



FBHmV RCCB add-on unit

Representative product	FBHmV-125/4/1-S/A (170176) Product Category: Blocks and Differential Switches
Description of the product	Eaton Moeller series xEffect - FBHmV RCCB add-on unit is designed to detect and interrupt residual currents that pose a risk of electric shock or fire. By integrating a AZ Miniature Circuit Breaker (MCB) up to 125A, it provides additional protection against short circuits and overloads, ensuring a more comprehensive safety mechanism. This combination enhances the overall reliability and efficiency of the electrical installation process.
Homogeneous Environmental Families Covered	The PEP concerns following product offerings from Eaton Moeller series xEffect - FBHmV RCCB add-on unit as mentioned below: • Series: FBHmV • Rated Operational Current: 80A, 125A • Number of poles: 2, 4 • Rated fault current: 30mA, 300mA, 500mA, 1000mA • Leakage current type: A, AC, S/A
Functional unit	"Protect people and premises at risk of fire or explosion against insulation defects in a circuit with rated voltage 415 V, rated current 125 A, with 4 poles, sensitivity of 1000 mA, and the differential protection type S/A and if applicable the specific specifications, in the Household/Commercial or Industrial application area, according to the appropriate use scenario, and during the 20-year reference service life of the product."
Company information	Eaton elektrotechnika s.r.o, Suchdol nad Lužnicí 89, 378 06 Suchdol nad Lužnicí, Czechia Email: productstewardship-es@eaton.com

Constituent materials			
Reference product mass	1.35E+00kg (with packaging)		
Category pep material	Material constituent	Mass (kg)	% contribution
Metals	Copper	6.89E-01	50.9%
Others	Cardboard	1.85E-01	13.6%
Plastics	Polyamide 6 GF30	1.54E-01	11.4%
Metals	Stainless Steel	1.16E-01	8.6%
Metals	Steel	1.16E-01	8.5%
Other	Wood	3.50E-02	2.6%
Other	Electronics	3.25E-02	2.4%
Plastics	Polyamide 66 GF30	8.93E-03	0.7%
Plastics	Polyether sulfone (PES)	6.61E-03	0.5%
Metals	Ferronickel	3.14E-03	0.2%
Plastics	Polycarbonate	2.78E-03	0.2%
Plastics	Polyamide 6	1.34E-03	<0.1%
Others	Glass fiber	1.15E-03	<0.1%
Metals	Tin	9.67E-04	<0.1%
Metals	Silver	8.58E-04	<0.1%
Other	Miscellaneous	1.62E-03	<0.1%
Total		1.35E+00	100%

Substance Assessment

The representative product is compliant with the EU-RoHS Directive (2011/65/EU) with exemption and the product does contain Lead 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 Czech Republic 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 56.5% if it is properly dismantled prior to shredding. The rate is calculated based on "WEEE 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 v6.2.5-3 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	
Manufacturing Phase	The product is assembled as well as packed at Eaton facility in Czechia. Energy model used: Czech Republic
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 39.7 W at full load condition. For Industrial applications considering 50% of the loading rate and 30% of the use time rate, total losses are 521.65 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.	1.94E+02	7.97E+00	3.24E-01	6.04E-01	1.84E+02	1.64E+00	-1.92E+00
Climate change - fossil fuels (GWP-f)	kg CO2 eq.	1.94E+02	8.04E+00	3.24E-01	2.51E-01	1.84E+02	1.55E+00	-2.06E+00
Climate change – biogenics (GWP-b)	kg CO2 eq.	7.05E-01	-7.23E-02	0.00E+00	3.53E-01	3.38E-01	8.56E-02	1.46E-01
Climate change - land use and land use transformation (GWP-lu)	kg CO2 eq.	5.85E-06	4.45E-06	0.00E+00	0.00E+00	0.00E+00	1.40E-06	0.00E+00
Ozone depletion (ODP)	kg eq. CFC-11	2.04E-06	1.06E-06	4.97E-10	8.24E-09	8.91E-07	8.30E-08	-4.37E-07
Acidification (AP)	mole of H+ eq.	1.16E+00	1.97E-01	2.05E-03	8.70E-04	9.42E-01	1.38E-02	-7.40E-02

