



Life Cycle Assessment of NZM3 Molded Case Circuit Breaker (IEC) with PXR Electronic Trip Unit and withdrawable unit

Representative product	NZMH3-4-VX630-T-AVE (Y7-191384) Product Category: Circuit Breakers
Description of the product	Eaton Moeller NZM3 Molded Case Circuit Breaker (IEC) with PXR Electronic Trip Unit and withdrawable unit is designed to protect the installation from overload and short circuits. It is used in unearthed supply systems up to 690 V. It comes with Thermo-Magnetic Trip Unit
Homogeneous Environmental Families Covered	The PEP concerns following product offerings from Eaton Moeller series NZM molded case circuit breaker with Thermo-Magnetic Trip Unit as mentioned below: • Series: NZM Circuit Breaker • Switching Capacity: H (High), L (Limiter), N (Normal), S (Strong) • Rated Current – Classic full Electronics (VX, PX, AX): 250A, 400A, 630A, 220A, 350A, 450A. • Rated Current: VAR - Variable neutral conductor protection Full protection in L1-L2-L3 and variable setting in N 0 %, 60 %, 100 % • TAZ: Earth fault protection, maintenance mode Arc flash Reduction Maintenance System™, zone selectivity ZSI, NZM3 and NZM4 only • T: Earth fault protection • AVE: Withdrawable unit • No. of Poles: 3, 4
Functional unit	“Protect the installation from overloads and short circuits in a circuit with rated voltage 690V, rated current 630A, with 4 poles, a rated breaking capacity 9kA, and IP20 Rating, in the Industrial application area, according to the appropriate use scenario, and during the reference service life of the product of 20 years.”
Company information	Eaton Electro Productie s.r.l, Independentei 8, Sarbi, Romania, 437157 Email: productstewardship-es@eaton.com

Constituent materials			
Reference product mass	1.56+01 kg (with packaging)		
Category pep material	Material constituent	Mass (kg)	% contribution
Metals	Stainless steel	4.08E+00	26.3%
Metals	Copper	3.61E+00	23.3%
Metals	Steel	1.94E+00	12.5%
Plastics	Unsaturated polyester	1.65E+00	10.7%
Plastics	Polycarbonate	1.30E+00	8.4%
Other	Cardboard	1.05E+00	6.8%
Other	Wood	7.95E-01	5.1%
Plastics	Polyamide 66	3.94E-01	2.5%
Plastics	Polyphenylene sulphide	2.15E-01	1.4%
Plastics	Polyurethane	1.77E-01	1.1%
Other	Paper	1.02E-01	0.7%
Metals	Silver	4.00E-02	0.3%
Plastics	Polybutylene terephthalate	3.10E-02	0.2%
Other	Polyamide 66 with Glass fibre 30%	2.10E-02	0.1%
Metals	Brass	1.80E-02	0.1%
Other	Miscellaneous	2.26E-01	1.4%
Total		1.56E+001	100.0%

Substance Assessment

The representative product is compliant with the EU-RoHS Directive (2011/65/EU) with exemption and the product does contain Lead, Perfluorobutane sulfonic acid (PFBS) and its salts, Diboron Trioxide, lead monoxide and Lead titanium zirconium oxide as Substance-of-Very-High-Concern (SVHC) on the Candidate List of the EU-REACH Regulation (1907/2006/EC).

Additional Environmental Information

Manufacturing	The reference product is assembled at an Eaton plant Sarbi, Romania holding management system certifications according to ISO 14001 standards.
Distribution	Eaton is committed to minimizing weight and volume of product and packaging with focus to optimize transport efficiency.
Installation	The installation process does not require any energy consumption and there is no waste other than the obsolete product packaging generated during this step.
Use	The product requires energy consumption during operation.
End of life	The recyclability rate of the overall product is 48.15% if it is properly dismantled prior to shredding. The rate is calculated based on "ECO'DEEE recyclability and recoverability calculation method" (version V1, 20 Sep. 2008 presented to the French Agency for Environment and Energy Management: ADEME).

Environmental Impacts	
The calculation of the environmental impacts is the result of the Product's Life Cycle Analysis in accordance with ISO 14040/44, covering the entire lifecycle, i.e., "Cradle-to-Grave" including the following life cycle phases: production, distribution, installation, use and end of life. System modelling was carried out using the commercial LCA software EIME v6.2.5 with database version CODDE-2024-04-Updated on 2025-01-29. Indicators Set: PEF EF 3.1 (Compliance: PEP ed.4, EN15804+A2) v2.0	
Manufacturing Phase	The product is assembled as well as packed at Eaton facility Eaton Electro Productie s.r.l, Independentei 8, Sarbi, Romania plant. Energy model used: Romania
Distribution Phase	Distribution of the product in its packaging from the Eaton's last logistics platform to the installation place in Europe is considered as per PCR rules.
Installation Phase	Product is installed in Europe. Installation of product and treatment of packaging waste are considered in this phase. There is no energy consumption for reference product. Energy model used: Europe
Use Phase	Reference lifetime: 20 Years Usage profile: The product has power loss of 119.07 W at full load condition. For Industrial applications considering 50% of the loading rate and 30% of the use time rate, total losses are 1564579.8 kWh over the 20 years. Product do not require any maintenance/replacement during useful life. Industrial application is considered as per PSR-0005 section 3.2.2. Energy model used: Europe
End of life Phase	Product disposed with WEEE guidelines. Energy model used: Europe
Module-D	Module D is calculated according to PCR-ed4-EN-2021 09 06 based on the materials recycled and the modelled end-of-life scenario. It expresses the net benefits and loads beyond the boundaries of the system and are not to be included in the life cycle totals.

Environmental Impact Indicators: Mandatory

Mandatory environmental impact indicators	Units	Sum	A1-A3 - Manufacturing	A4 - Distribution	A5 - Installation	B6 - Operational energy use	C1-C4 - End of life	D - Benefits and loads beyond the system boundaries
Climate change – total (GWP)	kg CO2 eq.	6.89E+02	1.05E+02	3.73E+00	5.12E+00	5.51E+02	2.32E+01	-4.25E+01
Climate change - fossil fuels (GWP-f)	kg CO2 eq.	6.85E+02	1.06E+02	3.73E+00	2.04E+00	5.50E+02	2.25E+01	-4.33E+01
Climate change – biogenics (GWP-b)	kg CO2 eq.	3.55E+00	-1.25E+00	0.00E+00	3.07E+00	1.01E+00	7.12E-01	7.86E-01
Climate change - land use and land use transformation (GWP-lu)	kg CO2 eq.	1.81E-03	1.80E-03	0.00E+00	0.00E+00	0.00E+00	1.17E-05	-1.65E-03
Ozone depletion (ODP)	kg eq. CFC-11	1.97E-05	1.65E-05	5.72E-09	4.25E-08	2.67E-06	4.97E-07	-8.55E-06
Acidification (AP)	mole of H+ eq.	4.34E+00	1.34E+00	2.36E-02	5.19E-03	2.83E+00	1.46E-01	-7.24E-01

Mandatory environmental impact indicators	Units	Sum	A1-A3 - Manufacturing	A4 - Distribution	A5 - Installation	B6 - Operational energy use	C1-C4 - End of life	D - Benefits and loads beyond the system boundaries
Freshwater eutrophication (EP-fw)	kg P eq.	3.27E-02	9.10E-03	1.40E-06	1.87E-05	1.45E-03	2.21E-02	-2.51E-04
Marine aquatic eutrophication (EP-m)	kg of N eq.	4.71E-01	9.24E-02	1.11E-02	2.04E-03	3.44E-01	2.12E-02	-3.00E-02
Terrestrial eutrophication (EP-t)	mole of N eq.	6.92E+00	1.03E+00	1.22E-01	1.51E-02	5.53E+00	2.28E-01	-3.32E-01
Photochemical ozone formation (POCP)	kg of NMVOC eq.	1.56E+00	3.71E-01	3.07E-02	3.77E-03	1.08E+00	6.78E-02	-1.47E-01
Depletion of abiotic resources – elements (ADPe)	kg eq. Sb	7.10E-02	7.01E-02	1.47E-07	9.93E-08	1.95E-04	7.17E-04	-2.82E-02
Depletion of abiotic resources - fossil fuels (ADP-f)	MJ	1.80E+04	2.74E+03	5.21E+01	1.53E+01	1.39E+04	1.31E+03	-9.17E+02
Water scarcity (WDP)	m3 of eq.. deprivation worldwide	2.00E+02	8.12E+01	1.42E-02	2.73E-01	4.22E+01	7.61E+01	-4.30E+01

