

ABB LOW-VOLTAGE DRY-TYPE DISTRIBUTION TRANSFORMERS

PEP ecopassport®  
Product Environmental Profile



Product Environmental Profile - PEP Ecopassport.  
Document in compliance with ISO 14025: 2006 "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.

Read more about ABB's sustainability framework and goals here:  
<https://global.abb/group/en/sustainability>.



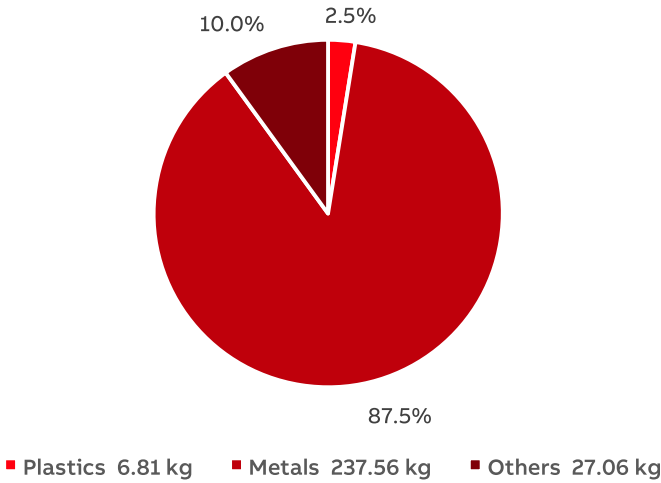
## General Information

Reference product	Catalog description: 9T10A1004 Low-Voltage Dry-Type Distribution Transformers - 3A,75kVA,480-208Y,150C,N2,K1,DOE Product ID: 1TQX246721A0100 PSR product category: Transformer
Description of the product	ABB Low-Voltage Dry-Type Distribution Transformers are built to last more than 20 years and are UL Listed. They meet DOE 2016 efficiency standards and are UL Energy Verified as energy efficient. Quiet Performance-Core and coil assemblies are mounted on rubber isolation pads to reduce noise. Qualified to the seismic requirements of IEEE-693-2005 and IBC-2021 and CBC 2022.
Functional unit	The main purpose of the Low-Voltage Dry-Type Distribution Transformer is to convert distribution voltage to the application required voltage. (Example: 480V to 208Y/120V) The range consists of energy efficient transformers meeting DOE 2016 standards, 15kVA to 150kVA transformers, General Purpose, K-Rated, 150°C, 115°C, or 80°C Rise. Voltage Range of not more than 600 Volts on either the primary or Secondary for a minimum of 20 years.
Other products covered	The construction, efficiency standards, and seismic requirements are the same for all transformers in this EPD. This EPD covers 673 unique transformer catalogs.

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# Constituent Materials



Total weight of Reference product with packaging	271.43	kg
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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%
Plastic	2.5	Steel	71.7	Packaging	10.0
-	x	Aluminium	15.3	-	x
-	x	Copper	0.5	-	x

RoHS and REACH compatability and other information about the products materials (i.e. halogen free, recyclability)

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## Additional Environmental Information

<b>Manufacturing</b>	This product line is manufactured in ABB's net/Zero Nogales Mexico plant. This site is certified according to ISO14001, 45001, 50001, and is part of ABB's Mission to Zero™ Program.
<b>Distribution</b>	Distribution scenario has been modelled considering ABB average market for the product. Transformer delivery scenario includes truck and ship transportaiton scenarios.
<b>Installation</b>	Field installation is performed manually, no environmental burdens are associated to this phase besides the disposal or recycling of the product packaging (257.64kg for reference product).
<b>Use</b>	Although transformers can be considered a low-maintenance electrical product, a preventative maintenance (PM) program for installed transformers should be scheduled and performed using the NETA MTS, NFPA-70B and IEEE C57.94 standards and the manufacturer's recommendations. This preventive maintance provides a safer and longer-lasting service environment. Changing loads, dust/dirt and vibration are three main factors warranting a PM program for transformers.
<b>End of life</b>	Due to the lack of field information and knowledge about customers disposal methodology, landfilling as proposed standard scenario in the PCR is considered. However, it is typical to see recycling of the metals portion of the transformer.
<b>Benefits and loads beyond the system boundaries</b>	Not considered or evaluated.

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## Environmental Impacts

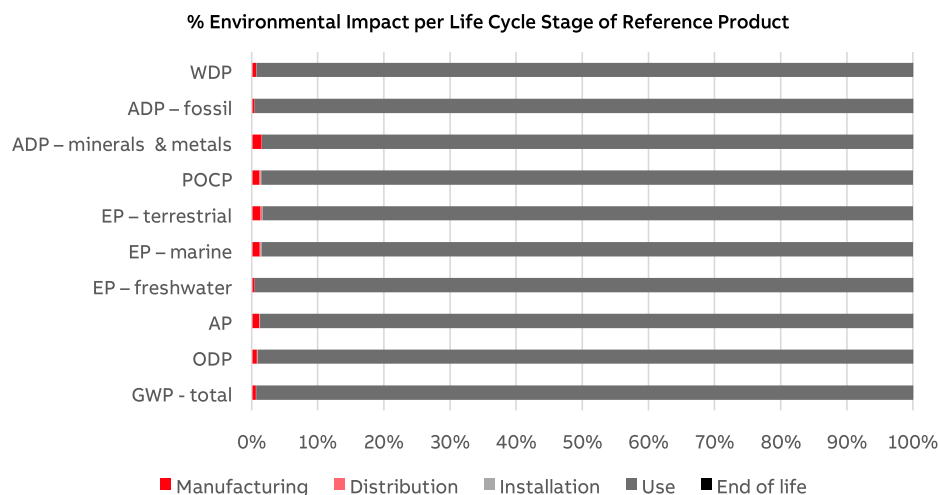
Reference lifetime	Minimum 20 years
Product category	Low-Voltage Dry-Type Distribution Transformers
Installation elements	Installation procedure provided in the "instructions for the safe handling, installation, operation, and maintenance of ventilated dry type transformers" manual.
Use scenario	Load time: 100% of rated voltage. Use time rate: 100% of reference lifetime (operation at the extremes). In reality, Low-Voltage Dry-Type Distribution Transformers rarely operate continuously at their extremes. Typically use scenarios are in the 35-40% range.
Geographical representativeness	Country Mix: United States of America, Canada, Mexico, Global.
Technological representativeness	Low-Voltage Dry-Type Distribution Transformers
Software and database used	SimaPro 9.6 with ecoinvent database 3.10

### Energy model used

Manufacturing	Electricity, high voltage {MX}  market for electricity, high voltage   Cut-off, S
Installation	-
Use	Electricity, low voltage {Country Mix}  market for electricity, low voltage   Cut-off, S
End of life	-

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## Common base of mandatory indicators



### Environmental impact indicators

Indicator	Unit	Total	Manu- facturing	Distri- bution	Installation	Use	End of life
<b>GWP-total</b>	<b>kg CO<sub>2</sub> eq.</b>	1.76E+05	1.13E+03	1.22E+02	-2.57E+01	1.75E+05	3.12E+01
<b>GWP-fossil</b>	<b>kg CO<sub>2</sub> eq.</b>	1.74E+05	1.19E+03	1.21E+02	3.85E+01	1.73E+05	2.92E+01
<b>GWP-biogenic</b>	<b>kg CO<sub>2</sub> eq.</b>	6.97E+02	-5.50E+01	6.15E-03	-6.46E+01	8.15E+02	1.97E+00
<b>GWP-luluc</b>	<b>kg CO<sub>2</sub> eq.</b>	9.61E+02	1.84E+00	5.00E-02	3.80E-01	9.59E+02	1.51E-02
GWP-fossil = Global Warming Potential fossil fuels GWP-biogenic = Global Warming Potential biogenic GWP-luluc = Global Warming Potential land use and land use change							
<b>ODP</b>	<b>kg CFC-11 eq.</b>	1.31E-03	9.99E-06	1.87E-06	5.49E-07	1.30E-03	4.53E-07
ODP = Depletion potential of the stratospheric ozone layer							
<b>AP</b>	<b>H<sup>+</sup> eq.</b>	6.22E+02	7.04E+00	5.70E-01	2.71E-01	6.14E+02	1.26E-01
AP = Acidification potential, Accumulated Exceedance							
<b>EP-freshwater</b>	<b>kg P eq.</b>	1.11E+02	4.70E-01	9.65E-03	7.21E-03	1.11E+02	3.28E-03
<b>EP-marine</b>	<b>kg N eq.</b>	1.12E+02	1.36E+00	2.06E-01	1.00E-01	1.10E+02	6.05E-02
<b>EP-terrestrial</b>	<b>mol N eq.</b>	1.01E+03	1.35E+01	2.25E+00	1.01E+00	9.97E+02	5.04E-01
EP-freshwater = Eutrophication potential, fraction of nutrients reaching freshwater end compartment EP-marine = Eutrophication potential, fraction of nutrients reaching marine end compartment EP-terrestrial = Eutrophication potential, Accumulated Exceedance							
<b>POCP</b>	<b>kg NMVOC eq.</b>	3.86E+02	4.53E+00	7.93E-01	3.29E-01	3.80E+02	1.81E-01
POCP = Formation potential of tropospheric ozone							
<b>ADP-minerals &amp; metals</b>	<b>kg Sb eq.</b>	1.52E+00	2.31E-02	3.27E-04	6.82E-05	1.50E+00	7.86E-05
<b>ADP-fossil</b>	<b>MJ</b>	3.25E+06	1.37E+04	1.76E+03	5.13E+02	3.23E+06	4.23E+02
ADP-minerals & metals = Abiotic depletion potential for non-fossil resources ADP-fossil = Abiotic depletion for fossil resources potential							
<b>WDP</b>	<b>m<sup>3</sup> eq. depr.</b>	4.92E+04	3.46E+02	9.00E+00	4.01E+00	4.88E+04	1.94E+00
WDP = Water Deprivation potential							