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.	4.29E-03	1.16E-03	1.22E-07	2.65E-06	4.84E-04	2.65E-03	-6.08E-06
Marine aquatic eutrophication (EP-m)	kg of N eq.	1.26E-01	7.95E-03	9.63E-04	3.02E-04	1.15E-01	1.80E-03	-1.89E-03
Terrestrial eutrophication (EP-t)	mole of N eq.	1.97E+00	9.05E-02	1.06E-02	2.21E-03	1.84E+00	2.37E-02	-2.09E-02
Photochemical ozone formation (POCP)	kg of NMVOC eq.	4.06E-01	3.62E-02	2.66E-03	5.49E-04	3.61E-01	5.88E-03	-1.08E-02
Depletion of abiotic resources – elements (ADPe)	kg eq. Sb	2.73E-03	2.58E-03	1.28E-08	1.49E-08	6.50E-05	8.59E-05	-1.07E-03
Depletion of abiotic resources - fossil fuels (ADP-f)	MJ	4.88E+03	1.79E+02	4.53E+00	2.42E+00	4.64E+03	5.40E+01	-4.80E+01
Water scarcity (WDP)	m3 of eq.. deprivation worldwide	2.71E+01	1.02E+01	1.23E-03	5.68E-02	1.41E+01	2.77E+00	-3.70E+00

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	1.24E+03	5.97E+00	6.04E-03	9.51E-01	1.23E+03	2.38E+00	-1.59E+00
Use of renewable primary energy resources used as raw materials	MJ	4.22E+00	4.22E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	-2.56E+00
Total use of renewable primary energy resources (primary energy and primary energy resources used as raw materials)	MJ	1.24E+03	1.02E+01	6.04E-03	9.51E-01	1.23E+03	2.38E+00	-4.15E+00
Use of non-renewable primary energy, excluding non-renewable primary energy resources used as raw materials	MJ	4.88E+03	1.75E+02	4.53E+00	2.42E+00	4.64E+03	5.40E+01	-4.76E+01
Use of non-renewable primary energy resources used as raw materials	MJ	4.44E+00	4.44E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	-3.47E-01

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
Total use of non-renewable primary energy resources (primary energy and primary energy resources used as raw materials)	MJ	4.88E+03	1.79E+02	4.53E+00	2.42E+00	4.64E+03	5.40E+01	-4.80E+01
Use of secondary materials	kg	2.55E-06	2.55E-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	6.37E-01	2.38E-01	2.87E-05	2.14E-03	3.31E-01	6.53E-02	-8.62E-02
Hazardous waste disposed of	kg	1.42E+02	1.32E+02	0.00E+00	1.50E-02	8.06E+00	1.65E+00	-5.65E+01
Non-hazardous waste disposed of	kg	3.67E+01	5.28E+00	1.14E-02	8.88E-02	3.10E+01	2.98E-01	-5.25E-01
Radioactive waste disposed of	kg	7.79E-03	5.90E-04	8.11E-06	1.21E-05	7.12E-03	5.62E-05	-2.44E-04
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	1.05E+00	2.83E-01	0.00E+00	1.63E-01	0.00E+00	6.02E-01	-4.52E-09
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	1.29E-02	0.00E+00	0.00E+00	1.29E-02	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.	9.16E-02	9.16E-02	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	9.04E-06	1.36E-06	1.67E-08	5.09E-09	7.58E-06	7.69E-08	-5.40E-07
Ionizing radiation, human health	kBq of U235 eq.	5.85E+02	2.96E+02	7.90E-04	2.42E+01	2.64E+02	2.41E-01	-1.43E+02
Ecotoxicity, fresh water	CTUe	7.69E+02	3.29E+02	2.12E-01	2.89E+00	3.47E+02	8.95E+01	-2.36E+01

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
Human toxicity, cancer effects	CTUh	5.43E-03	5.43E-03	5.70E-12	1.91E-08	2.31E-08	2.86E-08	-7.17E-07
Human toxicity, non-cancer effects	CTUh	3.12E-06	2.35E-06	1.10E-10	7.21E-10	5.52E-07	2.13E-07	-9.45E-07
Impacts related to land use/soil quality	-	1.65E+01	3.44E+00	0.00E+00	3.17E-04	5.09E+00	8.01E+00	-9.22E-07
Total use of primary energy during the life cycle	MJ	6.12E+03	1.90E+02	4.53E+00	3.37E+00	5.87E+03	5.64E+01	-5.21E+01

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:

Part Number	Product Description	Phases	GWP (kg CO ₂ eq.)	GWP-f (kg CO ₂ eq.)	GWP-b (kg CO ₂ eq.)	GWP-lu (kg CO ₂ 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 ³ eq.)
170176	FBHBMV-125/4/1-S/A (Reference)	All Phases except Use Phase	1.00												
170252	FBHBMV-125/4/03	All Phases except Use Phase	1.00												
170254	FBHBMV-125/4/05	All Phases except Use Phase	1.00												
170256	FBHBMV-125/4/1	All Phases except Use Phase	1.00												
170136	FBHBMV-125/4/1-A	All Phases except Use Phase	1.00												
170132	FBHBMV-125/4/03-A	All Phases except Use Phase	1.00												

Part Number	Product Description	Phases	GWP (kg CO ₂ eq.)	GWP-f (kg CO ₂ eq.)	GWP-b (kg CO ₂ eq.)	GWP-lu (kg CO ₂ 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 ³ eq.)
170130	FBHBMV-125/4/003-A	All Phases except Use Phase	1.00												
170172	FBHBMV-125/4/03-S/A	All Phases except Use Phase	1.00												
170134	FBHBMV-125/4/05-A	All Phases except Use Phase	1.00												
170174	FBHBMV-125/4/05-S/A	All Phases except Use Phase	1.00												
170250	FBHBMV-125/4/003	All Phases except Use Phase	1.00												
170266	FBHBMV-80/2/003	Manufacturing	0.61	0.63	2.54	0.93	0.58	0.55	0.51	0.64	0.63	0.60	0.73	0.63	0.55
		Distribution	0.64	0.64	1.00	1.00	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64
		Installation	1.02	1.06	1.00	1.00	1.08	1.06	1.10	1.06	1.04	1.05	1.08	1.05	1.10
		End of Life	0.56	0.56	0.51	0.52	0.47	0.51	0.52	0.49	0.48	0.50	0.52	0.60	0.57
		Module D	0.58	0.63	1.30	1.00	0.55	0.53	0.84	0.65	0.63	0.58	0.72	0.64	0.54
170257	FBHBMV-80/2/003-A	Manufacturing	0.61	0.63	2.54	0.93	0.58	0.55	0.51	0.64	0.63	0.60	0.73	0.63	0.55
		Distribution	0.64	0.64	1.00	1.00	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64
		Installation	1.02	1.06	1.00	1.00	1.08	1.06	1.10	1.06	1.04	1.05	1.08	1.05	1.10
		End of Life	0.56	0.56	0.51	0.52	0.47	0.51	0.52	0.49	0.48	0.50	0.52	0.60	0.57
		Module D	0.58	0.63	1.30	1.00	0.55	0.53	0.84	0.65	0.63	0.58	0.72	0.64	0.54
170243	FBHBMV-80/2/03	Manufacturing	0.61	0.63	2.54	0.93	0.58	0.55	0.51	0.64	0.63	0.60	0.73	0.63	0.55
		Distribution	0.64	0.64	1.00	1.00	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64
		Installation	1.02	1.06	1.00	1.00	1.08	1.06	1.10	1.06	1.04	1.05	1.08	1.05	1.10
		End of Life	0.56	0.56	0.51	0.52	0.47	0.51	0.52	0.49	0.48	0.50	0.52	0.60	0.57
		Module D	0.58	0.63	1.30	1.00	0.55	0.53	0.84	0.65	0.63	0.58	0.72	0.64	0.54
170259	FBHBMV-80/2/03-A	Manufacturing	0.61	0.63	2.54	0.93	0.58	0.55	0.51	0.64	0.63	0.60	0.73	0.63	0.55
		Distribution	0.64	0.64	1.00	1.00	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64
		Installation	1.02	1.06	1.00	1.00	1.08	1.06	1.10	1.06	1.04	1.05	1.08	1.05	1.10

