



A leading player in the housing industry for over 50 years, SOMFY is working to reduce its carbon emissions by 50% by 2030 and like so helps its customers and partners in their environmental approach.

Our actions to reduce our carbon footprint:

OFFER ECO-DESIGNED* PRODUCTS WITH A REDUCED ENVIRONMENTAL IMPACT THROUGHOUT THEIR LIFE CYCLE

OFFER SOLUTIONS THAT IMPROVE THE ENERGY EFFICIENCY OF BUILDINGS AND THUS LIMIT CO2 EMISSIONS.

[1]. Somfy's eco-design approach, identified by the ACT FOR GREEN label, aims to reduce the environmental impact of products throughout their life cycle, from the extraction of raw materials to the end of their life, by placing requirements above current regulations.

– Reference product



> Reference product

J4 18 18/24 IO PROTECT UNIT HE

Réf. 1240212

> Functional unit

To ensure the closing and opening action by performing 14 000 operation cycles, with a torque of 18 N.m and on a length of 2 meters for a lifetime of 15 years. As the exterior Venetian Blind rotates, the engine must perform 28 000 revolutions.

>References covered

1210673	J406 6/24 IO PROTECT UNIT-P145	1240267	J4 10/24 IO PRO WA UNIT	1210687	J4 6/24 IO PRO PAC160 SC-P150
1210674	J4 10/24 IO PROTECT UNIT-P145	1241006	J406 6/24 IO PROTECT PACK SWCZ	1210688	J4 10/24 IO PRO PACK 160-P150
1210675	J4 18/24 IO PROTECT UNIT-P145	1241228	J418 IO PRO 18/24 3M T/IO P120	1210689	J4 18/24 IO PRO PAC160 SC-P149
1210676	J4 6/24 IO PRO UNIT SWICZ	1241342	J406 io PRO 6/24 0.5M AA PACK	1210708	J4 6/24 IO PRO PACK W/H
1210677	J4 10/24 IO PRO UNI SWICZ	1241343	J406 io PRO 6/24 0.5M AA UNIT	1210709	J4 10/24 IO PRO UNIT W/H
1210679	J4 6/24 IO PRO UNIT AUST	1241344	J410 io PRO 10/24 0.5M AA UNIT	1210721	J410 10/24 IO PROTECT UNIT RX - P153
1210680	J4 10/24 IO PRO UNIT AUST	1241345	J418 io PRO 18/24 0.5M AA UNIT	1210725	J4 6/24 IO PROT UNIT RQVDI-P134
1210681	J4 18/24 IO PRO UNIT AUST	1241349	J406 io PRO 6/24 0.5M HD PACK	1210726	J4 6/24 IO PROTECT UNIT W/H - P132
1210682	J4 6/24 IO PR P120 RQVDIF-P133	1241350	J410 io PRO 10/24 0.5M HD UNIT	1240210	J406 06/24 IO PROTECT PACK HE
1210683	J4 10/24 IO PR UNIT RQVDIF - P133	1241351	J418 io PRO 18/24 0.5M HD UNIT	1240211	J410 10/24 IO PROTECT UNIT HE
1210684	J4 6/24 IO PRO PACK120 RX-P153	1245840	J406 6/24 IO PRO 0.5M 144 SCHL	1240212	J418 18/24 IO PROTECT UNIT HE
1210685	J4 6/24 IO PRO PACK LA/GR-P146	1246061	J406 IO PRO 0.5M GEN2 144	1240266	J4 6/24 IO PRO WA PACK
1210686	J4 6/24 IO PRO PACK AUST	1246062	J410 IO PRO 0.5M GEN4 UNIT		



Materials and substances

All useful measures have been adopted to ensure that the materials used in the composition of the product do not contain any substances banned by the legislation in force at the time of marketing.

Plastics		Metals		Other	
	%		%		%
PA66	8.0	Steel	25.9	Glass fiber	2.0
Silicon	6.9	Copper	13.6	Electrolyte	0.3
PVC	1.9	zamak	12.7	Lubricant	0.2
PET	0.8	Stainless steel	6.3	Other	0.3
POM	0.6	Aluminium	6.0	Total	2.8
Other	1.4	Other	1.9	Packaging	
Total	19.6	Total	66.5	Cardboard	5.2
				Paper	5.8
				Total	11.1
Total mass of the reference product : 2205g					
Estimated recyclable content : 64.0%					

> CHEMICAL SUBSTANCES

The product covered by this PEP comply with REACH regulation and RoHS directive 2011/65/EU, 2015/863 et 201/2102.



