NOTICE

This document contains information about one or more ABB products and may include a description of or a reference to one or more standards that may be generally relevant to the ABB products. The presence of any such description of a standard or reference to a standard is not a representation that all of the ABB products referenced in this document support all of the features of the described or referenced standard. In order to determine the specific features supported by a particular ABB product, the reader should consult the product specifications for the particular ABB product.

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Products described or referenced in this document are designed to be connected and to communicate information and data through network interfaces, which should be connected to a secure network. It is the sole responsibility of the system/product owner to provide and continuously ensure a secure connection between the product and the system network and/or any other networks that may be connected.

The system/product owners must establish and maintain appropriate measures, including, but not limited to, the installation of firewalls, application of authentication measures, encryption of data, installation of antivirus programs, and so on, to protect these products, the network, its system, and interfaces against security breaches, unauthorized access, interference, intrusion, leakage, and/or theft of data or information.

ABB performs functionality testing on the products and updates that we release. However, system/product owners are ultimately responsible for ensuring that any product updates or other major system updates (to include but not limited to code changes, configuration file changes, third-party software updates or patches, hardware change out, and so on) are compatible with the security measures implemented. The system/product owners must verify that the system and associated products function as expected in the environment in which they are deployed.

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1. INTRODUCTION TO THE MANUAL

1.1 What this chapter contains
This chapter describes the contents of the manual. It also contains information on the compatibility and intended audience.

1.2 Applicability
This document covers the environmental information of the following products: DCS880 drives with option modules.

1.3 Target audience
This document is intended for ABB customers and for professional recyclers.

1.4 Contents of the manual
The document contains information for treatment facilities in accordance with the EU directive on waste electrical and electronic equipment (WEEE).
This manual contains the following chapters:
- Product materials
- Manufacturing and use
- Product disposal

The WEEE directive is implemented through national regulations and therefore requirements vary in each EU member state.
Drives are always parts of other machines or equipment and they are covered by the WEEE directive when the end product is covered. Inclusion or exclusion depends on the application of the drive.
The WEEE directive does not apply to drives which are used in large-scale fixed installations, large-scale stationary industrial tools, means of transport for persons and goods, or non-road mobile machinery made available exclusively for professional use. We recommend to contact local environmental authorities for up-to-date information about national recycling requirements.

1.5 Frame size
This manual covers all different frame sizes of the product family. The frame size is marked on the type designation label of the drive. The frame size is also shown in the rating tables for each drive type. The rating tables are in the drive user’s manual.

1.6 Disclaimer
The information presented in this publication does not form part of any quotation or contract, is believed to be accurate and reliable and may be changed without notice. No liability will be accepted by the publisher for any consequences of its use. Publication thereof does not convey nor imply any license under patent - or other industrial or intellectual - property rights.

2. PRODUCT MATERIALS

2.1 Contents of this chapter
This chapter describes the main components and product materials of the PLC’s.

2.2 Examples for different family types
S500 Terminalunit
AC31 07KT9x adapter

Paclos

Screws

Electronics
3. MANUFACTURING

3.1 Manufacturing

ABB Automation Products GmbH (Germany) has a company-wide integrated quality, environmental and occupational health & safety management system. The system is certified in accordance with requirements of the international standards ISO 9001:2015 and ISO 14001:2015. The Integrated Management System applies to all units of the company.
4. PRODUCT DISPOSAL

4.1 Contents of this chapter
This chapter contains product disposal instructions.

4.2 Disposal
The main parts of the PLC can be recycled to preserve natural resources and energy. Product parts and materials should be dismantled and separated. Generally all metals, such as steel, aluminum, copper and its alloys, and precious metals can be recycled as material. Plastics, rubber, cardboard and other packaging material can be used in energy recovery. Printed circuit boards need selective treatment according to IEC 62635 guidelines. To aid recycling, plastic parts are marked with an appropriate identification code. Contact your local ABB distributor for further information on environmental aspects. End of life treatment must follow international and national regulations.

