DSE201M - electronic Residual Current Circuit Breaker with Overcurrent Protection

PEP ecopassport®

Product Environmental Profile

Registration number:	**ABBG-00607-V01.01-EN**	Drafting rules:	**PCR-ed4-EN-2021 09 06**
Contact information:	**EPD_ELSB@abb.com**	Supplemented by:	**PSR-0005-ed3.1-EN-2023 12 08**
Verifier accreditation number:	**VH51**	Information and reference documents:	**www.pep-ecopassport.org**
Date of issue:	**11-24**	Validity period:	**5 years**

Independent 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 and EN 50693:2019 or NF E38-500 :2022
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"

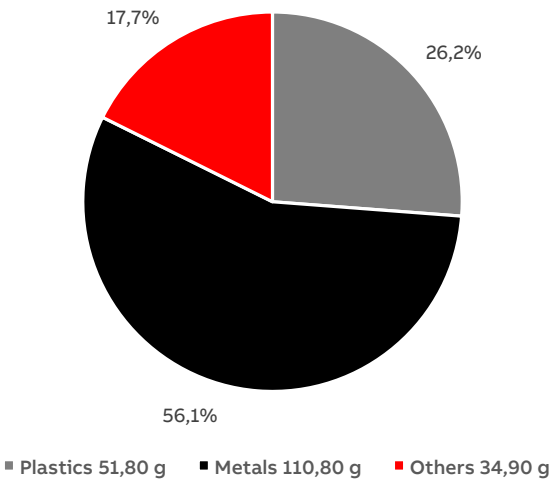
ABB Purpose & Embedding Sustainability

ABB is committed to continually promoting and embedding sustainability across its operations and value chain, aspiring to become a role model for others to follow.
With its ABB Purpose, ABB is focusing on reducing harmful emissions, preserving natural resources and championing ethical and humane behavior.
The contect of this PEP cannot be compared with the content based on another program/database.
Scan QR code for more information

General information

Reference product	The scope of this LCA study is the evaluation of the environmental impacts of the life cycle of ABB DSE201 M product family produced by ABB SpA. The ABB DSE201 M products are Electronic Residual Current Breakers with overcurrent protection (eRCBO).The specific type of ABB DSE201M C16 AC30 analyzed in this LCA project is the article code 2CSR275051R1164.
Description of the product	The ABB DSE201 M products are electronic Residual Current Circuit Breaker with Overcurrent Protection; the devices are designed for the protection of end user single-phase circuits against overload and short-circuit currents; it also provides protection against the effects of sinusoidal alternating earth fault currents and against indirect contacts and additional protection against direct contacts.
Functional unit	The functional unit is designed to protect the installation against overloads and short circuits and protect people and premises at risk of fire or explosion against insulation defects in a circuit with rated voltage 230-240V rated current 16A, with 1P+N poles, a rated breaking capacity 10kA, the tripping curve type C, the sensitivity 30mA, and the differential protection type AC, according to the appropriate use scenario, and in the Household/Commercial and during the reference service life of the product of 20 years
Other products covered	ABB DSE201 M eRCBOs family technical characteristics: Rated voltage [V]: 230-240 Rated current [A]: 6/10/16/20/25/32/40/50 Rated breaking capacity [A]: 6/10 kA Type of differential protection: A/AC/F Tripping Curve: B/C/D
Manufacturing address	ABB S.p.A. – ELSB Viale dell'Industria, 18 20009 Vittuone (MI) - Italy www.new.abb.com

Constituent Materials



Total weight of reference product and packaging	**197,5**	**g**

Plastics as % of weight		**Metals as % of weight**		**Others as % of weight**	
Name and CAS number	Weight%	Name and CAS number	Weight%	Name and CAS number	Weight%
PA	18,3	**STEEL**	29,9	**PCBA**	10,7
Glass fiber	6,0	**COPPER**	24,3	**Miscellaneous**	6,0
PTFE /POM/PET/PPS	2,0	**Aluminium**	1,5	**CARDBOARD**	1,0
		Other	0,5		

