SAUTER Declaration on materials and the environment

Product

	Type	**TRT317F210 / TRT317F212** **TRT327F210 / TRT327F212**
	Designation	**Electronic room thermostat for heating and cooling**
	Product range	**Stand-alone controllers**
	Product group of eco-balance	**Controllers and sensors**

Manufacturer	Fr. Sauter AG Im Surinam 55, CH-4016 Basel	
Product description	CE conformity	
	Function, operation, maintenance, service	PDS 45.025
Environmental risk	Fire protection according to	EN 60695-2-11, EN 60695-10-2
	Fire load [1]	2.6 MJ
	Hazardous substances [2]	Conforming to RoHS 2011/65/EU
	Banned substances (see link below)	Conforming to REACH 1907/2006/EC
	Parts containing halogen (causing corrosive smoke)	Printed circuit boards
	Liquids polluting the aquatic environment	None
	Explosive substances	None
Packaging [3]	Folded cardboard	26 g

[1] See **Remarks** on last page
[2] Only applies to electrical devices
[3] Directive 94/62/EC and follow-on document, ruling 97/129/EC

Materials

	Total weight of product [4]	82…92 g	Material Safety Data Sheet (MSDS)	EU waste code[5]
Plastic				
ABS		63.8 g	Yes	20 01 39
Metal				
None				
Printed circuit board				
PCB assembly, lead-free solder				
TRT317F210		26.5 g	Not required	20 01 36
TRT317F212		18.2 g	Not required	20 01 36
TRT327F210		28.2 g	Not required	20 01 36
TRT327F212		21.2 g	Not required	20 01 36
Various				
None				

Special components

None

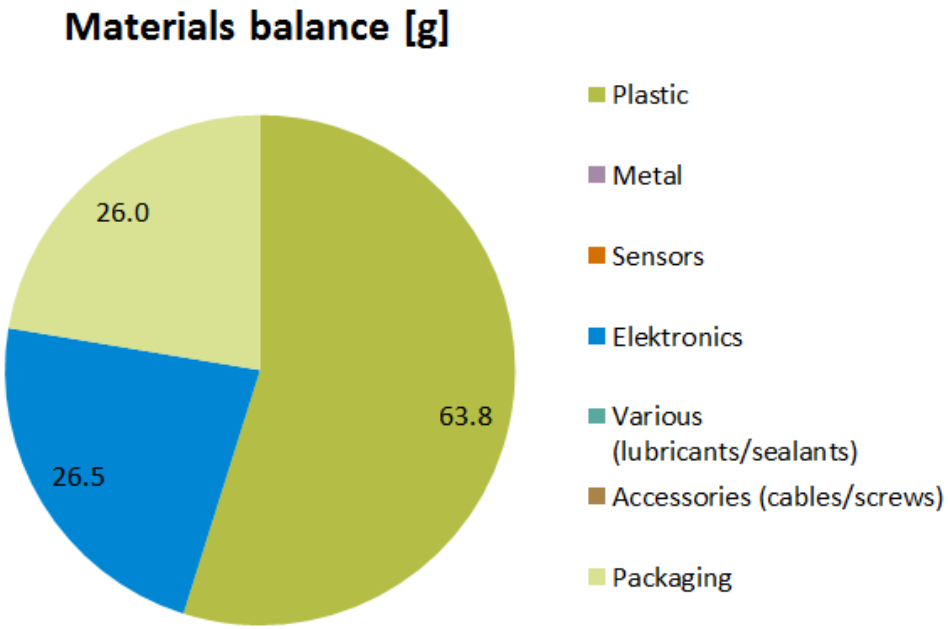
Note

The following materials balance and the calculation of the environmental impact relate to type TRT317F210.

