Original ABB long-life fans
Minimal efforts for optimal cooling for ABB LV AC drives
GSC FI
Minimal efforts for optimal cooling

Improved energy efficiency and 9 years maintenance interval

**Improved design**
- Improved components and EC* fan technology have enabled longer life span and energy efficiency

**Eco-friendly**
- Long-life fans help end users save energy, reduce waste and carbon footprint

**Less shutdowns and labour costs**
- 9 years maintenance interval generates savings in labour costs and reduces need of shutdowns

**Verified quality**
- 9 years maintenance interval is based on tests that have been made according to relevant standards

Available from ABB and authorized value providers only

* Electronically Commutated. Fan contains an Efficient DC-motor and power control
ABB original long-life fans for LV AC drives

Development based on customer needs

Motivation

• Long-life fans were developed based on customers requirement of a longer fan maintenance interval
• It is recommended to replace a long-life fan every 9 years of a drive’s operation, along with other components maintenance actions

Availability

• New long-life fans are ABB-specific parts and available only from ABB or Authorized Value Providers

Implementation

• Long-life fans are backward compatible with previous generation fans.
• Most of the ABB item codes (SKU)* remain the same
• The visible indication of a long-life fan is a sticker on it
• Long-life fans are included in preventive maintenance kits

* Stock Keeping Unit
### ABB original long-life fans for LV AC drives

#### Improvement by Product family

<table>
<thead>
<tr>
<th>Power range</th>
<th>Fan type</th>
<th>Power range*</th>
<th>Fan type</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACS880</td>
<td>Full range</td>
<td>Over 55 kW</td>
<td>Full range</td>
</tr>
<tr>
<td>ACS580</td>
<td>Full range</td>
<td>Over 55 kW</td>
<td>Full range</td>
</tr>
<tr>
<td>ACS800</td>
<td>Over 170 kVA</td>
<td>Module fan</td>
<td></td>
</tr>
<tr>
<td>ACSM1</td>
<td>Full range</td>
<td>Full range</td>
<td>Full range</td>
</tr>
<tr>
<td>ACQ810, ACS850</td>
<td>Full range</td>
<td>Full range</td>
<td>Full range</td>
</tr>
<tr>
<td>ACS600</td>
<td>Over 635 kVA</td>
<td>Main fan</td>
<td></td>
</tr>
</tbody>
</table>

* Power rating in lowest supply voltage (400 V)
** Specified in product specific Preventive Maintenance Schedule
## Lower cost of ownership with long-life fans

Example of maintenance interval improvement from 3 years to 9 years

<table>
<thead>
<tr>
<th>Fixed cost elements</th>
<th>Previous generation fan</th>
<th>Long-life fan</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>PM3</td>
<td>PM6</td>
</tr>
</tbody>
</table>

The use of long-life fans reduces fixed costs considerably

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May 31, 2017
4FPS10000617330
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Lower cost of ownership with long-life fans

Operational cost savings because of improved energy efficiency

**Principle**
- An Electrically Commutated (EC) motor is the heart of a modern fan
- Power control optimizes fan power consumption regardless of network properties

**Energy saving comparison**
- Actual energy saving compared to previous generation fan depends on ABB drive type and supply network frequency
- Cooling energy consumption of an ABB drive module with an EC fan is 30 - 40 % lower when connected to 50 Hz network
- Cooling energy consumption of an ABB drive module with an EC fan is 60 - 70 % lower when connected to 60 Hz network

Long-life fans bring end users more value and savings via longer life span and energy efficiency