Product Environmental Profile

ISO 14025 COMPLIANT

Delphys XL

Uninterruptible power supply up to 1200 kVA

Socomec is member of :

ecosystem

Member of WEEE Europe

THE GLOBAL COMPACT

Gimélec

Environment and sustainable development commisions

PEP eco PASS PORT®

The commitments of Socomec to respect the environment

As part of its environmental policy, Socomec is committed to:

- Incorporate the principles of the circular economy into the design of new products and services
- Promote longer product lifetimes
- Promote the use of environmentally responsible materials
- Design and develop solutions to further improve the energy efficiency of our products and services
- Inform our customers in a transparent manner about the environmental impact of our products throughout their life cycle.

To this end, Socomec is committed to constantly monitoring, anticipating and complying with environmental regulations as well as customer expectations relating to its products, and to ensuring that all those involved adhere to and take responsibility for its commitments.

PEP ecopassport® Registration number: SOCO-00062-V01.01-EN

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Innovative Power Solutions

● Product information :

Description	Reference product	Extrapolated product
Model	Delphys XL 1200	Delphys XL 1000
Sales reference	3DXB5120-0000-0	3DXB4100-0000-0
Description	UPS up to 1200 kVA	UPS up to 1000 kVA
General data		
UPS Configuration	Single	Single
UPS topology	Double conversion	Double conversion
UPS Performance classification	VFI-SS-111	VFI-SS-111
Number of phases available	Three phase	Three phase
Power [W]	1200000	1000000
Apparent power [VA]	1200000	1000000
Acoustic noise [dBA]	77 dBA	73 dBA
Efficiency		
Weighted UPS efficiency in VFI mode [%]	96,40%	96,55%
Weighted UPS efficiency in Smart conversion mode [%]	98,58%	98,65%
Weight & dimensions		
Dimensions W*H*D [mm]	3000 x 2000 x 1000	2600 x 2000 x 1000
Mass without packaging [kg]	3197	2644
Mass of the packaging [kg]	220	220

The UPS is not equipped with an energy storage system.

Functional unit :

To ensure the supply of power to remain within specified characteristics to equipment with load of 100 watts for a RSL of 1 years.

Declared unit :

To ensure the supply of power to remain within specified characteristics to equipment with load of 1200000 watts for a RSL of 15 years.

Mathematic relation between DU (declared unit) and FU (functional unit) mentionned in PSR-0010-ed2.0-EN 2023 12 08

References covered by this PEP with extrapolation rules:

- Delphys XL 1200 with sales references: 3DXB5120-0000-0, 3DXT5120-0000-0, 3DXC5120-0000-0,3DXU5120-0000-0, 3DXF5120-0000-0

- Delphys XL 1000 with sales references: 3DXB4100-0000-0, 3DXT4100-0000-0, 3DXC4100-0000-0, 3DXU4100-0000-0, 3DXF4100-0000-0

● Materials and substances

Declaration of the constitutives materials

Total mass of the Delphys XL 1200 (including packaging): 3417 kg among which packaging: 220 kg

For the reference product:

Plastics as % of weight		Metals as % of weight		Other as % of weight	
Polyamide	1,81%	Stainless steel	49,12%	Wood	6,45%
Epoxy resin	1,08%	Copper and its alloys	16,70%	Electronic components	0,65%
PC	0,89%	Aluminium and its alloys	10,31%	Miscellanous	0,28%
PP	0,76%	Steel	9,29%	Paper	0,20%
PVC	0,56%	Other ferrous alloys	0,35%	Other inorganics	0,16%
PUR	0,34%	Nickel and its alloys	0,14%	Cardboard	<0,1%
PE	0,19%	Zinc and its alloys	0,11%	Other organics	<0,1%
Polyester	0,17%	Precious metals	<0,1%		
ABS	0,12%	Tin and its alloys	<0,1%		
Phenolic resin	<0,1%	Lead and its alloys	<0,1%		
PBT	<0,1%	Other metals	<0,1%		
Other plastics	<0,1%				
Total Plastics: 210,85 kg	**6,17%**	**Total Metals: 2939,39 kg**	**86,02%**	**Total Others: 266,76 kg**	**7,81%**

Substances management

Socomec is leading a program to limit the use of hazardous substances in the design of new products and to monitor the presence of substances of concern in its supplies to anticipate future use restrictions.

