Product Environmental Profile

TeSys Vario enclosed emergency switch disconnector, 63A







General information

Reference product	TeSys Vario enclosed emergency switch disconnector, 63A - VCF4GE
Description of the product	TeSys Vario rotary switch disconnectors act as machine circuit load breakers and can be used for the manual stopping and starting of motors
Description of the range	Single product
Functional unit	Turn off all or part of an installation by separating the installation or part of the installation of all electrical energy or earth, for safety reasons with a rated voltage U, and rated current In ensuring isolation characterised by a rated voltage Ui, and if applicable the specific specifications, according to the appropriate use scenario, and during the reference service life of the product of 20 years.
Specifications are:	U = 690 (V) In = 63 (A) Ui = 690 (V) Current type: AC/DC

<u>&</u>

Constituent materials

Reference product mass 1035 g including the product, its packaging and additional elements and accessories UP Polyester - 1,5% ABS Acrylonitrile Butadiene Styrene - 0,1% PA Polyamide - 15,2% Steel - 9,8% Brass - 4,6% Stainless steel - 2% Copper - 0,9% Cardboard - 14% PC Polycarbonate - 51%. Paper - 0,8% Plastics 67.80% Metals 17.40%

0thers 14.80%

Substance assessment

Details of ROHS and REACH substances information are available on the Schneider-Electric Green Premium website https://www.se.com/ww/en/work/support/green-premium/

(1) Additional environmental information

End Of Life

Recyclability potential:

20%

The recyclability rate was calculated from the recycling rates of each material making up the product with the exception of data using the ESR database. For materials or components using the ESR database or the absence of data the conservative hypothesis "0% recyclability" was used.



Reference service life time	20 years) years									
Product category	Disconnectors - Low voltage	sconnectors - Low voltage									
Installation elements	Ref VCF4GE does not require any installation or	perations.									
Use scenario	Load rate = 50 % In Use rate (closed device) = 30 % RLT										
Time representativeness	The collected data are representative of the yea	The collected data are representative of the year 2023									
Technological representativeness	The Modules of Technologies such as material p										
Geographical representativeness	France	France									
	[A1 - A3]	[A5]	[B6]	[C1 - C4]							
Energy model used	Electricity Mix; Low voltage; 2018; Czech Republic, CZ	Electricity Mix; Low voltage; 2018; France, FR	Electricity Mix; Low voltage; 2018; France, FR	Electricity Mix; Low voltage; 2018; France, FR							

Detailed results of the optional indicators mentioned in PCRed4 are available in the LCA report and on demand in a digital format - Country Customer Care Center - http://www.schneider-electric.com/contact

Mandatory Indicators		TeSys Vario enclosed emergency switch disconnector, 63A - VCF4GE									
Impact indicators	Unit	Total (without Module D)	[A1 - A3] - Manufacturing	[A4] - Distribution	[A5] - Installation	[B1 - B7] - Use	[C1 - C4] - End of life	[D] - Benefits and loads			
Contribution to climate change	kg CO2 eq	2.15E+01	5.44E+00	2.02E-01	1.64E-01	1.34E+01	2.26E+00	-8.64E-01			
Contribution to climate change-fossil	kg CO2 eq	2.12E+01	5.22E+00	2.02E-01	1.56E-01	1.34E+01	2.26E+00	-8.41E-01			
Contribution to climate change-biogenic	kg CO2 eq	2.73E-01	2.28E-01	0*	8.15E-03	3.46E-02	2.57E-03	-2.33E-02			
Contribution to climate change-land use and land use change	kg CO2 eq	7.70E-04	7.70E-04	0*	0*	0*	0*	0.00E+00			
Contribution to ozone depletion	kg CFC-11 eq	4.91E-07	2.88E-07	3.09E-10	2.20E-09	1.98E-07	2.65E-09	-1.43E-07			
Contribution to acidification	mol H+ eq	1.08E-01	2.53E-02	1.28E-03	4.95E-04	7.78E-02	3.09E-03	-6.13E-03			
Contribution to eutrophication, freshwater	kg (PO4) ³⁻ eq	8.11E-04	1.11E-04	0*	3.02E-06	6.39E-04	5.81E-05	-3.91E-06			
Contribution to eutrophication marine	kg N eq	1.63E-02	3.86E-03	5.98E-04	2.13E-04	1.07E-02	8.77E-04	-6.58E-04			
Contribution to eutrophication, terrestrial	mol N eq	2.12E-01	3.99E-02	6.56E-03	1.49E-03	1.54E-01	1.00E-02	-6.73E-03			
Contribution to photochemical ozone formation - human health	kg COVNM eq	4.97E-02	1.33E-02	1.66E-03	3.38E-04	3.17E-02	2.77E-03	-2.27E-03			
Contribution to resource use, minerals and metals	kg Sb eq	2.38E-04	2.30E-04	0*	0*	6.36E-06	1.84E-06	-1.82E-04			
Contribution to resource use, fossils	MJ	2.73E+03	1.10E+02	2.81E+00	1.69E+00	2.58E+03	3.63E+01	-1.54E+01			
Contribution to water use	m3 eq	2.50E+00	1.14E+00	7.65E-04	1.25E-02	9.73E-01	3.67E-01	-3.88E-01			

