



**M22 Key-operated actuator**

<b>Representative product</b>	M22S-WRS (216889)																																																																	
<b>Description of the product</b>	Eaton Moeller series M22 Front Element with Key to release Button has 2 or 3key withdrawable positions:(I,0) or (I, 0, II) which has life span of 100,000 Operations with operating frequency of 100 Operations/h. This element is fitted with Front ring and can connect to Smart Wire-DT. They are shipped with 1 key which are included with the product.																																																																	
<b>Homogeneous Environmental Families Covered</b>	<p>The PEP concerns the following product offerings from Eaton Moeller series M22 Accessory as mentioned below:</p> <table border="0"> <tr> <td>216906</td> <td>M22S-WRS3-SA(*)-*</td> <td>216894</td> <td>M22-WS3</td> </tr> <tr> <td>285581</td> <td>M22S-WRS3-SA(*)-*A9</td> <td>216896</td> <td>M22-WS3-MS*</td> </tr> <tr> <td>111772</td> <td>M22S-WRS-MS2</td> <td>216898</td> <td>M22-WS3-SA(*)-*</td> </tr> <tr> <td>216893</td> <td>M22S-WRS-SA(*)-*</td> <td>216883</td> <td>M22-WS-MS*</td> </tr> <tr> <td>285538</td> <td>M22S-WRS-SA(*)-*A8</td> <td>111790</td> <td>M22-WS-MS2</td> </tr> <tr> <td>216882</td> <td>M22S-WS</td> <td>111791</td> <td>M22-WS-MS3</td> </tr> <tr> <td>216895</td> <td>M22S-WS3</td> <td>111792</td> <td>M22-WS-MS5</td> </tr> <tr> <td>216897</td> <td>M22S-WS3-MS*</td> <td>216885</td> <td>M22-WS-SA(*)-*</td> </tr> <tr> <td>216899</td> <td>M22S-WS3-SA(*)-*</td> <td>216902</td> <td>M22-WRS3-GVP</td> </tr> <tr> <td>216884</td> <td>M22S-WS-MS*</td> <td>147405</td> <td>M22-WRS3-MS1-A10I</td> </tr> <tr> <td>216886</td> <td>M22S-WS-SA(*)-*</td> <td>147406</td> <td>M22-WRS3-MS1-A10IW</td> </tr> <tr> <td>111773</td> <td>M22-WRS3-MS2</td> <td>151189</td> <td>M22-WRS3-SONDRL</td> </tr> <tr> <td>111774</td> <td>M22-WRS3-MS3</td> <td>262522</td> <td>M22S-WRS*-MS*-*</td> </tr> <tr> <td>216905</td> <td>M22-WRS3-SA(*)-*</td> <td>216901</td> <td>M22S-WRS3</td> </tr> <tr> <td>285539</td> <td>M22-WRS3-SA(*)-*A9</td> <td>229095</td> <td>M22S-WRS3-A*</td> </tr> <tr> <td>111775</td> <td>M22-WRS-MS10</td> <td>216904</td> <td>M22S-WRS3-MS*</td> </tr> </table>		216906	M22S-WRS3-SA(*)-*	216894	M22-WS3	285581	M22S-WRS3-SA(*)-*A9	216896	M22-WS3-MS*	111772	M22S-WRS-MS2	216898	M22-WS3-SA(*)-*	216893	M22S-WRS-SA(*)-*	216883	M22-WS-MS*	285538	M22S-WRS-SA(*)-*A8	111790	M22-WS-MS2	216882	M22S-WS	111791	M22-WS-MS3	216895	M22S-WS3	111792	M22-WS-MS5	216897	M22S-WS3-MS*	216885	M22-WS-SA(*)-*	216899	M22S-WS3-SA(*)-*	216902	M22-WRS3-GVP	216884	M22S-WS-MS*	147405	M22-WRS3-MS1-A10I	216886	M22S-WS-SA(*)-*	147406	M22-WRS3-MS1-A10IW	111773	M22-WRS3-MS2	151189	M22-WRS3-SONDRL	111774	M22-WRS3-MS3	262522	M22S-WRS*-MS*-*	216905	M22-WRS3-SA(*)-*	216901	M22S-WRS3	285539	M22-WRS3-SA(*)-*A9	229095	M22S-WRS3-A*	111775	M22-WRS-MS10	216904	M22S-WRS3-MS*
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	111776 M22-WRS-MS10-A1 111777 M22-WRS-MS15 111778 M22-WRS-MS2 111779 M22-WRS-MS20 111780 M22-WRS-MS2-A1 111781 M22-WRS-MS3 111782 M22-WRS-MS3-A1 111783 M22-WRS-MS4 111784 M22-WRS-MS4-A1 111785 M22-WRS-MS5 111786 M22-WRS-MS5-A1 111787 M22-WRS-MS6 111788 M22-WRS-MS7 111789 M22-WRS-MS8 216892 M22-WRS-SA(*)-* 285537 M22-WRS-SA(*)-*A8 216881 M22-WS 228026 M22-WRS-X95	217443 M22S-WRS3-MS*-A* 229093 M22S-WRS-A1 216891 M22S-WRS-MS* 217441 M22S-WRS-MS*-A1 116299 M22S-WRS-MS*-A21-* 216887 M22-WRS 262521 M22-WRS*-MS*-* 216900 M22-WRS3 229094 M22-WRS3-A* 197926 M22-WRS3-A4 216903 M22-WRS3-MS* 217442 M22-WRS3-MS*-A* 229092 M22-WRS-A1 216888 M22-WRS-GVP 216890 M22-WRS-MS* 217440 M22-WRS-MS*-A1 116298 M22-WRS-MS*-A21-*
<b>Functional unit</b>	'To allow the switching off button by Key-operated button, for installation at device for reference lifespan of the product of 20 years.	
<b>Company information</b>	EATON INDUSTRIES GMB Kompetenzzentrum Baederstrasse, Holzhausen, Germany, 56357 Email: <a href="mailto:productstewardship-es@eaton.com">productstewardship-es@eaton.com</a>	