Inventory Flow Indicators: Mandatory

Inventory flow indicators	Units	Sum	A1-A3 - Manufacturing	A4 - Distribution	A5 - Installation	B6 - Operational energy use	C1-C4 - End of life	D - Benefits and loads beyond the system boundaries
Use of renewable primary energy, excluding renewable primary energy resources used as raw materials	MJ	3.82E+03	1.09E+02	6.95E-02	7.77E+00	3.68E+03	2.09E+01	-2.57E+01
Use of renewable primary energy resources used as raw materials	MJ	3.64E+01	3.64E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	-2.15E+01
Total use of renewable primary energy resources (primary energy and primary energy resources used as raw materials)	MJ	3.86E+03	1.46E+02	6.95E-02	7.77E+00	3.68E+03	2.09E+01	-4.71E+01
Use of non-renewable primary energy, excluding non-renewable primary energy resources used as raw materials	MJ	1.79E+04	2.64E+03	5.21E+01	1.53E+01	1.39E+04	1.31E+03	-8.67E+02
Use of non-renewable primary energy resources used as raw materials	MJ	1.08E+02	1.08E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	-4.95E+01
Total use of non-renewable primary energy resources (primary energy and primary energy resources used as raw materials)	MJ	1.80E+04	2.74E+03	5.21E+01	1.53E+01	1.39E+04	1.31E+03	-9.17E+02
Use of secondary materials	kg	2.60E-06	2.60E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of renewable secondary fuels	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of non-renewable secondary fuels	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Net use of fresh water	m3	4.82E+00	1.89E+00	3.30E-04	1.18E-02	9.93E-01	1.92E+00	-1.00E+00
Hazardous waste disposed of	kg	1.14E+03	1.10E+03	0.00E+00	1.61E-01	2.42E+01	1.38E+01	-6.67E+02

Inventory flow indicators	Units	Sum	A1-A3 - Manufacturing	A4 - Distribution	A5 - Installation	B6 - Operational energy use	C1-C4 - End of life	D - Benefits and loads beyond the system boundaries
Non-hazardous waste disposed of	kg	1.53E+02	5.51E+01	1.31E-01	8.06E-01	9.31E+01	3.47E+00	-1.51E+01
Radioactive waste disposed of	kg	6.23E-02	4.02E-02	9.33E-05	9.31E-05	2.14E-02	4.75E-04	-8.06E-03
Components for re-use	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Materials for recycling	kg	1.66E+01	4.60E+00	0.00E+00	1.19E+00	0.00E+00	1.08E+01	-3.17E-07
Materials for energy recovery	kg	4.87E-01	6.60E-03	0.00E+00	3.50E-01	0.00E+00	1.30E-01	0.00E+00
Exported energy	MJ by energy vector	2.68E-01	0.00E+00	0.00E+00	2.68E-01	0.00E+00	0.00E+00	0.00E+00
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	0.00E+00
Biogenic carbon content of the associated packaging	kg of C.	8.26E-01	8.26E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Environmental Impact Indicators: Optional

Optional Environmental impact indicators	Units	Sum	A1-A3 - Manufacturing	A4 - Distribution	A5 - Installation	B6 - Operational energy use	C1-C4 - End of life	D - Benefits and loads beyond the system boundaries
Emission of fine particles	incidence of diseases	3.85E-05	1.47E-05	1.92E-07	3.08E-08	2.27E-05	7.69E-07	-8.52E-06
Ionizing radiation, human health	kBq of U235 eq.	2.28E+03	1.39E+03	9.09E-03	9.71E+01	7.93E+02	2.31E+00	-9.48E+02
Ecotoxicity, fresh water	CTUe	4.18E+03	2.46E+03	2.45E+00	2.01E+01	1.04E+03	6.57E+02	-6.66E+03
Human toxicity, cancer effects	CTUh	4.57E-05	4.55E-05	6.56E-11	1.26E-07	6.93E-08	2.38E-08	-2.91E-05
Human toxicity, non-cancer effects	CTUh	1.71E-05	1.36E-05	1.27E-09	4.67E-09	1.66E-06	1.85E-06	-8.68E-06
Impacts related to land use/soil quality	-	1.13E+02	3.11E+01	0.00E+00	5.44E-03	1.53E+01	6.71E+01	-4.59E+00
Total use of primary energy during the life cycle	MJ	2.19E+04	2.89E+03	5.22E+01	2.30E+01	1.76E+04	1.33E+03	-9.64E+02

To evaluate the environmental impact of other product covered by this PEP, multiply the impact figures by

Factors for Manufacturing, Distribution, Installation, End-of-Life, and Module-D Phase:

Product Number	Description	Phases	GWP	GWP-f	GWP-b	GWP-lu	ODP	AP	Ep-fw	Ep-m	Ep-t	POCP	ADP-e	ADP-f	WDP
Y7-191384 (Reference)	NZMH3-4-VX630-T-AVE	All Phase							1.00						
Y7-191379	NZMH3-4-AX400/VAR-AVE	All Phase							1.00						
Y7-191375	NZMH3-4-AX400-AVE	All Phase							1.00						
Y7-191380	NZMH3-4-AX630/VAR-AVE	All Phase							1.00						
Y7-191376	NZMH3-4-AX630-AVE	All Phase							1.00						
Y7-192310	NZMH3-4-PX250/VAR-AVE	All Phase							1.00						
Y7-192319	NZMH3-4-PX250/VAR-TAZ-AVE	All Phase							1.00						
Y7-192311	NZMH3-4-PX400/VAR-AVE	All Phase							1.00						
Y7-192320	NZMH3-4-PX400/VAR-TAZ-AVE	All Phase							1.00						
Y7-192312	NZMH3-4-PX630/VAR-AVE	All Phase							1.00						
Y7-192321	NZMH3-4-PX630/VAR-TAZ-AVE	All Phase							1.00						
Y7-191381	NZMH3-4-VX400/VAR-AVE	All Phase							1.00						
Y7-191377	NZMH3-4-VX400-AVE	All Phase							1.00						
Y7-191383	NZMH3-4-VX400-T-AVE	All Phase							1.00						
Y7-191382	NZMH3-4-VX630/VAR-AVE	All Phase							1.00						
Y7-191378	NZMH3-4-VX630-AVE	All Phase							1.00						
Y7-191408	NZML3-4-VX250-AVE	All Phase							1.00						
Y7-191410	NZML3-4-VX400/VAR-AVE	All Phase							1.00						
Y7-191409	NZML3-4-VX400-AVE	All Phase							1.00						
Y7-191614	NZMN3-4-AX400/VAR-AVE	All Phase							1.00						
Y7-191608	NZMN3-4-AX400-AVE	All Phase							1.00						
Y7-191615	NZMN3-4-AX630/VAR-AVE	All Phase							1.00						
Y7-191609	NZMN3-4-AX630-AVE	All Phase							1.00						
Y7-192304	NZMN3-4-PX250/VAR-AVE	All Phase							1.00						
Y7-192313	NZMN3-4-PX250/VAR-TAZ-AVE	All Phase							1.00						
Y7-192305	NZMN3-4-PX400/VAR-AVE	All Phase							1.00						
Y7-192314	NZMN3-4-PX400/VAR-TAZ-AVE	All Phase							1.00						
Y7-192306	NZMN3-4-PX630/VAR-AVE	All Phase							1.00						
Y7-192315	NZMN3-4-PX630/VAR-TAZ-AVE	All Phase							1.00						
Y7-191616	NZMN3-4-VX400/VAR-AVE	All Phase							1.00						
Y7-191610	NZMN3-4-VX400-AVE	All Phase							1.00						
Y7-191618	NZMN3-4-VX400-T-AVE	All Phase							1.00						

