# Maintenance for optimal drive functionality

All Emotron drives are made to last. However, to get the most out of your drive and keep it at optimum functionality we strongly recommend our maintenance products.





A CG Product

#### Maintenance actions

To limit and optimize the different maintenance activities, the following maintenance actions are available:

- 1 Maintenance inspection, including a status report and recommendations
- 2 Cleaning the drive from dust and particles
- 3 Cooling fan(s) replacement
- 4 DC-link capacitors replacement
- 5 Powerboard Low Voltage (SMPS) capacitors

### Minimizing downtime and total cost

Without maintenance the chance that a drive will fail will increase over time. This can be caused by wear and aging of components, but also heavy loads and harsh environmental conditions like temperature, moisture, dust and chemicals can make the drive deteriorate over time.

#### Maintenance intervals

The maintenance intervals for replacing components, due to aging and wear, are defined by taking following conditions into account:

a. Environment

A drive in a clean MCC environment needs less maintenance than a drive which is placed outdoors or in a production environment.

b. Running hours per year

Continuous operation drives (24/7) needs more maintenance than a drive which runs only 8-12 hours a day or less.

c. Ambient temperature

Our drives are made for 40°C ambient temperature (without derating) but a lower ambient temperature has a positive effect on the service life of the drive.

Combining the different maintenance parameters results in the following intervals for the replacement of components affected by aging and/or wear. Table 1 shows the intervals for clean environment, and Table 2 does the same for all other ambient situations.

Table 1

Clean environment					
Max ambient temperature	<30°C	<30°C		<40°C	
Running hours	<4000h/y	>4000h/y	<4000h/y	>4000h/y	
Fan replacement after (years)	10	5	10	5	
Capacitor replacement after (years)	20	10	10	5	

#### Table 2

Production environment/Outdoor cabinet							
Max ambient temperature	<30°C		<40°C				
Running hours	<4000h/y	>4000h/y	<4000h/y	>4000h/y			
Fan replacement after (years)	8	4	8	5			
Capacitor replacement after (years)	16	8	8	5			

#### Our maintenance portfolio

The maintenance products are defined for all frame size/variants in "400V" and "690V", and offer:

1) Maintenance inspection with report.

2) Maintenance inspection and replacement of all fans.

3) Maintenance inspection and replacement of all DC-link capacitors.

4) Maintenance inspection and replacement of all fans and all DC-link capacitors.

5) SMPS capacitors replacement.

(All subject to drive size)

Based on above considerations and structure we can offer you fixed maintenance prices for any of your Emotron drives.

Either for occasional maintenance jobs or for annual maintenance contracts.

The Emotron Service Team will be happy to inform you or prepare a clear proposal.

## We put all our energy into saving yours