PRODUCT ENVIRONMENTAL INFORMATION

Low voltage AF contactors
AF190…AF205



ABB's range of AF contactors is the industry benchmark. The integrated electronically controlled coil offers multiple benefits over conventional alternatives and together with ABB's wide product offering an optimal configuration, every time.

AF190…AF205 3-pole contactors are designed for the control of motors from 90 up to 110 kW / 400 V AC (AC-3) or 125 up to 150 hp / 480V AC UL and switching power circuits up to 350 A (AC-1) or 300 A UL/CSA general use. Thanks to the AF technology, the contactors accept a wide control voltage range (24…500 V 50/60 Hz and 20…500 V DC) with only 4 coils managing large control voltage variations, reducing panel energy consumptions and ensuring distinct operations in unstable networks.
Furthermore, surge protection is built-in, offering a compact solution. AF contactors have a block type design, which can be easily extended with add-on auxiliary contact blocks and an additional wide range of accessories.

Product conformity & compliance

REACH (Regulation EC 1907/2006)
AF contactors and related accessories were classified as Articles and, during normal and reasonably foreseeable conditions of use, do not intentionally release any substance or preparation. ABB continuously undertakes communications throughout its supply chain in order to collect information about suppliers' compliance with REACH regulation.

SVHC (Regulation EC 1907/2006 REACH)
ABB continuously assesses its products for content of Substances of Very High Concern (SVHC), as included in the "Candidate List" by the European Chemicals Agency (ECHA). According to our best knowledge, AF contactors and related accessories do not contain SVHC substances exceeding 0.1 % w/w.

RoHS II
AF contactors and related accessories are within the scope of directive 2011/65/EU (RoHS II) and amendment 2015/863, starting from July 22 2019.

WEEE
The Waste Electrical and Electronic Equipment Directive (WEEE Directive) is the European Community directive 2012/19/EU on waste electrical and electronic equipment (WEEE) which, together with the RoHS Directive, became European law in February 2003.

Product safety
Compliance with essential health and safety requirements has been assured by compliance with the applicable product and safety standards.
The validation according to the product and safety standards is carried out by third party tests laboratory (STIEE / TL030) in respect of the EN ISO/IEC 17025 European standard, according to IECEE CB scheme. CB certificate has been issued.

Standard:
- EN/IEC 60947-1
- EN/IEC 60947-4-1
- EN/IEC 50581

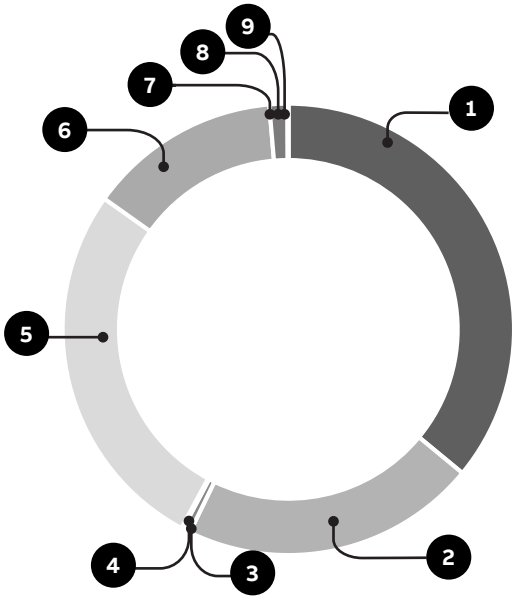
- UL 60947-4-1
- CSA C22.2 NO 60947-4-1-14

Directives:
- Low Voltage Directive No. 2014/35/EU
- EMC Directive No. 2014/30/EU

Material declaration

The charts below show the constituents of AF205-30-11-11 which represent the range of contactors AF190…AF205.
The constituent materials are distributed as follows.

AF205-30-11-11
The total weight of the product is 2860 gr.

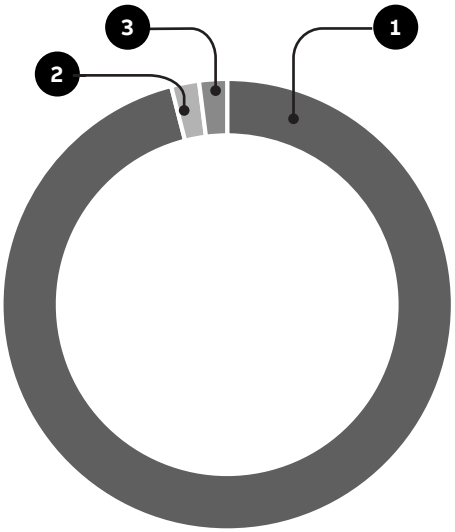


Material		% wt
1	Steel	35.9 %
2	Copper	21.2 %
3	Precious metals	0.6 %
4	Zinc	0.1 %
5	PA	26.9 %
6	BMC/SMC	13.8 %
7	PCBA	1.3 %
8	NBR	0.1 %
9	Other thermoplastics	0.01 %
	TOTAL	100.0 %

Packaging

The charts below provide information for each packaging material used. The cardbox and the paper used for the product material are made of recycled fibers and are 100 % recyclables. The polymer films used are marked with the proper identification code and are recyclable.

AF205-30-11-11
Packaging material composition: total weight = 210 gr.



Material		%
1	Cardbox	96 %
2	Paper	2 %
3	Plastics	2 %
	TOTAL	100 %

Product use

Energy
Power losses for AF190…AF205 are indicated in the following table.

Type		Power loss (W/device)
AF190	Ie / AC-1	52 W
	Ie / AC-3	28 W
AF205	Ie / AC-1	82 W
	Ie / AC-3	31 W

End-of-life

At the end of operating life, constituent components of AF contactors have been optimized in order to reduce waste amount and increase recovery of the material. Metals and polymers contained into AF contactors are characterized by high recycling rates. Most plastic parts are marked for easy sorting.

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