

# Product Environmental Profile

## Wired motor for blinds without case and rolling shutters LT50 RA Range



### Reference product



#### > Reference product

LT Mariner 40/17 VVF 2.5M

Ref **1049064A**

#### > Functional unit

To ensure the closing and opening action by performing 14 000 operating cycles, and a reference service life of 15 years, with a torque of 40 Nm, on a length of 2 meters, corresponding to 13 winding turns per half-cycle, with a tube diameter of 50 mm.

#### > Products covered

Apollo 35/12	Jet 10/17	520A3 20/17	520R6 20/14	504S2 RH
Apollo 35/17	Jet 10/17 RH	530A3 30/17	538R6 38/14	506S2 RH
Ariane 6/17	Jet 10/32	505S3 5/32	528R6 28/14	510S2 RH
Ariane 6/17 RH	Mariner 40/12	510S3 10/32	505S6 5/38	515S2 RH
Ariane 6/32	Mariner 40/17	515S3 15/32	508A6 8/20	510R2
Ariane 6/32 RH	Meteor 20/12	530R4 30/12	518A6 18/20	520R2
Atlas 15/12	Meteor 20/17	510R3 10/12 RH	512S6 12/38	530R2
Atlas 15/17	Vectran 45/12		506A6 6/20	540R2
Atlas 15/17 RH	Vectran 50/12		514A6 14/20	550R2
Ceres 8/12		515R3 15/12		515A2
Ceres 8/17		520R3 20/12		525A2
Gemini 25/17	510R3 10/12	525R3 25/12	538R6 38/14	525A2 RH
Gemini 25/17 RH	515R3 15/12	505R3 5/32	528R6 28/14	535A2
Helios 30/12	520R3 20/12	510S3 10/32 RH	508A6 8/20	504S2
Helios 30/17	525R3 25/12		518A6 18/20	506S2
Hermes 4/32	530R3 30/12		512S6 12/38	510S2
Hermes 4/32 RH	540R3 40/12	508R6 8/14	506A6 6/20	515S2
Jet 10/12	550R3 50/12	510R6 10/14	505S6 5/38	
		515R6 15/14		



### 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	%
Polyamide (PA6.6)	169,0	6,3	Steel	1910,0	71,0	Glass fiber	110,0	4,1
Polyvinylchloride (PVC)	120,0	4,4	Copper	71,2	2,6	Lubricant	25,0	0,9
Polyoxymethylene (POM)	43,1	1,6	Zamak	37,0	1,0	Others	10,6	0,4
Thermoset	22,7	1,0	Alloy	23,1	1,0	Packaging		
Others	71,2	3,0	Others	10,42	0,4	Cardboard	52,4	1,9
						Paper	23,1	0,9
Total mass of reference product: 2702.25 g								
Estimated recyclable content: 28 %								

#### > CHEMICAL SUBSTANCES

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



## — Manufacturing

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

### > Energy model

Polish 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.



