

# Product Environmental Profile

## PowerLogic PFC controller





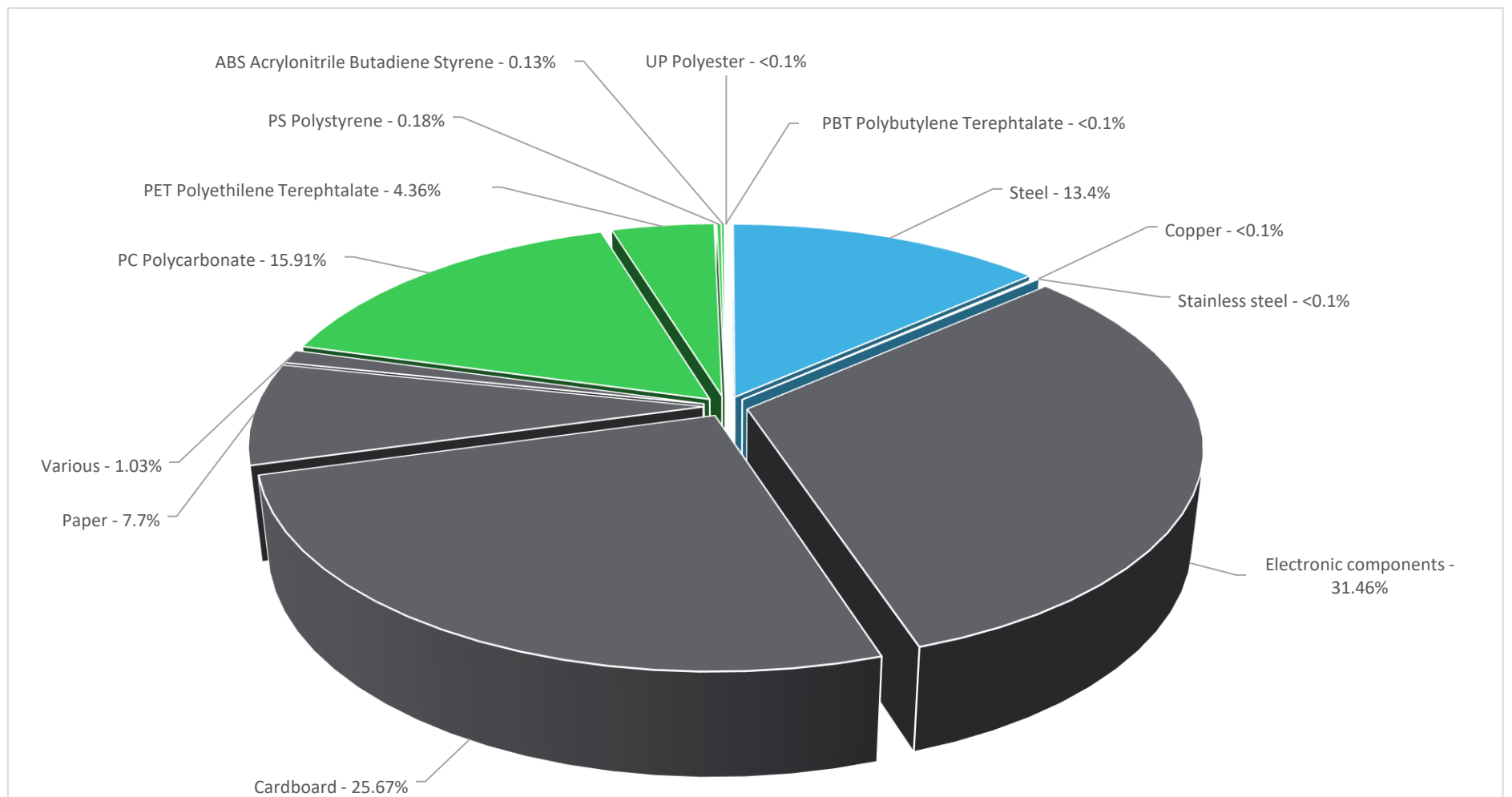
## General information

<b>Reference product</b>	PowerLogic PFC controller - VPL12N
<b>Description of the product</b>	<p>Powerlogic PFC is a smart and efficient Controller for a automatic power factor correction equipment to maintain the power factor. It is a smart and intelligent relay which measures,monitor and Controls the reactive energy. It comes with Easy Commisioning , auto step size detection and monitoring along with the various alarms.</p> <p>Technical Data:</p> <ul style="list-style-type: none"> <li>- Voltage: 90 - 550 V, 1ph, 50/60 Hz, 6 VA</li> <li>- Current: 15 mA - 6 A, 1ph, &lt; 1 VA, 100 A - 1 s</li> <li>- Control outputs (step output: NO contact, 250 V LN or LL CAT III, 48 V DC / 1 A, 250 V AC / 5 A and Common root: 10 A max</li> <li>- Temperature for operation: -20 °C +60 °C</li> <li>- IP41 for Front face and IP20 for Rear face degree of protection</li> </ul> <p>This range consists of 2 versions derived from number of Output Relay                      VL6: 6 output relays                      VL12: 12 output relays</p>
<b>Functional unit</b>	<p>Power factor controllers manages reactive energy and provide accurate measurements with an intelligent relay function to ensure maximum efficiency during 10 years.</p> <p>In addition, it adheres to LV and environmental standards, such as IEC 61010-1, IEC 61000 6-2, IEC 61000 6-4, IEC 61326-1 and UL 61010</p>



## Constituent materials

<b>Reference product mass</b>	800 g including the product, its packaging and additional elements and accessories
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Plastics	20.6%
Metals	13.5%
Others	65.9%



## 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

<b>End Of Life</b>	Recyclability potential:	<b>20%</b>	Recyclability rate has been calculated based on REEECY'LAB 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

<b>Reference service life time</b>	10 years			
<b>Product category</b>	Other equipments - Active product			
<b>Installation elements</b>	No special installation components need during installation phase, but transport of packaging to disposal, and disposal of packaging accounted for during installation"			
<b>Use scenario</b>	The product is in active mode 1% of the time with a power use of 5.8W and in stand-by mode 99% of the time with a power use of 4W, for 10 years			
