Recycling instructions and environmental information
ACx580-01 drives

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List of related manuals

Drive hardware manuals and guides	Code (English)
ACx580-01 drives recycling instructions and environmental information	*3AXD50000040612*
ACS580-01 Hardware manual	*3AXD50000018826*
ACH580-01 Hardware manual	*3AUA0000076331*
ACQ580-01 Hardware manual	*3AXD50000035866*

You can find manuals and other product documents in PDF format on the Internet. See section *Document library on the Internet* on the inside of the back cover. For manuals not available in the Document library, contact your local ABB representative.

Recycling instructions and environmental information

ACx580-01 drives

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Further information

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Introduction to the manual

What this chapter contains

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

Applicability

This document covers the environmental information of the following products (IP21):
- ACS580-01 drives with option modules
- ACH580-01 drives with option modules
- ACQ580-01 drives with option modules.

Target audience

This document is intended for ABB customers and for professional recyclers.

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.

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 hardware manual.*

Disclaimer

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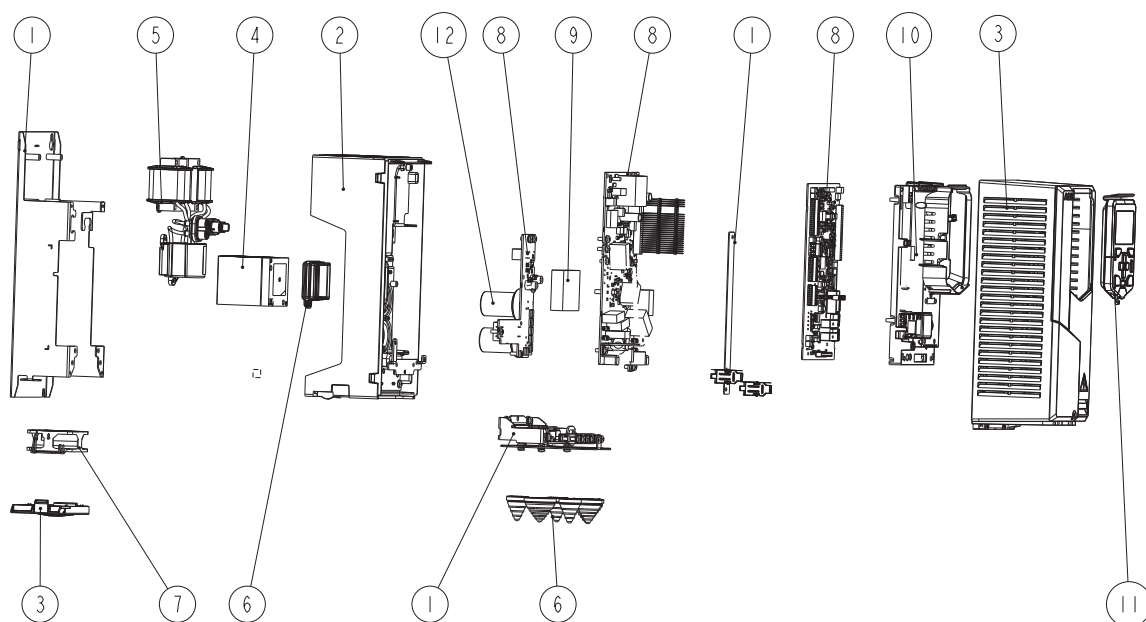
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Product materials

Contents of this chapter

This chapter describes the main components and product materials of the ACS580-01, ACH580-01 and ACQ580-01 drives.

Materials of frame R0

The main components are shown in the figure below.

ACx580-01 frame R0 product materials				Total weight (kg) ~4.5
Part	**Category**	**Qty**	**Materials**	**Weight (g)**
1	Sheet metal parts	7	Zn-coated Fe	1140
2	Reinforced plastic parts	1	Plastic: PC +10% GF	410
3	Housing/cover parts	3	Plastic: ABS PC	520
4	Heat sink + other aluminum parts	5	Aluminum: AW-6060 [Al Mg Si]	300
5	Choke	1	Fe, Cu, PET +30% GF, silicone, thermoplastic polyester, glass-filled nylon	1000
6	Gaskets	9	Rubber: TPE	50
7	Axial fan	1	Various materials, plastic parts: PBT, aluminum alloy	60
8	Printed circuit board	2	Various materials, electronic components	348
9	Semiconductor	1	Cu, Al oxide, Sn, silicone gel, PBT, GF	50
10	Control unit	1	See subsection *Materials of the control unit CCU-11* on page *25* for older design of the drive or *Materials of the control unit CCU-23* on page *27* for newer design of the drive.	307
11	Control panel	1	See subsection *Materials of the control panel* on page *29*.	143
12	Electrolytic capacitors	2	Al, electrolytic solute	132
	Cables/wires	N/A	PVC, Cu, GF, Sn, Au, Ni, phosphor bronze, thermoplastic polyester, glass-filled nylon	10

Materials of frames R1 and R2

The data below applies to these product types with frame size R1 and R2:

• ACS580-01-07A2-4

• ACS580-01-09A4-4

• ACS580-01-12A6-4

• ACS580-01-017A-4

• ACS580-01-025A-4

The main components are shown in the figure below.
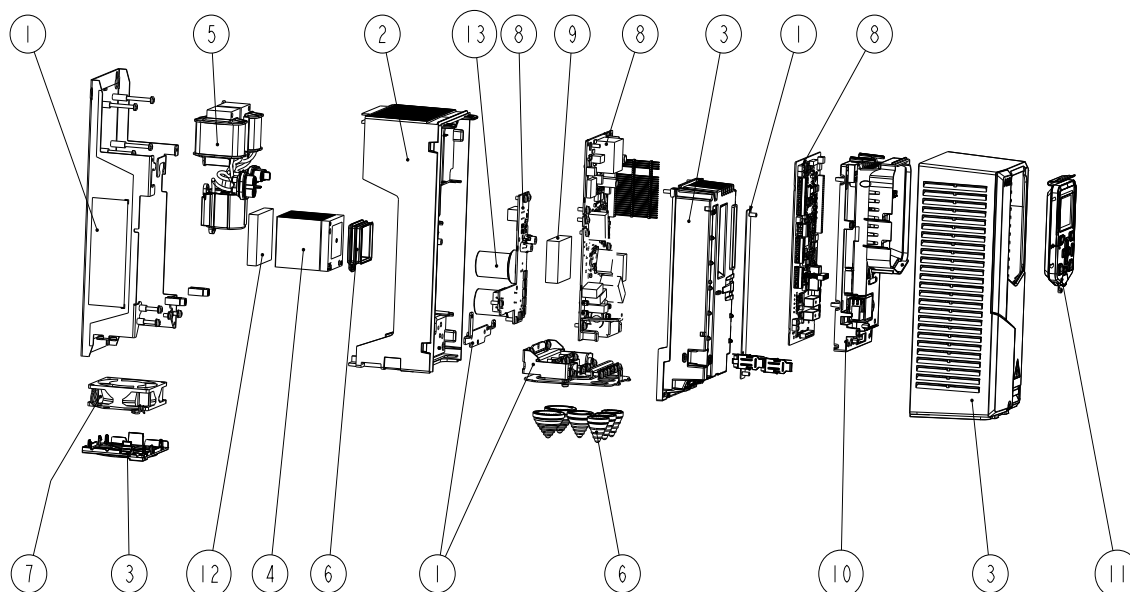
ACx580-01 frame R1 product materials				Total weight (kg) ~5.1
Part	Category	Qty	Materials	Weight (g)
1	Sheet metal parts	7	Zn-coated Fe	1240
2	Reinforced plastic parts	1	Plastic: PC +10% GF	400
3	Housing parts	3	Plastic: ABS PC, PUR	520
4	Heat sink + other aluminum parts	5	Aluminum: AW-6060 [Al Mg Si]	300
5	Choke	1	Fe, Cu, PET +30% GF, silicone, thermoplastic polyester, glass-filled nylon	1420
6	Gaskets	9	Rubber: TPE	60
7	Axial fan	1	Various materials, plastic parts: PBT, aluminum alloy	110
8	Printed circuit board	2	Various materials, electronic components	398
9	Semiconductor	1	Cu, Al oxide, Sn, silicone gel, PBT, GF	50
10	Control unit	1	See subsection *Materials of the control unit CCU-11* on page *25* for older design of the drive or *Materials of the control unit CCU-23* on page *27* for newer design of the drive.	307
11	Control panel	1	See subsection *Materials of the control panel* on page *29*.	143
12	Heat sink air guide	1	Polyethylene foam	2
13	Electrolytic capacitors	2	Al, electrolytic solute	132
	Cables/wires	N/A	PVC, Cu, GF, Sn, Au, Ni, phosphor bronze, thermoplastic polyester, glass-filled nylon	20

