

MOTION SERVICES

# Maintenance schedule for ACS800

Applied to Industrial Single Drives, Multidrives and Liquid-Cooled Drives, manufactured or maintained 2016 or before.

For drives manufactured or maintained 2017 and onward please refer to [4FPS10000573508](#).



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	<a href="#">4FPS10001015180</a>
Film capacitors	<a href="#">4FPS10001454838</a>
IGBTs	<a href="#">4FPS10001147623</a>
Cooling fans	<a href="#">4FPS10001147616</a>
PCBAs	<a href="#">4FPS10001147621</a>
Power supplies	<a href="#">4FPS10001454842</a>

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## Years from startup

## COOLING

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
<b>Air-cooled</b>																					
Internal/additional cooling fan for ACS800-01, -04, -11, -31, -104 (IP20, IP21 and IP55)			R			R			R			R			R			R			R
Cooling fan for ACS800-01, -02, -04, -07, -11, -17, -31, -37, -38, -14, -104, DSU, ISU, ALCL			I			R			I			R			I			R			I
<sup>(1)</sup> DOL Cooling fan for DSU+992, ALCL-1X, 0X-X (mains supply frequency 60Hz)			R			R			R			R			R			R			R
Cooling fan for DSU+V992 (mains supply frequency 50Hz)			I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I
Enclosure extension cooling fan (ACS800-02)			R			R			R			R			R			R			R
Extra cooling fans inside cabinet (ACS800-x7, ACS800 md)			I			R			I			R			I			R			I
Extra IP54 cooling fan on roof of cabinet (ACS800-07, ACS800 md)			I			R			I			R			I			R			I
<b>Liquid-cooled units</b>																					
Cooling fans ACS800LC, 50Hz			I			R			I			R			I			R			I
<sup>(1)</sup> DOL Cooling fan for ACS800LC, DSU LC, (mains supply frequency 60Hz)			R			R			R			R			R			R			R
Check pH of coolant		P		P		P		P		P		P		P		P		P		P	
Add coolant corrosion inhibitor		P		P		P		P		P		P		P		P		P		P	
Heat exchanger cleaning		P		P		P		P		P		P		P		P		P		P	
Expansion tank air pressure		P		P		P		P		P		P		P		P		P		P	
Cooling liquid pump assembly			I			R			I			R			I			R			I
Change coolant in internal cooling circuit									R									R			
Expansion tank									R									R			
Cooling fans ACS800LC, 50Hz	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I

<sup>(1)</sup> DOL Cooling fan = Direct online fan

## 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

## Years from startup

## AGING

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
<b>Common</b>																					
Electrolytic capacitors (DC circuit)									R									R			
Converter electronic boards: APOW, AFIN, AFPS, AGPS, AINP, CMRB, CMIB, DSMB, DSAB, DSCB, RINT <sup>(2)</sup> , GINT <sup>(2)</sup>									R									R			
<sup>(3)</sup> Cabinet Auxiliary Power Supplies									R									R			
Memory backup battery replacement in APBU-xx unit						R						R						R			
<sup>(4)</sup> ALCL filter capacitor 380 - 415V supply network (ACS800-14, -17, -37, -38, -67, md, LC)						I			I/R			I			I			I/R			I
<sup>(4)</sup> ALCL filter capacitor 460V - 690V supply network (ACS800-14, -17, -37, -38, -67, md, LC)						I/R			I			I/R			I			I/R			I

## Connections and environment

AINT+ flat cables, CINT, NRED, discharging resistors									R									R			
Power cable connections and quick connectors of the supply, inverter and converter modules (ACS800-x7/ and ACS800 md)			I			I			I			I			I			I			I
Air filters (IP20 to IP42)	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I
Air filters (IP54 and IP54R)	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
Cleanliness check (dustiness, corrosion and temperature) and/or heat sink cleaning	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I
Main Contactor maintenance	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I

## Improvements

Based on product notes			I			I			I			I			I			I			I
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## Spare parts

DC circuit capacitors reforming	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
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## Safety function

Safety function test interval	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
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<sup>(2)</sup> Not included in default 9Y PMkit. Recommended to change in harsh or highly stressful environment conditions.

<sup>(3)</sup> Check amount of Auxiliary power supplies from cabinet or manufactured BOM.

<sup>(4)</sup> If filter capacitor is not replaced, the filter capacitor shall be inspected/measured after 3 years from the last inspection.

## 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

Long term operation near or over the maximum specified ratings or environmental conditions may require shorter maintenance intervals.

To minimize the risk of failures in the frequency converter, ABB recommends including IGBT modules as part of the maintenance program. ABB suggests a module reconditioning at the authorized Drives Service Workshop in these cases. Reconditioning restores all the drive's aging components to the latest version and revisions. That improves the drive's reliability and extends its lifetime.

More information about **reconditioning**.

Please consult your local ABB for more details on the maintenance program and available services.

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