

Product Environmental Profile

SIMON 270 USB CHARGERS



Registration number	SIMO-00010-V01.01-EN	Drafting rules	PCR-ed4-EN-2021 09 06
		Supplemented by	PSR-0005-ed3-EN-2023 06 06
Verifier accreditation number	VH45	Information and reference documents	www.pep-ecopassport.org
Date of issue	June 2025	Validity period	5 years
Independent verification of the declaration and data, in compliance with ISO 14025:2006			
Internal		External	X
The PCR review was conducted by a panel of experts chaired by Julie ORGELET (DDemain)			
PEP are compliant with XP CO08-100-1:2016 or EN 50693:2019			
The elements of the present PEP cannot be compared with elements from another program.			
Document in compliance with ISO 14025:2006 "Environmental labels and declarations. Type III environmental declarations"			

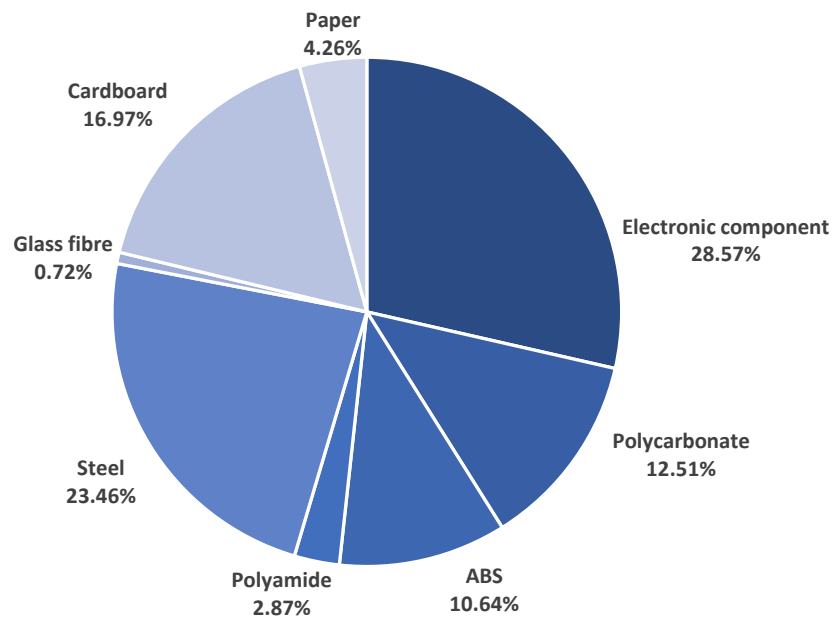


General information


Company information	<p>SIMON S.A.U. Sancho de Ávila, 66 08018, Barcelona Website: www.simonelectric.com</p>
Contact	<p>Ana Belen Rodríguez Martínez, abrm@simon.es</p>
Product description and homogeneous environmental family	<p>Family of Simon 270 USB Chargers. All the products in the family are USB chargers with one or two Type-A and/or Type-C ports.</p> <p>The PEP would include a group of similar products, which all belong to the same product family.</p>
Product standards	<p>Dir. 2014/35/UE LVD; Dir. 2014/30/UE EMC; Dir. 2011/65/UE RoHS + post. Mod; Dir. 2009/125/EC ErP (Reg. UE 2019/1782). EN 50563:2011 + A1:2013; EN 62368-1:2020 + A11:2020; IEC 63000:2018; ETSI EN 301489-34 V2.1.1</p>
Reference product	<p>Combination of three parts to form the final switch:</p> <ul style="list-style-type: none"> Mechanism: 20000296-190 dual USB charger A+C 3.1A of matt white colour. Outer plastic frame 27000610-190 Icon Aesthetic frame of white colour for 1 element. Inner steel frame 20000910-039 for 1 element. <p>Extrapolation coefficients will be calculated and applied for each stage of the life cycle in order to calculate the impacts of the other products of the family.</p>
Functional unit	<p>“Provide two USB connection type charging points (i.e. A and C), according to the appropriate use scenario, and for the reference service life of the product of 10 years.”.</p>
Reference flow	<ul style="list-style-type: none"> Product with packaging: 140.94 g Product without packaging: 111.01 g
Product category	<p>Sockets – USB chargers</p>
Reference lifetime	<p>10 years</p>
LCA software & Database	<p>The environmental impact assessment has been carried out with Simapro 9.6.0.1 tool and the background databases have been retrieved from Ecoinvent 3.10 libraries.</p>

Constituent materials

Material		Weight	Percentage
Electronics components 28.57 %	Electronic components	40.27 g	28.57 %
	Plastics		
26.02 %	Polycarbonate	17.63 g	12.51 %
	ABS	15.00 g	10.64 %
	Polyamide	4.04 g	2.87 %
Metals 23.46 %	Steel	33.06 g	23.46 %
Others 0.72 %	Glass fibre	1.01 g	0.72 %
Packaging 21.24 %	Cardboard	23.92 g	16.97 %
	Paper	6.01 g	4.26 %
Reference product		111.01 g	78.76 %
Packaging		29.93 g	21.24 %
TOTAL		140.94 g	100%



Description of life cycle stages

<p>Manufacturing stage</p>	<p>Manufactured and assembled between Simon’s manufacturing sites in Olot (Spain) – ISO 14001 certified – and Haian (China).</p> 
<p>Distribution stage</p>	<p>The products are distributed directly from Simon’s logistics platform to the distributors, where the installers (final customers) can purchase them.</p>
<p>Installation stage</p>	<p>The installation process is done manually and it does not require any additional component or process apart from the product itself.</p>
<p>Use stage</p>	<p>The use scenario is defined by the corresponding PSR of PEP Ecopassport for this type of products:</p> <p>Reference lifetime (RLT): 10 years</p> <p>Load rate: 50% of In</p> <p>Use time rate: 30% of RLT</p> <p>This product has no maintenance. The product quality is very high and it can very easily last 10 years on the client’s house. No additional electricity consumption is required for maintenance during the 10 years of use.</p>
<p>End-of-life stage</p>	<p>The reference product and the rest of the products of the family comply with Directive 2012/19/EU on the disposal of Waste Electrical and Electronic Equipment.</p> <p>The end-of-life scenario provided by standard EN 50693 has been used to simulate this stage.</p>