Part Number	Product Description	Phases	GWP (kg CO ₂ eq.)	GWP-f (kg CO ₂ eq.)	GWP-b (kg CO ₂ eq.)	GWP-lu (kg CO ₂ 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 ³ eq.)
		End of Life	0.56	0.56	0.51	0.52	0.47	0.51	0.52	0.49	0.48	0.50	0.52	0.60	0.57
		Module D	0.58	0.63	1.30	1.00	0.55	0.53	0.84	0.65	0.63	0.58	0.72	0.64	0.54
170137	FBHBMV-80/2/03-S/A	Manufacturing	0.61	0.63	2.54	0.93	0.58	0.55	0.51	0.64	0.63	0.60	0.73	0.63	0.55
		Distribution	0.64	0.64	1.00	1.00	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64
		Installation	1.02	1.06	1.00	1.00	1.08	1.06	1.10	1.06	1.04	1.05	1.08	1.05	1.10
		End of Life	0.56	0.56	0.51	0.52	0.47	0.51	0.52	0.49	0.48	0.50	0.52	0.60	0.57
		Module D	0.58	0.63	1.30	1.00	0.55	0.53	0.84	0.65	0.63	0.58	0.72	0.64	0.54
170245	FBHBMV-80/2/05	Manufacturing	0.61	0.63	2.54	0.93	0.58	0.55	0.51	0.64	0.63	0.60	0.73	0.63	0.55
		Distribution	0.64	0.64	1.00	1.00	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64
		Installation	1.02	1.06	1.00	1.00	1.08	1.06	1.10	1.06	1.04	1.05	1.08	1.05	1.10
		End of Life	0.56	0.56	0.51	0.52	0.47	0.51	0.52	0.49	0.48	0.50	0.52	0.60	0.57
		Module D	0.58	0.63	1.30	1.00	0.55	0.53	0.84	0.65	0.63	0.58	0.72	0.64	0.54
170261	FBHBMV-80/2/05-A	Manufacturing	0.61	0.63	2.54	0.93	0.58	0.55	0.51	0.64	0.63	0.60	0.73	0.63	0.55
		Distribution	0.64	0.64	1.00	1.00	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64
		Installation	1.02	1.06	1.00	1.00	1.08	1.06	1.10	1.06	1.04	1.05	1.08	1.05	1.10
		End of Life	0.56	0.56	0.51	0.52	0.47	0.51	0.52	0.49	0.48	0.50	0.52	0.60	0.57
		Module D	0.58	0.63	1.30	1.00	0.55	0.53	0.84	0.65	0.63	0.58	0.72	0.64	0.54
170139	FBHBMV-80/2/05-S/A	Manufacturing	0.61	0.63	2.54	0.93	0.58	0.55	0.51	0.64	0.63	0.60	0.73	0.63	0.55
		Distribution	0.64	0.64	1.00	1.00	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64
		Installation	1.02	1.06	1.00	1.00	1.08	1.06	1.10	1.06	1.04	1.05	1.08	1.05	1.10
		End of Life	0.56	0.56	0.51	0.52	0.47	0.51	0.52	0.49	0.48	0.50	0.52	0.60	0.57
		Module D	0.58	0.63	1.30	1.00	0.55	0.53	0.84	0.65	0.63	0.58	0.72	0.64	0.54
170247	FBHBMV-80/2/1	Manufacturing	0.61	0.63	2.54	0.93	0.58	0.55	0.51	0.64	0.63	0.60	0.73	0.63	0.55
		Distribution	0.64	0.64	1.00	1.00	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64
		Installation	1.02	1.06	1.00	1.00	1.08	1.06	1.10	1.06	1.04	1.05	1.08	1.05	1.10
		End of Life	0.56	0.56	0.51	0.52	0.47	0.51	0.52	0.49	0.48	0.50	0.52	0.60	0.57
		Module D	0.58	0.63	1.30	1.00	0.55	0.53	0.84	0.65	0.63	0.58	0.72	0.64	0.54
170263	FBHBMV-80/2/1-A	Manufacturing	0.61	0.63	2.54	0.93	0.58	0.55	0.51	0.64	0.63	0.60	0.73	0.63	0.55
		Distribution	0.64	0.64	1.00	1.00	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64