ACx580-01 frame R2 product materials				Total weight (kg) ~7.5
Part	**Category**	**Qty**	**Materials**	**Weight (g)**
1	Sheet metal parts	8	Zn-coated Fe	1650
2	Reinforced plastic parts	1	Plastic: PC +10% GF	470
3	Housing parts	3	Plastic: ABS PC, PUR	680
4	Heat sink + other aluminum parts	5	Aluminum: AW-6060 [Al Mg Si]	760
5	Choke	1	Fe, Cu, PET +30% GF, silicone, thermoplastic polyester, glass-filled nylon	2270
6	Gaskets	11	Rubber: TPE	80
7	Axial fan	1	Various materials, plastic parts: PBT, aluminum alloy	190
8	Printed circuit board	2	Various materials, electronic components	566
9	Semiconductor	1	Cu, Al oxide, Sn, silicone gel, PBT, GF	100
10	Control unit	1	See subsection *Materials of the control unit CCU-11* on page *25* for older design of the drive or *Materials of the control unit CCU-23* on page *27* for newer design of the drive.	307
11	Control panel	1	See subsection *Materials of the control panel* on page *29*.	143
12	Heat sink air guide	1	Polyethylene foam	10
13	Electrolytic capacitors	4	Al, electrolytic solute	264
	Cables/wires	N/A	PVC, Cu, GF, Sn, Au, Ni, phosphor bronze, thermoplastic polyester, glass-filled nylon	20

Materials of frame R1

The data below applies to these product types with frame size R1:

- ACS580-01-02A7-4
- ACS580-01-03A4-4
- ACS580-01-04A1-4
- ACS580-01-05A7-4
- ACS580-01-07A3-4
- ACS580-01-09A5-4
- ACS580-01-12A7-4

The main components are shown in the figure below.

ACx580-01 frame R1 product materials				Total weight (kg) ~4.8 IP55: ~5.1
Part	Category	Qty	Materials	Weight (g)
1	Sheet metal parts	4	Zn-coated Fe	429
2	Insulating sheets/shields	1 IP55: 2	Plastic: PC	2 IP55: 4
3	Reinforced plastic parts	3	Plastic: PC +10% GF	720 IP55: 750
4	Housing parts	4 IP55: 3	Plastic: PC ABS	580 IP55: 680
5	Heat sink	1	Aluminum: AW-6060/6063 [Al Mg Si]	370
6	Choke	1	Fe, Cu, PET +30% GF, silicone, thermoplastic polyester, glass-filled nylon	1120
7	Gaskets	9 IP55: 10	Rubber: TPE	74 IP55: 79
8	Axial fan	1 IP55: 2	Various materials, plastic parts: PBT, aluminum alloy	80 IP55: 100

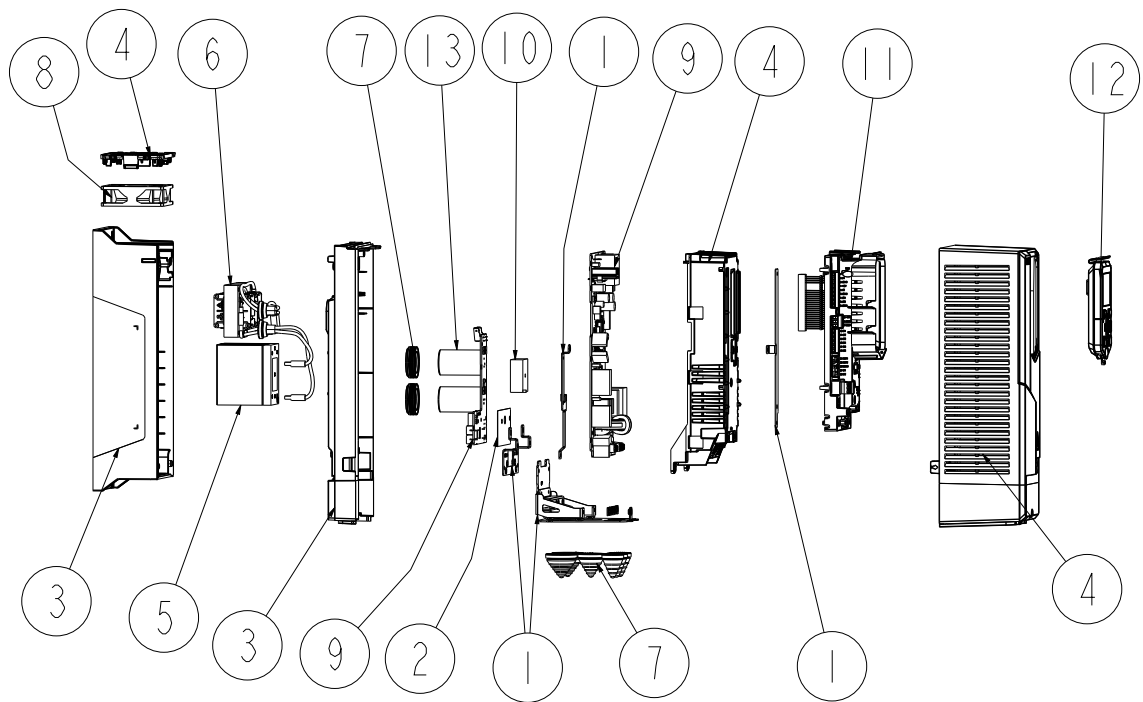| ACx580-01 frame R1 product materials				Total weight (kg) ~4.8 IP55: ~5.1
Part	Category	Qty	Materials	Weight (g)
9	Printed circuit board	2	Various materials, electronic components	520
10	Semiconductor	1	Cu, Al oxide, Sn, silicone gel, PBT, GF	30
11	Control unit	1	See subsection *Materials of the control unit CCU-23* on page *27*.	307
12	Control panel	1	See subsection *Materials of the control panel* on page *29*.	143
13	Electrolytic capacitors	2	Al, electrolytic solute	110
	Cables/wires	N/A	PVC, Cu, GF, Sn, Au, Ni, phosphor bronze, thermoplastic polyester, glass-filled nylon	20

Materials of frame R2

The data below applies to these product types with frame size R2:

- ACS580-01-018A-4
- ACS580-01-026A-4

The main components are shown in the figure below.