Environmental impacts

Results of mandatory indicators per Functional Unit of the reference product:

Impact category	Unit	Total	Manufacturing stage (modules A1-A3)	Distribution stage (module A4)	Installation stage (module A5)	Module B6	Use stage (modules B1-B7)	End-of-life stage (modules C1-C4)	Benefits (module D)
Climate change - Total	kg CO ₂ eq	5.37E+01	3.11E+00	1.61E-02	5.19E-02	5.04E+01	5.04E+01	1.36E-01	-8.59E-02
Climate change – Fossil	kg CO ₂ eq	5.29E+01	3.15E+00	1.61E-02	2.10E-03	4.96E+01	4.96E+01	1.36E-01	-8.49E-02
Climate change – Biogenic	kg CO ₂ eq	1.44E-01	-4.12E-02	2.88E-06	4.98E-02	1.36E-01	1.36E-01	1.46E-05	-7.60E-04
Climate change - Luluc	kg CO ₂ eq	6.63E-01	5.44E-03	5.26E-06	7.52E-07	6.57E-01	6.57E-01	1.59E-05	-2.26E-04
Ozone depletion (OD)	kg CFC-11 eq	1.10E-06	7.79E-08	3.20E-10	3.47E-11	1.02E-06	1.02E-06	5.25E-10	-9.17E-10
Acidification of soil and water (A)	mol H ⁺ eq	3.05E-01	3.07E-02	5.08E-05	1.06E-05	2.74E-01	2.74E-01	1.29E-04	-3.41E-04
Freshwater eutrophication	kg P eq	1.58E-03	4.50E-04	1.24E-07	2.56E-08	1.13E-03	1.13E-03	5.01E-07	-4.19E-06
Marine aquatic eutrophication	kg N eq	4.93E-02	4.56E-03	1.69E-05	6.52E-06	4.47E-02	4.47E-02	4.70E-05	-9.18E-05
Terrestrial eutrophication	mol N eq	5.65E-01	5.39E-02	1.86E-04	4.17E-05	5.10E-01	5.10E-01	4.56E-04	-8.96E-04
Photochemical ozone creation (POCP)	kg NMVOC eq	2.03E-01	2.03E-02	7.91E-05	1.69E-05	1.83E-01	1.83E-01	1.63E-04	-2.91E-04
Depletion of abiotic resources – elements	kg Sb eq	2.33E-03	1.27E-03	5.14E-08	9.05E-09	1.07E-03	1.07E-03	1.30E-07	-4.92E-07
Depletion of abiotic resources – Fossil fuels	MJ	1.64E+03	4.57E+01	2.26E-01	2.82E-02	1.59E+03	1.59E+03	4.12E-01	-1.10E+00
Water use	m ³ eq. depriv.	5.03E+01	1.04E+00	9.26E-04	1.37E-04	4.93E+01	4.93E+01	8.04E-04	-2.81E-02

Results of inventory flows indicators & indicators describing the use of secondary materials for the reference product:

Impact category	Unit	Total	Manufacturing stage (modules A1-A3)	Distribution stage (module A4)	Installation stage (module A5)	Module B6	Use stage (modules B1-B7)	End-of-life stage (modules C1-C4)	Benefits (module D)
PERE	MJ	5.72E+02	6.13E+00	3.70E-03	3.93E-01	5.65E+02	5.65E+02	1.61E-02	-2.23E-01
PERM	MJ	0.00E+00	3.92E-01	0.00E+00	-3.92E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00
PERT	MJ	5.72E+02	6.52E+00	3.70E-03	9.75E-04	5.65E+02	5.65E+02	1.61E-02	-2.23E-01
PENRE	MJ	1.64E+03	4.46E+01	2.26E-01	2.82E-02	1.59E+03	1.59E+03	1.59E+00	-1.11E+00
PENRM	MJ	0.00E+00	1.18E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	-1.18E+00	0.00E+00
PENRT	MJ	1.64E+03	4.57E+01	2.26E-01	2.82E-02	1.59E+03	1.59E+03	4.12E-01	-1.11E+00
SM	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
RSF	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
NRSF	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
FW	m ³	8.26E-01	2.99E-02	3.09E-05	-3.58E-06	7.96E-01	7.96E-01	4.35E-05	-8.49E-04

PERE = Use of renewable primary energy excluding renewable primary energy resources used as raw materials; PERM = Use of renewable primary energy resources used as raw materials; PERT = Total use of renewable primary energy resources; PENRE = Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials; PENRM = Use of non-renewable primary energy resources used as raw materials; PENRT = Total use of non-renewable primary energy re-sources; SM = Use of secondary material; RSF = Use of renewable secondary fuels; NRSF = Use of non-renewable secondary fuels; FW: Freshwater use

Results of waste category indicators and output flow indicators for the reference product:

Impact category	Unit	Total	Manufacturing stage (modules A1-A3)	Distribution stage (module A4)	Installation stage (module A5)	Module B6	Use stage (modules B1-B7)	End-of-life stage (modules C1-C4)	Benefits (module D)
Hazardous waste disposed	kg	4.79E-03	3.18E-04	1.52E-06	1.94E-07	4.47E-03	4.47E-03	2.79E-06	-6.02E-06
Non-hazardous waste disposed	kg	5.36E+00	1.57E-01	1.07E-02	3.48E-03	5.13E+00	5.13E+00	6.05E-02	-7.04E-03
Radioactive waste disposed	kg	1.33E-02	1.15E-04	7.20E-08	2.08E-08	1.32E-02	1.32E-02	3.05E-07	-1.02E-06
Components for re-use	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Material for recycling	kg	7.74E-02	2.34E-02	0.00E+00	2.45E-02	0.00E+00	0.00E+00	2.94E-02	0.00E+00
Materials for energy recovery	kg	5.67E-02	1.32E-02	0.00E+00	2.69E-03	0.00E+00	0.00E+00	4.08E-02	0.00E+00
Exported energy, electricity	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Exported energy, thermal	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Results of biogenic carbon for the reference product:

Indicator	Unit	Quantity
Biogenic carbon content of the product	Kg of C	0.00E+00
Biogenic carbon content of the packaging	kg of C	1.25E-02

Extrapolation rules

Extrapolations factors have been calculated in order to extrapolate the results of the reference product for the rest of the products of the homogeneous environmental family of Simon 270 USB chargers. These extrapolation factors are based on the main environmental aspects for each life cycle stage, since all the products of the family have the same manufacturing method and material.

Simon 270 USB chargers are composed of three parts: the mechanism of the charger, the outer plastic frame and the inner metal frame. The mechanisms are all for a single charger, with varying colours and/or designs. The outer and inner frames can be of different colours, but within a range of 1 to 5 elements/mechanisms. Taking this into account, it has been determined that the formula for extrapolation factors from the manufacturing stage should be as follows:

$$\text{Total impact of the USB charger} =$$

$$(N * \text{Impact of the mechanism}) + \text{Impact of the outer frame} + \text{Impact of the inner frame}$$

In which N is the number of USB charger mechanisms of the final product, which has to match the number of elements in the frames.

Extrapolation coefficients:

Reference code	N: number of mechanisms	Manufacturing stage (A1-A3)	Distribution stage (A4)	Installation stage (A5)	Use stage (B1-B7)	End-of-life stage (C1-C4)	Benefits (D)
MECHANISM OF THE USB CHARGERS							
20000196-090	1	9.53E-01	9.53E-01	9.53E-01	1.00E+00	9.53E-01	9.53E-01
20000196-091	1	9.53E-01	9.53E-01	9.53E-01	1.00E+00	9.53E-01	9.53E-01
20000196-093	1	9.53E-01	9.53E-01	9.53E-01	1.00E+00	9.53E-01	9.53E-01
20000196-094	1	9.53E-01	9.53E-01	9.53E-01	1.00E+00	9.53E-01	9.53E-01
20000196-095	1	9.53E-01	9.53E-01	9.53E-01	1.00E+00	9.53E-01	9.53E-01
20000196-096	1	9.53E-01	9.53E-01	9.53E-01	1.00E+00	9.53E-01	9.53E-01
20000196-097	1	9.53E-01	9.53E-01	9.53E-01	1.00E+00	9.53E-01	9.53E-01
20000196-098	1	9.53E-01	9.53E-01	9.53E-01	1.00E+00	9.53E-01	9.53E-01
20000196-190	1	9.53E-01	9.53E-01	9.53E-01	1.00E+00	9.53E-01	9.53E-01
20000296-090	1	9.53E-01	9.53E-01	9.53E-01	1.00E+00	9.53E-01	9.53E-01
20000296-091	1	9.53E-01	9.53E-01	9.53E-01	1.00E+00	9.53E-01	9.53E-01
20000296-093	1	9.53E-01	9.53E-01	9.53E-01	1.00E+00	9.53E-01	9.53E-01
20000296-094	1	9.53E-01	9.53E-01	9.53E-01	1.00E+00	9.53E-01	9.53E-01
20000296-095	1	9.53E-01	9.53E-01	9.53E-01	1.00E+00	9.53E-01	9.53E-01
20000296-096	1	9.53E-01	9.53E-01	9.53E-01	1.00E+00	9.53E-01	9.53E-01
20000296-097	1	9.53E-01	9.53E-01	9.53E-01	1.00E+00	9.53E-01	9.53E-01
20000296-098	1	9.53E-01	9.53E-01	9.53E-01	1.00E+00	9.53E-01	9.53E-01
20000296-190	1	9.53E-01	9.53E-01	9.53E-01	1.00E+00	9.53E-01	9.53E-01
20000382-090	1	5.77E-01	5.77E-01	3.65E-01	9.50E-01	6.51E-01	5.77E-01
20000382-091	1	5.77E-01	5.77E-01	3.65E-01	9.50E-01	6.51E-01	5.77E-01
20000382-093	1	5.77E-01	5.77E-01	3.65E-01	9.50E-01	6.51E-01	5.77E-01
20000382-094	1	5.77E-01	5.77E-01	3.65E-01	9.50E-01	6.51E-01	5.77E-01

Reference code	N: number of mechanisms	Manufacturing stage (A1-A3)	Distribution stage (A4)	Installation stage (A5)	Use stage (B1-B7)	End-of-life stage (C1-C4)	Benefits (D)
20000382-095	1	5.77E-01	5.77E-01	3.65E-01	9.50E-01	6.51E-01	5.77E-01
20000382-096	1	5.77E-01	5.77E-01	3.65E-01	9.50E-01	6.51E-01	5.77E-01
20000382-097	1	5.77E-01	5.77E-01	3.65E-01	9.50E-01	6.51E-01	5.77E-01
20000382-098	1	5.77E-01	5.77E-01	3.65E-01	9.50E-01	6.51E-01	5.77E-01
20000382-190	1	5.77E-01	5.77E-01	3.65E-01	9.50E-01	6.51E-01	5.77E-01