Product Number	Description	Phases	GWP	GWP-f	GWP-b	GWP-lu	ODP	AP	Ep-fw	Ep-m	Ep-t	POCP	ADP-e	ADP-f	WDP
Y7-191617	NZMN3-4-VX630/VAR-AVE	All Phase	1.00												
Y7-191611	NZMN3-4-VX630-AVE	All Phase	1.00												
Y7-191479	NZMN3-4-VX630-T-AVE	All Phase	1.00												
Y7-191530	NZMS3-4-AX400/VAR-AVE	All Phase	1.00												
Y7-191529	NZMS3-4-AX400-AVE	All Phase	1.00												
Y7-191532	NZMS3-4-AX630/VAR-AVE	All Phase	1.00												
Y7-191531	NZMS3-4-AX630-AVE	All Phase	1.00												
Y7-192307	NZMS3-4-PX250/VAR-AVE	All Phase	1.00												
Y7-192316	NZMS3-4-PX250/VAR-TAZ-AVE	All Phase	1.00												
Y7-192308	NZMS3-4-PX400/VAR-AVE	All Phase	1.00												
Y7-192317	NZMS3-4-PX400/VAR-TAZ-AVE	All Phase	1.00												
Y7-192309	NZMS3-4-PX630/VAR-AVE	All Phase	1.00												
Y7-192318	NZMS3-4-PX630/VAR-TAZ-AVE	All Phase	1.00												
Y7-191534	NZMS3-4-VX400/VAR-AVE	All Phase	1.00												
Y7-191538	NZMS3-4-VX400/VAR-T-AVE	All Phase	1.00												
Y7-191533	NZMS3-4-VX400-AVE	All Phase	1.00												
Y7-191537	NZMS3-4-VX400-T-AVE	All Phase	1.00												
Y7-191536	NZMS3-4-VX630/VAR-AVE	All Phase	1.00												
Y7-191540	NZMS3-4-VX630/VAR-T-AVE	All Phase	1.00												
Y7-191535	NZMS3-4-VX630-AVE	All Phase	1.00												
Y7-191539	NZMS3-4-VX630-T-AVE	All Phase	1.00												
Y7-191545	NZMH3-AX250-AVE	Manufacturing	0.80	0.80	1.29	0.73	0.77	0.78	0.78	0.80	0.81	0.80	0.74	0.80	0.78
		Distribution	0.81												
		Installation	0.97												
		End of Life	0.81	0.81	0.77	1.00	0.82	0.79	0.77	0.81	0.80	0.81	0.77	0.82	0.79
		Module- D	0.79	0.80	1.28	2.00	0.83	0.79	0.64	0.80	0.80	0.80	0.76	0.76	0.80
Y7-191546	NZMH3-AX400-AVE	Manufacturing	0.80	0.80	1.29	0.73	0.77	0.78	0.78	0.80	0.81	0.80	0.74	0.80	0.78
		Distribution	0.81												
		Installation	0.97												
		End of Life	0.81	0.81	0.77	1.00	0.82	0.79	0.77	0.81	0.80	0.81	0.77	0.82	0.79
		Module- D	0.79	0.80	1.28	2.00	0.83	0.79	0.64	0.80	0.80	0.80	0.76	0.76	0.80
Y7-191547	NZMH3-AX630-AVE	Manufacturing	0.80	0.80	1.29	0.73	0.77	0.78	0.78	0.80	0.81	0.80	0.74	0.80	0.78
		Distribution	0.81												
		Installation	0.97												
		End of Life	0.81	0.81	0.77	1.00	0.82	0.79	0.77	0.81	0.80	0.81	0.77	0.82	0.79
		Module- D	0.79	0.80	1.28	2.00	0.83	0.79	0.64	0.80	0.80	0.80	0.76	0.76	0.80
Y7-191551	NZMH3-MX220-AVE	Manufacturing	0.80	0.80	1.29	0.73	0.77	0.78	0.78	0.80	0.81	0.80	0.74	0.80	0.78
		Distribution	0.81												
		Installation	0.97												
		End of Life	0.81	0.81	0.77	1.00	0.82	0.79	0.77	0.81	0.80	0.81	0.77	0.82	0.79

Product Number	Description	Phases	GWP	GWP-f	GWP-b	GWP-lu	ODP	AP	Ep-fw	Ep-m	Ep-t	POCP	ADP-e	ADP-f	WDP
		Module- D	0.79	0.80	1.28	2.00	0.83	0.79	0.64	0.80	0.80	0.80	0.76	0.76	0.80
Y7-191552	NZMH3-MX350-AVE	Manufacturing	0.80	0.80	1.29	0.73	0.77	0.78	0.78	0.80	0.81	0.80	0.74	0.80	0.78
		Distribution	0.81												
		Installation	0.97												
		End of Life	0.81	0.81	0.77	1.00	0.82	0.79	0.77	0.81	0.80	0.81	0.77	0.82	0.79
		Module- D	0.79	0.80	1.28	2.00	0.83	0.79	0.64	0.80	0.80	0.80	0.76	0.76	0.80
		Module- D	0.79	0.80	1.28	2.00	0.83	0.79	0.64	0.80	0.80	0.80	0.76	0.76	0.80
Y7-191553	NZMH3-MX450-AVE	Manufacturing	0.80	0.80	1.29	0.73	0.77	0.78	0.78	0.80	0.81	0.80	0.74	0.80	0.78
		Distribution	0.81												
		Installation	0.97												
		End of Life	0.81	0.81	0.77	1.00	0.82	0.79	0.77	0.81	0.80	0.81	0.77	0.82	0.79
		Module- D	0.79	0.80	1.28	2.00	0.83	0.79	0.64	0.80	0.80	0.80	0.76	0.76	0.80
		Module- D	0.79	0.80	1.28	2.00	0.83	0.79	0.64	0.80	0.80	0.80	0.76	0.76	0.80
Y7-192337	NZMH3-PMX250-AVE	Manufacturing	0.80	0.80	1.29	0.73	0.77	0.78	0.78	0.80	0.81	0.80	0.74	0.80	0.78
		Distribution	0.81												
		Installation	0.97												
		End of Life	0.81	0.81	0.77	1.00	0.82	0.79	0.77	0.81	0.80	0.81	0.77	0.82	0.79
		Module- D	0.79	0.80	1.28	2.00	0.83	0.79	0.64	0.80	0.80	0.80	0.76	0.76	0.80
		Module- D	0.79	0.80	1.28	2.00	0.83	0.79	0.64	0.80	0.80	0.80	0.76	0.76	0.80
Y7-192338	NZMH3-PMX350-AVE	Manufacturing	0.80	0.80	1.29	0.73	0.77	0.78	0.78	0.80	0.81	0.80	0.74	0.80	0.78
		Distribution	0.81												
		Installation	0.97												
		End of Life	0.81	0.81	0.77	1.00	0.82	0.79	0.77	0.81	0.80	0.81	0.77	0.82	0.79
		Module- D	0.79	0.80	1.28	2.00	0.83	0.79	0.64	0.80	0.80	0.80	0.76	0.76	0.80
		Module- D	0.79	0.80	1.28	2.00	0.83	0.79	0.64	0.80	0.80	0.80	0.76	0.76	0.80
Y7-192339	NZMH3-PMX450-AVE	Manufacturing	0.80	0.80	1.29	0.73	0.77	0.78	0.78	0.80	0.81	0.80	0.74	0.80	0.78
		Distribution	0.81												
		Installation	0.97												
		End of Life	0.81	0.81	0.77	1.00	0.82	0.79	0.77	0.81	0.80	0.81	0.77	0.82	0.79
		Module- D	0.79	0.80	1.28	2.00	0.83	0.79	0.64	0.80	0.80	0.80	0.76	0.76	0.80
		Module- D	0.79	0.80	1.28	2.00	0.83	0.79	0.64	0.80	0.80	0.80	0.76	0.76	0.80
Y7-192265	NZMH3-PX250-AVE	Manufacturing	0.80	0.80	1.29	0.73	0.77	0.78	0.78	0.80	0.81	0.80	0.74	0.80	0.78
		Distribution	0.81												
		Installation	0.97												
		End of Life	0.81	0.81	0.77	1.00	0.82	0.79	0.77	0.81	0.80	0.81	0.77	0.82	0.79
		Module- D	0.79	0.80	1.28	2.00	0.83	0.79	0.64	0.80	0.80	0.80	0.76	0.76	0.80
		Module- D	0.79	0.80	1.28	2.00	0.83	0.79	0.64	0.80	0.80	0.80	0.76	0.76	0.80
Y7-192274	NZMH3-PX250-TAZ-AVE	Manufacturing	0.80	0.80	1.29	0.73	0.77	0.78	0.78	0.80	0.81	0.80	0.74	0.80	0.78
		Distribution	0.81												
		Installation	0.97												
		End of Life	0.81	0.81	0.77	1.00	0.82	0.79	0.77	0.81	0.80	0.81	0.77	0.82	0.79
		Module- D	0.79	0.80	1.28	2.00	0.83	0.79	0.64	0.80	0.80	0.80	0.76	0.76	0.80
		Module- D	0.79	0.80	1.28	2.00	0.83	0.79	0.64	0.80	0.80	0.80	0.76	0.76	0.80
Y7-192266	NZMH3-PX400-AVE	Manufacturing	0.80	0.80	1.29	0.73	0.77	0.78	0.78	0.80	0.81	0.80	0.74	0.80	0.78
		Distribution	0.81												
		Installation	0.97												
		End of Life	0.81	0.81	0.77	1.00	0.82	0.79	0.77	0.81	0.80	0.81	0.77	0.82	0.79