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## Common base of mandatory indicators

### Inventory flows indicator – Resource use indicators

Indicator	Unit	Total	Manu- facturing	Distri- bution	Installation	Use	End of life
PERE	MJ	6.19E+05	3.44E+03	2.39E+01	2.26E+03	6.13E+05	5.76E+00
PERM	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
PERT	MJ	6.19E+05	3.44E+03	2.39E+01	2.26E+03	6.13E+05	5.76E+00
PENRE	MJ	3.44E+06	1.46E+04	1.87E+03	5.47E+02	3.42E+06	4.50E+02
PENRM	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
PENRT	MJ	3.44E+06	1.46E+04	1.87E+03	5.47E+02	3.42E+06	4.50E+02
PERE = Use of renewable primary energy excluding renewable primary energy resources used as raw materials							
PERM = Use of renewable primary energy resources used as raw materials							
PERT = Total Use of renewable primary energy resources							
PENRE = Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials							
PENRM = Use of non-renewable primary energy resources used as raw materials							
PENRT = Total Use of non-renewable primary energy resources							

### Inventory flows indicator – Indicators describing the use of secondary materials, water, and energy resources

Indicator	Unit	Total	Manu- facturing	Distri- bution	Installation	Use	End of life
SM	kg	6.88E-03	6.88E-03	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
NRSF	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
FW	m³	4.73E-02	4.73E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SM = Use of secondary material							
RSF = Use of renewable secondary fuels							
NRSF = Use of non-renewable secondary fuels							
FW = Use of net fresh water							

### Inventory flows indicator – Waste category indicators

Indicator	Unit	Total	Manu- facturing	Distri- bution	Installation	Use	End of life
Hazardous waste disposed	kg	1.10E-03	1.10E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Non- hazardous waste disposed	kg	3.41E+01	3.07E-02	0.00E+00	2.72E+01	0.00E+00	6.83E+00
Radioactive waste disposed	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

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## Common base of mandatory indicators

### Inventory flows indicator – Output flow indicators

Indicator	Unit	Total	Manu- facturing	Distri- bution	Installation	Use	End of life
Components for re-use	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Materials for recycling	kg	1.68E+02	2.72E+00	0.00E+00	0.00E+00	0.00E+00	1.65E+02
Materials for energy recovery	kg	7.23E+01	1.27E-01	0.00E+00	0.00E+00	0.00E+00	7.22E+01
Exported energy	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

### Inventory flow indicator – other indicators

Indicator	Unit	Total	Manu- facturing	Distri- bution	Installation	Use	End of life
Biogenic carbon content of the product	kg of C	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Biogenic carbon content of the associated packaging	kg of C	2.54E+01	2.54E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00

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Optional indicators

Environmental indicators

Indicator	Unit	Total	Manu- facturing	Distri- bution	Installation	Use	End of life
Total use of primary energy during the life cycle	MJ	4.05E+06	1.80E+04	1.90E+03	2.80E+03	4.03E+06	4.55E+02
Emissions of fine particles	incidence of diseases	3.27E-03	1.01E-04	1.23E-05	1.37E-05	3.14E-03	3.09E-06
Ionizing radiation, human health	kBq U235 eq.	3.27E-03	5.83E+01	1.59E+00	1.84E+00	7.63E+04	3.79E-01
Ecotoxicity (fresh water)	CTUe	3.27E-03	3.26E+04	8.70E+02	3.45E+02	1.06E+06	4.11E+02
Human toxicity, car-cinogenic effects	CTUh	3.27E-03	6.29E-05	1.26E-06	5.14E-07	6.24E-04	3.37E-07
Human toxicity, non- carcinogenic effects	incidence of diseases	3.27E-03	6.87E-05	2.22E-06	7.00E-07	3.68E-03	5.69E-07
Impact related to land use/soil quality		3.27E-03	2.33E+04	1.73E+03	1.85E+04	4.32E+05	4.33E+02

Other indicators

Indicator	Unit	Total	Manu- facturing	Distri- bution	Installation	Use	End of life
No Other indicators used							

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## 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 multiplying the values of the Reference product by the following coefficients:

\* 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

Product name	Manu- facturing	Distri- bution	Installation	Use	End of life
9T10A1001	0.49	0.49	0.87	0.23	0.45
9T10A1001G02	0.49	0.49	0.87	0.23	0.45
9T10A1001G03	0.49	0.49	0.87	0.24	0.45
9T10A1001G04	0.49	0.49	0.87	0.24	0.45
9T10A1001G05	0.49	0.49	0.87	0.23	0.45
9T10A1001G14	0.61	0.61	0.86	0.35	0.58
9T10A1001G31	0.49	0.49	0.87	0.21	0.45
9T10A1001G32	0.49	0.49	0.87	0.21	0.45
9T10A1001G33	0.49	0.49	0.87	0.22	0.45
9T10A1001G34	0.49	0.49	0.87	0.22	0.45
9T10A1001G35	0.49	0.49	0.87	0.21	0.45
9T10A1001G51	0.49	0.49	0.87	0.21	0.45
9T10A1001G61	0.61	0.61	0.86	0.14	0.58
9T10A1001G62	0.66	0.66	0.86	0.14	0.64
9T10A1001G63	0.66	0.66	0.86	0.14	0.64
9T10A1001G64	0.66	0.66	0.86	0.14	0.64
9T10A1002	0.61	0.61	0.86	0.48	0.59
9T10A1002G02	0.66	0.66	0.86	0.56	0.64
9T10A1002G03	0.66	0.66	0.86	0.55	0.64
9T10A1002G04	0.66	0.66	0.86	0.57	0.64
9T10A1002G05	0.66	0.66	0.86	0.55	0.64
9T10A1002G06	0.66	0.66	0.86	0.57	0.64
9T10A1002G31	0.66	0.66	0.86	0.51	0.64
9T10A1002G32	0.66	0.66	0.86	0.51	0.64
9T10A1002G33	0.66	0.66	0.86	0.51	0.64
9T10A1002G34	0.66	0.66	0.86	0.52	0.64
9T10A1002G44	0.86	0.86	0.86	0.42	0.87
9T10A1002G51	0.86	0.86	0.86	0.26	0.87
9T10A1002G61	0.72	0.72	0.86	0.28	0.70
9T10A1002G62	0.86	0.86	0.86	0.24	0.87
9T10A1002G63	0.86	0.86	0.86	0.24	0.87
9T10A1002G64	0.86	0.86	0.86	0.24	0.87
9T10A1002G65	0.86	0.86	0.86	0.26	0.87
9T10A1002G66	0.86	0.86	0.86	0.24	0.87
9T10A1003	0.72	0.72	0.86	0.68	0.70
9T10A1003G02	0.86	0.86	0.86	0.55	0.87