ACx580-01 frame R2 product materials				Total weight (kg) ~6.5 IP55: ~6.7
Part	**Category**	**Qty**	**Materials**	**Weight (g)**
1	Sheet metal parts	5	Zn-coated Fe	461
2	Insulating sheets/shields	1 IP55: 2	Plastic: PC	2 IP55: 4
3	Reinforced plastic parts	3	Plastic: PC +10% GF	870 IP55: 900
4	Housing parts	4 IP55: 3	Plastic: PC ABS	720 IP55: 850
5	Heat sink	1	Aluminum: AW-6060/6063 [Al Mg Si]	776
6	Choke	1	Fe, Cu, PET +30% GF, silicone, thermoplastic polyester, glass-filled nylon	1770
7	Gaskets	11 IP55: 12	Rubber: TPE	79 IP55: 84
8	Axial fan	1 IP55: 2	Various materials, plastic parts: PBT, aluminum alloy	130 IP55: 150
9	Printed circuit board	2	Various materials, electronic components	700
10	Semiconductor	1	Cu, Al oxide, Sn, silicone gel, PBT, GF	54
11	Control unit	1	See subsection *Materials of the control unit CCU-23* on page *27*.	307
12	Control panel	1	See subsection *Materials of the control panel* on page *29*.	143
13	Electrolytic capacitors	4	Al, electrolytic solute	200

ACx580-01 frame R2 product materials				Total weight (kg) ~6.5 IP55: ~6.7
Part	Category	Qty	Materials	Weight (g)
	Cables/wires	N/A	PVC, Cu, GF, Sn, Au, Ni, phosphor bronze, thermoplastic polyester, glass-filled nylon	20

Materials of frame R3

The data below applies to these product types with frame size R3:

• ACS580-01-032A-4

• ACS580-01-038A-4

• ACS580-01-045A-4

The main components are shown in the figure below.
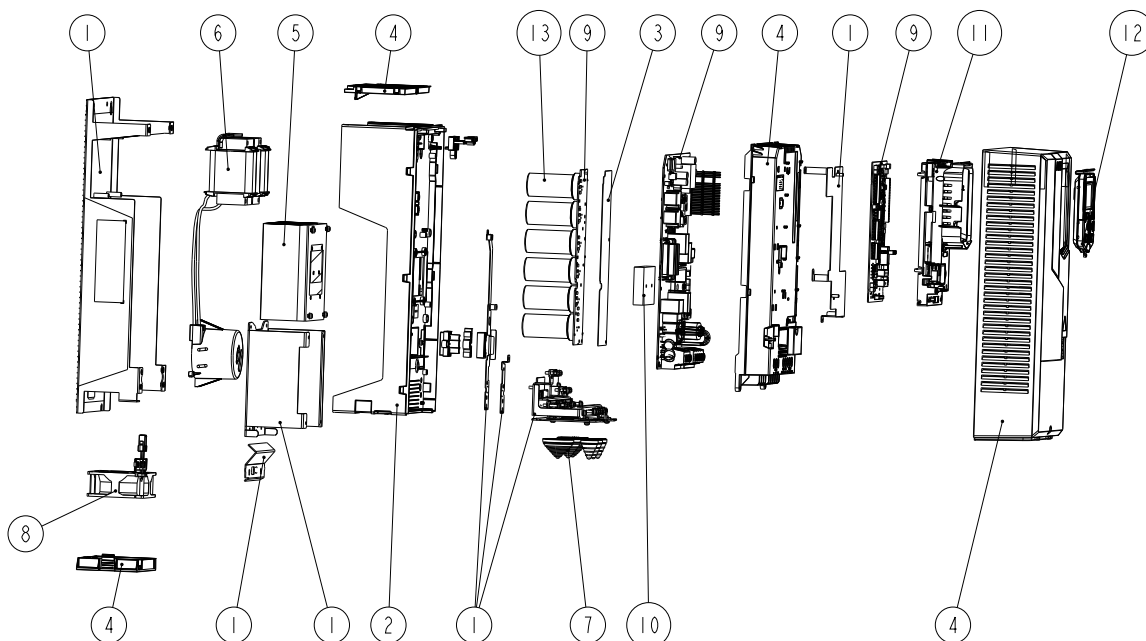
ACx580-01 frame R3 product materials				Total weight (kg) ~14.9
Part	Category	Qty	Materials	Weight (g)
1	Sheet metal parts	9	Zn-coated Fe	3650
2	Reinforced plastic parts	1	Plastic: PC +10% GF	760
3	Insulating sheets	1	Plastic: PC	15
4	Housing / cover parts	4	Plastic: ABS PC	1120
5	Heat sink + other aluminum parts	2	Aluminum: AW-6060 [Al Mg Si]	1740
6	Choke	1	Fe, Cu, PET +30% GF, silicone, thermoplastic polyester, glass-filled nylon	4730
7	Gaskets	18	Rubber: TPE	110
8	Axial fan	1	Various materials, plastic parts: PBT, aluminum alloy	230
9	Printed circuit board	2	Various materials, electronic components	1115
10	Semiconductor	1	Cu, Al oxide, Sn, silicone gel, PBT, GF	160
11	Control unit	1	See subsection *Materials of the control unit CCU-11* on page *25* for older design of the drive or *Materials of the control unit CCU-23* on page *27* for newer design of the drive.	307
12	Control panel	1	See subsection *Materials of the control panel* on page *29*.	143
13	Electrolytic capacitors	4 or 6	Al, electrolytic solute	488…732
	Cables/wires	N/A	PVC, Cu, GF, Sn, Au, Ni, phosphor bronze, thermoplastic polyester, glass-filled nylon	20

Materials of frame R3

The data below applies to these product types with frame size R3:

- ACS580-01-033A-4
- ACS580-01-039A-4
- ACS580-01-046A-4

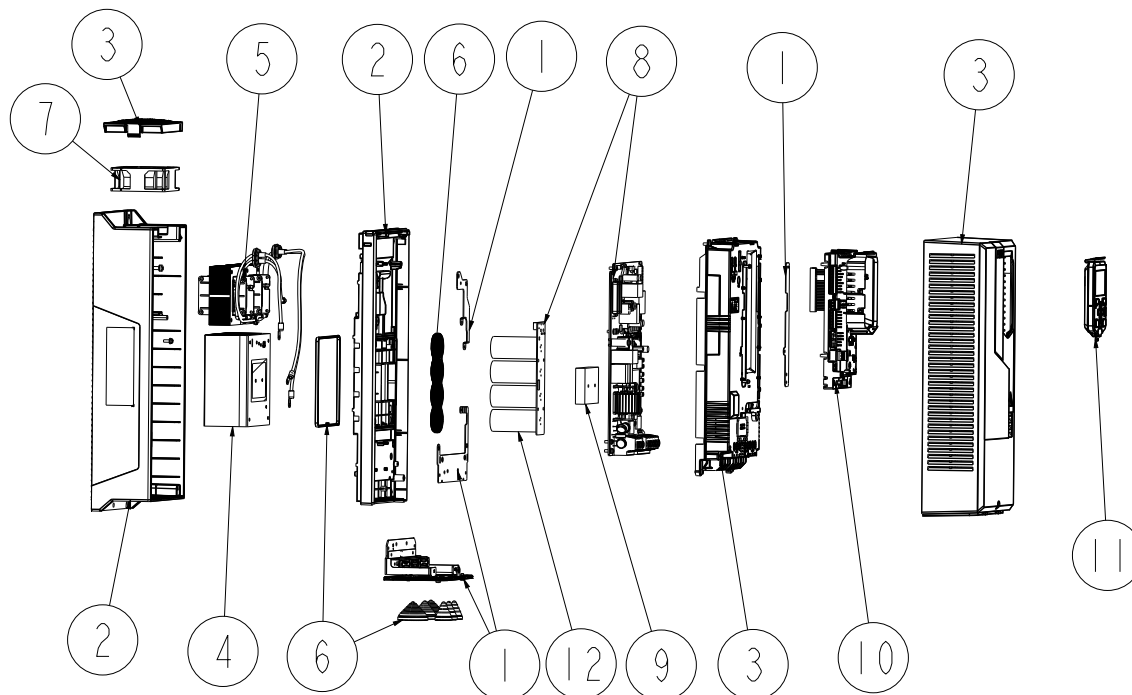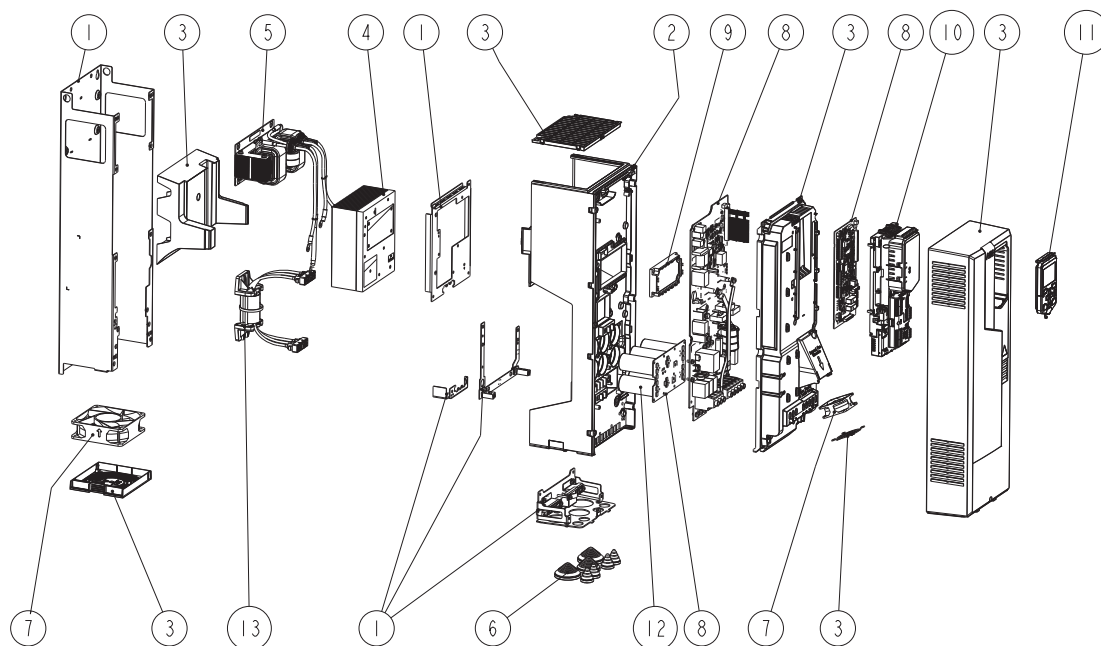*The main components are shown in the figure below.*