Product Number	Description	Phases	GWP	GWP-f	GWP-b	GWP-lu	ODP	AP	Ep-fw	Ep-m	Ep-t	POCP	ADP-e	ADP-f	WDP
		Module- D	0.79	0.80	1.28	2.00	0.83	0.79	0.64	0.80	0.80	0.80	0.76	0.76	0.80
Y7-192275	NZMH3-PX400-TAZ-AVE	Manufacturing	0.80	0.80	1.29	0.73	0.77	0.78	0.78	0.80	0.81	0.80	0.74	0.80	0.78
		Distribution	0.81												
		Installation	0.97												
		End of Life	0.81	0.81	0.77	1.00	0.82	0.79	0.77	0.81	0.80	0.81	0.77	0.82	0.79
		Module- D	0.79	0.80	1.28	2.00	0.83	0.79	0.64	0.80	0.80	0.80	0.76	0.76	0.80
		Manufacturing	0.80	0.80	1.29	0.73	0.77	0.78	0.78	0.80	0.81	0.80	0.74	0.80	0.78
Y7-192267	NZMH3-PX630-AVE	Distribution	0.81												
		Installation	0.97												
		End of Life	0.81	0.81	0.77	1.00	0.82	0.79	0.77	0.81	0.80	0.81	0.77	0.82	0.79
		Module- D	0.79	0.80	1.28	2.00	0.83	0.79	0.64	0.80	0.80	0.80	0.76	0.76	0.80
		Manufacturing	0.80	0.80	1.29	0.73	0.77	0.78	0.78	0.80	0.81	0.80	0.74	0.80	0.78
		Distribution	0.81												
Y7-192276	NZMH3-PX630-TAZ-AVE	Installation	0.97												
		End of Life	0.81	0.81	0.77	1.00	0.82	0.79	0.77	0.81	0.80	0.81	0.77	0.82	0.79
		Module- D	0.79	0.80	1.28	2.00	0.83	0.79	0.64	0.80	0.80	0.80	0.76	0.76	0.80
		Manufacturing	0.80	0.80	1.29	0.73	0.77	0.78	0.78	0.80	0.81	0.80	0.74	0.80	0.78
		Distribution	0.81												
		Installation	0.97												
Y7-191548	NZMH3-VX250-AVE	End of Life	0.81	0.81	0.77	1.00	0.82	0.79	0.77	0.81	0.80	0.81	0.77	0.82	0.79
		Module- D	0.79	0.80	1.28	2.00	0.83	0.79	0.64	0.80	0.80	0.80	0.76	0.76	0.80
		Manufacturing	0.80	0.80	1.29	0.73	0.77	0.78	0.78	0.80	0.81	0.80	0.74	0.80	0.78
		Distribution	0.81												
		Installation	0.97												
		End of Life	0.81	0.81	0.77	1.00	0.82	0.79	0.77	0.81	0.80	0.81	0.77	0.82	0.79
Y7-191559	NZMH3-VX250-T-AVE	Module- D	0.79	0.80	1.28	2.00	0.83	0.79	0.64	0.80	0.80	0.80	0.76	0.76	0.80
		Manufacturing	0.80	0.80	1.29	0.73	0.77	0.78	0.78	0.80	0.81	0.80	0.74	0.80	0.78
		Distribution	0.81												
		Installation	0.97												
		End of Life	0.81	0.81	0.77	1.00	0.82	0.79	0.77	0.81	0.80	0.81	0.77	0.82	0.79
		Module- D	0.79	0.80	1.28	2.00	0.83	0.79	0.64	0.80	0.80	0.80	0.76	0.76	0.80
Y7-191549	NZMH3-VX400-AVE	Manufacturing	0.80	0.80	1.29	0.73	0.77	0.78	0.78	0.80	0.81	0.80	0.74	0.80	0.78
		Distribution	0.81												
		Installation	0.97												
		End of Life	0.81	0.81	0.77	1.00	0.82	0.79	0.77	0.81	0.80	0.81	0.77	0.82	0.79
		Module- D	0.79	0.80	1.28	2.00	0.83	0.79	0.64	0.80	0.80	0.80	0.76	0.76	0.80
		Manufacturing	0.80	0.80	1.29	0.73	0.77	0.78	0.78	0.80	0.81	0.80	0.74	0.80	0.78
Y7-191560	NZMH3-VX400-T-AVE	Distribution	0.81												
		Installation	0.97												
		End of Life	0.81	0.81	0.77	1.00	0.82	0.79	0.77	0.81	0.80	0.81	0.77	0.82	0.79
		Module- D	0.79	0.80	1.28	2.00	0.83	0.79	0.64	0.80	0.80	0.80	0.76	0.76	0.80
		Manufacturing	0.80	0.80	1.29	0.73	0.77	0.78	0.78	0.80	0.81	0.80	0.74	0.80	0.78
		Distribution	0.81												
Y7-191550	NZMH3-VX630-AVE	Installation	0.97												
		End of Life	0.81	0.81	0.77	1.00	0.82	0.79	0.77	0.81	0.80	0.81	0.77	0.82	0.79
		Module- D	0.79	0.80	1.28	2.00	0.83	0.79	0.64	0.80	0.80	0.80	0.76	0.76	0.80
		Manufacturing	0.80	0.80	1.29	0.73	0.77	0.78	0.78	0.80	0.81	0.80	0.74	0.80	0.78

Product Number	Description	Phases	GWP	GWP-f	GWP-b	GWP-lu	ODP	AP	Ep-fw	Ep-m	Ep-t	POCP	ADP-e	ADP-f	WDP
		Module- D	0.79	0.80	1.28	2.00	0.83	0.79	0.64	0.80	0.80	0.80	0.76	0.76	0.80
Y7-191561	NZMH3-VX630-T-AVE	Manufacturing	0.80	0.80	1.29	0.73	0.77	0.78	0.78	0.80	0.81	0.80	0.74	0.80	0.78
		Distribution	0.81												
		Installation	0.97												
		End of Life	0.81	0.81	0.77	1.00	0.82	0.79	0.77	0.81	0.80	0.81	0.77	0.82	0.79
		Module- D	0.79	0.80	1.28	2.00	0.83	0.79	0.64	0.80	0.80	0.80	0.76	0.76	0.80
		Manufacturing	0.80	0.80	1.29	0.73	0.77	0.78	0.78	0.80	0.81	0.80	0.74	0.80	0.78
Y7-191401	NZML3-MX220-AVE	Distribution	0.81												
		Installation	0.97												
		End of Life	0.81	0.81	0.77	1.00	0.82	0.79	0.77	0.81	0.80	0.81	0.77	0.82	0.79
		Module- D	0.79	0.80	1.28	2.00	0.83	0.79	0.64	0.80	0.80	0.80	0.76	0.76	0.80
		Manufacturing	0.80	0.80	1.29	0.73	0.77	0.78	0.78	0.80	0.81	0.80	0.74	0.80	0.78
		Distribution	0.81												
Y7-191402	NZML3-MX350-AVE	Installation	0.97												
		End of Life	0.81	0.81	0.77	1.00	0.82	0.79	0.77	0.81	0.80	0.81	0.77	0.82	0.79
		Module- D	0.79	0.80	1.28	2.00	0.83	0.79	0.64	0.80	0.80	0.80	0.76	0.76	0.80
		Manufacturing	0.80	0.80	1.29	0.73	0.77	0.78	0.78	0.80	0.81	0.80	0.74	0.80	0.78
		Distribution	0.81												
		Installation	0.97												
Y7-191399	NZML3-VX250-AVE	End of Life	0.81	0.81	0.77	1.00	0.82	0.79	0.77	0.81	0.80	0.81	0.77	0.82	0.79
		Module- D	0.79	0.80	1.28	2.00	0.83	0.79	0.64	0.80	0.80	0.80	0.76	0.76	0.80
		Manufacturing	0.80	0.80	1.29	0.73	0.77	0.78	0.78	0.80	0.81	0.80	0.74	0.80	0.78
		Distribution	0.81												
		Installation	0.97												
		End of Life	0.81	0.81	0.77	1.00	0.82	0.79	0.77	0.81	0.80	0.81	0.77	0.82	0.79
Y7-191400	NZML3-VX400-AVE	Module- D	0.79	0.80	1.28	2.00	0.83	0.79	0.64	0.80	0.80	0.80	0.76	0.76	0.80
		Manufacturing	0.80	0.80	1.29	0.73	0.77	0.78	0.78	0.80	0.81	0.80	0.74	0.80	0.78
		Distribution	0.81												
		Installation	0.97												
		End of Life	0.81	0.81	0.77	1.00	0.82	0.79	0.77	0.81	0.80	0.81	0.77	0.82	0.79
		Module- D	0.79	0.80	1.28	2.00	0.83	0.79	0.64	0.80	0.80	0.80	0.76	0.76	0.80
Y7-191574	NZMN3-AX250-AVE	Manufacturing	0.80	0.80	1.29	0.73	0.77	0.78	0.78	0.80	0.81	0.80	0.74	0.80	0.78
		Distribution	0.81												
		Installation	0.97												
		End of Life	0.81	0.81	0.77	1.00	0.82	0.79	0.77	0.81	0.80	0.81	0.77	0.82	0.79
		Module- D	0.79	0.80	1.28	2.00	0.83	0.79	0.64	0.80	0.80	0.80	0.76	0.76	0.80
		Manufacturing	0.80	0.80	1.29	0.73	0.77	0.78	0.78	0.80	0.81	0.80	0.74	0.80	0.78
Y7-191575	NZMN3-AX400-AVE	Distribution	0.81												
		Installation	0.97												
		End of Life	0.81	0.81	0.77	1.00	0.82	0.79	0.77	0.81	0.80	0.81	0.77	0.82	0.79
		Module- D	0.79	0.80	1.28	2.00	0.83	0.79	0.64	0.80	0.80	0.80	0.76	0.76	0.80
		Manufacturing	0.80	0.80	1.29	0.73	0.77	0.78	0.78	0.80	0.81	0.80	0.74	0.80	0.78
		Distribution	0.81												
Y7-191576	NZMN3-AX630-AVE	Installation	0.97												
		End of Life	0.81	0.81	0.77	1.00	0.82	0.79	0.77	0.81	0.80	0.81	0.77	0.82	0.79
		Module- D	0.79	0.80	1.28	2.00	0.83	0.79	0.64	0.80	0.80	0.80	0.76	0.76	0.80
		Manufacturing	0.80	0.80	1.29	0.73	0.77	0.78	0.78	0.80	0.81	0.80	0.74	0.80	0.78