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## Extrapolation Factors

Product name	Manu- facturing	Distri- bution	Installation	Use	End of life
9T10A1003G03	0.86	0.86	0.86	0.56	0.87
9T10A1003G04	0.86	0.86	0.86	0.59	0.87
9T10A1003G05	0.86	0.86	0.86	0.55	0.87
9T10A1003G31	0.86	0.86	0.86	0.51	0.87
9T10A1003G32	0.86	0.86	0.86	0.50	0.87
9T10A1003G33	0.86	0.86	0.86	0.52	0.87
9T10A1003G34	0.86	0.86	0.86	0.52	0.87
9T10A1003G35	0.86	0.86	0.86	0.57	0.87
9T10A1003G51	1.08	1.08	1.00	0.44	1.09
9T10A1003G61	1.08	1.08	1.00	0.34	1.09
9T10A1003G62	1.08	1.08	1.00	0.34	1.09
9T10A1003G63	1.08	1.08	1.00	0.34	1.09
9T10A1003G64	1.08	1.08	1.00	0.34	1.09
9T10A1003G65	1.08	1.08	1.00	0.34	1.09
9T10A1003G66	1.08	1.08	1.00	0.41	1.09
9T10A1004	1.00	1.00	1.00	1.00	1.00
9T10A1004G02	1.08	1.08	1.00	0.98	1.09
9T10A1004G03	1.08	1.08	1.00	0.96	1.09
9T10A1004G04	1.08	1.08	1.00	0.96	1.09
9T10A1004G05	1.08	1.08	1.00	0.98	1.09
9T10A1004G06	1.08	1.08	1.00	0.96	1.09
9T10A1004G14	1.30	1.30	1.02	1.11	1.33
9T10A1004G31	1.16	1.16	1.00	0.90	1.18
9T10A1004G32	1.16	1.16	1.00	0.91	1.18
9T10A1004G33	1.16	1.16	1.00	0.91	1.18
9T10A1004G34	1.16	1.16	1.00	0.91	1.18
9T10A1004G35	1.16	1.16	1.00	0.91	1.18
9T10A1004G36	1.16	1.16	1.00	0.91	1.18
9T10A1004G44	1.30	1.30	1.02	1.02	1.33
9T10A1004G51	1.30	1.30	1.02	0.60	1.33
9T10A1004G61	1.34	1.34	1.02	0.51	1.37
9T10A1004G62	1.34	1.34	1.02	0.51	1.37
9T10A1004G63	1.30	1.30	1.02	0.56	1.33
9T10A1004G64	1.30	1.30	1.02	0.56	1.33
9T10A1005	1.34	1.34	1.02	1.22	1.37
9T10A1005G02	1.34	1.34	1.02	1.19	1.37
9T10A1005G03	1.30	1.30	1.02	1.31	1.33
9T10A1005G04	1.30	1.30	1.02	1.31	1.33
9T10A1005G05	1.30	1.30	1.02	1.32	1.33
9T10A1005G14	1.57	1.57	1.11	1.44	1.62
9T10A1005G31	1.57	1.57	1.11	1.27	1.62

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## Extrapolation Factors

Product name	Manu- facturing	Distri- bution	Installation	Use	End of life
9T10A1005G32	1.57	1.57	1.11	1.27	1.62
9T10A1005G33	1.57	1.57	1.11	1.22	1.62
9T10A1005G34	1.57	1.57	1.11	1.22	1.62
9T10A1005G35	1.57	1.57	1.11	1.27	1.62
9T10A1005G36	1.57	1.57	1.11	1.22	1.62
9T10A1005G44	1.57	1.57	1.11	1.00	1.62
9T10A1005G51	1.92	1.92	1.11	0.80	2.01
9T10A1005G61	1.92	1.92	1.11	0.74	2.01
9T10A1005G62	1.92	1.92	1.11	0.80	2.01
9T10A1005G63	1.92	1.92	1.11	0.75	2.01
9T10A1005G64	1.92	1.92	1.11	0.74	2.01
9T10A1005G66	1.92	1.92	1.11	0.75	2.01
9T10A1006	1.92	1.92	1.11	1.41	2.01
9T10A1006G02	1.92	1.92	1.11	1.49	2.01
9T10A1006G03	1.92	1.92	1.11	1.45	2.01
9T10A1006G04	1.92	1.92	1.11	1.45	2.01
9T10A1006G05	1.92	1.92	1.11	1.44	2.01
9T10A1006G06	1.92	1.92	1.11	1.45	2.01
9T10A1006G21	1.92	1.92	1.11	1.41	2.01
9T10A1006G31	2.33	2.33	1.29	1.37	2.44
9T10A1006G32	2.33	2.33	1.29	1.37	2.44
9T10A1006G33	2.33	2.33	1.29	1.39	2.44
9T10A1006G34	2.33	2.33	1.29	1.39	2.44
9T10A1006G35	2.33	2.33	1.29	1.37	2.44
9T10A1006G51	2.33	2.33	1.29	1.37	2.44
9T10A1006G61	2.22	2.22	1.29	0.92	2.32
9T10A1006G62	2.22	2.22	1.29	0.92	2.32
9T10A1006G63	2.68	2.68	1.29	0.99	2.83
9T10A1006G64	2.68	2.68	1.29	0.99	2.83
9T10A1011	0.49	0.49	0.87	0.28	0.45
9T10A1012	0.66	0.66	0.86	0.52	0.64
9T10A1013	0.86	0.86	0.86	0.60	0.87
9T10A1014	1.08	1.08	1.00	1.02	1.09
9T10A1015	1.30	1.30	1.02	1.47	1.33
9T10A1015G02	1.30	1.30	1.02	1.47	1.33
9T10A1021	0.49	0.49	0.87	0.23	0.45
9T10A1021G33	0.49	0.49	0.87	0.22	0.45
9T10A1022	0.66	0.66	0.86	0.54	0.64
9T10A1023	0.86	0.86	0.86	0.56	0.87
9T10A1024	1.08	1.08	1.00	0.97	1.09
9T10A1025	1.30	1.30	1.02	1.27	1.33

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Approved	Public	ABBG-00728-V01.01-EN	1	EN	12/28

## Extrapolation Factors

Product name	Manu- facturing	Distri- bution	Installation	Use	End of life
9T10A1025G63	1.92	1.92	1.11	0.73	2.01
9T10A1026	1.92	1.92	1.11	1.39	2.01
9T10A1041	0.49	0.49	0.87	0.23	0.45
9T10A1041G31	0.49	0.49	0.87	0.21	0.45
9T10A1042	0.66	0.66	0.86	0.53	0.64
9T10A1042G61	0.86	0.86	0.86	0.26	0.87
9T10A1043	0.86	0.86	0.86	0.62	0.87
9T10A1044	1.08	1.08	1.00	1.07	1.09
9T10A1045	1.30	1.30	1.02	1.32	1.33
9T10A1046	1.92	1.92	1.11	1.38	2.01
9T10A1051	0.49	0.49	0.87	0.25	0.45
9T10A1053	0.86	0.86	0.86	0.55	0.87
9T10A1054	1.08	1.08	1.00	0.97	1.09
9T10A1054G31	1.16	1.16	1.00	0.86	1.18
9T10A1055	1.30	1.30	1.02	1.42	1.33
9T10A1055G33	1.57	1.57	1.11	1.29	1.62
9T10A1056	1.92	1.92	1.11	1.37	2.01
9T10A1061	0.49	0.49	0.87	0.29	0.45
9T10A1062	0.66	0.66	0.86	0.54	0.64
9T10A1063	0.86	0.86	0.86	0.59	0.87
9T10A1064	1.08	1.08	1.00	1.15	1.09
9T10A1065	1.30	1.30	1.02	1.56	1.33
9T10A1066	1.92	1.92	1.11	1.35	2.01
9T10A1071	0.49	0.49	0.87	0.25	0.45
9T10A1071G32	0.49	0.49	0.87	0.26	0.45
9T10A1072	0.66	0.66	0.86	0.53	0.64
9T10A1073	0.86	0.86	0.86	0.56	0.87
9T10A1074	1.08	1.08	1.00	1.02	1.09
9T10A1075	1.30	1.30	1.02	1.34	1.33
9T10A1076	1.92	1.92	1.11	1.34	2.01
9T10A1081	0.49	0.49	0.87	0.25	0.45
9T10A1081G31	0.49	0.49	0.87	0.23	0.45
9T10A1082	0.66	0.66	0.86	0.49	0.64
9T10A1082G31	0.66	0.66	0.86	0.47	0.64
9T10A1083	0.86	0.86	0.86	0.58	0.87
9T10A1083G03	0.86	0.86	0.86	0.54	0.87
9T10A1083G61	1.08	1.08	1.00	0.37	1.09
9T10A1084	1.08	1.08	1.00	1.09	1.09
9T10A1084G03	1.16	1.16	1.00	0.99	1.18
9T10A1084G31	1.16	1.16	1.00	0.82	1.18
9T10A1084G61	1.30	1.30	1.02	0.57	1.33