Constituent Materials			
Reference product mass	3.02E-02 kg (With packaging)		
Category PEP Material	Material constituent	Mass (kg)	% Contribution
Plastics	Polyamide 6.6 GF30	5.15E-03	17.1%
Other	Wood	5.00E-03	16.6%
Plastics	Polyoxymethylene	4.32E-03	14.3%
Other	Cardboard	3.74E-03	12.4%
Plastics	Polyamide 6 GF30	3.18E-03	10.5%
Plastics	Polybutylene Terephthalate GF50	2.81E-03	9.3%
Plastics	Polyamide 6.6	2.32E-03	7.7%
Plastics	Polycarbonate	1.73E-03	5.7%
Plastics	Polyamide 6	1.04E-03	3.5%
Plastics	Low Density Polyethylene	5.02E-04	1.7%
Metals	Steel	2.58E-04	0.9%
Other	Label	1.00E-04	0.3%
Total		3.02E-02	100.00%

## Substance Assessment

The representative product is compliant with the EU-RoHS Directive (2011/65/EU) and the product contain Lead and Perfluoro butane sulfonic acid (PFBS) and its salts as substance listed as Substance-of-Very-High-Concern (SVHC) on the Candidate List of the EU-REACH Regulation (1907/2006/EC).

## Additional Environmental Information

<b>Manufacturing</b>	The reference product is assembled at an Eaton plant in Holzhausen, Germany holding management system certifications according to ISO 14001 standards.
<b>Distribution</b>	Eaton is committed to minimizing weight and volume of product and packaging with focus to optimize transport efficiency.
<b>Installation</b>	The installation process does not require any energy consumption and there is no waste other than the obsolete product packaging generated during this step.
<b>Use</b>	The product requires No energy consumption during operation.
<b>End of life</b>	The recyclability rate of the overall product is 22.5% based on the method described in IEC/TR 62635, Edition 1.0/2012-10 "Guidelines for end-of-life information provided by manufacturers and recyclers and for recyclability rate calculation of electrical and electronic equipment".

