ABB DS201
RESIDUAL CURRENT CIRCUIT BREAKERS WITH OVERCURRENT PROTECTION

Product Environmental Profile

Environmental Product Declaration

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VERIFIED

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Document in compliance with ISO 14025: 2010 "Environmental labels and declarations. Type III environmental declarations"

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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.

General Information

Reference product	DS201 C20 AC30 Code 2CSR255080R1204
Description of the product	The DS201 C20 AC30 product is an universal Residual Current Circuit Breaker with Overcurrent Protection. The DS201 are 1P+N RCBOs in two-modules width 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 (with sensitivity = 30 mA).
Functional unit	The functional unit is designed to protect for 20 years the installation against overloads and short-circuits and people and premises at risk of fire or explosion against insulation defects in circuit with assigned voltage 230 V and rated current 20 A. This protection is ensured in accordance with the following parameters: - Number of poles 1P+N - Rated breaking capacity Icn 6kA - Tripping curve Cd type C - Sensitivity 30 mA - Type of differential protection AC

Other product covered	Technical characteristics	DS201 RCBOs
	Rated voltage [V]	110/230/240
	Rated current [A]	1/2/4/6/8/10/13/15/16/20/25/30/32/35/40
	Rated breaking capacity [A]	6 kA
	Tripping curve Cd	B, C, D, K
	Rated Sensitivity [mA]	10/30/100/300
	Type of differential protection	A, AC, APR, F, G
	Number of poles [P]	1+N

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Constituent materials

PEP Material Category	Material	Percentage (%)
DS201 C20 AC30		
Metal	Steel	46.2%
Plastic	PA	24.5%
Other	Glass fibre	10.3%
Metal	Copper	6.3%
Other	Nickel	3.2%
Plastic	PC	2.3%
Plastic	PPS	1.3%
Metal	Ferro	1.9%
Metal	Aluminium	0.9%
Plastic	POM	0.9%
Metal	Other metals	0.7%
Other	Resistor	0.4%
Other	Miscellaneous	0.4%
Plastic	PTFE	0.3%
Metal	Zinc	0.2%
Other	PCB	0.1%
Other	Paper	0.1%
TOTAL		100%
PACKAGING		
Other	Cardboard	61.0%
Other	wood	35.6%
Other	Paper	1.3%
Plastic	PP	1.2%
Plastic	PE	0.9%
TOTAL		100%

LCA background information

The aim of this Life Cycle Assessment (LCA) is the evaluation of the life cycle environmental impacts of the products DS201 produced by ABB S.p.A. to obtain the PEP declaration from the PEP ecopassport® program and identify environmental hotspots. The specific type of DS201 analyzed in this LCA project is the DS201 C20 AC30, article code 2CSR255080R1204. The life cycle environmental impacts of the other DS201 included in the family are calculated with the application of the extrapolation rules, following the indication of the PCR-ed4-EN-2021 09 06 standard. The stakeholder involved in this LCA study is ABB S.p.A. as LCA practitioner and as PEP owner.

The reference product is DS201 C20 AC30, it weighs 204.5 g (without packaging) . The product packaging weighs 47.8 g.

No installation materials or maintenance components are required in the life cycle of the product. All the materials not found in the reference product, such as waste and scraps generated during the life cycle are also included. The disposal of the packaging during the installation phase and the disposal of all DS201 C20 AC30 components during the product's end-of-life are also considered. Waste generated during the production phase is also included in the life cycle.

LCA approach

The approach used to conduct this LCA is attributional. The LCA attributional model represents the assessment of the actual, average, or estimated supply chain of a product or process. The existing or estimated system is placed in a static technological context.

The attributional approach is a type of modelling that requires environmentally relevant inputs and outputs for each process involved in the product life cycle to be attributed to the functional unit.

Functional Unit

The functional unit of DS201 is designed to protect for 20 years the installation against overloads and short-circuits and people and premises at risk of fire or explosion against insulation defects in circuit with assigned voltage 230 V , rated current 20 A and Rated breaking capacity 6 kA.

System Boundaries

This LCA analyses the system "from cradle to grave". This means that all the processes from raw materials extraction to the end-of-life of the product are included. In detail, the following life cycle stages are considered:

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- *Manufacturing stage*: from the extraction of raw materials to component and packaging production, manufacturing consumption, assembly consumption of the product, distribution to the manufacturer's last logistic platform.
- *Distribution stage*: transportation from the manufacturer's last logistic platform to the installation place.
- *Installation stage*: the waste treatment of discarded materials.
- *Use stage*: energy consumption during all the RLT.
- *End-of-life stage*: removal, dismantling and transportation of the dismantled product to the treatment site and the treatment process.

Temporal and geographical boundaries

All primary data collected from ABB are from 2021, which is a representative production year. Secondary data refers to the ecoinvent database v3.8 published in 2021.

Technological representativeness refers to the specific production process for primary data. For secondary data, it refers to the ecoinvent database v3.8 published in 2021 [8].

The ABB component suppliers are sourced all over the world. When the origin of the components is unknown, the selected ecoinvent processes in the LCA model have global representativeness. In this way, a conservative approach has been adopted.

The final assembly of the product occurs at ABB's plant located in Santa Palomba (RM). For the use and end-of-life stages of the product, the geographical boundaries of Europe have been considered.

Boundaries in the life cycle

As indicated in the PCR-ed4-EN-2021 09 06, capital goods, such as buildings, machinery, tools and infrastructure, and the packaging for internal transport which cannot be allocated directly to the production of the reference product, have been excluded from the system boundary.

Infrastructures, when present, such as processes deriving from the ecoinvent database have not been excluded.

Data quality

In this study, both primary and secondary data are used. The following primary data are provided by ABB: Bill of Materials (BoM) of the product, components materials, weights and suppliers, company consumption related to the product assembly, and average power loss of the product during the use phase of the product.

For all processes for which primary are not available, generic data originating from the ecoinvent v3.8 database, allocation cut-off by classification, are used. The ecoinvent database is available in the SimaPro 9.4 software used for the calculations.

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Environmental impact indicators

The environmental impacts have been calculated according to the PCR-ed4-EN-2021 09 06 using the method EN 15804: 2012 + A2: 2019.

Allocation rules

There are no co-products in this product system, so no allocation of inputs and outputs is necessary.

Concerning the end-of-life allocation, the "polluter pay" principle is adopted as required by the PCR-ed4-EN-2021 09 06. This means that waste treatment processes are allocated to the product system that generates the waste until the end-of-waste state is reached. However, the potential benefits and avoided loads from recovery and recycling processes beyond the end-of-waste state are not considered.

Inventory analysis

The data has been collected by ABB filling in a questionnaire relating to the LCA of DS201 C20 AC30 - 2CSR255080R1204. In addition, some data and clarifications have been provided through documents, conference calls and e-mail exchanges.

For data collection of the manufacturing stage, Bills of Material (BoM) extracted from ABB's internal SAP software were used.

To facilitate the calculations of the LCA and the presentation of the results, the LCA software SimaPro v. 9.4.0.2 has been used. For all processes for which no primary or representative data were available, the LCA ecoinvent v3.8 database, allocation, and cut-off by classification have been considered.

The following paragraphs present the data used and the main assumptions made for the LCA model of DS201 C20 AC30 - 2CSR255080R1204 in the SimaPro v. 9.4.0.2 software.

Manufacturing stage

The manufacturing stage includes the production and transportation to the manufacturer's last logistic platform of DS201 C20 AC30 - 2CSR255080R1204 and its packaging.

Distribution

The transport from ABB Santa Palomba factory to ABB S.p.A. Regional Distribution Centre in Vignate, Milan was considered.
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, considering the European macro-area for the use phase.

Installation

The installation phase only implies manual activities, and no energy is consumed because there is no direct consumption during installation the of the product. This phase also includes the disposal of the packaging of the of 2CSR255080R1204 code product. For its disposal, the statistical average data from Eurostat databases were considered, relating to landfill, incineration, and recycling rates, by type of waste treated.

Use

Since no maintenance happens during the use phase, the environmental impacts linked to this procedure have been omitted from the analysis.

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For the use phase, the European average electricity consumption process "Electricity, low voltage {RER}| market group for | Cut-off, S" was adopted.

During the use phase, *DS201 Residual Current Circuit Breaker with Overcurrent Protection* dissipate a small amount of power. The average power loss of the switch has been calculated by ABB following the assumption indicated in the PSR-0005-ed2-EN-2016 03 29:

- Nominal current load rate as 50%.
- RSL of 20 years.
- Functioning time of 30% of the RSL (α).

The formula for the calculation of the use stage electricity consumption from the average power loss is shown below:

$$E_{use}\ [kWh] = \frac{P_{use} * 8760 * RSL * \alpha}{1000}$$

Where:

- Puse [W] is the power consumed by the switch (average power loss).
- RSL is the service life of the product, assumed to be 20 years.
- 8760 is the number of hours in a year.
- α is the functioning time of 30% of the RSL.
- 1000 is the conversion factor that allows the energy consumed in kWh over the product's service life to be expressed.

End of life

The default end-of-life scenario provided by the IEC/TR 62635 document has been adopted, considering the product transport by lorry over 1000 km and its disposal, since the distance to the disposal site is not known as it is stated in the PSR. The IEC/TR 62635 document has been chosen for the LCA analysis because it is a sector-specific guideline with end-of-life data for electric and electronic equipment.

Energy models used

The modelling of 2CSR255080R1204 is based on the following energy models.

Life cycle stage	Energy models
Manufacturing stage	Manufacturing plant: Electricity, medium voltage {IT}| market for	Cut-off, System_GO energy mix_ei 3.8 System *The energy-related processes used for the remaining inputs of the manufacturing stage are those included in the ecoinvent 3.8 datasets selected for the analysis*
Use	Electricity, low voltage {RER}| market group for	Cut-off, S
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*

Environmental indicators

The environmental impact of 2CSR255080R1204 is calculated for the mandatory and optional impact categories required by the PCR. These indicators are derived from EN 15804:2012+A2:2019.

Impact category	Unit	Total	Manufacturing stage	Distribution stage	Installation stage	Use stage	End-of-life stage
Climate change	kg CO2 eq	4.05E+01	1.88E+00	1.71E-01	1.20E-01	3.82E+01	1.43E-01
Climate change - Fossil	kg CO2 eq	3.91E+01	1.87E+00	1.70E-01	1.14E-02	3.69E+01	1.37E-01
Climate change - Biogenic	kg CO2 eq	1.31E+00	5.29E-03	1.55E-04	1.08E-01	1.19E+00	5.63E-03
Climate change - Land use and LU change	kg CO2 eq	8.96E-02	2.19E-03	6.75E-05	4.32E-06	8.72E-02	1.32E-04
Ozone depletion	kg CFC11 eq	3.84E-06	1.93E-06	3.98E-08	2.11E-09	1.86E-06	1.30E-08
Acidification	mol H+ eq	2.33E-01	1.99E-02	8.64E-04	5.52E-05	2.10E-01	2.28E-03
Eutrophication, freshwater	kg P eq	3.88E-02	1.53E-03	1.11E-05	9.62E-07	3.72E-02	1.26E-04
Eutrophication, marine	kg N eq	3.84E-02	2.68E-03	2.97E-04	2.62E-05	3.50E-02	3.55E-04
Eutrophication, terrestrial	mol N eq	3.40E-01	2.49E-02	3.25E-03	2.08E-04	3.09E-01	2.23E-03
Photochemical ozone formation	kg NMVOC eq	9.41E-02	7.63E-03	9.28E-04	6.20E-05	8.48E-02	6.58E-04
Resource use, minerals and metals	kg Sb eq	7.47E-04	3.53E-04	5.98E-07	4.06E-08	3.47E-04	4.60E-05
Resource use, fossils	MJ	8.15E+02	2.48E+01	2.60E+00	1.47E-01	7.86E+02	1.69E+00
Water use (AWARE)	m3	1.07E+01	1.64E+00	7.83E-03	6.33E-04	9.02E+00	5.81E-02

