

Product Environmental Profile

Simon 270 iO socket-outlets



Registration number	SIMO-00014-V01.02-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	May 2026	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 complaint 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	SIMON S.A.U. Sancho de Ávila, 66 08018, Barcelona Website: www.simonelectric.com
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Product description and homogeneous environmental family	Family of Simon 270 iO socket-outlets. All the products of the family are wall-mounted sockets with a rated current of 16A and a rated voltage of 230V. These products control both natural and artificial lighting through standard wiring, without requiring complex systems or home automation panels. The iO device only needs to be connected to the Simon iO App or a voice assistant for smart operation. The PEP would include a group of similar products, which all belong to the same product family.
Product standards	Dir. 2014/30/UE RED; Dir. 2011/65/UE RoHS + post. mod. EN IEC 63000:2018 + IEC 60884-1 Ed. 4.0, UNE 20315-1-1:2017 and UNE 20315-1-2:2017; EN 62368-1:2020 + A11:2020; EN 61000-6-1:2019 EN6 1000-6-3:2021; ETSI EN 300328 V2.2.2.
Reference product	Combination of three parts to form the final socket: • Mechanism of the socket-outlet 21000432-190. • Outer plastic frame 27000610-190. • Inner steel frame 20001410-039. Extrapolation coefficients will be calculated and applied for each stage of the life cycle to calculate the impacts of the other products of the family.
Functional unit	Connect/disconnect the plug of a load consuming 16 A maximum under a voltage of 230 V while protecting the user from direct contact with live parts in the Household/Commercial application areas, according to the use scenario defined by the PSR, and for the reference service life of the product of 10 years.
Reference flow	• Product with packaging: 154.91 g • Product without packaging: 123.43 g
Product category	Active product
Reference lifetime	10 years
LCA software & Database	The environmental impact assessment has been carried out with Simapro 10.2.0.0 tool, and the background databases have been retrieved from Ecoinvent 3.10 libraries.

Constituent materials

Material		Weight (g)	Percentage (%)
Metals 35.25%	Steel	42.83	27.65
	Copper alloys	11.77	7.60
Plastics 28.06%	Polycarbonate	19.53	12.61
	ABS	15.00	9.68
	Polyamide	2.32	1.50
	Other plastics	0.07	0.04
Electronic components 14.91%	Electronic components	23.10	14.91
Others 1.81 %	Glass fibre	2.27	1.46
Packaging 16.15 %	Cardboard	23.75	15.33
	Paper	7.59	4.90
	Plastic	0.14	0.09
Reference product		123.43	79.68
Packaging		31.48	20.32
TOTAL		154.91	100

Description of life cycle stages

Manufacturing stage	Manufactured at a Simon's plant in Olot (Spain), certified with ISO 14001. 
Distribution stage	The products are distributed directly from Simon's logistics platform to the distributors, where the installers (final customers) can purchase them.
Installation stage	The installation process is done manually, and it does not require any additional component or process apart from the product itself.
Use stage	The use scenario is defined by the corresponding PSR of PEP Ecopassport for this type of products: Reference lifetime (RLT): 10 years. The energy consumption has been calculated considering both the power rating and the operating time under each operating state. 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.
End-of-life stage	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. The end-of-life scenario provided by standard EN 50693 has been used to simulate this stage.