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Approved	Public	ABBG-00728-V01.01-EN	1	EN	13/28

## Extrapolation Factors

Product name	Manu- facturing	Distri- bution	Installation	Use	End of life
9T10A1085	1.30	1.30	1.02	1.38	1.33
9T10A1085G61	1.92	1.92	1.11	0.69	2.01
9T10A1086	1.92	1.92	1.11	1.31	2.01
9T10A1091	0.49	0.49	0.87	0.26	0.45
9T10A1092	0.66	0.66	0.86	0.55	0.64
9T10A1093G02	0.86	0.86	0.86	0.50	0.87
9T10A1094	1.08	1.08	1.00	0.96	1.09
9T10A1095	1.30	1.30	1.02	1.34	1.33
9T10A1096	1.92	1.92	1.11	1.25	2.01
9T10A1101	0.49	0.49	0.87	0.28	0.45
9T10A1101G03	0.49	0.49	0.87	0.26	0.45
9T10A1102G03	0.66	0.66	0.86	0.56	0.64
9T10A1103	0.86	0.86	0.86	0.57	0.87
9T10A1103G03	0.86	0.86	0.86	0.59	0.87
9T10A1104G02	1.08	1.08	1.00	1.04	1.09
9T10A1104G03	1.08	1.08	1.00	1.00	1.09
9T10A1104G04	1.08	1.08	1.00	1.00	1.09
9T10A1104G05	1.08	1.08	1.00	1.04	1.09
9T10A1111	0.49	0.49	0.87	0.29	0.45
9T10A1112	0.66	0.66	0.86	0.56	0.64
9T10A1113	0.86	0.86	0.86	0.53	0.87
9T10A1114	1.08	1.08	1.00	1.09	1.09
9T10A1116	1.92	1.92	1.11	1.24	2.01
9T10A1121	0.49	0.49	0.87	0.28	0.45
9T10A1122	0.66	0.66	0.86	0.57	0.64
9T10A1123	0.86	0.86	0.86	0.54	0.87
9T10A1124	1.08	1.08	1.00	0.99	1.09
9T10A1125	1.30	1.30	1.02	1.43	1.33
9T10A1132	0.66	0.66	0.86	0.55	0.64
9T10A1133	0.86	0.86	0.86	0.68	0.87
9T10A1135	1.30	1.30	1.02	1.27	1.33
9T10A1136G61	2.68	2.68	1.29	0.96	2.83
9T10A1141	0.49	0.49	0.87	0.26	0.45
9T10A1144	1.08	1.08	1.00	1.02	1.09
9T10A1145	1.30	1.30	1.02	1.19	1.33
9T10A1146	1.92	1.92	1.11	1.42	2.01
9T10A1165	1.30	1.30	1.02	1.41	1.33
9T10A1171	0.49	0.49	0.87	0.24	0.45
9T10A1171G02	0.49	0.49	0.87	0.24	0.45
9T10A1171G03	0.49	0.49	0.87	0.25	0.45
9T10A1171G31	0.49	0.49	0.87	0.22	0.45

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Approved	Public	ABBG-00728-V01.01-EN	1	EN	14/28

## Extrapolation Factors

Product name	Manu- facturing	Distri- bution	Installation	Use	End of life
9T10A1172	0.66	0.66	0.86	0.55	0.64
9T10A1172G03	0.66	0.66	0.86	0.51	0.64
9T10A1172G04	0.66	0.66	0.86	0.51	0.64
9T10A1172G14	0.72	0.72	0.86	0.59	0.71
9T10A1172G31	0.66	0.66	0.86	0.48	0.64
9T10A1172G32	0.66	0.66	0.86	0.50	0.64
9T10A1172G34	0.66	0.66	0.86	0.47	0.64
9T10A1172G61	0.86	0.86	0.86	0.25	0.87
9T10A1173	0.86	0.86	0.86	0.60	0.87
9T10A1173G03	0.86	0.86	0.86	0.60	0.87
9T10A1173G04	0.86	0.86	0.86	0.60	0.87
9T10A1173G31	0.86	0.86	0.86	0.55	0.87
9T10A1173G34	0.86	0.86	0.86	0.55	0.87
9T10A1173G61	1.08	1.08	1.00	0.34	1.09
9T10A1174	1.08	1.08	1.00	0.96	1.09
9T10A1174G02	1.08	1.08	1.00	0.96	1.09
9T10A1174G04	1.08	1.08	1.00	0.97	1.09
9T10A1174G14	1.30	1.30	1.02	1.22	1.33
9T10A1174G31	1.16	1.16	1.00	0.85	1.18
9T10A1174G32	1.16	1.16	1.00	0.85	1.18
9T10A1174G34	1.16	1.16	1.00	0.86	1.18
9T10A1174G61	1.30	1.30	1.02	0.58	1.33
9T10A1174G62	1.30	1.30	1.02	0.58	1.33
9T10A1175	1.30	1.30	1.02	1.39	1.33
9T10A1175G03	1.30	1.30	1.02	1.39	1.33
9T10A1175G31	1.57	1.57	1.11	1.24	1.62
9T10A1175G34	1.57	1.57	1.11	1.18	1.62
9T10A1175G44	1.92	1.92	1.11	1.34	2.01
9T10A1176	1.92	1.92	1.11	1.27	2.01
9T10A1176G03	1.92	1.92	1.11	1.27	2.01
9T10A1176G31	2.33	2.33	1.29	1.32	2.44
9T10A1176G32	2.33	2.33	1.29	1.32	2.44
9T10A1181	0.49	0.49	0.87	0.28	0.45
9T10A1181G02	0.49	0.49	0.87	0.28	0.45
9T10A1181G03	0.49	0.49	0.87	0.27	0.45
9T10A1181G31	0.49	0.49	0.87	0.25	0.45
9T10A1182	0.66	0.66	0.86	0.56	0.64
9T10A1182G02	0.66	0.66	0.86	0.56	0.64
9T10A1182G03	0.66	0.66	0.86	0.55	0.64
9T10A1182G31	0.66	0.66	0.86	0.51	0.64
9T10A1182G61	0.86	0.86	0.86	0.26	0.87

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Approved	Public	ABBG-00728-V01.01-EN	1	EN	15/28

## Extrapolation Factors

Product name	Manu- facturing	Distri- bution	Installation	Use	End of life
9T10A1183	0.86	0.86	0.86	0.60	0.87
9T10A1183G02	0.86	0.86	0.86	0.60	0.87
9T10A1183G31	0.86	0.86	0.86	0.55	0.87
9T10A1184	1.08	1.08	1.00	1.07	1.09
9T10A1184G02	1.08	1.08	1.00	1.07	1.09
9T10A1184G03	1.08	1.08	1.00	1.08	1.09
9T10A1184G31	1.16	1.16	1.00	0.94	1.18
9T10A1184G61	1.30	1.30	1.02	0.65	1.33
9T10A1185	1.57	1.57	1.11	1.28	1.62
9T10A1185G02	1.57	1.57	1.11	1.28	1.62
9T10A1185G03	1.57	1.57	1.11	1.25	1.62
9T10A1185G09	1.57	1.57	1.11	1.03	1.62
9T10A1185G31	1.57	1.57	1.11	1.08	1.62
9T10A1186	1.92	1.92	1.11	1.40	2.01
9T10A1186G02	1.92	1.92	1.11	1.40	2.01
9T10A1186G61	2.68	2.68	1.29	0.94	2.83
9T10A1191	0.49	0.49	0.87	0.31	0.45
9T10A1192	0.66	0.66	0.86	0.53	0.64
9T10A1192G02	0.66	0.66	0.86	0.53	0.64
9T10A1192G31	0.66	0.66	0.86	0.51	0.64
9T10A1192G32	0.66	0.66	0.86	0.51	0.64
9T10A1193	0.86	0.86	0.86	0.57	0.87
9T10A1193G02	0.86	0.86	0.86	0.60	0.87
9T10A1193G03	0.86	0.86	0.86	0.60	0.87
9T10A1193G04	0.86	0.86	0.86	0.60	0.87
9T10A1193G31	0.86	0.86	0.86	0.52	0.87
9T10A1193G33	0.86	0.86	0.86	0.56	0.87
9T10A1194	1.08	1.08	1.00	1.07	1.09
9T10A1194G02	1.08	1.08	1.00	1.07	1.09
9T10A1194G31	1.16	1.16	1.00	0.91	1.18
9T10A1194G32	1.16	1.16	1.00	0.91	1.18
9T10A1195	1.57	1.57	1.11	1.27	1.62
9T10A1195G31	1.57	1.57	1.11	1.26	1.62
9T10A1195G32	1.57	1.57	1.11	1.26	1.62
9T10A1196	1.92	1.92	1.11	1.37	2.01
9T10A1196G02	1.92	1.92	1.11	1.37	2.01
9T10A1196G32	2.33	2.33	1.29	1.44	2.44
9T10A1231	0.49	0.49	0.87	0.31	0.45
9T10A1232	0.66	0.66	0.86	0.54	0.64
9T10A1235	1.30	1.30	1.02	1.42	1.33
9T10A1236	1.92	1.92	1.11	1.39	2.01