## 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 v6.2.5-3 with database version CODDE-2024-04 - updated on 2024-06-04

Indicators Set: PEF EF 3.1 (Compliance: PEP ed.4, EN15804+A2) v2.0

<b>Manufacturing Phase</b>	The product is assembled as well as packed at EATON INDUSTRIES GMB Kompetenzzentrum Baederstrasse, Holzhausen, Germany plant. Energy model used: Germany
<b>Distribution Phase</b>	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.
<b>Installation Phase</b>	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
<b>Use Phase</b>	Reference lifetime: 20 Years Usage profile: No energy consumption by the product during its useful life. Energy model used: Europe
<b>End of life Phase</b>	Product disposed with WEEE guidelines. Energy model used: Europe
<b>Module-D</b>	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	B1-B7- Use Phase	C1-C4 - End of life	D - Benefits and loads beyond the system boundaries
Climate change – total (GWP)	kg CO2 eq.	1.91E-01	1.54E-01	7.19E-03	1.97E-02	0.00E+00	9.67E-03	2.27E-03
Climate change - fossil fuels (GWP-f)	kg CO2 eq.	1.88E-01	1.65E-01	7.19E-03	6.44E-03	0.00E+00	9.65E-03	-6.47E-03
Climate change – biogenics (GWP-b)	kg CO2 eq.	2.84E-03	-1.05E-02	0.00E+00	1.33E-02	0.00E+00	1.71E-05	8.73E-03
Climate change - land use and land use transformation (GWP-lu)	kg CO2 eq.	2.41E-06	2.41E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Ozone depletion (ODP)	kg eq. CFC-11	3.84E-09	3.11E-09	1.10E-11	1.09E-10	0.00E+00	6.07E-10	-3.01E-10
Acidification (AP)	mole of H+ eq.	8.16E-04	6.84E-04	4.56E-05	2.36E-05	0.00E+00	6.32E-05	-3.40E-05
Freshwater eutrophication (EP-fw)	kg P eq.	2.84E-06	2.59E-06	2.70E-09	7.15E-08	0.00E+00	1.81E-07	-7.24E-08
Marine aquatic eutrophication (EP-m)	kg of N eq.	2.22E-04	1.76E-04	2.14E-05	8.52E-06	0.00E+00	1.60E-05	-9.21E-06
Terrestrial eutrophication (EP-t)	mole of N eq.	2.02E-03	1.51E-03	2.34E-04	7.30E-05	0.00E+00	2.04E-04	-8.08E-05
Photochemical ozone formation (POCP)	kg of NMVOC eq.	5.64E-04	4.42E-04	5.91E-05	1.64E-05	0.00E+00	4.64E-05	-2.20E-05
Depletion of abiotic resources – elements (ADPe)	kg eq. Sb	2.84E-08	2.71E-08	2.83E-10	3.38E-10	0.00E+00	6.43E-10	-6.13E-10
Depletion of abiotic resources - fossil fuels (ADP-f)	MJ	3.46E+00	3.07E+00	1.00E-01	7.71E-02	0.00E+00	2.09E-01	-1.23E-01
Water scarcity (WDP)	m3 of eq. deprivation worldwide	5.11E-02	4.98E-02	2.73E-05	4.91E-04	0.00E+00	8.36E-04	-1.51E-03

### Inventory Flow Indicators: Mandatory

Inventory flow indicators	Units	Sum	A1-A3 - Manufacturing	A4 - Distribution	A5 - Installation	B1-B7- Use Phase	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	1.35E-01	8.73E-02	1.34E-04	3.81E-02	0.00E+00	9.75E-03	1.39E-02
Use of renewable primary energy resources used as raw materials	MJ	3.08E-01	3.08E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	-1.12E-01
Total use of renewable primary energy resources (primary energy and primary energy resources used as raw materials)	MJ	4.44E-01	3.96E-01	1.34E-04	3.81E-02	0.00E+00	9.75E-03	-9.81E-02
Use of non-renewable primary energy, excluding non-renewable primary energy resources used as raw materials	MJ	2.93E+00	2.55E+00	1.00E-01	7.71E-02	0.00E+00	2.09E-01	-1.04E-01
Use of non-renewable primary energy resources used as raw materials	MJ	5.27E-01	5.27E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	-1.93E-02