ACx580-01 frame R3 product materials				Total weight (kg) ~13.0 IP55: ~13.1
Part	Category	Qty	Materials	Weight (g)
1	Sheet metal parts	5	Zn-coated Fe	766
2	Reinforced plastic parts	2	Plastic: PC +10% GF	1450
3	Housing parts	3	Plastic: ABS PC	1000 IP55: 1050
4	Heat sink	1	Aluminum: AW-6060/6063 [Al Mg Si]	1800
5	Choke	1	Fe, Cu, PET +30% GF, silicone, thermoplastic polyester, glass-filled nylon	4500
6	Gaskets	9 IP55: 10	Rubber: TPE	93 IP55: 98
7	Axial fan	1 IP55: 2	Various materials, plastic parts: PBT	350 IP55: 420
8	Printed circuit board	2	Various materials, electronic components	1184
9	Semiconductor	1	Cu, Al oxide, Sn, silicone gel, PBT, GF	95
10	Control unit	1	See subsection *Materials of the control unit CCU-23* on page *27*.	307
11	Control panel	1	See subsection *Materials of the control panel* on page *29*.	143
12	Electrolytic capacitors	4	Al, electrolytic solute	300
	Cables/wires	N/A	PVC, Cu, GF, Sn, Au, Ni, phosphor bronze, thermoplastic polyester, glass-filled nylon	20

Materials of frame R4

The main components are shown in the figure below.

ACx580-01 frame R4 product materials				Total weight (kg) ~19.3
Part	Category	Qty	Materials	Weight (g)
1	Sheet metal parts	7	Zn-coated Fe	4072
2	Reinforced plastic parts	1	Plastic: PC +10% GF	1168
3	Housing parts	3	Plastic: ABS PC, PUR	1864
4	Heatsink + other aluminum parts	5	Aluminum: AW-6060 [Al Mg Si]	2534
5	Choke	1	Fe, Cu, PET +30% GF, silicone, thermoplastic polyester, glass-filled nylon	5688
6	Gaskets	9	Rubber: TPE	110
7	Axial fan	2	Various materials, plastic parts: PBT, aluminum alloy	428
8	Printed circuit board	2	Various materials, electronic components	1528
9	Semiconductor	1	Cu, Al oxide, Sn, silicone gel, PBT, GF	300
10	Control unit	1	See subsection *Materials of the control unit CCU-11* on page *25* for older design of the drive or *Materials of the control unit CCU-23* on page *27* for newer design of the drive.	307
11	Control panel	1	See subsection *Materials of the control panel* on page *29*.	143
12	Electrolytic capacitors	6	Al, electrolytic solute	732
13	Ferrite rings (optional)	4	Ferrite iron	400
	Cables/wires	N/A	PVC, Cu, GF, Sn, Au, Ni, phosphor bronze, thermoplastic polyester, glass-filled nylon	20

Materials of frame R5

The data below applies to these product types with frame size R5:

- ACS580-01-061A-4
- ACS580-01-072A-4
- ACS580-01-087A-4

The main components are shown in the figure below.
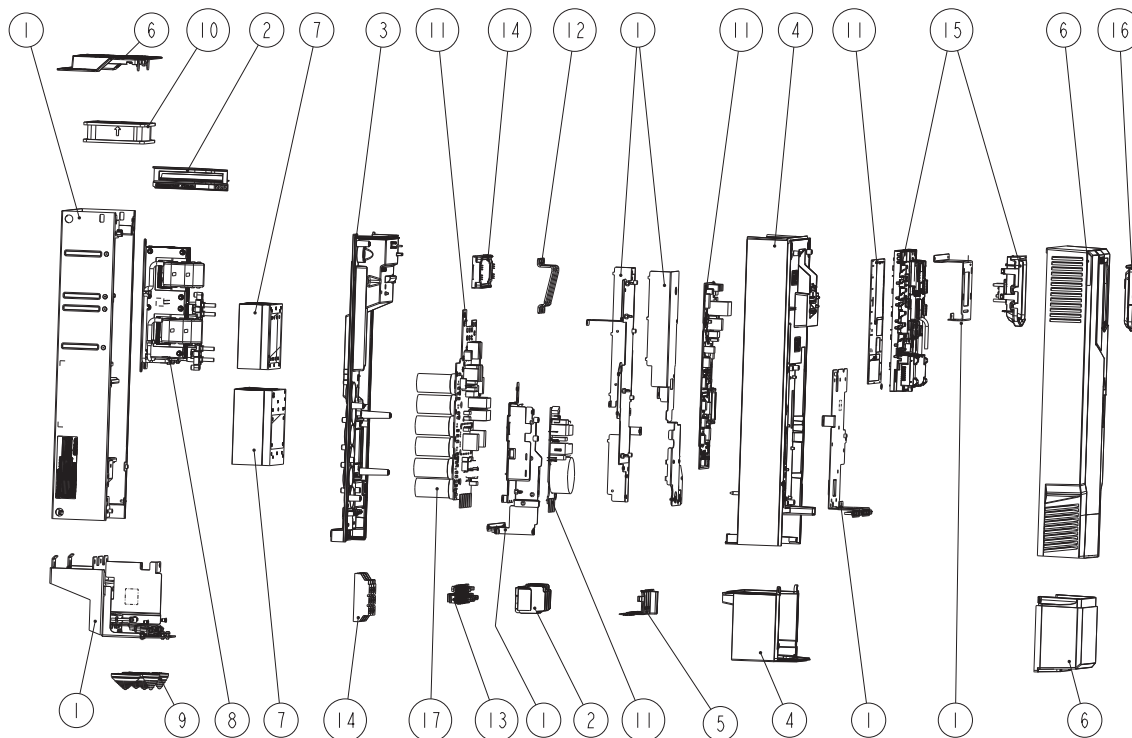
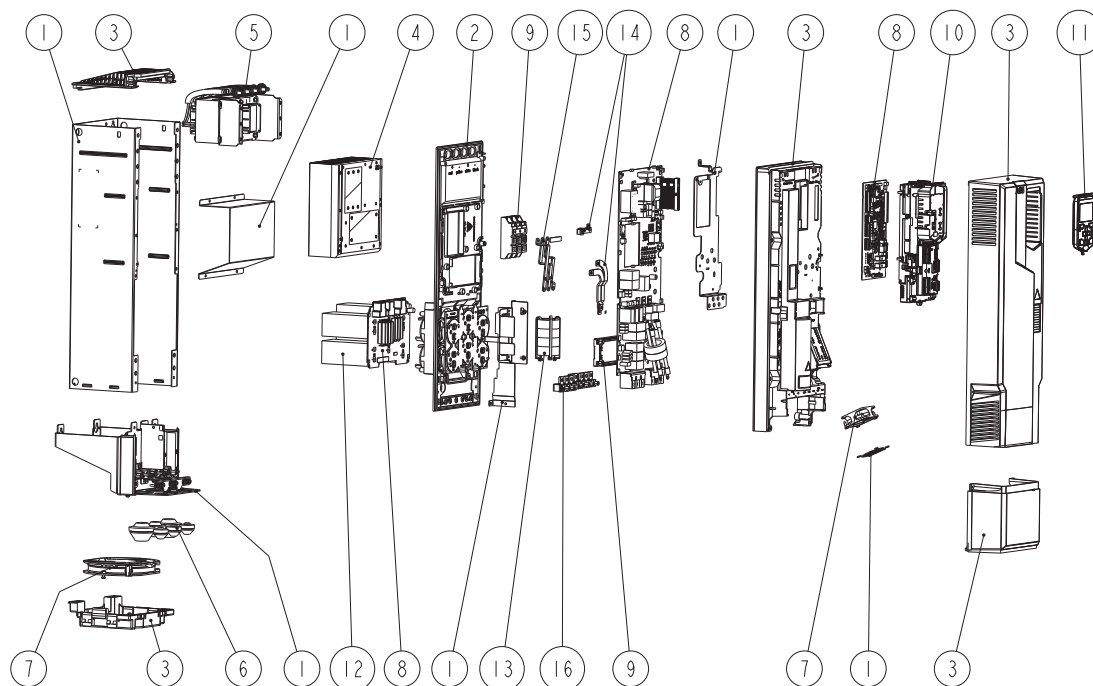| ACS580-01 frame R5 product materials				Total weight (kg) ~23.0
Part	Category	Qty	Materials	Weight (g)
1	Sheet metal parts	16…17	Zn-coated Fe	6565
2	Reinforced plastic parts	2	Plastic: PC +10% GF	270
3	Deck parts	1	Plastic: PC +10% GF, PUR	620
4	Housing parts	2	Plastic: ABS PC, PUR	1210
5	Terminal cover	1	Plastic: PC	40
6	Housing/cover parts	4	Plastic: ABS PC	1130
7	Heat sink	2	Aluminum: AW-6060 [Al Mg Si]	3100
8	Choke	1	Fe, Cu, PET +30% GF, silicone, thermoplastic polyester, glass-filled nylon	6040
9	Gaskets	7	Rubber: TPE	140
10	Axial fan	1	Various materials, plastic parts: PBT	370
11	Printed circuit board	3	Various materials, electronic components	1180
12	Bus bars	3	Cu, Sn	105
13	Terminal connectors	8	Stainless steel, Sn-plated Cu, Zn-plated steel	340
14	Semiconductors	4	Cu, Al oxide, Sn, silicone gel, PBT, GF	580
15	Control unit	1	See subsection *Materials of the control unit CCU-11* on page *25*.	291
16	Control panel	1	See subsection *Materials of the control panel* on page *29*.	143
17	Electrolytic capacitors	6	Al, electrolytic solute	720
	Cables/wires	N/A	PVC, Cu, GF, Sn, Au, Ni, phosphor bronze, thermoplastic polyester, glass-filled nylon	150

Materials of frame R5

The data below applies to these product types with frame size R5:

- ACS580-01-088A-4
- ACS580-01-106A-4
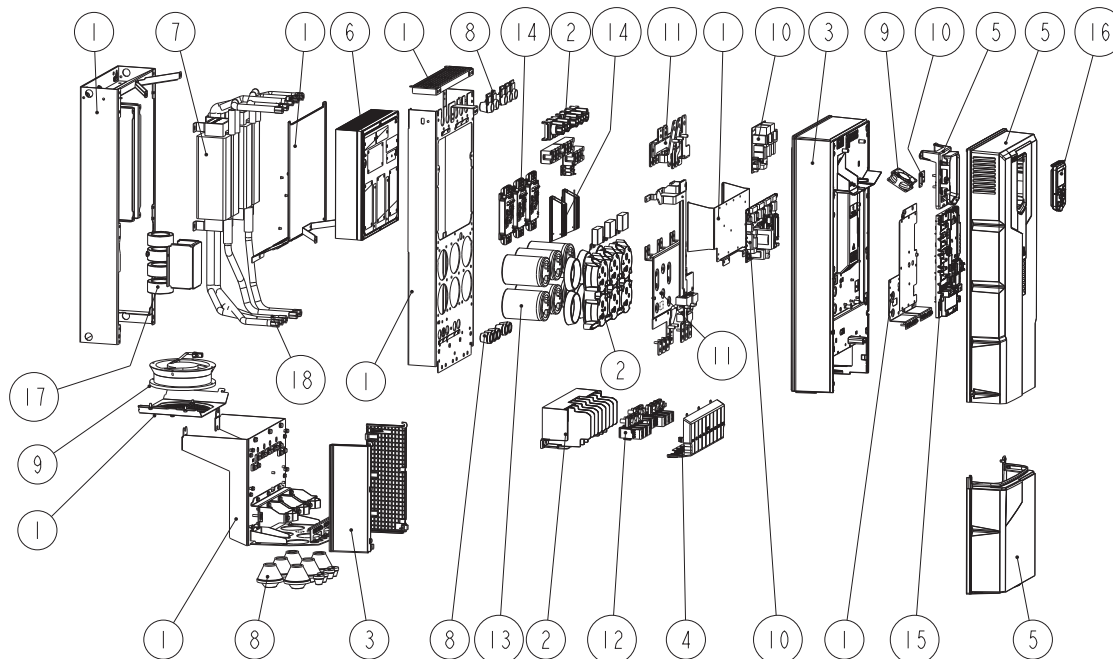- all types of ACH580-01 and ACQ580-01 with frame R5.

The main components are shown in the figure below.

ACx580-01 frame R5 product materials				Total weight (kg) ~28.3
Part	Category	Qty	Materials	Weight (g)
1	Sheet metal parts	8	Zn-coated Fe	7174
2	Reinforced plastic parts	1	Plastic: PC +10% GF	690
3	Housing/cover parts	9	Plastic: ABS PC	2691
4	Heatsink + other aluminum parts	1	Aluminum: AW-6060 [Al Mg Si]	4446
5	Choke	1	Fe, Cu, PET +30% GF, silicone, thermoplastic polyester, glass-filled nylon	7616
6	Gaskets	9	Rubber: TPE	100
7	Axial fan	2	Various materials, plastic parts: PBT, aluminum alloy	504
8	Printed circuit board	2	Various materials, electronic components	1524
9	Semiconductors	2	Cu, Al oxide, Sn, silicone gel, PBT, GF	554
10	Control unit	1	See subsection *Materials of the control unit CCU-23* on page *27*.	307
11	Control panel	1	See subsection *Materials of the control panel* on page *29*.	143
12	Electrolytic capacitors	6	Al, electrolytic solute	1646
13	Ferrite rings (optional)	4	Ferrite iron	480
14	Bus bars	4	Sn-coated Cu	89
15	Bus bars	3	Al	27
16	Terminal connectors	8	Stainless steel, Sn-plated Cu, Zn-plated steel	290
	Cables/wires	N/A	PVC, Cu, GF, Sn, Au, Ni, phosphor bronze, thermoplastic polyester, glass-filled nylon	30

Materials of frames R6 to R9

The main components are shown in the figure below.

