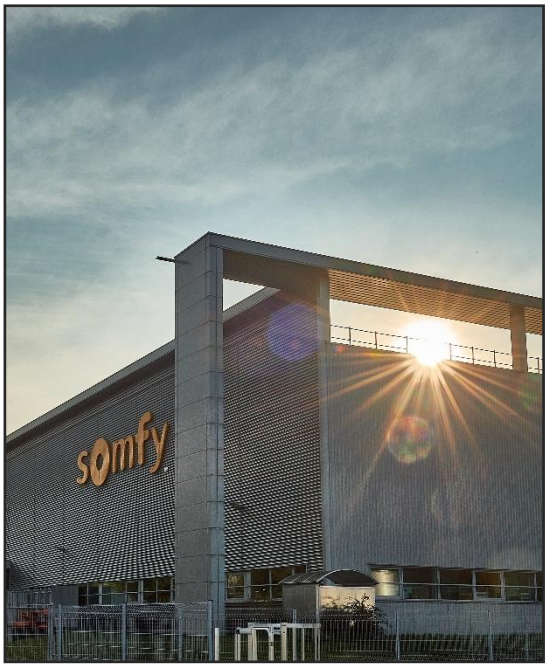
50, avenue du Nouveau Monde
74300 Cluses
Tél. 04 50 96 83 79

Product Environmental Profil

Radio motor for outdoor, indoor blinds and rolling shutters ALTUS/ACTUO/OPTUO/Rollerdriver 40 RTS



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

ALTUS 40 RTS 13/10

Réf. 1024179

> Functional unit

Ensure the closing and opening action by performing 14 000 operating cycles, over a service life of 15 years, with a torque of 13 N.m, on a run of 2 meters, corresponding to 16 windings turns per half-cycle, with a tube diameter of 40 mm

>References covered

ALTUS 40 RTS433 3/30	1020124	ACTUO 40 RTS433 3/30	1020163
ALTUS 40 RTS 9/16	1023297	OPTUO 40 RTS433 3/30	1241184
ALTUS 40 RTS 4/16	1021360	ALTUS 40 RTS 13/10	1024179

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	
	%		%		%
PVC	8.1	**Steel**	40.1	**Glass fiber**	2.7
POM	3.1	**Copper**	10.4	**Lubricant**	1.9
PA66	2.7	**Aluminium**	7.7	**Electrolyte**	0.1
ABS	1.2	**Zamak**	5.0	**Other**	0.1
PA6	0.9	**Neodyme magnet**	0.8	**Sum**	4.9
Other	2.6	**Other**	1.2	Packaging	
Sum	18.6	**Sum**	65.3	**Cardboard**	4.9
				Paper	6.2
				Total	11.2
Total mass of the reference product : 1500g					
Estimated recyclable content : 66.1%					

> CHEMICAL SUBSTANCES

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

Representativness

> Data has been collected between January and August 2023 by our design team, then treated and analyzed in August 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 Poland with 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

> Packaging End of life :

100% of cardboard, plastic and paper is landfilled.

— Use

For the considered scenario, the product has a power of 110W in active mode during 0.64% of the life cycle, and 0.368W during 99.36% 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, with following indicator set :
Indicators for PEF EF 3.0 (Compliance: PEP ed.4, EN15804+A2) v2.0

