

Technical documentation | October 2013

Environmental product information

Contactors type AF190 ... AF205

General

The AF190 ... AF205 family is made to respond successfully to all plant engineering requirements, from the standard ones to the most technologically advanced ones.

Date published: 2013-09-21

The AF190 ... AF205 product family is manufactured in Sweden.

The manufacturing site is certified according to ISO 9001:2008, IRIS:2009, ISO 14001:2004, OHSAS 18001:2007 and SA 8000:2008.

Product Conformity & Compliance

Regulation EC 1907/2006 (REACH)

- AF190 ... AF205 contactors do not contain any substances of very high concern as listed in “the Candidate list” provided by the European Chemical Agency, ECHA, according to the European REACH-regulation. Number of substances on the Candidate List: 144 (last updated: 20 June 2013)

Directive 2011/65/EU (RoHS) (former 2002/95/EC)

- According to our current best knowledge, the AF190 ... AF205 products are compliant with the European RoHS Directive 2011/65/EU and therefore do not contain any restricted substances exceeding the limitations in the directive. Restricted substances referred to in Article 4(1) and maximum concentration values tolerated by weight in homogeneous materials Lead (0,1 %) ,Mercury (0,1 %),Cadmium (0,01 %), Hexavalent chromium (0,1 %), Polybrominated biphenyls (PBB) (0,1 %), Polybrominated diphenyl ethers (PBDE) (0,1 %).

Directive 94/62/EC (Packaging and waste packaging)

Product Safety

Conformity assessment with the product Standards is carried out by third party tests laboratory (accredited by Sweden) in respect of the EN ISO/IEC 17025 European Standard, by the Swedish certification body Intertek Semko AB according to IECEE CB Scheme and CB Certificate has been issued.

Standard:

- EN 60947-4-1; UL 60947-4-1

EU Directives:

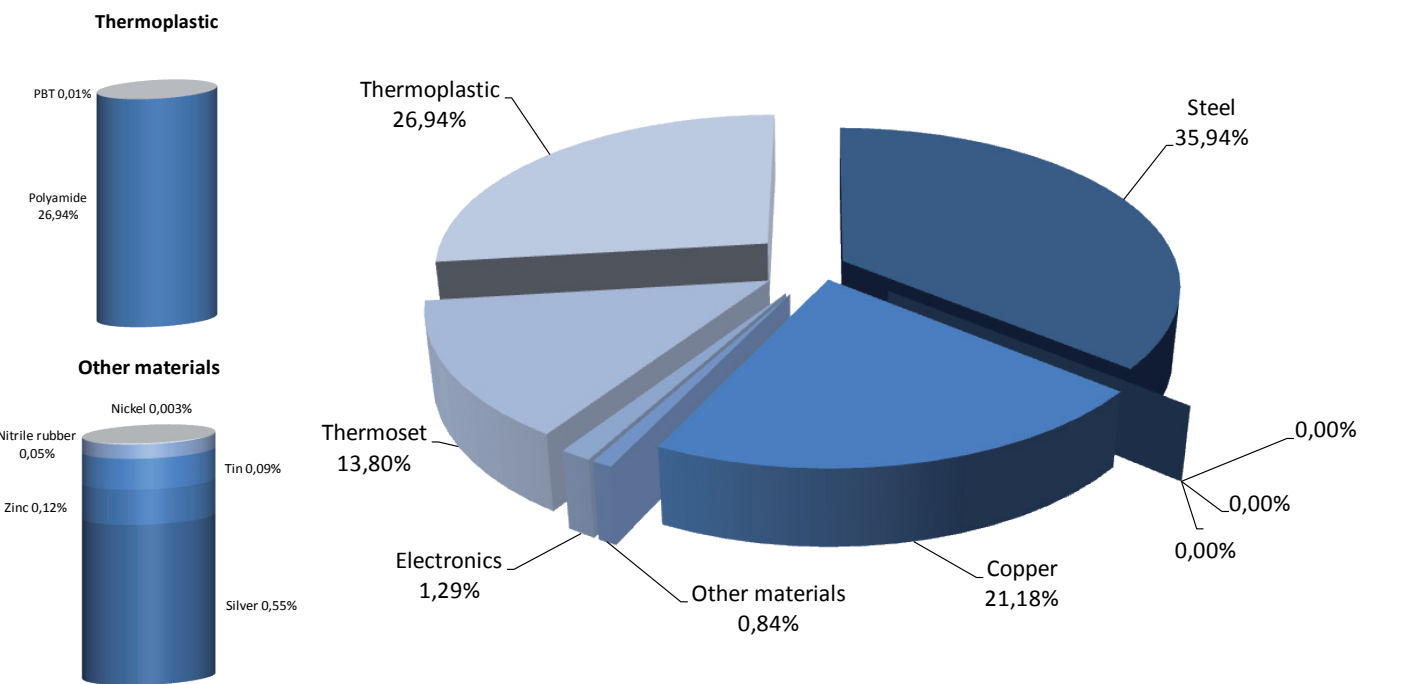
- Directive 2006/95/EC relating to Electrical Equipment designed for use within certain voltage limits. (OJ L 374 of 27 December 2006)
- Directive 2004/108/EC relating to electromagnetic compatibility and repealing Directive 89/336/EEC. (OJ L 390 of 31 December 2004)