Part Number	Product Description	Phases	GWP (kg CO ₂ eq.)	GWP-f (kg CO ₂ eq.)	GWP-b (kg CO ₂ eq.)	GWP-lu (kg CO ₂ 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 ³ eq.)
		Installation	1.02	1.06	1.00	1.00	1.08	1.06	1.10	1.06	1.04	1.05	1.08	1.05	1.10
		End of Life	0.56	0.56	0.51	0.52	0.47	0.51	0.52	0.49	0.48	0.50	0.52	0.60	0.57
		Module D	0.58	0.63	1.30	1.00	0.55	0.53	0.84	0.65	0.63	0.58	0.72	0.64	0.54
170141	FBHBMV-80/2/1-S/A	Manufacturing	0.61	0.63	2.54	0.93	0.58	0.55	0.51	0.64	0.63	0.60	0.73	0.63	0.55
		Distribution	0.64	0.64	1.00	1.00	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64
		Installation	1.02	1.06	1.00	1.00	1.08	1.06	1.10	1.06	1.04	1.05	1.08	1.05	1.10
		End of Life	0.56	0.56	0.51	0.52	0.47	0.51	0.52	0.49	0.48	0.50	0.52	0.60	0.57
		Module D	0.58	0.63	1.30	1.00	0.55	0.53	0.84	0.65	0.63	0.58	0.72	0.64	0.54
170242	FBHBMV-125/2/003	Manufacturing	0.61	0.63	2.54	0.93	0.58	0.55	0.51	0.64	0.63	0.60	0.73	0.63	0.55
		Distribution	0.64	0.64	1.00	1.00	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64
		Installation	1.02	1.06	1.00	1.00	1.08	1.06	1.10	1.06	1.04	1.05	1.08	1.05	1.10
		End of Life	0.56	0.56	0.51	0.52	0.47	0.51	0.52	0.49	0.48	0.50	0.52	0.60	0.57
		Module D	0.58	0.63	1.30	1.00	0.55	0.53	0.84	0.65	0.63	0.58	0.72	0.64	0.54
170258	FBHBMV-125/2/003-A	Manufacturing	0.61	0.63	2.54	0.93	0.58	0.55	0.51	0.64	0.63	0.60	0.73	0.63	0.55
		Distribution	0.64	0.64	1.00	1.00	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64
		Installation	1.02	1.06	1.00	1.00	1.08	1.06	1.10	1.06	1.04	1.05	1.08	1.05	1.10
		End of Life	0.56	0.56	0.51	0.52	0.47	0.51	0.52	0.49	0.48	0.50	0.52	0.60	0.57
		Module D	0.58	0.63	1.30	1.00	0.55	0.53	0.84	0.65	0.63	0.58	0.72	0.64	0.54
170244	FBHBMV-125/2/03	Manufacturing	0.61	0.63	2.54	0.93	0.58	0.55	0.51	0.64	0.63	0.60	0.73	0.63	0.55
		Distribution	0.64	0.64	1.00	1.00	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64
		Installation	1.02	1.06	1.00	1.00	1.08	1.06	1.10	1.06	1.04	1.05	1.08	1.05	1.10
		End of Life	0.56	0.56	0.51	0.52	0.47	0.51	0.52	0.49	0.48	0.50	0.52	0.60	0.57
		Module D	0.58	0.63	1.30	1.00	0.55	0.53	0.84	0.65	0.63	0.58	0.72	0.64	0.54
170260	FBHBMV-125/2/03-A	Manufacturing	0.61	0.63	2.54	0.93	0.58	0.55	0.51	0.64	0.63	0.60	0.73	0.63	0.55
		Distribution	0.64	0.64	1.00	1.00	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64
		Installation	1.02	1.06	1.00	1.00	1.08	1.06	1.10	1.06	1.04	1.05	1.08	1.05	1.10
		End of Life	0.56	0.56	0.51	0.52	0.47	0.51	0.52	0.49	0.48	0.50	0.52	0.60	0.57
		Module D	0.58	0.63	1.30	1.00	0.55	0.53	0.84	0.65	0.63	0.58	0.72	0.64	0.54
170138		Manufacturing	0.61	0.63	2.54	0.93	0.58	0.55	0.51	0.64	0.63	0.60	0.73	0.63	0.55