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Approved	Public	ABBG-00728-V01.01-EN	1	EN	16/28

## Extrapolation Factors

Product name	Manu- facturing	Distri- bution	Installation	Use	End of life
9T10A1261	0.49	0.49	0.87	0.24	0.45
9T10A1262	0.66	0.66	0.86	0.55	0.64
9T10A1271	0.49	0.49	0.87	0.24	0.45
9T10A1272	0.66	0.66	0.86	0.54	0.64
9T10A1273	0.86	0.86	0.86	0.55	0.87
9T10A1311G03	0.49	0.49	0.87	0.24	0.45
9T10A1313	1.08	1.08	1.00	0.58	1.09
9T10A1314	1.30	1.30	1.02	0.64	1.33
9T10A1316	2.33	2.33	1.29	1.49	2.44
9T10A1321	0.49	0.49	0.87	0.23	0.45
9T10A1322	0.66	0.66	0.86	0.55	0.64
9T10A1323	1.08	1.08	1.00	0.58	1.09
9T10A1324	1.08	1.08	1.00	1.07	1.09
9T10A1325	1.92	1.92	1.11	0.86	2.01
9T10A1326	2.33	2.33	1.29	1.57	2.44
9T10A1326G02	2.33	2.33	1.29	1.57	2.44
9T10A1331	0.49	0.49	0.87	0.23	0.45
9T10A1331G31	0.49	0.49	0.87	0.22	0.45
9T10A1332	0.66	0.66	0.86	0.56	0.64
9T10A1332G31	0.86	0.86	0.86	0.54	0.87
9T10A1333	1.08	1.08	1.00	0.55	1.09
9T10A1333G05	1.08	1.08	1.00	0.57	1.09
9T10A1334	1.30	1.30	1.02	0.66	1.33
9T10A1335	1.92	1.92	1.11	0.86	2.01
9T10A1336	2.33	2.33	1.29	1.35	2.44
9T10A1336G05	2.33	2.33	1.29	1.35	2.44
9T10A1341	0.49	0.49	0.87	0.22	0.45
9T10A1341G03	0.49	0.49	0.87	0.23	0.45
9T10A1341G31	0.49	0.49	0.87	0.21	0.45
9T10A1342	0.66	0.66	0.86	0.52	0.64
9T10A1342G02	0.66	0.66	0.86	0.52	0.64
9T10A1342G31	0.66	0.66	0.86	0.48	0.64
9T10A1343	1.08	1.08	1.00	0.39	1.09
9T10A1343G02	1.08	1.08	1.00	0.57	1.09
9T10A1343G31	1.08	1.08	1.00	0.36	1.09
9T10A1344	1.08	1.08	1.00	0.97	1.09
9T10A1344G02	1.08	1.08	1.00	1.08	1.09
9T10A1344G03	1.30	1.30	1.02	0.69	1.33
9T10A1344G05	1.08	1.08	1.00	1.08	1.09
9T10A1344G31	1.30	1.30	1.02	0.72	1.33
9T10A1344G32	1.30	1.30	1.02	0.72	1.33

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Approved	Public	ABBG-00728-V01.01-EN	1	EN	17/28

## Extrapolation Factors

Product name	Manu- facturing	Distri- bution	Installation	Use	End of life
9T10A1344G33	1.30	1.30	1.02	0.64	1.33
9T10A1344G61	1.30	1.30	1.02	0.59	1.33
9T10A1345	1.92	1.92	1.11	0.77	2.01
9T10A1345G03	1.92	1.92	1.11	0.74	2.01
9T10A1345G31	1.92	1.92	1.11	0.71	2.01
9T10A1345G61	1.92	1.92	1.11	0.64	2.01
9T10A1346	2.33	2.33	1.29	1.44	2.44
9T10A1346G03	2.33	2.33	1.29	1.57	2.44
9T10A1346G32	2.33	2.33	1.29	1.44	2.44
9T10A1346G61	3.07	3.07	1.29	1.22	3.26
9T10A1351	0.49	0.49	0.87	0.26	0.45
9T10A1352	0.66	0.66	0.86	0.51	0.64
9T10A1353	1.16	1.16	1.00	0.58	1.18
9T10A1354	1.30	1.30	1.02	0.70	1.33
9T10A1361	0.49	0.49	0.87	0.22	0.45
9T10A1361G31	0.49	0.49	0.87	0.20	0.45
9T10A1391	0.49	0.49	0.87	0.27	0.45
9T10A1391G02	0.49	0.49	0.87	0.26	0.45
9T10A1392	0.66	0.66	0.86	0.50	0.64
9T10A1393	0.86	0.86	0.86	0.55	0.87
9T10A1394	1.08	1.08	1.00	1.06	1.09
9T10A1395	1.92	1.92	1.11	0.75	2.01
9T10A1396	2.33	2.33	1.29	1.83	2.44
9T10A1411	0.49	0.49	0.87	0.22	0.45
9T10A1412	0.66	0.66	0.86	0.48	0.64
9T10A1414	1.08	1.08	1.00	1.03	1.09
9T10A1442	0.66	0.66	0.86	0.49	0.64
9T10A1451	0.49	0.49	0.87	0.26	0.45
9T10A1451G03	0.49	0.49	0.87	0.26	0.45
9T10A1451G04	0.49	0.49	0.87	0.26	0.45
9T10A1452	0.66	0.66	0.86	0.55	0.64
9T10A1452G03	0.66	0.66	0.86	0.47	0.64
9T10A1452G31	0.66	0.66	0.86	0.44	0.64
9T10A1452G33	0.66	0.66	0.86	0.43	0.64
9T10A1452G34	0.66	0.66	0.86	0.43	0.64
9T10A1453	1.08	1.08	1.00	0.54	1.09
9T10A1453G02	1.08	1.08	1.00	0.54	1.09
9T10A1453G03	1.08	1.08	1.00	0.55	1.09
9T10A1453G33	1.08	1.08	1.00	0.52	1.09
9T10A1454	1.30	1.30	1.02	0.66	1.33
9T10A1454G02	1.30	1.30	1.02	0.66	1.33

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Approved	Public	ABBG-00728-V01.01-EN	1	EN	18/28