Total weight of the reference product 175,1 g plus packaging 22,4g

Additional Information

Manufacturing	The manufacturing stage includes the production and transportation to the manufacturer's last logistic platform of DSE201 M and its packaging. The production occurs at the ABB factory located in Santa Palomba (RM).
Distribution	The transport from ABB Santa Palomba factory to Vignate (MI) and other locations, was taken into account. For the distribution of the product from Vignate to the final customer, the intracontinental transport scenario provided by PCR-ed4-EN-2021 09 06 standard was adopted.
Installation	The installation phase only implies manual activities and no energy is consumed. This phase also includes the disposal of the packaging of the product. Statistical average data from Eurostat databases were considered for the disposal of the product and its packaging.
Use	During the use phase, the DSE201 M dissipates some electricity due to power losses. The average power loss of the switch has been calculated by ABB following the assumption indicated in the PSR-0005-ed3.1-EN-2023 12 08 : - Nominal current load rate as 15% (Household / Commercial); - RSL of 20 years; - Functioning time of 30% of the RSL (α). No maintenance is planned for the product.
End of life	The default end-of-life scenario provided by the IEC/TR 62635 document have been adopted, considering the product transport by lorry over 1000 km.
Benefits and loads beyond the system boundaries	The potential benefits derives from the impacts prevented by recycling and waste to energy recovery of the packaging in the installation phase

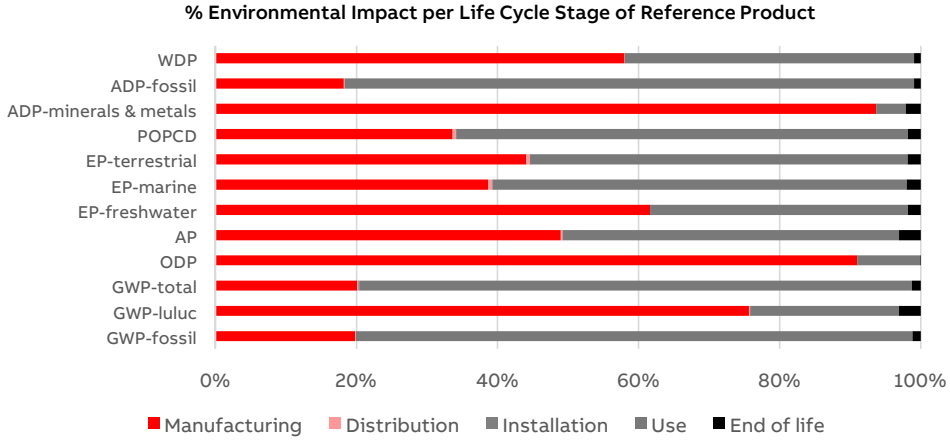
Environmental Impacts

Reference lifetime	20 years
Product category	electronic Residual Current Circuit Breaker with Overcurrent Protection
Installation elements	No installation materials are required in the life cycle of the product.
Use scenario	The calculation of the use stage electricity consumption from the average power consider the following assumptions: nominal current load rate as 15% (Household /Commercial)
Geographical representativeness	For the use and end-of-life stages of the product, the geographical boundaries of Europe have been considered
Technological representativeness	Technological representativeness refers to the specific production process for primary data.
Software and database used	SimaPro 9.5.0.0 -Industry Data- Ecoinvent 3.9

Energy model used

Manufacturing	ABB GO energy mix 2022. The energy-related processes used for the remaining inputs are those included in the ecoinvent v3.9.1 datasets.
Installation	No energy consumption occur during the installation stage
Use	Electricity, low voltage (Various regionalities according to product distribution data)
End of life	The energy-related processes used for the inputs of the end-of-life stage are those included in the ecoinvent datasets selected for the analysis.