Impact category	Unit	Total	Manufacturing stage	Distribution stage	Installation stage	Use stage	End-of-life stage
Use of non-renewable primary energy, excluding non-renewable primary energy resources used as raw materials	MJ	8.13E+02	2.29E+01	2.60E+00	1.47E-01	7.86E+02	1.69E+00
Use of non-renewable primary energy resources used as raw materials	MJ	1.87E+00	1.87E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Total use non-renew. primary energy res.	MJ	8.15E+02	2.48E+01	2.60E+00	1.47E-01	7.86E+02	1.69E+00
Use of renewable primary energy, excluding renewable primary energy resources used as raw materials	MJ	1.68E+02	5.90E+00	3.66E-02	2.55E-03	1.62E+02	2.07E-01
Use of renewable primary energy resources used as raw materials	MJ	1.23E+00	1.23E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Total use renew. primary energy res.	MJ	1.69E+02	7.13E+00	3.66E-02	2.55E-03	1.62E+02	2.07E-01

Impact category	Unit	Total	Manufacturing stage	Distribution stage	Installation stage	Use stage	End-of-life stage
Use of secondary material	kg	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
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
Net use of fresh water	m3	7.28E-01	4.25E-02	2.90E-04	2.81E-05	6.83E-01	1.85E-03

Impact category	Unit	Total	Manufacturing stage	Distribution stage	Installation stage	Use stage	End-of-life stage
Hazardous waste disposed	kg	7.71E-04	1.58E-04	6.79E-06	3.85E-07	5.98E-04	7.95E-06
Non-hazardous waste disposed	kg	3.51E+00	4.48E-01	1.34E-01	1.59E-02	2.75E+00	1.63E-01
Radioactive waste disposed	kg	5.87E-03	6.56E-05	1.76E-05	9.53E-07	5.78E-03	9.98E-06

Impact category	Unit	Total	Manufacturing stage	Distribution stage	Installation stage	Use stage	End-of-life stage
Components for reuse	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Materials for recycling	kg	2.15E-01	7.09E-02	0.00E+00	3.03E-02	0.00E+00	1.14E-01
Materials for energy recovery	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Exported energy	MJ	1.48E-01	4.81E-02	0.00E+00	4.81E-02	0.00E+00	5.14E-02

Impact category	Unit	Total	Manufacturing stage	Distribution stage	Installation stage	Use stage	End-of-life stage
Total use of primary energy during the life cycle	MJ	9.85E+02	3.19E+01	2.64E+00	1.50E-01	9.48E+02	1.90E+00
Particulate matter	disease inc.	8.25E-07	1.27E-07	1.52E-08	9.43E-10	6.70E-07	1.20E-08
Ionising radiation	kBq U-235 eq	2.17E+01	1.79E-01	1.34E-02	7.50E-04	2.15E+01	2.31E-02
Ecotoxicity, freshwater	CTUe	6.43E+02	1.32E+02	2.03E+00	1.57E-01	4.97E+02	1.22E+01
Human toxicity, cancer	CTUh	2.53E-08	6.98E-09	6.57E-11	7.69E-12	1.53E-08	2.94E-09
Human toxicity, non-cancer	CTUh	7.04E-07	1.79E-07	2.13E-09	1.47E-10	4.88E-07	3.51E-08
Land use	Pt	1.66E+02	2.03E+01	1.79E+00	9.80E-02	1.42E+02	1.38E+00

Biogenic carbon content	Unit (kg C)
Biogenic carbon content in the product	0.00E+00
Biogenic carbon content in accompanying packaging	2.54E-02

Extrapolation rules

The PEP can cover products different from the reference product if they belong to a homogeneous environmental family. This means that the group of products must satisfy the following characteristics:

- same function.
- same product standard.
- same manufacturing technology: the same type of materials and same manufacturing processes.

The DS201 RCBO product family satisfy these conditions, so extrapolation rules were applied to assess the environmental impact of the products belonging to the family, following the PCR indication. No extrapolation rules for differential circuit breakers are set in the PSR, thus the next steps have been followed to define the extrapolation rule:

- Analyse the products covered by the PEP belonging to the same homogenous family.
- Perform the LCA of a representative product of the homogeneous family.
- Identify and quantify the product parameters that vary between the various products of the homogeneous environmental family (i.e., dimensions, the weight of parts, materials, energy consumption, etc.).

Lastly, a sensitivity analysis was performed for each life cycle stage to identify which parameters of the ones selected are sensitive to environmental impact to create extrapolation rules.

The representative product considered for the calculation of the extrapolation rules is the one analyzed in the LCA report, the code 2CSR255080R1204.

The products included in the DS201 RCBO product family and considered for the application of the extrapolation rules, are represented in the following table.

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ABB Code of the specific product	Name	Tp = Type of differential protection	U = Rated voltage (V)	In = Rated Current in continuous operation (A)	Rated breaking capacity [A]	Np = Number of protected poles	S = Sen.ty [mA]	Weight of the product [g]	Average power loss @50%In [W]
2CSR245041R3064	DS201 L C6 AC300-L	AC	230v	6	6k	1P+N	300	201	1.2
2CSR245041R0064	DS201 L C6 AC10-L	AC	230v	6	6k	1P+N	10	201	1.2
2CSR245441R1204	DS201 L C20 APR30-L	APR	230v	20	6k	1P+N	30	201	1.8
2CSR245441R1164	DS201 L C16 APR30-L	APR	230v	16	6k	1P+N	30	201	1.65
2CSR245041R3404	DS201 L C40 AC300-L	AC	230v	40	6k	1P+N	300	220	2.5
2CSR245041R3324	DS201 L C32 AC300-L	AC	230v	32	6k	1P+N	300	220	3.2
2CSR245041R3254	DS201 L C25 AC300-L	AC	230v	25	6k	1P+N	300	201	2.75
2CSR245041R3204	DS201 L C20 AC300-L	AC	230v	20	6k	1P+N	300	201	1.8
2CSR245180R3064	DS201 L C6 A300	A	230v	6	6k	1P+N	300	201	1.2
2CSR245041R3104	DS201 L C10 AC300-L	AC	230v	10	6k	1P+N	300	201	0.9
2CSR245180R3164	DS201 L C16 A300	A	230v	16	6k	1P+N	300	201	1.65
2CSR245041R1404	DS201 L C40 AC30-L	AC	230v	40	6k	1P+N	30	220	2.5
2CSR245041R1324	DS201 L C32 AC30-L	AC	230v	32	6k	1P+N	30	220	3.2
2CSR245480R1204	DS201 L C20 APR30	APR	230v	20	6k	1P+N	30	201	1.8
2CSR245041R1254	DS201 L C25 AC30-L	AC	230v	25	6k	1P+N	30	201	2.75
2CSR245480R1324	DS201 L C32 APR30	APR	230v	32	6k	1P+N	30	220	3.2
2CSR245041R1204	DS201 L C20 AC30-L	AC	230v	20	6k	1P+N	30	201	1.8
2CSR245480R1104	DS201 L C10 APR30	APR	230v	10	6k	1P+N	30	201	0.9
2CSR245041R1164	DS201 L C16 AC30-L	AC	230v	16	6k	1P+N	30	201	1.65
2CSR245041R1104	DS201 L C10 AC30-L	AC	230v	10	6k	1P+N	30	201	0.9
2CSR245480R1254	DS201 L C25 APR30	APR	230v	25	6k	1P+N	30	201	2.75
2CSR245041R1064	DS201 L C6 AC30-L	AC	230v	6	6k	1P+N	30	201	1.2
2CSR245041R1044	DS201 L C4 AC30-L	AC	230v	4	6k	1P+N	30	201	1.1
2CSR245480R1164	DS201 L C16 APR30	APR	230v	16	6k	1P+N	30	201	1.65
2CSR245080R1324	DS201 L C32 AC30	AC	230v	32	6k	1P+N	30	220	3.2
2CSR245041R1024	DS201 L C2 AC30-L	AC	230v	2	6k	1P+N	30	201	0.8
2CSR245480R1064	DS201 L C6 APR30	APR	230v	6	6k	1P+N	30	201	1.2
2CSR245080R1204	DS201 L C20 AC30	AC	230v	20	6k	1P+N	30	201	1.8
2CSR245041R0164	DS201 L C16 AC10-L	AC	230v	16	6k	1P+N	10	201	1.65
2CSR245180R1324	DS201 L C32 A30	A	230v	32	6k	1P+N	30	220	3.2
2CSR245041R0104	DS201 L C10 AC10-L	AC	230v	10	6k	1P+N	10	201	0.9
2CSR245080R1104	DS201 L C10 AC30	AC	230v	10	6k	1P+N	30	201	0.9
2CSR245180R3104	DS201 L C10 A300	A	230v	10	6k	1P+N	300	201	0.9
2CSR245180R1204	DS201 L C20 A30	A	230v	20	6k	1P+N	30	201	1.8

2CSR245080R1064	DS201 L C6 AC30	AC	230v	6	6k	1P+N	30	201	1.2
2CSR245041R3164	DS201 L C16 AC300-L	AC	230v	16	6k	1P+N	300	201	1.65
2CSR245180R0104	DS201 L C10 A10	A	230v	10	6k	1P+N	10	201	0.9
2CSR245180R3324	DS201 L C32 A300	A	230v	32	6k	1P+N	300	220	3.2
2CSR245080R3254	DS201 L C25 AC300	AC	230v	25	6k	1P+N	300	201	2.75
2CSR245080R1164	DS201 L C16 AC30	AC	230v	16	6k	1P+N	30	201	1.65
2CSR245180R3204	DS201 L C20 A300	A	230v	20	6k	1P+N	300	201	1.8
2CSR245041U1064	DS201 L C6 AC30 U - L	AC	230v	6	6k	1P+N	30	201	1.2
2CSR245180R0164	DS201 L C16 A10	A	230v	16	6k	1P+N	10	201	1.65
2CSR245180R3254	DS201 L C25 A300	A	230v	25	6k	1P+N	300	201	2.75
2CSR245041U1104	DS201 L C10 AC30 U - L	AC	230v	10	6k	1P+N	30	201	0.9
2CSR245041U1164	DS201 L C16 AC30 U - L	AC	230v	16	6k	1P+N	30	201	1.65
2CSR245080R1254	DS201 L C25 AC30	AC	230v	25	6k	1P+N	30	201	2.75
2CSR245180R1254	DS201 L C25 A30	A	230v	25	6k	1P+N	30	201	2.75
2CSR245080R3204	DS201 L C20 AC300	AC	230v	20	6k	1P+N	300	201	1.8
2CSR245080R3324	DS201 L C32 AC300	AC	230v	32	6k	1P+N	300	220	3.2
2CSR245180R1104	DS201 L C10 A30	A	230v	10	6k	1P+N	30	201	0.9
2CSR245080R3104	DS201 L C10 AC300	AC	230v	10	6k	1P+N	300	201	0.9
2CSR245180R1164	DS201 L C16 A30	A	230v	16	6k	1P+N	30	201	1.65
2CSR245180R0064	DS201 L C6 A10	A	230v	6	6k	1P+N	10	201	1.2
2CSR245080R3164	DS201 L C16 AC300	AC	230v	16	6k	1P+N	300	201	1.65
2CSR245080R3064	DS201 L C6 AC300	AC	230v	6	6k	1P+N	300	201	1.2
2CSR245180R1064	DS201 L C6 A30	A	230v	6	6k	1P+N	30	201	1.2
2CSR255041R3254	DS201 C25 AC300-L	AC	230v	25	6k	1P+N	300	201	2.75
2CSR255041R3404	DS201 C40 AC300-L	AC	230v	40	6k	1P+N	300	220	2.5
2CSR255041R3324	DS201 C32 AC300-L	AC	230v	32	6k	1P+N	300	220	3.2
2CSR255041R1404	DS201 C40 AC30-L	AC	230v	40	6k	1P+N	30	220	2.5
2CSR255041R1324	DS201 C32 AC30-L	AC	230v	32	6k	1P+N	30	220	3.2
2CSR255041R3204	DS201 C20 AC300-L	AC	230v	20	6k	1P+N	300	201	1.8
2CSR255041R3164	DS201 C16 AC300-L	AC	230v	16	6k	1P+N	300	201	1.65
2CSR255041R3104	DS201 C10 AC300-L	AC	230v	10	6k	1P+N	300	201	0.9
2CSR255041R3064	DS201 C6 AC300-L	AC	230v	6	6k	1P+N	300	201	1.2
2CSR255041R1254	DS201 C25 AC30-L	AC	230v	25	6k	1P+N	30	201	2.75
2CSR255041R1204	DS201 C20 AC30-L	AC	230v	20	6k	1P+N	30	201	1.8
2CSR255041R1104	DS201 C10 AC30-L	AC	230v	10	6k	1P+N	30	201	0.9
2CSR255041R1064	DS201 C6 AC30-L	AC	230v	6	6k	1P+N	30	201	1.2
2CSR255041R1164	DS201 C16 AC30-L	AC	230v	16	6k	1P+N	30	201	1.65