ACx580-01 frame R6 product materials				Total weight (kg) ~45.0
Part	Category	Qty	Materials	Weight (g)
1	Sheet metal parts	12…13	Zn-coated Fe	12130…12290
2	Reinforced plastic parts	5	Plastic: PC +10% GF	800
3	Housing parts	3	Plastic: ABS PC, PUR, brass	1140
4	Terminal cover / insulating sheets	8…10	Plastic: PC	240…420
5	Housing/cover parts	4	Plastic: ABS PC	1500
6	Heat sink	1	Aluminum: AW-6060 [Al Mg Si]	5520
7	Choke	2	Fe, Cu, PET +30% GF, silicone, thermoplastic polyester, glass-filled nylon	9400
8	Gaskets	23	Rubber: TPE	280
9	Axial fan	2	Various materials, plastic parts: PBT, aluminum alloy	940
10	Printed circuit board	3	Various materials, electronic components	650
11	Bus bars	12…17	Cu, Sn	1240…1660
12	Terminal connectors	9	Stainless steel, Sn-coated Cu, Zn-coated steel	980
13	Electrolytic capacitors	6	Al, electrolytic solute	1680
14	Semiconductors	7	Cu, Al oxide, Sn, silicone gel, PBT, GF	1380
15	Control unit	1	See subsection *Materials of the control unit CCU-12* on page *26* for older design of the drive or *Materials of the control unit CCU-24* on page *28* for newer design of the drive.	536
16	Control panel	1	See subsection *Materials of the control panel* on page *29*.	143
17	Ferrite rings (optional)	0 or 3	Ferrite iron	0 or 540
	Cables/wires	N/A	PVC, Cu, GF, Sn, Au, Ni, phosphor bronze, thermoplastic polyester, glass-filled nylon	1010

ACx580-01 frame R7 product materials				Total weight (kg) ~55.0
Part	Category	Qty	Materials	Weight (g)
1	Sheet metal parts	13…14	Zn-coated Fe	13760…13920
2	Reinforced plastic parts	5	Plastic: PC +10% GF	910
3	Housing parts	3	Plastic: ABS PC, PUR, brass	1740
4	Terminal cover / insulating sheets	8…12	Plastic: PC	430…530
5	Housing/cover parts	4	Plastic: ABS PC	1840
6	Heat sink	1	Aluminum: AW-6060 [Al Mg Si]	7350
7	Choke	2	Fe, Cu, PET +30% GF, silicone, thermoplastic polyester, glass-filled nylon	13800
8	Gaskets	24	Rubber: TPE	460
9	Axial fan	2	Various materials, plastic parts: PBT, aluminum alloy	940
10	Printed circuit board	3…4	Various materials, electronic components	650…740
11	Bus bars	15…20	Cu, Sn	1740…2550
12	Terminal connectors	9	Stainless steel, Sn-coated Cu, Zn-coated steel	1110
13	Electrolytic capacitors	6	Al, electrolytic solute	2340
14	Semiconductors	9	Cu, Al oxide, Sn, silicone gel, PBT, GF	2040
15	Control unit	1	See subsection *Materials of the control unit CCU-12* on page *26* for older design of the drive or *Materials of the control unit CCU-24* on page *28* for newer design of the drive.	536
16	Control panel	1	See subsection *Materials of the control panel* on page *29*.	143
17	Ferrite rings (optional)	0 or 3	Ferrite iron	0 or 540
	Cables/wires	N/A	PVC, Cu, GF, Sn, Au, Ni, phosphor bronze, thermoplastic polyester, glass-filled nylon	1340

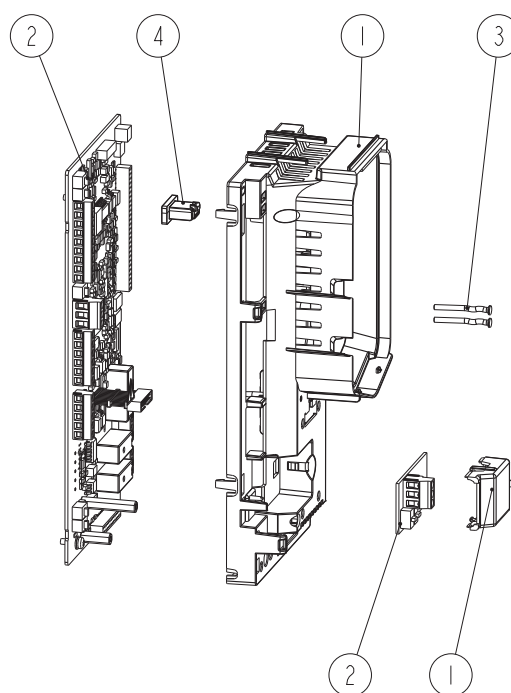| ACx580-01 frame R8 product materials				Total weight (kg) ~70.0
Part	Category	Qty	Materials	Weight (g)
1	Sheet metal parts	16…18	Zn-coated Fe	15760…16290
2	Reinforced plastic parts	9	Plastic: PC +10% GF	1160
3	Housing parts	3	Plastic: ABS PC, PUR, brass	2120
4	Terminal cover / insulating sheets	11…17	Plastic: PC	400…520
5	Housing/cover parts	4	Plastic: ABS PC	1960
6	Heat sink	1	Aluminum: AW-6060 [Al Mg Si]	7710
7	Choke	2	Fe, Cu, PET +30% GF, silicone, thermoplastic polyester, glass-filled nylon.	17650
8	Gaskets	27	Rubber: TPE	640
9	Axial fan	2	Various materials, plastic parts: PBT, aluminum alloy	980
10	Printed circuit board	3…4	Various materials, electronic components	650…740
11	Bus bars	13…18	Cu, Sn	2770…3900
12	Terminal connectors	9	Stainless steel, Sn-coated Cu, Zn-coated steel	2090
13	Electrolytic capacitors	6	Al, electrolytic solute	3410
14	Semiconductors	9…10	Cu, Al oxide, Sn, silicone gel, PBT, GF	1850…2220
15	Control unit	1	See subsection *Materials of the control unit CCU-12* on page *26* for older design of the drive or *Materials of the control unit CCU-24* on page *28* for newer design of the drive.	536

ACx580-01 frame R8 product materials				Total weight (kg) ~70.0
Part	Category	Qty	Materials	Weight (g)
16	Control panel	1	See subsection *Materials of the control panel* on page *29*.	143
17	Ferrite rings (optional)	0 or 4	Ferrite iron	0 or 720
	Cables/wires	N/A	PVC, Cu, GF, Sn, Au, Ni, phosphor bronze, thermoplastic polyester, glass-filled nylon	1920