[4] See **Remarks** on last page

[5] Directive 75/442/EEC and follow-on document, ruling 2001/118/EC

Materials balance



Energy requirement in the utilisation phase

Power requirement for component

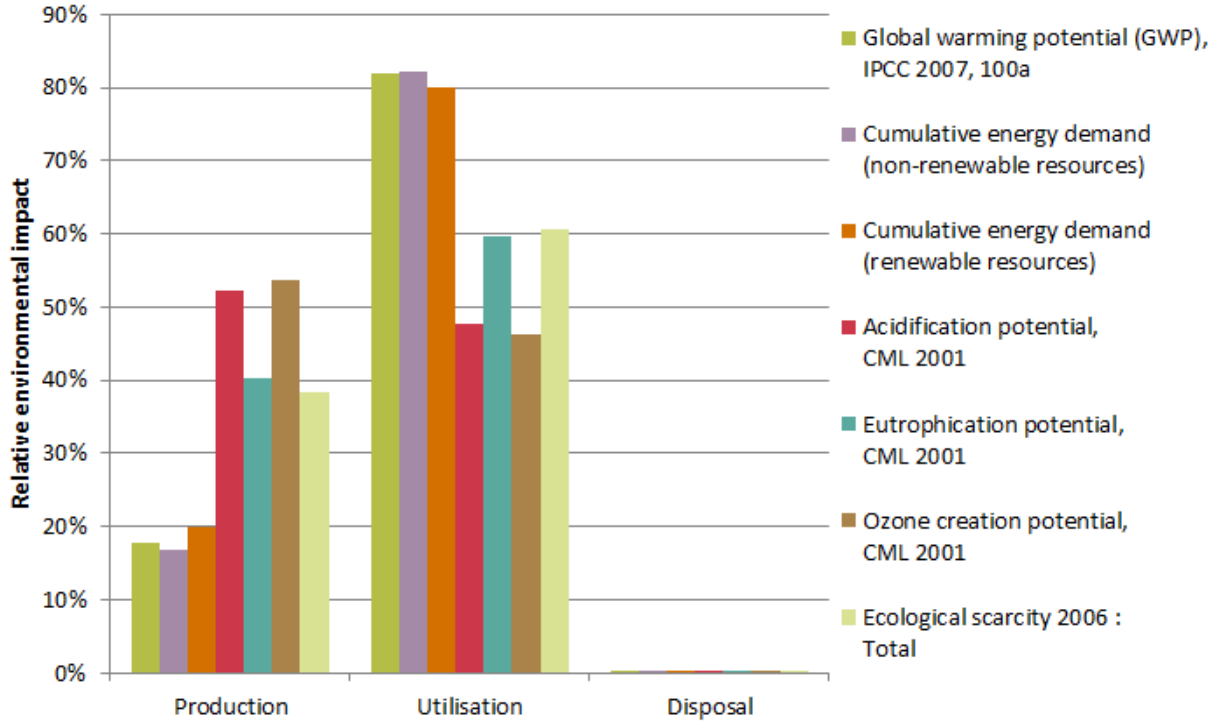
- Power consumption <0.3 W
- Typical energy consumption per year 2.6 kWh/a

The energy requirement evaluation was performed for a typical utilisation scenario. The European electricity mix from ecoinvent 2.2 was used to evaluate the power consumption in the utilisation phase.

Calculation of the environmental impact

Evaluation over the entire life stage of 8 years in a typical utilisation scenario. The results additionally shown are based on a method of ecological scarcity that combines various environmental effects into an “environmental impact points” key figure. The method is based on Switzerland’s environmental targets and evaluates the individual effects depending on the “Distance to Target”.

Indicator	Unit	Production	Utilisation	Disposal	Total
Global warming potential (GWP), IPCC 2007, 100a	kg CO2 eq.	2.4	11.3	0.0	13.7
Cumulative energy demand (non-renewable resources)	MJ eq.	47	230	0.1	280
Cumulative energy demand (renewable resources)	MJ eq.	4.3	17	0.00	22
Acidification potential, CML 2001	kg SO2 eq.	5.08E-02	4.65E-02	2.47E-05	9.72E-02
Eutrophication potential, CML 2001	kg PO4-- eq.	2.50E-02	3.69E-02	1.37E-05	6.20E-02
Ozone creation potential, CML 2001	kg C2H4 eq.	2.16E-03	1.87E-03	9.39E-07	4.03E-03
Ecological scarcity 2006 : Total	UBP	7'300	11'500	60	19'000



The relationship of the contributions made by the utilisation in comparison to those made by the production and disposal depends on the intensity of the utilisation (utilisation scenario).

Disposal	**Product:** The device must be disposed of as waste from electrical and electronic equipment (electrical/electronic scrap) and must not be disposed of as household waste. This applies in particular to the PCB assembly. It is possible that special treatment for special components is compulsory by law or makes ecological sense. **Packaging:** Recyclable The local and currently valid laws (WEEE2012/19/EU) must be observed. **Special information:** None
Remarks	**(1) Depending on the fire load for the type:** TRT317F210, TRT317F212, TRT327F210, TRT327F212 — 2.6 MJ **(2) Depending on the weight of the type:** TRT317F210 — 90 g TRT317F212 — 82 g TRT327F210 — 92 g TRT327F212 — 85 g
How the environment benefits	With these products we make a significant contribution to energy savings in buildings and to reducing global warming. In the Green Building area, our products ensure that customer requirements are fulfilled optimally and that there is cost efficiency over the entire building life-cycle.
Extent of applicability	This declaration is an environmental declaration based on ISO 14025 and describes the environmental impact of the product over its entire life stage. The declaration is made in a compact form without an external check or registration. The data gathered have been evaluated with existing data inventories for production processes from the ecoinvent 2.2 European database. For the determination of the energy requirement during the utilisation phase of the product, standard HVAC applications and average climatic conditions in Switzerland were assumed, based on the ecological accounting for the corresponding product group.

Disclaimer: This declaration is only for information purposes.

Deviations from the information it contains can occur without being reported. Fr. Sauter AG explicitly rules out any liability for any consequences that may result due to the above information.

Your local SAUTER representative will provide further information on environmental aspects, and specifically on disposal.

References

Ecoinvent 2010 ecoinvent data v2.2, Swiss Center for Life Cycle Inventories, Dübendorf

FOEN 2008 eco-balances: method of ecological scarcity – eco-factors 2006, FOEN