Product Environmental Profile

MOTORISED VALVE









General information

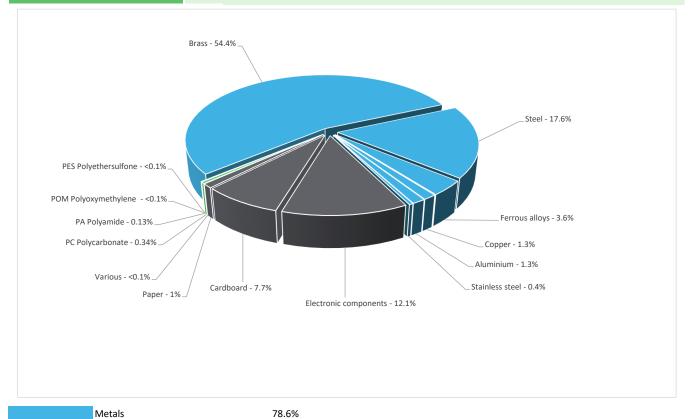
Reference product	MOTORISED VALVE - THD27101
Description of the product	The main function of this motorised valve is to use electrical powered synchronous motor to direct the water in central heating systems.
Description of the range	Single product
Functional unit	Regulate the flow of fluid by using an electric motor by opening or closing the channels, operating at a rated current In and a rated voltage U over a reference lifetime of 10 years.
Specifications are:	Rated current [In] = 3A Rated voltage [U] = 240V. Degree of protection against the ingress of solid foreign objects and water with harmful effects in accordance with the standard IEC 60529 = IP20



Constituent materials

Reference product mass

977.31 g including the product, its packaging and additional elements and accessories



Metals
Others
Plastics

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/



Additional environmental information

20.9%

0.5%

End Of Life

Recyclability potential:

47%

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.

Environmental impacts

Reference service life time	10 years	0 years									
Product category	Other equipments - Active product	ther equipments - Active product									
Installation elements	The product does not require special installation p	he product does not require special installation procedure and requires little to no energy to install.									
Use scenario	The product is in active mode 11% of the time wit 0.00023W for 10 years.	The product is in active mode 11% of the time with a power use of 7.13W and in stand-by mode 89% of the time with a power use of 0.00023W for 10 years.									
Time representativeness	The collected data are representative of the year	The collected data are representative of the year 2023									
Technological representativeness	The Modules of Technologies such as material pr (LCA EIME in the case) are Similar and représen										
Geographical representativeness	Europe										
	[A1 - A3]	[A5]	[B6]	[C1 - C4]							
Energy model used	Electricity Mix; High voltage; 2018; United Kingdom, GB	Electricity Mix; Low voltage; 2018; United Kingdom, GB	Electricity Mix; Low voltage; 2018; United Kingdom, GB	Electricity Mix; Low voltage; 2018; United Kingdom, GB							

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.schneiderelectric.com/contact

Mandatory Indicators	MOTORISED VALVE - THD27101							
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	1.81E+03	5.13E+00	1.95E-01	0*	1.80E+03	5.08E+00	-3.79E+00
Contribution to climate change-fossil	kg CO2 eq	1.81E+03	5.00E+00	1.95E-01	0*	1.80E+03	5.07E+00	-3.76E+00
Contribution to climate change-biogenic	kg CO2 eq	2.27E+00	1.35E-01	0*	4.34E-03	2.12E+00	1.00E-02	-2.71E-02
Contribution to climate change-land use and land use change	kg CO2 eq	5.89E-06	5.85E-06	0*	0*	0*	4.63E-08	0.00E+00
Contribution to ozone depletion	kg CFC-11 eq	5.75E-06	1.11E-06	0*	1.19E-09	4.63E-06	4.90E-09	-9.98E-07
Contribution to acidification	mol H+ eq	8.53E+00	1.14E-01	1.30E-03	0*	8.41E+00	1.02E-02	-2.31E-02
Contribution to eutrophication, freshwater	kg (PO4) ³⁻ eq	6.95E-03	6.33E-04	0*	2.10E-06	6.20E-03	1.08E-04	-1.17E-05
Contribution to eutrophication marine	kg N eq	9.87E-01	5.55E-03	6.15E-04	1.16E-04	9.78E-01	2.70E-03	-2.20E-03
Contribution to eutrophication, terrestrial	mol N eq	2.55E+01	6.13E-02	6.74E-03	0*	2.54E+01	2.85E-02	-2.44E-02
Contribution to photochemical ozone formation - human health	kg COVNM eq	2.67E+00	2.42E-02	1.71E-03	0*	2.64E+00	8.71E-03	-9.11E-03
Contribution to resource use, minerals and metals	kg Sb eq	1.27E-03	1.07E-03	0*	0*	2.05E-04	2.85E-06	-6.35E-04
Contribution to resource use, fossils	MJ	5.26E+04	1.03E+02	0*	0*	5.23E+04	1.64E+02	-5.79E+01
Contribution to water use	m3 eq	3.56E+01	3.47E+00	0*	7.06E-03	3.12E+01	9.44E-01	-1.66E+00