## Extrapolation Factors

Product name	Manu- facturing	Distri- bution	Installation	Use	End of life
9T10A1454G03	1.30	1.30	1.02	0.67	1.33
9T10A1454G04	1.30	1.30	1.02	0.67	1.33
9T10A1454G31	1.30	1.30	1.02	0.61	1.33
9T10A1454G61	1.30	1.30	1.02	0.57	1.33
9T10A1455	1.92	1.92	1.11	0.94	2.01
9T10A1455G03	1.92	1.92	1.11	0.92	2.01
9T10A1456	2.33	2.33	1.29	1.50	2.44
9T10A1456G02	2.33	2.33	1.29	1.50	2.44
9T10A1456G03	2.33	2.33	1.29	1.50	2.44
9T10A1481	0.49	0.49	0.87	0.29	0.45
9T10A1482	0.86	0.86	0.86	0.28	0.87
9T10A1491	0.49	0.49	0.87	0.23	0.45
9T10A1492	0.66	0.66	0.86	0.56	0.64
9T10A1493	0.86	0.86	0.86	0.62	0.87
9T10A1494	1.08	1.08	1.00	1.10	1.09
9T10A1531	0.49	0.49	0.87	0.22	0.45
9T10A1531G31	0.49	0.49	0.87	0.20	0.45
9T10A1532	0.66	0.66	0.86	0.55	0.64
9T10A1533	0.86	0.86	0.86	0.55	0.87
9T10A1534	1.08	1.08	1.00	0.96	1.09
9T10A1535	1.30	1.30	1.02	1.39	1.33
9T10A1536	1.92	1.92	1.11	1.42	2.01
9T10A1541	0.49	0.49	0.87	0.25	0.45
9T10A1542	0.66	0.66	0.86	0.55	0.64
9T10A1543	0.86	0.86	0.86	0.60	0.87
9T10A1544	1.08	1.08	1.00	0.99	1.09
9T10A1545	1.30	1.30	1.02	1.37	1.33
9T10A1546	1.92	1.92	1.11	1.37	2.01
9T10A1551	0.49	0.49	0.87	0.25	0.45
9T10A1552	0.66	0.66	0.86	0.39	0.64
9T10A1554	1.08	1.08	1.00	1.06	1.09
9T10A1584	1.08	1.08	1.00	1.05	1.09
9T10A1592	0.66	0.66	0.86	0.53	0.64
9T10A1594G03	1.08	1.08	1.00	0.97	1.09
9T10A1611	0.49	0.49	0.87	0.23	0.45
9T10A1611G33	0.49	0.49	0.87	0.21	0.45
9T10A1612	0.66	0.66	0.86	0.53	0.64
9T10A1613	0.86	0.86	0.86	0.55	0.87
9T10A1614	1.08	1.08	1.00	0.99	1.09
9T10A1614G03	1.08	1.08	1.00	0.98	1.09
9T10A1614G62	1.30	1.30	1.02	0.54	1.33

STATUS	SECURITY LEVEL	REGISTRATION NUMBER	REV.	LANG.	PAGE
Approved	Public	ABBG-00728-V01.01-EN	1	EN	19/28

## Extrapolation Factors

Product name	Manu- facturing	Distri- bution	Installation	Use	End of life
9T10A1615	1.30	1.30	1.02	1.26	1.33
9T10A1615G03	1.30	1.30	1.02	1.27	1.33
9T10A1616	1.92	1.92	1.11	1.38	2.01
9T10A1616G02	1.92	1.92	1.11	1.38	2.01
9T10A1662	0.66	0.66	0.86	0.55	0.64
9T10A1663	0.86	0.86	0.86	0.56	0.87
9T10A1664	1.30	1.30	1.02	0.68	1.33
9T10A1711	0.49	0.49	0.87	0.21	0.45
9T10A1713	1.08	1.08	1.00	0.51	1.09
9T10A1714	1.08	1.08	1.00	1.02	1.09
9T10A1716	2.33	2.33	1.29	1.48	2.44
9T10A1716G03	2.33	2.33	1.29	1.49	2.44
9T10A1721	0.49	0.49	0.87	0.29	0.45
9T10A1761	0.49	0.49	0.87	0.26	0.45
9T10A1763	0.86	0.86	0.86	0.53	0.87
9T10A1764	1.08	1.08	1.00	0.99	1.09
9T10A1765	1.30	1.30	1.02	1.25	1.33
9T10A1766	1.92	1.92	1.11	1.51	2.01
9T10A1791	0.49	0.49	0.87	0.24	0.45
9T10A1793	0.86	0.86	0.86	0.49	0.87
9T10A1844	1.08	1.08	1.00	0.99	1.09
9T10A1861	0.49	0.49	0.87	0.27	0.45
9T10A1883	0.86	0.86	0.86	0.64	0.87
9T10A1885	1.30	1.30	1.02	1.53	1.33
9T10A1886	1.92	1.92	1.11	1.42	2.01
9T10A1902	0.66	0.66	0.86	0.50	0.64
9T10A1904	1.08	1.08	1.00	0.94	1.09
9T10A1964	1.08	1.08	1.00	0.91	1.09
9T10A1965	1.30	1.30	1.02	1.30	1.33
9T10A1992	0.66	0.66	0.86	0.50	0.64
9T10A2013	0.86	0.86	0.86	0.67	0.87
9T10A2014	1.08	1.08	1.00	0.89	1.09
9T10A2021	0.49	0.49	0.87	0.25	0.45
9T10A2022	0.66	0.66	0.86	0.54	0.64
9T10A2023	0.86	0.86	0.86	0.53	0.87
9T10A2041	0.49	0.49	0.87	0.22	0.45
9T10A2042	0.66	0.66	0.86	0.53	0.64
9T10A2044	1.08	1.08	1.00	1.00	1.09
9T10A2075	1.30	1.30	1.02	1.22	1.33
9T10A2112	0.66	0.66	0.86	0.51	0.64
9T10A2112G03	0.66	0.66	0.86	0.52	0.64

STATUS	SECURITY LEVEL	REGISTRATION NUMBER	REV.	LANG.	PAGE
Approved	Public	ABBG-00728-V01.01-EN	1	EN	20/28

## Extrapolation Factors

Product name	Manu- facturing	Distri- bution	Installation	Use	End of life
9T10A2122	0.66	0.66	0.86	0.56	0.64
9T10A2131	0.49	0.49	0.87	0.25	0.45
9T10A2132	0.66	0.66	0.86	0.53	0.64
9T10A2133	0.86	0.86	0.86	0.57	0.87
9T10A2134	1.08	1.08	1.00	1.05	1.09
9T10A2136	1.92	1.92	1.11	1.41	2.01
9T10A2161	0.49	0.49	0.87	0.22	0.45
9T10A2162	0.66	0.66	0.86	0.49	0.64
9T10A2163	0.86	0.86	0.86	0.59	0.87
9T10A2164	1.08	1.08	1.00	0.93	1.09
9T10A2182	0.66	0.66	0.86	0.55	0.64
9T10A2183	0.86	0.86	0.86	0.53	0.87
9T10A2184	1.08	1.08	1.00	0.93	1.09
9T10A2184G33	1.16	1.16	1.00	0.90	1.18
9T10A2213	0.86	0.86	0.86	0.52	0.87
9T10A2221	0.49	0.49	0.87	0.22	0.45
9T10A2221G03	0.49	0.49	0.87	0.22	0.45
9T10A2252	0.66	0.66	0.86	0.55	0.64
9T10A2293	0.86	0.86	0.86	0.51	0.87
9T10A2295	1.30	1.30	1.02	1.32	1.33
9T10A2301	0.49	0.49	0.87	0.28	0.45
9T10A2303	0.86	0.86	0.86	0.68	0.87
9T10A2304	1.08	1.08	1.00	0.98	1.09
9T10A2332	0.66	0.66	0.86	0.53	0.64
9T10A2333	0.86	0.86	0.86	0.58	0.87
9T10A2334	1.08	1.08	1.00	1.12	1.09
9T10A2381	0.49	0.49	0.87	0.27	0.45
9T10A2381G02	0.49	0.49	0.87	0.27	0.45
9T10A2382	0.66	0.66	0.86	0.56	0.64
9T10A2383	0.86	0.86	0.86	0.63	0.87
9T10A2384	1.08	1.08	1.00	0.97	1.09
9T10A2385	1.30	1.30	1.02	1.25	1.33
9T10A2393	0.86	0.86	0.86	0.61	0.87
9T10A2401	0.49	0.49	0.87	0.22	0.45
9T10A2402	0.66	0.66	0.86	0.56	0.64
9T10A2403	0.86	0.86	0.86	0.57	0.87
9T10A2403G03	0.86	0.86	0.86	0.57	0.87
9T10A2404	1.08	1.08	1.00	0.99	1.09
9T10A2405	1.30	1.30	1.02	1.28	1.33
9T10A2406	1.92	1.92	1.11	1.30	2.01
9T10A2421	0.49	0.49	0.87	0.26	0.45