Inventory flows Indicators			TeSys Vario e	enclosed emerge	ency switch dis	connector, 63A -	VCF4GE	
Inventory flows	Unit	Total (without Module D)	[A1 - A3] - Manufacturing	[A4] - Distribution	[A5] - Installation	[B1 - B7] - Use	[C1 - C4] - End of life	[D] - Benefits and loads
Contribution to use of renewable primary energy excluding renewable primary energy used as raw material	MJ	2.44E+02	5.11E+00	0*	2.23E-01	2.38E+02	5.72E-02	4.10E-01
Contribution to use of renewable primary energy resources used as raw material	MJ	3.00E+00	3.00E+00	0*	0*	0*	0*	-2.38E+00
Contribution to total use of renewable primary energy resources	MJ	2.47E+02	8.11E+00	0*	2.23E-01	2.38E+02	5.72E-02	-1.97E+00
Contribution to use of non renewable primary energy excluding non renewable primary energy used as raw material	MJ	2.71E+03	8.75E+01	2.81E+00	1.69E+00	2.58E+03	3.63E+01	-1.54E+01
Contribution to use of non renewable primary energy resources used as raw material	MJ	2.23E+01	2.23E+01	0*	0*	0*	0*	0.00E+00
Contribution to total use of non-renewable primary energy resources	MJ	2.73E+03	1.10E+02	2.81E+00	1.69E+00	2.58E+03	3.63E+01	-1.54E+01
Contribution to use of secondary material	kg	0.00E+00	0*	0*	0*	0*	0*	0.00E+00
Contribution to use of renewable secondary fuels	MJ	0.00E+00	0*	0*	0*	0*	0*	0.00E+00
Contribution to use of non renewable secondary fuels	MJ	0.00E+00	0*	0*	0*	0*	0*	0.00E+00
Contribution to net use of freshwater	m³	6.72E-02	3.57E-02	1.78E-05	2.91E-04	2.27E-02	8.54E-03	-9.04E-03
Contribution to hazardous waste disposed	kg	1.82E+01	1.80E+01	0*	4.28E-03	2.00E-01	0*	-1.43E+01

Inventory flows Indicators	TeSys Vario enclosed emergency switch disconnector, 63A - VCF4GE									
Inventory flows	Unit	Total (without Module D)	[A1 - A3] - Manufacturing	[A4] - Distribution	[A5] - Installation	[B1 - B7] - Use	[C1 - C4] - End of life	[D] - Benefits and loads		
Contribution to non hazardous waste disposed	kg	6.63E+00	4.55E+00	7.07E-03	5.68E-02	1.29E+00	7.26E-01	-5.34E-01		
Contribution to radioactive waste disposed	kg	3.20E-03	2.62E-03	5.04E-06	8.83E-06	5.43E-04	2.78E-05	-2.44E-04		
Contribution to components for reuse	kg	0.00E+00	0*	0*	0*	0*	0*	0.00E+00		
Contribution to materials for recycling	kg	1.93E-01	2.51E-02	0*	0*	0*	1.67E-01	0.00E+00		
Contribution to materials for energy recovery	kg	0.00E+00	0*	0*	0*	0*	0*	0.00E+00		
Contribution to exported energy	MJ	7.45E-03	2.98E-03	0*	2.81E-03	0*	1.66E-03	0.00E+00		
* represents less than 0.01% of the total life cycle of the	* represents less than 0.01% of the total life cycle of the reference flow									

Contribution to biogenic carbon content of the product kg of C 0.00E+00

Contribution to biogenic carbon content of the associated packaging kg of C 4.13E-02

