



BCM Modular Fuse Blocks (Terminal Type 10-32 Phil-Slot Screw)

Representative product	BCM603-3S (CC Fuse Block W/ Screw - 3 Pole)
Description of the product	<p>BCM Modular Fuse Blocks (Terminal Type 10-32 Phil-slot screw) are available in 1, 2 & 3 pole configurations. These blocks are fully modular with a snap-together design that provides toolless assembly of multiple pole blocks at point-of-use to reduce inventory and save assembly time and labor. These are compact designs which consumes minimal panel space.</p> <p>These are UL Listed E14853 – IZLT, CSA Certified 47235-6225-01 and compliant with UL 94V0 standard. The offerings have ratings of Volts 600 Vac/dc, Amps 30 A and SCCR up to 200 kA which is limited by fuse interrupting rating.</p>
Homogeneous Environmental Families Covered	<p>The PEP concerns following product offerings from the fuse blocks family as mentioned below:</p> <p>BCM603-3S (Representative product)</p> <p>BCM603-2S</p> <p>BCM603-1S</p>
Functional unit	Hold a fuse during 20 years of operation while ensuring flammability rating of UL 94V0 standard.
Company information	<p>Eaton Bussmann S. de R. L de C.V., Circuit Protection Division, Prolongacion Hermanos, Escobar, 7750 Partido Manuel Doblado, Cd. Juarez, Chih. Mexico 32310.</p> <p>Email: productstewardship-es@eaton.com</p>

Constituent Materials			
Reference product mass	1.09E-01kg (including packaging)		
Category PEP Material	Materials	Mass (kg)	Percentage (%)
Plastics	Polycarbonate	4.20E-02	38%
Metals	Steel	3.37E-02	31%
Others	Cardboard	2.27E-02	21%
Metals	Copper	4.80E-03	4.00%
Others	Glass Fibers	4.77E-03	4.00%
Others	Carbon Black	9.55E-04	1.00%
Others	Paper	3.33E-04	<0.01%
Metal	Zinc	8.33E-05	<0.01%
Others	Glue	4.10E-05	<0.01%
Metals	Silicon	2.56E-05	<0.01%
Total		1.09E-01	100%

Substance Assessment

The representative product is compliant with the EU-RoHS Directive (2011/65/EU) without any exemption and the product doesn't contain any substance listed 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 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 of the product does not require any additional energy source and no waste other than the obsolete product packaging is generated during this step.
Use	The product does not have measurable power loss and maintenance during operation.
End of life	The recyclability rate of the overall product is 87% 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 v5.9.4 with database version CODDE-2022-01.	
Manufacturing Phase	The product is assembled as well as packed at Eaton Bussmann plant in Mexico. Energy model used: Europe
Distribution Phase	Distribution of the product in its packaging from the Eaton's last logistics platform to the installation place in USA is considered as per PCR rules.
Installation Phase	Product is installed in USA. Only treatment of packaging waste is considered in this phase. Energy model used for treatment of packaging: Europe
Use Phase	Reference lifetime: 20 Years (assumed) Usage profile: No power losses by the product during its useful life. Also, product do not require any maintenance/replacement during useful life.
End of life Phase	Product disposed with WEEE guidelines. Energy model used: Europe

Environmental Impact Indicators: Mandatory

Environmental impact indicators	Units	Total	Manufacturing (A1-A3)	Distribution (A4)	Installation (A5)	Use (B1-B7)	End of Life (C1-C4)
Resource use, minerals and metals (ADPe)	kg Sb eq.	1.02E-05	9.22E-06	9.07E-10	9.16E-10	0.00E+00	9.52E-07
Resource use, fossils (ADPf)	MJ	2.34E+01	1.52E+01	3.21E-01	2.91E-01	0.00E+00	7.63E+00
Acidification Potential (AP)	mole of H ⁺ eq.	3.85E-03	2.84E-03	1.46E-04	1.16E-04	0.00E+00	7.55E-04
Eutrophication, freshwater (EpF)	kg P eq.	3.53E-05	1.34E-06	8.64E-09	1.80E-07	0.00E+00	3.38E-05
Eutrophication marine (Epm)	kg N eq.	6.04E-04	3.66E-04	6.84E-05	4.83E-05	0.00E+00	1.21E-04
Eutrophication, terrestrial (Ept)	mol N eq.	6.20E-03	3.83E-03	7.50E-04	2.81E-04	0.00E+00	1.34E-03
Climate change-Total (GWP)	kg CO ₂ eq.	7.99E-01	5.88E-01	2.31E-02	4.28E-02	0.00E+00	1.44E-01
Climate change-Biogenic (GWPb)	kg CO ₂ eq.	1.17E-02	9.68E-03	0.00E+00	1.10E-03	0.00E+00	9.47E-04
Climate change-Fossil (GWPf)	kg CO ₂ eq.	7.87E-01	5.79E-01	2.31E-02	4.17E-02	0.00E+00	1.43E-01
Climate change-Land use and land use change (GWPlu)	kg CO ₂ eq.	1.58E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.58E-08
Ozone depletion (ODP)	kg CFC-11 eq.	4.00E-08	2.59E-08	3.53E-11	1.68E-09	0.00E+00	1.24E-08
Photochemical ozone formation - human health (POCP)	kg NMVOC eq.	2.13E-03	1.43E-03	1.89E-04	7.84E-05	0.00E+00	4.31E-04
Water use (WU)	m ³ eq.	3.38E-01	2.52E-01	8.75E-05	1.07E-02	0.00E+00	7.47E-02

