

# Low voltage circuit breaker

## SACE Tmax T8



SACE Tmax T8 is a highly advanced low voltage moulded case circuit-breaker with unparalleled versatility of use and able to solve all installation problems brilliantly and respond successfully to all plant engineering requirements, from standard ones to the most technologically advanced ones.

SACE Tmax T8 can be found in the three-pole and four-pole, fixed versions, fitted with the very latest generation electronic trip units, with the possibility of interchangeability. SACE Tmax T8 set up a new technological standard and leave you free to think up and build installations with extraordinary performances. The present document applies to products made in Italy and manufactured in Frosinone plant. This manufacturing site is certified according to ISO 9001, IRIS, ISO 14001, OHSAS 18001 and SA 8000.

### Product Conformity & Compliance

#### **REACH (Regulation EC 1907/2006)**

SACE Tmax T8 and related accessories are classified as Articles and, during normal and reasonably foreseeable conditions of use, do not intentionally release any substance or preparation.

ABB S.p.A. – ABB SACE Division 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 SACE 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).

#### **RoHS II**

SACE Tmax T8 and related accessories are within the scope of Directive 2011/65/EU (RoHS II) starting from July 2019. However, according to our best knowledge, SACE Tmax T8 and related accessories do not contain any of the restricted substances listed into RoHS II directive.

#### **WEEE**

SACE Tmax T8 and related accessories are included in the scope of Directive 2012/19/EU starting from August 15th 2018.

### Product Safety

Certification of conformity with the product Standards is carried out in the ABB SACE tests laboratory (accredited by ACCREDIA) in respect of UNI CEI EN ISO /IEC 17025 Standard, by the Italian certification body ACAE (Association for Certification of Electrical Apparatus), member of the European LOVAG organization (Low Voltage Agreement Group) and by the Swedish certification body Intertek Semko, belonging to the international IECEE organization.

### Standard:

- IEC 60947-2.

### Directives:

- EC “Low Voltage Directive” (LVD) 2014/35/EC
- EC “Electromagnetic Compatibility Directive” (EMC) 2014/30/EC.

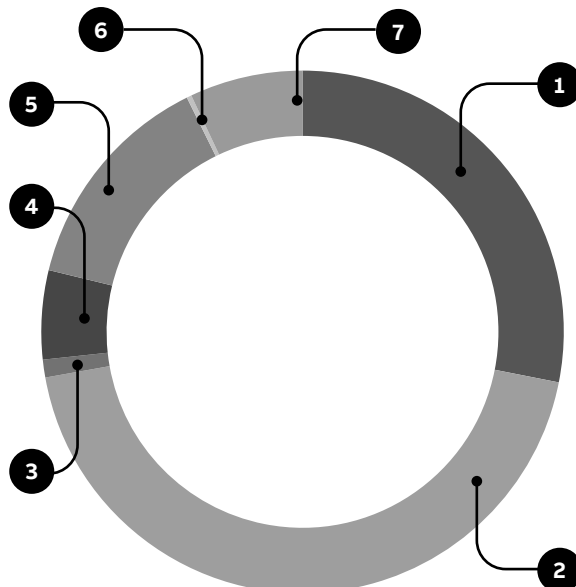
## Certifications and awards



## Material declaration

The charts below show the constituents of Tmax T8 3-poles. The constituent materials are distributed as follows.

**The total weight of the product is 71.700 gr.**

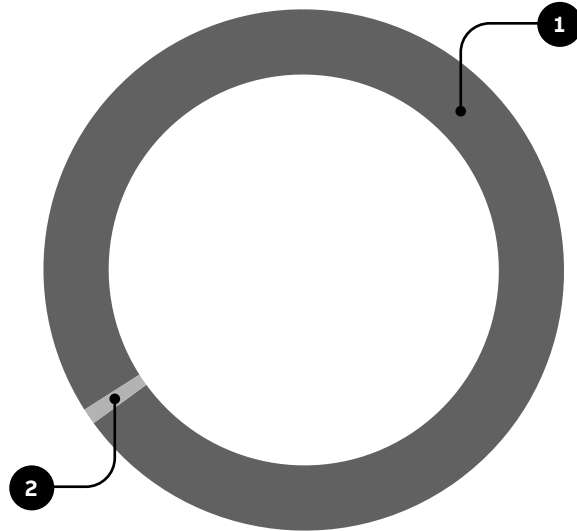


Material	% wt
1 Steel	28,1%
2 Copper and copper alloys	44,1%
3 Precious metals	1,1%
4 Thermoplastics	5,5%
5 Other plastics and rubber	13,9%
6 Electronic boards	0,3%
7 Other	7,0%
TOTAL	100,0%

## Packaging

The total weight for Tmax T8 3p packaging material is 12075 grams. The chart below provides information for the packaging material used.

### Tmax T8 packaging material composition



Material	%
1 Wood	99%
2 Steel	1%
TOTAL	100%

## Product Use



### Energy

Power loss for Tmax T8 3200 is equal to 117 W per pole. These values represent about 0.01% of the total power flowing through Tmax T8 breaker.

The energy consumption during the use of Tmax T8 has been estimated assuming 20 years of continual operation with a 30% load rate and 100% operation time.

Energy consumption = 5535 KWh.

## End-of-life

At the end of operating life, constituent components of Tmax T8 have been optimized in order to reduce waste amount and increase recovery of the material.

Metals and polymers contained into SACE Tmax T8 are characterized by high recycling rates and they are all marked for easy sorting.

The recyclability potential of the product has been evaluated using IEC / TR 62635. According to this standard, the potential recyclability ratio is 80%.

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