Common base of mandatory indicators



Environmental impact indicators

Indicator		Unit	Total	Manufacturing	Distribution	Installation	Use	End of life	Benefits
GWP	Total	kg CO2 eq.	2,40E+01	4,83E+00	3,00E-02	3,22E-02	1,88E+01	3,01E-01	-5,92E-01
	Fossil	kg CO2 eq.	2,38E+01	4,72E+00	2,99E-02	1,77E-03	1,88E+01	2,82E-01	-6,00E-01
	Biogenic	kg CO2 eq.	1,58E-01	9,85E-02	3,98E-06	3,04E-02	1,10E-02	1,81E-02	8,50E-03
	Luluc	kg CO2 eq.	1,12E-02	8,49E-03	1,90E-05	1,53E-06	2,37E-03	3,45E-04	-8,75E-04
ODP		kg CFC-11 eq.	4,28E-06	3,90E-06	4,84E-10	3,07E-11	3,81E-07	3,47E-09	-1,06E-01
AP		H+ eq.	1,69E-01	8,26E-02	4,97E-04	9,87E-06	8,04E-02	5,23E-03	-2,08E-02
EP	Freshwater	kg P eq.	1,46E-02	8,99E-03	1,72E-06	2,15E-07	5,33E-03	2,66E-04	-1,82E-03
	Marine	kg N eq.	2,35E-02	9,08E-03	1,32E-04	1,75E-05	1,38E-02	4,66E-04	-1,34E-03
	Terrestrial	mol N eq.	2,63E-01	1,16E-01	1,45E-03	3,58E-05	1,41E-01	4,86E-03	-1,76E-02
POPCD		kg NMVOC eq.	8,77E-02	2,95E-02	4,15E-04	1,56E-05	5,62E-02	1,60E-03	-5,22E-03
ADP	Minerals & metals	kg SB eq.	2,54E-03	2,38E-03	5,99E-08	5,23E-09	1,06E-04	5,46E-05	-2,86E-04
	Fossil	MJ	3,30E+02	6,00E+01	4,00E-01	1,93E-02	2,66E+02	3,20E+00	-7,12E+07
WDP		m^3 eq. depr.	3,12E+00	1,81E+00	1,46E-03	4,15E-04	1,28E+00	2,93E-02	-3,56E-01

Resource use indicators

Indicator	Unit	Total	Manufacturing	Distribution	Installation	Use	End of life	Benefits
PERE	MJ	2,21E+01	9,90E+00	4,19E-03	6,30E-04	1,18E+01	3,54E-01	-1,05E+07
PERM	MJ	5,75E-01	5,75E-01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
PERT	MJ	2,27E+01	1,05E+01	4,19E-03	6,30E-04	1,18E+01	3,54E-01	-1,05E+07
PENRE	MJ	3,28E+02	5,86E+01	4,00E-01	1,93E-02	2,66E+02	3,20E+00	-7,12E+07
PENRM	MJ	1,41E+00	1,41E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
PENRT	MJ	3,30E+02	6,00E+01	4,00E-01	1,93E-02	2,66E+02	3,20E+00	-7,12E+07

Common base of mandatory indicators

Use of secondary materials, water, and energy resources

Indicator	Unit	Total	Manufacturing	Distribution	Installation	Use	End of life	Benefits
SM	kg	1,77E-02	1,77E-02	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
NRSF	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
FW	m^3	9,87E-02	5,95E-02	4,81E-05	1,38E-05	3,79E-02	1,20E-03	-9,17E-03

Waste category indicators

Indicator	Unit	Total	Manufacturing	Distribution	Installation	Use	End of life	Benefits
HWD	kg	2,64E-03	1,45E-03	2,30E-06	1,08E-07	1,15E-03	3,41E-05	2,28E+01
N-HWD	kg	1,51E+00	7,23E-01	1,59E-02	9,20E-03	6,46E-01	1,14E-01	-1,36E-01
RWD	kg	2,54E-04	1,28E-04	7,08E-08	1,02E-08	1,22E-04	3,95E-06	-9,59E+01

Output flow indicators

Indicator	Unit	Total	Manufacturing	Distribution	Installation	Use	End of life	Benefits
CfRu	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
MfR	kg	2,61E-01	1,07E-01	0,00E+00	6,80E-03	0,00E+00	1,47E-01	0,00E+00
MfER	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
EE	MJ	7,66E-02	0,00E+00	0,00E+00	3,66E-02	0,00E+00	4,00E-02	0,00E+00

Other indicators

Indicator		Unit	Total
Biogenic Carbon	Product	kg of C	3,80E-04
	Packaging	kg of C	1,80E-02

Optional indicators

Indicator	Unit	Total	Manufacturing	Distribution	Installation	Use	End of life	Benefits
Tot PE	MJ	3,52E+02	7,04E+01	4,05E-01	2,00E-02	2,78E+02	3,56E+00	-8,17E+07
Efp	Dise inc	9,14E-07	3,85E-07	1,86E-09	1,89E-10	4,94E-07	3,25E-08	-6,44E-01
IrHH	kBq U-235 eq	1,08E+00	5,11E-01	3,00E-04	4,14E-05	5,55E-01	1,56E-02	-3,77E-02
ETX FW	CTUe	2,32E+02	1,69E+02	2,06E-01	5,52E-02	5,73E+01	4,97E+00	-2,64E+07
HTX CE	CTUh	2,13E-08	1,38E-08	1,31E-11	1,79E-12	5,19E-09	2,32E-09	-2,56E-02
HTX N-CE	CTUh	1,07E-06	8,18E-07	2,12E-10	6,03E-11	1,57E-07	8,98E-08	-2,42E+00
HTX N-CE	Pt	6,81E+01	4,59E+01	1,96E-01	1,29E-02	1,96E+01	2,44E+00	-6,51E+07

