ENVIRONMENTAL PRODUCT DECLARATION

SECURITRON

AQD6 SERIES POWER SUPPLY



6 Amp Dual Voltage Power Supply: converts 115VAC or 240VAC into 12 or 24VDC with over 90% efficiency, metal enclosure protects from tamper and accidental contact, distribution board allows for multiple fused outputs as well as integration with access control systems

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ASSA ABLOY

ASSA ABLOY is committed to providing products and services that are environmentally sound throughout the entire production process and the product lifecycle. Our unconditional aim is to make sustainability a central part of our business philosophy and culture, but even more important is the job of integrating sustainability into our business strategy. The employment of EPDs will help architects, designers and LEED-APs select environmentally preferable door openings. The Securitron AQD6 Series Power Supply EPD provides detailed requirements with which to evaluate the environmental and human health impacts related to producing our door openings. ASSA ABLOY will continue our efforts to protect the environment and health of our customers/end users and will utilize the EPD as one means to document those efforts.





ENVIRONMENTAL PRODUCT DECLARATION

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Securitron AQD6 Series Power Supply According to EN 15804 and ISO 14025 Dual Recognition by UL Environment and Institut Bauen und Umwelt e.V.

This declaration is an environmental product declaration (EPD) in accordance with ISO 14025. EPDs rely on Life Cycle Assessment (LCA) to provide information on a number of environmental impacts of products over their life cycle. Exclusions: EPDs do not indicate that any environmental or social performance benchmarks are met, and there may be impacts that they do not encompass. LCAs do not typically address the site-specific environmental impacts of raw material extraction, nor are they meant to assess human health toxicity. EPDs can complement but cannot replace tools and certifications that are designed to address these impacts and/or set performance thresholds – e.g. Type 1 certifications, health assessments and declarations, environmental impact assessments, etc. Accuracy of Results: EPDs regularly rely on estimations of impacts, and the level of accuracy in estimation of effect differs for any particular product line and reported impact. Comparability: EPDs are not comparative assertions and are either not comparable or have limited comparability when they cover different life cycle stages, are based on different product category rules or are missing relevant environmental impacts. EPDs from different programs may not be comparable.



PROGRAM OPERATOR	UL Environment	
DECLARATION HOLDER	ASSA ABLOY / Hanchett Entry Sy	stems, Inc / Securitron
ULE DECLARATION NUMBER	4786545067.137.1	
IBU DECLRATION NUMBER	EPD-ASA-20150130-IBA1-EN	
DECLARED PRODUCT	Securitron AQD6 Series Power So	upply
REFERENCE PCR	Electronic Access Control System dependent expert committee (SVA	s, 11-2013 (PCR tested and approved by the A))
DATE OF ISSUE	May 18, 2015	
PERIOD OF VALIDITY	5 years	
CONTENTS OF THE DECLARATION The PCR review was conducted by	General information Product / Product description LCA calculation rules LCA scenarios and further technic LCA results References y:	IBU – Institut Bauen und Umwelt e.V. PCR was approved by the Independent Expert
		Committee (SVA)
The CEN Norm EN 15804 serves was independently verified in account Underwriters Laboratories		ubl
□ INTERNAL	⊠ EXTERNAL	Wade Stout
This life cycle assessment was indwith EN 15804 and the reference I		IBU – Institut Bauen und Umwelt e.V.

Environment





1. General Information

Hanchett Entry Systems, Inc

Programme holder

IBU - Institut Bauen und Umwelt e.V. Panoramastr. 1 10178 Berlin Germany

Declaration number

EPD-ASA-20150130-IBA1-EN

This Declaration is based on the Product **Category Rules:**

Electronic Access Control Systems, 11-2013 (PCR tested and approved by the independent expert committee (SVA))

Nermanjes

Issue date

18.05.2015

Valid to

17.05.2020

Prof. Dr.-Ing. Horst J. Bossenmayer (President of Institut Bauen und Umwelt e.V.)

Dr.-Ing. Burkhart Lehma (Managing Director IBU)

Securitron AQD6 Series Power Supply

Owner of the Declaration

Hanchett Entry Systems, Inc 10027 S 51st Street, Suite 102 Phoenix, AZ 85044

Declared product / Declared unit

This Declaration represents 1 model AQD6 Series Power Supply, with enclosure and distribution board.

Scope:

The Life Cycle Assessment is based on data collected from the Integrated Micro-Electronics Incorporated production facility in Laguna Binan, Philippines and the IM Tech facilities in Cavite, Philippines. Final assembly takes place in USA.

The owner of the declaration shall be liable for the underlying information and evidence; the IBU shall not be liable with respect to manufacturer information, life cycle assessment data and evidences.

Verification

The CEN Standard EN 15804 serves as the core PCR Independent verification of the declaration and data according to ISO 14025 internally externally



Dr. Wolfram Trinius (Independent verifier appointed by SVA)

Product

Product description

Product name: Securitron AQD6 Series Power Supply

Product characteristic: 6 Amp Dual Voltage Power Supply

- Converts 115VAC or 240VAC into 12 or 24VDC with over 90% efficiency
- Metal Enclosure protects from tamper and accidental contact
- Distribution board allows for multiple fused outputs as well as integration with Access Control Systems
- **UL Listed**

Application

The AQD6 Series is suitable for all 12 or 24VDC powered access control devices including card readers, locks, access control panels, and security cameras installed in almost any facility.

Technical Data

The table presents the technical properties of Securitron AQD6 Series power Supply:

Technical data

Name	Value	Unit
Input Voltage	115/230	VAC
Output Voltage	12/24	VDC
Output Current	6	Α
Battery Charge Current	0.7	Α

Placing on the market / Application rules Compliance with US and Canadian Directives

UL294 6th Edition Listed

- UL 603 Listed
- ULC S318 Listed
- UL1481 Listed
- RoHS Compliant

Delivery status

Each power supply is individually packaged in a cardboard box sized 14" x 14" x 4.75".



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2.6 Base materials / Ancillary materials

The average composition of the Securitron AQD6 Series power supply is as following:

Component	Percentage in mass (%)
Copper	0.12
Plastics	0.01
Steel	74.68
Electronic	25.18
Others	0.01
Total	100.0

2.7 Manufacture

The Securitron AQD6 Series Power Supply is assembled at the production facility at Integrated Micro-Electronics, Inc (IMI). The electronic components, including printed circuit boards (PCBs), are purchased externally and assembled at IMI. Final assembly takes place in USA.

2.8 Environment and health during manufacturing

The Management system of Lifesafety power is ISO 9001 and ISO 14001.

2.9 Product processing/Installation

AQD6 Series Power Supply is installed by trained product integrators or by the product end user. Installation instructions are included with each reader unit.

2.10 Packaging

The Power supply is packaged in cardboard.

Material	Value (%)
Cardboard/ Paper	100.0
Total	100.0

2.11 Condition of use

No auxiliary or consumable materials are incurred for maintenance and usage of the power supply. Repairs or replacement are not usually necessary. No cleaning efforts need to be taken into consideration.

2.12 Environment and health during use

There are no interactions between products, the environment and health.

2.13 Reference service life

The service life of the AQD6 Series is estimated to be 10 years.

2.14 Extraordinary effects

Fire

No danger to the environment can be anticipated during exposure to fire.

Water

No substances are used which have a negative impact on ecological water quality on contact by the device with water.

Mechanical destruction

No danger to the environment can be anticipated during mechanical destruction.

2.15 Re-use phase

During the reference service life the power supply can be disconnected and dismounted then remounted and attached elsewhere. The packaging and enclosure are recyclable. The circuit boards are directed to an appropriate recycling center to prevent introduction to the solid waste cycle.

2.16 Disposal

The product can be mechanically dissembled to separate the different materials. 99.99% of the materials used are recyclable. The rest is disposed as a construction waste for landfill.

