

Product Environmental Profile

IFM V2 MODBUS COMMUNICATION INTERFACE

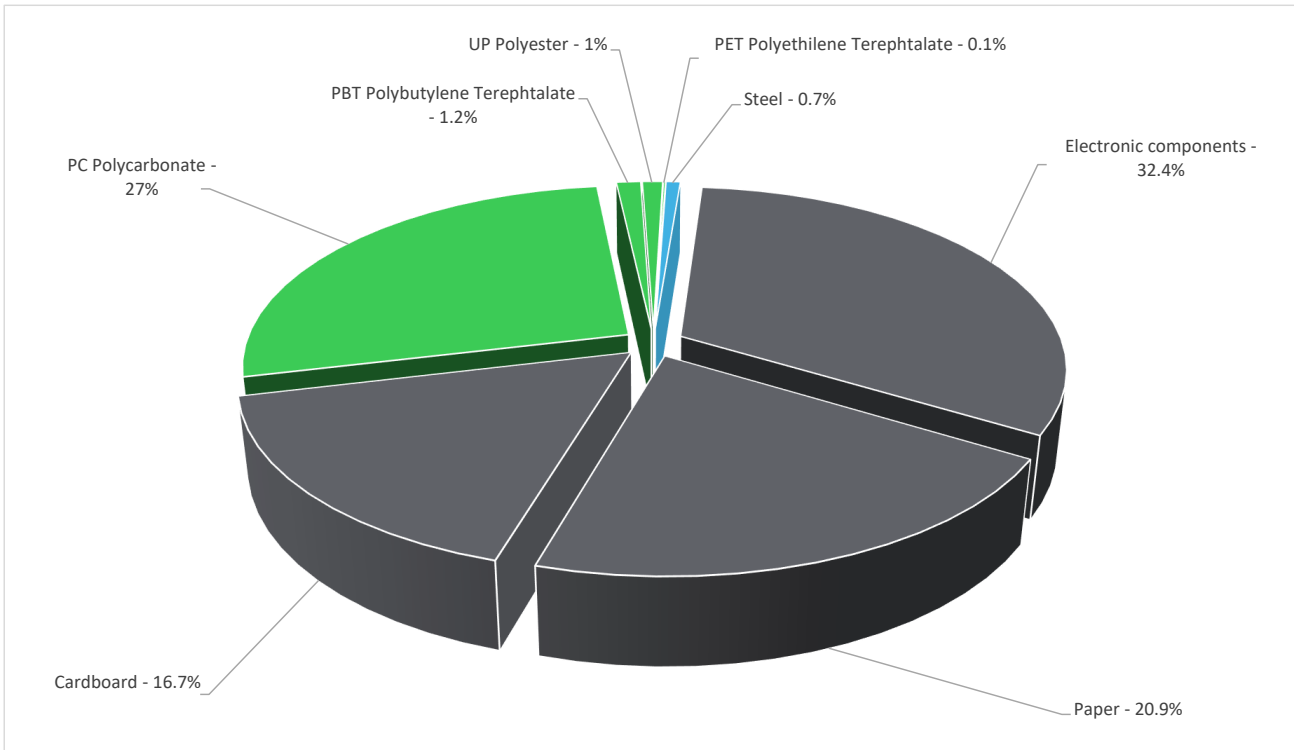


General information

Reference product	IFM V2 MODBUS COMMUNICATION INTERFACE - LV434000
Description of the product	IFM V2 is a Gateway to interface MCCBs / ACBs range (ULP to Modbus Serial).
Functional unit	The main function of the IFM V2 MODBUS COMMUNICATION INTERFACE is to convert ULP protocol to Modbus serial in order to transmit Breaker Parameters like voltage, Current, Power Factor to supervisor during 10 years.
Accessories	TRV00217 & LV434211 (Optional). Needed if customer needs more IFM V2s to be stacked

Constituent materials

Reference product mass	116.5 g including the product, its packaging and additional elements and accessories
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Plastics	29.3%
Metals	0.7%
Others	70.0%

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

End Of Life	Recyclability potential:	1%	Recyclability rate has been calculated based on REEECYLAB tool developed by Ecosystem, for components/materials not covered by the tool, data from the "ECO'DEEE recyclability and recoverability calculation method" was taken. If no data was found a conservative assumption was used (0% recyclability).
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Environmental impacts