OUTER PLASTIC FRAME

27101610-090	1	1.74E-02	1.74E-02	1.99E-02	0.00E+00	1.66E-02	1.74E-02
27101610-091	1	1.74E-02	1.74E-02	1.99E-02	1.00E+00	1.66E-02	1.74E-02
27101610-093	1	1.74E-02	1.74E-02	1.99E-02	2.00E+00	1.66E-02	1.74E-02
27101610-094	1	1.74E-02	1.74E-02	1.99E-02	3.00E+00	1.66E-02	1.74E-02
27101610-095	1	1.74E-02	1.74E-02	1.99E-02	4.00E+00	1.66E-02	1.74E-02
27101610-096	1	1.74E-02	1.74E-02	1.99E-02	5.00E+00	1.66E-02	1.74E-02
27101610-097	1	1.74E-02	1.74E-02	1.99E-02	6.00E+00	1.66E-02	1.74E-02
27101610-098	1	1.74E-02	1.74E-02	1.99E-02	7.00E+00	1.66E-02	1.74E-02
27101610-190	1	1.74E-02	1.74E-02	1.99E-02	8.00E+00	1.66E-02	1.74E-02
27190620-090	2	3.28E-02	3.28E-02	2.84E-02	9.00E+00	3.43E-02	3.28E-02
27190620-091	2	3.28E-02	3.28E-02	2.84E-02	1.00E+01	3.43E-02	3.28E-02
27190620-093	2	3.28E-02	3.28E-02	2.84E-02	1.10E+01	3.43E-02	3.28E-02
27190620-094	2	3.28E-02	3.28E-02	2.84E-02	1.20E+01	3.43E-02	3.28E-02
27190620-095	2	3.28E-02	3.28E-02	2.84E-02	1.30E+01	3.43E-02	3.28E-02
27190620-096	2	3.28E-02	3.28E-02	2.84E-02	1.40E+01	3.43E-02	3.28E-02
27190620-097	2	3.28E-02	3.28E-02	2.84E-02	1.50E+01	3.43E-02	3.28E-02
27190620-098	2	3.28E-02	3.28E-02	2.84E-02	1.60E+01	3.43E-02	3.28E-02
27190620-190	2	3.28E-02	3.28E-02	2.84E-02	1.70E+01	3.43E-02	3.28E-02
27191620-090	2	3.23E-02	3.23E-02	3.43E-02	1.80E+01	3.16E-02	3.23E-02
27191620-091	2	3.23E-02	3.23E-02	3.43E-02	1.90E+01	3.16E-02	3.23E-02
27191620-093	2	3.23E-02	3.23E-02	3.43E-02	2.00E+01	3.16E-02	3.23E-02
27191620-094	2	3.23E-02	3.23E-02	3.43E-02	2.10E+01	3.16E-02	3.23E-02
27191620-095	2	3.23E-02	3.23E-02	3.43E-02	2.20E+01	3.16E-02	3.23E-02
27191620-096	2	3.23E-02	3.23E-02	3.43E-02	2.30E+01	3.16E-02	3.23E-02
27191620-097	2	3.23E-02	3.23E-02	3.43E-02	2.40E+01	3.16E-02	3.23E-02
27191620-098	2	3.23E-02	3.23E-02	3.43E-02	2.50E+01	3.16E-02	3.23E-02
27191620-190	2	3.23E-02	3.23E-02	3.43E-02	2.60E+01	3.16E-02	3.23E-02
27192620-090	2	3.28E-02	3.28E-02	2.84E-02	2.70E+01	3.43E-02	3.28E-02
27192620-091	2	3.28E-02	3.28E-02	2.84E-02	2.80E+01	3.43E-02	3.28E-02
27192620-093	2	3.28E-02	3.28E-02	2.84E-02	2.90E+01	3.43E-02	3.28E-02
27192620-094	2	3.28E-02	3.28E-02	2.84E-02	3.00E+01	3.43E-02	3.28E-02
27192620-095	2	3.28E-02	3.28E-02	2.84E-02	3.10E+01	3.43E-02	3.28E-02
27192620-096	2	3.28E-02	3.28E-02	2.84E-02	3.20E+01	3.43E-02	3.28E-02
27192620-097	2	3.28E-02	3.28E-02	2.84E-02	3.30E+01	3.43E-02	3.28E-02
27192620-098	2	3.28E-02	3.28E-02	2.84E-02	3.40E+01	3.43E-02	3.28E-02
27192620-190	2	3.28E-02	3.28E-02	2.84E-02	3.50E+01	3.43E-02	3.28E-02
27110610-090	1	1.74E-02	1.74E-02	1.97E-02	3.60E+01	1.66E-02	1.74E-02