Inventory flow indicators	Units	Sum	A1-A3 - Manufacturing	A4 - Distribution	A5 - Installation	B1-B7- Use Phase	C1-C4 - End of life	D - Benefits and loads beyond the system boundaries
Total use of non-renewable primary energy resources (primary energy and primary energy resources used as raw materials)	MJ	3.46E+00	3.07E+00	1.00E-01	7.71E-02	0.00E+00	2.09E-01	-1.23E-01
Use of secondary materials	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of renewable secondary fuels	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
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	1.27E-03	1.21E-03	6.36E-07	3.57E-05	0.00E+00	2.31E-05	-3.51E-05
Hazardous waste disposed of	kg	3.69E-02	8.94E-03	0.00E+00	1.31E-03	0.00E+00	2.67E-02	-1.67E-04
Non-hazardous waste disposed of	kg	3.14E-02	2.25E-02	2.53E-04	1.72E-03	0.00E+00	6.91E-03	-2.83E-03
Radioactive waste disposed of	kg	9.80E-06	8.43E-06	1.80E-07	4.25E-07	0.00E+00	7.58E-07	-1.31E-06
Components for re-use	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Materials for recycling	kg	1.52E-02	8.80E-03	0.00E+00	6.18E-03	0.00E+00	2.06E-04	0.00E+00
Materials for energy recovery	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Exported energy	MJ by energy vector	8.71E-06	0.00E+00	0.00E+00	8.71E-06	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.	7.08E-03	7.08E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

### Optional

Optional Environmental impact indicators	Units	Sum	A1-A3 - Manufacturing	A4 - Distribution	A5 - Installation	B1-B7- Use Phase	C1-C4 - End of life	D - Benefits and loads beyond the system boundaries
Emission of fine particles	incidence of diseases	5.14E-09	4.19E-09	3.71E-10	1.49E-10	0.00E+00	4.26E-10	-1.90E-10
Ionizing radiation, human health	kBq of U235 eq.	1.68E-01	1.64E-01	1.75E-05	1.39E-03	0.00E+00	3.26E-03	-1.38E-01
Ecotoxicity, fresh water	CTUe	1.02E+02	1.01E+02	4.71E-03	9.42E-02	0.00E+00	2.32E-01	-1.05E-01
Human toxicity, cancer effects	CTUh	1.13E-04	1.13E-04	1.26E-13	5.56E-10	0.00E+00	2.41E-12	-6.30E-10
Human toxicity, non-cancer effects	CTUh	3.03E-09	2.90E-09	2.45E-12	2.26E-11	0.00E+00	1.10E-10	-2.23E-11
Impacts related to land use/soil quality	-	7.37E-03	7.15E-03	0.00E+00	3.68E-05	0.00E+00	1.76E-04	0.00E+00
Total use of primary energy during the life cycle	MJ	3.90E+00	3.47E+00	1.01E-01	1.15E-01	0.00E+00	2.19E-01	-2.21E-01

Modules in the use stage (B1- B7) are equal to 0, hence values are 0 listed in the table

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

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

Product Number	Product Number	Phases	GWP (kg CO <sub>2</sub> eq.)	GWP-f (kg CO <sub>2</sub> eq.)	GWP-b (kg CO <sub>2</sub> eq.)	GWP-lu (kg CO <sub>2</sub> eq.)	ODP (kg CFC-11 eq.)	AP (mol H+ eq.)	EP-fw (kg P eq.)	EP-m (kg N eq.)	EP-t (mol N eq.)	POCP (kg NMVOC eq.)	ADP-e (kg Sb eq.)	ADP-f (MJ)	WDP (m3 eq.)
216889 (Reference)	M22S-WRS (Reference)	Manufacturing	1												
		Distribution	1												
		Installation	1												
		Use Phase	1												
		End of life	1												
		Module-D	1												
216906	M22S-WRS3-SA(*)-*	Manufacturing	1												
		Distribution	1												
		Installation	1												
		Use Phase	1												
		End of life	1												
		Module-D	1												
285581	M22S-WRS3-SA(*)-*-A9	Manufacturing	1												
		Distribution	1												
		Installation	1												
		Use Phase	1												
		End of life	1												
		Module-D	1												
111772	M22S-WRS-MS2	Manufacturing	1												
		Distribution	1												
		Installation	1												
		Use Phase	1												
		End of life	1												
		Module-D	1												
216893	M22S-WRS-SA(*)-*	Manufacturing	1												
		Distribution	1												
		Installation	1												
		Use Phase	1												
		End of life	1												
		Module-D	1												
285538	M22S-WRS-SA(*)-*-A8	Manufacturing	1												
		Distribution	1												
		Installation	1												
		Use Phase	1												
		End of life	1												
		Module-D	1												
216882	M22S-WS	Manufacturing	1												
		Distribution	1												
		Installation	1												
		Use Phase	1												