2CSR255080R2065	DS201 B6 AC100	AC	230v	6	6k	1P+N	100	201	1.2
2CSR255080R2064	DS201 C6 AC100	AC	230v	6	6k	1P+N	100	201	1.2
2CSR255080R1105	DS201 B10 AC30	AC	230v	10	6k	1P+N	30	201	0.9
2CSR255080R1104	DS201 C10 AC30	AC	230v	10	6k	1P+N	30	201	0.9
2CSR255080R2205	DS201 B20 AC100	AC	230v	20	6k	1P+N	100	201	1.8
2CSR255080R2204	DS201 C20 AC100	AC	230v	20	6k	1P+N	100	201	1.8
2CSR255080R1325	DS201 B32 AC30	AC	230v	32	6k	1P+N	30	220	3.2
2CSR255080R1204	DS201 C20 AC30	AC	230v	20	6k	1P+N	30	201	1.8
2CSR255080R1205	DS201 B20 AC30	AC	230v	20	6k	1P+N	30	201	1.8
2CSR255080R1324	DS201 C32 AC30	AC	230v	32	6k	1P+N	30	220	3.2
2CSR255080R3065	DS201 B6 AC300	AC	230v	6	6k	1P+N	300	201	1.2
2CSR255080R3064	DS201 C6 AC300	AC	230v	6	6k	1P+N	300	201	1.2
2CSR255080R1404	DS201 C40 AC30	AC	230v	40	6k	1P+N	30	220	2.5
2CSR255080R3165	DS201 B16 AC300	AC	230v	16	6k	1P+N	300	201	1.65
2CSR255080R1405	DS201 B40 AC30	AC	230v	40	6k	1P+N	30	220	2.5
2CSR255080R3164	DS201 C16 AC300	AC	230v	16	6k	1P+N	300	201	1.65
2CSR255080R1064	DS201 C6 AC30	AC	230v	6	6k	1P+N	30	201	1.2
2CSR255080R1065	DS201 B6 AC30	AC	230v	6	6k	1P+N	30	201	1.2
2CSR255080R3405	DS201 B40 AC300	AC	230v	40	6k	1P+N	300	220	2.5
2CSR255080R3404	DS201 C40 AC300	AC	230v	40	6k	1P+N	300	220	2.5
2CSR255080R2164	DS201 C16 AC100	AC	230v	16	6k	1P+N	100	201	1.65
2CSR255080R2165	DS201 B16 AC100	AC	230v	16	6k	1P+N	100	201	1.65
2CSR255080R2324	DS201 C32 AC100	AC	230v	32	6k	1P+N	100	220	3.2
2CSR255080R2325	DS201 B32 AC100	AC	230v	32	6k	1P+N	100	220	3.2
2CSR255080R2135	DS201 B13 AC100	AC	230v	13	6k	1P+N	100	201	1.25
2CSR255080R2404	DS201 C40 AC100	AC	230v	40	6k	1P+N	100	220	2.5
2CSR255080R1164	DS201 C16 AC30	AC	230v	16	6k	1P+N	30	201	1.65
2CSR255080R1165	DS201 B16 AC30	AC	230v	16	6k	1P+N	30	201	1.65
2CSR255080R2405	DS201 B40 AC100	AC	230v	40	6k	1P+N	100	220	2.5
2CSR255080R2134	DS201 C13 AC100	AC	230v	13	6k	1P+N	100	201	1.25
2CSR255080R3254	DS201 C25 AC300	AC	230v	25	6k	1P+N	300	201	2.75
2CSR255080R3135	DS201 B13 AC300	AC	230v	13	6k	1P+N	300	201	1.25
2CSR255080R1255	DS201 B25 AC30	AC	230v	25	6k	1P+N	30	201	2.75
2CSR255080R3255	DS201 B25 AC300	AC	230v	25	6k	1P+N	300	201	2.75
2CSR255080R1134	DS201 C13 AC30	AC	230v	13	6k	1P+N	30	201	1.25
2CSR255141R1164	DS201 C16 A30-L	A	230v	16	6k	1P+N	30	201	1.65
2CSR255080R3134	DS201 C13 AC300	AC	230v	13	6k	1P+N	300	201	1.25

2CSR255141R1061	DS201 D6 A30-L	A	230v	6	6k	1P+N	30	201	1.2
2CSR255080R1135	DS201 B13 AC30	AC	230v	13	6k	1P+N	30	201	1.25
2CSR255141R1064	DS201 C6 A30-L	A	230v	6	6k	1P+N	30	201	1.2
2CSR255080R3104	DS201 C10 AC300	AC	230v	10	6k	1P+N	300	201	0.9
2CSR255080R2104	DS201 C10 AC100	AC	230v	10	6k	1P+N	100	201	0.9
2CSR255141R1101	DS201 D10 A30-L	A	230v	10	6k	1P+N	30	201	0.9
2CSR255141R1161	DS201 D16 A30-L	A	230v	16	6k	1P+N	30	201	1.65
2CSR255080R2105	DS201 B10 AC100	AC	230v	10	6k	1P+N	100	201	0.9
2CSR255080R3105	DS201 B10 AC300	AC	230v	10	6k	1P+N	300	201	0.9
2CSR255141R1201	DS201 D20 A30-L	A	230v	20	6k	1P+N	30	201	1.8
2CSR255080R2254	DS201 C25 AC100	AC	230v	25	6k	1P+N	100	201	2.75
2CSR255080R1254	DS201 C25 AC30	AC	230v	25	6k	1P+N	30	201	2.75
2CSR255141R1204	DS201 C20 A30-L	A	230v	20	6k	1P+N	30	201	1.8
2CSR255080R2255	DS201 B25 AC100	AC	230v	25	6k	1P+N	100	201	2.75
2CSR255141R1251	DS201 D25 A30-L	A	230v	25	6k	1P+N	30	201	2.75
2CSR255080R3324	DS201 C32 AC300	AC	230v	32	6k	1P+N	300	220	3.2
2CSR255141R1254	DS201 C25 A30-L	A	230v	25	6k	1P+N	30	201	2.75
2CSR255080R3205	DS201 B20 AC300	AC	230v	20	6k	1P+N	300	201	1.8
2CSR255141R1321	DS201 D32 A30-L	A	230v	32	6k	1P+N	30	220	3.2
2CSR255141R1324	DS201 C32 A30-L	A	230v	32	6k	1P+N	30	220	3.2
2CSR255141R1401	DS201 D40 A30-L	A	230v	40	6k	1P+N	30	220	2.5
2CSR255080R3325	DS201 B32 AC300	AC	230v	32	6k	1P+N	300	220	3.2
2CSR255141R1404	DS201 C40 A30-L	A	230v	40	6k	1P+N	30	220	2.5
2CSR255141R3061	DS201 D6 A300-L	A3	230v	6	6k	1P+N	300	201	1.2
2CSR255080R3204	DS201 C20 AC300	AC	230v	20	6k	1P+N	300	201	1.8
2CSR255141R3064	DS201 C6 A300-L	A	230v	6	6k	1P+N	300	201	1.2
2CSR255086R1104	DS201 C10 AC30 240V	AC	240V	10	6k	1P+N	30	201	0.9
2CSR255141R3101	DS201 D10 A300-L	A	230v	10	6k	1P+N	300	201	0.9
2CSR255086R1064	DS201 C6 AC30 240V	AC	240V	6	6k	1P+N	30	201	1.2
2CSR255141R3104	DS201 C10 A300-L	A	230v	10	6k	1P+N	300	201	0.9
2CSR255141R1104	DS201 C10 A30-L	A	230v	10	6k	1P+N	30	201	0.9
2CSR255141R3161	DS201 D16 A300-L	A	230v	16	6k	1P+N	300	201	1.65
2CSR255086R1204	DS201 C20 AC30 240V	AC	240V	20	6k	1P+N	30	201	1.8
2CSR255141R3164	DS201 C16 A300-L	A	230v	16	6k	1P+N	300	201	1.65
2CSR255086R1164	DS201 C16 AC30 240V	AC	240V	16	6k	1P+N	30	201	1.65
2CSR255141R3201	DS201 D20 A300-L	A	230v	20	6k	1P+N	300	201	1.8
2CSR255086R1254	DS201 C25 AC30 240V	AC	240V	25	6k	1P+N	30	201	2.75

2CSR255141R3204	DS201 C20 A300-L	A	230v	20	6k	1P+N	300	201	1.8
2CSR255141R3251	DS201 D25 A300-L	A	230v	25	6k	1P+N	300	201	2.75
2CSR255086R1134	DS201 C13 AC30 240V	AC	240V	13	6k	1P+N	30	201	1.25
2CSR255141R3254	DS201 C25 A300-L	A	230v	25	6k	1P+N	300	201	2.75
2CSR255141R3321	DS201 D32 A300-L	A	230v	32	6k	1P+N	300	220	3.2
2CSR255141R3324	DS201 C32 A300-L	A	230v	32	6k	1P+N	300	220	3.2
2CSR255086R1324	DS201 C32 AC30 240V	AC	240V	32	6k	1P+N	30	220	3.2
2CSR255086R1404	DS201 C40 AC30 240V	AC	240V	40	6k	1P+N	30	220	2.5
2CSR255141R3401	DS201 D40 A300-L	A	230v	40	6k	1P+N	300	220	2.5
2CSR255141R3404	DS201 C40 A300-L	A	230v	40	6k	1P+N	300	220	2.5
2CSR255144U1165	DS201S B16 A30 U HAF-L	A	230v	16	6k	1P+N	30	201	1.65
2CSR255144U1164	DS201S C16 A30 U HAF-L	A	230v	16	6k	1P+N	30	201	1.65
2CSR255180R1065	DS201 B6 A30	A	230v	6	6k	1P+N	30	201	1.2
2CSR255180R1067	DS201 K6 A30	A	230v	6	6k	1P+N	30	201	1.2
2CSR255180R1027	DS201 K2 A30	A	230v	2	6k	1P+N	30	201	0.8
2CSR255180R1064	DS201 C6 A30	A	230v	6	6k	1P+N	30	201	1.2
2CSR255180R1024	DS201 C2 A30	A	230v	2	6k	1P+N	30	201	0.8
2CSR255180R0167	DS201 K16 A10	A	230v	16	6k	1P+N	10	201	1.65
2CSR255180R1087	DS201 K8 A30	A	230v	8	6k	1P+N	30	201	0.95
2CSR255180R1084	DS201 C8 A30	A	230v	8	6k	1P+N	30	201	0.95
2CSR255180R1017	DS201 K1 A30	A	230v	1	6k	1P+N	30	201	0.7
2CSR255180R1257	DS201 K25 A30	A	230v	25	6k	1P+N	30	201	2.75
2CSR255180R0164	DS201 C16 A10	A	230v	16	6k	1P+N	10	201	1.65
2CSR255180R1135	DS201 B13 A30	A	230v	13	6k	1P+N	30	201	1.25
2CSR255180R0165	DS201 B16 A10	A	230v	16	6k	1P+N	10	201	1.65
2CSR255180R1137	DS201 K13 A30	A	230v	13	6k	1P+N	30	201	1.25
2CSR255180R0135	DS201 B13 A10	A	230v	13	6k	1P+N	10	201	1.25
2CSR255180R0134	DS201 C13 A10	A	230v	13	6k	1P+N	10	201	1.25
2CSR255180R1255	DS201 B25 A30	A	230v	25	6k	1P+N	30	201	2.75
2CSR255180R0137	DS201 K13 A10	A	230v	13	6k	1P+N	10	201	1.25
2CSR255180R1134	DS201 C13 A30	A	230v	13	6k	1P+N	30	201	1.25
2CSR255180R0105	DS201 B10 A10	A	230v	10	6k	1P+N	10	201	0.9
2CSR255180R1254	DS201 C25 A30	A	230v	25	6k	1P+N	30	201	2.75
2CSR255180R1047	DS201 K4 A30	A	230v	4	6k	1P+N	30	201	1.1
2CSR255180R0107	DS201 K10 A10	A	230v	10	6k	1P+N	10	201	0.9
2CSR255180R1165	DS201 B16 A30	A	230v	16	6k	1P+N	30	201	1.65
2CSR255180R0104	DS201 C10 A10	A	230v	10	6k	1P+N	10	201	0.9