2.17 Further information

Securitron 10027 S 51st Street, Suite 102 Phoenix, AZ 85044 Tel: 800-624-5625 www.securitron.com

3. LCA: Calculation rules

3.1 Declared Unit

The declaration refers to the functional unit of 1 piece of AQD6 Series Power Supply as specified in Part B requirements on the EPD for Electronic Access Control Systems /IBU PCR Part B/.

Declared unit

Name	Value	Unit
Declared unit	1	piece of AQD6 Series Power Supply
Conversion factor to 1 kg	0.1733	-
Mass of product (without packaging)	5.772	kg

3.2 System boundary

Type of the EPD: cradle to gate - with options The following life cycle phases were considered:

A1-A3 Production stage:

- A1 Raw material extraction and processing
- A2 Transport to the manufacturer and
- A3 Manufacturing.

Construction stage:

- A4 Transport from the gate to the site
- A5 Packaging waste processing

Use stage related to the operation of the building includes:

 B6 – Operational energy use (Energy consumption for lock operation)

End-of-life stage:

• C2 – Transport to waste processing,



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- C3 Waste processing for recycling and
- C4 Disposal (landfill).

These information modules include provision and transport of all materials, products, as well as energy and water provisions, waste processing up to the end-of-waste state or disposal of final residues.

Module D:

 Declaration of all benefits or recycling potential from EoL and A5

3.3 Estimates and assumptions

Use phase:

For the use phase, it is assumed that the lock is used in the United States of America, thus an US electricity grid mix is considered within this stage.

EoL:

In the End-of-Life phase, for all the materials which can be recycled, a recycling scenario with 100% collection rate was assumed.

3.4 Cut-off criteria

In the assessment, all available data from the production process are considered, i.e. all raw materials used, auxiliary materials (e.g. lubricants), thermal energy consumption and electric power consumption - including material and energy flows contributing less than 1% of mass or energy (if available). In case a specific flow contributing less than 1% in mass or energy is not available, worst case assumption proxies are selected to represent the respective environmental impacts.

Impacts relating to the production of machines and facilities required during production are out of the scope of this assessment.

3.5 Background data

For life cycle modeling of the considered products, the GaBi 6 Software System for Life Cycle Engineering, developed by PE INTERNATIONAL AG, is used /GaBi 6 2013/. The GaBi-database contains consistent and documented datasets which are documented in the

GaBi-documentation /GaBi 6 2013D/.

To ensure comparability of results in the LCA, the

basic data of GaBi database were used for energy, transportation and auxiliary materials.

3.6 Data quality

The requirements for data quality and background data correspond to the specifications of the /IBU PCR PART A/.

PE INTERNATIONAL performed a variety of tests and validations during the commission of the present study in order to ensure its quality of the present document and results. This obviously includes an extensive review of project-specific LCA models as well as the background data used.

The technological background of the collected data reflects the physical reality of the declared products. The datasets are complete and conform to the system boundaries and the criteria for the exclusion of inputs and outputs.

All relevant background datasets are taken from the GaBi 6 software database. The last revision of the used background data has taken place not longer than 10 years ago.

3.7 Period under review

The period under review is 2013/14 (12 month average).

3.8 Allocation

Regarding incineration, the software model for the waste incineration plant (WIP) is adapted according to the material composition and heating value of the combusted material. Following specific life cycle inventories for the WIP are considered:

- Waste incineration of plastic
- Waste incineration of paper
- Waste incineration of electronic scrap

Regarding the recycling material of metals, the metal parts in the EoL are declared as end-of-waste status. Thus, these materials are considered in module D. Specific information on allocation within the background data is given in the GaBi dataset documentation.

3.9 Comparability

Basically, a comparison or an evaluation of EPD data is only possible if all the data sets to be compared were created according to /EN 15804/ and the building context, respectively the product-specific characteristics of performance, are taken into account.

4. LCA: Scenarios and additional technical information

Installation into the building (A5)

Name	Value	Unit
Output substances following waste treatment on site Packaging (Paper)	0.0544	kg

Reference service life

Name	Value	Unit
Reference service life	10	а

Operational energy use (B6)

Name	Value	Unit
Electricity consumption	7708.8	kWh
Days per year in use	365	days

Hours per day in different modes	24	h
Power consumption in on mode	144	W
Power consumption in stand-by mode	60	W



End of life (C1-C4)

Name	Value	Unit
Collected separately Copper, Plastic Parts, Steel, Electronic	5.7712	kg
Collected as mixed construction waste construction waste for landfilling	0.0005	kg
Recycling Copper	0.0067	Kg
Reuse plastic parts	0.0005	kg
Recycling Steel	4.3106	Kg
Recycling Electronic	1.4534	kg
Landfilling construction waste for landfill	0.0005	kg

Reuse, recovery and/or recycling potentials (D), relevant scenario information

Name	Value	Unit
Collected separately waste Card reader (including packaging)	5.826	kg
Recycling Copper	0.12	%
Reuse Plastic parts	0.01	%
Recycling Steel	73.98	%
Recycling Electronic	24.95	%
Reuse Paper Packaging	0.93	%
Loss Construction waste for landfilling (no recycling potential)	0.01	%



5. LCA: Results

Results shown below were calculated using CML 2001 – Apr. 2013 Methodology.