4.3 Dismantling
You can dismantle the PLC manually or in a shredding machine. The chapter is divided in two sections on basis of the dismantling method.

4.3.1 Manual dismantling
Sort the parts of the product according to their material contents as follows:
– ferrous metals (plates, screws)
– plastics
– printed circuit boards
– other

You can recycle metal parts (iron and aluminum) and most of the other materials according to local regulations. For information on harmful materials, see subsection ABB list of prohibited and restricted substances.

4.3.2 Mechanical shredding
In this method, a whole product is mechanically shredded into small pieces and materials are sorted using dedicated sorting processes. Remove the harmful material before shredding the drive in the shredder.

4.4 ABB list of prohibited and restricted substances
The purpose of this list is to comply with legislation to avoid chemical substances that may present hazards to the environment or the health. This document provides information about “Prohibited substances”, substances that must not be used, and “Restricted substances”, substances whose use should be limited within ABB. Definitions and regulations of hazardous materials differ from country to country and are likely to change when knowledge of materials increases. The materials used in the product are materials typically used in electrical and electronic equipment.
4.4.1 Reference list
   - Annex XIV: List of substances subject to authorization
   - Annex XVII: Restrictions on use of substances in articles
   - SVHC: Candidate list of substances of very high concern for authorization.

4.5 Recycling information in accordance with the WEEE
The product is marked with the wheelie bin symbol. It indicates that at the end of life the product should enter the recycling system.
You should dispose of it separately at an appropriate collection point and not place it in the normal waste stream.
The figure below shows the wheelie bin symbol indicating separate collection for electrical and electronic equipment (EEE).
The horizontal bar underneath the crossed-out wheelie bin indicates that the equipment has been manufactured after the Directive came into force in 2005. The wheelie bin symbol is added to the type designation label of the product since 2017. The figure below shows an example.

**A recycling example**
This example complies with typical national regulations valid at the time of publishing this manual.

<table>
<thead>
<tr>
<th>Materials</th>
<th>Recycling method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Steel</td>
<td>Recycled as material</td>
</tr>
<tr>
<td>Aluminum</td>
<td>Recycled as material</td>
</tr>
<tr>
<td>Plastics</td>
<td>Energy recovery (incineration)</td>
</tr>
<tr>
<td>Printed circuit boards</td>
<td>Recycled as WEEE</td>
</tr>
<tr>
<td>Electrolytic capacitors</td>
<td>Recycled as WEEE</td>
</tr>
<tr>
<td>Cables</td>
<td>Recycled as material</td>
</tr>
<tr>
<td>Ceramics</td>
<td>Landfilled</td>
</tr>
<tr>
<td>Other materials</td>
<td>Energy recovery (incineration)</td>
</tr>
</tbody>
</table>

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**5. FURTHER INFORMATION**

**5.1 Product and service inquiries**
Address any inquiries about the product to your local ABB representative, quoting the type designation and serial number of the unit in question. A listing of ABB sales, support and service contacts can be found by navigating to [www.abb.com/searchchannels](http://www.abb.com/searchchannels).

**5.2 Document library on the Internet**
3ADR993016
You can find manuals and other product documents in PDF format on the Internet. Go to www.abb.com/PLC and select Document Library. You can browse the library or enter selection criteria, for example a document code, in the search field.

5.3 ABB environment policy
You can find ABB’s environmental policy on the Internet at new.abb.com/sustainability/environment-policy.

5.4 ABB group sustainability objectives
For information on ABB group sustainability objectives, navigate to new.abb.com/sustainability/creating-value/objectives

ABB list of prohibited and restricted substances

6. ABB LIST OF PROHIBITED AND RESTRICTED SUBSTANCES
You can find the ABB list of prohibited and restricted substances at new.abb.com/sustainability/environment.

Contacts

ABB Automation Products GmbH
Machinery & Factory
Eppelheimer Strasse 82
69123 Heidelberg
Germany