2CSR255186R1104	DS201 C10 A30 240V	A	240V	10	6k	1P+N	30	201	0.9
2CSR255180R3137	DS201 K13 A300	A	230v	13	6k	1P+N	300	201	1.25
2CSR255180R3027	DS201 K2 A300	A	230v	2	6k	1P+N	300	201	0.8
2CSR255180R1044	DS201 C4 A30	A	230v	4	6k	1P+N	30	201	1.1
2CSR255180R3024	DS201 C2 A300	A	230v	2	6k	1P+N	300	201	0.8
2CSR255180R3135	DS201 B13 A300	A	230v	13	6k	1P+N	300	201	1.25
2CSR255186R1254	DS201 C25 A30 240V	A	240V	25	6k	1P+N	30	201	2.75
2CSR255180R1164	DS201 C16 A30	A	230v	16	6k	1P+N	30	201	1.65
2CSR255180R3017	DS201 K1 A300	A	230v	1	6k	1P+N	300	201	0.7
2CSR255180R3257	DS201 K25 A300	A	230v	25	6k	1P+N	300	201	2.75
2CSR255186R1134	DS201 C13 A30 240V	A	240V	13	6k	1P+N	30	201	1.25
2CSR255180R1167	DS201 K16 A30	A	230v	16	6k	1P+N	30	201	1.65
2CSR255180R1407	DS201 K40 A30	A	230v	40	6k	1P+N	30	220	2.5
2CSR255180R3254	DS201 C25 A300	A	230v	25	6k	1P+N	300	201	2.75
2CSR255186R1404	DS201 C40 A30 240V	A	240V	40	6k	1P+N	30	220	2.5
2CSR255180R1404	DS201 C40 A30	A	230v	40	6k	1P+N	30	220	2.5
2CSR255180R2165	DS201 B16 A100	A	230v	16	6k	1P+N	100	201	1.65
2CSR255186R1324	DS201 C32 A30 240V	A	240V	32	6k	1P+N	30	220	3.2
2CSR255180R1405	DS201 B40 A30	A	230v	40	6k	1P+N	30	220	2.5
2CSR255180R2164	DS201 C16 A100	A	230v	16	6k	1P+N	100	201	1.65
2CSR255180R3255	DS201 B25 A300	A	230v	25	6k	1P+N	300	201	2.75
2CSR255186R1204	DS201 C20 A30 240V	A	240V	20	6k	1P+N	30	201	1.8
2CSR255180R1107	DS201 K10 A30	A	230v	10	6k	1P+N	30	201	0.9
2CSR255180R3134	DS201 C13 A300	A	230v	13	6k	1P+N	300	201	1.25
2CSR255180R2104	DS201 C10 A100	A	230v	10	6k	1P+N	100	201	0.9
2CSR255180R1105	DS201 B10 A30	A	230v	10	6k	1P+N	30	201	0.9
2CSR255186R1164	DS201 C16 A30 240V	A	240V	16	6k	1P+N	30	201	1.65
2CSR255186R1084	DS201 C8 A30 240V	A	240V	8	6k	1P+N	30	201	0.95
2CSR255180R3207	DS201 K20 A300	A	230v	20	6k	1P+N	300	201	1.8
2CSR255180R1104	DS201 C10 A30	A	230v	10	6k	1P+N	30	201	0.9
2CSR255180R2105	DS201 B10 A100	A	230v	10	6k	1P+N	100	201	0.9
2CSR255187R1205	DS201 B20 A30 UL	A	110V	20	6k	1P+N	30	201	1.8
2CSR255180R1327	DS201 K32 A30	A	230v	32	6k	1P+N	30	220	3.2
2CSR255180R3205	DS201 B20 A300	A	230v	20	6k	1P+N	300	201	1.8
2CSR255180R3104	DS201 C10 A300	A	230v	10	6k	1P+N	300	201	0.9
2CSR255180R3327	DS201 K32 A300	A	230v	32	6k	1P+N	300	220	3.2
2CSR255180R3105	DS201 B10 A300	A	230v	10	6k	1P+N	300	201	0.9

2CSR255187R1204	DS201 C20 A30 UL	A	110V	20	6k	1P+N	30	201	1.8
2CSR255180R1205	DS201 B20 A30	A	230v	20	6k	1P+N	30	201	1.8
2CSR255180R2254	DS201 C25 A100	A	230v	25	6k	1P+N	100	201	2.75
2CSR255187R1105	DS201 B10 A30 UL	A	110V	10	6k	1P+N	30	201	0.9
2CSR255180R3324	DS201 C32 A300	A	230v	32	6k	1P+N	300	220	3.2
2CSR255180R1207	DS201 K20 A30	A	230v	20	6k	1P+N	30	201	1.8
2CSR255180R2135	DS201 B13 A100	A	230v	13	6k	1P+N	100	201	1.25
2CSR255187R1104	DS201 C10 A30 UL	A	110V	10	6k	1P+N	30	201	0.9
2CSR255180R1325	DS201 B32 A30	A	230v	32	6k	1P+N	30	220	3.2
2CSR255180R3325	DS201 B32 A300	A	230v	32	6k	1P+N	300	220	3.2
2CSR255180R1204	DS201 C20 A30	A	230v	20	6k	1P+N	30	201	1.8
2CSR255180R2255	DS201 B25 A100	A	230v	25	6k	1P+N	100	201	2.75
2CSR255187R1135	DS201 B13 A30 UL	A	110V	13	6k	1P+N	30	201	1.25
2CSR255180R3204	DS201 C20 A300	A	230v	20	6k	1P+N	300	201	1.8
2CSR255187R1134	DS201 C13 A30 UL	A	110V	13	6k	1P+N	30	201	1.25
2CSR255180R3107	DS201 K10 A300	A	230v	10	6k	1P+N	300	201	0.9
2CSR255180R1324	DS201 C32 A30	A	230v	32	6k	1P+N	30	220	3.2
2CSR255180R2134	DS201 C13 A100	A	230v	13	6k	1P+N	100	201	1.25
2CSR255180R3167	DS201 K16 A300	A	230v	16	6k	1P+N	300	201	1.65
2CSR255180R3087	DS201 K8 A300	A	230v	8	6k	1P+N	300	201	0.95
2CSR255180R3164	DS201 C16 A300	A	230v	16	6k	1P+N	300	201	1.65
2CSR255180R3084	DS201 C8 A300	A	230v	8	6k	1P+N	300	201	0.95
2CSR255180R3165	DS201 B16 A300	A	230v	16	6k	1P+N	300	201	1.65
2CSR255187R1165	DS201 B16 A30 UL	A	110V	16	6k	1P+N	30	201	1.65
2CSR255180R3047	DS201 K4 A300	A	230v	4	6k	1P+N	300	201	1.1
2CSR255180U1164	DS201 C16 A30	A	230v	16	6k	1P+N	30	201	1.65
2CSR255180R3044	DS201 C4 A300	A	230v	4	6k	1P+N	300	201	1.1
2CSR255187R1164	DS201 C16 A30 UL	A	110V	16	6k	1P+N	30	201	1.65
2CSR255180R2065	DS201 B6 A100	A	230v	6	6k	1P+N	100	201	1.2
2CSR255180U1134	DS201 C13 A30	A	230v	13	6k	1P+N	30	201	1.25
2CSR255187R1065	DS201 B6 A30 UL	A	110V	6	6k	1P+N	30	201	1.2
2CSR255180R2064	DS201 C6 A100	A	230v	6	6k	1P+N	100	201	1.2
2CSR255180U1104	DS201 C10 A30	A	230v	10	6k	1P+N	30	201	0.9
2CSR255187R1064	DS201 C6 A30 UL	A	110V	6	6k	1P+N	30	201	1.2
2CSR255180R3067	DS201 K6 A300	A	230v	6	6k	1P+N	300	201	1.2
2CSR255180R3407	DS201 K40 A300	A	230v	40	6k	1P+N	300	220	2.5
2CSR255187R1207	DS201 K20 A30 UL	A	110V	20	6k	1P+N	30	201	1.8