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PER PER PENF PENF PENF SM RSI NRS FW	RE R	Rene resource Total use Wise of re Use of n Use SOF TH	rable prir energy wable py es as ma se of ren energy re ewable p energy ewable p naterial u of non-r energy re energy re energy re energy re for secon fue e of net	mary ene carrier rimary er eterial ut ewable pesources rimary e carrier rimary e carrier rimary e enewable sources dary mare escond wable seels fresh wa	nergy ilization orimary inergy as nergy as nergy as need to be primary iterial ary fuels condary ter	[M.	J] 1.4 J] 0.0 J] 1.4 J] 2.4 J] 0.0 J] 2.4 J] 0.0 J] 0.0 J] 0.0 J] 0.0	66E+0 00E+0 06E+0 00E+0 00E+0 00E+0 00E+0 00E+0 00E+0	02	-01 2.01E -01 2.01E -00 2.53E -00 0.00E -00 0.00E -00 0.00E	-02 7.56 +00 0.00 +00 0.00 -04 2.66	- - 5E+03 - - - 6E+04 0E+00 0E+00	- 3.01E-03 - - 7.67E-02 0.00E+00 0.00E+00 0.00E+00	7.46E-C	00 6.75 00 0.00 00 0.00 00 0.00 01 3 3.68		-6.83E+00
PER PER PENF PENF PENF SM RSI NRS FW RESU Supp	RE RM RT H H H H H H H H H H H H H H H H H H	Rene resource Total use Wise of re Use of n Use SOF TH	rable prir energy wable p es as ma se of ren energy re ewable p energy ewable p naterial u of non-r energy re for secon fue e of net i	mary energian carrier imary energian was energian ut ewable pasources carrier imary e carrier imary e utilization enewable sources dary mare es second wable seels fresh was a large of the control of the carrier imary enewable sources dary mare es econd wable seels fresh was a large of the carrier imary enewable seels fresh was a large of the carrier imary energian was energian was energian energi	nergy as nergy fuels condary ter	[M.	J] 1.4 J] 0.0 J] 1.4 J] 0.0 J] 2.4 J] 0.0	66E+0 00E+0 66E+0 00E+0 00E+0 00E+0 00E+0 4E-0 00E+0	02	-01 2.01E -01 2.53E -00 0.00E -00 0.00E -00 0.00E -04 2.24E CATEGO	-02 7.56 +00 0.00 +00 0.00 -04 2.66		3.01E-03 - - - - - - - - - - - - - - - - - -	7.46E-0 - - 2 4.08E+0 0 0.00E+0 0 0.00E+0 0 0.00E+0 0 1.84E-0	00 6.75 00 0.00 00 0.00 00 0.00 00 0.00 00 0.00 00 0.00 00 0.00 00 0.00		-6.83E+00 -1 -2.43E+02 0.00E+00 0.00E+00 0.00E+00 -8.35E-02 Power
PER PENF PENF PENF SM RSI NRS FW RESU Supp	RE R	Rene resource Total use Non-rene Non-rene n Total use Use of re Use of n Use Hazardo	rable prir energy wable pi es as ma se of ren energy re ewable p energy re ewable p energy re energy re of non-r energy re of secon enewable on-rener fue e of net i	mary energy ener	nergy ilization orimary inergy as nergy as nergy as need to be primary fuels condary ter	[M.	J] 1.4 J] 0.0 J] 1.4 J] 0.0 J] 2.4 J] 0.0 J] 0.0 J] 0.0 J] 0.0 J] 0.0 J] 0.0 A1 - A3	66E+0 66	02	-01 2.01E -01 2.53E -00 0.00E -00 0.00E -00 0.00E -04 2.24E CATEGO A5	-03 5.85 -02 7.56 +00 0.00 +00 0.00 -04 2.66 DRIES B6 5.89E-	- - - - - - - - - - - - - - - - - - -	- 3.01E-03 - 7.67E-02 - 0.00E+00	7.46E-0 - - 2 4.08E+0 0 0.00E+0 0 0.00E+0 0 0.00E+0 0 1.84E-0 of AQD	00 6.75 00 0.00 00 0.00 00 0.00 00 0.00 00 0.13 3.68 C		-6.83E+00 -1 -2.43E+02 0.00E+00 0.00E+00 -8.35E-02 Power
PER PENF PENF PENF SM RSI NRS FW RESU Supp	RE R	Rene resource Total use Non-rene Non-rene n Total use Use of re Use of n Use Hazardo	rable prir energy wable pies as ma se of ren energy re ewable p energy ewable p naterial u of non-r energy re of secon enewable on-rene fue e of net i IE LCA Parame nazardou dispose	mary energy ener	nergy as nergy as nergy as nergy as nergy as nergy as nergy fuels condary ter	[M.	J] 1.4 J] 0.0 J] 1.4 J] 0.0 J] 2.4 J] 0.0 J] 1.4 J] 1.22E-0	00E+0 0 00E+0 00E+0 0 00E+0 00E+0 00E+0 00E+0 00E+0 00E+0 00E+0 00E+0 00E+0 00E+0 00E+0 00E+0 0 00E+0 00E+0 00E+0 00E+0 00E+0 00E+0 0 0 00E+0 0 00E+0 00E+0 00E+0 0 00E+0 00E+0 00E+0 00E+0 00E+0 00E+0 0 00E+0 00E+0 0 0 00E+0 00E+0 00E+0 00E+0 00E+0 00E+0 00E+0 0 00E+0 0 00E+0 00E+0 00E+0 00E+0 00E+0 00E+0 00E+0 00E+0 00E+0 00E+0 00E+0 00E+0 0 00E+	02	-01 2.01E -01 2.53E -00 0.00E -00 0.00E -04 2.24E CATEGO A5 1.74E-06	-02 7.56 +00 0.00 +00 0.00 -04 2.66 DRIES B6 5.89E- 2.41E-		3.01E-03 - 3.01E-03 - 7.67E-02 0.00E+00 0.00E+00 0.00E+00 2.13E-00 e piece C2	7.46E-0 - - 2 4.08E+0 0 0.00E+0 0 0.00E+0 0 1.84E-0 of AQD	00 6.75 00 0.00 00 0.00 00 0.00 00 0.00 13 3.68 06 Sel		-6.83E+00 -1-2.43E+02 0.00E+00 0.00E+00 0.00E+00 -8.35E-02 Power D 2.44E-03
PER PENF PENF PENF SM RSI NRS FW RESU Supp Param HW NHW RW CR	RE RM RT M F F F F F F F F F F F F F F F F F F	Rene resource Total use Non-rene Non-rene Total use Use of re Use of n Use The description of the content of t	rable prir energy wable pi es as ma se of ren energy re ewable p energy ewable p naterial u of non-ren energy re of secon enewable on-rene fue e of net i E LCA Parame ous wast nazardou dispose tive wast onents fo	mary energy ener	nergy illization primary in nergy as nergy as nergy as nergy as nergy fuels condary ter ter terial led [[M.	J] 1.4 J] 0.0 J] 1.4 J] 0.0 J] 2.4 J] 0.0 J] 2.4 J] 0.0 J] 0.0 J] 0.0 A1 - A3 1.22E-0 2.94E+0 1.28E-0 0.00E+0	6E+0 00E+0 0	02	-01 2.01E -01 2.01E -00 2.53E -00 0.00E -00 0.00E -00 2.24E CATEGO A5 1.74E-06 1.94E-03 1.48E-06 0.00E+00	-03 5.88 -02 7.56 +00 0.00 +00 0.00 -04 2.66 DRIES B6 5.89E- 2.41E- 6.22E- 0.00E-		- 3.01E-03 - 3.01E-03 - 7.67E-02 - 0.00E+00 - 0.00E+00 - 0.00E+00 - 0.00E+00 - 0.00E+00 - 0.00E-00 - 0.00E-00 - 0.00E-00 - 0.00E-00 - 0.00E-00 - 0.00E-00	7.46E-0 7.2 4.08E+0 0 0.00E+0 0 0.00E+0 0 1.32E-03 5.88E-04 0.00E+00	00 6.75 00 0.00 00 0.00 00 0.00 00 0.00 13 3.68 06 Sel 1.18i 1.53i 4.45i 0.00e		-6.83E+00 -1 -2.43E+02 -0.00E+00 0.00E+00 -8.35E-02 Power D 2.44E-03 -7.00E-01
PER PENF PENF PENF SM RSI NRS FW RESU Supp Param HW NHW RW CR	RE RM RT M F F F F F F F F F F F F F F F F F F	Rene resource Total use Non-rene Use of re Use of TH Hazardo Non-re Radioact Compo	rable prir energy wable pi es as ma se of ren energy re ewable p energy ewable p naterial u of non-renergy re of secon enewable on-rener fue e of net i IE LCA Parame ous wast nazardou dispose tive wast onents for	mary energy ener	nergy illization primary in a primary fuels ary fuels condary ter TPUT Led [[M.	J] 1.4 J] 0.0 J] 1.4 J] 0.0 J] 2.4 J] 0.0 J] 2.4 J] 0.0 J] 0.0 J] 0.0 J] 0.0 J] 0.0 J] 0.0 1.22E-0 1.28E-0 0.00E+0 0.00E+0	0E+0 0E+0 0E+0 0E+0 0E+0 0E+0 0E+0 0E+0	1.81E 1.81	-01 2.01E -01 2.01E -00 2.53E -00 0.00E -00 0.00E -04 2.24E CATEGO -04 2.24E -05 1.74E-06 -1.94E-03 -1.48E-06 -0.00E+00	-02 7.56 +00 0.00 +00 0.00 -04 2.66 DRIES B6 5.89E- 2.41E+ 6.22E+ 0.00E+ 0.00E-		-3.01E-033.01E-034.07E-025.07E-026.00E+006.00E-076.00E+006.00E+006.00E+006.00E+00	7.46E-0 2.4.08E+0 0.00E+0 0.00E+0 1.32E-03 5.88E-04 0.00E+00 4.32E+00	00 6.75 00 0.00 00 0.00 00 0.00 00 0.00 1.184 1.534 4.454 0.006		-6.83E+00 -1 -2.43E+02 -0.00E+00 0.00E+00 -8.35E-02 Power D 2.44E-03 -7.00E-01
PER PENF PENF PENF SM RSI NRS FW RESU SUPP Param HW NHW RW CR MFI	RE MM RT RE RE RT MT	Rene resource Total use Non-rene Use of re Use of re Hazardo Non-re Radioact Compe Materials	rable prir energy wable pies as ma se of ren energy re ewable p energy re ewable p energy re of non-re energy re of secon enewable on-rener fue e of net it IE LCA Parame Dus wast Dus	mary ene carrier rimary eraterial ut ewable pessources rimary e carrier rimary e executilization enewable seources dary mare execution wable seels fresh wa term e disposure execution is waste ed term e disposure execution in the carrier rimary enemand in the carrier r	nergy illization primary in	[M.	J] 1.4 J] 0.0 J] 1.4 J] 0.0 J] 2.4 J] 0.0 J] 2.4 J] 0.0 J] 0.0 J] 0.0 A1 - A3 1.22E-0 1.28E-0 0.00E+0 0.00E+0 0.00E+0	0E+0 0E+0 0E+0 0E+0 0E+0 0E+0 0E+0 0E+0	12	-01 2.01E -01 2.01E -00 2.53E -00 0.00E -00 0.00E -00 0.00E -01 2.24E CATEGO A5 1.74E-06 1.94E-03 1.48E-06 0.00E+00 5.44E-02 0.00E+00	-02 7.56 +00 0.00 +00 0.00 -04 2.66 DRIES B6 5.89E- 2.41E+ 6.22E+ 0.00E+ 0.00E- 0.00E- 0.00E- 0.00E-		-3.01E-033.01E-034.07E-025.07E-026.00E+006.00E+006.00E+006.00E+006.00E+006.00E+006.00E+006.00E+006.00E+006.00E+006.00E+006.00E+006.00E+006.00E+006.00E+006.00E+00	7.46E-0 2.4.08E+0 0.00E+0 0.00E+0 0.00E+0 1.32E-03 5.88E-04 0.00E+00 4.32E+00 0.00E+00	00 6.75 00 0.00 00 0.00 00 0.00 00 0.00 1.18 1.53 4.45 0.00 0.00 0.00 0.00 0.00 0.00		-6.83E+00 -1 -2.43E+02 -0.00E+00 0.00E+00 0.00E+00 -8.35E-02 Power D 2.44E-03 -7.00E-01 -1.31E-03
PER PENF PENF PENF SM RSI NRS FW RESU Supp Param HW NHW RW CR	RE MM RT RE RT MM PT	Rene resource Total use Use of re Use of n Hazardo Non-re Radioact Compu Mater Materials Exporte	rable prir energy wable pies as ma se of ren energy re ewable p energy re ewable p energy re ewable p energy re of non-re energy re of secon energy re of secon energy re fue e of net i	mary energy ener	nergy ilization primary in a property in a p	[M.	J] 1.4 J] 0.0 J] 1.4 J] 0.0 J] 2.4 J] 0.0 J] 2.4 J] 0.0 J] 0.0 J] 0.0 J] 0.0 J] 0.0 J] 0.0 1.22E-0 1.28E-0 0.00E+0 0.00E+0	66+0 66+0 66+0 00+0	1.81E 1.81	-01 2.01E -01 2.01E -00 2.53E -00 0.00E -00 0.00E -04 2.24E CATEGO -04 2.24E -05 1.74E-06 -1.94E-03 -1.48E-06 -0.00E+00	-02 7.56 +00 0.00 +00 0.00 -04 2.66 DRIES B6 5.89E- 2.41E+ 6.22E+ 0.00E+ 0.00E-		3.01E-03	7.46E-0 2.4.08E+0 0.00E+0 0.00E+0 1.32E-03 5.88E-04 0.00E+00 4.32E+00	00 6.75 00 0.00 00 0.00 00 0.00 01 3 3.68 06 Sel 1.188 1.538 4.458 0.00E 0.00E 0.00E		-6.83E+00 -1 -2.43E+02 -0.00E+00 0.00E+00 0.00E+00 -8.35E-02 Power D 2.44E-03 -7.00E-01 -1.31E-03