Representativeness

> Data has been collected between January and July 2023 by our design team, then treated and analyzed between July 2023.

> Data are related to the location of the production and assembly.

> Data matches with previous technology and commercial references only.



— Manufacturing

The devices covered in this PEP are manufactured in a production that has adopted an environmental management approach.

> Energy model

Poland mix; 2018



— Distribution

> Packaging is continuously improved by reducing the amount and using a maximum of recycled materials

> The unit pack has been modeled here. It is made up of:

- 100% recycled fiber paper instructions
- cardboard with a minimum of 50% recycled fibers



— Installation

> Installation elements

There is no element included in this phase.

> Installation processes

There is no installation process

> Energy model

Not applicable



— Use

For the considered scenario, the product has a power of 155W in active mode during 0.22% of the life cycle, and 0.379W during 99.78% of the life cycle. Measurement in accordance with NF EN 60335 and EN 50564.

> **Energy model of the use phase:** European mix; 2018

> **Consumables and maintenance :** None



— End of life

> Typical transport conditions

Considering the complexity of the electric and electronic recycling channel and our lack of knowledge about the end-of-life processes implemented all around the world, we considered:

- 200 km of transport.
- A waste pretreatment of electrical and electronic equipment, including dismantling and material separation
- A waste incineration of electrical and electronic equipment.
- Loading rate of the truck going to the waste disposal center of 80%.

– Environmental impacts

Evaluation of the environmental impact covers the following life cycle stages: manufacturing, distribution, installation, use and end of life. All calculations are done with EIME software version EIME© v5.9.3 and CODDE 2022-01, on functional unit.