STATUS	SECURITY LEVEL	REGISTRATION NUMBER	REV.	LANG.	PAGE
Approved	Public	ABBG-00728-V01.01-EN	1	EN	21/28

## Extrapolation Factors

Product name	Manu- facturing	Distri- bution	Installation	Use	End of life
9T10A2523	0.86	0.86	0.86	0.59	0.87
9T10A2605	1.30	1.30	1.02	1.38	1.33
9T10A2624	1.08	1.08	1.00	1.01	1.09
9T10A2631	0.49	0.49	0.87	0.29	0.45
9T10A2652G31	0.66	0.66	0.86	0.49	0.64
9T10A2653G31	0.86	0.86	0.86	0.58	0.87
9T10B1001	0.49	0.49	0.87	0.23	0.45
9T10B1001G05	0.49	0.49	0.87	0.21	0.45
9T10B1001G31	0.49	0.49	0.87	0.21	0.45
9T10B1002	0.61	0.61	0.86	0.55	0.58
9T10B1002G02	0.66	0.66	0.86	0.55	0.64
9T10B1002G03	0.66	0.66	0.86	0.55	0.64
9T10B1002G31	0.66	0.66	0.86	0.50	0.64
9T10B1002G32	0.66	0.66	0.86	0.51	0.64
9T10B1003	0.86	0.86	0.86	0.66	0.87
9T10B1003G31	0.86	0.86	0.86	0.51	0.87
9T10B1003G32	0.86	0.86	0.86	0.57	0.87
9T10B1004	1.00	1.00	1.00	1.00	1.00
9T10B1004G02	1.08	1.08	1.00	0.98	1.09
9T10B1004G31	1.16	1.16	1.00	0.90	1.18
9T10B1005	1.30	1.30	1.02	1.32	1.33
9T10B1005G31	1.57	1.57	1.11	1.27	1.62
9T10B1006	1.92	1.92	1.11	1.40	2.01
9T10B1072	0.66	0.66	0.86	0.53	0.64
9T10B1081	0.49	0.49	0.87	0.27	0.45
9T10B1173	0.86	0.86	0.86	0.60	0.87
9T10B1174	1.08	1.08	1.00	0.96	1.09
9T10B1175	1.30	1.30	1.02	1.39	1.33
9T10B1176G31	2.33	2.33	1.29	1.35	2.44
9T10B1184	1.08	1.08	1.00	1.07	1.09
9T10B1192	0.66	0.66	0.86	0.53	0.64
9T10B1193	0.86	0.86	0.86	0.57	0.87
9T10B1194	1.08	1.08	1.00	1.07	1.09
9T10B1262	0.66	0.66	0.86	0.55	0.64
9T10B2401	0.49	0.49	0.87	0.22	0.45
9T10B2402	0.66	0.66	0.86	0.56	0.64
9T10B2403	0.86	0.86	0.86	0.57	0.87
9T11A1001G03	0.49	0.49	0.87	0.24	0.45
9T11A1001G04	0.49	0.49	0.87	0.24	0.45
9T11A1001G33	0.49	0.49	0.87	0.22	0.45
9T11A1001G34	0.49	0.49	0.87	0.22	0.45

STATUS	SECURITY LEVEL	REGISTRATION NUMBER	REV.	LANG.	PAGE
Approved	Public	ABBG-00728-V01.01-EN	1	EN	22/28

## Extrapolation Factors

Product name	Manu- facturing	Distri- bution	Installation	Use	End of life
9T11A1001G63	0.66	0.66	0.86	0.14	0.64
9T11A1002G03	0.86	0.86	0.86	0.28	0.87
9T11A1002G04	0.86	0.86	0.86	0.28	0.87
9T11A1002G33	0.86	0.86	0.86	0.26	0.87
9T11A1002G34	0.86	0.86	0.86	0.26	0.87
9T11A1002G63	0.86	0.86	0.86	0.24	0.87
9T11A1003G03	0.86	0.86	0.86	0.56	0.87
9T11A1003G04	0.86	0.86	0.86	0.56	0.87
9T11A1003G06	0.86	0.86	0.86	0.56	0.87
9T11A1003G33	1.08	1.08	1.00	0.37	1.09
9T11A1003G34	1.08	1.08	1.00	0.37	1.09
9T11A1003G36	1.08	1.08	1.00	0.44	1.09
9T11A1003G53	1.08	1.08	1.00	0.38	1.09
9T11A1003G63	1.08	1.08	1.00	0.35	1.09
9T11A1003G64	1.08	1.08	1.00	0.35	1.09
9T11A1004G03	1.30	1.30	1.02	0.65	1.33
9T11A1004G04	1.30	1.30	1.02	0.65	1.33
9T11A1004G06	1.30	1.30	1.02	0.65	1.33
9T11A1004G33	1.30	1.30	1.02	0.60	1.33
9T11A1004G34	1.30	1.30	1.02	0.60	1.33
9T11A1004G63	1.57	1.57	1.11	0.55	1.62
9T11A1004G64	1.30	1.30	1.02	0.56	1.33
9T11A1005G03	1.92	1.92	1.11	0.85	2.01
9T11A1005G04	1.92	1.92	1.11	0.86	2.01
9T11A1005G06	1.92	1.92	1.11	0.86	2.01
9T11A1005G33	2.33	2.33	1.29	0.84	2.44
9T11A1005G34	2.33	2.33	1.29	0.84	2.44
9T11A1005G63	3.07	3.07	1.29	0.52	3.26
9T11A1005G64	3.07	3.07	1.29	0.66	3.26
9T11A1006G03	2.33	2.33	1.29	1.51	2.44
9T11A1006G04	2.33	2.33	1.29	1.51	2.44
9T11A1006G06	2.33	2.33	1.29	1.51	2.44
9T11A1006G33	2.68	2.68	1.29	1.06	2.83
9T11A1006G34	2.68	2.68	1.29	1.06	2.83
9T11A1006G63	3.07	3.07	1.29	0.86	3.26
9T11A1021G03	0.49	0.49	0.87	0.24	0.45
9T11A1022G03	0.86	0.86	0.86	0.29	0.87
9T11A1023G03	0.86	0.86	0.86	0.57	0.87
9T11A1024G03	1.30	1.30	1.02	0.64	1.33
9T11A1071G03	0.49	0.49	0.87	0.25	0.45
9T11A1173G03	0.86	0.86	0.86	0.60	0.87

STATUS	SECURITY LEVEL	REGISTRATION NUMBER	REV.	LANG.	PAGE
Approved	Public	ABBG-00728-V01.01-EN	1	EN	23/28

## Extrapolation Factors

Product name	Manu- facturing	Distri- bution	Installation	Use	End of life
9T11A1174G34	1.30	1.30	1.02	0.62	1.33
9T11A1343G03	1.08	1.08	1.00	0.47	1.09
9T11A1345G03	1.92	1.92	1.11	0.75	2.01
9T11A1451G03	0.49	0.49	0.87	0.26	0.45
9T11A1452G03	0.86	0.86	0.86	0.40	0.87
9T11A1452G33	0.86	0.86	0.86	0.37	0.87
9T11A1452G63	1.08	1.08	1.00	0.23	1.09
9T11A1453G03	1.08	1.08	1.00	0.55	1.09
9T11A1453G34	1.08	1.08	1.00	0.52	1.09
9T11A1454G03	1.30	1.30	1.02	0.67	1.33
9T11A1454G04	1.30	1.30	1.02	0.67	1.33
9T11A1454G33	1.30	1.30	1.02	0.62	1.33
9T11A1455G03	1.92	1.92	1.11	0.92	2.01
9T11A1455G33	2.33	2.33	1.29	0.84	2.44
9T11A1456G03	2.33	2.33	1.29	1.55	2.44
9T11A1492G03	0.86	0.86	0.86	0.39	0.87
9T11A1535G03	1.92	1.92	1.11	0.83	2.01
9T11A1536G64	3.07	3.07	1.29	0.74	3.26
9T11A1613G03	1.08	1.08	1.00	0.40	1.09
9T11A1702G03	0.86	0.86	0.86	0.28	0.87
9T11A1905G03	1.92	1.92	1.11	0.84	2.01
9T11A2021G03	0.49	0.49	0.87	0.26	0.45
9T11A2133G03	0.86	0.86	0.86	0.56	0.87
9T11A2182G03	0.86	0.86	0.86	0.27	0.87
9T11B1002G03	0.86	0.86	0.86	0.28	0.87
9T11B1003G03	0.86	0.86	0.86	0.56	0.87
9T11B1004G03	1.30	1.30	1.02	0.64	1.33
9T12A1001G03	0.49	0.49	0.87	0.24	0.45
9T12A1003G03	1.08	1.08	1.00	0.39	1.09
9T12A1004G33	1.30	1.30	1.02	0.60	1.33
9T12A1004G63	1.57	1.57	1.11	0.58	1.62
9T12A1005G03	2.33	2.33	1.29	0.91	2.44
9T12A1006G03	2.68	2.68	1.29	1.14	2.83
9T12A1006G63	3.07	3.07	1.29	0.89	3.26
9T12A1232G34	0.86	0.86	0.86	0.34	0.87
9T12A1346G63	3.07	3.07	1.29	1.12	3.26
9T14A1001G03	0.49	0.49	0.87	0.24	0.45
9T14A1001G04	0.49	0.49	0.87	0.24	0.45
9T14A1001G33	0.49	0.49	0.87	0.22	0.45
9T14A1001G34	0.49	0.49	0.87	0.22	0.45
9T14A1002G03	0.86	0.86	0.86	0.28	0.87