6. LCA: Interpretation

This chapter contains an interpretation of the Life Cycle Impact Assessment categories. Stated percentages in the whole interpretation are related to the overall life cycle, excluding credits (module D).

The production phase (modules A1-A3) contributes between 3% and 7% to the overall results for all the environmental impact assessment categories hereby considered, except for the abiotic depletion potential (ADPE). For this, the contribution from the production phase accounts for app. 95% - this impact category describes the reduction of the global amount of non-renewable raw materials; therefore, as expected, it is mainly related with the extraction of raw materials (A1).

Within the production phase, the main contribution for all the impact categories is the production of electronic components and steel, with app. 98%, mainly due to the energy consumption on this process. Steel accounts with app. 75% to the overall mass of the

product, therefore, the impacts are in line with the mass composition of the product. The environmental impacts for the transport (A2) have a negligible impact within this stage.

To reflect the use phase (module B6), the energy consumption was included and it has a major contribution for all the impact assessment categories considered - between 92% and 97%, with the exception of ADPE (12%). This is a result of 24 hours of operation in different modes per day and per 365 days in a year.

In the end-of-life phase, there are loads and benefits (module D, negative values) considered. The benefits are considered beyond the system boundaries and are declared for the recycling potential of the metals and for the credits from the incineration process (energy substitution).

7. Requisite evidence

Not applicable in this EPD.

8. References

Institut Bauen und Umwelt

Institut Bauen und Umwelt e.V., Berlin (pub.): Generation of Environmental Product Declarations (EPDs);

General principles

for the EPD range of Institut Bauen und Umwelt e.V. (IBU), 2013-04 www.bau-umwelt.de

IBU PCR Part A

IBU PCR Part A: Calculation Rules for the Life Cycle Assessment and Requirements on the Background Report. Institut Bauen und Umwelt e.V., Berlin (pub.). April 2013. www.bau-umwelt.de

IBU PCR Part B

IBU PCR Part B: Requirements on the EPD for Electronic Access Control Systems. Institut Bauen und Umwelt e.V., Berlin (pub.). www.bau-umwelt.com

ISO 14001

ISO 14001:2009-11: Environmental management systems - Requirements with guidance for use

ISO 14025

ISO 14025:2011-10: Environmental labels and declarations — Type III environmental declarations — Principles and procedures

ISO 9001

ISO 9001:2008: Quality management systems - Requirements

EN 15804

EN 15804: 2012+A1:2014: Sustainability of construction works — Environmental Product

Declarations — Core rules for the product category of construction products

GaBi 6 2013

GaBi 6 2013: Software-System and Database for Life Cycle Engineering. Copyright, TM. Stuttgart, Leinfelden-Echterdingen, 1992-2013.

GaBi 6 2013D

GaBi 6 2013D: Documentation of GaBi 6: Software-System and Database for Life Cycle Engineering. Copyright, TM. Stuttgart, Leinfelden-Echterdingen, 1992-2013. http://documentation.gabi-software.com/

RoHS Conformity:

RoHS Conformity: EN50581:2012 Technical documentation for the assessment of electrical and electronic products with respect to the restriction of hazardous substances

ULC S318

ULC S318: Standard for Power Supplies for Burglar Alarm Systems

UL 294

UL 294 6th Edition: Access control system units

III 603

UL 603: Power supplies for use with burglar-alarm systems

UL1418

UL1418: Implosion-protected cathode-ray tubes for television-type appliances

UL1481

UL1481: Fire Alarm systems

9. Annex

Results shown below were calculated using TRACI Methodology.