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	9.62E+00	1.97E+00	6.71E-02	5.41E-02	7.40E+00	7.40E+00	1.31E-01	-1.40E-01
Climate change – Fossil	kg CO ₂ eq	9.45E+00	2.02E+00	1.91E-02	2.14E-03	7.29E+00	7.29E+00	1.31E-01	-1.39E-01
Climate change – Biogenic	kg CO ₂ eq	7.67E-02	-4.37E-02	4.80E-02	5.20E-02	2.05E-02	2.05E-02	1.67E-05	-7.48E-04
Climate change - Luluc	kg CO ₂ eq	9.46E-02	2.49E-03	6.24E-06	5.30E-07	9.21E-02	9.21E-02	2.39E-05	-3.13E-04
Ozone depletion (OD)	kg CFC-11 eq	5.07E-07	3.56E-07	3.80E-10	3.40E-11	1.49E-07	1.49E-07	6.30E-10	-1.36E-09
Acidification of soil and water (A)	mol H ⁺ eq	6.35E-02	2.29E-02	6.00E-05	9.59E-06	4.04E-02	4.04E-02	1.55E-04	-3.24E-03
Freshwater eutrophication	kg P eq	4.72E-04	2.87E-04	1.47E-07	1.90E-08	1.85E-04	1.85E-04	5.77E-07	-1.75E-05
Marine aquatic eutrophication	kg N eq	9.69E-03	3.01E-03	2.00E-05	6.60E-06	6.61E-03	6.61E-03	5.08E-05	-2.47E-04
Terrestrial eutrophication	mol N eq	1.13E-01	3.58E-02	2.20E-04	4.00E-05	7.62E-02	7.62E-02	5.15E-04	-3.09E-03
Photochemical ozone creation (POCP)	kg NMVOC eq	4.02E-02	1.31E-02	9.37E-05	1.67E-05	2.68E-02	2.68E-02	1.91E-04	-9.10E-04
Depletion of abiotic resources – elements	kg Sb eq	9.54E-04	7.93E-04	6.10E-08	2.34E-09	1.61E-04	1.61E-04	1.71E-07	-3.99E-05
Depletion of abiotic resources – Fossil fuels	MJ	2.60E+02	2.72E+01	2.68E-01	2.70E-02	2.32E+02	2.32E+02	5.06E-01	-1.73E+00
Water use	m ³ eq. depriv.	7.76E+00	7.05E-01	1.10E-03	8.90E-05	7.05E+00	7.05E+00	2.12E-03	-7.83E-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	9.46E+01	6.83E+00	4.39E-03	4.13E-01	8.73E+01	8.73E+01	2.28E-02	-3.70E-01
PERM	MJ	0.00E+00	4.13E-01	0.00E+00	-4.13E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00
PERT	MJ	9.46E+01	7.24E+00	4.39E-03	7.72E-04	8.73E+01	8.73E+01	2.28E-02	-3.70E-01
PENRE	MJ	2.60E+02	2.58E+01	2.68E-01	2.70E-02	2.32E+02	2.32E+02	1.89E+00	-1.73E+00
PENRM	MJ	0.00E+00	1.39E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	-1.39E+00	0.00E+00
PENRT	MJ	2.60E+02	2.72E+01	2.68E-01	2.70E-02	2.32E+02	2.32E+02	5.06E-01	-1.73E+00
SM	kg	1.25E-02	1.25E-02	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	1.53E-01	2.16E-02	3.67E-05	-5.39E-06	1.32E-01	1.32E-01	6.51E-05	-2.13E-03

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	9.24E-04	2.70E-04	1.81E-06	1.82E-07	6.48E-04	6.48E-04	3.25E-06	-2.79E-05
Non-hazardous waste disposed	kg	9.54E-01	1.03E-01	1.27E-02	3.34E-03	7.73E-01	7.73E-01	6.16E-02	-1.20E-02
Radioactive waste disposed	kg	1.97E-03	4.55E-05	8.54E-08	1.95E-08	1.93E-03	1.93E-03	4.12E-07	-2.22E-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	8.03E-02	1.02E-02	0.00E+00	2.58E-02	0.00E+00	0.00E+00	4.43E-02	0.00E+00
Materials for energy recovery	kg	4.66E-02	4.20E-03	0.00E+00	2.87E-03	0.00E+00	0.00E+00	3.96E-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	1.31E-02

Extrapolation rules

Extrapolation factors have been calculated to apply the results of the reference product to the other products in the Simon 270 iO socket family. These factors are based on the main environmental aspects of each life cycle stage, as all products in the family use the same materials and manufacturing process