2CSR255180R3405	DS201 B40 A300	A	230v	40	6k	1P+N	300	220	2.5
2CSR255180R3065	DS201 B6 A300	A	230v	6	6k	1P+N	300	201	1.2
2CSR255187R1305	DS201 B30 A30 UL	A	110V	30	6k	1P+N	30	220	3.2
2CSR255188R1104	DS201T C10 A30	A	230v	10	6k	1P+N	30	201	0.9
2CSR255187R1107	DS201 K10 A30 UL	A	110V	10	6k	1P+N	30	201	0.9
2CSR255180R3404	DS201 C40 A300	A	230v	40	6k	1P+N	300	220	2.5
2CSR255187R1304	DS201 C30 A30 UL	A	110V	30	6k	1P+N	30	220	3.2
2CSR255188R1324	DS201T C32 A30	A	230v	32	6k	1P+N	30	220	3.2
2CSR255187R1325	DS201 B32 A30 UL	A	110V	32	6k	1P+N	30	220	3.2
2CSR255180R3064	DS201 C6 A300	A	230v	6	6k	1P+N	300	201	1.2
2CSR255180U1064	DS201 C6 A30	A	230v	6	6k	1P+N	30	201	1.2
2CSR255187R1324	DS201 C32 A30 UL	A	110V	32	6k	1P+N	30	220	3.2
2CSR255188R1204	DS201T C20 A30	A	230v	20	6k	1P+N	30	201	1.8
2CSR255180R2324	DS201 C32 A100	A	230v	32	6k	1P+N	100	220	3.2
2CSR255180U1135	DS201 B13 A30	A	230v	13	6k	1P+N	30	201	1.25
2CSR255187R1137	DS201 K13 A30 UL	A	110V	13	6k	1P+N	30	201	1.25
2CSR255188R1105	DS201T B10 A30	A	230v	10	6k	1P+N	30	201	0.9
2CSR255180R2205	DS201 B20 A100	A	230v	20	6k	1P+N	100	201	1.8
2CSR255187R1167	DS201 K16 A30 UL	A	110V	16	6k	1P+N	30	201	1.65
2CSR255180U1165	DS201 B16 A30	A	230v	16	6k	1P+N	30	201	1.65
2CSR255180R2325	DS201 B32 A100	A	230v	32	6k	1P+N	100	220	3.2
2CSR255186R1064	DS201 C6 A30 240V	A	240V	6	6k	1P+N	30	201	1.2
2CSR255188R1325	DS201T B32 A30	A	230v	32	6k	1P+N	30	220	3.2
2CSR255188R1164	DS201T C16 A30	A	230v	16	6k	1P+N	30	201	1.65
2CSR255180R2204	DS201 C20 A100	A	230v	20	6k	1P+N	100	201	1.8
2CSR255186R1024	DS201 C2 A30 240V	A	240V	2	6k	1P+N	30	201	0.8
2CSR255188R1065	DS201T B6 A30	A	230v	6	6k	1P+N	30	201	1.2
2CSR255186R1044	DS201 C4 A30 240V	A	240V	4	6k	1P+N	30	201	1.1
2CSR255188R1165	DS201T B16 A30	A	230v	16	6k	1P+N	30	201	1.65
2CSR255180R2405	DS201 B40 A100	A	230v	40	6k	1P+N	10	220	2.5
2CSR255188R1067	DS201T K6 A30	A	230v	6	6k	1P+N	30	201	1.2
2CSR255180R2404	DS201 C40 A100	A	230v	40	6k	1P+N	100	220	2.5
2CSR255188R1167	DS201T K16 A30	A	230v	16	6k	1P+N	30	201	1.65
2CSR255188R1407	DS201T K40 A30	A	230v	40	6k	1P+N	30	220	2.5
2CSR255188R1205	DS201T B20 A30	A	230v	20	6k	1P+N	30	201	1.8
2CSR255188R1404	DS201T C40 A30	A	230v	40	6k	1P+N	30	220	2.5
2CSR255188R1107	DS201T K10 A30	A	230v	10	6k	1P+N	30	201	0.9

STATUS	SECURITY LEVEL	DOCUMENT ID.	REV.	LANG.	PAGE
Approved	Public	ABBG-00209-V01.01-EN	1	EN	20/32

2CSR255188R1327	DS201T K32 A30	A	230v	32	6k	1P+N	30	220	3.2
2CSR255188R1405	DS201T B40 A30	A	230v	40	6k	1P+N	30	220	2.5
2CSR255188R1207	DS201T K20 A30	A	230v	20	6k	1P+N	30	201	1.8
2CSR255441R1104	DS201 C10 APR30-L	A	230v	10	6k	1P+N	30	201	0.9
2CSR255188R1135	DS201T B13 A30	A	230v	13	6k	1P+N	30	201	1.25
2CSR255441R1164	DS201 C16 APR30-L	APR	230v	16	6k	1P+N	30	201	1.65
2CSR255441R3104	DS201 C10 APR300-L	APR	230v	10	6k	1P+N	300	201	0.9
2CSR255188R1257	DS201T K25 A30	A	230v	25	6k	1P+N	30	201	2.75
2CSR255441R1204	DS201 C20 APR30-L	APR	230v	20	6k	1P+N	30	201	1.8
2CSR255188R1137	DS201T K13 A30	A	230v	13	6k	1P+N	30	201	1.25
2CSR255441R1324	DS201 C32 APR30-L	APR	230v	32	6k	1P+N	30	220	3.2
2CSR255441R3164	DS201 C16 APR300-L	APR	230v	16	6k	1P+N	300	201	1.65
2CSR255188R1254	DS201T C25 A30	A	230v	25	6k	1P+N	30	201	2.75
2CSR255441R3204	DS201 C20 APR300-L	APR	230v	20	6k	1P+N	300	201	1.8
2CSR255188R1134	DS201T C13 A30	A	230v	13	6k	1P+N	30	201	1.25
2CSR255482R1134	DS201 C13 G30	G	230v	13	6k	1P+N	30	201	1.25
2CSR255441R3254	DS201 C25 APR300-L	APR	230v	25	6k	1P+N	300	201	2.75
2CSR255441R3324	DS201 C32 APR300-L	APR	230v	32	6k	1P+N	300	220	3.2
2CSR255188R1255	DS201T B25 A30	A	230v	25	6k	1P+N	30	201	2.75
2CSR255482R1255	DS201 B25 G30	G	230v	25	6k	1P+N	30	201	2.75
2CSR255441R1254	DS201 C25 APR30-L	APR	230v	25	6k	1P+N	30	201	2.75
2CSR255188R1064	DS201T C6 A30	A	230v	6	6k	1P+N	30	201	1.2
2CSR255482R1135	DS201 B13 G30	G	230v	13	6k	1P+N	30	201	1.25
2CSR255187R1405	DS201 B40 A30 UL	A	230v	40	6k	1P+N	30	220	2.5
2CSR255187R1404	DS201 C40 A30 UL	A	230v	40	6k	1P+N	30	220	2.5
2CSR255480R1404	DS201 C40 APR30	APR	230v	40	6k	1P+N	30	220	2.5
2CSR255482R1254	DS201 C25 G30	G	230v	25	6k	1P+N	30	201	2.75
2CSR255187R1355	DS201 B35 A30 UL	A	230v	35	6k	1P+N	30	220	3.45
2CSR255480R1104	DS201 C10 APR30	APR	230v	10	6k	1P+N	30	201	0.9
2CSR255187R1354	DS201 C35 A30 UL	A	230v	35	6k	1P+N	30	220	3.45
2CSR255480R3064	DS201 C6 APR300	APR	230v	6	6k	1P+N	300	201	1.2
2CSR255480R1324	DS201 C32 APR30	APR	230v	32	6k	1P+N	30	220	3.2
2CSR255482R1204	DS201 C20 G30	G	230v	20	6k	1P+N	30	201	1.8
2CSR255480R1204	DS201 C20 APR30	APR	230v	20	6k	1P+N	30	201	1.8
2CSR255482R1325	DS201 B32 G30	G	230v	32	6k	1P+N	30	220	3.2
2CSR255482R1205	DS201 B20 G30	G	230v	20	6k	1P+N	30	201	1.8
2CSR255480R1254	DS201 C25 APR30	APR	230v	25	6k	1P+N	30	201	2.75

2CSR255482R1324	DS201 C32 G30	G	230v	32	6k	1P+N	30	220	3.2
2CSR255480R1134	DS201 C13 APR30	APR	230v	13	6k	1P+N	30	201	1.25
2CSR255480R2104	DS201 C10 APR100	APR	230v	10	6k	1P+N	100	201	0.9
2CSR255480R2404	DS201 C40 APR100	APR	230v	40	6k	1P+N	100	220	2.5
2CSR255480R1064	DS201 C6 APR30	APR	230v	6	6k	1P+N	30	201	1.2
2CSR255480R2204	DS201 C20 APR100	APR	230v	20	6k	1P+N	100	201	1.8
2CSR255480R1164	DS201 C16 APR30	APR	230v	16	6k	1P+N	30	201	1.65
2CSR255480R2324	DS201 C32 APR100	APR	230v	32	6k	1P+N	100	220	3.2
2CSR255480R3404	DS201 C40 APR300	APR	230v	40	6k	1P+N	300	220	2.5
2CSR255480R2064	DS201 C6 APR100	APR	230v	6	6k	1P+N	100	201	1.2
2CSR255480R3324	DS201 C32 APR300	APR	230v	32	6k	1P+N	300	220	3.2
2CSR255190R1164	DS201T C16 A30 240V	A	240V	16	6k	1P+N	30	201	1.65
2CSR255480R3204	DS201 C20 APR300	APR	230v	20	6k	1P+N	300	201	1.8
2CSR255190R1324	DS201T C32 A30 240V	A	240V	32	6k	1P+N	30	220	3.2
2CSR255480R3254	DS201 C25 APR300	APR	230v	25	6k	1P+N	300	201	2.75
2CSR255190R1404	DS201T C40 A30 240V	A	240V	40	6k	1P+N	30	220	2.5
2CSR255480R2164	DS201 C16 APR100	APR	230v	16	6k	1P+N	100	201	1.65
2CSR255190R1204	DS201T C20 A30 240V	A	240V	20	6k	1P+N	30	201	1.8
2CSR255480R3134	DS201 C13 APR300	APR	230v	13	6k	1P+N	300	201	1.25
2CSR255190R1064	DS201T C6 A30 240V	A	240V	6	6k	1P+N	30	201	1.2
2CSR255480R2134	DS201 C13 APR100	APR	230v	13	6k	1P+N	100	201	1.25
2CSR255488R1405	DS201T B40 APR30	APR	230v	40	6k	1P+N	30	220	2.5
2CSR255190R1104	DS201T C10 A30 240V	A	240V	10	6k	1P+N	30	201	0.9
2CSR255480R2254	DS201 C25 APR100	APR	230v	25	6k	1P+N	100	201	2.75
2CSR255488R1404	DS201T C40 APR30	APR	230v	40	6k	1P+N	30	220	2.5
2CSR255190R1254	DS201T C25 A30 240V	A	240V	25	6k	1P+N	30	201	2.75
2CSR255480R3104	DS201 C10 APR300	APR	230v	10	6k	1P+N	300	201	0.9
2CSR255488R1205	DS201T B20 APR30	APR	230v	20	6k	1P+N	30	201	1.8
2CSR255190R1134	DS201T C13 A30 240V	A	240V	13	6k	1P+N	30	201	1.25
2CSR255482R1164	DS201 C16 G30	G	230v	16	6k	1P+N	30	201	1.65
2CSR255488R1204	DS201T C20 APR30	APR	230v	20	6k	1P+N	30	201	1.8
2CSR255488R1105	DS201T B10 APR30	APR	230v	10	6k	1P+N	30	201	0.9
2CSR255482R1165	DS201 B16 G30	G	230v	16	6k	1P+N	30	201	1.65
2CSR255488R1325	DS201T B32 APR30	APR	230v	32	6k	1P+N	30	220	3.2
2CSR255480R3164	DS201 C16 APR300	APR	230v	16	6k	1P+N	300	201	1.65
2CSR255488R1065	DS201T B6 APR30	APR	230v	6	6k	1P+N	30	201	1.2
2CSR255488R1104	DS201T C10 APR30	APR	230v	10	6k	1P+N	30	201	0.9