RoHS2 COMPLIANT

Directive 2011/65/EU : Product references covered by this PEP meet the requirements of the RoHS Directive on the restriction of substances such as lead, mercury, cadmium, hexavalent chromium, polybrominated biphenyl (PBB), polybrominated diphenyl ethers (PBDEs) and phthalates (DIBP, DEHP, BBP, DBP).

REACH COMPLIANT

REACH 1907/2006 regulation: To the best of our knowledge, based on the supplier declarations, at the publication date of this document, the product do not contain any SVHC in a concentration above 0,1% per weight.

● Manufacturing

ISO 14001 COMPLIANT

The products covered by this PEP are manufactured on the production site of Huttenheim, France whose environmental management system has been ISO 14001 certified. Impacts on the environment are reduced by optimizing its energy consumption and by practicing a rigorous waste management.

● Distribution

As part of its distribution policy aiming to respect the environment, Socomec is in favor of groupage transports and ISO 14001 certified logistic partners.

No reconditionning is planned for the product. This phase is consequently neglected.
The sizing of the packaging has been optimized to ensure the best possible protection of the product at the lowest possible volume in order to reduce the impact of the transport stage on the environment.

● Installation

The installation phase consists in connecting the product to the existing electrical installation.

The installation does not generate any significant impacts on the environment, except impacts from packaging waste.

● Use phase

Consumption scenario

Use phase scenario: European energy mix

Load (%)	25%	50%	75%	100%
Proportion of time spent (%)	25%	50%	25%	0%

Total energy consumption during 15 years

	Reference product	Extrapolated product
Double conversion mode:	**Delphys XL 1200**	**Delphys XL 1000**
Weighted average UPS efficiency	96,40%	96,55%
Total average energy consumption	2897370 kWh	2299500 kWh
Smart conversion mode:		
Weighted average UPS efficiency	98,58%	98,65%
Total average energy consumption	1034775 kWh	804825 kWh

Impacts of the use phase have been calculated with the double conversion mode for the reference product DXL 1200.

Care and maintenance

It is recommended to carry out periodic specialized maintenance in order to keep the equipment at the maximum level of efficiency and to avoid the installation being out of service with possible damage/risks.

Typical parts which are subjects to maintenance:

Components	DC capacitor filtering	AC capacitor filtering	Fans	Power supply PCB
Number of replacement	1	1	1	0

Consumables

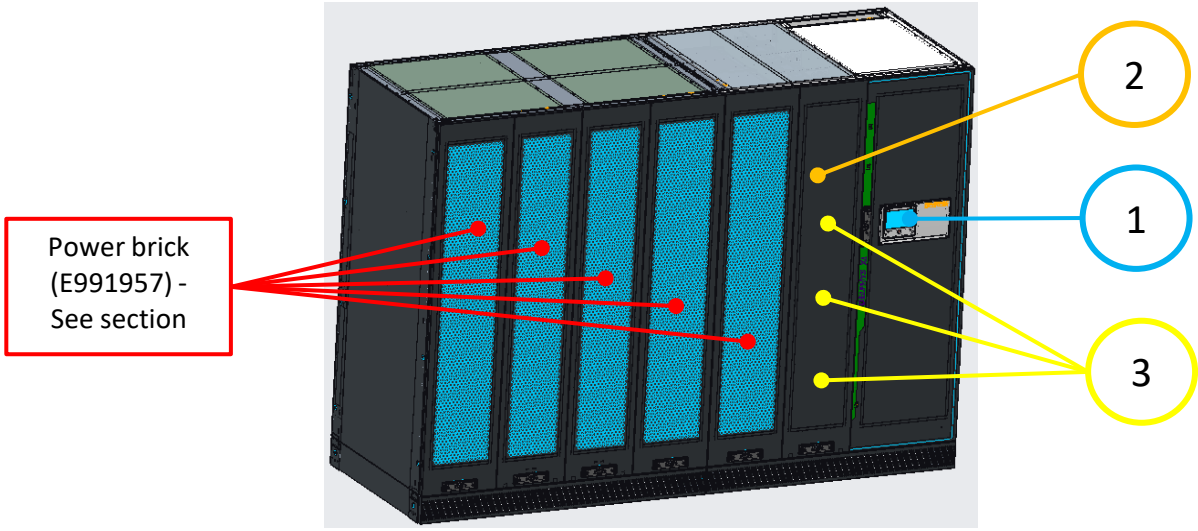
The product does not require consumables.

