

# Product Environmental Profile

## PowerLogic P1





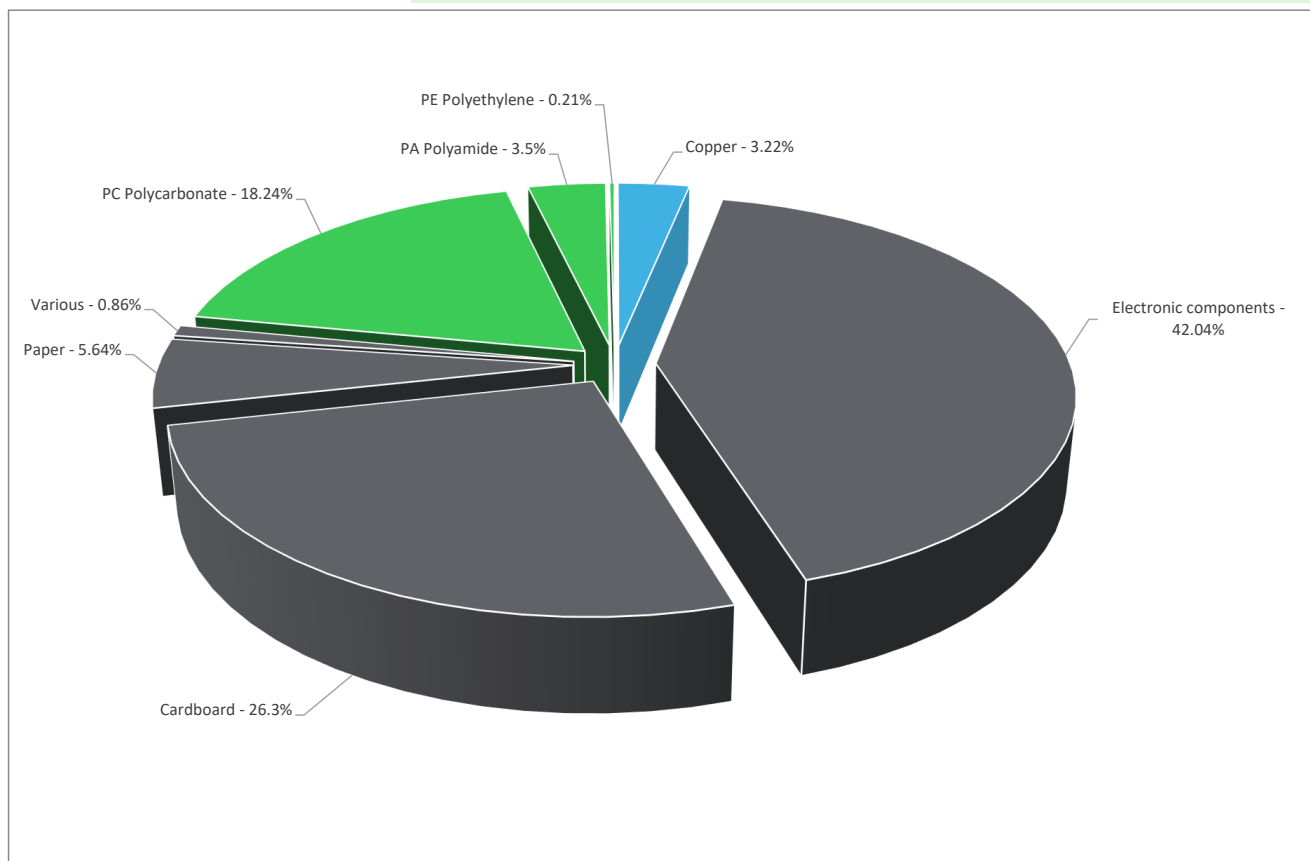
## General information

Reference product	PowerLogic P1 - REL15000
Description of the product	The product protects LV/MV distribution power networks by measuring the current or voltage value and comparing it with a preset value. In case the measured current/voltage/pressure value exceeds the preset value, the product realizes trip/alarm functions or specific automation functions. It protects this way the LV/MV equipment and people.
Functional unit	<p>Protects distribution power networks, (typically from 0.4kV to 33kV) like feeder, incomer, machine against unwanted events like short circuits, overloads, unbalances, etc. Contains wide measurement and recording functionality to allow post-event analysis. Is capable to be connected to supervisory systems thru various communication protocols. It is installed usually in metal cubicle in a dedicated LV box. Typically, it is installed indoor. Works 24h per day, non-stop unless an outage is planned. Typical life time of the relay is 10 years but effectively it may be extended to more than this.</p> <p>IP54 Degree of protection against ingress of solid foreign objects and water with harmful effects in accordance with the standard IEC 60529</p>



## Constituent materials

Reference product mass	1030 g including the product, its packaging and additional elements and accessories
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Plastics	22.0%
Metals	3.2%
Others	74.8%



## 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:	5%	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	This product does not require any special components during installation			
Use scenario	The product is in active mode 5% of the time with a power use of 4W and in stand-by mode 95% of the time with a power use of 2.5W, for 10 years			
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	Global			
Energy model used	[A1 - A3]	[A5]	[B6]	[C1 - C4]