DESCRIPTION OF THE SYSTEM BOUNDARY (X = INCLUDED IN LCA; MND = MODULE NOT DECLARED)	DESC	RIP	TION O	F THE	SYST	ЕМ В	OUND	ARY (X =	INCLUD	ED IN	LCA:	MND	= MOD	ULE N	OT [DECLA	RED)
STAGE SYSTEM SY				CONSTRUCTI													BENE L	FITS AND OADS
At Az A3 A4 A5 B1 B2 B3 B4 B5 B6 B7 C1 C2 C3 C4 D	FRODUCT		STAGE				USE STAGE							END OF LIFE STAGE				YSTEM
Action A	Raw material supply	Transport	Janufacturing	insport from the ate to the site	Assembly	Use	Maintenance	Repair	Replacement ¹⁾	efurbishment ¹⁾	erational energy use	erational water use	e-construction	Transport	aste processing	Disposal		
X				•							_	_						
Parameter								_										
Parameter																		Х
GWP Global warming potential	RESU		OF IH	HE LCA - ENV		VIRON	IRONMENT		PAC	: One	ріесе	Of AQ	D6 S	eries Po	ower S	uppi	y	
Depletion potential of the stratospheric ozone layer April	Parame	Parameter		Parameter		·	Unit		A3	A4	A5	E	36	C2	C3		C4	D
ODP stratospheric ozone layer [kg CFC11-Eq.] 6.14E-08 1.69E-12 3.75E-13 1.91E-06 2.82E-14 1.67E-10 2.07E-12 9.20E-10	GWF	>	Global w	arming potential		[kg C	[kg CO ₂ -Eq.]		+02	3.33E-01	7.71E-0	2 5.18	E+03	5.54E-03	2.30E-0)1 7.0	07E-01	-2.37E+01
April	ODP stratospl		heric ozone layer			[kg CFC11-Eq.]		-08	1.69E-12	3.75E-1	3 1.91	E-06	2.82E-14	1.67E-1	0 2.0	07E-12	-9.20E-10	
EP	AP A			·			[kg SO ₂ -Eq.]		+00	1.99E-03	2.13E-0	1.63	E+01	3.31E-05	1.02E-0	3 4.3	32E-04	-2.22E-01
Resources Reso	EP					[kg	[kg N-eq.]		-02	1.40E-04	1.23E-0	06 8.03	E-01	2.34E-06	4.36E-0)5 3.	56E-05	-6.65E-03
Resources	Smoo	Smog		-			[kg O ₃ -eq.]		+01	4.09E-02	4.97E-0	1.39	E+02	6.82E-04	.82E-04 9.28E-03		39E-02	-2.33E+00
Parameter	Resources F					s [[MJ]	1.74E	±02	6.60E-01	2.53E-0	3 3.52	E+03	1.10E-02	1.86E-0)1 5.4	5.43E-02	-7.14E+00
PERE Renewable primary energy as energy carrier Renewable primary energy as energy carrier Renewable primary energy Renewable primary energy Renewable primary energy Renewable primary energy esources as material utilization RMJ 0.00E+00																		
PERE energy carrier Renewable primary energy Renewable primary energy resources as material utilization PERT Total use of renewable primary energy as energy carrier PENRM Non renewable primary energy as energy carrier RMJ 0.00E+00	RESU	JLTS	OF TH	IE LCA	- RES	SOUR	CE US								ly			
PERM resources as material utilization PERM Total use of renewable primary energy resources PERM Non renewable primary energy as energy carrier PENRM Non renewable primary energy as energy carrier PENRM Non renewable primary energy as material utilization PENRM Non renewable primary energy as material utilization PENRM Total use of non renewable primary energy as material utilization PENRM Total use of non renewable primary energy resources PENRM Total use of non renewable primary energy resources PENRM Use of renewable primary energy resources PENRM Use of secondary material Reg			OF TH			SOUR		E: On	e pie	ece of A	QD6 S		Powe	er Supp			C4	D
PERT	Param	neter	Renew	Parar rable prir energy	meter mary ene carrier	ergy as	Unit	E: One	e pie - A3	ece of A	QD6 S		Powe	er Supp C2	СЗ			
PENRE energy carrier PENRM Non renewable primary energy as material utilization material utilization material utilization material utilization material utilization Total use of non renewable primary energy resources MJ 2.40E+03 4.60E+00 2.53E-02 7.56E+04 7.67E-02 4.08E+00 6.75E-01 -2.43E+02 MJ	Param PEF	n eter RE	Renew	Parar rable prir energy wable pr	neter nary ene carrier rimary er	ergy as	Unit	E: One A1	e pio - A3 E+02	A4	QD6 S		Powe	er Supp C2	СЗ			
PENRM material utilization PENRT Total use of non renewable primary energy resources [MJ] 2.40E+03 4.60E+00 2.53E-02 7.56E+04 7.67E-02 4.08E+00 6.75E-01 -2.43E+02	PEF PEF	neter RE RM	Renew Rene resource Total us	Parar rable prir energy wable prir es as ma se of ren	meter mary ene carrier rimary er aterial ut	ergy as nergy ilization orimary	Unit [MJ]	E: One 1.46 0.00	- A3 - E+02 - E+00	A4	QD6 S	Series	Powe	c2	C3	01 7.	-	-
PENR1	Param PEF PEF	neter RE RM	Renew Rene resource Total us 6	Parar rable prir energy wable pries as ma se of ren energy re	mary energimary error enterial ut ewable pesources rimary error er	nergy as nergy ilization orimary s nergy as	Unit [MJ] [MJ] [MJ]	E: Ond 1.46 0.00 1.46	- A3 EE+02 EE+00	A4 1.81E-0	A5 - - 2.01E-	Series	Powe	c2	C3	01 7.	-	-
RSF Use of renewable secondary fuels [MJ] 0.00E+00 0.00E	Per Per Pen	RE RM RT	Renew Rene resource Total us Non rene	Parar rable prir energy wable pries as ma se of ren energy re ewable p energy ewable p naterial of	mary ene- carrier rimary er aterial ut ewable pesources rimary e carrier rimary e	ergy as nergy ilization primary s nergy as	Unit [MJ]	E: One A1 1.46 0.00 1.46 2.40	e pic - A3 = E+02 = E+00 = E+02	A4	A5 - - 2.01E-	Series	Powe	c2	C3	01 7.	-	-