Mandatory Indicators	TeSys Vario enclosed emergency switch disconnector, 63A - VCF4GE									
Impact indicators	Unit	[B1 - B7] - Use	[B1]	[B2]	[B3]	[B4]	[B5]	[B6]	[B7]	
Contribution to climate change	kg CO2 eq	1.34E+01	0*	0*	0*	0*	0*	1.34E+01	0*	
Contribution to climate change-fossil	kg CO2 eq	1.34E+01	0*	0*	0*	0*	0*	1.34E+01	0*	
Contribution to climate change-biogenic	kg CO2 eq	3.46E-02	0*	0*	0*	0*	0*	3.46E-02	0*	
Contribution to climate change-land use and land use change	kg CO2 eq	0*	0*	0*	0*	0*	0*	0*	0*	
Contribution to ozone depletion	kg CFC-11 eq	1.98E-07	0*	0*	0*	0*	0*	1.98E-07	0*	
Contribution to acidification	mol H+ eq	7.78E-02	0*	0*	0*	0*	0*	7.78E-02	0*	
Contribution to eutrophication, freshwater	kg (PO4) ³⁻ eq	6.39E-04	0*	0*	0*	0*	0*	6.39E-04	0*	
Contribution to eutrophication marine	kg N eq	1.07E-02	0*	0*	0*	0*	0*	1.07E-02	0*	
Contribution to eutrophication, terrestrial	mol N eq	1.54E-01	0*	0*	0*	0*	0*	1.54E-01	0*	
Contribution to photochemical ozone formation - human health	kg COVNM eq	3.17E-02	0*	0*	0*	0*	0*	3.17E-02	0*	
Contribution to resource use, minerals and metals	kg Sb eq	6.36E-06	0*	0*	0*	0*	0*	6.36E-06	0*	
Contribution to resource use, fossils	MJ	2.58E+03	0*	0*	0*	0*	0*	2.58E+03	0*	
Contribution to water use	m3 eq	9.73E-01	0*	0*	0*	0*	0*	9.73E-01	0*	

Inventory flows Indicators			TeSy	ys Vario enclose	ed emerg	ency sw	itch disc	onnector, 63A ·	- VCF4GE
Inventory flows	Unit	[B1 - B7] - Use	[B1]	[B2]	[B3]	[B4]	[B5]	[B6]	[B7]
Contribution to use of renewable primary energy excluding renewable primary energy used as raw material	MJ	2.38E+02	0*	0*	0*	0*	0*	2.38E+02	0*
Contribution to use of renewable primary energy resources used as raw material	MJ	0*	0*	0*	0*	0*	0*	0*	0*
Contribution to total use of renewable primary energy resources	MJ	2.38E+02	0*	0*	0*	0*	0*	2.38E+02	0*
Contribution to use of non renewable primary energy excluding non renewable primary energy used as raw material	MJ	2.58E+03	0*	0*	0*	0*	0*	2.58E+03	0*
Contribution to use of non renewable primary energy resources used as raw material	MJ	0*	0*	0*	0*	0*	0*	0*	0*
Contribution to total use of non-renewable primary energy resources	MJ	2.58E+03	0*	0*	0*	0*	0*	2.58E+03	0*
Contribution to use of secondary material	kg	0*	0*	0*	0*	0*	0*	0*	0*
Contribution to use of renewable secondary fuels	MJ	0*	0*	0*	0*	0*	0*	0*	0*
Contribution to use of non renewable secondary fuels	MJ	0*	0*	0*	0*	0*	0*	0*	0*
Contribution to net use of freshwater	m³	2.27E-02	0*	0*	0*	0*	0*	2.27E-02	0*
Contribution to hazardous waste disposed	kg	2.00E-01	0*	0*	0*	0*	0*	2.00E-01	0*
Contribution to non hazardous waste disposed	kg	1.29E+00	0*	0*	0*	0*	0*	1.29E+00	0*
Contribution to radioactive waste disposed	kg	5.43E-04	0*	0*	0*	0*	0*	5.43E-04	0*
Contribution to components for reuse	kg	0*	0*	0*	0*	0*	0*	0*	0*
Contribution to materials for recycling	kg	0*	0*	0*	0*	0*	0*	0*	0*
Contribution to materials for energy recovery	kg	0*	0*	0*	0*	0*	0*	0*	0*
Contribution to exported energy	MJ	0*	0*	0*	0*	0*	0*	0*	0*

Life cycle assessment performed with EIME version v6.1, database version 2023-02 in compliance with ISO14044, EF 3.0 method is applied, for biogenic carbon storage, assessment methodology 0/0 is used

Please note that the values given above are only valid within the context specified and cannot be used directly to draw up the environmental assessment of an installation.

Registration number :		ENVPEP2211019_V3	Drafting rules	PCR-4-ed4-EN-2021 09 06						
			Supplemented by	PSR-0005-ed3.1-EN-2023 12 08						
Date of issue		09-2024	Information and reference documents	www.pep-ecopassport.org						
			Validity period	5 years						
Independent vei	rification of the ded	claration and data, in compliance with ISO 14021 : 2016								
Internal	Χ	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 or NF E38-500 :2022										
The components of the present PEP may not be compared with components from any other program.										

Document complies with ISO 14021:2016 "Environmental labels and declarations. Type II environmental declarations"

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^{*} represents less than 0.01% of the total life cycle of the reference flow