Inventory Flow Indicators: Mandatory

Inventory flow indicators	Units	Total	Manufacturing (A1-A3)	Distribution (A4)	Installation (A5)	Use (B1-B7)	End of Life (C1-C4)
Use of renewable primary energy excluding renewable primary energy used as raw material	MJ	1.48E-01	6.65E-02	4.29E-04	1.85E-02	0.00E+00	6.25E-02
Use of renewable primary energy resources used as raw material	MJ	7.35E-02	7.35E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Total use of renewable primary energy resources	MJ	2.21E-01	1.40E-01	4.29E-04	1.85E-02	0.00E+00	6.25E-02
Use of non renewable primary energy excluding non renewable primary energy used as raw material	MJ	2.16E+01	1.33E+01	3.21E-01	2.91E-01	0.00E+00	7.63E+00
Use of non renewable primary energy resources used as raw material	MJ	1.87E+00	1.87E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Total use of non-renewable primary energy resources	MJ	2.34E+01	1.52E+01	3.21E-01	2.91E-01	0.00E+00	7.63E+00
Use of secondary material	kg	1.86E-02	1.86E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of renewable secondary fuels	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of non renewable secondary fuels	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Net use of freshwater	m ³	7.86E-03	5.87E-03	2.04E-06	2.50E-04	0.00E+00	1.74E-03
Components for reuse	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Materials for recycling	kg	9.51E-02	0.00E+00	0.00E+00	1.36E-02	0.00E+00	8.15E-02
Materials for energy recovery	kg	2.09E-03	0.00E+00	0.00E+00	1.61E-03	0.00E+00	4.77E-04
Exported Energy	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Hazardous waste disposed	kg	8.45E-01	8.45E-01	0.00E+00	3.01E-04	0.00E+00	4.12E-05
Non hazardous waste disposed	kg	5.68E-01	3.69E-01	8.09E-04	9.01E-02	0.00E+00	1.08E-01
Radioactive waste disposed	kg	2.53E-04	1.57E-04	5.76E-07	1.09E-05	0.00E+00	8.43E-05
Biogenic carbon content of the product	kg C	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Biogenic carbon content of the associated packaging	kg C	6.45E-03	6.45E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Environmental Impact Indicators: Optional

Environmental impact indicators	Units	Total	Manufacturing (A1-A3)	Distribution (A4)	Installation (A5)	Use (B1-B7)	End of Life (C1-C4)
Ecotoxicity, freshwater	CTUe	9.05E+00	5.03E+00	1.55E-02	2.59E-01	0.00E+00	3.74E+00
Human toxicity, cancer	CTUh-c	1.99E-07	1.29E-07	4.05E-13	8.87E-09	0.00E+00	6.17E-08
Human toxicity, non-cancer	CTUh-nc	2.50E-08	2.03E-08	4.38E-11	1.66E-10	0.00E+00	4.50E-09
Ionising radiation, human health	kBq U235 eq.	2.54E+00	2.53E+00	5.61E-05	1.17E-03	0.00E+00	9.97E-03
Land use	--	8.72E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.72E-02
EF-particulate Matter	Disease occurrence	2.42E-08	1.74E-08	1.19E-09	7.97E-10	0.00E+00	4.87E-09
Total Primary Energy	MJ	2.37E+01	1.53E+01	3.22E-01	3.09E-01	0.00E+00	7.69E+00


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

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

Products	Mandatory environmental impact indicators	ADPe	ADPf	AP	Epf	Epm	Ept	GWP	GWPb	GWPf	GWPfu	ODP	POCP	WU
		(kg Sb eq.)	(MJ)	(mol H+ eq.)	(kg P eq.)	(kg N eq.)	(mol N eq.)	(kg CO ₂ eq.)	(kg CO ₂ eq.)	(kg CO ₂ eq.)	(kg CO ₂ eq.)	(kg CFC-11)	(kg NMVOC eq.)	(m ³ eq.)
BCM603-3S (Reference)	All Phases	1.00												
BCM603-2S	Manufacturing	1.00	0.67	0.81	0.76	0.70	0.69	0.69	0.99	0.69	1.00	0.74	0.70	0.95
	Distribution	0.75	0.75	0.75	0.75	0.75	0.75	0.75	1.00	0.75	1.00	0.75	0.75	0.75
	Installation	1.00												
	Use	1.00												
	End of Life	1.00	0.67	0.72	1.00	0.72	0.72	0.68	1.00	0.68	1.00	0.68	0.71	0.78
BCM603-1S	Manufacturing	0.50	0.36	0.43	0.47	0.39	0.37	0.38	0.77	0.37	1.00	0.39	0.38	0.68
	Distribution	0.47	0.47	0.47	0.47	0.47	0.47	0.47	1.00	0.47	1.00	0.47	0.47	0.47
	Installation	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	1.00	0.83	0.83	0.83
	Use	1.00												
	End of Life	0.50	0.36	0.38	0.50	0.39	0.39	0.36	0.50	0.36	0.50	0.34	0.38	0.40

Disclaimer

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Verifier accreditation N°	VH47	Supplemented by	--
Date of issue	04-2023	Information and reference documents	www.pep-ecopassport.org
		Validity period	5 years
Independent verification of the declaration and data, in compliance with ISO 14025: 2010			
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 or EN 50693:2019			
The components of the present PEP may not be compared with components from any other program.			
Document in compliance with ISO 14025: 2010 « Environmental labels and declarations. Type III environmental declarations »			