Product Number	Description	Phases	GWP	GWP-f	GWP-b	GWP-lu	ODP	AP	Ep-fw	Ep-m	Ep-t	POCP	ADP-e	ADP-f	WDP	
		Module- D	0.79	0.80	1.28	2.00	0.83	0.79	0.64	0.80	0.80	0.80	0.76	0.76	0.80	
Y7-191580	NZMN3-MX220-AVE	Manufacturing	0.80	0.80	1.29	0.73	0.77	0.78	0.78	0.80	0.81	0.80	0.74	0.80	0.78	
		Distribution	0.81													
		Installation	0.97													
		End of Life	0.81	0.81	0.77	1.00	0.82	0.79	0.77	0.81	0.80	0.81	0.77	0.82	0.79	
		Module- D	0.79	0.80	1.28	2.00	0.83	0.79	0.64	0.80	0.80	0.80	0.76	0.76	0.80	
		Manufacturing	0.80	0.80	1.29	0.73	0.77	0.78	0.78	0.80	0.81	0.80	0.80	0.74	0.80	0.78
Y7-191581	NZMN3-MX350-AVE	Distribution	0.81													
		Installation	0.97													
		End of Life	0.81	0.81	0.77	1.00	0.82	0.79	0.77	0.81	0.80	0.81	0.77	0.82	0.79	
		Module- D	0.79	0.80	1.28	2.00	0.83	0.79	0.64	0.80	0.80	0.80	0.76	0.76	0.80	
		Manufacturing	0.80	0.80	1.29	0.73	0.77	0.78	0.78	0.80	0.81	0.80	0.80	0.74	0.80	0.78
		Distribution	0.81													
Y7-191582	NZMN3-MX450-AVE	Installation	0.97													
		End of Life	0.81	0.81	0.77	1.00	0.82	0.79	0.77	0.81	0.80	0.81	0.77	0.82	0.79	
		Module- D	0.79	0.80	1.28	2.00	0.83	0.79	0.64	0.80	0.80	0.80	0.76	0.76	0.80	
		Manufacturing	0.80	0.80	1.29	0.73	0.77	0.78	0.78	0.80	0.81	0.80	0.80	0.74	0.80	0.78
		Distribution	0.81													
		Installation	0.97													
Y7-192334	NZMN3-PMX250-AVE	End of Life	0.81	0.81	0.77	1.00	0.82	0.79	0.77	0.81	0.80	0.81	0.77	0.82	0.79	
		Module- D	0.79	0.80	1.28	2.00	0.83	0.79	0.64	0.80	0.80	0.80	0.76	0.76	0.80	
		Manufacturing	0.80	0.80	1.29	0.73	0.77	0.78	0.78	0.80	0.81	0.80	0.80	0.74	0.80	0.78
		Distribution	0.81													
		Installation	0.97													
		End of Life	0.81	0.81	0.77	1.00	0.82	0.79	0.77	0.81	0.80	0.81	0.77	0.82	0.79	
Y7-192335	NZMN3-PMX350-AVE	Module- D	0.79	0.80	1.28	2.00	0.83	0.79	0.64	0.80	0.80	0.80	0.76	0.76	0.80	
		Manufacturing	0.80	0.80	1.29	0.73	0.77	0.78	0.78	0.80	0.81	0.80	0.80	0.74	0.80	0.78
		Distribution	0.81													
		Installation	0.97													
		End of Life	0.81	0.81	0.77	1.00	0.82	0.79	0.77	0.81	0.80	0.81	0.77	0.82	0.79	
		Module- D	0.79	0.80	1.28	2.00	0.83	0.79	0.64	0.80	0.80	0.80	0.76	0.76	0.80	
Y7-192336	NZMN3-PMX450-AVE	Manufacturing	0.80	0.80	1.29	0.73	0.77	0.78	0.78	0.80	0.81	0.80	0.74	0.80	0.78	
		Distribution	0.81													
		Installation	0.97													
		End of Life	0.81	0.81	0.77	1.00	0.82	0.79	0.77	0.81	0.80	0.81	0.77	0.82	0.79	
		Module- D	0.79	0.80	1.28	2.00	0.83	0.79	0.64	0.80	0.80	0.80	0.76	0.76	0.80	
		Manufacturing	0.80	0.80	1.29	0.73	0.77	0.78	0.78	0.80	0.81	0.80	0.80	0.74	0.80	0.78
Y7-192348	NZMN3-PX250-AVE	Distribution	0.81													
		Installation	0.97													
		End of Life	0.81	0.81	0.77	1.00	0.82	0.79	0.77	0.81	0.80	0.81	0.77	0.82	0.79	
		Module- D	0.79	0.80	1.28	2.00	0.83	0.79	0.64	0.80	0.80	0.80	0.76	0.76	0.80	
		Manufacturing	0.80	0.80	1.29	0.73	0.77	0.78	0.78	0.80	0.81	0.80	0.80	0.74	0.80	0.78
		Distribution	0.81													
Y7-192268	NZMN3-PX250-TAZ-AVE	Installation	0.97													
		End of Life	0.81	0.81	0.77	1.00	0.82	0.79	0.77	0.81	0.80	0.81	0.77	0.82	0.79	
		Module- D	0.79	0.80	1.28	2.00	0.83	0.79	0.64	0.80	0.80	0.80	0.76	0.76	0.80	
		Manufacturing	0.80	0.80	1.29	0.73	0.77	0.78	0.78	0.80	0.81	0.80	0.80	0.74	0.80	0.78