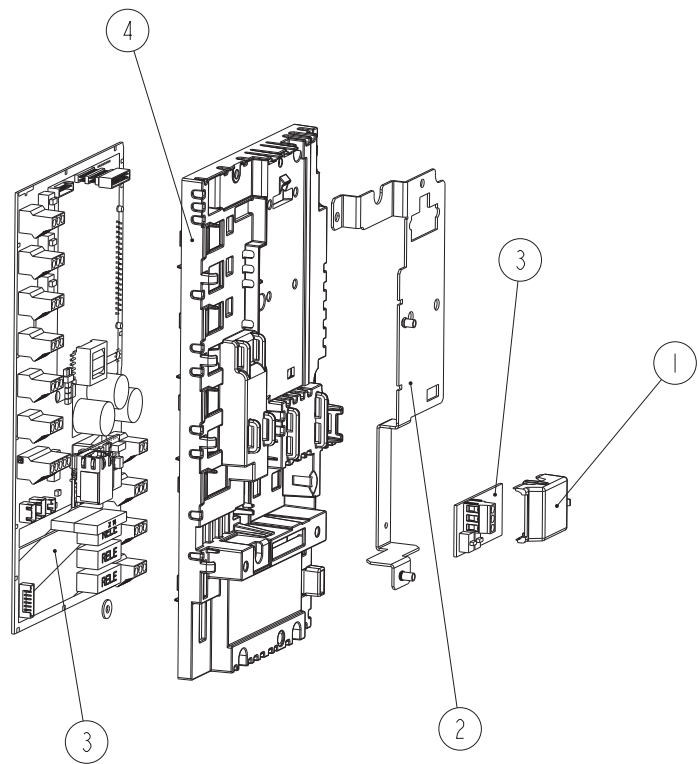| ACx580-01 frame R9 product materials				Total weight (kg) ~98.0
Part	Category	Qty	Materials	Weight (g)
1	Sheet metal parts	16…18	Zn-coated Fe	21310…22210
2	Reinforced plastic parts	9	Plastic: PC +10% GF	1410
3	Housing parts	3	Plastic: ABS PC, PUR, brass	2200
4	Terminal cover / insulating sheets	8…13	Plastic: PC	360…460
5	Housing/cover parts	4	Plastic: ABS PC	2300
6	Heat sink	1	Aluminum: AW-6060 [Al Mg Si]	14490
7	Choke	2	Fe, Cu, PET +30% GF, silicone, thermoplastic polyester, glass-filled nylon	25430
8	Gaskets	23	Rubber: TPE	970
9	Axial fan	3	Various materials, plastic parts: PBT, aluminum alloy	1860
10	Printed circuit board	4…5	Various materials, electronic components	940…1040
11	Bus bars	14…17	Cu, Sn	5390…6810
12	Terminal connectors	9	Stainless steel, Sn-coated Cu, Zn-coated steel	3060
13	Electrolytic capacitors	6	Al, electrolytic solute	5760
14	Semiconductors	10…11	Cu, Al oxide, Sn, silicone gel, PBT, GF	2720…3100
15	Control unit	1	See subsection *Materials of the control unit CCU-12* on page *26* for older design of the drive or *Materials of the control unit CCU-24* on page *28* for newer design of the drive.	536
16	Control panel	1	See subsection *Materials of the control panel* on page *29*.	143
17	Ferrite rings (optional)	0 or 4	Ferrite iron	0 or 720
	Cables/wires	N/A	PVC, Cu, GF, Sn, Au, Ni, phosphor bronze, thermoplastic polyester, glass-filled nylon	2810

Materials of the control unit CCU-11

The main components are shown in the figure below.

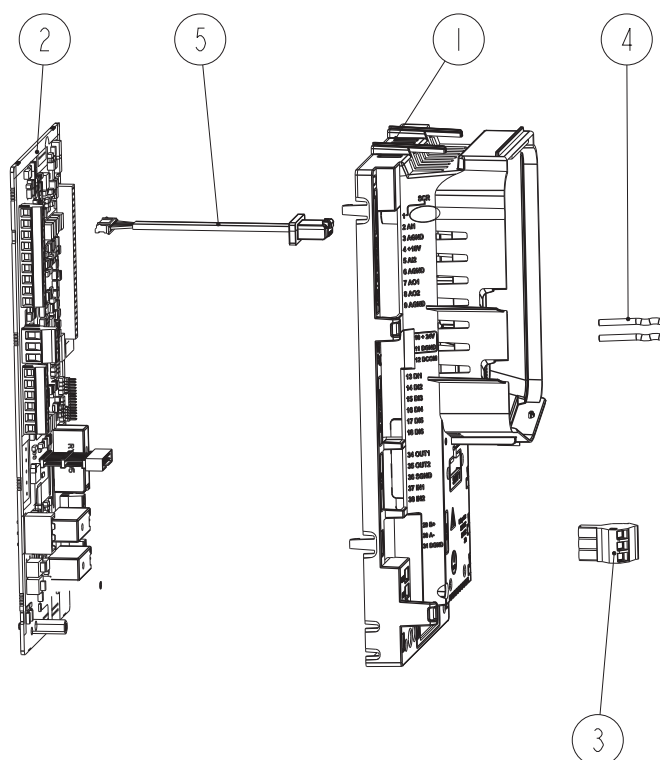| ACx580-01 control unit product materials				Total weight (g) 291
Part	Category	Qty	Materials	Weight (g)
1	Housing parts	1	Plastic: ABS PC	120
2	Printed circuit board	1	Various materials, electronic components	160
3	Photoconductor	2	Plastic: PC	1
4	Cable/wires	1	PVC, Cu, GF, Sn, Au, Ni, phosphor bronze, thermoplastic polyester, glass-filled nylon	10

Materials of the control unit CCU-12

The main components are shown in the figure below

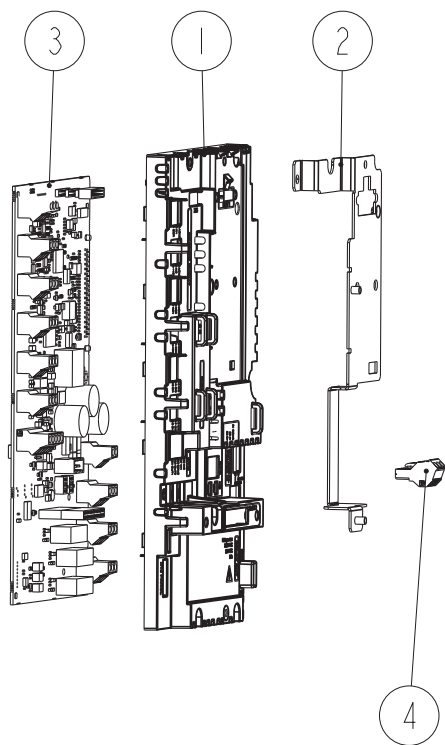| ACx580-01 control unit product materials				Total weight (g) 535
Part	Category	Qty	Materials	Weight (g)
1	Housing parts	1	Plastic: ABS PC	5
2	Sheet metal parts	1	Zn-coated Fe	90
3	Printed circuit board	2	Various materials, electronic components	320
4	Housing parts	1	Plastic: ABS PC, PUR	120

Materials of the control unit CCU-23

The main components are shown in the figure below

ACx580-01 control unit product materials				Total weight (g) 307
Part	Category	Qty	Materials	Weight (g)
1	Housing parts	1	Plastic: ABS PC	112
2	Printed circuit board	1	Various materials, electronic components	174
3	Connector	1	PA, Fe	10
4	Photoconductor	2	Plastic: PC	1
5	Cables/wires	1	PVC, Cu, GF, Sn, Au, Ni, phosphor bronze, thermoplastic polyester, glass-filled nylon	10

Materials of the control unit CCU-24

The main components are shown in the figure below

ACx580-01 control unit product materials				Total weight (g) 536
Part	Category	Qty	Materials	Weight (g)
1	Housing parts	1	Plastic: ABS PC, PUR	120
2	Sheet metal parts	1	Zn-coated Fe	86
3	Printed circuit board	2	Various materials, electronic components	320
4	Connector	1	PA, Fe	10

