

Product Environmental Profile

Switchboard FRONT DISPLAY MODULE FDM128

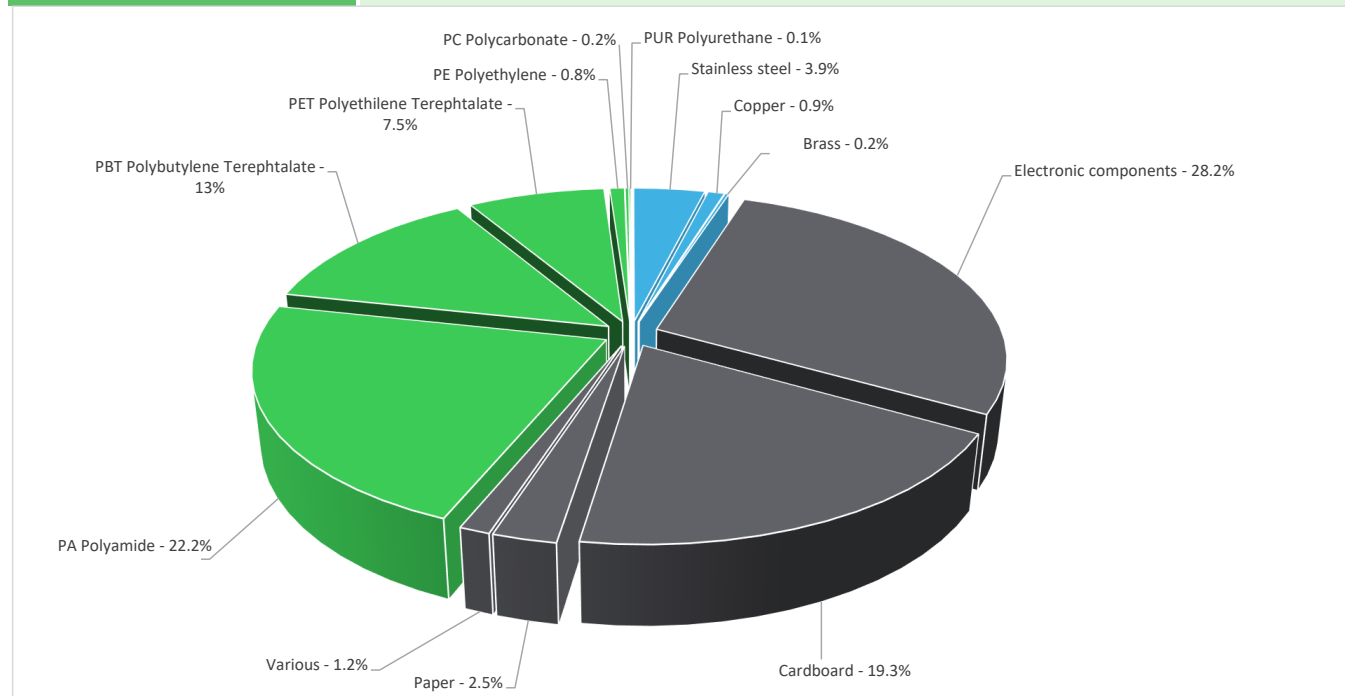


General information

Reference product	Switchboard FRONT DISPLAY MODULE FDM128 - LV434128
Description of the product	FDM128 is an intelligent Ethernet switchboard display module and it is part of EnerlinX communication system. This display unit is compatible with Masterpact, Compact, PowerPact and PowerTag Link devices. It collects data from up to 8 devices over Ethernet, for a possibility of up to 160 PowerTag connected. FDM128 displays the measurements, alarms, and operating assistance data. It has a color TFT LCD touch screen, with a high resolution (320 pixels x 240 pixels). The FDM128 is equipped with a 24VDC terminal block and one RJ45 socket for Ethernet connection. It is easily installed in a switchboard through a standard 22mm door hole, and its dimensions are 129mm x 96mm x 56,5mm. The operating temperature range is between -10°C to 55°C, and the protection degree is IP65 on the front face. The FDM128 display module is entirely part of the EcoStruxure Power architecture and Ethernet ready smart panels. The FDM128 firmware can be updated using EcoStruxure Power Commission software.
Functional unit	FDM128 is part of EnerlinX communication system, and it collects data from up to 8 devices via Ethernet network and intend to display the measurements, alarms, and operating assistance data for 10 years in accordance with CE, CSA and UL standards.

