

**MD 91.102<sup>1</sup>** MD 91.103<sup>2</sup> MD 91.103<sup>3</sup>

# **SAUTER Declaration on materials and the environment**

## **Product**

	Type Designation	EY6AS80F021 EY6AS60F011 EY6BM15F011 modu680-AS <sup>1</sup> modu660-AS <sup>2</sup> modu615-BM <sup>3</sup>	
	Product range	SAUTER modu	llo 6
	Product group of eco-balance	Building management – HVAC	
Manufacturer	Fr. Sauter AG Im Surinam 55, CH-4058 Basel		
Management system certified according to		Since	With
	ISO 9001:2015	10 Oct. 2018	SQS
	ISO 14001:2015	10 Oct. 2018	SQS
	ISO 45001:2018	10 Oct. 2018	SQS
Environmentally-compatible product design	Basis	Management sy Fr. Sauter AG	rstem
	Process	Business proces <ul> <li>Product innov</li> <li>Ecological action</li> </ul>	ration

Ecological accounting

<sup>2</sup> Type: EY6AS60F011

<sup>&</sup>lt;sup>1</sup> Type: EY6AS80F021

<sup>&</sup>lt;sup>3</sup> Type: EY6BM15F011

Product description	CE conformity,	See PDS 91.102 <sup>1</sup> , 91.103 <sup>2</sup> , 91.104 <sup>3</sup>
	function, operation, maintenance, servicing	
Environmental risk	Fire protection according to	EN 60695-2-11, EN 60695-10-2
	Fire load	6.4 MJ <sup>1</sup> / 5.9 MJ <sup>2</sup> / 6.4 MJ <sup>3</sup>
	Hazardous substances <sup>4</sup> according to	RoHS 2011/65/EU & 2015/863/EU compliant. Product category 9.
	Hazardous substances <sup>₅</sup> according to	REACH 1907/2006/ EC compliant.
	Parts containing halogen (causing corrosive smoke)	Printed circuit board
	Liquids polluting the aquatic environment	None
	Explosive substances	Battery / CR2032 (danger only if used improperly)
	Transport hazardous goods class	ADR: 9 M4 (E), IATA: UN3091

## **Materials**

	Total weight of product	<b>280 g<sup>1,3</sup> / 260.8 g</b> <sup>2</sup>	Material Safety Data Sheet (MSDS)	EU waste code <sup>6</sup>
Plastic				
PA66		4.0 g	Yes	20 01 39
PC		85.6 g	Yes	20 01 39
Other plastics (<5% to	otal weight)	14.0 g	Yes	20 01 39
Metal				
Steel of different alloy	'S	2.6 g	Not required	20 01 40
Copper of different all	oys	0.1 g	Not required	20 01 40
Printed circuit board	1			
PCB assembly		146.6 g	Not required	20 01 36
Various				
-				
Packaging <sup>7</sup>				
Corrugated board		24 g		

**Special components** 

<sup>&</sup>lt;sup>1</sup> Type: EY6AS80F021

<sup>&</sup>lt;sup>2</sup> Type: EY6AS60F011

<sup>&</sup>lt;sup>3</sup> Type: EY6BM15F011

<sup>&</sup>lt;sup>4</sup> Only applies to electrical devices

<sup>&</sup>lt;sup>5</sup> SVHC substances >0.1%w/w: see **Hazardous ingredients** 

<sup>&</sup>lt;sup>6</sup> Directive 75/442/EEC and follow-on documents, ruling 2001/118/EC

<sup>&</sup>lt;sup>7</sup> Directive 94/62/EC, 2004/12/EC, 2005/20/EC, 2018/852/EC

Yes

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# Hazardous ingredients

SVHC ingredient			Effective concentration per	
CAS number	EN number	Name of the ingredient	article, %w/w	
110-71-4	203-794-9	Ethylene glycol dimethyl ether (EGDME), 1,2-Dimethoxyethane	1 – 3.5	
7439-92-1	231-100-4	Lead	<8	