Indicators	Units	Global	Manufacturing	Distribution	Installation	Use	End of life	Module D
Resource use, minerals and metals (Abiotic resource depletion – Elements)	**kg SB eq.**	8.25E-04	8.21E-04	8.46E-09	1.98E-10	4.19E-06	2.96E-09	6.38E-07
Resource use, fossils (Abiotic resource depletion – Fossil fuels)	**MJ**	1.73E+03	2.56E+02	3.00E+00	7.80E-02	1.48E+03	8.38E-01	4.04E+01
Acidification	mol H+ eq.	4.44E-01	1.06E-01	7.74E-03	4.60E-05	3.30E-01	5.47E-04	5.76E-03
Ecotoxicity, freshwater	CTUe	1.59E+03	8.52E+02	1.45E-01	7.42E-01	6.24E+02	1.11E+02	4.92E+00
Human toxicity, cancer	CTUh	1.83E-06	1.82E-06	3.54E-12	2.43E-12	6.75E-09	1.21E-09	2.00E-06
Human toxicity, non-cancer	CTUh	8.54E-07	5.59E-07	6.93E-10	2.79E-10	2.68E-07	2.59E-08	2.14E-08
Eutrophication, freshwater	kg P eq.	2.24E-04	5.46E-05	8.14E-08	9.42E-08	1.59E-04	1.03E-05	2.90E-06
Eutrophication, marine	kg N eq.	5.13E-02	1.15E-02	1.85E-03	1.52E-04	3.75E-02	2.72E-04	8.12E-04
Eutrophication, terrestrial	mol N eq.	7.12E-01	1.25E-01	2.02E-02	1.85E-04	5.64E-01	2.44E-03	8.61E-03
Climate change - total	kg CO2 eq.	7.10E+01	1.19E+01	2.36E-01	1.56E-01	5.79E+01	8.15E-01	1.23E+00
Climate change - biogenic	kg CO2 eq.	3.41E-01	2.64E-01	0.00E+00	-1.41E-10	7.72E-02	-5.51E-06	8.23E-02
Climate change - fossil	kg CO2 eq.	7.07E+01	1.17E+01	2.36E-01	1.56E-01	5.78E+01	8.15E-01	1.15E+00
Climate change - land use and land transformation	kg CO2 eq.	2.88E-09	2.88E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Ionising radiation, human health	kg U235 eq.	3.11E+02	2.25E+02	4.92E-04	9.65E-05	8.61E+01	5.22E-03	2.80E-02
Land use	No dimension	1.39E+00	2.33E-01	0.00E+00	0.00E+00	1.15E+00	0.00E+00	0.00E+00
Ozone depletion	kg CFC-11 eq.	1.37E-06	1.11E-06	3.10E-10	3.33E-10	2.48E-07	2.88E-09	3.97E-08
Particulate matter	Disease occurrence	3.23E-06	6.26E-07	4.10E-08	3.35E-10	2.56E-06	3.18E-09	3.02E-08
Photochemical ozone formation, human health	kg NMVOC eq.	1.68E-01	4.11E-02	5.21E-03	8.97E-05	1.21E-01	6.15E-04	3.15E-03
Water use	m3 eq.	7.31E+00	5.24E+00	7.82E-04	1.76E-04	2.05E+00	1.33E-02	3.93E-01
Total Primary Energy	MJ	2.03E+03	2.64E+02	3.00E+00	7.82E-02	1.76E+03	8.46E-01	4.24E+01
Use of renewable primary energy excluding renewable primary energy used as raw material	MJ	2.92E+02	8.26E+00	3.84E-03	2.27E-04	2.83E+02	8.11E-03	1.96E+00
Use of renewable primary energy resources used as raw material	MJ	2.18E-01	2.18E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Total use of renewable primary energy resources	MJ	2.92E+02	8.48E+00	3.84E-03	2.27E-04	2.83E+02	8.11E-03	1.96E+00
Use of non renewable primary energy excluding non renewable primary energy used as raw material	MJ	1.73E+03	2.48E+02	3.00E+00	7.80E-02	1.48E+03	8.38E-01	4.04E+01
Use of non renewable primary energy resources used as raw material	MJ	8.23E+00	8.23E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Total use of non-renewable primary energy resources	MJ	1.73E+03	2.56E+02	3.00E+00	7.80E-02	1.48E+03	8.38E-01	4.04E+01
Use of secondary material	kg	3.50E-01	3.50E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of renewable secondary fuels	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of non renewable secondary fuels	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Net use of freshwater	m3	1.70E-01	1.22E-01	1.82E-05	4.09E-06	4.77E-02	3.09E-04	9.16E-03
Non hazardous waste disposed	kg	1.59E+01	6.40E+00	7.25E-03	7.81E-02	8.33E+00	1.07E+00	1.08E+00
Hazardous waste disposed	kg	2.91E+01	2.75E+01	0.00E+00	7.86E-05	1.08E+00	4.95E-01	1.20E-01
Radioactive waste disposed	kg	5.16E-03	3.40E-03	5.05E-06	3.94E-07	1.74E-03	1.08E-05	7.20E-05
Components for reuse	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Materials for recycling	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Materials for energy recovery	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Exported Energy	MJ	9.68E-02	9.42E-02	0.00E+00	2.61E-03	0.00E+00	0.00E+00	0.00E+00

> Here are the impacts of the B module.