Extrapolation Factors

For other products than the Reference product covered by this PEP, the environmental impacts for each phase of the lifecycle are obtained by a linear correlation with respect to weight for the production, distribution, and end-of-life phase and with respect to average power loss for the use phase. Each environmental indicator value shall be calculated using the following formulas: $y = a_n x + b_n$

* if the coefficient is !1, the impacts of the phase of the life cycle are assimilated to the Reference product, meaning that the impacts are unchanged in comparison to the Reference product

Impact category	Unit of measure	Manufacturing		Distribution		Installation		Use		End of Life	
		a1	b1	a2	b2	a3	b3	a4	b4	a5	b5
Climate change	kg CO2 eq	2,58E-02	2,30E-01	1,49E-04	3,40E-03	0,00E+00	3,22E-02	4,27E+01	-3,83E-03	1,69E-03	-1,09E-05
Climate change - Fossil	kg CO2 eq	2,56E-02	1,63E-01	1,49E-04	3,39E-03	0,00E+00	1,77E-03	4,27E+01	-3,82E-03	1,59E-03	-1,03E-05
Climate change - Biogenic	kg CO2 eq	1,84E-04	6,58E-02	1,98E-08	4,51E-07	0,00E+00	3,04E-02	2,51E-02	-2,25E-06	1,02E-04	-6,59E-07
Climate change - Land use and LU change	kg CO2 eq	4,42E-05	6,26E-04	9,44E-08	2,15E-06	0,00E+00	1,53E-06	5,38E-03	-4,82E-07	1,94E-06	-1,25E-08
Ozone depletion	kg CFC11 eq	2,19E-08	6,22E-09	2,41E-12	5,49E-11	0,00E+00	3,07E-11	8,65E-07	-7,75E-11	1,95E-11	-1,26E-13
Acidification	mol H+ eq	4,52E-04	2,20E-03	2,48E-06	5,63E-05	0,00E+00	9,87E-06	1,83E-01	-1,64E-05	2,94E-05	-1,90E-07
Eutrophication, freshwater	kg P eq	4,99E-05	1,10E-04	8,55E-09	1,95E-07	0,00E+00	2,15E-07	1,21E-02	-1,08E-06	1,49E-06	-9,67E-09
Eutrophication, marine	kg N eq	4,89E-05	3,79E-04	6,58E-07	1,50E-05	0,00E+00	1,75E-05	3,14E-02	-2,81E-06	2,62E-06	-1,70E-08
Eutrophication, terrestrial	mol N eq	6,29E-04	3,89E-03	7,24E-06	1,65E-04	0,00E+00	3,58E-05	3,21E-01	-2,87E-05	2,73E-05	-1,77E-07
Photochemical ozone formation	kg NMVOC eq	1,60E-04	1,13E-03	2,07E-06	4,70E-05	0,00E+00	1,56E-05	1,28E-01	-1,14E-05	8,98E-06	-5,81E-08
Resource use, minerals and metals	kg Sb eq	1,33E-05	1,80E-05	2,98E-10	6,79E-09	0,00E+00	5,23E-09	2,42E-04	-2,16E-08	3,07E-07	-1,99E-09
Resource use, fossils	MJ	3,24E-01	2,24E+00	1,99E-03	4,54E-02	0,00E+00	1,93E-02	6,04E+02	-5,41E-02	1,80E-02	-1,16E-04
Water use (from AWARE)	m3	9,66E-03	8,95E-02	7,25E-06	1,65E-04	0,00E+00	4,15E-04	2,91E+00	-2,60E-04	1,65E-04	-1,07E-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	0,00E+00	0,00E+00
Materials for recycling	kg	3,01E-04	5,30E-02	0,00E+00	0,00E+00	0,00E+00	6,80E-03	0,00E+00	0,00E+00	8,25E-04	-5,34E-06