Reference service life time	10 years			
Product category	Other equipments - Active product			
Installation elements	No special components needed			
Use scenario	IFM V2 MODBUS will be in active phase for 100% with 0.576 W power consumption during 10 years lifetime of the product			
Technological representativeness	The Modules of Technologies such as material production, manufacturing process and transport technology used in this PEP analysis (LCA-EIME in this case) are Similar and representative of the actual type of technologies used to make the product in production.			
Geographical representativeness	Europe			
Energy model used	[A1 - A3]	[A5]	[B6]	[C1 - C4]
	Electricity Mix; Production mix; Low voltage; ID	Electricity Mix; Production mix; Low voltage; UE-27	Electricity Mix; Production mix; Low voltage; UE-27	Electricity Mix; Production mix; Low voltage; UE-27

Detailed results, including all the optional indicators mentioned in PCRed4, and the split of the Use Phase (B1 to B7), 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		IFM V2 MODBUS COMMUNICATION INTERFACE - LV434000						
Impact indicators	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life	Benefits
			[A1 - A3]	[A4]	[A5]	[B1 - B7]	[C1 - C4]	[D]
Contribution to climate change	kg CO2 eq	2.76E+01	6.68E+00	1.86E-02	8.30E-02	2.07E+01	1.60E-01	-9.12E-03
Contribution to climate change-fossil	kg CO2 eq	2.76E+01	6.68E+00	1.86E-02	7.93E-02	2.07E+01	1.56E-01	-2.66E-02
Contribution to climate change-biogenic	kg CO2 eq	3.72E-02	2.23E-03	0*	3.69E-03	2.76E-02	3.72E-03	1.75E-02
Contribution to climate change-land use and land use change	kg CO2 eq	6.96E-09	6.96E-09	0*	0*	0*	0*	0.00E+00
Contribution to ozone depletion	kg CFC-11 eq	9.36E-07	8.37E-07	0*	5.50E-09	8.84E-08	5.00E-09	3.95E-09
Contribution to acidification	mol H+ eq	1.69E-01	4.85E-02	1.24E-04	3.30E-04	1.18E-01	1.90E-03	-5.62E-05
Contribution to eutrophication, freshwater	kg (PO4) ³⁻ eq	7.44E-05	1.59E-05	0*	6.00E-07	5.66E-05	1.31E-06	-3.72E-07
Contribution to eutrophication marine	kg N eq	2.03E-02	5.37E-03	5.86E-05	8.73E-05	1.34E-02	1.36E-03	-3.55E-05
Contribution to eutrophication, terrestrial	mol N eq	2.61E-01	5.75E-02	6.43E-04	6.59E-04	2.01E-01	6.78E-04	-1.63E-04
Contribution to photochemical ozone formation - human health	kg COVNM eq	6.26E-02	1.90E-02	1.63E-04	1.76E-04	4.30E-02	2.69E-04	-8.55E-06
Contribution to resource use, minerals and metals	kg Sb eq	4.00E-03	4.00E-03	0*	0*	1.50E-06	0*	-1.02E-06
Contribution to resource use, fossils	MJ	6.08E+02	7.94E+01	2.59E-01	8.64E-01	5.27E+02	9.30E-01	2.60E-01
Contribution to water use	m3 eq	2.80E+01	2.96E+00	0*	3.55E-02	7.32E-01	2.43E+01	2.91E-03

Additional indicators for the French regulation are available as well

Inventory flows Indicators			IFM V2 MODBUS COMMUNICATION INTERFACE - LV434000					
Inventory flows	Unit	Total	Manufact.	Distribution	Installation	Use	End of Life	Benefits
			[A1 - A3]	[A4]	[A5]	[B1 - B7]	[C1 - C4]	[D]
Contribution to use of renewable primary energy excluding renewable primary energy used as raw material	MJ	1.04E+02	2.57E+00	0*	6.20E-02	1.01E+02	1.06E-01	3.50E-01
Contribution to use of renewable primary energy resources used as raw material	MJ	1.21E-01	1.21E-01	0*	0*	0*	0*	-1.60E-01
Contribution to total use of renewable primary energy resources	MJ	1.04E+02	2.69E+00	0*	6.20E-02	1.01E+02	1.06E-01	1.90E-01
Contribution to use of non renewable primary energy excluding non renewable primary energy used as raw material	MJ	6.07E+02	7.78E+01	2.59E-01	8.64E-01	5.27E+02	9.30E-01	2.60E-01
Contribution to use of non renewable primary energy resources used as raw material	MJ	1.59E+00	1.59E+00	0*	0*	0*	0*	0.00E+00
Contribution to total use of non-renewable primary energy resources	MJ	6.08E+02	7.94E+01	2.59E-01	8.64E-01	5.27E+02	9.30E-01	2.60E-01
Contribution to use of secondary material	kg	4.37E-02	4.37E-02	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	7.23E-01	6.89E-02	0*	8.26E-04	1.70E-02	6.36E-01	6.77E-05
Contribution to hazardous waste disposed	kg	7.46E+01	7.41E+01	0*	0*	3.86E-01	7.60E-02	-6.13E-02
Contribution to non hazardous waste disposed	kg	4.87E+00	1.58E+00	6.53E-04	2.70E-01	2.98E+00	3.59E-02	-8.19E-01
Contribution to radioactive waste disposed	kg	1.33E-03	6.70E-04	4.65E-07	3.63E-05	6.23E-04	1.67E-06	-3.91E-05
Contribution to components for reuse	kg	0.00E+00	0*	0*	0*	0*	0*	0.00E+00
Contribution to materials for recycling	kg	4.65E-02	0*	0*	4.56E-02	0*	8.41E-04	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	0.00E+00	0*	0*	0*	0*	0*	0.00E+00
Contribution to biogenic carbon content of the product	kg de C	0.00E+00	0*	0*	0*	0*	0*	0.00E+00
Contribution to biogenic carbon content of the associated packaging	kg de C	0.00E+00	0*	0*	0*	0*	0*	0.00E+00