Part Number	Product Description	Phases	GWP (kg CO ₂ eq.)	GWP-f (kg CO ₂ eq.)	GWP-b (kg CO ₂ eq.)	GWP-lu (kg CO ₂ 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 ³ eq.)
	FBHBMV-125/2/03-S/A	Distribution	0.64	0.64	1.00	1.00	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64
		Installation	1.02	1.06	1.00	1.00	1.08	1.06	1.10	1.06	1.04	1.05	1.08	1.05	1.10
		End of Life	0.56	0.56	0.51	0.52	0.47	0.51	0.52	0.49	0.48	0.50	0.52	0.60	0.57
		Module D	0.58	0.63	1.30	1.00	0.55	0.53	0.84	0.65	0.63	0.58	0.72	0.64	0.54
170246	FBHBMV-125/2/05	Manufacturing	0.61	0.63	2.54	0.93	0.58	0.55	0.51	0.64	0.63	0.60	0.73	0.63	0.55
		Distribution	0.64	0.64	1.00	1.00	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64
		Installation	1.02	1.06	1.00	1.00	1.08	1.06	1.10	1.06	1.04	1.05	1.08	1.05	1.10
		End of Life	0.56	0.56	0.51	0.52	0.47	0.51	0.52	0.49	0.48	0.50	0.52	0.60	0.57
		Module D	0.58	0.63	1.30	1.00	0.55	0.53	0.84	0.65	0.63	0.58	0.72	0.64	0.54
170262	FBHBMV-125/2/05-A	Manufacturing	0.61	0.63	2.54	0.93	0.58	0.55	0.51	0.64	0.63	0.60	0.73	0.63	0.55
		Distribution	0.64	0.64	1.00	1.00	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64
		Installation	1.02	1.06	1.00	1.00	1.08	1.06	1.10	1.06	1.04	1.05	1.08	1.05	1.10
		End of Life	0.56	0.56	0.51	0.52	0.47	0.51	0.52	0.49	0.48	0.50	0.52	0.60	0.57
		Module D	0.58	0.63	1.30	1.00	0.55	0.53	0.84	0.65	0.63	0.58	0.72	0.64	0.54
170140	FBHBMV-125/2/05-S/A	Manufacturing	0.61	0.63	2.54	0.93	0.58	0.55	0.51	0.64	0.63	0.60	0.73	0.63	0.55
		Distribution	0.64	0.64	1.00	1.00	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64
		Installation	1.02	1.06	1.00	1.00	1.08	1.06	1.10	1.06	1.04	1.05	1.08	1.05	1.10
		End of Life	0.56	0.56	0.51	0.52	0.47	0.51	0.52	0.49	0.48	0.50	0.52	0.60	0.57
		Module D	0.58	0.63	1.30	1.00	0.55	0.53	0.84	0.65	0.63	0.58	0.72	0.64	0.54
170248	FBHBMV-125/2/1	Manufacturing	0.61	0.63	2.54	0.93	0.58	0.55	0.51	0.64	0.63	0.60	0.73	0.63	0.55
		Distribution	0.64	0.64	1.00	1.00	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64
		Installation	1.02	1.06	1.00	1.00	1.08	1.06	1.10	1.06	1.04	1.05	1.08	1.05	1.10
		End of Life	0.56	0.56	0.51	0.52	0.47	0.51	0.52	0.49	0.48	0.50	0.52	0.60	0.57
		Module D	0.58	0.63	1.30	1.00	0.55	0.53	0.84	0.65	0.63	0.58	0.72	0.64	0.54
170264	FBHBMV-125/2/1-A	Manufacturing	0.61	0.63	2.54	0.93	0.58	0.55	0.51	0.64	0.63	0.60	0.73	0.63	0.55
		Distribution	0.64	0.64	1.00	1.00	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64
		Installation	1.02	1.06	1.00	1.00	1.08	1.06	1.10	1.06	1.04	1.05	1.08	1.05	1.10
		End of Life	0.56	0.56	0.51	0.52	0.47	0.51	0.52	0.49	0.48	0.50	0.52	0.60	0.57
		Module D	0.58	0.63	1.30	1.00	0.55	0.53	0.84	0.65	0.63	0.58	0.72	0.64	0.54