NRSF Guels [MJ] 0.00E+00 0.00E+00	Per Per Pen Pen	RE RM RT RE	Renew Rene resourc Total us Rene Ron rene Non rene Total	Parar rable prir energy wable pries as ma se of ren energy re ewable p energy ewable p naterial u	mary ene- carrier rimary ere- aterial ut- ewable pesources rimary e carrier rimary e tarrier rimary e tarrier rimary e	ergy as nergy ilization primary s nergy as nergy as n wable	Unit [MJ] [MJ] [MJ] [MJ] [MJ]	EE: Once the A1 1.46 1.46 1.46 1.46 1.46 1.46 1.46 1.4	E pic - A3 E + 02 E + 00 E + 03 E + 03	- 1.81E-0	2.01E	-03 5.8	Powe B6 - - 5E+03 -	- 3.01E-03	7.46E-0		- - 59E-02 -	- -6.83E+00 -
NRSF fuels [MJ 0.00E+00	Per Per Pen Pen Pen Pen	RE RM RT	Renew Rene resource Total us Rene Ron rene Non rene Total prima Use of	Parar rable prir energy wable pries as ma se of ren energy re ewable p energy ewable p material u use of n ary energo of second	mary energaterial ut ewable pesources rimary er aterial ut ewable pesources rimary e carrier rimary e utilization on renew gy resources	nergy as nergy ilization primary s nergy as nerg	(MJ) (MJ) (MJ) (MJ) (MJ) (MJ) (MJ)	E: Ond 1.46 0.00 1.46 2.40 0.00 2.40	E+02 E+02 E+03 E+03 E+03	- 1.81E-0′ 4.60E+00	QD6 \$ A5 2.01E 2.53E-	-03 5.8 -02 7.5	Powe B6	- 3.01E-03 - - 7.67E-02	7.46E-0	00 6.	- - 59E-02 - - 75E-01	-6.83E+00 -6.2.43E+02
RESULTS OF THE LCA – OUTPUT FLOWS AND WASTE CATEGORIES: One piece of AQD6 Series Power Supply Parameter Parameter Unit A1 - A3 A4 A5 B6 C2 C3 C4 D HWD Hazardous waste disposed [kg] 1.22E-01 1.05E-05 1.74E-06 5.89E-02 1.75E-07 5.66E-04 1.18E-04 2.44E-03 NHWD Non hazardous waste disposed [kg] 2.94E+00 5.79E-04 1.94E-03 2.41E+01 9.65E-06 1.32E-03 1.53E-01 -7.00E-01 RWD Radioactive waste disposed [kg] 1.28E-01 6.03E-06 1.48E-06 6.22E+00 1.00E-07 5.88E-04 4.45E-05 -1.31E-03 CRU Components for re-use [kg] 0.00E+00 <	Per PER PEN PEN SM	RE RM RT M	Renew Rene resource Total us Rene resource Non rene Non rene Total prima Use of	Parar rable prir energy wable pr ese as ma se of ren energy re energy ewable p energy ewable p naterial u use of n ary ener of secon f renewa	mary ene carrier rimary er atterial ut ewable p esources rimary e carrier rimary e utilization on renev gy resou dary mai ble seco	nergy as ner	(MJ) (MJ) (MJ) (MJ) (MJ) (MJ) (MJ) (MJ)	E: Ond A1 1.46 0.00 1.46 2.40 0.00 4.20	E+02 E+02 E+03 E+03 E+03 E+03 E+03	- 1.81E-0° 4.60E+00 0.00E+00	2.01E 2.01E 2.03E 2.00E	-03 5.8 -02 7.5 -00 0.0	Powe B6	- 3.01E-03 - 7.67E-02	7.46E-0 - - 4.08E+	00 6.	- 59E-02 - - 75E-01	-6.83E+00 -2.43E+02 0.00E+00
Parameter Parameter Unit A1 - A3 A4 A5 B6 C2 C3 C4 D HWD Hazardous waste disposed [kg] 1.22E-01 1.05E-05 1.74E-06 5.89E-02 1.75E-07 5.66E-04 1.18E-04 2.44E-03 NHWD Non hazardous waste disposed [kg] 2.94E+00 5.79E-04 1.94E-03 2.41E+01 9.65E-06 1.32E-03 1.53E-01 -7.00E-01 RWD Radioactive waste disposed [kg] 1.28E-01 6.03E-06 1.48E-06 6.22E+00 1.00E-07 5.88E-04 4.45E-05 -1.31E-03 CRU Components for re-use [kg] 0.00E+00 0.00E+00<	Per Per Pen Pen RSM	neter RE RM RE RM RT RF	Renew Rene resource Total us Rene resource Non rene Non rene Total prima Use of	Parar rable prir energy wable pr es as ma se of ren energy re ewable p energy enaterial r use of n ary ener of secon f renewa fue on reneva	mary energiment of the carrier of th	nergy as ner	(MJ) (MJ) (MJ) (MJ) (MJ) (MJ) (MJ) (MJ)	E: Ond A1 1.46 0.00 1.46 2.40 0.00 4.20 0.00	E+02 E+02 E+03 E+03 E+03 E+03 E+00 E+03	- 1.81E-0 ⁻¹ 4.60E+00 0.00E+00	2.01E 2.01E 2.00E 0.00E- 0.00E-	-03 5.8 -02 7.5 -00 0.0 +00 0.0	Powe B6	- 3.01E-03 - 7.67E-02 0.00E+00	7.46E-0 - 4.08E+ 0.00E+	00 6. 00 0.0	- 59E-02 75E-01 00E+00	-6.83E+00
Parameter Parameter Unit A1 - A3 A4 A5 B6 C2 C3 C4 D HWD Hazardous waste disposed [kg] 1.22E-01 1.05E-05 1.74E-06 5.89E-02 1.75E-07 5.66E-04 1.18E-04 2.44E-03 NHWD Non hazardous waste disposed [kg] 2.94E+00 5.79E-04 1.94E-03 2.41E+01 9.65E-06 1.32E-03 1.53E-01 -7.00E-01 RWD Radioactive waste disposed [kg] 1.28E-01 6.03E-06 1.48E-06 6.22E+00 1.00E-07 5.88E-04 4.45E-05 -1.31E-03 CRU Components for re-use [kg] 0.00E+00 0.00E+00<	Per Per Pen Pen Rs	RE RM RE RM RT M	Renew Rene resource Total us Rene Rone Rone Rone Rone Rone Rone Rone	Parar rable prir energy wable pr ese as ma se of ren energy re ewable p energy ewable p naterial u use of n ary ener of secon f renewa fue on renew fue e of net	mary ene carrier rimary er atterial ut ewable p esources rimary e carrier rimary e utilization on renev gy resou dary mai ble seco els wable se els	ergy as nergy illization primary s nergy as nergy as nergy as terial pridary condary	(MJ) (MJ) (MJ) (MJ) (MJ) (MJ) (MJ) (MJ)	E: Ond 1.46 0.00 1.46 2.40 0.00 4.20 0.00 0.00 7.14	E+00 E+02 E+03 E+00 E+03 E+00 E+00 E+01 E+00 E+00	- 1.81E-0 ² 4.60E+0 0.00E+0 0.00E+0 1.28E-0 4	QD6 \$ A5 2.01E 2.53E- 0.00E- 0.00E- 0.00E- 1.2.24E	-03 5.8 -02 7.5 -00 0.0 -00 0.0 -00 0.0	Powe B6	- 3.01E-03 - 7.67E-02 0.00E+00 0.00E+00 2.13E-06	7.46E-0 - - 4.08E+ 0.00E+ 0.00E+ 1.84E-0	00 6. 00 0.0 00 0.0 00 0.0	- 59E-02 75E-01 00E+00 00E+00 00E+00 68E-03	-6.83E+006.83E+02 -2.43E+02 0.00E+00 0.00E+00 0.00E+00 -8.35E-02