Reference code	N: number of mechanisms	Manufacturing stage (A1-A3)	Distribution stage (A4)	Installation stage (A5)	Use stage (B1-B7)	End-of-life stage (C1-C4)	Benefits (D)
27110610-091	1	1.74E-02	1.74E-02	1.97E-02	3.70E+01	1.66E-02	1.74E-02
27110610-093	1	1.74E-02	1.74E-02	1.97E-02	3.80E+01	1.66E-02	1.74E-02
27110610-094	1	1.74E-02	1.74E-02	1.97E-02	3.90E+01	1.66E-02	1.74E-02
27110610-095	1	1.74E-02	1.74E-02	1.97E-02	4.00E+01	1.66E-02	1.74E-02
27110610-096	1	1.74E-02	1.74E-02	1.97E-02	4.10E+01	1.66E-02	1.74E-02
27110610-097	1	1.74E-02	1.74E-02	1.97E-02	4.20E+01	1.66E-02	1.74E-02
27110610-098	1	1.74E-02	1.74E-02	1.97E-02	4.30E+01	1.66E-02	1.74E-02
27110610-190	1	1.74E-02	1.74E-02	1.97E-02	4.40E+01	1.66E-02	1.74E-02
27111620-090	2	3.28E-02	3.28E-02	2.84E-02	4.50E+01	3.43E-02	3.28E-02
27111620-091	2	3.28E-02	3.28E-02	2.84E-02	4.60E+01	3.43E-02	3.28E-02
27111620-093	2	3.28E-02	3.28E-02	2.84E-02	4.70E+01	3.43E-02	3.28E-02
27111620-094	2	3.28E-02	3.28E-02	2.84E-02	4.80E+01	3.43E-02	3.28E-02
27111620-095	2	3.28E-02	3.28E-02	2.84E-02	4.90E+01	3.43E-02	3.28E-02
27111620-096	2	3.28E-02	3.28E-02	2.84E-02	5.00E+01	3.43E-02	3.28E-02
27111620-097	2	3.28E-02	3.28E-02	2.84E-02	5.10E+01	3.43E-02	3.28E-02
27111620-098	2	3.28E-02	3.28E-02	2.84E-02	5.20E+01	3.43E-02	3.28E-02
27111620-190	2	3.28E-02	3.28E-02	2.84E-02	5.30E+01	3.43E-02	3.28E-02
27101620-090	2	3.28E-02	3.28E-02	2.84E-02	5.40E+01	3.43E-02	3.28E-02
27101620-091	2	3.28E-02	3.28E-02	2.84E-02	5.50E+01	3.43E-02	3.28E-02
27101620-093	2	3.28E-02	3.28E-02	2.84E-02	5.60E+01	3.43E-02	3.28E-02
27101620-094	2	3.28E-02	3.28E-02	2.84E-02	5.70E+01	3.43E-02	3.28E-02
27101620-095	2	3.28E-02	3.28E-02	2.84E-02	5.80E+01	3.43E-02	3.28E-02
27101620-096	2	3.28E-02	3.28E-02	2.84E-02	5.90E+01	3.43E-02	3.28E-02
27101620-097	2	3.28E-02	3.28E-02	2.84E-02	6.00E+01	3.43E-02	3.28E-02
27101620-098	2	3.28E-02	3.28E-02	2.84E-02	6.10E+01	3.43E-02	3.28E-02
27101620-190	2	3.28E-02	3.28E-02	2.84E-02	6.20E+01	3.43E-02	3.28E-02
27190630-090	1	4.43E-02	4.43E-02	2.84E-02	6.30E+01	4.98E-02	4.43E-02
27190630-091	1	4.43E-02	4.43E-02	2.84E-02	6.40E+01	4.98E-02	4.43E-02
27190630-093	1	4.43E-02	4.43E-02	2.84E-02	6.50E+01	4.98E-02	4.43E-02
27190630-094	1	4.43E-02	4.43E-02	2.84E-02	6.60E+01	4.98E-02	4.43E-02
27190630-095	1	4.43E-02	4.43E-02	2.84E-02	6.70E+01	4.98E-02	4.43E-02
27190630-096	1	4.43E-02	4.43E-02	2.84E-02	6.80E+01	4.98E-02	4.43E-02
27190630-097	1	4.43E-02	4.43E-02	2.84E-02	6.90E+01	4.98E-02	4.43E-02
27190630-098	1	4.43E-02	4.43E-02	2.84E-02	7.00E+01	4.98E-02	4.43E-02
27190630-190	1	4.43E-02	4.43E-02	2.84E-02	7.10E+01	4.98E-02	4.43E-02
27191630-090	3	5.25E-02	5.25E-02	2.84E-02	7.20E+01	6.09E-02	5.25E-02
27191630-091	3	5.25E-02	5.25E-02	2.84E-02	7.30E+01	6.09E-02	5.25E-02
27191630-093	3	5.25E-02	5.25E-02	2.84E-02	7.40E+01	6.09E-02	5.25E-02
27191630-094	3	5.25E-02	5.25E-02	2.84E-02	7.50E+01	6.09E-02	5.25E-02
27191630-095	3	5.25E-02	5.25E-02	2.84E-02	7.60E+01	6.09E-02	5.25E-02
27191630-096	3	5.25E-02	5.25E-02	2.84E-02	7.70E+01	6.09E-02	5.25E-02
27191630-097	3	5.25E-02	5.25E-02	2.84E-02	7.80E+01	6.09E-02	5.25E-02
27191630-098	3	5.25E-02	5.25E-02	2.84E-02	7.90E+01	6.09E-02	5.25E-02