Indicateurs	Units	Global	Manufacturing	Distribution	Installation	Use	End of life	Module D
Resource use, minerals and metals (Abiotic resource depletion - Elements)	kg SB eq.	1.44e-3	1.44e-3	2.59e-8	3.54e-10	2.81e-6	4.53e-9	2.29e-6
Resource use, fossils (Abiotic resource depletion - Fossil fuels)	MJ	1.35e+3	3.48e+2	9.19e+0	1.12e-1	9.87e+2	1.21e+0	5.13e+1
Acidification	mol H+ eq.	4.32e-1	1.86e-1	2.37e-2	5.82e-5	2.21e-1	7.70e-4	1.33e-2
Ecotoxicity, freshwater	CTUe	2.37e+3	1.81e+3	4.45e-1	1.91e-1	4.17e+2	1.40e+2	5.60e+0
Human toxicity, cancer	CTUh	5.83e-6	5.82e-6	1.08e-11	8.16e-13	4.52e-9	1.55e-9	1.51e-7
Human toxicity, non-cancer	CTUh	1.44e-6	1.23e-6	2.13e-9	9.56e-11	1.79e-7	3.28e-8	4.62e-8
Eutrophication, freshwater	kg P eq.	2.12e-4	8.97e-5	2.50e-7	2.52e-7	1.06e-4	1.53e-5	3.60e-6
Eutrophication, marine	kg N eq.	5.05e-2	1.93e-2	5.67e-3	5.90e-5	2.51e-2	3.79e-4	1.49e-3
Eutrophication, terrestrial	mol N eq.	6.51e-1	2.08e-1	6.21e-2	2.80e-4	3.77e-1	3.41e-3	1.58e-2
Climate change - total	kg CO2 eq.	6.00e+1	1.95e+1	7.25e-1	5.58e-2	3.87e+1	1.04e+0	2.05e+0
Climate change - biogenic	kg CO2 eq.	3.87e-1	3.35e-1	0.00e+0	-3.33e-11	5.17e-2	-6.96e-6	9.06e-3
Climate change - fossil	kg CO2 eq.	5.97e+1	1.91e+1	7.25e-1	5.58e-2	3.87e+1	1.04e+0	2.04e+0
Climate change - land use and land transformation	kg CO2 eq.	4.57e-8	4.57e-8	0.00e+0	0.00e+0	0.00e+0	0.00e+0	0.00e+0
Ionising radiation, human health	kg U235 eq.	3.89e+2	3.32e+2	1.51e-3	7.82e-5	5.76e+1	6.94e-3	2.00e-2
Land use	No dimension	9.69e-1	1.99e-1	0.00e+0	0.00e+0	7.71e-1	0.00e+0	0.00e+0
Ozone depletion	kg CFC-11 eq.	3.67e-6	3.50e-6	9.49e-10	1.14e-10	1.66e-7	3.86e-9	2.50e-8
Particulate matter	Disease occurrence	3.09e-6	1.25e-6	1.26e-7	4.67e-10	1.71e-6	4.58e-9	7.16e-8
Photochemical ozone formation, human health	kg NMVOC eq.	1.68e-1	7.01e-2	1.60e-2	8.42e-5	8.06e-2	8.65e-4	6.15e-3
Water use	m3 eq.	1.03e+1	8.90e+0	2.40e-3	2.06e-4	1.37e+0	1.72e-2	2.80e-1
Total Primary Energy	MJ	1.55e+3	3.60e+2	9.20e+0	1.13e-1	1.18e+3	1.23e+0	5.18e+1
Use of renewable primary energy excluding renewable primary energy used as raw material	MJ	2.00e+2	1.06e+1	1.18e-2	5.28e-4	1.89e+2	1.33e-2	5.50e-1
Use of renewable primary energy resources used as raw material	MJ	1.17e+0	1.17e+0	0.00e+0	0.00e+0	0.00e+0	0.00e+0	0.00e+0
Total use of renewable primary energy resources	MJ	2.01e+2	1.17e+1	1.18e-2	5.28e-4	1.89e+2	1.33e-2	5.50e-1
Use of non renewable primary energy excluding non renewable primary energy used as raw material	MJ	1.33e+3	3.36e+2	9.19e+0	1.12e-1	9.87e+2	1.21e+0	5.13e+1
Use of non renewable primary energy resources used as raw material	MJ	1.17e+1	1.17e+1	0.00e+0	0.00e+0	0.00e+0	0.00e+0	0.00e+0
Total use of non-renewable primary energy resources	MJ	1.35e+3	3.48e+2	9.19e+0	1.12e-1	9.87e+2	1.21e+0	5.13e+1
Use of secondary material	kg	4.06e-1	4.06e-1	0.00e+0	0.00e+0	0.00e+0	0.00e+0	0.00e+0
Use of renewable secondary fuels	MJ	0.00e+0	0.00e+0	0.00e+0	0.00e+0	0.00e+0	0.00e+0	0.00e+0
Use of non renewable secondary fuels	MJ	0.00e+0	0.00e+0	0.00e+0	0.00e+0	0.00e+0	0.00e+0	0.00e+0
Net use of freshwater	m3	2.40e-1	2.07e-1	5.58e-5	4.79e-6	3.19e-2	4.01e-4	6.51e-3
Non hazardous waste disposed	kg	1.89e+1	1.16e+1	2.22e-2	3.12e-2	5.57e+0	1.68e+0	1.68e+0
Hazardous waste disposed	kg	6.23e+1	6.09e+1	0.00e+0	2.45e-5	7.24e-1	6.26e-1	1.32e-1
Radioactive waste disposed	kg	6.05e-3	4.85e-3	1.55e-5	6.64e-7	1.17e-3	1.73e-5	9.02e-5
Components for reuse	kg	0.00e+0	0.00e+0	0.00e+0	0.00e+0	0.00e+0	0.00e+0	0.00e+0
Materials for recycling	kg	0.00e+0	0.00e+0	0.00e+0	0.00e+0	0.00e+0	0.00e+0	0.00e+0
Materials for energy recovery	kg	0.00e+0	0.00e+0	0.00e+0	0.00e+0	0.00e+0	0.00e+0	0.00e+0
Exported Energy	MJ	1.01e-1	9.42e-2	0.00e+0	7.03e-3	0.00e+0	0.00e+0	0.00e+0

Product Environmental Profil

Radio motor for outdoor Venetian blind J4 io Protect Range



> Here are the impacts of the B module.