Simon 270 iO socket outlets have three parts: the socket mechanism, the outer plastic frame, and the inner metal frame. All mechanisms are single sockets with different colors. The frames can vary in color and size (from 1 to 5 elements). Based on this, the manufacturing extrapolation factors are defined as follows:

$$\text{Total impact of the socket} =$$

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

In which N is the number of socket mechanisms of the final product, which must 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)
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MECHANISM OF THE SOCKET

21000432-090	1	9.29E-01	9.29E-01	9.29E-01	1.00E+00	9.29E-01	9.29E-01
21000432-091	1	9.29E-01	9.29E-01	9.29E-01	1.00E+00	9.29E-01	9.29E-01
21000432-093	1	9.29E-01	9.29E-01	9.29E-01	1.00E+00	9.29E-01	9.29E-01
21000432-094	1	9.29E-01	9.29E-01	9.29E-01	1.00E+00	9.29E-01	9.29E-01
21000432-095	1	9.29E-01	9.29E-01	9.29E-01	1.00E+00	9.29E-01	9.29E-01
21000432-096	1	9.29E-01	9.29E-01	9.29E-01	1.00E+00	9.29E-01	9.29E-01
21000432-097	1	9.29E-01	9.29E-01	9.29E-01	1.00E+00	9.29E-01	9.29E-01
21000432-098	1	9.29E-01	9.29E-01	9.29E-01	1.00E+00	9.29E-01	9.29E-01
21000432-190	1	9.29E-01	9.29E-01	9.29E-01	1.00E+00	9.29E-01	9.29E-01