Part Number	Product Description	Phases	GWP (kg CO ₂ eq.)	GWP-f (kg CO ₂ eq.)	GWP-b (kg CO ₂ eq.)	GWP-lu (kg CO ₂ 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 ³ eq.)
170170	FBHBMV-125/2/1-S/A	Manufacturing	0.61	0.63	2.54	0.93	0.58	0.55	0.51	0.64	0.63	0.60	0.73	0.63	0.55
		Distribution	0.64	0.64	1.00	1.00	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64
		Installation	1.02	1.06	1.00	1.00	1.08	1.06	1.10	1.06	1.04	1.05	1.08	1.05	1.10
		End of Life	0.56	0.56	0.51	0.52	0.47	0.51	0.52	0.49	0.48	0.50	0.52	0.60	0.57
		Module D	0.58	0.63	1.30	1.00	0.55	0.53	0.84	0.65	0.63	0.58	0.72	0.64	0.54
170251	FBHBMV-80/4/03	Manufacturing	0.61	0.63	2.54	0.93	0.58	0.55	0.51	0.64	0.63	0.60	0.73	0.63	0.55
		Distribution	0.64	0.64	1.00	1.00	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64
		Installation	1.02	1.06	1.00	1.00	1.08	1.06	1.10	1.06	1.04	1.05	1.08	1.05	1.10
		End of Life	0.56	0.56	0.51	0.52	0.47	0.51	0.52	0.49	0.48	0.50	0.52	0.60	0.57
		Module D	0.58	0.63	1.30	1.00	0.55	0.53	0.84	0.65	0.63	0.58	0.72	0.64	0.54
170173	FBHBMV-80/4/05-S/A	Manufacturing	0.82	0.84	2.46	0.94	3.64	0.60	0.54	0.81	0.79	0.72	0.78	0.84	0.60
		Distribution	0.76	0.76	1.00	1.00	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76
		Installation	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
		End of Life	0.70	0.71	0.54	0.54	0.52	0.59	0.54	0.61	0.58	0.62	0.54	0.87	0.62
		Module D	0.73	0.77	1.26	1.00	0.70	0.57	0.91	0.73	0.71	0.65	0.79	0.81	0.59
170171	FBHBMV-80/4/03-S/A	Manufacturing	0.82	0.84	2.46	0.94	3.64	0.60	0.54	0.81	0.79	0.72	0.78	0.84	0.60
		Distribution	0.76	0.76	1.00	1.00	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76
		Installation	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
		End of Life	0.70	0.71	0.54	0.54	0.52	0.59	0.54	0.61	0.58	0.62	0.54	0.87	0.62
		Module D	0.73	0.77	1.26	1.00	0.70	0.57	0.91	0.73	0.71	0.65	0.79	0.81	0.59
170131	FBHBMV-80/4/03-A	Manufacturing	0.82	0.84	2.46	0.94	3.64	0.60	0.54	0.81	0.79	0.72	0.78	0.84	0.60
		Distribution	0.76	0.76	1.00	1.00	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76
		Installation	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
		End of Life	0.70	0.71	0.54	0.54	0.52	0.59	0.54	0.61	0.58	0.62	0.54	0.87	0.62
		Module D	0.73	0.77	1.26	1.00	0.70	0.57	0.91	0.73	0.71	0.65	0.79	0.81	0.59
170253	FBHBMV-80/4/05	Manufacturing	0.82	0.84	2.46	0.94	3.64	0.60	0.54	0.81	0.79	0.72	0.78	0.84	0.60
		Distribution	0.76	0.76	1.00	1.00	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76
		Installation	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
		End of Life	0.70	0.71	0.54	0.54	0.52	0.59	0.54	0.61	0.58	0.62	0.54	0.87	0.62

Part Number	Product Description	Phases	GWP (kg CO ₂ eq.)	GWP-f (kg CO ₂ eq.)	GWP-b (kg CO ₂ eq.)	GWP-lu (kg CO ₂ 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 ³ eq.)
		Module D	0.73	0.77	1.26	1.00	0.70	0.57	0.91	0.73	0.71	0.65	0.79	0.81	0.59
170133	FBHMV-80/4/05-A	Manufacturing	0.82	0.84	2.46	0.94	3.64	0.60	0.54	0.81	0.79	0.72	0.78	0.84	0.60
		Distribution	0.76	0.76	1.00	1.00	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76
		Installation	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
		End of Life	0.70	0.71	0.54	0.54	0.52	0.59	0.54	0.61	0.58	0.62	0.54	0.87	0.62
		Module D	0.73	0.77	1.26	1.00	0.70	0.57	0.91	0.73	0.71	0.65	0.79	0.81	0.59
170255	FBHMV-80/4/1	Manufacturing	0.82	0.84	2.46	0.94	3.64	0.60	0.54	0.81	0.79	0.72	0.78	0.84	0.60
		Distribution	0.76	0.76	1.00	1.00	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76
		Installation	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
		End of Life	0.70	0.71	0.54	0.54	0.52	0.59	0.54	0.61	0.58	0.62	0.54	0.87	0.62
		Module D	0.73	0.77	1.26	1.00	0.70	0.57	0.91	0.73	0.71	0.65	0.79	0.81	0.59
170135	FBHMV-80/4/1-A	Manufacturing	0.82	0.84	2.46	0.94	3.64	0.60	0.54	0.81	0.79	0.72	0.78	0.84	0.60
		Distribution	0.76	0.76	1.00	1.00	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76
		Installation	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
		End of Life	0.70	0.71	0.54	0.54	0.52	0.59	0.54	0.61	0.58	0.62	0.54	0.87	0.62
		Module D	0.73	0.77	1.26	1.00	0.70	0.57	0.91	0.73	0.71	0.65	0.79	0.81	0.59
170175	FBHMV-80/4/1-S/A	Manufacturing	0.82	0.84	2.46	0.94	3.64	0.60	0.54	0.81	0.79	0.72	0.78	0.84	0.60
		Distribution	0.76	0.76	1.00	1.00	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76
		Installation	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
		End of Life	0.70	0.71	0.54	0.54	0.52	0.59	0.54	0.61	0.58	0.62	0.54	0.87	0.62
		Module D	0.73	0.77	1.26	1.00	0.70	0.57	0.91	0.73	0.71	0.65	0.79	0.81	0.59
170249	FBHMV-80/4/003	Manufacturing	0.82	0.84	2.46	0.94	3.64	0.60	0.54	0.81	0.79	0.72	0.78	0.84	0.60
		Distribution	0.76	0.76	1.00	1.00	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76
		Installation	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
		End of Life	0.70	0.71	0.54	0.54	0.52	0.59	0.54	0.61	0.58	0.62	0.54	0.87	0.62
		Module D	0.73	0.77	1.26	1.00	0.70	0.57	0.91	0.73	0.71	0.65	0.79	0.81	0.59
170265	FBHMV-80/4/003-A	Manufacturing	0.82	0.84	2.46	0.94	3.64	0.60	0.54	0.81	0.79	0.72	0.78	0.84	0.60
		Distribution	0.76	0.76	1.00	1.00	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76
		Installation	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Part Number	Product Description	Phases	GWP (kg CO ₂ eq.)	GWP-f (kg CO ₂ eq.)	GWP-b (kg CO ₂ eq.)	GWP-lu (kg CO ₂ 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 ³ eq.)
		End of Life	0.70	0.71	0.54	0.54	0.52	0.59	0.54	0.61	0.58	0.62	0.54	0.87	0.62
		Module D	0.73	0.77	1.26	1.00	0.70	0.57	0.91	0.73	0.71	0.65	0.79	0.81	0.59