Materials for energy recovery	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	0,00E+00	0,00E+00
Exported energy	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	3,66E-02	0,00E+00	0,00E+00	2,25E-04	-1,45E-06
Particulate matter	disease inc,	2,08E-09	1,43E-08	9,28E-12	2,11E-10	0,00E+00	1,89E-10	1,12E-06	-1,00E-10	1,83E-10	-1,18E-12
Ionising radiation	kBq U-235 eq	2,78E-03	1,54E-02	1,50E-06	3,40E-05	0,00E+00	4,14E-05	1,26E+00	-1,13E-04	8,77E-05	-5,68E-07
PENRE	MJ	3,17E-01	2,18E+00	1,99E-03	4,54E-02	0,00E+00	1,93E-02	6,04E+02	-5,41E-02	1,80E-02	-1,16E-04
PENRM	MJ	7,56E-03	6,30E-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
PENRT	MJ	3,24E-01	2,24E+00	1,99E-03	4,54E-02	0,00E+00	1,93E-02	6,04E+02	-5,41E-02	1,80E-02	-1,16E-04
PERE	MJ	4,05E-02	2,68E+00	2,09E-05	4,75E-04	0,00E+00	6,30E-04	2,69E+01	-2,41E-03	1,99E-03	-1,29E-05
PERM	MJ	1,17E-06	5,75E-01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
PERT	MJ	4,05E-02	3,26E+00	2,09E-05	4,75E-04	0,00E+00	6,30E-04	2,69E+01	-2,41E-03	1,99E-03	-1,29E-05
PE	MJ	3,65E-01	5,50E+00	2,02E-03	4,59E-02	0,00E+00	2,00E-02	6,31E+02	-5,65E-02	2,00E-02	-1,29E-04
Use of secondary material	kg	0,00E+00	1,77E-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
Use of renewable secondary fuels	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	0,00E+00	0,00E+00
Use of non-renewable secondary fuels	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	0,00E+00	0,00E+00
Net use of fresh water	m3	2,99E-04	6,24E-03	2,40E-07	5,46E-06	0,00E+00	1,38E-05	8,62E-02	-7,72E-06	6,76E-06	-4,38E-08
Hazardous waste disposed	kg	7,98E-06	3,33E-05	1,15E-08	2,61E-07	0,00E+00	1,08E-07	2,62E-03	-2,34E-07	1,92E-07	-1,24E-09
Non-hazardous waste disposed	kg	3,83E-03	4,17E-02	7,91E-05	1,80E-03	0,00E+00	9,20E-03	1,47E+00	-1,32E-04	6,42E-04	-4,16E-06
Radioactive waste disposed	kg	6,94E-07	3,94E-06	3,53E-10	8,03E-09	0,00E+00	1,02E-08	2,77E-04	-2,48E-08	2,22E-08	-1,44E-10
Ecotoxicity, freshwater	CTUe	9,41E-01	1,85E+00	1,03E-03	2,33E-02	0,00E+00	5,52E-02	1,30E+02	-1,17E-02	2,79E-02	-1,81E-04
Human toxicity, cancer	CTUh	7,37E-11	6,83E-10	6,54E-14	1,49E-12	0,00E+00	1,79E-12	1,18E-08	-1,06E-12	1,30E-11	-8,44E-14
Human toxicity, non-cancer	CTUh	4,47E-09	2,34E-08	1,06E-12	2,41E-11	0,00E+00	6,03E-11	3,57E-07	-3,20E-11	5,05E-10	-3,27E-12
Land use	Pt	1,99E-01	1,05E+01	9,76E-04	2,22E-02	0,00E+00	1,29E-02	4,47E+01	-4,00E-03	1,37E-02	-8,87E-05
Biogenic C content_product	kg C	2,14E-06	-1,38E-08	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Biogenic C content_packaging	kg C	0,00E+00	1,80E-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