## — 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 270W in active mode during 0.27% of the time.

**This correspond to an energy consumption of 95.86 kWh 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
<b>Acidification potential of soil and water</b>	2.65e-1	kg SO2 eq	4.59e-2	2.29e-2	2.97e-5	1.96e-1	8.26e-4
<b>Abiotic depletion (elements, ultimate reserves)</b>	2.58e-4	kg antimony eq	2.54e-4	2.92e-8	3.24e-10	4.08e-6	1.01e-8
<b>Abiotic depletion (fossil fuels)</b>	6.61e+2	MJ	1.15e+2	1.02e+1	9.17e-2	5.33e+2	2.74e+0
<b>Air pollution</b>	3.73e+3	m <sup>3</sup>	1.58e+3	1.10e+2	9.91e-1	2.02e+3	1.60e+1
<b>Eutrophication</b>	2.17e-2	kg(PO4)3-eq	6.28e-3	2.25e-3	1.62e-4	1.18e-2	1.23e-3
<b>Global Warming</b>	5.97e+1	kg CO2 eq	1.17e+1	8.06e-1	9.65e-2	4.69e+1	2.03e-1
<b>Ozone layer depletion</b>	3.94e-6	CFC-11 eq	8.74e-7	1.38e-9	2.68e-10	3.06e-6	2.70e-9
<b>Photochemical oxidation</b>	1.61e-2	kg C2H4 eq	4.17e-3	1.13e-3	2.30e-5	1.08e-2	6.28e-5
<b>Water pollution</b>	3.59e+3	m <sup>3</sup>	1.50e+3	1.20e+2	4.63e+0	1.94e+3	2.67e+1
<b>Total Primary Energy</b>	1.28e+3	MJ	3.26e+2	1.03e+1	8.28e-2	9.37e+2	2.42e+0
<b>Total use of renewable primary energy resources</b>	1.22e+2	MJ	2.89e+0	1.32e-2	9.41e-4	1.19e+2	2.87e-2
<b>Total use of non-renewable primary energy resources</b>	1.15e+3	MJ	3.23e+2	1.03e+1	8.18e-2	8.18e+2	2.39e+0
<b>Use of renewable primary energy excluding renewable primary energy used as raw material</b>	1.22e+2	MJ	2.71e+0	1.32e-2	9.41e-4	1.19e+2	2.87e-2
<b>Use of renewable primary energy resources used as raw material</b>	1.75e-1	MJ	1.75e-1	0.00e+0	0.00e+0	0.00e+0	0.00e+0
<b>Use of non renewable primary energy excluding non renewable primary energy used as raw material</b>	1.14e+3	MJ	3.10e+2	1.03e+1	8.18e-2	8.18e+2	2.39e+0
<b>Use of non renewable primary energy resources used as raw material</b>	1.32e+1	MJ	1.32e+1	0.00e+0	0.00e+0	0.00e+0	0.00e+0
<b>Use of non renewable secondary fuels</b>	0.00e+0	MJ	0.00e+0	0.00e+0	0.00e+0	0.00e+0	0.00e+0
<b>Use of renewable secondary fuels</b>	0.00e+0	MJ	0.00e+0	0.00e+0	0.00e+0	0.00e+0	0.00e+0
<b>Use of secondary material</b>	8.07e-1	kg	8.07e-1	0.00e+0	0.00e+0	0.00e+0	0.00e+0
<b>Net use of freshwater</b>	1.71e+2	m <sup>3</sup>	8.05e-1	6.23e-5	9.21e-6	1.70e+2	9.75e-5
<b>Hazardous waste disposed</b>	8.40e+0	kg	8.37e+0	0.00e+0	6.92e-5	2.45e-2	4.34e-4
<b>Non hazardous waste disposed</b>	1.84e+2	kg	6.58e+0	2.48e-2	8.28e-2	1.75e+2	2.72e+0
<b>Radioactive waste disposed</b>	1.19e-1	kg	1.88e-3	1.72e-5	1.19e-6	1.17e-1	3.37e-5
<b>Components for reuse</b>	0.00e+0	kg	0.00e+0	0.00e+0	0.00e+0	0.00e+0	0.00e+0
<b>Materials for recycling</b>	0.00e+0	kg	0.00e+0	0.00e+0	0.00e+0	0.00e+0	0.00e+0
<b>Materials for energy recovery</b>	0.00e+0	kg	0.00e+0	0.00e+0	0.00e+0	0.00e+0	0.00e+0
<b>Exported Energy</b>	1.47e-2	MJ	1.47e-3	0.00e+0	1.32e-2	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)
<b>MARINER 40/17 REF</b>	1,00	1,00	1,00	1,00	1,00	59,90
<b>550R3 50/12</b>	1,00	1,00	1,00	1,31	1,00	74,10
<b>VECTRAN 50/12</b>	1,00	1,00	1,00	1,25	1,00	71,60
<b>540R3 40/12</b>	1,00	1,00	1,00	1,15	1,00	66,70
<b>538R6 38/14</b>	1,00	1,00	1,00	0,92	1,00	56,20
<b>525A2</b>	1,00	1,00	1,00	1,00	1,00	59,90
<b>528R6 28/14</b>	1,00	1,00	1,00	0,77	1,00	49,00
<b>HELIOS 30/12</b>	1,00	1,00	1,00	0,84	1,00	52,10
<b>525R3 25/12</b>	1,00	1,00	1,00	0,76	1,00	48,40
<b>530R4 30/12</b>	1,00	1,00	1,00	0,71	1,00	45,90
<b>ATLAS 15/12</b>	1,00	1,00	1,00	0,63	1,00	42,30
<b>510R6 10/14</b>	1,00	1,00	1,00	0,46	1,00	34,60
<b>JET 10/12</b>	1,00	1,00	1,00	0,52	1,00	37,40
<b>510R3 10/12</b>	1,00	1,00	1,00	0,47	1,00	34,90

Registration number : SOMF-00023-V02.02-EN	Applicable PCR: PCR-ed3-EN-2015 04 02 Supplemented by PSR-0006-ed1.1-EN-2015 10 16
Accreditation number: VH18	Programme information: <a href="http://www.pep-ecopassport.org">www.pep-ecopassport.org</a>
Edition date: 01-2019	Period of validity: 5 years
Independent verification of the declaration and data, according to ISO 14025 : 2010 Internal <input type="checkbox"/> External <input checked="" type="checkbox"/> 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.	
Somfy contact: Justine ZAWADA, Sustainable Development Engineer, justine.zawada@somfy.com	