Product Number	Product Number	Phases	GWP (kg CO <sub>2</sub> eq.)	GWP-f (kg CO <sub>2</sub> eq.)	GWP-b (kg CO <sub>2</sub> eq.)	GWP-lu (kg CO <sub>2</sub> eq.)	ODP (kg CFC-11 eq.)	AP (mol H+ eq.)	EP-fw (kg P eq.)	EP-m (kg N eq.)	EP-t (mol N eq.)	POCP (kg NMVOC eq.)	ADP-e (kg Sb eq.)	ADP-f (MJ)	WDP (m3 eq.)	
		End of life													1	
		Module-D													1	
216895	M22S-WS3	Manufacturing													1	
		Distribution													1	
		Installation														1
		Use Phase														1
		End of life														1
		Module-D														1
216897	M22S-WS3-MS*	Manufacturing													1	
		Distribution														1
		Installation														1
		Use Phase														1
		End of life														1
		Module-D														1
216899	M22S-WS3-SA(*)-*	Manufacturing													1	
		Distribution														1
		Installation														1
		Use Phase														1
		End of life														1
		Module-D														1
216884	M22S-WS-MS*	Manufacturing													1	
		Distribution														1
		Installation														1
		Use Phase														1
		End of life														1
		Module-D														1
216886	M22S-WS-SA(*)-*	Manufacturing													1	
		Distribution														1
		Installation														1
		Use Phase														1
		End of life														1
		Module-D														1
111773	M22-WRS3-MS2	Manufacturing													1	
		Distribution														1
		Installation														1
		Use Phase														1
		End of life														1
		Module-D														1
111774	M22-WRS3-MS3	Manufacturing													1	
		Distribution														1
		Installation														1
		Use Phase														1
		End of life														1
		Module-D														1
216905	M22-WRS3-SA(*)-*	Manufacturing													1	
		Distribution														1

Product Number	Product Number	Phases	GWP (kg CO <sub>2</sub> eq.)	GWP-f (kg CO <sub>2</sub> eq.)	GWP-b (kg CO <sub>2</sub> eq.)	GWP-lu (kg CO <sub>2</sub> eq.)	ODP (kg CFC-11 eq.)	AP (mol H+ eq.)	EP-fw (kg P eq.)	EP-m (kg N eq.)	EP-t (mol N eq.)	POCP (kg NMVOC eq.)	ADP-e (kg Sb eq.)	ADP-f (MJ)	WDP (m <sup>3</sup> eq.)
		Installation	1												
		Use Phase	1												
		End of life	1												
		Module-D	1												
285539	M22-WRS3-SA(*)-*.A9	Manufacturing	1												
		Distribution	1												
		Installation	1												
		Use Phase	1												
		End of life	1												
		Module-D	1												
111775	M22-WRS-MS10	Manufacturing	1												
		Distribution	1												
		Installation	1												
		Use Phase	1												
		End of life	1												
		Module-D	1												
111776	M22-WRS-MS10-A1	Manufacturing	1												
		Distribution	1												
		Installation	1												
		Use Phase	1												
		End of life	1												
		Module-D	1												
111777	M22-WRS-MS15	Manufacturing	1												
		Distribution	1												
		Installation	1												
		Use Phase	1												
		End of life	1												
		Module-D	1												
111778	M22-WRS-MS2	Manufacturing	1												
		Distribution	1												
		Installation	1												
		Use Phase	1												
		End of life	1												
		Module-D	1												
111779	M22-WRS-MS20	Manufacturing	1												
		Distribution	1												
		Installation	1												
		Use Phase	1												
		End of life	1												
		Module-D	1												
111780	M22-WRS-MS2-A1	Manufacturing	1												
		Distribution	1												
		Installation	1												
		Use Phase	1												
		End of life	1												
		Module-D	1												