PENRE	Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw material
PENRM	Use of non-renewable primary energy resources used as raw material
PENRT	Total use of non-renewable primary energy resources
PERE	Use of renewable primary energy excluding renewable primary energy resources used as raw material
PERM	Use of renewable primary energy resources used as raw material
PERT	Total use of renewable primary energy resources
PE	Total use of primary energy during the life cycle

Extrapolation Factors

Product Code	Weight of the product [g]	Average power loss (Wloss)@15%In (Included electronic consumption) [W]
2CSR275153R1061	178	0,427
2CSR275153R1101	178	0,427
2CSR275153R1161	178	0,44
2CSR275153R1201	178	0,454
2CSR275153R1251	178	0,46
2CSR275153R1321	189	0,485
2CSR275153R1401	189	0,51
2CSR275553R1064	178	0,427
2CSR275553R1104	178	0,427
2CSR275553R1164	178	0,44
2CSR275553R1204	178	0,454
2CSR275553R1254	178	0,46
2CSR275553R1324	189	0,485
2CSR275553R1404	189	0,51
2CSR275553R1504	189	0,505
2CSR275553R1065	178	0,427
2CSR275553R1105	178	0,427
2CSR275553R1165	178	0,44
2CSR275553R1205	178	0,454
2CSR275553R1255	178	0,46
2CSR275553R1325	189	0,485
2CSR275553R1405	189	0,51
2CSR275553R1505	189	0,505
2CSR275153R2161	178	0,44
2CSR275153R2201	178	0,454
2CSR275153R2251	178	0,46
2CSR275551R1065	178	0,427
2CSR275551R1105	178	0,427
2CSR275551R1165	178	0,44
2CSR275551R1205	178	0,454
2CSR275551R1255	178	0,46
2CSR275551R1325	189	0,485
2CSR275551R1405	189	0,51
2CSR275551R1505	189	0,505
2CSR275551R1064	178	0,427
2CSR275551R1104	178	0,427
2CSR275551R1164	178	0,44
2CSR275551R1204	178	0,454
2CSR275551R1254	178	0,46
2CSR275551R1324	189	0,485
2CSR275551R1404	189	0,51
2CSR275551R1504	189	0,505
2CSR275151R0065	178	0,427
2CSR275151R0105	178	0,427
2CSR275151R0165	178	0,44
2CSR275151R0205	178	0,454
2CSR275151R0255	178	0,46
2CSR275151R0325	189	0,485
2CSR275151R0405	189	0,51
2CSR275151R0505	189	0,505
2CSR275151R0064	178	0,427
2CSR275151R0104	178	0,427
2CSR275151R0164	178	0,44

Product Code	Weight of the product [g]	Average power loss (Wloss)@15%In (Included electronic consumption) [W]
2CSR275151R0204	178	0,454
2CSR275151R0254	178	0,46
2CSR275151R0324	189	0,485
2CSR275151R0404	189	0,51
2CSR275151R0504	189	0,505
2CSR275151R1065	178	0,427
2CSR275151R1105	178	0,427
2CSR275151R1165	178	0,44
2CSR275151R1205	178	0,454
2CSR275151R1255	178	0,46
2CSR275151R1325	189	0,485
2CSR275151R1405	189	0,51
2CSR275151R1505	189	0,505
2CSR275151R1064	178	0,427
2CSR275151R1104	178	0,427
2CSR275151R1164	178	0,44
2CSR275151R1204	178	0,454
2CSR275151R1254	178	0,46
2CSR275151R1324	189	0,485
2CSR275151R1404	189	0,51
2CSR275151R1504	189	0,505
2CSR275151R2064	178	0,427
2CSR275151R2104	178	0,427
2CSR275151R2164	178	0,44
2CSR275151R2204	178	0,454
2CSR275151R2254	178	0,46
2CSR275151R2324	189	0,485
2CSR275151R2404	189	0,51
2CSR275151R2504	189	0,505
2CSR275151R3064	178	0,427
2CSR275151R3104	178	0,427
2CSR275151R3164	178	0,44
2CSR275151R3204	178	0,454
2CSR275151R3254	178	0,46
2CSR275151R3324	189	0,485
2CSR275151R3404	189	0,51
2CSR275151R3504	189	0,505
2CSR275051R0065	178	0,427
2CSR275051R0105	178	0,427
2CSR275051R0165	178	0,44
2CSR275051R0205	178	0,454
2CSR275051R0255	178	0,46
2CSR275051R0325	189	0,485
2CSR275051R0405	189	0,51
2CSR275051R0505	189	0,505
2CSR275051R0064	178	0,427
2CSR275051R0104	178	0,427
2CSR275051R0164	178	0,44
2CSR275051R0204	178	0,454
2CSR275051R0254	178	0,46
2CSR275051R0324	189	0,485
2CSR275051R0404	189	0,51
2CSR275051R0504	189	0,505

