

**ENVIRONMENTAL PRODUCT DECLARATION** 

# SITOP PSU6200 SITOP PSU4200 SITOP PSU300S SITOP PSU100S SITOP PSU100L AS-i Power PSN130S

Type II according to ISO 14021 including life cycle impact assessment (LCIA)





#### **General information**

This environmental product declaration (EPD) is based on the international standard ISO 14021 ("Environmental labels and declarations – Self declared environmental claims – Type II environmental labelling"). The data in this EPD has been evaluated on a full-scale life cycle assessment (LCA) study according to ISO 14040/44, taking into account the product category rules (PCR) for electronic and electrotechnical products and systems defined in EN50693.

Siemens is dedicated to an environmentally conscious design of its products in line with IEC 62430 and has implemented an integrated management system according to ISO 9001, ISO 14001 and ISO 45001.

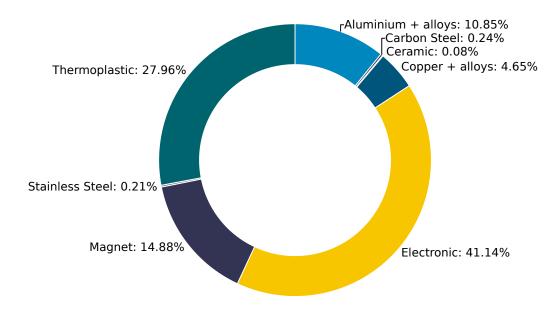
Products	Please refer to appendix
Represented by the reference product	6EP3334-3SB00-0AX0
Product Description	SITOP PSU4200 1AC 24 V/10 A stabilized power supply PSU4200 input: 120/240 V AC output: 24 V DC/ 10 A
Functional Unit	Production of 1 pc. SITOP PSU4200 1AC 24 V/10 A and use over the reference service lifetime of 10 years. $^{\rm 1}$

<sup>&</sup>lt;sup>1</sup> The lifetime value used for calculation is a reference value and does not equate with the minimum, average or real life time.

## **Material composition**

The following chart outlines the overall material composition of the calculated reference product without packaging. Product weight of 0.79 kg adds up with packaging weight of 0.09 kg to a total weight of 0.88 kg. Packaging consists of: Graphic paper, Corrugated box (average composition).

#### Product Weight 0.79 kg



#### Substance assessment

At Siemens, we are committed to the development and production of environmentally sound and sustainably produced equipment. This includes avoiding hazardous substances in our products without compromising their benefits for our customers. Please visit the following website to learn more about how we comply with product-related environmental regulations like RoHS, REACH, WEEE and others: Product Related Environmental Protection

## Life cycle stages and reference scenarios



#### Manufacturing

This stage covers the extraction of natural resources, production of raw materials, manufacturing, packaging, and transportation.



# Distribution and Operation

This stage covers the product's distribution, installation, use, and maintenance. Different operating conditions can lead to deviations from the reference scenario.



#### **End-of-Life**

This stage covers the disassembly or shredding and material recycling of all recyclable materials, as well as energy recovery, thermal treatment and the disposal of all other materials.

#### Scenarios

#### Energy model used: Germany (renewable mix), Europe (standard mix)

**Transportation model:** Truck-trailer (GLO), 34-40t gross weight, 3500 km default distance

#### Energy model used: Europe (standard mix)

**Distribution scenario:** Truck-trailer (34-40 t) 3500 km

#### **Use Scenario:**

27 W power dissipation, 100% service uptime: reference lifetime 10 years

#### Energy model used: EMEA

**End-of-Life methodology:** Modeled according to Cut-off methodology.

# **Key environmental performance indicators**

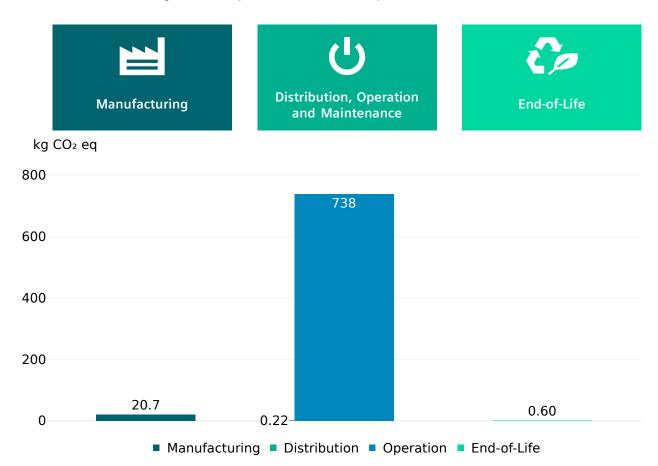
The following impact categories characterize the product's environmental footprint. They have been calculated with LCIA methodology EF3.1; LCA tool: Green Digital Twin (GDT), Database: One Siemens LCA Database (based on MLC CUP 2023.2, formerly GaBi).