● End of life

End of life treatment

The following parts require specific care and selective treatment in accordance with Annex VII of the WEEE Directive 2012/19/EU: Waste of electrical and electronic equipment. Maintenance and disassembly should always be conducted by qualified personnel.

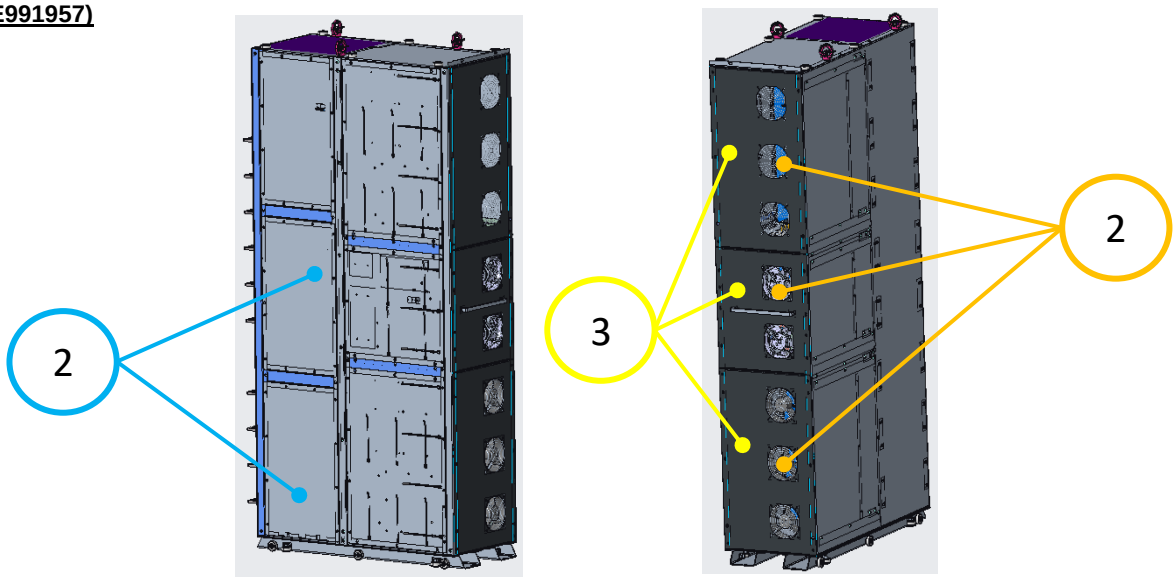
DXL 1200A



Type of component	Item	Part mass	Location
LCD	UNIP7-U4	0,750 kg	1
Condensateur	E134238	3x 1,0 kg	2
Electronic cards	*	2,643 kg	3

* : E962967, E963337, E963887, E964007, E963387, E963247, E964286, S07078X01, E962807

Power brick (E991957)



Type of component	Item	Part mass	Location
Condensateur DC	E136768	5,10kg	1
Condensateur AC	**	10,70kg	2
Electronic cards	***	3,70kg	3

** : E136128, E136838, E136168

*** : E963177, E963197, E963607, E962967, E963387, E226018, E962977, E962937, E963217, E963037, E963127, E962997

Recyclability potential of the product according to IEC TR 62635

The recyclability potential of the product is 82,16%.

This covers material and energy recovery potentials.

● Additional information

This environmental declaration lists the information required in Annex A and B of IEC 62040-4 (Edition 1.0 2013-04) and EN 62040-4:2013 (2014-03).

● Environmental impacts

Calculation methodology: life cycle assessment (LCA)

The calculation of the impacts on the environment was made using a life cycle assessment methodology in accordance with the ISO 14040 requirements and with PEP eco passport product category rules.
For more details follow the link:
www.pep-ecopassport.org

This study was carried out with the following version of the software EIME and of the database:

EIME version: V6.0.5

Database version: CODDE-2022-01

For biogenic carbon storage the following methodology was used : 0/0

The whole life cycle has been taken into account:

Step	Geographical representativeness	Scenario
Manufacturing (M) (A1-A3)	Production of electronic components : Asia Production of other components and packaging : Europe Assembly : France	From the raw material extraction to the last Socomec logistic platform, including packaging Waste generated during manufacturing phase are taken into account.
Distribution (D) (A4)	Distribution scenario : Europe	From the last Socomec logistic platform to the final customer. No product reconditionning.
Installation (I) (A5)	Transport and treatment of packaging wastes : Local	Local road transport of 1000 km of generated wastes to the treatment site, end of life treatment.
Use phase (U) (B1-B7)	Energy mix : Europe Production of maintenance components: analog to manufacturing phase	Power consumption required during 15 years according to consumption scenario above mentionned.
End of life (EOL) (C1-C4)	Transport and treatment : Local	Road transport of 1000 km from the final customer to the treatment sites. End of life treatment.