Indicators	Units	Use	B1	B2	B3	B4	B5	B6	B7
Resource use, minerals and metals (Abiotic resource depletion – Elements)	kg SB eq.	4.19E-06	0.00e+0	0.00e+0	0.00e+0	0.00e+0	0.00e+0	4.19E-06	0.00e+0
Resource use, fossils (Abiotic resource depletion – Fossil fuels)	MJ	1.48E+03	0.00e+0	0.00e+0	0.00e+0	0.00e+0	0.00e+0	1.48E+03	0.00e+0
Acidification	mol H+ eq.	3.30E-01	0.00e+0	0.00e+0	0.00e+0	0.00e+0	0.00e+0	3.30E-01	0.00e+0
Ecotoxicity, freshwater	CTUe	6.24E+02	0.00e+0	0.00e+0	0.00e+0	0.00e+0	0.00e+0	6.24E+02	0.00e+0
Human toxicity, cancer	CTUh	6.75E-09	0.00e+0	0.00e+0	0.00e+0	0.00e+0	0.00e+0	6.75E-09	0.00e+0
Human toxicity, non-cancer	CTUh	2.68E-07	0.00e+0	0.00e+0	0.00e+0	0.00e+0	0.00e+0	2.68E-07	0.00e+0
Eutrophication, freshwater	kg P eq.	1.59E-04	0.00e+0	0.00e+0	0.00e+0	0.00e+0	0.00e+0	1.59E-04	0.00e+0
Eutrophication, marine	kg N eq.	3.75E-02	0.00e+0	0.00e+0	0.00e+0	0.00e+0	0.00e+0	3.75E-02	0.00e+0
Eutrophication, terrestrial	mol N eq.	5.64E-01	0.00e+0	0.00e+0	0.00e+0	0.00e+0	0.00e+0	5.64E-01	0.00e+0
Climate change - total	kg CO2 eq.	5.79E+01	0.00e+0	0.00e+0	0.00e+0	0.00e+0	0.00e+0	5.79E+01	0.00e+0
Climate change - biogenic	kg CO2 eq.	7.72E-02	0.00e+0	0.00e+0	0.00e+0	0.00e+0	0.00e+0	7.72E-02	0.00e+0
Climate change - fossil	kg CO2 eq.	5.78E+01	0.00e+0	0.00e+0	0.00e+0	0.00e+0	0.00e+0	5.78E+01	0.00e+0
Climate change - land use and land transformation	kg CO2 eq.	0.00E+00	0.00e+0	0.00e+0	0.00e+0	0.00e+0	0.00e+0	0.00E+00	0.00e+0
Ionising radiation, human health	kg U235 eq.	8.61E+01	0.00e+0	0.00e+0	0.00e+0	0.00e+0	0.00e+0	8.61E+01	0.00e+0
Land use	No dimension	1.15E+00	0.00e+0	0.00e+0	0.00e+0	0.00e+0	0.00e+0	1.15E+00	0.00e+0
Ozone depletion	kg CFC-11 eq.	2.48E-07	0.00e+0	0.00e+0	0.00e+0	0.00e+0	0.00e+0	2.48E-07	0.00e+0
Particulate matter	Disease occurrence	2.56E-06	0.00e+0	0.00e+0	0.00e+0	0.00e+0	0.00e+0	2.56E-06	0.00e+0
Photochemical ozone formation, human health	kg NMVOC eq.	1.21E-01	0.00e+0	0.00e+0	0.00e+0	0.00e+0	0.00e+0	1.21E-01	0.00e+0
Water use	m3 eq.	2.05E+00	0.00e+0	0.00e+0	0.00e+0	0.00e+0	0.00e+0	2.05E+00	0.00e+0
Total Primary Energy	MJ	1.76E+03	0.00e+0	0.00e+0	0.00e+0	0.00e+0	0.00e+0	1.76E+03	0.00e+0
Use of renewable primary energy excluding renewable primary energy used as raw material	MJ	2.83E+02	0.00e+0	0.00e+0	0.00e+0	0.00e+0	0.00e+0	2.83E+02	0.00e+0
Use of renewable primary energy resources used as raw material	MJ	0.00E+00	0.00e+0	0.00e+0	0.00e+0	0.00e+0	0.00e+0	0.00E+00	0.00e+0
Total use of renewable primary energy resources	MJ	2.83E+02	0.00e+0	0.00e+0	0.00e+0	0.00e+0	0.00e+0	2.83E+02	0.00e+0
Use of non renewable primary energy excluding non renewable primary energy used as raw material	MJ	1.48E+03	0.00e+0	0.00e+0	0.00e+0	0.00e+0	0.00e+0	1.48E+03	0.00e+0
Use of non renewable primary energy resources used as raw material	MJ	0.00E+00	0.00e+0	0.00e+0	0.00e+0	0.00e+0	0.00e+0	0.00E+00	0.00e+0
Total use of non-renewable primary energy resources	MJ	1.48E+03	0.00e+0	0.00e+0	0.00e+0	0.00e+0	0.00e+0	1.48E+03	0.00e+0
Use of secondary material	kg	0.00E+00	0.00e+0	0.00e+0	0.00e+0	0.00e+0	0.00e+0	0.00E+00	0.00e+0
Use of renewable secondary fuels	MJ	0.00E+00	0.00e+0	0.00e+0	0.00e+0	0.00e+0	0.00e+0	0.00E+00	0.00e+0
Use of non renewable secondary fuels	MJ	0.00E+00	0.00e+0	0.00e+0	0.00e+0	0.00e+0	0.00e+0	0.00E+00	0.00e+0
Net use of freshwater	m3	4.77E-02	0.00e+0	0.00e+0	0.00e+0	0.00e+0	0.00e+0	4.77E-02	0.00e+0
Non hazardous waste disposed	kg	8.33E+00	0.00e+0	0.00e+0	0.00e+0	0.00e+0	0.00e+0	8.33E+00	0.00e+0
Hazardous waste disposed	kg	1.08E+00	0.00e+0	0.00e+0	0.00e+0	0.00e+0	0.00e+0	1.08E+00	0.00e+0
Radioactive waste disposed	kg	1.74E-03	0.00e+0	0.00e+0	0.00e+0	0.00e+0	0.00e+0	1.74E-03	0.00e+0
Components for reuse	kg	0.00E+00	0.00e+0	0.00e+0	0.00e+0	0.00e+0	0.00e+0	0.00E+00	0.00e+0
Materials for recycling	kg	0.00E+00	0.00e+0	0.00e+0	0.00e+0	0.00e+0	0.00e+0	0.00E+00	0.00e+0
Materials for energy recovery	kg	0.00E+00	0.00e+0	0.00e+0	0.00e+0	0.00e+0	0.00e+0	0.00E+00	0.00e+0
Exported Energy	MJ	0.00E+00	0.00e+0	0.00e+0	0.00e+0	0.00e+0	0.00e+0	0.00E+00	0.00e+0