Product Number	Product Number	Phases	GWP (kg CO <sub>2</sub> eq.)	GWP-f (kg CO <sub>2</sub> eq.)	GWP-b (kg CO <sub>2</sub> eq.)	GWP-lu (kg CO <sub>2</sub> eq.)	ODP (kg CFC-11 eq.)	AP (mol H+ eq.)	EP-fw (kg P eq.)	EP-m (kg N eq.)	EP-t (mol N eq.)	POCP (kg NMVOC eq.)	ADP-e (kg Sb eq.)	ADP-f (MJ)	WDP (m3 eq.)
111781	M22-WRS-MS3	Manufacturing													1
		Distribution													1
		Installation													1
		Use Phase													1
		End of life													1
		Module-D													1
111782	M22-WRS-MS3-A1	Manufacturing													1
		Distribution													1
		Installation													1
		Use Phase													1
		End of life													1
		Module-D													1
111783	M22-WRS-MS4	Manufacturing													1
		Distribution													1
		Installation													1
		Use Phase													1
		End of life													1
		Module-D													1
111784	M22-WRS-MS4-A1	Manufacturing													1
		Distribution													1
		Installation													1
		Use Phase													1
		End of life													1
		Module-D													1
111785	M22-WRS-MS5	Manufacturing													1
		Distribution													1
		Installation													1
		Use Phase													1
		End of life													1
		Module-D													1
111786	M22-WRS-MS5-A1	Manufacturing													1
		Distribution													1
		Installation													1
		Use Phase													1
		End of life													1
		Module-D													1
111787	M22-WRS-MS6	Manufacturing													1
		Distribution													1
		Installation													1
		Use Phase													1
		End of life													1
		Module-D													1
111788	M22-WRS-MS7	Manufacturing													1
		Distribution													1
		Installation													1
		Use Phase													1

Product Number	Product Number	Phases	GWP (kg CO <sub>2</sub> eq.)	GWP-f (kg CO <sub>2</sub> eq.)	GWP-b (kg CO <sub>2</sub> eq.)	GWP-lu (kg CO <sub>2</sub> eq.)	ODP (kg CFC-11 eq.)	AP (mol H+ eq.)	EP-fw (kg P eq.)	EP-m (kg N eq.)	EP-t (mol N eq.)	POCP (kg NMVOC eq.)	ADP-e (kg Sb eq.)	ADP-f (MJ)	WDP (m3 eq.)
		End of life													1
		Module-D													1
111789	M22-WRS-MS8	Manufacturing													1
		Distribution													1
		Installation													1
		Use Phase													1
		End of life													1
		Module-D													
216892	M22-WRS-SA(*)-*	Manufacturing													1
		Distribution													1
		Installation													1
		Use Phase													1
		End of life													1
		Module-D													
285537	M22-WRS-SA(*)-*-A8	Manufacturing													1
		Distribution													1
		Installation													1
		Use Phase													1
		End of life													1
		Module-D													
216881	M22-WS	Manufacturing													1
		Distribution													1
		Installation													1
		Use Phase													1
		End of life													1
		Module-D													
216894	M22-WS3	Manufacturing													1
		Distribution													1
		Installation													1
		Use Phase													1
		End of life													1
		Module-D													
216896	M22-WS3-MS*	Manufacturing													1
		Distribution													1
		Installation													1
		Use Phase													1
		End of life													1
		Module-D													
216898	M22-WS3-SA(*)-*	Manufacturing													1
		Distribution													1
		Installation													1
		Use Phase													1
		End of life													1
		Module-D													
216883	M22-WS-MS*	Manufacturing													1
		Distribution													1