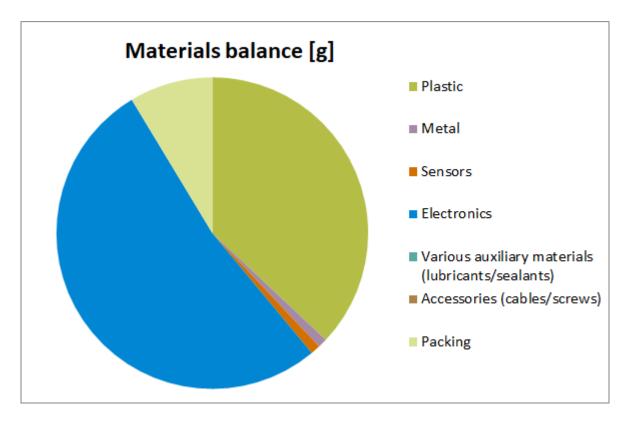
Link to the candidate list of ECHA

#### Note

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The following materials balance and the calculation of the environmental impact relate to type EY6AS80F021

### **Materials balance**



## Energy requirement in the utilisation phase

Power requirement for component

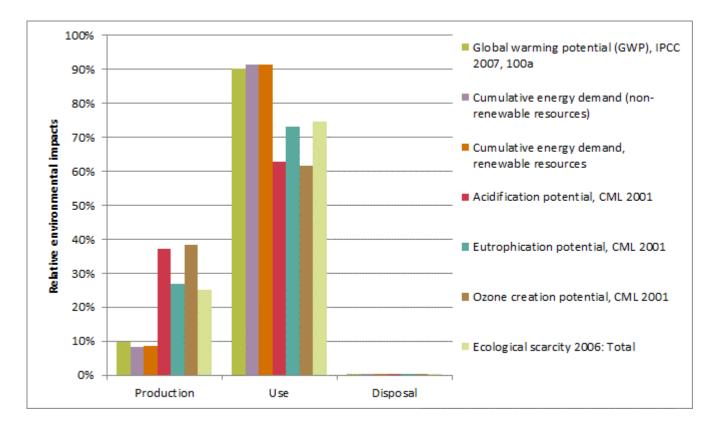
Minimum power consumption	2.0 W
Average power consumption	4.0 W
Typical energy consumption per year	35.0 kWh

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 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	Use	Disposal	Total
Global warming potential (GWP), IPCC 2007, 100a	kg CO2 eq.	16.5	154.1	0.2	170.8
Cumulative energy demand (non-renewable resources)	MJ eq.	285	3,120	1.4	3,410
Cumulative energy demand, renewable resources	MJ eq.	21.9	237	0.02	259
Acidification potential, CML 2001	kg SO2 eq.	3.76E-01	6.35E-01	2.60E-04	1.01E+00
Eutrophication potential, CML 2001	kg PO4 eq.	1.86E-01	5.05E-01	1.32E-04	6.91E-01
Ozone creation potential, CML 2001	kg C2H4 eq.	1.58E-02	2.56E-02	1.16E-05	4.14E-02
Ecological scarcity 2006: Total	UBP	52,900	157,300	880	211,000



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

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	Product:		
Disposal	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 assembled PCB.		
	Special treatment for special components may be compulsory by law or may make ecological sense.		
	WEEE (Waste Electrical and Electronic Equipment)		
	The local and currently valid laws (WEEE2012/19/EU) must be observed.		
	Battery:		
	If present and applicable, battery disposal fees will be paid by the importer. (See list of materials on page 2.)		
	Packaging:		
	Recyclable		
How the environment benefits	With these products, we make a significant contribution to energy savings in buildings and to reducing climate change.		
	With only 2Wh energy consumption in standstill, the primary energy requirement is outstandingly low. Its resource-saving compact design and easy single-sort disassembly result in optimal sustainability with a life expectancy of 8 years.		
	The eco-balance becomes even more optimal with the use of energy from renewable sources.		
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 with existing data inventories for production processes has been evaluated 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 for information purposes only.

Deviations from the information it contains can occur without notification. 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 Centre for Life Cycle Inventories, Dübendorf FOEN 2008 eco-balances: method of ecological scarcity – eco-factors 2006, FOEN