Product Number	Description	Phases	GWP	GWP-f	GWP-b	GWP-lu	ODP	AP	Ep-fw	Ep-m	Ep-t	POCP	ADP-e	ADP-f	WDP	
		Module- D	0.79	0.80	1.28	2.00	0.83	0.79	0.64	0.80	0.80	0.80	0.76	0.76	0.80	
Y7-192349	NZMN3-PX400-AVE	Manufacturing	0.80	0.80	1.29	0.73	0.77	0.78	0.78	0.80	0.81	0.80	0.74	0.80	0.78	
		Distribution	0.81													
		Installation	0.97													
		End of Life	0.81	0.81	0.77	1.00	0.82	0.79	0.77	0.81	0.80	0.81	0.77	0.82	0.79	
		Module- D	0.79	0.80	1.28	2.00	0.83	0.79	0.64	0.80	0.80	0.80	0.76	0.76	0.80	
		Manufacturing	0.80	0.80	1.29	0.73	0.77	0.78	0.78	0.80	0.81	0.80	0.80	0.74	0.80	0.78
Y7-192269	NZMN3-PX400-TAZ-AVE	Distribution	0.81													
		Installation	0.97													
		End of Life	0.81	0.81	0.77	1.00	0.82	0.79	0.77	0.81	0.80	0.81	0.77	0.82	0.79	
		Module- D	0.79	0.80	1.28	2.00	0.83	0.79	0.64	0.80	0.80	0.80	0.76	0.76	0.80	
		Manufacturing	0.80	0.80	1.29	0.73	0.77	0.78	0.78	0.80	0.81	0.80	0.80	0.74	0.80	0.78
		Distribution	0.81													
Y7-192350	NZMN3-PX630-AVE	Installation	0.97													
		End of Life	0.81	0.81	0.77	1.00	0.82	0.79	0.77	0.81	0.80	0.81	0.77	0.82	0.79	
		Module- D	0.79	0.80	1.28	2.00	0.83	0.79	0.64	0.80	0.80	0.80	0.76	0.76	0.80	
		Manufacturing	0.80	0.80	1.29	0.73	0.77	0.78	0.78	0.80	0.81	0.80	0.80	0.74	0.80	0.78
		Distribution	0.81													
		Installation	0.97													
Y7-192270	NZMN3-PX630-TAZ-AVE	End of Life	0.81	0.81	0.77	1.00	0.82	0.79	0.77	0.81	0.80	0.81	0.77	0.82	0.79	
		Module- D	0.79	0.80	1.28	2.00	0.83	0.79	0.64	0.80	0.80	0.80	0.76	0.76	0.80	
		Manufacturing	0.80	0.80	1.29	0.73	0.77	0.78	0.78	0.80	0.81	0.80	0.80	0.74	0.80	0.78
		Distribution	0.81													
		Installation	0.97													
		End of Life	0.81	0.81	0.77	1.00	0.82	0.79	0.77	0.81	0.80	0.81	0.77	0.82	0.79	
Y7-191577	NZMN3-VX250-AVE	Module- D	0.79	0.80	1.28	2.00	0.83	0.79	0.64	0.80	0.80	0.80	0.76	0.76	0.80	
		Manufacturing	0.80	0.80	1.29	0.73	0.77	0.78	0.78	0.80	0.81	0.80	0.80	0.74	0.80	0.78
		Distribution	0.81													
		Installation	0.97													
		End of Life	0.81	0.81	0.77	1.00	0.82	0.79	0.77	0.81	0.80	0.81	0.77	0.82	0.79	
		Module- D	0.79	0.80	1.28	2.00	0.83	0.79	0.64	0.80	0.80	0.80	0.76	0.76	0.80	
Y7-191590	NZMN3-VX250-T-AVE	Manufacturing	0.80	0.80	1.29	0.73	0.77	0.78	0.78	0.80	0.81	0.80	0.74	0.80	0.78	
		Distribution	0.81													
		Installation	0.97													
		End of Life	0.81	0.81	0.77	1.00	0.82	0.79	0.77	0.81	0.80	0.81	0.77	0.82	0.79	
		Module- D	0.79	0.80	1.28	2.00	0.83	0.79	0.64	0.80	0.80	0.80	0.76	0.76	0.80	
		Manufacturing	0.80	0.80	1.29	0.73	0.77	0.78	0.78	0.80	0.81	0.80	0.80	0.74	0.80	0.78
Y7-191578	NZMN3-VX400-AVE	Distribution	0.81													
		Installation	0.97													
		End of Life	0.81	0.81	0.77	1.00	0.82	0.79	0.77	0.81	0.80	0.81	0.77	0.82	0.79	
		Module- D	0.79	0.80	1.28	2.00	0.83	0.79	0.64	0.80	0.80	0.80	0.76	0.76	0.80	
		Manufacturing	0.80	0.80	1.29	0.73	0.77	0.78	0.78	0.80	0.81	0.80	0.80	0.74	0.80	0.78
		Distribution	0.81													
Y7-191591	NZMN3-VX400-T-AVE	Installation	0.97													
		End of Life	0.81	0.81	0.77	1.00	0.82	0.79	0.77	0.81	0.80	0.81	0.77	0.82	0.79	
		Module- D	0.79	0.80	1.28	2.00	0.83	0.79	0.64	0.80	0.80	0.80	0.76	0.76	0.80	
		Manufacturing	0.80	0.80	1.29	0.73	0.77	0.78	0.78	0.80	0.81	0.80	0.80	0.74	0.80	0.78

Product Number	Description	Phases	GWP	GWP-f	GWP-b	GWP-lu	ODP	AP	Ep-fw	Ep-m	Ep-t	POCP	ADP-e	ADP-f	WDP	
		Module- D	0.79	0.80	1.28	2.00	0.83	0.79	0.64	0.80	0.80	0.80	0.76	0.76	0.80	
Y7-191579	NZMN3-VX630-AVE	Manufacturing	0.80	0.80	1.29	0.73	0.77	0.78	0.78	0.80	0.81	0.80	0.74	0.80	0.78	
		Distribution	0.81													
		Installation	0.97													
		End of Life	0.81	0.81	0.77	1.00	0.82	0.79	0.77	0.81	0.80	0.81	0.77	0.82	0.79	
		Module- D	0.79	0.80	1.28	2.00	0.83	0.79	0.64	0.80	0.80	0.80	0.76	0.76	0.80	
		Manufacturing	0.80	0.80	1.29	0.73	0.77	0.78	0.78	0.80	0.81	0.80	0.80	0.74	0.80	0.78
Y7-191592	NZMN3-VX630-T-AVE	Distribution	0.81													
		Installation	0.97													
		End of Life	0.81	0.81	0.77	1.00	0.82	0.79	0.77	0.81	0.80	0.81	0.77	0.82	0.79	
		Module- D	0.79	0.80	1.28	2.00	0.83	0.79	0.64	0.80	0.80	0.80	0.76	0.76	0.80	
		Manufacturing	0.80	0.80	1.29	0.73	0.77	0.78	0.78	0.80	0.81	0.80	0.80	0.74	0.80	0.78
		Distribution	0.81													
Y7-191503	NZMS3-AX400-AVE	Installation	0.97													
		End of Life	0.81	0.81	0.77	1.00	0.82	0.79	0.77	0.81	0.80	0.81	0.77	0.82	0.79	
		Module- D	0.79	0.80	1.28	2.00	0.83	0.79	0.64	0.80	0.80	0.80	0.76	0.76	0.80	
		Manufacturing	0.80	0.80	1.29	0.73	0.77	0.78	0.78	0.80	0.81	0.80	0.80	0.74	0.80	0.78
		Distribution	0.81													
		Installation	0.97													
Y7-191504	NZMS3-AX630-AVE	End of Life	0.81	0.81	0.77	1.00	0.82	0.79	0.77	0.81	0.80	0.81	0.77	0.82	0.79	
		Module- D	0.79	0.80	1.28	2.00	0.83	0.79	0.64	0.80	0.80	0.80	0.76	0.76	0.80	
		Manufacturing	0.80	0.80	1.29	0.73	0.77	0.78	0.78	0.80	0.81	0.80	0.80	0.74	0.80	0.78
		Distribution	0.81													
		Installation	0.97													
		End of Life	0.81	0.81	0.77	1.00	0.82	0.79	0.77	0.81	0.80	0.81	0.77	0.82	0.79	
Y7-191507	NZMS3-MX220-AVE	Module- D	0.79	0.80	1.28	2.00	0.83	0.79	0.64	0.80	0.80	0.80	0.76	0.76	0.80	
		Manufacturing	0.80	0.80	1.29	0.73	0.77	0.78	0.78	0.80	0.81	0.80	0.80	0.74	0.80	0.78
		Distribution	0.81													
		Installation	0.97													
		End of Life	0.81	0.81	0.77	1.00	0.82	0.79	0.77	0.81	0.80	0.81	0.77	0.82	0.79	
		Module- D	0.79	0.80	1.28	2.00	0.83	0.79	0.64	0.80	0.80	0.80	0.76	0.76	0.80	
Y7-191508	NZMS3-MX350-AVE	Manufacturing	0.80	0.80	1.29	0.73	0.77	0.78	0.78	0.80	0.81	0.80	0.74	0.80	0.78	
		Distribution	0.81													
		Installation	0.97													
		End of Life	0.81	0.81	0.77	1.00	0.82	0.79	0.77	0.81	0.80	0.81	0.77	0.82	0.79	
		Module- D	0.79	0.80	1.28	2.00	0.83	0.79	0.64	0.80	0.80	0.80	0.76	0.76	0.80	
		Manufacturing	0.80	0.80	1.29	0.73	0.77	0.78	0.78	0.80	0.81	0.80	0.80	0.74	0.80	0.78
Y7-191509	NZMS3-MX450-AVE	Distribution	0.81													
		Installation	0.97													
		End of Life	0.81	0.81	0.77	1.00	0.82	0.79	0.77	0.81	0.80	0.81	0.77	0.82	0.79	
		Module- D	0.79	0.80	1.28	2.00	0.83	0.79	0.64	0.80	0.80	0.80	0.76	0.76	0.80	
		Manufacturing	0.80	0.80	1.29	0.73	0.77	0.78	0.78	0.80	0.81	0.80	0.80	0.74	0.80	0.78
		Distribution	0.81													
Y7-192351	NZMS3-PX250-AVE	Installation	0.97													
		End of Life	0.81	0.81	0.77	1.00	0.82	0.79	0.77	0.81	0.80	0.81	0.77	0.82	0.79	
		Module- D	0.79	0.80	1.28	2.00	0.83	0.79	0.64	0.80	0.80	0.80	0.76	0.76	0.80	
		Manufacturing	0.80	0.80	1.29	0.73	0.77	0.78	0.78	0.80	0.81	0.80	0.80	0.74	0.80	0.78