Product Number	Product Number	Phases	GWP (kg CO <sub>2</sub> eq.)	GWP-f (kg CO <sub>2</sub> eq.)	GWP-b (kg CO <sub>2</sub> eq.)	GWP-lu (kg CO <sub>2</sub> eq.)	ODP (kg CFC-11 eq.)	AP (mol H+ eq.)	EP-fw (kg P eq.)	EP-m (kg N eq.)	EP-t (mol N eq.)	POCP (kg NMVOC eq.)	ADP-e (kg Sb eq.)	ADP-f (MJ)	WDP (m3 eq.)
		Installation	1												
		Use Phase	1												
		End of life	1												
		Module-D	1												
111790	M22-WS-MS2	Manufacturing	1												
		Distribution	1												
		Installation	1												
		Use Phase	1												
		End of life	1												
		Module-D	1												
111791	M22-WS-MS3	Manufacturing	1												
		Distribution	1												
		Installation	1												
		Use Phase	1												
		End of life	1												
		Module-D	1												
111792	M22-WS-MS5	Manufacturing	1												
		Distribution	1												
		Installation	1												
		Use Phase	1												
		End of life	1												
		Module-D	1												
216885	M22-WS-SA(*)-*	Manufacturing	1												
		Distribution	1												
		Installation	1												
		Use Phase	1												
		End of life	1												
		Module-D	1												
216902	M22-WRS3-GVP	Manufacturing	1												
		Distribution	1												
		Installation	1												
		Use Phase	1												
		End of life	1												
		Module-D	1												
147405	M22-WRS3-MS1-A10I	Manufacturing	1												
		Distribution	1												
		Installation	1												
		Use Phase	1												
		End of life	1												
		Module-D	1												
147406	M22-WRS3-MS1-A10IW	Manufacturing	1												
		Distribution	1												
		Installation	1												
		Use Phase	1												
		End of life	1												
		Module-D	1												


Product Number	Product Number	Phases	GWP (kg CO <sub>2</sub> eq.)	GWP-f (kg CO <sub>2</sub> eq.)	GWP-b (kg CO <sub>2</sub> eq.)	GWP-lu (kg CO <sub>2</sub> eq.)	ODP (kg CFC-11 eq.)	AP (mol H+ eq.)	EP-fw (kg P eq.)	EP-m (kg N eq.)	EP-t (mol N eq.)	POCP (kg NMVOC eq.)	ADP-e (kg Sb eq.)	ADP-f (MJ)	WDP (m3 eq.)	
151189	M22-WRS3-SONDRL	Manufacturing													1	
		Distribution														1
		Installation														1
		Use Phase														1
		End of life														1
		Module-D														1
262522	M22S-WRS*-MS*-*	Manufacturing													1	
		Distribution														1
		Installation														1
		Use Phase														1
		End of life														1
		Module-D														1
216901	M22S-WRS3	Manufacturing													1	
		Distribution														1
		Installation														1
		Use Phase														1
		End of life														1
		Module-D														1
229095	M22S-WRS3-A*	Manufacturing													1	
		Distribution														1
		Installation														1
		Use Phase														1
		End of life														1
		Module-D														1
216904	M22S-WRS3-MS*	Manufacturing													1	
		Distribution														1
		Installation														1
		Use Phase														1
		End of life														1
		Module-D														1
217443	M22S-WRS3-MS*-A*	Manufacturing													1	
		Distribution														1
		Installation														1
		Use Phase														1
		End of life														1
		Module-D														1
229093	M22S-WRS-A1	Manufacturing													1	
		Distribution														1
		Installation														1
		Use Phase														1
		End of life														1
		Module-D														1
216891	M22S-WRS-MS*	Manufacturing													1	
		Distribution														1
		Installation														1
		Use Phase														1

