Service note
DCS800 DC Drive
Preventive maintenance kits

Preventive maintenance kits contain all necessary replacement parts for a specific scheduled maintenance. The content of each kit is carefully specified to match the maintenance schedule and the size and other characteristics of a specific drive.

The kit includes all the parts which are especially needed for the preventive maintenance of the DCS800, depending on size and age.

Benefits

- Pre-specified, 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
- Avoids unexpected production stop by hardware faults

Service provided

The preventive maintenance (PM) kits contain the replacement parts for preventive maintenance.

See the table below:

	Every 3rd year	Every 6th year	Every 9th year
DCS800 Cooling fan Size D6, D7	x		
DCS800 Cooling fan Size D1 (>45 A) ... D5		x	
DCS800 Power interface board SDCS-PIN-4 Size D1 ... D4			x
DCS800 Power supply board SDCS-POW-4 Size D5 ... D7			x
Flat cable all sizes DCS800			x

Note! Optional components are not included in PM kits.

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 in due time before the planned preventive maintenance.

For more information regarding PM kits, their content, delivery time and price visit:

www.abb.com/partsonline

Maintenance schedule

Based on ABB's experience, failure probability of industrial products equipped with electronic components, such as drives, increases after years of operation. For electric drives this is typically 5 to 10 years. The main reason for failures is aging of components, but it is also greatly affected by the 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 the extensive experience and know-how of manufacturing and maintaining electric drives. Specifications of component suppliers are observed carefully.

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

Additional remark

Snubber capacitors for overvoltage protection are not to exchange for preventive maintenance because they are not electrolytic capacitors.

	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	21
Start-up	P																					
Cooling																						
Air Cooled Unit:																						
Cooling fan DCS800 D6, D7		I	I	R	I	I	R	I	I	R	I	I	R	I	I	R	I	I	R	I	I	R
Cooling fan DCS800 D1 (> 45 A) ... D5		I	I	I	I	I	R	I	I	I	I	I	R	I	I	I	I	I	R	I	I	I
Aging																						
DCS800 Power interface board SDCS-PIN-4							(R)			R			(R)						R			
DCS800 Power supply board SDCS-POW-4							(R)			R			(R)						R			
Connections & Surroundings																						
Flat cables							(R)			R			(R)						R			
Tightness of terminals				I			I			I			I			I			I			I
Tightness of terminals, heatsink D7		I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I
Door filters		I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I
Condition of contactors				I			I			I			I			I			I			I
Fiber optic cables (connections)				I			I			I			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	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	I
Improvements																						
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
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	P
Spare Parts																						
Spare Parts		I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I

The service intervals and component replacements are based on the operational environment specified by ABB.

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

Code for PM-Kits

PM 3Y DCS8 D2 xxxx

PM-Kit
Intervall
Type (DCS800)
Frame size
Variable: Current [A], Supply voltage [V], L/R connection, ...

For more information please contact:

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