Product Number	Description	Phases	GWP	GWP-f	GWP-b	GWP-lu	ODP	AP	Ep-fw	Ep-m	Ep-t	POCP	ADP-e	ADP-f	WDP
		Module- D	0.79	0.80	1.28	2.00	0.83	0.79	0.64	0.80	0.80	0.80	0.76	0.76	0.80
Y7-192271	NZMS3-PX250-TAZ-AVE	Manufacturing	0.80	0.80	1.29	0.73	0.77	0.78	0.78	0.80	0.81	0.80	0.74	0.80	0.78
		Distribution	0.81												
		Installation	0.97												
		End of Life	0.81	0.81	0.77	1.00	0.82	0.79	0.77	0.81	0.80	0.81	0.77	0.82	0.79
		Module- D	0.79	0.80	1.28	2.00	0.83	0.79	0.64	0.80	0.80	0.80	0.76	0.76	0.80
		Manufacturing	0.80	0.80	1.29	0.73	0.77	0.78	0.78	0.80	0.81	0.80	0.74	0.80	0.78
Y7-192352	NZMS3-PX400-AVE	Distribution	0.81												
		Installation	0.97												
		End of Life	0.81	0.81	0.77	1.00	0.82	0.79	0.77	0.81	0.80	0.81	0.77	0.82	0.79
		Module- D	0.79	0.80	1.28	2.00	0.83	0.79	0.64	0.80	0.80	0.80	0.76	0.76	0.80
		Manufacturing	0.80	0.80	1.29	0.73	0.77	0.78	0.78	0.80	0.81	0.80	0.74	0.80	0.78
		Distribution	0.81												
Y7-192272	NZMS3-PX400-TAZ-AVE	Installation	0.97												
		End of Life	0.81	0.81	0.77	1.00	0.82	0.79	0.77	0.81	0.80	0.81	0.77	0.82	0.79
		Module- D	0.79	0.80	1.28	2.00	0.83	0.79	0.64	0.80	0.80	0.80	0.76	0.76	0.80
		Manufacturing	0.80	0.80	1.29	0.73	0.77	0.78	0.78	0.80	0.81	0.80	0.74	0.80	0.78
		Distribution	0.81												
		Installation	0.97												
Y7-192353	NZMS3-PX630-AVE	End of Life	0.81	0.81	0.77	1.00	0.82	0.79	0.77	0.81	0.80	0.81	0.77	0.82	0.79
		Module- D	0.79	0.80	1.28	2.00	0.83	0.79	0.64	0.80	0.80	0.80	0.76	0.76	0.80
		Manufacturing	0.80	0.80	1.29	0.73	0.77	0.78	0.78	0.80	0.81	0.80	0.74	0.80	0.78
		Distribution	0.81												
		Installation	0.97												
		End of Life	0.81	0.81	0.77	1.00	0.82	0.79	0.77	0.81	0.80	0.81	0.77	0.82	0.79
Y7-192273	NZMS3-PX630-TAZ-AVE	Module- D	0.79	0.80	1.28	2.00	0.83	0.79	0.64	0.80	0.80	0.80	0.76	0.76	0.80
		Manufacturing	0.80	0.80	1.29	0.73	0.77	0.78	0.78	0.80	0.81	0.80	0.74	0.80	0.78
		Distribution	0.81												
		Installation	0.97												
		End of Life	0.81	0.81	0.77	1.00	0.82	0.79	0.77	0.81	0.80	0.81	0.77	0.82	0.79
		Module- D	0.79	0.80	1.28	2.00	0.83	0.79	0.64	0.80	0.80	0.80	0.76	0.76	0.80
Y7-191505	NZMS3-VX400-AVE	Manufacturing	0.80	0.80	1.29	0.73	0.77	0.78	0.78	0.80	0.81	0.80	0.74	0.80	0.78
		Distribution	0.81												
		Installation	0.97												
		End of Life	0.81	0.81	0.77	1.00	0.82	0.79	0.77	0.81	0.80	0.81	0.77	0.82	0.79
		Module- D	0.79	0.80	1.28	2.00	0.83	0.79	0.64	0.80	0.80	0.80	0.76	0.76	0.80
		Manufacturing	0.80	0.80	1.29	0.73	0.77	0.78	0.78	0.80	0.81	0.80	0.74	0.80	0.78
Y7-191510	NZMS3-VX400-T-AVE	Distribution	0.81												
		Installation	0.97												
		End of Life	0.81	0.81	0.77	1.00	0.82	0.79	0.77	0.81	0.80	0.81	0.77	0.82	0.79
		Module- D	0.79	0.80	1.28	2.00	0.83	0.79	0.64	0.80	0.80	0.80	0.76	0.76	0.80
		Manufacturing	0.80	0.80	1.29	0.73	0.77	0.78	0.78	0.80	0.81	0.80	0.74	0.80	0.78
		Distribution	0.81												
Y7-191506	NZMS3-VX630-AVE	Installation	0.97												
		End of Life	0.81	0.81	0.77	1.00	0.82	0.79	0.77	0.81	0.80	0.81	0.77	0.82	0.79
		Module- D	0.79	0.80	1.28	2.00	0.83	0.79	0.64	0.80	0.80	0.80	0.76	0.76	0.80
		Manufacturing	0.80	0.80	1.29	0.73	0.77	0.78	0.78	0.80	0.81	0.80	0.74	0.80	0.78

Product Number	Description	Phases	GWP	GWP-f	GWP-b	GWP-lu	ODP	AP	Ep-fw	Ep-m	Ep-t	POCP	ADP-e	ADP-f	WDP
		Module- D	0.79	0.80	1.28	2.00	0.83	0.79	0.64	0.80	0.80	0.80	0.76	0.76	0.80
Y7-191511	NZMS3-VX630-T-AVE	Manufacturing	0.80	0.80	1.29	0.73	0.77	0.78	0.78	0.80	0.81	0.80	0.74	0.80	0.78
		Distribution	0.81												
		Installation	0.97												
		End of Life	0.81	0.81	0.77	1.00	0.82	0.79	0.77	0.81	0.80	0.81	0.77	0.82	0.79
		Module- D	0.79	0.80	1.28	2.00	0.83	0.79	0.64	0.80	0.80	0.80	0.76	0.76	0.80

Multiplying Factors for Use Phase for homogenous products:

Part Number	Product Description	Use Phase Extrapolation Factors
Y7-191384 (Reference)	NZMH3-4-VX630-T-AVE	1.00
Y7-191379	NZMH3-4-AX400/VAR-AVE	0.60
Y7-191375	NZMH3-4-AX400-AVE	0.60
Y7-191380	NZMH3-4-AX630/VAR-AVE	1.50
Y7-191376	NZMH3-4-AX630-AVE	1.50
Y7-192310	NZMH3-4-PX250/VAR-AVE	0.24
Y7-192319	NZMH3-4-PX250/VAR-TAZ-AVE	0.24
Y7-192311	NZMH3-4-PX400/VAR-AVE	0.60
Y7-192320	NZMH3-4-PX400/VAR-TAZ-AVE	0.60
Y7-192312	NZMH3-4-PX630/VAR-AVE	1.50
Y7-192321	NZMH3-4-PX630/VAR-TAZ-AVE	1.50
Y7-191381	NZMH3-4-VX400/VAR-AVE	0.40