2CSR255488R1064	DS201T C6 APR30	APR	230v	6	6k	1P+N	30	201	1.2
2CSR255488R1324	DS201T C32 APR30	APR	230v	32	6k	1P+N	30	220	3.2
2CSR255482R1105	DS201 B10 G30	G	230v	10	6k	1P+N	30	201	0.9
2CSR255488R1254	DS201T C25 APR30	APR	230v	25	6k	1P+N	30	201	2.75
2CSR255482R1104	DS201 C10 G30	G	230v	10	6k	1P+N	30	201	0.9
2CSR255488R1135	DS201T B13 APR30	APR	230v	13	6k	1P+N	30	201	1.25
2CSR255488R1134	DS201T C13 APR30	APR	230v	13	6k	1P+N	30	201	1.25
2CSR255488R1255	DS201T B25 APR30	APR	230v	25	6k	1P+N	30	201	2.75
2CSR255488R1165	DS201T B16 APR30	APR	230v	16	6k	1P+N	30	201	1.65
2CSR255488R1164	DS201T C16 APR30	APR	230v	16	6k	1P+N	30	201	1.65
2CSR275080R2105	DS201 M B10 AC100	AC	230v	10	6k	1P+N	100	201	0.9
2CSR275080R2104	DS201 M C10 AC100	AC	230v	10	6k	1P+N	100	201	0.9
2CSR275080R1135	DS201 M B13 AC30	AC	230v	13	6k	1P+N	30	201	1.25
2CSR275080R2325	DS201 M B32 AC100	AC	230v	32	6k	1P+N	100	220	3.2
2CSR275080R1255	DS201 M B25 AC30	AC	230v	25	6k	1P+N	30	201	2.75
2CSR275080R2324	DS201 M C32 AC100	AC	230v	32	6k	1P+N	100	220	3.2
2CSR275080R1134	DS201 M C13 AC30	AC	230v	13	6k	1P+N	30	201	1.25
2CSR275080R3404	DS201 M C40 AC300	AC	230v	40	6k	1P+N	300	220	2.5
2CSR275080R1254	DS201 M C25 AC30	AC	230v	25	6k	1P+N	30	201	2.75
2CSR275080R3405	DS201 M B40 AC300	AC	230v	40	6k	1P+N	300	220	2.5
2CSR275080R2205	DS201 M B20 AC100	AC	230v	20	6k	1P+N	100	201	1.8
2CSR275080R2204	DS201 M C20 AC100	AC	230v	20	6k	1P+N	100	201	1.8
2CSR275080R2255	DS201 M B25 AC100	AC	230v	25	6k	1P+N	100	201	2.75
2CSR275080R2254	DS201 M C25 AC100	AC	230v	25	6k	1P+N	100	201	2.75
2CSR275080R1105	DS201 M B10 AC30	AC	230v	10	6k	1P+N	30	201	0.9
2CSR275080R3104	DS201 M C10 AC300	AC	230v	10	6k	1P+N	300	201	0.9
2CSR275080R1104	DS201 M C10 AC30	AC	230v	10	6k	1P+N	30	201	0.9
2CSR275080R3105	DS201 M B10 AC300	AC	230v	10	6k	1P+N	300	201	0.9
2CSR275080R2135	DS201 M B13 AC100	AC	230v	13	6k	1P+N	100	201	1.25
2CSR275080R2134	DS201 M C13 AC100	AC	230v	13	6k	1P+N	100	201	1.25
2CSR275080R3324	DS201 M C32 AC300	AC	230v	32	6k	1P+N	300	220	3.2
2CSR275080R3325	DS201 M B32 AC300	AC	230v	32	6k	1P+N	300	220	3.2
2CSR275080R1165	DS201 M B16 AC30	AC	230v	16	6k	1P+N	30	201	1.65
2CSR275080R1164	DS201 M C16 AC30	AC	230v	16	6k	1P+N	30	201	1.65
2CSR275080R3204	DS201 M C20 AC300	AC	230v	20	6k	1P+N	300	201	1.8
2CSR275080R1405	DS201 M B40 AC30	AC	230v	40	6k	1P+N	30	220	2.5
2CSR275080R3205	DS201 M B20 AC300	AC	230v	20	6k	1P+N	300	201	1.8

2CSR275080R1404	DS201 M C40 AC30	AC	230v	40	6k	1P+N	30	220	2.5
2CSR275080R2404	DS201 M C40 AC100	AC	230v	40	6k	1P+N	100	220	2.5
2CSR275080R1205	DS201 M B20 AC30	AC	230v	20	6k	1P+N	30	201	1.8
2CSR275080R2405	DS201 M B40 AC100	AC	230v	40	6k	1P+N	100	220	2.5
2CSR275080R3254	DS201 M C25 AC300	AC	230v	25	6k	1P+N	300	201	2.75
2CSR275080R1325	DS201 M B32 AC30	AC	230v	32	6k	1P+N	30	220	3.2
2CSR275080R1204	DS201 M C20 AC30	AC	230v	20	6k	1P+N	30	201	1.8
2CSR275080R3255	DS201 M B25 AC300	AC	230v	25	6k	1P+N	300	201	2.75
2CSR275080R3134	DS201 M C13 AC300	AC	230v	13	6k	1P+N	300	201	1.25
2CSR275080R1324	DS201 M C32 AC30	AC	230v	32	6k	1P+N	30	220	3.2
2CSR275080R3135	DS201 M B13 AC300	AC	230v	13	6k	1P+N	300	201	1.25
2CSR275080R2065	DS201 M B6 AC100	AC	230v	6	6k	1P+N	100	201	1.2
2CSR275080R3064	DS201 M C6 AC300	AC	230v	6	6k	1P+N	300	201	1.2
2CSR275080R2064	DS201 M C6 AC100	AC	230v	6	6k	1P+N	100	201	1.2
2CSR275080R3065	DS201 M B6 AC300	AC	230v	6	6k	1P+N	300	201	1.2
2CSR275080R3164	DS201 M C16 AC300	AC	230v	16	6k	1P+N	300	201	1.65
2CSR275080R2165	DS201 M B16 AC100	AC	230v	16	6k	1P+N	100	201	1.65
2CSR275080R3165	DS201 M B16 AC300	AC	230v	16	6k	1P+N	300	201	1.65
2CSR275086R1134	DS201 M C13 AC30 240V	AC	240V	13	6k	1P+N	30	201	1.25
2CSR275080R2164	DS201 M C16 AC100	AC	230v	16	6k	1P+N	100	201	1.65
2CSR275080R1065	DS201 M B6 AC30	AC	230v	6	6k	1P+N	30	201	1.2
2CSR275086R1254	DS201 M C25 AC30 240V	AC	240V	25	6k	1P+N	30	201	2.75
2CSR275086R1204	DS201 M C20 AC30 240V	AC	240V	20	6k	1P+N	30	201	1.8
2CSR275080R1064	DS201 M C6 AC30	AC	230v	6	6k	1P+N	30	201	1.2
2CSR275086R1164	DS201 M C16 AC30 240V	AC	240V	16	6k	1P+N	30	201	1.65
2CSR275086R1104	DS201 M C10 AC30 240V	AC	240V	10	6k	1P+N	30	201	0.9
2CSR275086R1064	DS201 M C6 AC30 240V	AC	240V	6	6k	1P+N	30	201	1.2
2CSR275086R1404	DS201 M C40 AC30 240V	AC	240V	40	6k	1P+N	30	220	2.5
2CSR275086R1324	DS201 M C32 AC30 240V	AC	240V	32	6k	1P+N	30	220	3.2
2CSR275180R1104	DS201 M C10 A30	A	230v	10	6k	1P+N	30	201	0.9
2CSR275180R1105	DS201 M B10 A30	A	230v	10	6k	1P+N	30	201	0.9
2CSR275180R0105	DS201 M B10 A10	A	230v	10	6k	1P+N	10	201	0.9
2CSR275180R0104	DS201 M C10 A10	A	230v	10	6k	1P+N	10	201	0.9
2CSR275180R1204	DS201 M C20 A30	A	230v	20	6k	1P+N	30	201	1.8
2CSR275180R0165	DS201 M B16 A10	A	230v	16	6k	1P+N	10	201	1.65
2CSR275180R0164	DS201 M C16 A10	A	230v	16	6k	1P+N	10	201	1.65
2CSR275180R1134	DS201 M C13 A30	A	230v	13	6k	1P+N	30	201	1.25

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2CSR275180R1135	DS201 M B13 A30	A	230v	13	6k	1P+N	30	201	1.25
2CSR275180R1064	DS201 M C6 A30	A	230v	6	6k	1P+N	30	201	1.2
2CSR275180R1065	DS201 M B6 A30	A	230v	6	6k	1P+N	30	201	1.2
2CSR275180R1164	DS201 M C16 A30	A	230v	16	6k	1P+N	30	201	1.65
2CSR275180R1165	DS201 M B16 A30	A	230v	16	6k	1P+N	30	201	1.65
2CSR275180R1044	DS201 M C4 A30	A	230v	4	6k	1P+N	30	201	1.1
2CSR275180R1405	DS201 M B40 A30	A	230v	40	6k	1P+N	30	220	2.5
2CSR275180R1404	DS201 M C40 A30	A	230v	40	6k	1P+N	30	220	2.5
2CSR275180R2404	DS201 M C40 A100	A	230v	40	6k	1P+N	100	220	2.5
2CSR275180R1324	DS201 M C32 A30	A	230v	32	6k	1P+N	30	220	3.2
2CSR275180U1165	DS201 M B16 A30	A	230v	16	6k	1P+N	30	201	1.65
2CSR275180R1325	DS201 M B32 A30	A	230v	32	6k	1P+N	30	220	3.2
2CSR275180U1164	DS201 M C16 A30	A	230v	16	6k	1P+N	30	201	1.65
2CSR275180R1205	DS201 M B20 A30	A	230v	20	6k	1P+N	30	201	1.8
2CSR275180R3404	DS201 M C40 A300	A	230v	40	6k	1P+N	300	220	2.5
2CSR275180R2064	DS201 M C6 A100	A	230v	6	6k	1P+N	100	201	1.2
2CSR275180R3405	DS201 M B40 A300	A	230v	40	6k	1P+N	300	220	2.5
2CSR275180R2065	DS201 M B6 A100	A	230v	6	6k	1P+N	100	201	1.2
2CSR275189R1165	DS201 M B16 A30 110V	A	110v	16	6k	1P+N	30	201	1.65
2CSR275189R1164	DS201 M C16 A30 110V	A	110v	16	6k	1P+N	30	201	1.65
2CSR275180R2407	DS201 M K40 A100	A	230v	40	6k	1P+N	100	220	2.5
2CSR275180R2067	DS201 M K6 A100	A	230v	6	6k	1P+N	100	201	1.2
2CSR275189R1065	DS201 M B6 A30 110V	A	110v	6	6k	1P+N	30	201	1.2
2CSR275180R2405	DS201 M B40 A100	A	230v	40	6k	1P+N	100	220	2.5
2CSR275180R2164	DS201 M C16 A100	A	230v	16	6k	1P+N	100	201	1.65
2CSR275180U1105	DS201 M B10 A30	A	230v	10	6k	1P+N	30	201	0.9
2CSR275189R1064	DS201 M C6 A30 110V	A	110v	6	6k	1P+N	30	201	1.2
2CSR275180R2165	DS201 M B16 A100	A	230v	16	6k	1P+N	100	201	1.65
2CSR275180U1104	DS201 M C10 A30	A	230v	10	6k	1P+N	30	201	0.9
2CSR275189U1064	DS201 M C6 A30 110V	A	110v	6	6k	1P+N	30	201	1.2
2CSR275180R2167	DS201 M K16 A100	A	230v	16	6k	1P+N	100	201	1.65
2CSR275180R1254	DS201 M C25 A30	A	230v	25	6k	1P+N	30	201	2.75
2CSR275180R3165	DS201 M B16 A300	A	230v	16	6k	1P+N	300	201	1.65
2CSR275189R1404	DS201 M C40 A30 110V	A	110v	40	6k	1P+N	30	220	2.5
2CSR275180R3164	DS201 M C16 A300	A	230v	16	6k	1P+N	300	201	1.65
2CSR275189R1405	DS201 M B40 A30 110V	A	110v	40	6k	1P+N	30	220	2.5
2CSR275180R1255	DS201 M B25 A30	A	230v	25	6k	1P+N	30	201	2.75

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Approved	Public	ABBG-00209-V01.01-EN	1	EN	25/32