Reference code	N: number of mechanisms	Manufacturing stage (A1-A3)	Distribution stage (A4)	Installation stage (A5)	Use stage (B1-B7)	End-of-life stage (C1-C4)	Benefits (D)
27191630-190	3	5.25E-02	5.25E-02	2.84E-02	8.00E+01	6.09E-02	5.25E-02
27192630-090	3	4.43E-02	4.43E-02	2.84E-02	8.10E+01	4.98E-02	4.43E-02
27192630-091	3	4.43E-02	4.43E-02	2.84E-02	8.20E+01	4.98E-02	4.43E-02
27192630-093	3	4.43E-02	4.43E-02	2.84E-02	8.30E+01	4.98E-02	4.43E-02
27192630-094	3	4.43E-02	4.43E-02	2.84E-02	8.40E+01	4.98E-02	4.43E-02
27192630-095	3	4.43E-02	4.43E-02	2.84E-02	8.50E+01	4.98E-02	4.43E-02
27192630-096	3	4.43E-02	4.43E-02	2.84E-02	8.60E+01	4.98E-02	4.43E-02
27192630-097	3	4.43E-02	4.43E-02	2.84E-02	8.70E+01	4.98E-02	4.43E-02
27192630-098	3	4.43E-02	4.43E-02	2.84E-02	8.80E+01	4.98E-02	4.43E-02
27192630-190	3	4.43E-02	4.43E-02	2.84E-02	8.90E+01	4.98E-02	4.43E-02
27193630-090	3	4.34E-02	4.34E-02	4.69E-02	9.00E+01	4.22E-02	4.34E-02
27193630-091	3	4.34E-02	4.34E-02	4.69E-02	9.10E+01	4.22E-02	4.34E-02
27193630-093	3	4.34E-02	4.34E-02	4.69E-02	9.20E+01	4.22E-02	4.34E-02
27193630-094	3	4.34E-02	4.34E-02	4.69E-02	9.30E+01	4.22E-02	4.34E-02
27193630-095	3	4.34E-02	4.34E-02	4.69E-02	9.40E+01	4.22E-02	4.34E-02
27193630-096	3	4.34E-02	4.34E-02	4.69E-02	9.50E+01	4.22E-02	4.34E-02
27193630-097	3	4.34E-02	4.34E-02	4.69E-02	9.60E+01	4.22E-02	4.34E-02
27193630-098	3	4.34E-02	4.34E-02	4.69E-02	9.70E+01	4.22E-02	4.34E-02
27193630-190	3	4.34E-02	4.34E-02	4.69E-02	9.80E+01	4.22E-02	4.34E-02
27111630-090	3	4.90E-02	4.90E-02	4.69E-02	9.90E+01	4.98E-02	4.90E-02
27111630-091	3	4.90E-02	4.90E-02	4.69E-02	1.00E+02	4.98E-02	4.90E-02
27111630-093	3	4.90E-02	4.90E-02	4.69E-02	1.01E+02	4.98E-02	4.90E-02
27111630-094	3	4.90E-02	4.90E-02	4.69E-02	1.02E+02	4.98E-02	4.90E-02
27111630-095	3	4.90E-02	4.90E-02	4.69E-02	1.03E+02	4.98E-02	4.90E-02
27111630-096	3	4.90E-02	4.90E-02	4.69E-02	1.04E+02	4.98E-02	4.90E-02
27111630-097	3	4.90E-02	4.90E-02	4.69E-02	1.05E+02	4.98E-02	4.90E-02
27111630-098	3	4.90E-02	4.90E-02	4.69E-02	1.06E+02	4.98E-02	4.90E-02
27111630-190	3	4.90E-02	4.90E-02	4.69E-02	1.07E+02	4.98E-02	4.90E-02
27101630-090	3	4.90E-02	4.90E-02	4.69E-02	1.08E+02	4.98E-02	4.90E-02
27101630-091	3	4.90E-02	4.90E-02	4.69E-02	1.09E+02	4.98E-02	4.90E-02
27101630-092	3	4.90E-02	4.90E-02	4.69E-02	1.10E+02	4.98E-02	4.90E-02
27101630-093	3	4.90E-02	4.90E-02	4.69E-02	1.11E+02	4.98E-02	4.90E-02
27101630-094	3	4.90E-02	4.90E-02	4.69E-02	1.12E+02	4.98E-02	4.90E-02
27101630-095	3	4.90E-02	4.90E-02	4.69E-02	1.13E+02	4.98E-02	4.90E-02
27101630-096	3	4.90E-02	4.90E-02	4.69E-02	1.14E+02	4.98E-02	4.90E-02
27101630-097	3	4.90E-02	4.90E-02	4.69E-02	1.15E+02	4.98E-02	4.90E-02
27101630-098	3	4.90E-02	4.90E-02	4.69E-02	1.16E+02	4.98E-02	4.90E-02
27101630-190	3	4.90E-02	4.90E-02	4.69E-02	1.17E+02	4.98E-02	4.90E-02
27110620-090	2	2.89E-02	2.89E-02	2.87E-02	1.18E+02	2.90E-02	2.89E-02
27110620-091	2	2.89E-02	2.89E-02	2.87E-02	1.19E+02	2.90E-02	2.89E-02
27110620-093	2	2.89E-02	2.89E-02	2.87E-02	1.20E+02	2.90E-02	2.89E-02
27110620-094	2	2.89E-02	2.89E-02	2.87E-02	1.21E+02	2.90E-02	2.89E-02
27110620-095	2	2.89E-02	2.89E-02	2.87E-02	1.22E+02	2.90E-02	2.89E-02