> Biogenic carbon content : 0 kg C. biogenic for the product, 0.055 kg C. biogenic for the packaging.

> 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	Fin de vie	Module D	Exemple pour toutes les phases en Changement climatique (kg eq. CO2)
ALTUS 40 RTS433 3/30	1.00	1.00	1.00	0.53	1.00	1.00	4.36E+01
ALTUS 40 RTS 9/16	1.00	1.00	1.00	0.64	1.00	1.00	5.04E+01
ALTUS 40 RTS 4/16	1.00	1.00	1.00	0.76	1.00	1.00	5.69E+01
ALTUS 40 RTS 13/10	1.00	1.00	1.00	1.00	1.00	1.00	7.10E+01
ACTUO 40 RTS433 3/30	0.92	0.88	1.00	0.50	0.97	1.00	4.13E+01
OPTUO 40 RTS433 3/30	0.92	0.88	1.00	0.50	0.97	1.00	4.13E+01

Example:

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

Indicators 13_10 REF	Units	Global	Manufacturing	Distribution	Installation	Use	End of life	Module D
Climate change - total	kg CO2 eq.	7.10E+01	1.19E+01	2.36E-01	1.56E-01	5.79E+01	8.15E-01	1.23E+00

Desired product: ALTUS 3/30

Corresponding extrapolation factors:

	Manufacturing	Distribution	Installation	Use	End of life	ModuleD
3/30	1.00	1.00	1.00	0.53	1.00	1.00

Corresponding indicators = REF indicators * Desired product extrapolation factors:

Indicators 3_30	Units	Global	Manufacturing	Distribution	Installation	Use	End of life	Module D
Climate change - total	kg CO2 eq.	4.36E+01	1.19E+01	2.36E-01	1.56E-01	3.07E+01	8.15E-01	1.23E+00

Registration number :**SOMF-00034-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: 11-2023	Validity period: 5 years
Independent verification of the declaration and data. in compliance with ISO 14025 : 2010 Internal ☐ External ☑	
The PCR review was conducted by a panel of experts chaired by Julie ORGELET (DDEMAIN)	
PEP are compliant with ISO 14025 environnemental 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 déclarations. »	
Somfy contact: Pierre HOGUET. Ecodesign Engineer. pierre.hoguet@somfy.com	