Product Code	Weight of the product [g]	Average power loss (Wloss)@15%In (Included electronic consumption) [W]
2CSR275051R1065	178	0,427
2CSR275051R1105	178	0,427
2CSR275051R1165	178	0,44
2CSR275051R1205	178	0,454
2CSR275051R1255	178	0,46
2CSR275051R1325	189	0,485
2CSR275051R1405	189	0,51
2CSR275051R1505	189	0,505
2CSR275051R1064	178	0,427
2CSR275051R1104	178	0,427
2CSR275051R1164	178	0,44
2CSR275051R1204	178	0,454
2CSR275051R1254	178	0,46
2CSR275051R1324	189	0,485
2CSR275051R1404	189	0,51
2CSR275051R1504	189	0,505
2CSR275051R2064	178	0,427
2CSR275051R2104	178	0,427
2CSR275051R2164	178	0,44
2CSR275051R2204	178	0,454
2CSR275051R2254	178	0,46
2CSR275051R2324	189	0,485
2CSR275051R2404	189	0,51
2CSR275051R2504	189	0,505
2CSR275051R3064	178	0,427
2CSR275051R3104	178	0,427
2CSR275051R3164	178	0,44
2CSR275051R3204	178	0,454
2CSR275051R3254	178	0,46
2CSR275051R3324	189	0,485
2CSR275051R3404	189	0,51
2CSR275051R3504	189	0,505
2CSR275153R0065	178	0,427
2CSR275153R0105	178	0,427
2CSR275153R0165	178	0,44
2CSR275153R0205	178	0,454
2CSR275153R0255	178	0,46
2CSR275153R0325	189	0,485
2CSR275153R0405	189	0,51
2CSR275153R0505	189	0,505
2CSR275153R0064	178	0,427
2CSR275153R0104	178	0,427
2CSR275153R0164	178	0,44
2CSR275153R0204	178	0,454
2CSR275153R0254	178	0,46
2CSR275153R0324	189	0,485
2CSR275153R0404	189	0,51
2CSR275153R0504	189	0,505
2CSR275153R1065	178	0,427
2CSR275153R1105	178	0,427
2CSR275153R1165	178	0,44
2CSR275153R1205	178	0,454
2CSR275153R1255	178	0,46

Extrapolation Factors

Product Code	Weight of the product [g]	Average power loss (Wloss)@15%In (Included electronic consumption) [W]
2CSR275153R1325	189	0,485
2CSR275153R1405	189	0,51
2CSR275153R1505	189	0,505
2CSR275153R1064	178	0,427
2CSR275153R1104	178	0,427
2CSR275153R1164	178	0,44
2CSR275153R1204	178	0,454
2CSR275153R1254	178	0,46
2CSR275153R1324	189	0,485
2CSR275153R1404	189	0,51
2CSR275153R1504	189	0,505
2CSR275153R2064	178	0,427
2CSR275153R2104	178	0,427
2CSR275153R2164	178	0,44
2CSR275153R2204	178	0,454
2CSR275153R2254	178	0,46
2CSR275153R2324	189	0,485
2CSR275153R2404	189	0,51
2CSR275153R2504	189	0,505
2CSR275153R3064	178	0,427
2CSR275153R3104	178	0,427
2CSR275153R3164	178	0,44
2CSR275153R3204	178	0,454
2CSR275153R3254	178	0,46
2CSR275153R3324	189	0,485
2CSR275153R3404	189	0,51
2CSR275153R3504	189	0,505
2CSR275053R0065	178	0,427
2CSR275053R0105	178	0,427
2CSR275053R0165	178	0,44
2CSR275053R0205	178	0,454
2CSR275053R0255	178	0,46
2CSR275053R0325	189	0,485
2CSR275053R0405	189	0,51
2CSR275053R0505	189	0,505
2CSR275053R0064	178	0,427
2CSR275053R0104	178	0,427
2CSR275053R0164	178	0,44
2CSR275053R0204	178	0,454
2CSR275053R0254	178	0,46
2CSR275053R0324	189	0,485
2CSR275053R0404	189	0,51
2CSR275053R0504	189	0,505
2CSR275053R1065	178	0,427
2CSR275053R1105	178	0,427
2CSR275053R1165	178	0,44
2CSR275053R1205	178	0,454
2CSR275053R1255	178	0,46
2CSR275053R1325	189	0,485
2CSR275053R1405	189	0,51
2CSR275053R1505	189	0,505
2CSR275053R1064	178	0,427
2CSR275053R1104	178	0,427
2CSR275053R1164	178	0,44

