRE)	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I
Improvement																					
SW/HW upgrade based on product notes	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I

COOLING

	Years from startup																				
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
Main cooling fan																					
Main cooling fan (DC fans)					R					R					R						R
Coolant																					
Water-glycol coolant with inhibitor, see Note 1 below for allowed mixture		I		I		R		I		I		R		I		I		R		I	

Legend

- I Inspection (visual inspection and maintenance action if needed)
- P Performance of on/off-site work (commissioning, tests, measurements, or other work)
- R Replacement

Note 1: Cooling liquid to be used is BASF Glysantin G30 or Valvoline Zerex G30 mixed with demineralized or distilled water. Clean tap water can also be used. For more details see HW manual. In case practical examples or specific tests carried with the above-mentioned cooling mixture together with the cooling system materials the maintenance interval can be revised.

Note 2: Maintenance schedule of the air circuit breaker is according to maximum 1,000 operations of the breaker per each year. For more information, refer to maintenance manual of ABB SACE Emax 2 breaker.

Note 3: For more information about maintenance schedule and guideline, refer to instructions of ABB contactors, 1SFC101030K0201, 1SFC101044M0201.

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AGING

Years from startup

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
Cabinet																					
BCU control unit battery (Real-time clock)						R						R						R			
Air circuit breaker (maintenance according to air circuit breaker manual). Replacement after 10000 operations. See Note 2 below										R										R	
Power supplies (cabinet)										P											P
LCL-filter capacitor												R									
Smoke detector										R										R	
Connections of fiber optic cables			I			I			I			I			I			I			I
Quick connector of converter module			I			I			I			I			I			I			I
Customer Specific																					
UPS (SGRE)										R											R
UPS battery (SGRE)					R					R					R						R
Cooling station pump and thermos valve (SGRE)					R					R					R						R
IPC battery (SGRE)					R					R					R						R

Legend

- I Inspection (visual inspection and maintenance action if needed)
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