Materials of the control panel

The main components are shown in the figure below.
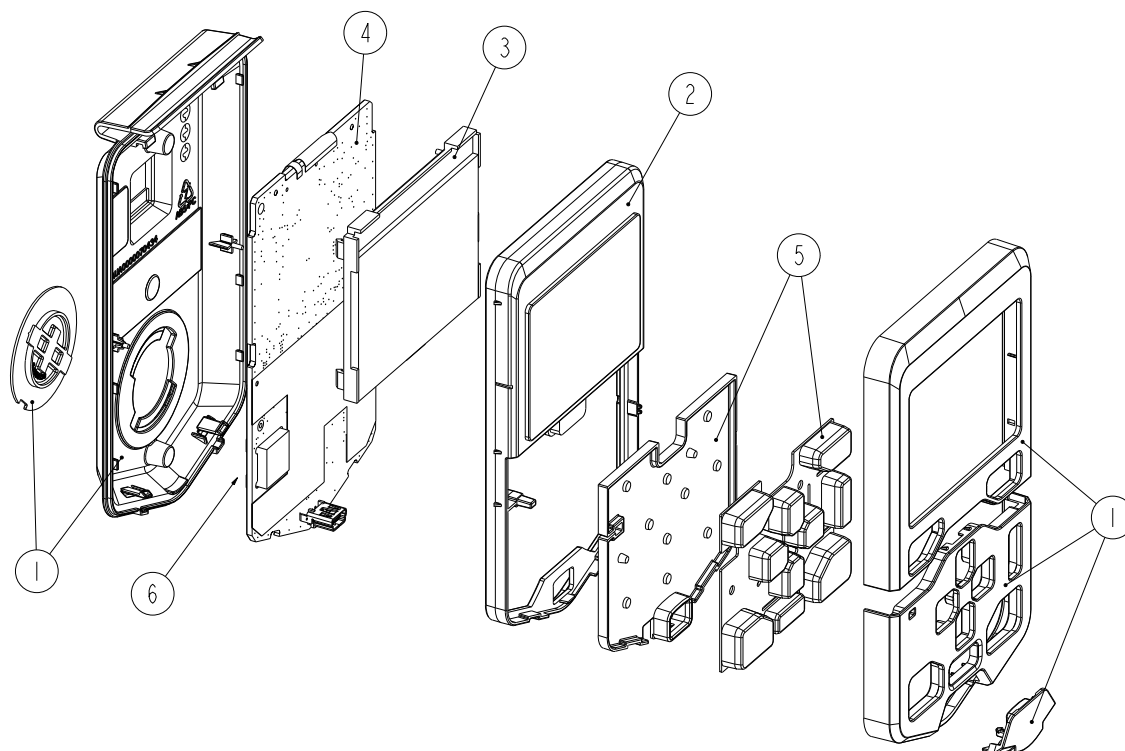
ACx580-01 control panel product materials				Total weight (g) 143
Part	Category	Qty	Materials	Weight (g)
1	Housing parts	4	Plastic: ABS PC	40
2	Lens	1	Plastic: PC	15
3	LCD display	1	Various materials	20
4	Printed circuit board	1	Various materials, electronic components	45
5	Keypad	2	Silicone rubber	20
6	CR 2032 lithium battery	1	Various materials	3

Abbreviations

Plastics and rubber:	
ABS	Acrylonitrile-butadiene-styrene
GF	Glass fiber
PA	Polyamide
PBT	Polybutylene terephthalate
PC	Polycarbonate
PET	Polyethylene terephthalate
PUR	Polyurethane
PVC	Polyvinyl chloride
TPE	Thermoplastic elastomer

Package

The product package is made of corrugated cardboard (frames R0 to R4) and of wooden base and corrugated cardboard (frames R5 to R9).

You can recycle all materials used in the package.

To avoid pollution caused by unnecessary transportation, the factory does not take back used packages. Contact your local ABB office for package recycling instructions if needed.

ABB recommends package recycling as it preserves raw materials and reduces waste being landfilled.

Product manuals and sales brochures

To save natural resources and reduce paper waste, all product manuals are available in ABB Library and on the Internet.

3

Manufacturing and use

Manufacturing

ABB Oy (Finland) 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.

Use

The use of a drive has several positive environmental impacts, such as:

- Substantial energy savings and reduced operating costs can be reached using a drive. Rather than have an electric motor running continuously at full speed, an electric drive allows the user to slow down or speed up the motor.

- Process control is optimized. An electric drive enables a process to achieve the right speed and torque while maintaining its accuracy.

- Need for maintenance is reduced. Being able to vary the speed and torque of an electric motor means there is less wear and tear on the motor and the driven machine.

4

Product disposal

Contents of this chapter

This chapter contains product disposal instructions.

Disposal

The main parts of the drive 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 and DC capacitors 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.

Dismantling

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

◼ Manual dismantling

Sort the parts of the product according to their material contents as follows:
- ferrous metals (plates, screws)
- aluminum (heatsink)
- plastics
- printed circuit boards
- electrolytic capacitors (mounted on the main circuit board)
- 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.*

◼ 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 shredding machine. See subsection *ABB list of prohibited and restricted substances*.

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.

◼ Reference list

1. Directive 2011/65/EU of the European Parliament and of the Council of 8 June 2011 on the restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS II).

2. Regulation No 1907/2006/EC of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH):
   - 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.

3. Directive 2012/19/EU of the European Parliament and of the Council of 4 July 2012 on waste electrical and electronic equipment (WEEE).

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).
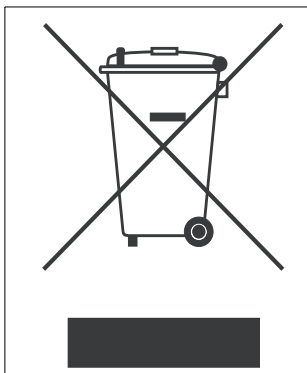
The horizontal bar underneath the crossed-out wheelie bin indicates that the equipment has been manufactured after the Directive came into force in 2005.

The wheelie bin symbol is added to the type designation label of the product since 2017.

The figure below shows an example.
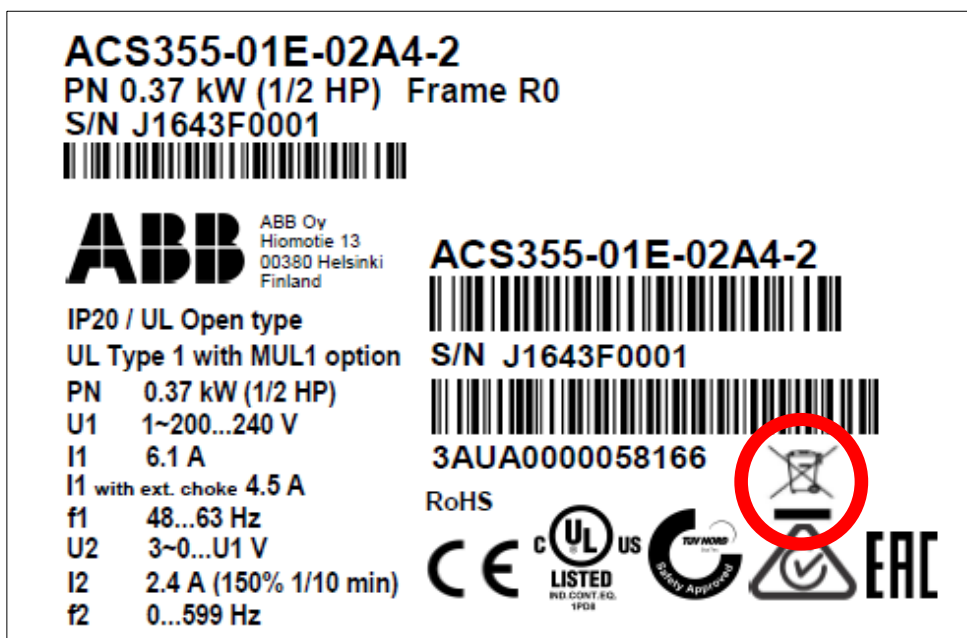
A recycling example

This example complies with typical national regulations at the time of publishing this manual.

Materials	Recycling method
Steel	Recycled as material
Aluminum	Recycled as material
Plastics	Energy recovery (incineration)
Printed circuit boards	Recycled as WEEE *
Electrolytic capacitors	Recycled as WEEE *
Cables	Recycled as material
Ceramics	Landfilled
Other materials	Energy recovery (incineration)
* In the USA, may be sent for recycling as an "electronic-waste or e-waste". If the material is not sent for recycling, then it is considered to be a regulated hazardous waste.	

Further information

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.

Product training

For information on ABB product training, navigate to new.abb.com/service/training.

Providing feedback on ABB manuals

Your comments on our manuals are welcome. Navigate to new.abb.com/drives/manuals-feedback-form.

Document library on the Internet

You can find manuals and other product documents in PDF format on the Internet at www.abb.com/drives/documents.

ABB environment policy

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

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

You can find the ABB list of prohibited and restricted substances at new.abb.com/sustainability/environment.

Contact us

www.abb.com/drives
www.abb.com/drivespartners

3AXD50000040612D

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