Product Code	Weight of the product [g]	Average power loss (Wloss)@15%In (Included electronic consumption) [W]
2CSR275053R1204	178	0,454
2CSR275053R1254	178	0,46
2CSR275053R1324	189	0,485
2CSR275053R1404	189	0,51
2CSR275053R1504	189	0,505
2CSR275053R2064	178	0,427
2CSR275053R2104	178	0,427
2CSR275053R2164	178	0,44
2CSR275053R2204	178	0,454
2CSR275053R2254	178	0,46
2CSR275053R2324	189	0,485
2CSR275053R2404	189	0,51
2CSR275053R2504	189	0,505
2CSR275053R3064	178	0,427
2CSR275053R3104	178	0,427
2CSR275053R3164	178	0,44
2CSR275053R3204	178	0,454
2CSR275053R3254	178	0,46
2CSR275053R3324	189	0,485
2CSR275053R3404	189	0,51
2CSR275053R3504	189	0,505
2CSR255058R1064	178	0,427
2CSR255058R1104	178	0,427
2CSR255058R1164	178	0,44
2CSR255058R1204	178	0,454
2CSR255058R1254	178	0,46
2CSR255058R1324	189	0,485
2CSR255058R1404	189	0,51
2CSR255058R1504	189	0,505
2CSR255058R1065	178	0,427
2CSR255058R1105	178	0,427
2CSR255058R1165	178	0,44
2CSR255058R1205	178	0,454
2CSR255058R1255	178	0,46
2CSR255058R1325	189	0,485
2CSR255058R1405	189	0,51
2CSR255058R1505	189	0,505
2CSR255158R1064	178	0,427
2CSR255158R1104	178	0,427
2CSR255158R1164	178	0,44
2CSR255158R1204	178	0,454
2CSR255158R1254	178	0,46
2CSR255158R1324	189	0,485
2CSR255158R1404	189	0,51
2CSR255158R1504	189	0,505
2CSR255158R1065	178	0,427
2CSR255158R1105	178	0,427
2CSR255158R1165	178	0,44
2CSR255158R1205	178	0,454
2CSR255158R1255	178	0,46
2CSR255158R1325	189	0,485
2CSR255158R1405	189	0,51
2CSR255158R1505	189	0,505
2CSR255151R1505	189	0,505

Product Code	Weight of the product [g]	Average power loss (Wloss)@15%In (Included electronic consumption) [W]
2CSR255151R1504	189	0,505
2CSR255051R1505	189	0,505
2CSR255051R1504	189	0,505
2CSR255153R1505	189	0,505
2CSR255153R1504	189	0,505
2CSR255053R1504	189	0,505
2CSR255053R1505	189	0,505
2CSR255053R2504	189	0,505

Glossary

Environmental impact Indicators	
GWP-total	Global Warming Potential total (Climate hange)
GWP-fossil	Global Warming Potential fossil
GWP-biogenic	Global Warming Potential biogenic
GWP-luluc	Global Warming Potential land use and land use change
ODP	Depletion potential of the stratospheric ozone layer
AP	Acidification potential
EP-freshwater	Eutrophication potential - freshwater compartment
EP-marine	Eutrophication potential - fraction of nutrients reachin marine end compartment
EP-terrestrial	Eutrophication potential - Accumulated Exceedance
POCP	Formation potential of tropospheric ozone
ADP-m&m	Abiotic Depletion for non-fossil resources potential
ADP-fossil	Abiotic Depletion for fossil resources potential, WDP
WDP	Water deprivation potential

Resource indicators	
PENRE	Use of non-renewable primary energy excluding renewable primary energy resources used as raw material
PENRM	Use of non-renewable primary energy resources used as raw material
PENRT	Total use of non-renewable primary energy resources (primary energy and primary energy resources used as raw materials
PERE	Use of renewable primary energy excluding non-renewable primary energy resources used as raw material.
PERM	Use of renewable primary energy resources used as raw material
PERT	Total use of renewable primary energy resources (primary energy and primary energy resources used as raw materials)

Secondary materials, water and energy resources	
SM	Use of secundary materials
RSF	Use of renewable secondary fuels
NRSF	Use of non-renewable secondary fuels
FW	Net use of fresh water

Waste category indicators	
HWD	Hazardous waste disposed
N-HWD	Non-hazardous waste disposed
RWD	Radioactive waste disposed

Output flow indicators	
CfRu	Components for re-use
MfR	Materials for recycling
MfER	Materials for energy recovery
EE	Exported Energy

Optional indicators	
Tot PE	Total use of primary energy during the life cycle
Efp	Emissions of Fine particles
IrHH	Ionizing radiation, human health
ETX FW	Ecotoxicity, freshwater
HTX CE	Human toxicity, carcinogenic effects
HTX N-CE	Human toxicity, non-carcinogenic effects
IrLS	Impact related to Land use / soil quality

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