<b>Technological representativeness</b>	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.			
<b>Geographical representativeness</b>	Europe, USA & China			
<b>Energy model used</b>	[A1 - A3]	[A5]	[B6]	[C1 - C4]
	Electricity Mix; Production mix; Low voltage; UE-27	Electricity Mix; Production mix; Low voltage; UE-27	Electricity Mix; Production mix; Low voltage; UE-27	Electricity Mix; Production mix; Low voltage; UE-27
		Electricity Mix; Production mix; Low voltage; CN	Electricity Mix; Production mix; Low voltage; CN	Electricity Mix; Production mix; Low voltage; CN
		Electricity Mix; Production mix; Low voltage; US	Electricity Mix; Production mix; Low voltage; US	Electricity Mix; Production mix; Low voltage; US

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			PowerLogic PFC controller - VPL12N					
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	2.38E+02	8.16E+01	2.31E-01	3.45E-01	1.55E+02	1.01E+00	-5.87E-01
Contribution to climate change-fossil	kg CO2 eq	2.38E+02	8.13E+01	2.31E-01	3.40E-01	1.55E+02	9.87E-01	-5.81E-01
Contribution to climate change-biogenic	kg CO2 eq	5.03E-01	2.89E-01	0*	4.85E-03	1.86E-01	2.33E-02	-5.57E-03
Contribution to climate change-land use and land use change	kg CO2 eq	3.18E-08	2.98E-08	0*	0*	0*	2.07E-09	0.00E+00
Contribution to ozone depletion	kg CFC-11 eq	1.38E-05	1.29E-05	2.04E-07	7.70E-09	6.84E-07	3.15E-08	-7.23E-08
Contribution to acidification	mol H+ eq	1.57E+00	6.52E-01	1.00E-03	5.95E-04	9.07E-01	1.28E-02	-3.38E-03
Contribution to eutrophication, freshwater	kg (PO4) <sup>3-</sup> eq	4.81E-04	9.00E-05	0*	4.86E-06	3.74E-04	1.26E-05	-2.01E-06
Contribution to eutrophication marine	kg N eq	1.81E-01	6.87E-02	4.61E-04	2.04E-04	1.03E-01	8.66E-03	-4.22E-04
Contribution to eutrophication, terrestrial	mol N eq	2.17E+00	6.87E-01	4.99E-03	1.54E-03	1.48E+00	5.87E-03	-4.39E-03
Contribution to photochemical ozone formation - human health	kg COVNM eq	5.68E-01	2.32E-01	1.64E-03	4.60E-04	3.31E-01	2.32E-03	-1.42E-03
Contribution to resource use, minerals and metals	kg Sb eq	7.52E-03	7.51E-03	0*	0*	9.99E-06	0*	-1.40E-04
Contribution to resource use, fossils	MJ	4.92E+03	1.13E+03	2.80E+00	1.39E+00	3.76E+03	2.62E+01	-1.14E+01
Contribution to water use	m3 eq	1.75E+02	1.70E+01	0*	4.92E-02	5.62E+00	1.52E+02	-2.71E-01