Environmental impacts of the Delphys XL 1200 per functional unit (power of 100W and a lifespan of 1 year)

The following impacts have been calculated to best represent geographically, temporally and technologically each step of the life cycle.

Impacts in double conversion mode per functional unit:

Indicators	Unit	Total impact	M (A1-A3)	D (A4)	I (A5)	U (B1-B7)	EOL (C1-C4)
Acidification	mol H+ eq.	3,93E-02	1,56E-03	6,36E-05	0*	3,77E-02	1,97E-05
Climate change - Total	kg CO2 eq.	6,75E+00	1,30E-01	1,01E-02	9,62E-04	6,60E+00	3,38E-03
Climate change - Biogenic	kg CO2 eq.	9,94E-03	1,80E-03	0*	0*	8,91E-03	0*
Climate change - Fossil	kg CO2 eq.	6,74E+00	1,28E-01	1,01E-02	1,73E-03	6,59E+00	3,38E-03
Climate change - Land use and land use transformation	kg CO2 eq.	6,86E-10	6,86E-10	0*	0*	0*	0*
Ecotoxicity, freshwater	CTUe	7,82E+01	6,84E+00	0*	0*	7,13E+01	1,18E-02
Particulate matter	disease occurrence	3,03E-07	9,66E-09	5,17E-10	0*	2,93E-07	1,54E-10
Eutrophication, freshwater	kg P eq.	1,89E-05	5,33E-07	3,77E-09	6,74E-09	1,81E-05	2,34E-07
Eutrophication, marine	kg N eq.	4,48E-03	1,55E-04	2,98E-05	7,71E-07	4,28E-03	8,86E-06
Eutrophication, terrestrial	mol N eq.	6,66E-02	1,75E-03	3,27E-04	8,04E-06	6,44E-02	9,47E-05
Human toxicity, cancer	CTUh	9,21E-08	8,81E-08	0*	0*	4,08E-09	0*
Human toxicity, non-cancer	CTUh	4,35E-08	1,27E-08	1,91E-11	0*	3,08E-08	8,25E-12
Ionising radiation, human health	kBq U235 eq.	1,12E+01	1,33E+00	0*	0*	9,83E+00	0*
Land use	No dimension	1,32E-01	7,87E-04	0*	0*	1,31E-01	0*
Ozone depletion	kg CFC-11 éq.	3,84E-08	9,58E-09	1,54E-11	0*	2,87E-08	2,23E-11
Photochemical ozone formation, human health	kg NMVOC eq.	1,44E-02	5,59E-04	8,25E-05	2,44E-06	1,38E-02	2,42E-05
Abiotic resource depletion - fossil fuels or resource depletion - fossils	MJ	1,74E+02	5,76E+00	1,40E-01	0*	1,68E+02	4,68E-02
Abiotic resource depletion - elements or resource depletion - metals and minerals	kg Sb eq.	1,21E-05	1,14E-05	0*	0*	7,20E-07	0*
Water use	m^3 eq.	-9,38E-01	-1,17E+00	0*	0*	0*	0*
Net use of freshwater	m^3	-2,18E-02	-2,73E-02	0*	0*	0*	0*
Total Primary Energy	MJ	2,07E+02	5,85E+00	1,40E-01	0*	2,00E+02	4,72E-02
Total use of non-renewable primary energy resources	MJ	1,74E+02	5,76E+00	1,40E-01	0*	1,68E+02	4,68E-02
Total use of renewable primary energy resources	MJ	3,24E+01	8,96E-02	0*	5,73E-03	3,23E+01	0*
Use of non renewable primary energy excluding non renewable primary energy used as raw material	MJ	1,74E+02	5,72E+00	1,40E-01	0*	1,68E+02	4,68E-02
Use of non renewable primary energy resources used as raw material	MJ	6,16E-02	4,86E-02	0*	0*	1,30E-02	0*
Use of non renewable secondary fuels	MJ	0,00E+00	0*	0*	0*	0*	0*
Use of renewable primary energy excluding renewable primary energy used as raw material	MJ	3,23E+01	5,55E-02	0*	5,73E-03	3,23E+01	0*
Use of renewable primary energy resources used as raw material	MJ	3,46E-02	3,41E-02	0*	0*	5,57E-04	0*
Use of renewable secondary fuels	MJ	0,00E+00	0*	0*	0*	0*	0*
Use of secondary material	kg	1,18E-03	1,14E-03	0*	0*	3,73E-05	0*
Hazardous waste disposed	kg	7,43E-01	6,02E-01	0*	0*	1,41E-01	0*
Non hazardous waste disposed	kg	1,04E+00	6,74E-02	3,53E-04	9,28E-04	9,55E-01	1,88E-02
Radioactive waste disposed	kg	2,78E-04	7,47E-05	2,51E-07	3,54E-08	2,03E-04	3,64E-07

