

Installation contactors

ESB100N



ABB's ESB..N installation contactors are premium electromechanical switching devices widely used for controlling lighting, heating, ventilation, motors and pumps. The range covers ratings up to 100 A, includes various accessories and is fully compatible with other modular DIN-rail components.

ESB100N installation contactors are used to control single-phase loads up to 100 A in household and industrial applications with a maximum ambient temperature of +55°C. Thanks to a new coil technology, they can be operated by AC or DC voltages, are completely hum-free and has an integrate overvoltage protection for the control circuit. A bi-colored indicator on the front of the device shows clearly the status of the contactor. Several contact combinations are available as well as tool-free mountable accessories.

Product conformity & compliance

REACH (Regulation EC 1907/2006)

ESB100N 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). ABB publishes the data about the products that are having a part with SVHC in the SCIP database.

RoHS II

ESB100N 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 IECCE CB scheme. CB certificate has been issued.

Standards:

- IEC/EN 60947-1
- IEC/EN 60947-4-1
- IEC/EN 61095

- UL 60947-1

- UL 60947-4-1

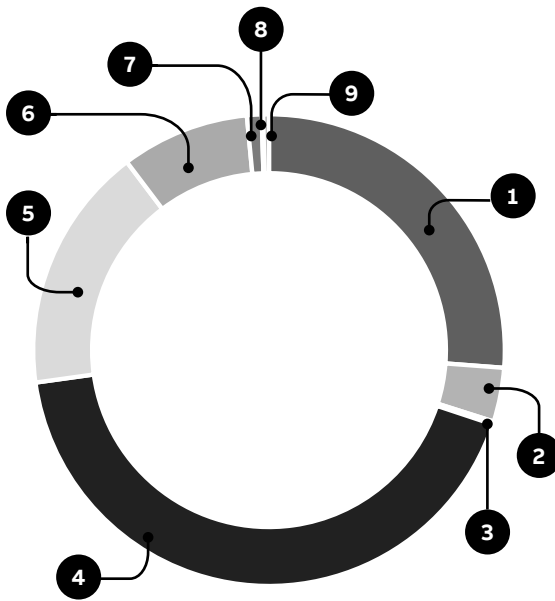
Directives:

- EC "Low Voltage Directive" (LVD) 2014/35/EU

Material declaration

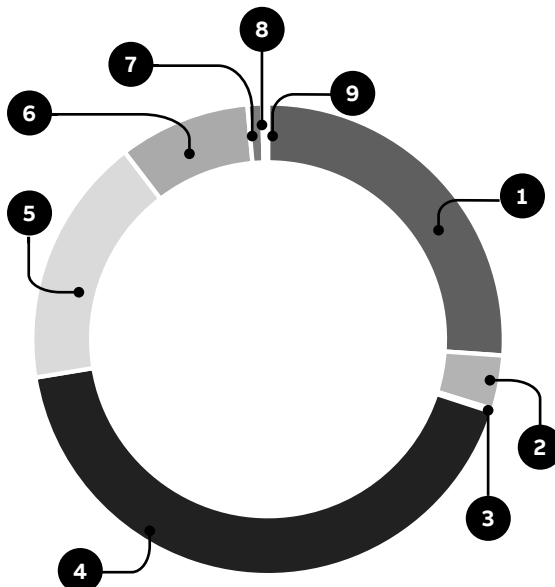
This section outlines the material composition of ESB100-20N-06 and ESB100-40N-06 as representative products for the ESB100N. The constituent materials are distributed as follows.

The total weight of ESB100-20N-06 is 405 gr.



Material	% wt
1 PA	26.2 %
2 PC	3.7 %
3 Other thermoplastic	0.2 %
4 Steel	42.7 %
5 Copper	16.9 %
6 Copper alloys	8.8 %
7 Silver alloys	1.0 %
8 Stainless steel	0.1 %
9 Electronic components	0.4 %
TOTAL	100 %

The total weight of ESB100-40N-06 is 810 gr.

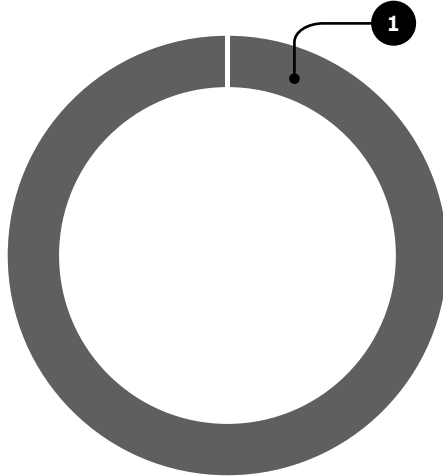


Material	% wt
1 PA	26.1 %
2 PC	3.7 %
3 Other thermoplastic	0.2 %
4 Steel	42.4 %
5 Copper	17.2 %
6 Copper alloys	9.0 %
7 Silver alloys	1.0 %
8 Stainless steel	0.1 %
9 Electronic components	0.3 %
TOTAL	100 %

Packaging

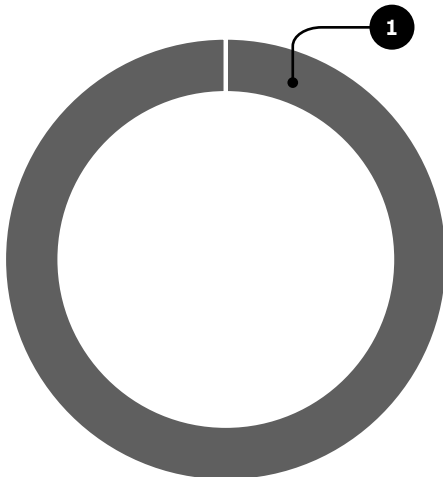
The tables below provide information for each packaging material used. The card box used for the product material are made of recycled fibers and are 100 % recyclables.

ESB100-20N Packaging material composition: total weight 25 gr.



Material	% wt
1 Cardbox	100 %
TOTAL	100 %

ESB100-40N Packaging material composition: total weight 40 gr.



Material	% wt
1 Cardbox	100 %
TOTAL	100 %

Product use



Energy

Power losses for installation contactors ESB100N are indicated in the following table

Type		Power loss (W/device)
ESB100-20N	Ie / AC-1, AC-7a	15.8
ESB100-40N	Ie / AC-1, AC-7a	31.6

End-of-life

At the end of operating life, constituent components of ESB100N installation contactors have been optimized in order to reduce waste amount and increase recovery of the material. Metals and polymers contained into ESB100N installation contactors are characterized by high recycling rates. Most plastic parts are marked for easy sorting.

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