Product Number	Product Number	Phases	GWP (kg CO <sub>2</sub> eq.)	GWP-f (kg CO <sub>2</sub> eq.)	GWP-b (kg CO <sub>2</sub> eq.)	GWP-lu (kg CO <sub>2</sub> eq.)	ODP (kg CFC-11 eq.)	AP (mol H+ eq.)	EP-fw (kg P eq.)	EP-m (kg N eq.)	EP-t (mol N eq.)	POCP (kg NMVOC eq.)	ADP-e (kg Sb eq.)	ADP-f (MJ)	WDP (m3 eq.)	
		End of life													1	
		Module-D													1	
217441	M22S-WRS-MS*-A1	Manufacturing													1	
		Distribution													1	
		Installation														1
		Use Phase														1
		End of life														1
		Module-D														1
116299	M22S-WRS-MS*-A21-*	Manufacturing													1	
		Distribution													1	
		Installation														1
		Use Phase														1
		End of life														1
		Module-D														1
216887	M22-WRS	Manufacturing													1	
		Distribution													1	
		Installation														1
		Use Phase														1
		End of life														1
		Module-D														1
262521	M22-WRS*-MS*-*	Manufacturing													1	
		Distribution													1	
		Installation														1
		Use Phase														1
		End of life														1
		Module-D														1
216900	M22-WRS3	Manufacturing													1	
		Distribution													1	
		Installation														1
		Use Phase														1
		End of life														1
		Module-D														1
229094	M22-WRS3-A*	Manufacturing													1	
		Distribution													1	
		Installation														1
		Use Phase														1
		End of life														1
		Module-D														1
197926	M22-WRS3-A4	Manufacturing													1	
		Distribution													1	
		Installation														1
		Use Phase														1
		End of life														1
		Module-D														1
216903	M22-WRS3-MS*	Manufacturing													1	
		Distribution													1	

Product Number	Product Number	Phases	GWP (kg CO <sub>2</sub> eq.)	GWP-f (kg CO <sub>2</sub> eq.)	GWP-b (kg CO <sub>2</sub> eq.)	GWP-lu (kg CO <sub>2</sub> eq.)	ODP (kg CFC-11 eq.)	AP (mol H+ eq.)	EP-fw (kg P eq.)	EP-m (kg N eq.)	EP-t (mol N eq.)	POCP (kg NMVOC eq.)	ADP-e (kg Sb eq.)	ADP-f (MJ)	WDP (m3 eq.)		
		Installation														1	
		Use Phase															1
		End of life															1
		Module-D															1
217442	M22-WRS3-MS*-A*	Manufacturing														1	
		Distribution														1	
		Installation														1	
		Use Phase														1	
		End of life														1	
		Module-D														1	
229092	M22-WRS-A1	Manufacturing														1	
		Distribution														1	
		Installation														1	
		Use Phase														1	
		End of life														1	
		Module-D														1	
216888	M22-WRS-GVP	Manufacturing														1	
		Distribution														1	
		Installation														1	
		Use Phase														1	
		End of life														1	
		Module-D														1	
216890	M22-WRS-MS*	Manufacturing														1	
		Distribution														1	
		Installation														1	
		Use Phase														1	
		End of life														1	
		Module-D														1	
217440	M22-WRS-MS*-A1	Manufacturing														1	
		Distribution														1	
		Installation														1	
		Use Phase														1	
		End of life														1	
		Module-D														1	
116298	M22-WRS-MS*-A21-*	Manufacturing														1	
		Distribution														1	
		Installation														1	
		Use Phase														1	
		End of life														1	
		Module-D														1	
228026	M22-WRS-X95	Manufacturing														1	
		Distribution														1	
		Installation														1	
		Use Phase														1	
		End of life														1	
		Module-D														1	

## 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.

<i>Registration Number</i>	EATO-00336-VOR11.01-EN	<i>Drafting rules</i>	PCR-ed4-EN-2021 09 06
<i>Verifier accreditation Number</i>	VH56	Supplemented by	-
<i>Date of issue</i>	06-2025	<i>Information and reference documents</i>	<a href="http://www.pep-ecopassport.org">www.pep-ecopassport.org</a>
		<i>Validity period</i>	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)			
<i>PEPs are compliant with XP C08-100-1:2016 and EN 50693:2019</i> <i>The components of the present PEP may not be compared with components from any other program.</i>			
<i>Document complies with ISO 14025: 2006 « Environmental labels and declarations. Type III environmental declarations »</i>			