Indicators	Units	Use phase	B1	B2	B3	B4	B5	B6	B7
Resource use, minerals and metals (Abiotic resource depletion - Elements)	kg SB eq.	2.81e-6	0.00e+0	0.00e+0	0.00e+0	0.00e+0	0.00e+0	2.81e-6	0.00e+0
Resource use, fossils (Abiotic resource depletion - Fossil fuels)	MJ	9.87e+2	0.00e+0	0.00e+0	0.00e+0	0.00e+0	0.00e+0	9.87e+2	0.00e+0
Acidification	mol H+ eq.	2.21e-1	0.00e+0	0.00e+0	0.00e+0	0.00e+0	0.00e+0	2.21e-1	0.00e+0
Ecotoxicity, freshwater	CTUe	4.17e+2	0.00e+0	0.00e+0	0.00e+0	0.00e+0	0.00e+0	4.17e+2	0.00e+0
Human toxicity, cancer	CTUh	4.52e-9	0.00e+0	0.00e+0	0.00e+0	0.00e+0	0.00e+0	4.52e-9	0.00e+0
Human toxicity, non-cancer	CTUh	1.79e-7	0.00e+0	0.00e+0	0.00e+0	0.00e+0	0.00e+0	1.79e-7	0.00e+0
Eutrophication, freshwater	kg P eq.	1.06e-4	0.00e+0	0.00e+0	0.00e+0	0.00e+0	0.00e+0	1.06e-4	0.00e+0
Eutrophication, marine	kg N eq.	2.51e-2	0.00e+0	0.00e+0	0.00e+0	0.00e+0	0.00e+0	2.51e-2	0.00e+0
Eutrophication, terrestrial	mol N eq.	3.77e-1	0.00e+0	0.00e+0	0.00e+0	0.00e+0	0.00e+0	3.77e-1	0.00e+0
Climate change - total	kg CO2 eq.	3.87e+1	0.00e+0	0.00e+0	0.00e+0	0.00e+0	0.00e+0	3.87e+1	0.00e+0
Climate change - biogenic	kg CO2 eq.	5.17e-2	0.00e+0	0.00e+0	0.00e+0	0.00e+0	0.00e+0	5.17e-2	0.00e+0
Climate change - fossil	kg CO2 eq.	3.87e+1	0.00e+0	0.00e+0	0.00e+0	0.00e+0	0.00e+0	3.87e+1	0.00e+0
Climate change - land use and land transformation	kg CO2 eq.	0.00e+0	0.00e+0	0.00e+0	0.00e+0	0.00e+0	0.00e+0	0.00e+0	0.00e+0
Ionising radiation, human health	kg U235 eq.	5.76e+1	0.00e+0	0.00e+0	0.00e+0	0.00e+0	0.00e+0	5.76e+1	0.00e+0
Land use	No dimension	7.71e-1	0.00e+0	0.00e+0	0.00e+0	0.00e+0	0.00e+0	7.71e-1	0.00e+0
Ozone depletion	kg CFC-11 eq.	1.66e-7	0.00e+0	0.00e+0	0.00e+0	0.00e+0	0.00e+0	1.66e-7	0.00e+0
Particulate matter	Disease occurrence	1.71e-6	0.00e+0	0.00e+0	0.00e+0	0.00e+0	0.00e+0	1.71e-6	0.00e+0
Photochemical ozone formation, human health	kg NMVOC eq.	8.06e-2	0.00e+0	0.00e+0	0.00e+0	0.00e+0	0.00e+0	8.06e-2	0.00e+0
Water use	m3 eq.	1.37e+0	0.00e+0	0.00e+0	0.00e+0	0.00e+0	0.00e+0	1.37e+0	0.00e+0
Total Primary Energy	MJ	1.18e+3	0.00e+0	0.00e+0	0.00e+0	0.00e+0	0.00e+0	1.18e+3	0.00e+0
Use of renewable primary energy excluding renewable primary energy used as raw material	MJ	1.89e+2	0.00e+0	0.00e+0	0.00e+0	0.00e+0	0.00e+0	1.89e+2	0.00e+0
Use of renewable primary energy resources used as raw material	MJ	0.00e+0	0.00e+0	0.00e+0	0.00e+0	0.00e+0	0.00e+0	0.00e+0	0.00e+0
Total use of renewable primary energy resources	MJ	1.89e+2	0.00e+0	0.00e+0	0.00e+0	0.00e+0	0.00e+0	1.89e+2	0.00e+0
Use of non renewable primary energy excluding non renewable primary energy used as raw material	MJ	9.87e+2	0.00e+0	0.00e+0	0.00e+0	0.00e+0	0.00e+0	9.87e+2	0.00e+0
Use of non renewable primary energy resources used as raw material	MJ	0.00e+0	0.00e+0	0.00e+0	0.00e+0	0.00e+0	0.00e+0	0.00e+0	0.00e+0
Total use of non-renewable primary energy resources	MJ	9.87e+2	0.00e+0	0.00e+0	0.00e+0	0.00e+0	0.00e+0	9.87e+2	0.00e+0
Use of secondary material	kg	0.00e+0	0.00e+0	0.00e+0	0.00e+0	0.00e+0	0.00e+0	0.00e+0	0.00e+0
Use of renewable secondary fuels	MJ	0.00e+0	0.00e+0	0.00e+0	0.00e+0	0.00e+0	0.00e+0	0.00e+0	0.00e+0
Use of non renewable secondary fuels	MJ	0.00e+0	0.00e+0	0.00e+0	0.00e+0	0.00e+0	0.00e+0	0.00e+0	0.00e+0
Net use of freshwater	m3	3.19e-2	0.00e+0	0.00e+0	0.00e+0	0.00e+0	0.00e+0	3.19e-2	0.00e+0
Non hazardous waste disposed	kg	5.57e+0	0.00e+0	0.00e+0	0.00e+0	0.00e+0	0.00e+0	5.57e+0	0.00e+0
Hazardous waste disposed	kg	7.24e-1	0.00e+0	0.00e+0	0.00e+0	0.00e+0	0.00e+0	7.24e-1	0.00e+0
Radioactive waste disposed	kg	1.17e-3	0.00e+0	0.00e+0	0.00e+0	0.00e+0	0.00e+0	1.17e-3	0.00e+0
Components for reuse	kg	0.00e+0	0.00e+0	0.00e+0	0.00e+0	0.00e+0	0.00e+0	0.00e+0	0.00e+0
Materials for recycling	kg	0.00e+0	0.00e+0	0.00e+0	0.00e+0	0.00e+0	0.00e+0	0.00e+0	0.00e+0
Materials for energy recovery	kg	0.00e+0	0.00e+0	0.00e+0	0.00e+0	0.00e+0	0.00e+0	0.00e+0	0.00e+0
Exported Energy	MJ	0.00e+0	0.00e+0	0.00e+0	0.00e+0	0.00e+0	0.00e+0	0.00e+0	0.00e+0