STATUS	SECURITY LEVEL	REGISTRATION NUMBER	REV.	LANG.	PAGE
Approved	Public	ABBG-00728-V01.01-EN	1	EN	24/28

## Extrapolation Factors

Product name	Manu- facturing	Distri- bution	Installation	Use	End of life
9T14A1002G04	0.86	0.86	0.86	0.28	0.87
9T14A1002G33	0.86	0.86	0.86	0.26	0.87
9T14A1002G34	0.86	0.86	0.86	0.26	0.87
9T14A1002G63	0.86	0.86	0.86	0.24	0.87
9T14A1003G03	0.86	0.86	0.86	0.56	0.87
9T14A1003G04	0.86	0.86	0.86	0.56	0.87
9T14A1003G06	0.86	0.86	0.86	0.56	0.87
9T14A1003G14	0.86	0.86	0.86	0.80	0.87
9T14A1003G33	1.08	1.08	1.00	0.37	1.09
9T14A1003G34	1.08	1.08	1.00	0.37	1.09
9T14A1003G53	1.08	1.08	1.00	0.38	1.09
9T14A1003G63	1.08	1.08	1.00	0.34	1.09
9T14A1004G03	1.30	1.30	1.02	0.65	1.33
9T14A1004G04	1.30	1.30	1.02	0.66	1.33
9T14A1004G06	1.30	1.30	1.02	0.65	1.33
9T14A1004G14	1.30	1.30	1.02	1.11	1.33
9T14A1004G33	1.30	1.30	1.02	0.60	1.33
9T14A1004G34	1.30	1.30	1.02	0.60	1.33
9T14A1004G43	1.30	1.30	1.02	0.87	1.33
9T14A1004G44	1.30	1.30	1.02	1.02	1.33
9T14A1004G63	1.57	1.57	1.11	0.55	1.62
9T14A1005G03	1.92	1.92	1.11	0.86	2.01
9T14A1005G04	1.92	1.92	1.11	1.22	2.01
9T14A1005G06	1.92	1.92	1.11	0.86	2.01
9T14A1005G33	1.92	1.92	1.11	0.80	2.01
9T14A1005G34	1.92	1.92	1.11	0.80	2.01
9T14A1005G43	1.92	1.92	1.11	0.89	2.01
9T14A1005G63	2.33	2.33	1.29	0.78	2.44
9T14A1006G03	2.33	2.33	1.29	1.51	2.44
9T14A1006G04	2.33	2.33	1.29	1.51	2.44
9T14A1006G33	2.33	2.33	1.29	1.39	2.44
9T14A1006G34	2.33	2.33	1.29	1.39	2.44
9T14A1021G03	0.49	0.49	0.87	0.24	0.45
9T14A1022G03	0.86	0.86	0.86	0.29	0.87
9T14A1023G03	0.86	0.86	0.86	0.57	0.87
9T14A1024G03	1.30	1.30	1.02	0.64	1.33
9T14A1082G03	0.86	0.86	0.86	0.28	0.87
9T14A1084G03	1.16	1.16	1.00	0.96	1.18
9T14A1085G03	1.92	1.92	1.11	0.79	2.01
9T14A1172G03	0.86	0.86	0.86	0.30	0.87
9T14A1172G33	0.86	0.86	0.86	0.28	0.87

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## Extrapolation Factors

Product name	Manu- facturing	Distri- bution	Installation	Use	End of life
9T14A1173G14	1.08	1.08	1.00	0.77	1.09
9T14A1173G33	1.08	1.08	1.00	0.37	1.09
9T14A1174G03	1.30	1.30	1.02	0.67	1.33
9T14A1174G33	1.30	1.30	1.02	0.62	1.33
9T14A1182G03	0.86	0.86	0.86	0.60	0.87
9T14A1183G03	0.86	0.86	0.86	0.60	0.87
9T14A1184G03	1.57	1.57	1.11	0.61	1.62
9T14A1186G03	2.33	2.33	1.29	1.51	2.44
9T14A1344G03	1.30	1.30	1.02	0.69	1.33
9T14A1345G03	1.92	1.92	1.11	0.75	2.01
9T14A1346G03	2.33	2.33	1.29	1.57	2.44
9T14A1452G03	0.86	0.86	0.86	0.40	0.87
9T14A1454G03	1.30	1.30	1.02	0.67	1.33
9T14A1454G04	1.30	1.30	1.02	0.67	1.33
9T14A1533G03	0.86	0.86	0.86	0.56	0.87
9T14A1613G03	0.86	0.86	0.86	0.56	0.87
9T14A2403G03	1.08	1.08	1.00	0.51	1.09
9T14A2403G33	1.08	1.08	1.00	0.48	1.09
9T14B1002G03	0.86	0.86	0.86	0.28	0.87
9T14B1003G03	0.86	0.86	0.86	0.56	0.87
9T14B1004G03	1.30	1.30	1.02	0.65	1.33
9T14B1005G34	1.92	1.92	1.11	0.80	2.01

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## Environmental Impact Indicator Glossary


### Impact indicators

Indicator	Description	Distribution
Global warming potential (GWP) - total	Indicator of potential global warming caused by emissions to air contributing to the greenhouse effect. The total global warming potential (GWP-total) is the sum of three sub-categories of climate change. GWP-total = GWP-fossil + GWP-biogenic + GWP- land use and land use change	kg CO <sub>2</sub> eq.
Ozone depletion (ODP)	Emissions to air that contribute to the destruction of the stratospheric ozone layer	kg CFC-11 eq.
Acidification of soil and water (A)	Acidification of soils and water caused by the release of certain gases to the atmosphere, such as nitrogen oxides and sulphur oxides	H <sup>+</sup> eq.
Eutrophication (E)	Indicator of the contribution to eutrophication of water by the enrichment of the aquatic ecosystem with nutritional elements, e.g. industrial or domestic effluents, agriculture, etc. This indicator is divided to three: freshwater, marine and terrestrial.	kg P eq., kg N eq., mole N eq.
Photochemical ozone creation (POCP)	Indicator of emissions of gases that affect the creation of photochemical ozone in the lower atmosphere (smog) because of the rays of the sun.	kg NMVOC eq.
Depletion of abiotic resources – elements (ADPe)	Indicator of the depletion of natural non-fossil resources	kg Sb eq.
Depletion of abiotic resources – fossil fuels (ADPf)	The use of non-renewable fossil resources in an unsustainable way (e.g. from material to waste)	MJ (lower heating value)
Water Deprivation potential (WDP)	Deprivation-weighted water consumption. Assesses the potential of water deprivation, to either humans or ecosystems, building on the assumption that the less water remaining available per area, the more likely another user will be deprived.	m <sup>3</sup> eq. depr.

### Resource use indicators

Indicator	Description	Distribution
Total use of primary energy	Total use of non-renewable primary energy resources (primary energy and primary energy resources used as raw materials) + Total use of renewable primary energy re-sources (primary energy and primary energy resources used as raw materials)	MJ (lower heating value)

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Date of issue: <b>12-2024</b>	Validity period: <b>5 years</b>
<b>Independent verification of the declaration and data, in compliance with ISO 14025: 2006</b>	
<b>Internal:</b> <input type="radio"/> <b>External:</b> <input checked="" type="radio"/>	
The PCR review was conducted by a panel of experts chaired by Julie ORGELET (DDemain)	
PEP are compliant with XP C08-100-1 :2016 or EN 50693:2019 or NE E38-500 :2022 The components of the present PEP may not be compared with elements from any other program.	
Document in compliance with ISO 14025: 2006 "Environmental labels and declarations. Type III environmental declarations"	
	

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