Certifications



Product Composition

The chart below shows the constituents of AF190 ... AF205. The total weight of the product is 2860 g excluding packaging.
(All materials ≥ 1 wt% , in accordance with IEC 62474 IEC)



Constituent substances

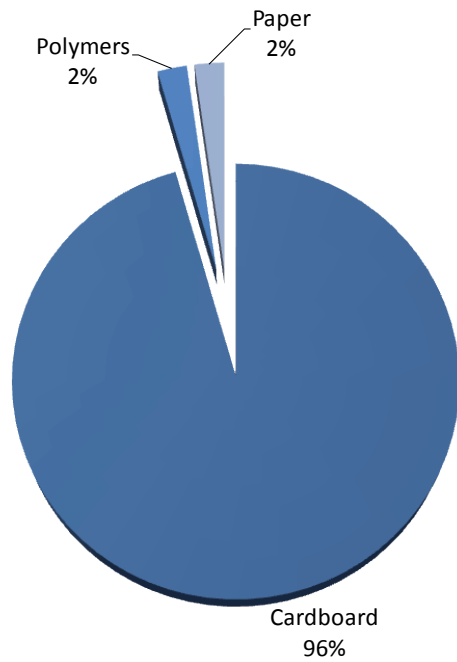
Constituent materials	Constituent substances	Weight %	Cas no / EG no
BMC RF 654-20	Styrene	13,35%	100-42-5 / 601-026-00-0
Akulon K225 KS PA6	-	1,26%	-
Pa6h2 G-20-v2hf	Melamine cyanurate	21,63%	37640-57-6 / 253-575-7
66h2 G-25-voct1	Zinc borate	3,24%	1332-07-6 / 215-566-6
	Antimony trioxide		1309-64-4 / 215-175-0
Latamid 68 H2-V0 RAL 7012 (PA68)	Melamine cyanurate	0,76%	37640-57-6 / 253-575-7
Ultradur B4520	-	0,01%	-
Nitrile rubber NBR 70 shore A	-	0,05%	-
SMC XFRHNS 15	Styrene	0,45%	100-42-5 / 2002-851-5

Packaging

The total weight for AF190 ... AF205 packaging material is 210g. The chart provides information for each packaging material used.

The cardboard and the paper used for the product manual are made of recycled fibers and are 100% recyclable.

The polymer films used are marked with the proper identification code and are recyclable.



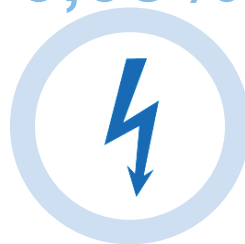
Product Use

Standardized usage scenario: 3500 h per year, 20 years, 80 % load (prEN50598-3)

Losses 8 W/pole at Ie/AC3 205 A +Coil holding 7 VA= 31 W

Rated operational power 110 kW

AF 205
1740 kWh
Power loss less than
0,03%



energy

(prEN 50598-2 Power losses of motor starters are lower than 0.1 %);