Reference code	N: number of mechanisms	Manufacturing stage (A1-A3)	Distribution stage (A4)	Installation stage (A5)	Use stage (B1-B7)	End-of-life stage (C1-C4)	Benefits (D)
27110620-096	2	2.89E-02	2.89E-02	2.87E-02	1.23E+02	2.90E-02	2.89E-02
27110620-097	2	2.89E-02	2.89E-02	2.87E-02	1.24E+02	2.90E-02	2.89E-02
27110620-098	2	2.89E-02	2.89E-02	2.87E-02	1.25E+02	2.90E-02	2.89E-02
27110620-190	2	2.89E-02	2.89E-02	2.87E-02	1.26E+02	2.90E-02	2.89E-02
27190640-090	4	8.78E-02	8.78E-02	1.08E-01	1.27E+02	8.08E-02	8.78E-02
27190640-091	4	8.78E-02	8.78E-02	1.08E-01	1.28E+02	8.08E-02	8.78E-02
27190640-093	4	8.78E-02	8.78E-02	1.08E-01	1.29E+02	8.08E-02	8.78E-02
27190640-094	4	8.78E-02	8.78E-02	1.08E-01	1.30E+02	8.08E-02	8.78E-02
27190640-095	4	8.78E-02	8.78E-02	1.08E-01	1.31E+02	8.08E-02	8.78E-02
27190640-096	4	8.78E-02	8.78E-02	1.08E-01	1.32E+02	8.08E-02	8.78E-02
27190640-097	4	8.78E-02	8.78E-02	1.08E-01	1.33E+02	8.08E-02	8.78E-02
27190640-098	4	8.78E-02	8.78E-02	1.08E-01	1.34E+02	8.08E-02	8.78E-02
27190640-190	4	8.78E-02	8.78E-02	1.08E-01	1.35E+02	8.08E-02	8.78E-02
27110630-090	3	4.90E-02	4.90E-02	4.69E-02	1.36E+02	4.98E-02	4.90E-02
27110630-091	3	4.90E-02	4.90E-02	4.69E-02	1.37E+02	4.98E-02	4.90E-02
27110630-093	3	4.90E-02	4.90E-02	4.69E-02	1.38E+02	4.98E-02	4.90E-02
27110630-094	3	4.90E-02	4.90E-02	4.69E-02	1.39E+02	4.98E-02	4.90E-02
27110630-095	3	4.90E-02	4.90E-02	4.69E-02	1.40E+02	4.98E-02	4.90E-02
27110630-096	3	4.90E-02	4.90E-02	4.69E-02	1.41E+02	4.98E-02	4.90E-02
27110630-097	3	4.90E-02	4.90E-02	4.69E-02	1.42E+02	4.98E-02	4.90E-02
27110630-098	3	4.90E-02	4.90E-02	4.69E-02	1.43E+02	4.98E-02	4.90E-02
27110630-190	3	4.90E-02	4.90E-02	4.69E-02	1.44E+02	4.98E-02	4.90E-02
27000610-090	1	1.99E-02	1.99E-02	1.99E-02	1.45E+02	1.99E-02	1.99E-02
27000610-091	1	1.99E-02	1.99E-02	1.99E-02	1.46E+02	1.99E-02	1.99E-02
27000610-093	1	1.99E-02	1.99E-02	1.99E-02	1.47E+02	1.99E-02	1.99E-02
27000610-094	1	1.99E-02	1.99E-02	1.99E-02	1.48E+02	1.99E-02	1.99E-02
27000610-095	1	1.99E-02	1.99E-02	1.99E-02	1.49E+02	1.99E-02	1.99E-02
27000610-096	1	1.99E-02	1.99E-02	1.99E-02	1.50E+02	1.99E-02	1.99E-02
27000610-097	1	1.99E-02	1.99E-02	1.99E-02	1.51E+02	1.99E-02	1.99E-02
27000610-098	1	1.99E-02	1.99E-02	1.99E-02	1.52E+02	1.99E-02	1.99E-02
27000610-190	1	1.99E-02	1.99E-02	1.99E-02	1.53E+02	1.99E-02	1.99E-02
27000620-090	2	2.50E-02	2.50E-02	2.84E-02	1.54E+02	2.39E-02	2.50E-02
27000620-091	2	2.50E-02	2.50E-02	2.84E-02	1.55E+02	2.39E-02	2.50E-02
27000620-093	2	2.50E-02	2.50E-02	2.84E-02	1.56E+02	2.39E-02	2.50E-02
27000620-094	2	2.50E-02	2.50E-02	2.84E-02	1.57E+02	2.39E-02	2.50E-02
27000620-095	2	2.50E-02	2.50E-02	2.84E-02	1.58E+02	2.39E-02	2.50E-02
27000620-096	2	2.50E-02	2.50E-02	2.84E-02	1.59E+02	2.39E-02	2.50E-02
27000620-097	2	2.50E-02	2.50E-02	2.84E-02	1.60E+02	2.39E-02	2.50E-02
27000620-098	2	2.50E-02	2.50E-02	2.84E-02	1.61E+02	2.39E-02	2.50E-02
27000620-190	2	2.50E-02	2.50E-02	2.84E-02	1.62E+02	2.39E-02	2.50E-02
27000630-090	3	4.43E-02	4.43E-02	2.84E-02	1.63E+02	4.98E-02	4.43E-02
27000630-091	3	4.43E-02	4.43E-02	2.84E-02	1.64E+02	4.98E-02	4.43E-02
27000630-092	3	4.43E-02	4.43E-02	2.84E-02	1.65E+02	4.98E-02	4.43E-02