Environmental impacts

The impacts of accessory "LV434211 - RJ45 TO OPEN CONNECTOR MODBUS ADAPTER" of the IFM V2 are in the table hereunder. To evaluate the impacts of accessory, you should apply these percentages to the impact of the main function which is disclosed in the PEP. These impacts have to be added to the impacts of the main function depending on the number of accessories used.

Mandatory Indicators		RJ45 TO OPEN CONNECTOR MODBUS ADAPTER - LV434211						
Impact indicators	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life	Loads and Benefits
			[A1 - A3]	[A4]	[A5]	[B1 - B7]	[C1 - C4]	[D]
Contribution to climate change-biogenic	kg CO2 eq	6.09E-01	5.32E-01	7.45E-03	3.20E-03	1.15E-03	6.56E-02	-7.56E-04
Contribution to climate change-land use and land use change	kg CO2 eq	6.01E-01	5.29E-01	7.45E-03	3.06E-03	1.15E-03	6.06E-02	-1.03E-03
Contribution to ozone depletion	kg CO2 eq	8.32E-03	3.17E-03	0*	1.37E-04	1.53E-06	5.02E-03	2.71E-04
Contribution to acidification	kg CO2 eq	7.66E-09	0*	0*	7.66E-09	0*	0*	0.00E+00
Contribution to eutrophication, freshwater	kg CFC-11 eq	1.15E-07	1.08E-07	0*	2.46E-10	0*	6.31E-09	-1.66E-10
Contribution to eutrophication marine	mol H+ eq	8.89E-03	6.31E-03	4.79E-05	1.31E-05	6.56E-06	2.51E-03	-2.99E-06
Contribution to eutrophication, terrestrial	kg (PO4) ³⁻ eq	3.56E-06	1.74E-06	2.79E-09	5.68E-08	3.15E-09	1.76E-06	-3.15E-08
Contribution to photochemical ozone formation - human health	kg N eq	2.40E-03	5.53E-04	2.25E-05	3.53E-06	7.45E-07	1.82E-03	-1.32E-06
Contribution to resource use, minerals and metals	mol N eq	7.00E-03	5.99E-03	2.47E-04	2.84E-05	1.12E-05	7.19E-04	-8.58E-06
Contribution to resource use, fossils	kg CO2 eq	2.66E-03	2.27E-03	6.24E-05	7.72E-06	2.39E-06	3.18E-04	-4.76E-06
Contribution to water use	kg Sb eq	4.86E-04	4.86E-04	0*	0*	0*	0*	7.72E-11
Contribution to	MJ	1.44E+01	1.33E+01	1.04E-01	3.08E-02	2.93E-02	9.31E-01	-1.56E-03
Contribution to	m3 eq	3.32E+01	3.93E-01	0*	0*	0*	3.28E+01	-8.89E-04

Life cycle assessment performed with EIME version v5.9.4, database version 2022-01 in compliance with ISO14044.

Detailed results, including all the optional indicators mentioned in PCRed4, and the split of the Use Phase (B1 to B7), are available in the LCA report and on demand in a digital format - Country Customer Care Center - <http://www.schneider-electric.com/contact>

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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Date of issue	11/2023	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 External X			
The PCR review was conducted by a panel of experts chaired by Julie ORGELET (DDemain)			
PEP are compliant with XP C08-100-1 :2016 or EN 50693:2019			
The elements of the present PEP cannot be compared with elements from another program.			
Document in compliance with ISO 14025 : 2010 « Environmental labels and declarations. Type III environmental declarations »			



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