To ensure the high quality and completeness of the LCA results, Primary Data have been used whenever possible. Datasets for resources, such as electrical energy or natural gas, are chosen from the region where the device is produced and assembled. If primary data are not available, datasets reflecting state-of-the-art manufacturing technology are considered.

Impact Category	Unit	Total	Manufacturing	Distribution	Operation	End of life
Acidification	Mole of H+ eq	2.03E+0	4.70E-1	2.84E-4	1.56E+0	2.42E-4
Climate change – total	kg CO₂ eq	7.60E+2	2.07E+1	2.22E-1	7.38E+2	5.98E-1
Climate change – fossil	kg CO₂ eq	7.53E+2	2.06E+1	2.19E-1	7.32E+2	5.98E-1
Climate change – biogenic	kg CO₂ eq	6.54E+0	6.13E-2	5.94E-4	6.48E+0	3.63E-4
Climate Change, land use and land use change	kg CO₂ eq	9.04E-2	1.05E-2	2.05E-3	7.98E-2	2.19E-5
Ecotoxicity, freshwater – total	CTUe	4.37E+3	8.86E+1	2.16E+0	4.28E+3	3.26E-1
Eutrophication, freshwater	kg P eq	2.82E-3	7.10E-5	8.08E-7	2.74E-3	7.31E-7
Eutrophication, marine	kg N eq	3.98E-1	2.41E-2	9.62E-5	3.74E-1	7.87E-5
Eutrophication, terrestrial	Mole of N eq	4.17E+0	2.62E-1	1.16E-3	3.91E+0	9.53E-4
Human toxicity, cancer – total	CTUh	2.39E-7	1.31E-8	4.38E-11	2.26E-7	2.31E-11
Human toxicity, non-cancer – total	CTUh	3.94E-6	3.31E-7	1.95E-9	3.61E-6	1.05E-9
lonising radiation, human health	kBq U235 eq	4.07E+2	1.00E+0	8.43E-4	4.06E+2	2.06E-2
Land Use	dimensionless (pt)	6.12E+3	6.54E+1	1.26E+0	6.06E+3	3.41E-1
Ozone depletion	kg CFC-11 eq	2.62E-8	1.27E-8	2.88E-14	1.35E-8	7.13E-13
Particulate matter	Disease incidences	1.73E-5	4.14E-6	2.08E-9	1.31E-5	1.69E-9
Photochemical ozone formation, human health	kg NMVOC eq	1.09E+0	9.22E-2	2.45E-4	9.97E-1	2.13E-4
Resource use, fossils	МЈ	1.57E+4	2.85E+2	3.01E+0	1.54E+4	1.01E+0
Resource use, mineral and metals	kg Sb eq	1.57E-3	1.46E-3	1.47E-8	1.13E-4	6.13E-9
Water use	m³ water eq deprived water	1.66E+2	4.67E+0	2.67E-3	1.61E+2	5.80E-2

# **Climate change**

This chart shows the overall impact of the product on climate change – total. The operations phase is the lifecycle phase with the biggest overall impact. Different operating conditions can lead to deviations from the reference scenario. The distribution stage of the reference product is not shown in the chart due to its relatively small contribution to climate change and its impact is included in the operation bar.



### **End-of-Life results**

The end-of-life stage was modelled by shredding of the device, followed by sorting and material separation process.



#### It leads to:

- an overall product recyclability of up to 29% mainly due to metal content
- an energy recoverability of up to 31% from plastic materials
- a minimum disposal rate of 40%

The exact final values depend on the used recycling process and add up to 100%.

**Note:** The device should not be disposed of as unsorted municipal waste. Special treatment for specific components may be mandated by law or recommended for environmental reasons. Observe all local and applicable laws.