2CSR275180R3255	DS201 M B25 A300	A	230v	25	6k	1P+N	300	201	2.75
2CSR275189U1104	DS201 M C10 A30 110V	A	110v	10	6k	1P+N	30	201	0.9
2CSR275180R2104	DS201 M C10 A100	A	230v	10	6k	1P+N	100	201	0.9
2CSR275180R3134	DS201 M C13 A300	A	230v	13	6k	1P+N	300	201	1.25
2CSR275180R2105	DS201 M B10 A100	A	230v	10	6k	1P+N	100	201	0.9
2CSR275189U1105	DS201 M B10 A30 110V	A	110v	10	6k	1P+N	30	201	0.9
2CSR275180R2107	DS201 M K10 A100	A	230v	10	6k	1P+N	100	201	0.9
2CSR275180R3254	DS201 M C25 A300	A	230v	25	6k	1P+N	300	201	2.75
2CSR275189R1104	DS201 M C10 A30 110V	A	110v	10	6k	1P+N	30	201	0.9
2CSR275480R1134	DS201 M C13 APR30	APR	230v	13	6k	1P+N	30	201	1.25
2CSR275180R2324	DS201 M C32 A100	A	230v	32	6k	1P+N	100	220	3.2
2CSR275189R1105	DS201 M B10 A30 110V	A	110v	10	6k	1P+N	30	201	0.9
2CSR275480R1104	DS201 M C10 APR30	APR	230v	10	6k	1P+N	30	201	0.9
2CSR275180R3135	DS201 M B13 A300	A	230v	13	6k	1P+N	300	201	1.25
2CSR275180R3064	DS201 M C6 A300	A	230v	6	6k	1P+N	300	201	1.2
2CSR275189R1135	DS201 M B13 A30 110V	A	110v	13	6k	1P+N	30	201	1.25
2CSR275180R2325	DS201 M B32 A100	A	230v	32	6k	1P+N	100	220	3.2
2CSR275189U1204	DS201 M C20 A30 110V	A	110v	20	6k	1P+N	30	201	1.8
2CSR275180R3065	DS201 M B6 A300	A	230v	6	6k	1P+N	300	201	1.2
2CSR275189R1134	DS201 M C13 A30 110V	A	110v	13	6k	1P+N	30	201	1.25
2CSR275180R2204	DS201 M C20 A100	A	230v	20	6k	1P+N	100	201	1.8
2CSR275189U1205	DS201 M B20 A30 110V	A	110v	20	6k	1P+N	30	201	1.8
2CSR275180R3325	DS201 M B32 A300	A	230v	32	6k	1P+N	300	220	3.2
2CSR275180R2205	DS201 M B20 A100	A	230v	20	6k	1P+N	100	201	1.8
2CSR275480R1064	DS201 M C6 APR30	APR	230v	6	6k	1P+N	30	201	1.2
2CSR275189R1255	DS201 M B25 A30 110V	A	110v	25	6k	1P+N	30	201	2.75
2CSR275180R2327	DS201 M K32 A100	A	230v	32	6k	1P+N	100	220	3.2
2CSR275189U1164	DS201 M C16 A30 110V	A	110v	16	6k	1P+N	30	201	1.65
2CSR275180R3204	DS201 M C20 A300	A	230v	20	6k	1P+N	300	201	1.8
2CSR275189R1254	DS201 M C25 A30 110V	A	110v	25	6k	1P+N	30	201	2.75
2CSR275180R2207	DS201 M K20 A100	A	230v	20	6k	1P+N	100	201	1.8
2CSR275189U1165	DS201 M B16 A30 110V	A	110v	16	6k	1P+N	30	201	1.65
2CSR275180R3324	DS201 M C32 A300	A	230v	32	6k	1P+N	300	220	3.2
2CSR275189U1065	DS201 M B6 A30 110V	A	110v	6	6k	1P+N	30	201	1.2
2CSR275189U1154	DS201 M C15 A30 110V	A	110v	15	6k	1P+N	30	201	1.65
2CSR275180R3205	DS201 M B20 A300	A	230v	20	6k	1P+N	300	201	1.8
2CSR275189R1325	DS201 M B32 A30 110V	A	110v	32	6k	1P+N	30	220	3.2

2CSR275180R2254	DS201 M C25 A100	A	230v	25	6k	1P+N	100	201	2.75
2CSR275180R3105	DS201 M B10 A300	A	230v	10	6k	1P+N	300	201	0.9
2CSR275189R1205	DS201 M B20 A30 110V	A	110v	20	6k	1P+N	30	201	1.8
2CSR275180R2255	DS201 M B25 A100	A	230v	25	6k	1P+N	100	201	2.75
2CSR275180R3104	DS201 M C10 A300	A	230v	10	6k	1P+N	300	201	0.9
2CSR275180R2135	DS201 M B13 A100	A	230v	13	6k	1P+N	100	201	1.25
2CSR275189R1204	DS201 M C20 A30 110V	A	110v	20	6k	1P+N	30	201	1.8
2CSR275186R1064	DS201 M C6 A30 240V	A	240V	6	6k	1P+N	30	201	1.2
2CSR275180R2257	DS201 M K25 A100	A	230v	25	6k	1P+N	100	201	2.75
2CSR275189R1324	DS201 M C32 A30 110V	A	110v	32	6k	1P+N	30	220	3.2
2CSR275186R1044	DS201 M C4 A30 240V	A	240V	4	6k	1P+N	30	201	1.1
2CSR275186R1134	DS201 M C13 A30 240V	A	240V	13	6k	1P+N	30	201	1.25
2CSR275180R2137	DS201 M K13 A100	A	230v	13	6k	1P+N	100	201	1.25
2CSR275180U1254	DS201 M C25 A30	A	230v	25	6k	1P+N	30	201	2.75
2CSR275186R1254	DS201 M C25 A30 240V	A	240V	25	6k	1P+N	30	201	2.75
2CSR275180U1065	DS201 M B6 A30	A	230v	6	6k	1P+N	30	201	1.2
2CSR275186R1104	DS201 M C10 A30 240V	A	240V	10	6k	1P+N	30	201	0.9
2CSR275480R1254	DS201 M C25 APR30	APR	230v	25	6k	1P+N	30	201	2.75
2CSR275180U3204	DS201 M C20 A300	A	230v	20	6k	1P+N	300	201	1.8
2CSR275186R1404	DS201 M C40 A30 240V	A	240V	40	6k	1P+N	30	220	2.5
2CSR275480R2104	DS201 M C10 APR100	APR	230v	10	6k	1P+N	100	201	0.9
2CSR275180U1324	DS201 M C32 A30	A	230v	32	6k	1P+N	30	220	3.2
2CSR275186R1204	DS201 M C20 A30 240V	A	240V	20	6k	1P+N	30	201	1.8
2CSR275480R2324	DS201 M C32 APR100	APR	230v	32	6k	1P+N	100	220	3.2
2CSR275186R1324	DS201 M C32 A30 240V	A	240V	32	6k	1P+N	30	220	3.2
2CSR275480R2204	DS201 M C20 APR100	APR	230v	20	6k	1P+N	100	201	1.8
2CSR275580R1134	DS201 M C13 F30	F	230v	13	6k	1P+N	30	201	1.25
2CSR275580R0165	DS201 M B16 F10	F	230v	16	6k	1P+N	10	201	1.65
2CSR275186R1164	DS201 M C16 A30 240V	A	240V	16	6k	1P+N	30	201	1.65
2CSR275480R3404	DS201 M C40 APR300	APR	230v	40	6k	1P+N	300	220	2.5
2CSR275580R1135	DS201 M B13 F30	F	230v	13	6k	1P+N	30	201	1.25
2CSR275189R1154	DS201 M C15 A30 110V	A	110v	15	6k	1P+N	30	201	1.65
2CSR275480R1204	DS201 M C20 APR30	APR	230v	20	6k	1P+N	30	201	1.8
2CSR275580R0164	DS201 M C16 F10	F	230v	16	6k	1P+N	10	201	1.65
2CSR275480R1324	DS201 M C32 APR30	APR	230v	32	6k	1P+N	30	220	3.2
2CSR275480R2404	DS201 M C40 APR100	APR	230v	40	6k	1P+N	100	220	2.5
2CSR275580R0134	DS201 M C13 F10	F	230v	13	6k	1P+N	10	201	1.25

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2CSR275480R2064	DS201 M C6 APR100	APR	230v	6	6k	1P+N	100	201	1.2
2CSR275580R0135	DS201 M B13 F10	F	230v	13	6k	1P+N	10	201	1.25
2CSR275580R1105	DS201 M B10 F30	F	230v	10	6k	1P+N	30	201	0.9
2CSR275480R3134	DS201 M C13 APR300	APR	230v	13	6k	1P+N	300	201	1.25
2CSR275580R1104	DS201 M C10 F30	F	230v	10	6k	1P+N	30	201	0.9
2CSR275480R2164	DS201 M C16 APR100	APR	230v	16	6k	1P+N	100	201	1.65
2CSR275482R1205	DS201 M B20 G30	G	230v	20	6k	1P+N	30	201	1.8
2CSR275480R3254	DS201 M C25 APR300	APR	230v	25	6k	1P+N	300	201	2.75
2CSR275480R1164	DS201 M C16 APR30	APR	230v	16	6k	1P+N	30	201	1.65
2CSR275482R1325	DS201 M B32 G30	G	230v	32	6k	1P+N	30	220	3.2
2CSR275482R1324	DS201 M C32 G30	G	230v	32	6k	1P+N	30	220	3.2
2CSR275480R2254	DS201 M C25 APR100	APR	230v	25	6k	1P+N	100	201	2.75
2CSR275580R0104	DS201 M C10 F10	F	230v	10	6k	1P+N	10	201	0.9
2CSR275480R2134	DS201 M C13 APR100	APR	230v	13	6k	1P+N	100	201	1.25
2CSR275580R0105	DS201 M B10 F10	F	230v	10	6k	1P+N	10	201	0.9
2CSR275480R3104	DS201 M C10 APR300	APR	230v	10	6k	1P+N	300	201	0.9
2CSR275482R3204	DS201 M C20 G300	G	230v	20	6k	1P+N	300	201	1.8
2CSR275482R1204	DS201 M C20 G30	G	230v	20	6k	1P+N	30	201	1.8
2CSR275480R3324	DS201 M C32 APR300	APR	230v	32	6k	1P+N	300	220	3.2
2CSR275482R3325	DS201 M B32 G300	G	230v	32	6k	1P+N	300	220	3.2
2CSR275482R3205	DS201 M B20 G300	G	230v	20	6k	1P+N	300	201	1.8
2CSR275480R3204	DS201 M C20 APR300	APR	230v	20	6k	1P+N	300	201	1.8
2CSR275482R1135	DS201 M B13 G30	G	230v	13	6k	1P+N	30	201	1.25
2CSR275482R3324	DS201 M C32 G300	G	230v	32	6k	1P+N	300	220	3.2
2CSR275482R1134	DS201 M C13 G30	G	230v	13	6k	1P+N	30	201	1.25
2CSR275482R1255	DS201 M B25 G30	G	230v	25	6k	1P+N	30	201	2.75
2CSR275480R3064	DS201 M C6 APR300	APR	230v	6	6k	1P+N	300	201	1.2
2CSR275482R1254	DS201 M C25 G30	G	230v	25	6k	1P+N	30	201	2.75
2CSR275482R1164	DS201 M C16 G30	G	230v	16	6k	1P+N	30	201	1.65
2CSR275580R1064	DS201 M C6 F30	F	230v	6	6k	1P+N	30	201	1.2
2CSR275482R1165	DS201 M B16 G30	G	230v	16	6k	1P+N	30	201	1.65
2CSR275580R1065	DS201 M B6 F30	F	230v	6	6k	1P+N	30	201	1.2
2CSR275480R3164	DS201 M C16 APR300	APR	230v	16	6k	1P+N	300	201	1.65
2CSR275482R3134	DS201 M C13 G300	G	230v	13	6k	1P+N	300	201	1.25
2CSR275480R1404	DS201 M C40 APR30	APR	230v	40	6k	1P+N	30	220	2.5
2CSR275482R3255	DS201 M B25 G300	G	230v	25	6k	1P+N	300	201	2.75
2CSR275482R1104	DS201 M C10 G30	G	230v	10	6k	1P+N	30	201	0.9

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2CSR275482R3135	DS201 M B13 G300	G	230v	13	6k	1P+N	300	201	1.25
2CSR275482R1105	DS201 M B10 G30	G	230v	10	6k	1P+N	30	201	0.9
2CSR275482R3254	DS201 M C25 G300	G	230v	25	6k	1P+N	300	201	2.75
2CSR275580R1164	DS201 M C16 F30	F	230v	16	6k	1P+N	30	201	1.65
2CSR275482R3165	DS201 M B16 G300	G	230v	16	6k	1P+N	300	201	1.65
2CSR275482R3164	DS201 M C16 G300	G	230v	16	6k	1P+N	300	201	1.65
2CSR275580R1405	DS201 M B40 F30	F	230v	40	6k	1P+N	30	220	2.5
2CSR275580R1404	DS201 M C40 F30	F	230v	40	6k	1P+N	30	220	2.5
2CSR275580R1255	DS201 M B25 F30	F	230v	25	6k	1P+N	30	201	2.75
2CSR275580R1254	DS201 M C25 F30	F	230v	25	6k	1P+N	30	201	2.75
2CSR275580R1204	DS201 M C20 F30	F	230v	20	6k	1P+N	30	201	1.8
2CSR275580R1325	DS201 M B32 F30	F	230v	32	6k	1P+N	30	220	3.2
2CSR275580R1324	DS201 M C32 F30	F	230v	32	6k	1P+N	30	220	3.2
2CSR275580R1205	DS201 M B20 F30	F	230v	20	6k	1P+N	30	201	1.8
2CSR275580R1165	DS201 M B16 F30	F	230v	16	6k	1P+N	30	201	1.65

The extrapolation rules have been calculated based on the environmental impact assessment results of the reference product 2CSR255080R1204 and the sensitivity analysis carried out.