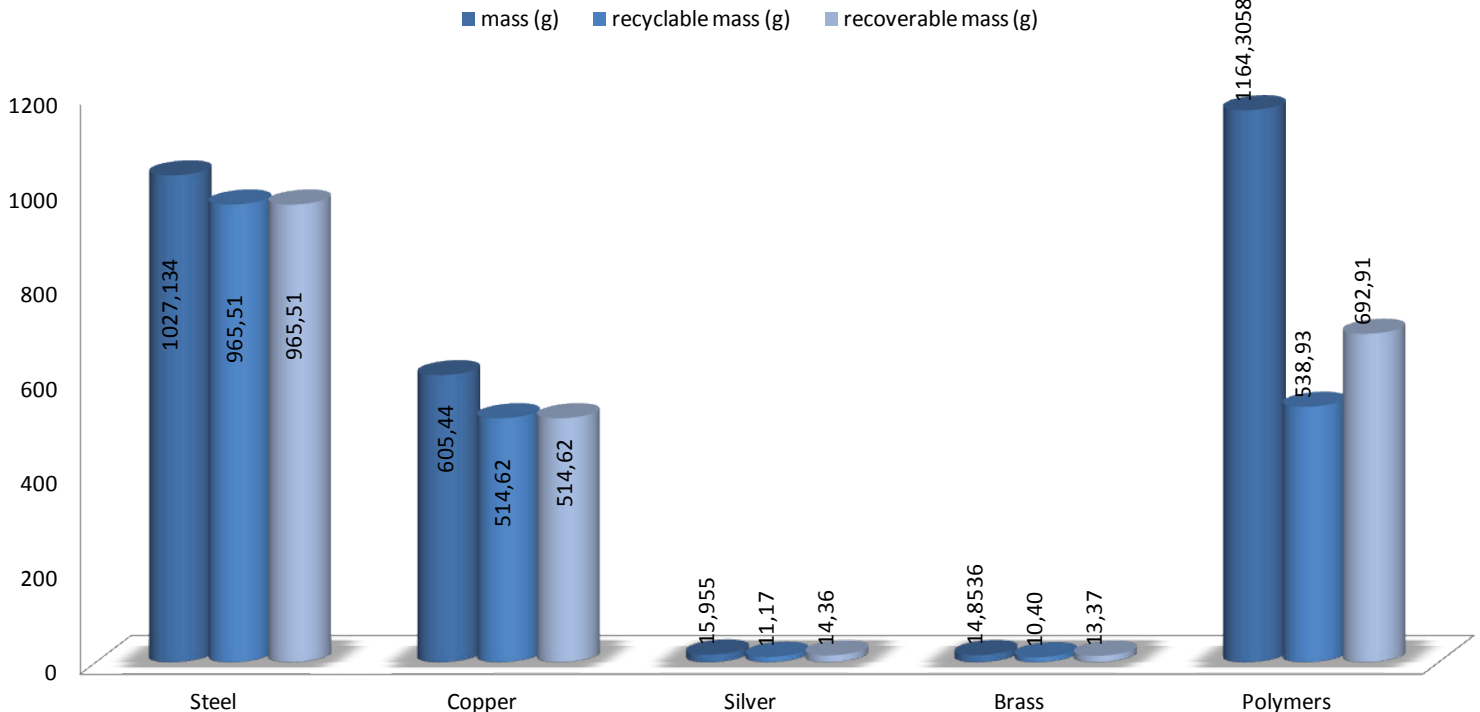
End-of-life

The recycling potential of AF190 ... AF205 is 72 %.

The metals and polymers recycling and recovery rate are shown below.

Ref IEC/TR 62635 Ed. 1.0

Recyclable and recoverable mass of main constituents

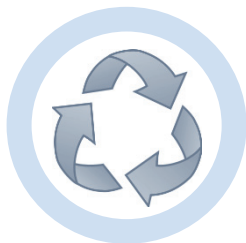


The recyclability and recoverability rate has been calculated based on the guidelines of the IEC IEC/TR 62635 Edition 1.0 (2012-10-19)

Guidelines for end-of-life information provided by manufacturers and recyclers and for recyclability rate calculation of electrical and electronic equipment

Recyclability Rate Recoverability Rate

72%



recycling

78%



recovery

For the best recovery of the materials it is recommended to follow the scrapping instructions provided in the technical manual of AF190 ... AF205 at the product information portal (www.abb).

Contact us

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