Constituent materials

Reference product mass	851 g including the product, its packaging and additional elements and accessories
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Plastics	43.8%
Metals	5.0%
Others	51.2%

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:	6%	Recyclability rate has been calculated based on REEECYLAB tool developed by Ecosystem, for components/materials not covered by the tool, data from the "ECO'DEEEE 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	The product is 6.8 W in active mode for the referenced Switchboard Switchboard Front Display Module FDM128 (ref. LV434128)			
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; CN	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 PCRred4, 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		Switchboard FRONT DISPLAY MODULE FDM128 - LV434128						
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	kg CO2 eq	1.12E+02	3.72E+01	1.11E-01	3.50E-01	7.32E+01	1.10E+00	-2.75E-01
Contribution to climate change-fossil	kg CO2 eq	1.12E+02	3.71E+01	1.11E-01	3.34E-01	7.31E+01	1.08E+00	-2.84E-01
Contribution to climate change-biogenic	kg CO2 eq	1.84E-01	4.48E-02	0*	1.55E-02	9.77E-02	2.54E-02	8.95E-03
Contribution to climate change-land use and land use change	kg CO2 eq	2.33E-07	2.06E-07	0*	0*	0*	2.72E-08	0.00E+00
Contribution to ozone depletion	kg CFC-11 eq	4.66E-06	4.29E-06	0*	2.31E-08	3.13E-07	3.44E-08	-2.89E-08
Contribution to acidification	mol H+ eq	6.74E-01	2.41E-01	7.16E-04	1.39E-03	4.18E-01	1.27E-02	-2.70E-03
Contribution to eutrophication, freshwater	kg (PO4) ³⁻ eq	3.49E-04	7.98E-05	4.17E-08	2.53E-06	2.01E-04	6.62E-05	-1.62E-06
Contribution to eutrophication marine	kg N eq	8.64E-02	2.94E-02	3.36E-04	3.69E-04	4.75E-02	8.80E-03	-2.59E-04
Contribution to eutrophication, terrestrial	mol N eq	1.04E+00	3.11E-01	3.69E-03	2.79E-03	7.13E-01	5.65E-03	-2.39E-03
Contribution to photochemical ozone formation - human health	kg COVNM eq	2.59E-01	1.02E-01	9.32E-04	7.44E-04	1.52E-01	2.12E-03	-7.72E-04
Contribution to resource use, minerals and metals	kg Sb eq	3.10E-03	3.09E-03	0*	0*	5.31E-06	1.64E-06	-5.28E-05
Contribution to resource use, fossils	MJ	2.34E+03	4.60E+02	1.55E+00	3.64E+00	1.87E+03	1.27E+01	-4.13E+00
Contribution to water use	m3 eq	1.68E+02	9.94E+00	0*	1.49E-01	2.59E+00	1.55E+02	-1.83E-01

Additional indicators for the French regulation are available as well

Inventory flows Indicators			Switchboard FRONT DISPLAY MODULE FDM128 - LV434128					
Inventory flows	Unit	Total	Manufact.	Distribution	Installation	Use	End of Life	Loads and 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	3.73E+02	1.41E+01	0*	2.61E-01	3.58E+02	7.17E-01	7.43E-01
Contribution to use of renewable primary energy resources used as raw material	MJ	1.04E+00	1.04E+00	0*	0*	0*	0*	-9.88E-01
Contribution to total use of renewable primary energy resources	MJ	3.74E+02	1.51E+01	0*	2.61E-01	3.58E+02	7.17E-01	-2.45E-01
Contribution to use of non renewable primary energy excluding non renewable primary energy used as raw material	MJ	2.33E+03	4.51E+02	1.55E+00	3.64E+00	1.87E+03	1.27E+01	-4.13E+00
Contribution to use of non renewable primary energy resources used as raw material	MJ	9.44E+00	9.44E+00	0*	0*	0*	0*	0.00E+00
Contribution to total use of non-renewable primary energy resources	MJ	2.34E+03	4.60E+02	1.55E+00	3.64E+00	1.87E+03	1.27E+01	-4.13E+00
Contribution to use of secondary material	kg	1.59E-01	1.59E-01	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	m ³	4.35E+00	2.32E-01	0*	3.48E-03	6.03E-02	4.06E+00	-4.26E-03
Contribution to hazardous waste disposed	kg	5.61E+01	5.40E+01	0*	0*	1.37E+00	7.01E-01	-4.28E+00
Contribution to non hazardous waste disposed	kg	2.08E+01	8.87E+00	3.90E-03	1.14E+00	1.05E+01	2.24E-01	-2.02E+00
Contribution to radioactive waste disposed	kg	5.69E-03	3.32E-03	2.78E-06	1.53E-04	2.21E-03	1.26E-05	-1.45E-04
Contribution to components for reuse	kg	0.00E+00	0*	0*	0*	0*	0*	0.00E+00
Contribution to materials for recycling	kg	2.37E-01	0*	0*	1.92E-01	0*	4.45E-02	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

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

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>

The use phase has the greatest impacts contribution on the majority of environmental indicators, except for Climate change-Land use and land use change (PEF-GWPlu), Ozone depletion(PEF-ODP), Resource use, minerals and metals(PEF-ADPe) & Water Use (PEF-WU) this contribution is mainly due to the energy consumption throughout the product reference service lifetime.