Components for reuse	kg	0,00E+00	0*	0*	0*	0*	0*
Exported Energy	MJ	1,18E-03	4,56E-04	0*	7,19E-04	0*	0*
Materials for energy recovery	kg	0,00E+00	0*	0*	0*	0*	0*
Materials for recycling	kg	3,98E-04	1,53E-06	0*	3,96E-04	0*	0*

Impacts in Smart conversion mode per functional unit:

Indicators	Unit	Total impact	M (A1-A3)	D (A4)	I (A5)	U (B1-B7)	EOL (C1-C4)
Acidification	mol H+ eq.	1,51E-02	1,56E-03	6,36E-05	1,69E-06	1,35E-02	1,97E-05
Climate change - Total	kg CO2 eq.	2,51E+00	1,30E-01	1,01E-02	9,62E-04	2,36E+00	3,38E-03
Climate change - Biogenic	kg CO2 eq.	4,29E-03	1,80E-03	0*	0*	3,25E-03	0*
Climate change - Fossil	kg CO2 eq.	2,50E+00	1,28E-01	1,01E-02	1,73E-03	2,36E+00	3,38E-03
Climate change - Land use and land use transformation	kg CO2 eq.	6,86E-10	6,86E-10	0*	0*	0*	0*
Ecotoxicity, freshwater	CTUe	3,25E+01	6,84E+00	6,76E-03	0*	2,56E+01	1,18E-02
Particulate matter	disease occurrence	1,15E-07	9,66E-09	5,17E-10	1,19E-11	1,05E-07	1,54E-10
Eutrophication, freshwater	kg P eq.	7,29E-06	5,33E-07	3,77E-09	6,74E-09	6,51E-06	2,34E-07
Eutrophication, marine	kg N eq.	1,73E-03	1,55E-04	2,98E-05	7,71E-07	1,53E-03	8,86E-06
Eutrophication, terrestrial	mol N eq.	2,52E-02	1,75E-03	3,27E-04	8,04E-06	2,31E-02	9,47E-05
Human toxicity, cancer	CTUh	9,17E-08	8,81E-08	0*	0*	3,59E-09	0*
Human toxicity, non-cancer	CTUh	2,39E-08	1,27E-08	1,91E-11	0*	1,12E-08	8,25E-12
Ionising radiation, human health	kBq U235 eq.	4,85E+00	1,33E+00	0*	0*	3,52E+00	0*
Land use	No dimension	4,78E-02	7,87E-04	0*	0*	4,70E-02	0*
Ozone depletion	kg CFC-11 éq.	2,02E-08	9,58E-09	1,54E-11	2,17E-12	1,06E-08	2,23E-11
Photochemical ozone formation, human health	kg NMVOC eq.	5,60E-03	5,59E-04	8,25E-05	2,44E-06	4,93E-03	2,42E-05
Abiotic resource depletion - fossil fuels or resource depletion - fossils	MJ	6,61E+01	5,76E+00	1,40E-01	0*	6,01E+01	4,68E-02
Abiotic resource depletion - elements or resource depletion - metals and minerals	kg Sb eq.	1,18E-05	1,14E-05	0*	0*	4,13E-07	0*
Water use	m^3 eq.	-1,09E+00	-1,17E+00	0*	0*	0*	0*
Net use of freshwater	m^3	-2,53E-02	-2,73E-02	0*	0*	0*	0*
Total Primary Energy	MJ	7,77E+01	5,85E+00	1,40E-01	9,32E-03	7,17E+01	4,72E-02
Total use of non-renewable primary energy resources	MJ	6,61E+01	5,76E+00	1,40E-01	0*	6,01E+01	4,68E-02
Total use of renewable primary energy resources	MJ	1,16E+01	8,96E-02	0*	5,73E-03	1,15E+01	0*
Use of non renewable primary energy excluding non renewable primary energy used as raw material	MJ	6,60E+01	5,72E+00	1,40E-01	0*	6,01E+01	4,68E-02
Use of non renewable primary energy resources used as raw material	MJ	6,16E-02	4,86E-02	0*	0*	1,30E-02	0*
Use of non renewable secondary fuels	MJ	0,00E+00	0*	0*	0*	0*	0*
Use of renewable primary energy excluding renewable primary energy used as raw material	MJ	1,16E+01	5,55E-02	0*	5,73E-03	1,15E+01	0*
Use of renewable primary energy resources used as raw material	MJ	3,46E-02	3,41E-02	0*	0*	5,57E-04	0*
Use of renewable secondary fuels	MJ	0,00E+00	0*	0*	0*	0*	0*
Use of secondary material	kg	1,18E-03	1,14E-03	0*	0*	3,73E-05	0*
Hazardous waste disposed	kg	6,64E-01	6,02E-01	0*	0*	6,20E-02	0*
Non hazardous waste disposed	kg	4,33E-01	6,74E-02	3,53E-04	9,28E-04	3,45E-01	1,88E-02