> Biogenic carbon content : 0 kg C. biogenic for the product, 0.078 kg C. biogenic for the packaging.

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Product Environmental Profil

Radio motor for outdoor Venetian blind J4 io Protect Range



> Those impacts are only applicable to the reference product on page 1.

> Extrapolation rule

For each phase of the life cycle, there is an extrapolation factor. To obtain the impacts of the other product, you need to multiply by the specific extrapolation factor.

	Manufacturing	Distribution	Installation	Use	End of life	ModuleD	Example for all phases Climate change (kg eq. CO2)
6N.m	0,82	0,86	1,00	0,82	0,96	1,00	4,93E+01
10N.m	0,91	0,93	1,00	0,91	0,98	1,00	5,47E+01
18N.m	1,00	1,00	1,00	1,00	1,00	1,00	6,00E+01

Example:

Take the reference product indicators and multiply them by the coefficient of the desired product.

Indicators 18N.m REF	Units	Global	Manufacturing	Distribution	Installation	Use	End of life	Module D
Climate change - total	kg CO2 eq.	6,00E+01	1,95E+01	7,25E-01	5,58E-02	3,87E+01	1,04E+00	2,05E+00

Desired product: 6N.m

Corresponding extrapolation factors:

	Manufacturing	Distribution	Installation	Use	End of life	ModuleD
6N.m	0,82	0,86	1,00	0,82	0,96	1,00

Corresponding indicators = REF indicators 18N.m * Desired product 6N.m extrapolation factors:

Indicators 6_17	Units	Global	Manufacturing	Distribution	Installation	Use	End of life	Module D
Climate change - total	kg CO2 eq.	4,93E+01	1,60E+01	6,22E-01	5,58E-02	3,16E+01	9,96E-01	2,05E+00

Registration number : SOMF-00018-V02.01-EN	Drafting Rules: PCR-ed4-FR-2021 09 06 Complemented by : PSR-0006-ed1.1-FR-2015 10 16
Accreditation number: VH48	Programme information: www.pep-ecopassport.org
Date of issue: 08-2023	Validity period: 5 years
Independent verification of the declaration and data, in compliance with ISO 14025 : 2010 Internal <input type="checkbox"/> External <input checked="" type="checkbox"/>	
The PCR review was conducted by a panel of experts chaired by Julie ORGELET (DDEMAIN)	
PEP are compliant with ISO 14025 environmental declaration type III The elements of the present PEP cannot be compared with elements from another program.	
Document in compliance with ISO 14025: 2010 "Environmental labels and declarations. Type III environmental declarations. »	
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