For the manufacturing stage, distribution stage and end-of-life stage, the parameter considered for the calculation of the LCIA impacts of the variants is the weight of the product. For the use stage, the parameter considered for the calculation of the LCIA impacts of the variants is the average power loss during this stage. The calculation of the LCIA impacts of the variants through these parameters showed that the correlation between the impacts of the representative product and the variants is linear. For the creation of the extrapolation rules, the extrapolation principle applied is a linear correlation concerning weight for the production, distribution and end-of-life phase and concerning average power loss for the use phase. Each environmental indicator value shall be calculated using the following formulas:

- For the manufacturing stage, distribution stage and end-of-life stage:

$$y = a_n x_1 + b_n$$

where y is the impact category and x_1 is the *weight* of the product.

- For use stage:

$$y = a_n x_2 + b_n$$

where y is the impact category and x_2 is the *average power loss* of the product. For the weight and average power loss data of variants, please refer to the previous table.

The following table reports the linear coefficients a_n & b_n for each life cycle stage. The calculation of the coefficients a_3 & b_3 for the Installation Stage was not performed because the selected parameters do not affect the values for this stage.

IMPACT CATEGORY	MANUFACTURING		DISTRIBUTION		INST.		USE		END OF LIFE	
	a_1	b_1	a_2	b_2	a_3	b_3	a_4	b_4	a_5	b_5
Climate change	8.71E-03	1.32E-01	6.91E-04	3.18E-02	1.00E+00	0.0E+00	2.12E+01	-1.19E-06	7.12E-04	2.79E-10
Climate change - Fossil	8.60E-03	1.47E-01	6.90E-04	3.18E-02	1.00E+00	0.0E+00	2.05E+01	-1.15E-06	6.83E-04	2.67E-10
Climate change - Biogenic	1.03E-04	-1.55E-02	6.26E-07	2.88E-05	1.00E+00	0.0E+00	6.61E-01	-3.70E-08	2.80E-05	1.10E-11
Climate change - Land use and LU change	8.82E-06	4.16E-04	2.73E-07	1.26E-05	1.00E+00	0.0E+00	4.85E-02	-2.71E-09	6.56E-07	2.57E-13
Ozone depletion	9.49E-09	1.82E-08	1.61E-10	7.41E-09	1.00E+00	0.0E+00	1.03E-06	-5.79E-14	6.45E-11	2.52E-17
Acidification	9.31E-05	1.20E-03	3.50E-06	1.61E-04	1.00E+00	0.0E+00	1.17E-01	-6.53E-09	1.14E-05	4.45E-12
Eutrophication. freshwater	7.24E-06	7.42E-05	4.49E-08	2.06E-06	1.00E+00	0.0E+00	2.06E-02	-1.16E-09	6.27E-07	2.45E-13
Eutrophication. marine	1.21E-05	2.59E-04	1.20E-06	5.54E-05	1.00E+00	0.0E+00	1.95E-02	-1.09E-09	1.77E-06	6.92E-13
Eutrophication. terrestrial	1.13E-04	2.19E-03	1.32E-05	6.06E-04	1.00E+00	0.0E+00	1.71E-01	-9.60E-09	1.11E-05	4.34E-12
Photochemical ozone formation	3.47E-05	6.59E-04	3.76E-06	1.73E-04	1.00E+00	0.0E+00	4.71E-02	-2.64E-09	3.27E-06	1.28E-12
Resource use. minerals and metals	1.68E-06	1.49E-05	2.42E-09	1.11E-07	1.00E+00	0.0E+00	1.93E-04	-1.08E-11	2.29E-07	8.95E-14
Resource use. fossils	1.12E-01	2.25E+00	1.05E-02	4.84E-01	1.00E+00	0.0E+00	4.37E+02	-2.45E-05	8.41E-03	3.29E-09
Water use (AWARE)	6.37E-03	3.58E-01	3.17E-05	1.46E-03	1.00E+00	0.0E+00	5.01E+00	-2.81E-07	2.89E-04	1.13E-10
Total use of primary energy during the life cycle	1.27E-01	6.38E+00	1.07E-02	4.91E-01	1.00E+00	0.0E+00	5.27E+02	-2.95E-05	9.44E-03	3.69E-09
Use of renewable primary energy. excluding renewable primary energy resources used as raw materials	1.49E-02	2.91E+00	1.48E-04	6.83E-03	1.00E+00	0.0E+00	8.99E+01	-5.04E-06	1.03E-03	4.04E-10
Use of renewable primary energy resources used as raw materials	0.0E+00	1.23E+00	0.0E+00	0.0E+00	1.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Total use renew. primary energy res.	1.49E-02	4.14E+00	1.48E-04	6.83E-03	1.00E+00	0.0E+00	8.99E+01	-5.04E-06	1.03E-03	4.04E-10
Use of non-renewable primary energy. excluding non-renewable primary energy resources used as raw materials	1.12E-01	3.69E-01	1.05E-02	4.84E-01	1.00E+00	0.0E+00	4.37E+02	-2.44E-05	8.41E-03	3.29E-09
Use of non-renewable primary energy resources used as raw materials	0.0E+00	1.87E+00	0.0E+00	0.0E+00	1.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Total use non-renew. primary energy res.	1.12E-01	2.24E+00	1.05E-02	4.84E-01	1.00E+00	0.0E+00	4.37E+02	-2.44E-05	8.41E-03	3.29E-09
Use of secondary material	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Use of renewable secondary fuels	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Use of non-renewable secondary fuels	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Net use of fresh water	1.68E-04	8.75E-03	1.17E-06	5.40E-05	1.00E+00	0.0E+00	3.80E-01	-2.13E-08	9.20E-06	3.60E-12
Hazardous waste disposed	7.61E-07	5.31E-06	2.75E-08	1.26E-06	1.00E+00	0.0E+00	3.32E-04	-1.86E-11	3.96E-08	1.55E-14
Non-hazardous waste disposed	1.92E-03	6.09E-02	5.41E-04	2.49E-02	1.00E+00	0.0E+00	1.53E+00	-8.54E-08	8.09E-04	3.17E-10
Radioactive waste disposed	2.88E-07	7.75E-06	7.12E-08	3.27E-06	1.00E+00	0.0E+00	3.21E-03	-1.80E-10	4.97E-08	1.94E-14
Particulate matter	5.59E-10	1.50E-08	6.15E-11	2.83E-09	1.00E+00	0.0E+00	3.72E-07	-2.08E-14	5.99E-11	2.34E-17
Ionising radiation	8.13E-04	1.59E-02	5.41E-05	2.49E-03	1.00E+00	0.0E+00	1.20E+01	-6.70E-07	1.15E-04	4.50E-11
Ecotoxicity. freshwater	6.31E-01	5.16E+00	8.21E-03	3.78E-01	1.00E+00	0.0E+00	2.76E+02	-1.55E-05	6.05E-02	2.37E-08
Human toxicity. cancer	3.26E-11	4.28E-10	2.66E-13	1.22E-11	1.00E+00	0.0E+00	8.51E-09	-4.76E-16	1.46E-11	5.72E-18
Human toxicity. non-cancer	8.38E-10	1.10E-08	8.61E-12	3.96E-10	1.00E+00	0.0E+00	2.71E-07	-1.52E-14	1.75E-10	6.84E-17
Land use	4.14E-02	1.20E+01	7.23E-03	3.33E-01	1.00E+00	0.0E+00	7.89E+01	-4.42E-06	6.87E-03	2.69E-09
Component for reuse	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Materials for recycling	1.27E-04	4.55E-02	1.27E-04	4.55E-02	1.00E+00	0.0E+00	0.0E+00	0.0E+00	5.68E-04	2.23E-10
Materials for energy recovery	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.00E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Exported energy	0.0E+00	4.81E-02	0.0E+00	4.81E-02	1.00E+00	0.0E+00	0.0E+00	0.0E+00	2.56E-04	1.00E-10

References

- ABB S.p.A., 2023. *LCA Report to support PEP Ecopassport for DS201 Residual Current Circuit Breakers with Overcurrent Protection*

- PEP ecopassport® PROGRAM, PCR-ed4-EN-2021 09 06, Product Category Rules for Electrical, Electronic and HVAC-R Products.

- PEP ecopassport® PROGRAMME, PSR-0005-ed2-EN-2016 03 29, Specific rules for Electrical switchgear and control gear Solutions.

- PRé Consultants, Software SimaPro 9.4.0.2, 2022 (www.simapro.com).

- ISO 14040:2006/Amd 1:2020. Life cycle assessment. Environmental management. Principles and Framework. International Organization for Standardization. 2020.

- ISO 14044:2006/Amd 1:2017/Amd 1:2020. Life cycle assessment. Environmental management. Requirements and guidelines. International Organization for Standardization. 2020.

- ABB website. https://global.abb/group/en/about [accessed 12-01-2023]

- ABB website. https://global.abb/group/en/sustainability/sustainability-strategy-2030 [accessed 12-01-2023].

- Ecoinvent, 2021. Swiss Centre for Life Cycle Assessment, v 3.8 (www.ecoinvent.ch).

- UNI EN 15804:2012+A2:2019: Sustainability of construction works - Environmental product declarations - Core rules for the product category of construction products

- Google Maps, https://www.google.it/maps/preview.

- Sea Rates, https://www.searates.com/.

- ABB S.p.A., 2021. Cert GSE GO 2021 ABB SPA

- Eurostat, https://ec.europa.eu/eurostat/web/products-datasets/-/ENV_WASPAC.

- International Electrotechnical Commission, IEC/TR 62635 Ed. 1.0 en:2012. Guidelines For End-Of-Life Information Provided By Manufacturers And Recyclers And For Recyclability Rate Calculation Of Electrical And Electronic Equipment, 2012, ISBN 978-2-83220-413-9.

- B. P. Weidema and M. S. Wesnæs, Data quality management for life cycle inventories – an example of using data quality indicators, J. Cleaner Prod., vol.4, no.3-4, pp 167-174, 1996.

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PEP are compliant with XP C08-100-1 :2016 or EN 50693:2019. The elements of the present PEP cannot be compared with elements from another program.	PEP eco PASSPORT®
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