

Product Environmental Profile

Radio motor for rolling shutters S&SO-RS100 io, S&SO-RS100 io Hybrid



Reference product



> Reference product

S&SO-RS100 io HYBRID 15

Ref **5141718**

> Functional unit

Ensure the closing and opening action by performing 14 000 operating cycles, and a reference service life of 15 years, with a torque of 15 Nm, on a length of 2 meters, corresponding to 13 winding turns per half-cycle, with a tube diameter of 50 mm.

> References covered

S&SO-RS100 io 10, ref 5142200

S&SO-RS100 io 10 TH, ref 5142203

S&SO-RS100 io 10 RH, ref 5142209

S&SO-RS100 io HYBRID 10, ref 5142198

S&SO-RS100 io HYBRID 10 TH, ref 5142206

S&SO-RS100 io HYBRID 10 RH, ref 5143515

S&SO-RS100 io 15, ref 5142201

S&SO-RS100 io 15 TH, ref 5142204

S&SO-RS100 io 15 RH, ref 5142210

S&SO-RS100 io HYBRID 15, ref 5141718

S&SO-RS100 io HYBRID 15 TH, ref 5142207

S&SO-RS100 io HYBRID 15 RH, ref 5143516

S&SO-RS100 io 6, ref 5142199

S&SO-RS100 io 6 TH, ref 5142202

S&SO-RS100 io 6 RH, ref 5142208

S&SO-RS100 io HYBRID 6, ref 5142197

S&SO-RS100 io HYBRID 6 TH, ref 5142205

S&SO-RS100 io HYBRID 6 RH, ref 5143514

S&SO-RS100 io 20, ref 5105052

S&SO-RS100 io 20 TH, ref 5115781

S&SO-RS100 io 20 RH, ref 5142407

S&SO-RS100 io HYBRID 20, ref 5105044

S&SO-RS100 io HYBRID 20 TH, ref 5115785

S&SO-RS100 io HYBRID 20 RH, ref 5142410



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		
	g	%		g	%		g	%
PA 6-6	151	7,5	Steel pipe	468	23,3	Glass fiber	108	5,4
PVC	127	6,3	Steel	204	10,2	Other	19,1	1,0
POM	64,3	3,2	Zamak	194	9,7			
PBT	22,3	1,1	Ferrite magnet	176	8,8	Packaging		
Epoxy Resin	9,12	0,5	Copper	144	7,2	Carboard	200	10,0
PA 6	9	0,4	Stainless steel	8,89	0,4	Paper	75	3,7
Other	11,4	0,6	Other	15,9	0,8			
Total mass of reference flow: 2007,01g								
Estimated recyclable content: 46,5%								

> CHEMICAL SUBSTANCES

The products covered by this PEP comply with REACH regulation and RoHS directive.

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— Manufacturing

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

> Energy model

French Mix



— Distribution

The packaging is 100% recyclable. Paper is 100% recycled fibers and cardboard is minimum 50% recycled fibers. Packaging is continuously improved by reducing the amount and using a maximum of recycled material. Different sorts of packaging exist for this range: by 5 or by 100. For the modelisation, the 5 product pack is the reference.



— Installation

> Installation elements

A crown and a wheel required for installation are included in this phase.

> Installation processes

There is no installation process.

> Energy model

No



— Use

For the considered scenario, the product has a power of 80W in active mode during 0.276% of the time and a standby power of 0.498W during 99.724% of the time. This corresponds to an energy consumption of 94.22 kWh for the lifetime of 15 years.

> Energy model of the use phase: European Mix

> 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 :

- 1000 km of transport
- A landfill treatment of the product

> Energy model

European Mix

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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© v5.8.1