NHWD Non hazardous waste disposed [kg] 2.94E+00 5.79E-04 1.94E-03 2.41E+01 9.65E-06 1.32E-03 1.53E-01 7.00E-01 RWD Radioactive waste disposed [kg] 1.28E-01 6.03E-06 1.48E-06 6.22E+00 1.00E-07 5.88E-04 4.45E-05 -1.31E-03 CRU Components for re-use [kg] 0.00E+00 0.00E+00<	Per Per Pen Pen Pen Rs NRs FV	RE RM RT M	Renew Rene resource Total us Rene Rone Rone Rone Rone Rone Rone Rone	Parar rable prir energy wable pr ese as ma se of ren energy re ewable p energy ewable p naterial u use of n ary ener of secon f renewa fue on renew fue e of net	mary ene carrier rimary er atterial ut ewable p esources rimary e carrier rimary e utilization on renev gy resou dary mai ble seco els wable se els	ergy as nergy illization primary s nergy as nergy as nergy as terial pridary condary	(MJ) (MJ) (MJ) (MJ) (MJ) (MJ) (MJ) (MJ)	E: Ond 1.46 0.00 1.46 2.40 0.00 4.20 0.00 0.00 7.14	E+00 E+02 E+03 E+00 E+03 E+00 E+03 E+00 E+01 E+00 E+00	- 1.81E-0 ² 4.60E+0 0.00E+0 0.00E+0 1.28E-0 4	QD6 \$ A5 2.01E 2.53E- 0.00E- 0.00E- 0.00E- 1.2.24E	-03 5.8 -02 7.5 -00 0.0 -00 0.0 -00 0.0	Powe B6	- 3.01E-03 - 7.67E-02 0.00E+00 0.00E+00 2.13E-06	7.46E-0 - - 4.08E+ 0.00E+ 0.00E+ 1.84E-0	00 6. 00 0.0 00 0.0 00 0.0	- 59E-02 75E-01 00E+00 00E+00 00E+00 68E-03	-6.83E+006.83E+02 -2.43E+02 0.00E+00 0.00E+00 0.00E+00 -8.35E-02
RWD Radioactive waste disposed [kg] 1.28E-01 6.03E-06 1.48E-06 6.22E+00 1.00E-07 5.88E-04 4.45E-05 -1.31E-03 CRU Components for re-use [kg] 0.00E+00	Per Per Pen Pen SM RS NRS Suppl	RE RM IRT WILL SEFE	Renew Rene resource Total us Rene Rone Rone Rone Rone Rone Rone Rone	Parar rable prir energy wable pi es as ma se of ren energy re ewable p energy ewable p naterial u use of n ary energ of secon f renewa fue e of net	mary energy ener	nergy as ner	(MJ) (MJ) (MJ) (MJ) (MJ) (MJ) (MJ) (MJ)	E: Ond A1 1.46 0.00 1.46 2.40 0.00 4.20 0.00 7.14 VS ANI	E+02 E+02 E+03 E+03 E+00 E+03 E+00 E+00 DE-01 E+00 DE-01 DE-01 DE-01	1.81E-0 ² 1.81E-0 ² 1.00E+0 1.28E-0 ² 1.28E-0	2.01E 2.01E 2.01E 0 2.53E 0.00E 0.00E 1 2.24E ATEG	-03 5.8- -02 7.5- -00 0.0- -00 0.0- -00 0.0- -04 2.6- ORIES	Power B6	- 3.01E-03 - 7.67E-02 0.00E+00 0.00E+00 2.13E-06	7.46E-0	00 6. 00 0.0 00 0.0 00 0.0 03 3.	- 59E-02 75E-01 00E+00 00E+00 00E+00 68E-03	-6.83E+002.43E+02 0.00E+00 0.00E+00 0.00E+00 -8.35E-02
CRU Components for re-use [kg] 0.00E+00	Per Per Pen Pen Rs NRS FV RESU Supp	RE RM RT M SF V LTS	Renew Rene resource Total us Rene Rene resource Rene Rene Rene Renew Ren	Parar rable prir energy wable pi es as ma se of ren energy re ewable p energy ewable p energy ewable p naterial i use of n ary energ fue on reneva fue e of net i	mary energy ener	ergy as nergy ilization orimary inergy as nergy as nergy as nergy as nergy as terial ondary condary ter TPUT	Unit [MJ] [MJ] [MJ] [MJ] [MJ] [MJ] [MJ]	E: Ond A1 1.46 0.00 1.46 2.40 0.00 4.20 0.00 7.14 VS ANI	E+00 E+02 E+03 E+00 E+03 E+00 E+00 E+01 E+00 E+00 E+00 E+01 E+00 E+01 E+00 E+01 E+01	- 1.81E-0 ⁻ 1.81E-0 ⁻ 1.00E+0 1.28E-0 ⁻ 1-A3 2E-01 1.00	2.01E 2.01E 2.01E 0 0.00E- 0 0.00E- 1 2.24E ATEG A4	-02 7.50 -03 5.8 -02 7.50 -00 0.00 -00 0.00 -04 2.60 ORIES 74E-06	B6	- 3.01E-03 - 3.01E-03 - 7.67E-02 0.00E+00 0.00E+00 0.00E+00 2.13E-06 e piece C2 02 1.75E-	7.46E-0 7.46E-0 4.08E+ 0.00E+ 0.00E+ 1.84E-0 07 5.66E	000 6.000 0.	59E-02 - 75E-01 00E+00 00E+00 00E+00 68E-03 ceries I	-6.83E+00 -6.83E+02 -2.43E+02 0.00E+00 0.00E+00 -8.35E-02 Power D 2.44E-03
MFR Materials for recycling [kg] 0.00E+00 0.00E+00 5.44E-02 0.00E+00 0.00E+00 4.32E+00 0.00E+00 - MER Materials for energy recovery [kg] 0.00E+00	Permananananananananananananananananananan	RE RM RT M SF V V LTS	Renew Rene resource Total us Rene Rene resource Rene Rene Rene Renew Ren	Parar rable prir energy wable pi es as ma se of ren energy re ewable p energy ewable p material u use of n ary ener fue on renev fue e of net i	mary energy ener	ergy as nergy ilization primary inergy as nergy as nergy as nergy as nergy as terial indary condary ter TPUT	[MJ] [MJ] [MJ] [MJ] [MJ] [MJ] [MJ] [MJ]	E: Ond A1 1.46 0.00 1.46 0.00 1.46 0.00 1.42 0.00 1.420 0.00 7.14 VS ANI [kg] [kg]	E+00 E+02 E+03 E+00 E+03 E+00 E+00 E+00 E+00 E+00	- 1.81E-0 ⁻ 1.81E-0 ⁻ 1.00E+0 1.28E-0 ⁻	2.01E 2.01E 2.01E 0 0.00E- 0 0.00E- 1 2.24E ATEG A4 5E-05 1. 9E-04 1.	-02 7.50 -02 7.50 -00 0.00 -00 0.00 -00 0.00 -00 0.00 -04 2.60 ORIES 74E-06 94E-03	Power B6	- 3.01E-03 - 3.01E-03 - 7.67E-02 0.00E+00 0.00E+00 0.00E+00 2.13E-06 e piece C2 02 1.75E-01 9.65E-	7.46E-0 7.46E-0 4.08E+ 0.00E+ 0.00E+ 1.84E-0 07 5.66E 06 1.32E	000 6.000 0.	59E-02 - 75E-01 00E+00 00E+00 00E+00 68E-03 ceries I	-6.83E+00 -6.83E+02 -2.43E+02 0.00E+00 0.00E+00 -8.35E-02 Power D 2.44E-03 -7.00E-01