Radioactive waste disposed	kg	1,50E-04	7,47E-05	2,51E-07	3,54E-08	7,50E-05	3,64E-07
Components for reuse	kg	0,00E+00	0*	0*	0*	0*	0*
Exported Energy	MJ	1,18E-03	4,56E-04	0*	7,19E-04	0*	0*
Materials for energy recovery	kg	0,00E+00	0*	0*	0*	0*	0*
Materials for recycling	kg	3,98E-04	1,53E-06	0*	3,96E-04	0*	0*

Biogenic carbon content in the reference product:

Biogenic carbon content of the product	kg of C	0,00E+00	0*	N/A	N/A	N/A	N/A
Biogenic carbon content of the associated packaging	kg of C	8,69E+01	8,69E+01	N/A	N/A	N/A	N/A

NB : 0 means that this impact either represents less than 0.01% of the total life cycle of the reference flow, or has no impact (in the case where the total impact is zero).*

The aforementionned impacts (except for the biogenic carbon content) are declared for the functional unit of the reference product.
The environmental impacts of the reference product per declared unit can be calculated by multiplying the values of the environmental indicators by the factor available in the following table.

Life cycle phase	All life cycle phase
Factor	180000

● Other covered references

For the products covered by the PEP other than the reference product, the environmental impacts of each phase of the lifecycle are calculated by multiplying the declared unit impacts values with the following extrapolation factors:

Extrapolation factors for Double Conversion mode

Model	**M (A1-A3)**	**D (A4)**	**I (A5)**	**U (B1-B7)**	**EOL (C1-C4)**
Delphys XL 1200	1,00	1,00	1,00	1,00	1,00
Delphys XL 1000	0,84	0,84	1,00	0,80	0,83

Extrapolation factors for Smart conversion mode

Model	**M (A1-A3)**	**D (A4)**	**I (A5)**	**U (B1-B7)**	**EOL (C1-C4)**
Delphys XL 1200	1,00	1,00	1,00	1,00	1,00
Delphys XL 1000	0,84	0,84	1,00	0,79	0,83

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Verifier accreditation number : VH12	Information and reference documents : www.pep-ecopassport.org
Date of issue: 01-2024	Validity period : 5 years
Independant verification of the declaration and data, in compliance with ISO 14025 : 2006	
Internal : ☑ External : ☐	
The PCR review was conducted by a panel of experts chaired by Julie Orgelet (DDemain) PEPs are compliant with XP C08-100-1 : 2016 or EN 50693:2019 The components of the present PEP may not be compared with components from any other program.	
Document complies with ISO 14025:2006 “Environmental labels and declarations. Type III environmental declarations”	

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