

Product Environmental Profile

Wired motor for rolling shutters Ilmo 2 50 WT Range





Reference product



> Reference product

Ilmo 2 50 WT 20/17

Ref 1132164

> 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 20 Nm, on a length of 2 meters, corresponding to 13 winding turns per half-cycle, with a tube diameter of 50 mm.

> References covered

Ilmo2 50 WT 10/17 Ilmo2 50 WT 15/17 Ilmo2 50 WT 20/17 Ilmo2 50 WT 6/17 Ilmo2 50 WT TH 10/17 Ilmo2 50 WT TH 15/17 Ilmo2 50 WT TH 20/17 Ilmo2 50 WT TH 6/17



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		
								%
Polyamide resin 6.6 (PA6.6)	159,0	5,7	Steel	1914,5	69,2	Glass fiber	80,1	2,9
Polyvinylchloride (PVC)	121,0	4,4	Copper	73,3	2,6	Lubricant	25,0	0,9
Polyoxymethylene (POM)	36,5	1,3	Alloy	23,30	0,8	Others	23,70	0,9
Thermoset	22,7	0,8	Others	22,4	0,8	Packaging		
Polycarbonate granulate (PC)	21,4	0,8				Paper	13,8	0,5
Others	67,3	2,4				Cardboard	163,0	5,9

Total mass of reference product: 2767.004 g

Estimated recyclable content: 30,2 %

> 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 have adopted environmental management approach.

> Energy model

Polish mix



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: unit, by 5 or by 100. For the modelisation, unit 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 160W in active mode during 0.27% of the time and 0.33W in standby mode during 99.73% of the time. This correspond to an energy consumption of 99.17kWh for the lifetime of 15 years.

- > Energy model of the usage phase: Europe mix
- > Consumables and maintenance: None



— End of life

> Typical transport conditions

Considering the complexity and the lack of knowledge of the electric and electronic recycling channel and processes all around the world, we considered a 1000Km transport of the product at the end of life and a landfill treatment.

> Energy model

European mix



— Environmental impacts

Evaluation of the environmental impact covers the following life cycle stages: manufacturing, distribution, installation, usage and end of life. All calculations are done with EIME software version EIME© v5.8.0.



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Indicators	Global	Unit	Manufacturing	Distribution	Installation	Usage	End of Life
Acidification potential of soil and water	2.76e-1	kg SO2 eq	4.78e-2	2.35e-2	5.15e-5	2.04e-1	8.25e-4
"Abiotic depletion (elements, ultimate reserves)"	3.62e-4	kg antimony eq	3.58e-4	3.00e-8	4.57e-10	4.26e-6	1.02e-8
"Abiotic depletion (fossil fuels)"	6.71e+2	MJ	1.02e+2	1.05e+1	1.51e-1	5.56e+2	2.29e+0
Air pollution	3.81e+3	m³	1.57e+3	1.13e+2	1.38e+0	2.11e+3	1.62e+1
Eutrophication	2.34e-2	kg(P04)3-eq	7.09e-3	2.31e-3	4.53e-4	1.23e-2	1.23e-3
Global Warming	6.23e+1	kg CO2 eq	1.20e+1	8.28e-1	2.43e-1	4.90e+1	2.03e-1
Ozone layer depletion	4.18e-6	CFC-11 eq	9.86e-7	1.42e-9	6.11e-10	3.19e-6	2.76e-9
Photochemical oxidation	1.68e-2	kg C2H4 eq	4.29e-3	1.16e-3	5.87e-5	1.12e-2	6.28e-5
Water pollution	3.76e+3	m ³	1.58e+3	1.23e+2	1.35e+1	2.02e+3	2.66e+1
Total Primary Energy	1.32e+3	MJ	3.32e+2	1.06e+1	1.66e-1	9.79e+2	2.41e+0
Total use of renewable primary energy resources	1.28e+2	MJ	3.06e+0	1.35e-2	5.51e-4	1.24e+2	2.94e-2
Total use of non-renewable primary energy resources	1.20e+3	MJ	3.29e+2	1.06e+1	1.65e-1	8.54e+2	2.38e+0
Use of renewable primary energy excluding renewable primary energy used as raw material	1.27e+2	МЛ	2.55e+0	1.35e-2	5.51e-4	1.24e+2	2.94e-2
Use of renewable primary energy resources used as raw material	5.07e-1	MJ	5.07e-1	0.00e+0	0.00e+0	0.00e+0	0.00e+0
Use of non renewable primary energy excluding non renewable primary energy used as raw material	1.18e+3	МЈ	3.16e+2	1.06e+1	1.65e-1	8.54e+2	2.38e+0
Use of non renewable primary energy resources used as raw material	1.35e+1	MJ	1.35e+1	0.00e+0	0.00e+0	0.00e+0	0.00e+0
Use of non renewable secondary fuels	0.00e+0	MJ	0.00e+0	0.00e+0	0.00e+0	0.00e+0	0.00e+0
Use of renewable secondary fuels	0.00e+0	MJ	0.00e+0	0.00e+0	0.00e+0	0.00e+0	0.00e+0
Use of secondary material	8.90e-1	kg	8.90e-1	0.00e+0	0.00e+0	0.00e+0	0.00e+0
Net use of freshwater	1.78e+2	m³	8.28e-1	6.40e-5	9.61e-6	1.78e+2	9.96e-5
Hazardous waste disposed	8.54e+0	kg	8.51e+0	0.00e+0	1.77e-4	2.55e-2	4.46e-4
Non hazardous waste disposed	1.94e+2	kg	8.13e+0	2.55e-2	1.77e-1	1.83e+2	2.70e+0
Radioactive waste disposed	1.24e-1	kg	2.08e-3	1.77e-5	9.28e-7	1.22e-1	3.45e-5
Components for reuse	0.00e+0	kg	0.00e+0	0.00e+0	0.00e+0	0.00e+0	0.00e+0
Materials for recycling	0.00e+0	kg	0.00e+0	0.00e+0	0.00e+0	0.00e+0	0.00e+0
Materials for energy recovery	0.00e+0	kg	0.00e+0	0.00e+0	0.00e+0	0.00e+0	0.00e+0
Exported Energy	6.87e-3	MJ	0.00e+0	0.00e+0	6.87e-3	0.00e+0	0.00e+0



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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.

	Manufacturing	Distribution	Installation	Use	End of life	Application example: Global sum for Global Warming indicator (kg CO2 eq)
20/17 (REF)	1,00	1,00	1,00	1,00	1,00	62,30
6/17	1,00	1,00	1,00	0,75	1,00	50,20
10/17	1,00	1,00	1,00	0,86	1,00	55,40
15/17	1,00	1,00	1,00	0,94	1,00	58,80

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Accreditation number: VH18	Programme information: www.pep-ecopassport.org			
Edition date: 01-2019 Period of validity: 5 years				
Independent verification of the declaration and data, according to ISO 14025 : 2010 Internal ☐ External ☑ Bureau Veritas LCIE	PEP			
Document in compliance with ISO 14025:2010: Environmental labels and declaratio				
PCR review was conducted by a panel of experts chaired by Philippe Osset (SOLINN	PASS			
The elements of the present PEP cannot be compared with elements from another	PORT _®			
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