Indicators	Global	Unit	Manufacturing	Distribution	Installation	Usage	End of Life
Acidification potential of soil and water	2,46E-01	kg SO ₂ eq	3,59E-02	1,70E-02	9,83E-05	1,93E-01	5,67E-04
Abiotic depletion (elements, ultimate reserves)	1,65E-03	kg antimony eq	1,65E-03	2,17E-08	1,02E-09	4,01E-06	7,29E-09
Abiotic depletion (fossil fuels)	6,30E+02	MJ	9,67E+01	7,61E+00	2,53E-01	5,24E+02	1,56E+00
Air pollution	4,28E+03	m ³	2,20E+03	8,20E+01	3,23E+00	1,99E+03	1,18E+01
Eutrophication	2,10E-02	kg(PO ₄) ₃ -eq	6,27E-03	1,67E-03	6,00E-04	1,16E-02	8,19E-04
Global Warming	6,01E+01	kg CO ₂ eq	1,28E+01	5,99E-01	3,54E-01	4,62E+01	1,40E-01
Ozone layer depletion	4,13E-06	CFC-11 eq	1,12E-06	1,03E-09	9,35E-10	3,01E-06	2,10E-09
Photochemical oxidation	1,49E-02	kg C ₂ H ₄ eq	3,34E-03	8,41E-04	8,47E-05	1,06E-02	4,33E-05
Water pollution	3,88E+03	m ³	1,85E+03	8,90E+01	1,73E+01	1,91E+03	1,82E+01
Total Primary Energy	1,14E+03	MJ	2,10E+02	7,65E+00	2,79E-01	9,22E+02	1,66E+00
Total use of renewable primary energy resources	1,24E+02	MJ	6,62E+00	9,77E-03	2,65E-03	1,17E+02	2,23E-02
Total use of non-renewable primary energy resources	1,02E+03	MJ	2,04E+02	7,64E+00	2,76E-01	8,05E+02	1,63E+00
Use of renewable primary energy excluding renewable primary energy used as raw material	1,23E+02	MJ	6,02E+00	9,77E-03	2,65E-03	1,17E+02	2,23E-02
Use of renewable primary energy resources used as raw material	6,00E-01	MJ	6,00E-01	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Use of non renewable primary energy excluding non renewable primary energy used as raw material	1,01E+03	MJ	1,93E+02	7,64E+00	2,76E-01	8,05E+02	1,63E+00
Use of non renewable primary energy resources used as raw material	1,09E+01	MJ	1,09E+01	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Use of non renewable secondary fuels	0,00E+00	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Use of renewable secondary fuels	0,00E+00	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Use of secondary material	5,42E-01	kg	5,42E-01	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Net use of freshwater	1,72E+02	m ³	4,35E+00	4,63E-05	2,96E-05	1,67E+02	7,50E-05
Hazardous waste disposed	1,83E+01	kg	1,83E+01	0,00E+00	2,49E-04	2,41E-02	3,43E-04
Non hazardous waste disposed	1,80E+02	kg	5,38E+00	1,84E-02	2,84E-01	1,72E+02	1,80E+00
Radioactive waste disposed	1,22E-01	kg	6,52E-03	1,28E-05	3,44E-06	1,15E-01	2,62E-05
Components for reuse	0,00E+00	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Materials for recycling	0,00E+00	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Materials for energy recovery	0,00E+00	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Exported Energy	4,72E-02	MJ	4,29E-03	0,00E+00	4,29E-02	0,00E+00	0,00E+00

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> Extrapolation rule

For each stage of lifecycle, the environmental impacts of the product concerned are calculated by multiplying the impacts of the reference product by the extrapolation coefficient. The «Sum» column is calculated by adding the environmental impacts of each stage of the lifecycle.

	Manufacturing	Distribution	Installation	Use	End of life	Application example: Global sum for Global Warming indicator (kg CO2 eq)
S&S0 - RS100 io 6/17	1,00	1,00	1,00	0,84	1,00	5,26E+01
S&S0 - RS100 ioWT 6/17	1,00	1,00	1,00	0,87	1,00	5,41E+01
S&S0 - RS100 io 10/17	1,00	1,00	1,00	0,87	1,00	5,43E+01
S&S0 - RS100 ioWT 10/17	1,00	1,00	1,00	0,91	1,00	5,59E+01
S&S0 - RS100 io 15/17	1,00	1,00	1,00	0,98	1,00	5,90E+01
S&S0 - RS100 ioWT 15/17 (Reference)	1,00	1,00	1,00	1,00	1,00	6,01E+01
RS100 io 20/17	1,54	1,14	1,00	0,97	1,25	6,00E+01
RS100 ioWT 20/17	1,54	1,14	1,00	1,02	1,25	6,23E+01

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Accreditation number: VH18	Programme information: www.pep-ecopassport.org
Edition date: 02-2021	Period of validity: 5 years
Independent verification of the declaration and data, according to ISO 14025 : 2010 Internal ☐ External ☒ Bureau Veritas LCIE	
Document in compliance with ISO 14025:2010: Environmental labels and declarations. Type III environmental declarations.	
PCR review was conducted by a panel of experts chaired by Philippe Osset (SOLINNEN)	
The elements of the present PEP cannot be compared with elements from another programme.	
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