# **Appendix**

For other devices "Key environmental performance indicators" please refer the following factors:

Product	Description	Manufacturing	Distribution	Operation	End-of- Life
6EP3334-3SB00-0AX0	SITOP PSU4200 24V/10A 1ph	1	1	1	1
3RX9501-0BA00	AS-i Netzteil 3A	0,684	0,684	0,533	0,684
3RX9501-1BA00	AS-i Netzteil 24V	0,709	0,709	0,659	0,709
3RX9501-2BA00	AS-i Netzteil 2,6A	0,681	0,681	0,462	0,681
3RX9502-0BA00	AS-i Netzteil 5A	0,894	0,894	0,933	0,894
3RX9503-0BA00	AS-i Netzteil 8A	1,594	1,594	1,185	1,594
3RX9511-0AA00	PSN130S 30V/3A	0,500	0,500	0,433	0,500
3RX9512-0AA00	PSN130S 30V/4A	0,500	0,500	0,533	0,500
3RX9513-0AA00	PSN130S 30V/8A	0,88125	0,88125	0,889	0,881
6EP1322-2BA00	SITOP PSU100S 12V/7A	0,625	0,625	0,556	0,625
6EP1323-2BA00	SITOP PSU100S 12V/14A	0,875	0,875	0,889	0,875
6EP1332-1LB00	SITOP PSU100L 24V/2,5A	0,375	0,375	0,333	0,375
6EP1332-2BA20	SITOP PSU100S 2,5A	0,4	0,4	0,333	0,4
6EP1333-1LB00	SITOP PSU100L 24V/5A	0,625	0,625	0,630	0,625
6EP1333-2BA20	SITOP PSU100S 5A	0,625	0,625	0,593	0,625
6EP1334-1LB00	SITOP PSU100L 24V/10A	0,9375	0,9375	1,259	0,9375
6EP1334-2BA20	SITOP PSU100S 10A	1	1	0,926	1
6EP1433-2BA20	SITOP PSU300S 5A	0,625	0,625	0,519	0,625
6EP1434-2BA20	SITOP PSU300S 10A	0,875	0,875	0,852	0,875
6EP3321-7SB00-0AX0	SITOP PSU6200 1ph 12V/2A	0,250	0,250	0,185	0,250
6EP3331-7SB00-0AX0	SITOP PSU6200 1ph 24V/1,3A	0,250	0,250	0,185	0,250
6EP3332-3SB00-0AX0	SITOP PSU4200 24V/3A 1ph	0,631	0,631	0,481	0,631
6EP3332-7SB00-0AX0	SITOP PSU6200 1ph 24V/2,5A	0,313	0,313	0,259	0,313
6EP3333-3SB00-0AX0	SITOP PSU4200 24V/5A 1ph	0,677	0,677	0,667	0,677
6EP3434-3SB00-0AX0	SITOP PSU4200 24V/10A 3ph	1	1	1	1

### **Legal Disclaimer**

This Environmental Product Declaration (EPD) is for information purposes only. It is based upon the standards mentioned above. This EPD does not warrant or guarantee the composition of a product or that the product will retain a particular composition for a particular period. Therefore, all warranties, representations, conditions, and all other terms of any kind whatsoever implied by statute or common law are – to the fullest extent permitted by applicable law – excluded.

Siemens therefore does not assume any liability for any error or for any consequence which may arise from the use of this information to the maximum extent under the law.

Please be aware that the data of this EPD cannot be compared with data calculated based upon product category rules (PCRs) other than the standards mentioned above. The values given are only valid within the context specified and cannot be used directly to draw up the environmental assessment of an installation.

#### Published by

Siemens AG
Digital Industries
Process Automation
Östliche Rheinbrückenstr. 50
76187 Karlsruhe
Deutschland

Subject to changes and errors.

The information given in this document only contains general descriptions and/or performance features which may not always specifically reflect those described, or which may undergo modification in the course of further development of the products. In particular no assurance is given that those descriptions and performance features stand under warranty or guarantee in sense of any liability for any error or for any consequence which may arise from the use of this information to the maximum extent under the law. The requested performance features are binding only when they are expressly agreed upon in the concluded contract.

All product designations may be trademarks or product names of Siemens AG or other companies whose use by third parties for their own purposes could violate the rights of the owners.

© 2025 by Siemens