Additional indicators for the French regulation are available as well

Inventory flows Indicators			PowerLogic PFC controller - VPL12N					
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	7.35E+02	4.75E+01	0*	8.81E-02	6.87E+02	6.64E-01	5.63E-01
Contribution to use of renewable primary energy resources used as raw material	MJ	1.85E+00	1.85E+00	0*	0*	0*	0*	-1.08E+00
Contribution to total use of renewable primary energy resources	MJ	7.37E+02	4.94E+01	0*	8.81E-02	6.87E+02	6.64E-01	-5.17E-01
Contribution to use of non renewable primary energy excluding non renewable primary energy used as raw material	MJ	4.91E+03	1.12E+03	2.80E+00	1.39E+00	3.76E+03	2.62E+01	-1.14E+01
Contribution to use of non renewable primary energy resources used as raw material	MJ	7.78E+00	7.78E+00	0*	0*	0*	0*	0.00E+00
Contribution to total use of non-renewable primary energy resources	MJ	4.92E+03	1.13E+03	2.80E+00	1.39E+00	3.76E+03	2.62E+01	-1.14E+01
Contribution to use of secondary material	kg	1.77E-01	1.77E-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	m³	4.50E+00	3.95E-01	0*	1.14E-03	1.31E-01	3.98E+00	-6.32E-03
Contribution to hazardous waste disposed	kg	1.30E+02	1.26E+02	0*	0*	3.08E+00	5.32E-01	-1.11E+01
Contribution to non hazardous waste disposed	kg	4.29E+01	1.95E+01	0*	5.79E-01	2.28E+01	1.37E-01	-1.92E+00
Contribution to radioactive waste disposed	kg	3.92E-02	3.48E-02	4.58E-05	5.53E-05	4.29E-03	7.96E-06	-2.42E-04
Contribution to components for reuse	kg	0.00E+00	0*	0*	0*	0*	0*	0.00E+00
Contribution to materials for recycling	kg	1.63E-01	0*	0*	6.00E-02	0*	1.03E-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	1.49E-01	3.44E-02	0*	1.15E-01	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.

Raw material & manufacturing stage is the main contributor for the impact indicators are Ozone depletion, Climate change - biogenic, Climate change and Land usage and Resource use, minerals and metals due to the manufacturing of electronics components.

The usage stage is the great contributor for all other impact indicator like Climate change, Fossil, Acidification, Eutrophication, freshwater, marine, terrestrial, photochemical ozoneformation- human health, Resource use, fossils due to the energy losses throughout the product reference service lifetime

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.

Registration number :	ENVPEP1509016_V1	Drafting rules	PEP-PCR-ed4-2021 09 06
Date of issue	05/2023	Supplemented by	PSR-0005-ed2-2016 03 29
		Information and reference documents	<a href="http://www.pep-ecopassport.org">www.pep-ecopassport.org</a>
		Validity period	5 years
Independent verification of the declaration and data, in compliance with ISO 14021 : 2016			
Internal	X	External	
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 14021 : 2016 « Environmental labels and declarations. Type II environmental declarations »			

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