Multiplying Factors for Use Phase for homogenous products:

Part Number	Description	Use Phase
170176	FBHMOV-125/4/1-S/A (Reference)	1.00
170252	FBHMOV-125/4/03	1.00
170254	FBHMOV-125/4/05	1.00
170256	FBHMOV-125/4/1	1.00
170136	FBHMOV-125/4/1-A	1.00
170132	FBHMOV-125/4/03-A	1.00
170130	FBHMOV-125/4/003-A	1.00
170172	FBHMOV-125/4/03-S/A	1.00
170134	FBHMOV-125/4/05-A	1.00
170174	FBHMOV-125/4/05-S/A	1.00
170250	FBHMOV-125/4/003	1.00
170266	FBHMOV-80/2/003	0.12
170257	FBHMOV-80/2/003-A	0.12
170243	FBHMOV-80/2/03	0.12
170259	FBHMOV-80/2/03-A	0.12
170137	FBHMOV-80/2/03-S/A	0.12
170245	FBHMOV-80/2/05	0.12
170261	FBHMOV-80/2/05-A	0.12
170139	FBHMOV-80/2/05-S/A	0.12
170247	FBHMOV-80/2/1	0.12
170263	FBHMOV-80/2/1-A	0.12
170141	FBHMOV-80/2/1-S/A	0.12
170242	FBHMOV-125/2/003	0.66
170258	FBHMOV-125/2/003-A	0.66
170244	FBHMOV-125/2/03	0.66
170260	FBHMOV-125/2/03-A	0.66
170138	FBHMOV-125/2/03-S/A	0.66
170246	FBHMOV-125/2/05	0.66

Part Number	Description	Use Phase
170262	FBHMOV-125/2/05-A	0.66
170140	FBHMOV-125/2/05-S/A	0.66
170248	FBHMOV-125/2/1	0.66
170264	FBHMOV-125/2/1-A	0.66
170170	FBHMOV-125/2/1-S/A	0.66
170251	FBHMOV-80/4/03	0.18
170173	FBHMOV-80/4/05-S/A	0.18
170171	FBHMOV-80/4/03-S/A	0.18
170131	FBHMOV-80/4/03-A	0.18
170253	FBHMOV-80/4/05	0.18
170133	FBHMOV-80/4/05-A	0.18
170255	FBHMOV-80/4/1	0.18
170135	FBHMOV-80/4/1-A	0.18
170175	FBHMOV-80/4/1-S/A	0.18
170249	FBHMOV-80/4/003	0.18
170265	FBHMOV-80/4/003-A	0.18

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.

Registration Number	EATO-00315-V01.01-EN	Drafting rules	PCR-ed4-EN-2021 09 06
Verifier accreditation Number	VH53	Supplemented by	PSR-0005-ed3.1-EN-2023 12 08
Date of issue	03-2025	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 »			