MER Materials for energy recovery [kg] 0.00E+00 0.00E+0	Per Per Pen Pen Rs NRS FV RESU Supp Param HW NHW RW	RE RM RT W SF SF V JLTS	Renew Renew resource Total us Renew Non rene Non rene Use of Use of n Us Renew	Parar rable prir energy wable pi es as ma se of ren energy re ewable p energy ewable p energy ewable p naterial i use of n ary energ fue on renev fue e of net i E LCA Pa azardous hazardo dioactive	mary energy ener	ergy as nergy ilization orimary inergy as nergy as nergy as nergy as nergy as roes terial indary condary ter TPUT	[MJ] [MJ] [MJ] [MJ] [MJ] [MJ] [MJ] [MJ]	E: Ond A1 1.46 0.00 1.46 0.00 1.46 0.00 1.46 0.00 1.48 0.00 1.49 0.00 7.14 VS ANI [kg] [kg]	E+02 E+02 E+03 E+03 E+00 E+03 E+00 E+01 E+00 E+00 E+01 E+00 E+01 E+00 E+01 E+01	- 1.81E-0° - 1.81E-0° - 1.81E-0° - 1.00E+0° - 1.28E-0° - 1.28E-0° - 1.60E+0°	2.01E 2.01E 2.01E 0 2.53E 0 0.00E 0 0.00E 2.24E ATEG A4 3E-06 1.3E-06 1.	-03 5.8 -02 7.5 -00 0.0 -00 0.0 -00 0.0 -00 0.0 -04 2.6 ORIES 74E-06 94E-03 48E-06	Power B6	- 3.01E-03 - 3.01E-03 - 7.67E-02 0.00E+00 0.00E+00 0.00E+00 2.13E-06 e piece C2 02 1.75E-01 9.65E-00 1.00E-00	7.46E-0 7.46E-0 4.08E+ 0.00E+ 0.00E+ 1.84E-0 07 5.66E 06 1.32E 07 5.88E	000 6.000 0.	59E-02 75E-01 00E+00 00E+00 00E+00 68E-03 6eries I 1.18E-04 1.53E-01 4.45E-05	-6.83E+00 -1 -2.43E+02 0.00E+00 0.00E+00 0.00E+00 -8.35E-02 Power D 2.44E-03 -7.00E-01 -1.31E-03
EEE Exported electrical energy [MJ] 0.00E+00 0.00E+00 9.75E-02 0.00E+00 0.00E+00 0.00E+00 4.34E-03 -	Per Per Per Pen Pen Rs NRS FV RESU Suppl Param HW NHW RW CRI	RE RM RT W SF SF V JLTS	Renew Rene resource Total us Rene Rene resource Rene Rene Rene Rene Rene Rene Rene Re	Parar rable prir energy wable pi es as ma se of ren energy re ewable p energy ewable p energy wable p naterial u use of n ary energ fue on renev fue e of net l E LCA Pa azardous hazardo dioactive Compon	mary energy ener	ergy as nergy ilization orimary inergy as nergy	[MJ] [MJ] [MJ] [MJ] [MJ] [MJ] [MJ] [MJ]	E: Ond A1 1.46 0.00 1.46 0.00 1.46 0.00 1.46 0.00 1.47 0.00 1.48 0.00 0.00 7.14 VS ANI Unit [kg] [kg] [kg]	E+02 E+02 E+03 E+03 E+00 E+03 E+00 E+01 E+00 E+01 E+00 E+01 E+00 E+01 E+00 E+01 E+00 E+01 E+00 E+01 E+00 E+01 E+00 E+00	- 1.81E-0°	2.01E 2.01E 2.01E 2.01E 0 0.00E 0 0.00E 2.24E ATEG A4 5E-05 1. 9E-04 1. 3E-06 1. 0E+00 0.	-03 5.8 -02 7.5 -00 0.0 -00 0.0 -00 0.0 -00 0.0 -04 2.6 -074E-06 94E-03 48E-06 00E+00	B6	- 3.01E-03 - 3.01E-03 - 7.67E-02 0.00E+00 0.00E+00 0.00E+00 2.13E-06 e piece C2 02 1.75E-01 9.65E-00 1.00E-00 0.00E+00	7.46E-0 7.46E-0 4.08E+ 0.00E+ 0.00E+ 1.84E-0 07 5.66E 06 1.32E 07 5.88E 00 0.00E	00 6.00 0.00 0.00 0.00 0.00 0.00 0.00 0	59E-02 75E-01 00E+00 00E+00 00E+00 68E-03 6eries I 1.18E-04 1.53E-01 4.45E-05	
	Perame Pe	RE RM RT W SF SF V V ULTS D D U R	Renew Rene resource Total us Rene Rene Rene resource Rene Rene Rene Rene Rene Rene Rene Re	Parar rable prir energy wable prives as ma se of ren energy re ewable p energy ewable p energy ewable p naterial t use of n ary energ fue on renev fue e of net le azardous hazardo Material	mary energy ener	ergy as mergy ilization primary inergy as mergy	Unit [MJ] [MJ] [MJ] [MJ] [MJ] [MJ] [MJ] [MJ] [MJ]	E: Ond A1 1.46 0.00 1.46 0.00 1.46 0.00 1.46 0.00 7.14 VS ANI [kg] [kg] [kg] [kg]	E+02 E+02 E+03 E+03 E+00 E+03 E+00 E+03 E+00 E+01 E+00 E+00 E-01 E+00 E+00 E-01 E-01 E-01 E-00 E-01 E-00 E-01 E-00 E-00	A4 1.81E-0 1.81E-0 1.81E-0 1.00E+0 0.00E+0 0.00E+0 1.28E-0 4.60E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0	2.01E 2.01E 2.01E 2.01E 0 0.00E 0 0.00E 1 2.24E ATEG A4 5E-05 1. 3E-06 1. 3E-06 1. 0E+00 0. 0E+00 5.	-03 5.8 -02 7.5 -00 0.0 -00 0.0 -00 0.0 -00 0.0 -04 2.6 -074E-06 -084E-06	B6	- 3.01E-03 - 3.01E-03 - 7.67E-02 0.00E+00 0.00E+00 0.00E+00 2.13E-06 e piece C2 02 1.75E-01 9.65E-00 1.00E-00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+000 0.0	7.46E-0 7.46E-0 4.08E+ 0.00E+ 0.00E+ 1.84E-0 07 5.66E 06 1.32E 07 5.88E 00 0.00E 00 4.32E	00 6.00 0.00 0.00 0.00 0.00 0.00 0.00 0	- 59E-02 - 75E-01 00E+00 00E+00 00E+00 68E-03 6eries I 1.18E-04 1.53E-01 1.45E-05 0.00E+00	
- Laported thermal energy [[Wo] 0.00LT00 0.00LT00 2.73E-01 0.00E+00 0.00E+00 0.00E+00 1.19E-02	Param PEF PEF PEN PEN PEN RS RS NRS FV RESU Suppl Param HW RW RW GRI MFI MEI	RE RM RT W PER PROPERTY OF THE	Renew Rene resource Total us Non rene Non rene Use of Use of n Use Non Ra Non Ra	Parar rable prir energy wable prir energy researches as masse of ren energy rewable printered in the printer	meter mary energy mary mary energy mary energy mary mary mary mary mary mary mary mar	ergy as nergy as nerg	Unit [MJ] [MJ] [MJ] [MJ] [MJ] [MJ] [MJ] [MJ] [MJ]	E: Ond A1 1.46 0.00 1.46 0.00 1.46 0.00 1.46 0.00 7.14 VS ANI [kg] [kg] [kg] [kg] [kg]	E+02 E+02 E+03 E+03 E+00 E+03 E+00 E+00 E+00 DE-01 E+00 DE-01 DE-0	A4 1.81E-0 ² 1.81E-0 ² 1.81E-0 ² 1.81E-0 ² 0.00E+0 0.00E+0 1.28E-0 1.28E-0 1.28E-0 1.28E-0 0.00E+0 0.00E	2.01E 2.01E 2.01E 2.01E 0 0.00E 0 0.00E 1 2.24E ATEG A4 5E-05 1. 3E-06 1. 5E+00 0. 5E+00 0. 5E+00 0. 5E+00 0. 5E+00 0. 6E+00 0. 6E+	-03 5.8 -02 7.5 -00 0.0 -00 0.0 -00 0.0 -00 0.0 -04 2.6 -04E-03 -04E-06 -04E-03 -04E-06 -04E-02 -04E-02 -04E-02 -04E-02 -04E-02	Power B6	- 3.01E-03 - 3.01E-03 - 7.67E-02 0.00E+00 0.00E+00 0.00E+00 2.13E-06 e piece C2 02 1.75E-01 9.65E-00 1.00E-00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+000 0.	7.46E-0 7.46E-0 4.08E+ 0.00E+ 0.00E+ 1.84E-0 07 5.66E 06 1.32E 07 5.88E 00 0.00E 00 4.32E	00 6.00 0.00 0.00 0.00 0.00 0.00 0.00 0	- 59E-02 - 75E-01 00E+00 00E+00 00E+00 68E-03 deries I 1.18E-04 1.53E-01 1.45E-05 0.00E+00 0.00E+00	



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