Part Number	Product Description	Use Phase Extrapolation Factors
Y7-191377	NZMH3-4-VX400-AVE	0.40
Y7-191383	NZMH3-4-VX400-T-AVE	0.40
Y7-191382	NZMH3-4-VX630/VAR-AVE	1.00
Y7-191378	NZMH3-4-VX630-AVE	1.00
Y7-191408	NZML3-4-VX250-AVE	0.16
Y7-191410	NZML3-4-VX400/VAR-AVE	0.40
Y7-191409	NZML3-4-VX400-AVE	0.40
Y7-191614	NZMN3-4-AX400/VAR-AVE	0.60
Y7-191608	NZMN3-4-AX400-AVE	0.60
Y7-191615	NZMN3-4-AX630/VAR-AVE	1.50
Y7-191609	NZMN3-4-AX630-AVE	1.50
Y7-192304	NZMN3-4-PX250/VAR-AVE	0.24
Y7-192313	NZMN3-4-PX250/VAR-TAZ-AVE	0.24
Y7-192305	NZMN3-4-PX400/VAR-AVE	0.60
Y7-192314	NZMN3-4-PX400/VAR-TAZ-AVE	0.60
Y7-192306	NZMN3-4-PX630/VAR-AVE	1.50
Y7-192315	NZMN3-4-PX630/VAR-TAZ-AVE	1.50
Y7-191616	NZMN3-4-VX400/VAR-AVE	0.60
Y7-191610	NZMN3-4-VX400-AVE	0.60
Y7-191618	NZMN3-4-VX400-T-AVE	0.60
Y7-191617	NZMN3-4-VX630/VAR-AVE	1.50
Y7-191611	NZMN3-4-VX630-AVE	1.50

Part Number	Product Description	Use Phase Extrapolation Factors
Y7-191479	NZMN3-4-VX630-T-AVE	1.00
Y7-191530	NZMS3-4-AX400/VAR-AVE	0.16
Y7-191529	NZMS3-4-AX400-AVE	0.40
Y7-191532	NZMS3-4-AX630/VAR-AVE	1.00
Y7-191531	NZMS3-4-AX630-AVE	0.12
Y7-192307	NZMS3-4-PX250/VAR-AVE	0.31
Y7-192316	NZMS3-4-PX250/VAR-TAZ-AVE	0.51
Y7-192308	NZMS3-4-PX400/VAR-AVE	0.16
Y7-192317	NZMS3-4-PX400/VAR-TAZ-AVE	0.31
Y7-192309	NZMS3-4-PX630/VAR-AVE	0.51
Y7-192318	NZMS3-4-PX630/VAR-TAZ-AVE	0.16
Y7-191534	NZMS3-4-VX400/VAR-AVE	0.16
Y7-191538	NZMS3-4-VX400/VAR-T-AVE	0.40
Y7-191533	NZMS3-4-VX400-AVE	0.40
Y7-191537	NZMS3-4-VX400-T-AVE	1.00
Y7-191536	NZMS3-4-VX630/VAR-AVE	1.00
Y7-191540	NZMS3-4-VX630/VAR-T-AVE	0.16
Y7-191535	NZMS3-4-VX630-AVE	0.16
Y7-191539	NZMS3-4-VX630-T-AVE	0.40
Y7-191545	NZMH3-AX250-AVE	0.40
Y7-191546	NZMH3-AX400-AVE	1.00
Y7-191547	NZMH3-AX630-AVE	1.00

Part Number	Product Description	Use Phase Extrapolation Factors
Y7-191551	NZMH3-MX220-AVE	0.12
Y7-191552	NZMH3-MX350-AVE	0.31
Y7-191553	NZMH3-MX450-AVE	0.16
Y7-192337	NZMH3-PMX250-AVE	0.40
Y7-192338	NZMH3-PMX350-AVE	0.16
Y7-192339	NZMH3-PMX450-AVE	0.40
Y7-192265	NZMH3-PX250-AVE	1.00
Y7-192274	NZMH3-PX250-TAZ-AVE	0.12
Y7-192266	NZMH3-PX400-AVE	0.31
Y7-192275	NZMH3-PX400-TAZ-AVE	0.51
Y7-192267	NZMH3-PX630-AVE	0.16
Y7-192276	NZMH3-PX630-TAZ-AVE	0.31
Y7-191548	NZMH3-VX250-AVE	0.51
Y7-191559	NZMH3-VX250-T-AVE	0.16
Y7-191549	NZMH3-VX400-AVE	0.16
Y7-191560	NZMH3-VX400-T-AVE	0.40
Y7-191550	NZMH3-VX630-AVE	0.40
Y7-191561	NZMH3-VX630-T-AVE	1.00
Y7-191401	NZML3-MX220-AVE	1.00
Y7-191402	NZML3-MX350-AVE	0.16
Y7-191399	NZML3-VX250-AVE	0.16
Y7-191400	NZML3-VX400-AVE	0.40

Part Number	Product Description	Use Phase Extrapolation Factors
Y7-191574	NZMN3-AX250-AVE	0.40
Y7-191575	NZMN3-AX400-AVE	1.00
Y7-191576	NZMN3-AX630-AVE	1.00
Y7-191580	NZMN3-MX220-AVE	0.40
Y7-191581	NZMN3-MX350-AVE	1.00
Y7-191582	NZMN3-MX450-AVE	0.12
Y7-192334	NZMN3-PMX250-AVE	0.31
Y7-192335	NZMN3-PMX350-AVE	0.51
Y7-192336	NZMN3-PMX450-AVE	0.16
Y7-192348	NZMN3-PX250-AVE	0.16
Y7-192268	NZMN3-PX250-TAZ-AVE	0.40
Y7-192349	NZMN3-PX400-AVE	0.40
Y7-192269	NZMN3-PX400-TAZ-AVE	1.00
Y7-192350	NZMN3-PX630-AVE	1.00
Y7-192270	NZMN3-PX630-TAZ-AVE	0.40
Y7-191577	NZMN3-VX250-AVE	0.40
Y7-191590	NZMN3-VX250-T-AVE	1.00
Y7-191578	NZMN3-VX400-AVE	1.00
Y7-191591	NZMN3-VX400-T-AVE	0.60
Y7-191579	NZMN3-VX630-AVE	0.60
Y7-191592	NZMN3-VX630-T-AVE	1.50
Y7-191503	NZMS3-AX400-AVE	1.50

Part Number	Product Description	Use Phase Extrapolation Factors
Y7-191504	NZMS3-AX630-AVE	0.24
Y7-191507	NZMS3-MX220-AVE	0.24
Y7-191508	NZMS3-MX350-AVE	0.60
Y7-191509	NZMS3-MX450-AVE	0.60
Y7-192351	NZMS3-PX250-AVE	1.50
Y7-192271	NZMS3-PX250-TAZ-AVE	1.50
Y7-192352	NZMS3-PX400-AVE	0.60
Y7-192272	NZMS3-PX400-TAZ-AVE	0.60
Y7-192353	NZMS3-PX630-AVE	0.60
Y7-192273	NZMS3-PX630-TAZ-AVE	0.60
Y7-191505	NZMS3-VX400-AVE	1.50
Y7-191510	NZMS3-VX400-T-AVE	1.50
Y7-191506	NZMS3-VX630-AVE	1.50
Y7-191511	NZMS3-VX630-T-AVE	1.50

Disclaimer

This Product Environmental Profile and its content is based on information available to us. It refers to the product at the date of issue. We make no express or implied representations or warranties with respect to the information contained herein.

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Verifier accreditation Number	VH56	Supplemented by	PSR-0005-ed3.1-EN-2023 12 08
Date of issue	01-2025	Information and reference documents	www.pep-ecopassport.org
		Validity period	5 years
Independent verification of the declaration and data, in compliance with ISO 14025: 2006			
Internal	X	External	
The PCR review was conducted by a panel of experts chaired by Julie Orgelet (DDemain)			
PEPs are compliant with XP C08-100-1:2016 and EN 50693:2019			
The components of the present PEP may not be compared with components from any other program.			
Document complies with ISO 14025: 2006 « Environmental labels and declarations. Type III environmental declarations »			