Reference code	N: number of mechanisms	Manufacturing stage (A1-A3)	Distribution stage (A4)	Installation stage (A5)	Use stage (B1-B7)	End-of-life stage (C1-C4)	Benefits (D)
27000630-093	3	4.43E-02	4.43E-02	2.84E-02	1.66E+02	4.98E-02	4.43E-02
27000630-094	3	4.43E-02	4.43E-02	2.84E-02	1.67E+02	4.98E-02	4.43E-02
27000630-095	3	4.43E-02	4.43E-02	2.84E-02	1.68E+02	4.98E-02	4.43E-02
27000630-096	3	4.43E-02	4.43E-02	2.84E-02	1.69E+02	4.98E-02	4.43E-02
27000630-097	3	4.43E-02	4.43E-02	2.84E-02	1.70E+02	4.98E-02	4.43E-02
27000630-098	3	4.43E-02	4.43E-02	2.84E-02	1.71E+02	4.98E-02	4.43E-02
27000630-190	3	4.43E-02	4.43E-02	2.84E-02	1.72E+02	4.98E-02	4.43E-02
27000640-090	4	8.78E-02	8.78E-02	1.08E-01	1.73E+02	8.08E-02	8.78E-02
27000640-091	4	8.78E-02	8.78E-02	1.08E-01	1.74E+02	8.08E-02	8.78E-02
27000640-093	4	8.78E-02	8.78E-02	1.08E-01	1.75E+02	8.08E-02	8.78E-02
27000640-094	4	8.78E-02	8.78E-02	1.08E-01	1.76E+02	8.08E-02	8.78E-02
27000640-095	4	8.78E-02	8.78E-02	1.08E-01	1.77E+02	8.08E-02	8.78E-02
27000640-096	4	8.78E-02	8.78E-02	1.08E-01	1.78E+02	8.08E-02	8.78E-02
27000640-097	4	8.78E-02	8.78E-02	1.08E-01	1.79E+02	8.08E-02	8.78E-02
27000640-098	4	8.78E-02	8.78E-02	1.08E-01	1.80E+02	8.08E-02	8.78E-02
27000640-190	4	8.78E-02	8.78E-02	1.08E-01	1.81E+02	8.08E-02	8.78E-02
27000650-090	5	1.14E-01	1.14E-01	1.25E-01	1.82E+02	1.11E-01	1.14E-01
27000650-091	5	1.14E-01	1.14E-01	1.25E-01	1.83E+02	1.11E-01	1.14E-01
27000650-093	5	1.14E-01	1.14E-01	1.25E-01	1.84E+02	1.11E-01	1.14E-01
27000650-094	5	1.14E-01	1.14E-01	1.25E-01	1.85E+02	1.11E-01	1.14E-01
27000650-095	5	1.14E-01	1.14E-01	1.25E-01	1.86E+02	1.11E-01	1.14E-01
27000650-096	5	1.14E-01	1.14E-01	1.25E-01	1.87E+02	1.11E-01	1.14E-01
27000650-097	5	1.14E-01	1.14E-01	1.25E-01	1.88E+02	1.11E-01	1.14E-01
27000650-098	5	1.14E-01	1.14E-01	1.25E-01	1.89E+02	1.11E-01	1.14E-01
27000650-190	5	1.14E-01	1.14E-01	1.25E-01	1.90E+02	1.11E-01	1.14E-01
27110640-090	4	8.78E-02	8.78E-02	1.08E-01	1.91E+02	8.08E-02	8.78E-02
27110640-091	4	8.78E-02	8.78E-02	1.08E-01	1.92E+02	8.08E-02	8.78E-02
27110640-093	4	8.78E-02	8.78E-02	1.08E-01	1.93E+02	8.08E-02	8.78E-02
27110640-094	4	8.78E-02	8.78E-02	1.08E-01	1.94E+02	8.08E-02	8.78E-02
27110640-095	4	8.78E-02	8.78E-02	1.08E-01	1.95E+02	8.08E-02	8.78E-02
27110640-096	4	8.78E-02	8.78E-02	1.08E-01	1.96E+02	8.08E-02	8.78E-02
27110640-097	4	8.78E-02	8.78E-02	1.08E-01	1.97E+02	8.08E-02	8.78E-02
27110640-098	4	8.78E-02	8.78E-02	1.08E-01	1.98E+02	8.08E-02	8.78E-02
27110640-190	4	8.78E-02	8.78E-02	1.08E-01	1.99E+02	8.08E-02	8.78E-02
27110650-090	5	1.11E-01	1.11E-01	1.25E-01	2.00E+02	1.06E-01	1.11E-01
27110650-091	5	1.11E-01	1.11E-01	1.25E-01	2.01E+02	1.06E-01	1.11E-01
27110650-093	5	1.11E-01	1.11E-01	1.25E-01	2.02E+02	1.06E-01	1.11E-01
27110650-094	5	1.11E-01	1.11E-01	1.25E-01	2.03E+02	1.06E-01	1.11E-01
27110650-095	5	1.11E-01	1.11E-01	1.25E-01	2.04E+02	1.06E-01	1.11E-01
27110650-096	5	1.11E-01	1.11E-01	1.25E-01	2.05E+02	1.06E-01	1.11E-01
27110650-097	5	1.11E-01	1.11E-01	1.25E-01	2.06E+02	1.06E-01	1.11E-01
27110650-098	5	1.11E-01	1.11E-01	1.25E-01	2.07E+02	1.06E-01	1.11E-01
27110650-190	5	1.11E-01	1.11E-01	1.25E-01	2.08E+02	1.06E-01	1.11E-01

Reference code	N: number of mechanisms	Manufacturing stage (A1-A3)	Distribution stage (A4)	Installation stage (A5)	Use stage (B1-B7)	End-of-life stage (C1-C4)	Benefits (D)
27192610-090	1	5.04E-02	5.04E-02	1.98E-02	2.09E+02	6.09E-02	5.04E-02
27192610-091	1	5.04E-02	5.04E-02	1.98E-02	2.10E+02	6.09E-02	5.04E-02
27192610-093	1	5.04E-02	5.04E-02	1.98E-02	2.11E+02	6.09E-02	5.04E-02
27192610-094	1	5.04E-02	5.04E-02	1.98E-02	2.12E+02	6.09E-02	5.04E-02
27192610-095	1	5.04E-02	5.04E-02	1.98E-02	2.13E+02	6.09E-02	5.04E-02
27192610-096	1	5.04E-02	5.04E-02	1.98E-02	2.14E+02	6.09E-02	5.04E-02
27192610-097	1	5.04E-02	5.04E-02	1.98E-02	2.15E+02	6.09E-02	5.04E-02
27192610-098	1	5.04E-02	5.04E-02	1.98E-02	2.16E+02	6.09E-02	5.04E-02
27192610-190	1	5.04E-02	5.04E-02	1.98E-02	2.17E+02	6.09E-02	5.04E-02

INNER METAL FRAME

20000910-039	1	2.76E-02	2.76E-02	2.76E-02	0.00E+00	2.76E-02	2.76E-02
20000920-039	2	4.95E-02	4.95E-02	4.09E-02	1.00E+00	5.00E-02	4.95E-02
20000930-039	3	8.03E-02	8.03E-02	5.59E-02	2.00E+00	8.17E-02	8.03E-02
20000940-039	4	1.04E-01	1.04E-01	6.97E-02	3.00E+00	1.06E-01	1.04E-01
20000950-039	5	1.28E-01	1.28E-01	8.45E-02	4.00E+00	1.31E-01	1.28E-01
20001910-039	1	2.83E-02	2.83E-02	1.31E-02	5.00E+00	2.92E-02	2.83E-02
20001920-039	2	4.95E-02	4.95E-02	4.09E-02	6.00E+00	5.00E-02	4.95E-02
20001930-039	3	8.03E-02	8.03E-02	5.59E-02	7.00E+00	8.17E-02	8.03E-02
20001940-039	4	1.04E-01	1.04E-01	6.97E-02	8.00E+00	1.06E-01	1.04E-01
20001950-039	5	1.28E-01	1.28E-01	8.45E-02	9.00E+00	1.31E-01	1.28E-01

* The reference product is highlighted.