Inventory flows Indicators				MOTORI	SED VALVE - T	HD27101		
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	1.60E+04	2.45E+00	0*	0*	1.60E+04	0*	-2.56E-01
Contribution to use of renewable primary energy resources used as raw material	MJ	1.81E+00	1.81E+00	0*	0*	0*	0*	-1.31E+00
Contribution to total use of renewable primary energy resources	MJ	1.60E+04	4.26E+00	0*	0*	1.60E+04	0*	-1.56E+00
Contribution to use of non renewable primary energy excluding non renewable primary energy used as raw material	MJ	5.26E+04	1.00E+02	0*	0*	5.23E+04	1.64E+02	-5.79E+01
Contribution to use of non renewable primary energy resources used as raw material	MJ	2.54E+00	2.54E+00	0*	0*	0*	0*	0.00E+00
Contribution to total use of non-renewable primary energy resources	MJ	5.26E+04	1.03E+02	0*	0*	5.23E+04	1.64E+02	-5.79E+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	8.29E-01	8.09E-02	0*	1.65E-04	7.26E-01	2.20E-02	-3.88E-02
Contribution to hazardous waste disposed	kg	9.41E+01	7.17E+01	0*	0*	2.16E+01	8.13E-01	-4.78E+01
Contribution to non hazardous waste disposed	kg	1.24E+02	3.84E+00	0*	3.92E-02	1.20E+02	9.62E-02	-1.89E+00
Contribution to radioactive waste disposed	kg	2.10E-02	1.12E-03	4.88E-06	4.84E-06	1.99E-02	1.24E-05	-9.85E-04
Contribution to components for reuse	kg	0.00E+00	0*	0*	0*	0*	0*	0.00E+00
Contribution to materials for recycling	kg	9.01E-01	1.17E-01	0*	0*	0*	7.84E-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	1.28E-02	1.20E-03	0*	3.74E-03	0*	7.88E-03	0.00E+00

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

Contribution to biogenic carbon content of the product	kg de C	0.00E+00
Contribution to biogenic carbon content of the associated packaging	kg de C	2.47E-02

Mandatory Indicators					MOTORI	SED VAI	LVE - TH	D27101	
Impact indicators	Unit	[B1 - B7] - Use	[B1]	[B2]	[B3]	[B4]	[B5]	[B6]	[B7]
Contribution to climate change	kg CO2 eq	1.80E+03	0*	0*	0*	0*	0*	1.80E+03	0*
Contribution to climate change-fossil	kg CO2 eq	1.80E+03	0*	0*	0*	0*	0*	1.80E+03	0*
Contribution to climate change-biogenic	kg CO2 eq	2.12E+00	0*	0*	0*	0*	0*	2.12E+00	0*
Contribution to climate change-land use and land use change	je kg CO2 eq	0*	0*	0*	0*	0*	0*	0*	0*
Contribution to ozone depletion	kg CFC-11 eq	4.63E-06	0*	0*	0*	0*	0*	4.63E-06	0*
Contribution to acidification	mol H+ eq	8.41E+00	0*	0*	0*	0*	0*	8.41E+00	0*
Contribution to eutrophication, freshwater	kg (PO4)³¯ eq	6.20E-03	0*	0*	0*	0*	0*	6.20E-03	0*
Contribution to eutrophication marine	kg N eq	9.78E-01	0*	0*	0*	0*	0*	9.78E-01	0*
Contribution to eutrophication, terrestrial	mol N eq	2.54E+01	0*	0*	0*	0*	0*	2.54E+01	0*
Contribution to photochemical ozone formation - human health	kg COVNM eq	2.64E+00	0*	0*	0*	0*	0*	2.64E+00	0*
Contribution to resource use, minerals and metals	kg Sb eq	2.05E-04	0*	0*	0*	0*	0*	2.05E-04	0*
Contribution to resource use, fossils	MJ	5.23E+04	0*	0*	0*	0*	0*	5.23E+04	0*
Contribution to water use	m3 eq	3.12E+01	0*	0*	0*	0*	0*	3.12E+01	0*

Inventory flows Indicators	MOTORISED VALVE - THD27101								
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	1.60E+04	0*	0*	0*	0*	0*	1.60E+04	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	1.60E+04	0*	0*	0*	0*	0*	1.60E+04	0*
Contribution to use of non renewable primary energy excluding non renewable primary energy used as raw material	MJ	5.23E+04	0*	0*	0*	0*	0*	5.23E+04	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	5.23E+04	0*	0*	0*	0*	0*	5.23E+04	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	7.26E-01	0*	0*	0*	0*	0*	7.26E-01	0*

Contribution to hazardous waste disposed	kg	2.16E+01	0*	0*	0*	0*	0*	2.16E+01	0*
Contribution to non hazardous waste disposed	kg	1.20E+02	0*	0*	0*	0*	0*	1.20E+02	0*
Contribution to radioactive waste disposed	kg	1.99E-02	0*	0*	0*	0*	0*	1.99E-02	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*

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

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.

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Verifier accreditation N°	VH48	Information and reference documents	www.pep-ecopassport.org				
Date of issue	04-2024	Validity period	5 years				
Independent verification of the declaration and data, in compliance with ISO 14025 : 2006							
Internal	External X						
The PCR review was conducted	ed by a panel of experts chaired by Julie Orgelet (DI	Demain)					
PEPs are compliant with XP C	:08-100-1:2016 and EN 50693:2019 or NF E38-500	:2022	PEP				
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"	PORT _®				

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