OUTER PLASTIC FRAME

27000610-090	1	2.96E-02	2.96E-02	2.08E-02	0.00E+00	2.47E-02	2.96E-02
27000610-091	1	2.96E-02	2.96E-02	2.08E-02	0.00E+00	2.47E-02	2.96E-02
27000610-093	1	2.96E-02	2.96E-02	2.08E-02	0.00E+00	2.47E-02	2.96E-02
27000610-094	1	2.96E-02	2.96E-02	2.08E-02	0.00E+00	2.47E-02	2.96E-02
27000610-095	1	2.96E-02	2.96E-02	2.08E-02	0.00E+00	2.47E-02	2.96E-02
27000610-096	1	2.96E-02	2.96E-02	2.08E-02	0.00E+00	2.47E-02	2.96E-02
27000610-097	1	2.96E-02	2.96E-02	2.08E-02	0.00E+00	2.47E-02	2.96E-02
27000610-098	1	2.96E-02	2.96E-02	2.08E-02	0.00E+00	2.47E-02	2.96E-02
27000610-190	1	2.96E-02	2.96E-02	2.96E-02	0.00E+00	2.96E-02	2.96E-02
27000620-090	2	3.72E-02	3.72E-02	2.96E-02	0.00E+00	2.96E-02	3.72E-02
27000620-091	2	3.72E-02	3.72E-02	2.96E-02	0.00E+00	2.96E-02	3.72E-02
27000620-093	2	3.72E-02	3.72E-02	2.96E-02	0.00E+00	2.96E-02	3.72E-02
27000620-094	2	3.72E-02	3.72E-02	2.96E-02	0.00E+00	2.96E-02	3.72E-02
27000620-095	2	3.72E-02	3.72E-02	2.96E-02	0.00E+00	2.96E-02	3.72E-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)
27000620-096	2	3.72E-02	3.72E-02	2.96E-02	0.00E+00	2.96E-02	3.72E-02
27000620-097	2	3.72E-02	3.72E-02	2.96E-02	0.00E+00	2.96E-02	3.72E-02
27000620-098	2	3.72E-02	3.72E-02	2.96E-02	0.00E+00	2.96E-02	3.72E-02
27000620-190	2	3.72E-02	3.72E-02	2.96E-02	0.00E+00	2.96E-02	3.72E-02
27000630-090	3	6.60E-02	6.60E-02	2.96E-02	0.00E+00	6.18E-02	6.60E-02
27000630-091	3	6.60E-02	6.60E-02	2.96E-02	0.00E+00	6.18E-02	6.60E-02
27000630-093	3	6.60E-02	6.60E-02	2.96E-02	0.00E+00	6.18E-02	6.60E-02
27000630-094	3	6.60E-02	6.60E-02	2.96E-02	0.00E+00	6.18E-02	6.60E-02
27000630-095	3	6.60E-02	6.60E-02	2.96E-02	0.00E+00	6.18E-02	6.60E-02
27000630-096	3	6.60E-02	6.60E-02	2.96E-02	0.00E+00	6.18E-02	6.60E-02
27000630-097	3	6.60E-02	6.60E-02	2.96E-02	0.00E+00	6.18E-02	6.60E-02
27000630-098	3	6.60E-02	6.60E-02	2.96E-02	0.00E+00	6.18E-02	6.60E-02
27000630-190	3	6.60E-02	6.60E-02	2.96E-02	0.00E+00	6.18E-02	6.60E-02
27000640-090	4	1.31E-01	1.31E-01	1.13E-01	0.00E+00	1.00E-01	1.31E-01
27000640-091	4	1.31E-01	1.31E-01	1.13E-01	0.00E+00	1.00E-01	1.31E-01
27000640-093	4	1.31E-01	1.31E-01	1.13E-01	0.00E+00	1.00E-01	1.31E-01
27000640-094	4	1.31E-01	1.31E-01	1.13E-01	0.00E+00	1.00E-01	1.31E-01
27000640-095	4	1.31E-01	1.31E-01	1.13E-01	0.00E+00	1.00E-01	1.31E-01
27000640-096	4	1.31E-01	1.31E-01	1.13E-01	0.00E+00	1.00E-01	1.31E-01
27000640-097	4	1.31E-01	1.31E-01	1.13E-01	0.00E+00	1.00E-01	1.31E-01
27000640-098	4	1.31E-01	1.31E-01	1.13E-01	0.00E+00	1.00E-01	1.31E-01
27000640-190	4	1.31E-01	1.31E-01	1.13E-01	0.00E+00	1.00E-01	1.31E-01
27000650-090	5	1.70E-01	1.70E-01	1.31E-01	0.00E+00	1.37E-01	1.70E-01
27000650-091	5	1.70E-01	1.70E-01	1.31E-01	0.00E+00	1.37E-01	1.70E-01
27000650-093	5	1.70E-01	1.70E-01	1.31E-01	0.00E+00	1.37E-01	1.70E-01
27000650-094	5	1.70E-01	1.70E-01	1.31E-01	0.00E+00	1.37E-01	1.70E-01
27000650-095	5	1.70E-01	1.70E-01	1.31E-01	0.00E+00	1.37E-01	1.70E-01
27000650-096	5	1.70E-01	1.70E-01	1.31E-01	0.00E+00	1.37E-01	1.70E-01
27000650-097	5	1.70E-01	1.70E-01	1.31E-01	0.00E+00	1.37E-01	1.70E-01
27000650-098	5	1.70E-01	1.70E-01	1.31E-01	0.00E+00	1.37E-01	1.70E-01
27000650-190	5	1.70E-01	1.70E-01	1.31E-01	0.00E+00	1.37E-01	1.70E-01

INNER METAL FRAME

20000910-039	1	4.10E-02	4.10E-02	4.10E-02	0.00E+00	4.10E-02	4.10E-02
20000920-039	2	7.37E-02	7.37E-02	6.09E-02	0.00E+00	7.45E-02	7.37E-02
20000930-039	3	1.20E-01	1.20E-01	8.33E-02	0.00E+00	1.22E-01	1.20E-01
20000940-039	4	1.55E-01	1.55E-01	1.04E-01	0.00E+00	1.58E-01	1.55E-01
20000950-039	5	1.91E-01	1.91E-01	1.26E-01	0.00E+00	1.95E-01	1.91E-01

* The reference product is highlighted.