	Electricity Mix; Production mix; Low voltage; IN	Electricity Mix; Production mix; Low voltage; APAC	Electricity Mix; Production mix; Low voltage; APAC	Electricity Mix; Production mix; Low voltage; APAC
		Electricity Mix; Production mix; Low voltage; TR	Electricity Mix; Production mix; Low voltage; TR	Electricity Mix; Production mix; Low voltage; TR
		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			PowerLogic P1 - REL15000					
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	7.89E+01	2.97E-01	6.01E-01	1.57E+02	1.35E+00	-1.31E+01
Contribution to climate change-fossil	kg CO2 eq	2.38E+02	7.87E+01	2.97E-01	5.74E-01	1.57E+02	1.30E+00	-1.21E+01
Contribution to climate change-biogenic	kg CO2 eq	3.59E-01	2.01E-01	0*	2.67E-02	8.37E-02	4.80E-02	-1.05E+00
Contribution to climate change-land use and land use change	kg CO2 eq	2.21E-07	1.08E-07	0*	0*	0*	1.13E-07	0.00E+00
Contribution to ozone depletion	kg CFC-11 eq	3.79E-05	3.68E-05	2.62E-07	3.98E-08	7.71E-07	5.77E-08	-3.56E-06
Contribution to acidification	mol H+ eq	1.49E+00	4.37E-01	1.29E-03	2.38E-03	1.03E+00	2.17E-02	-8.91E-01
Contribution to eutrophication, freshwater	kg (PO4) <sup>3-</sup> eq	4.16E-04	1.03E-04	0*	4.34E-06	5.44E-05	2.55E-04	-2.34E-05
Contribution to eutrophication marine	kg N eq	2.20E-01	8.97E-02	5.93E-04	6.32E-04	1.14E-01	1.52E-02	-1.41E-02
Contribution to eutrophication, terrestrial	mol N eq	2.31E+00	9.59E-01	6.42E-03	4.77E-03	1.33E+00	8.43E-03	-1.63E-01
Contribution to photochemical ozone formation - human health	kg COVNM eq	7.22E-01	3.37E-01	2.11E-03	1.27E-03	3.79E-01	3.18E-03	-1.02E-01
Contribution to resource use, minerals and metals	kg Sb eq	6.52E-03	6.51E-03	0*	0*	3.53E-06	6.79E-06	-7.04E-03
Contribution to resource use, fossils	MJ	3.62E+03	9.84E+02	3.61E+00	6.25E+00	2.62E+03	8.81E+00	-2.01E+02
Contribution to water use	m3 eq	2.92E+02	1.58E+01	0*	2.56E-01	6.25E+00	2.69E+02	-4.23E+01

Additional indicators for the French regulation are available as well

Inventory flows Indicators			PowerLogic P1 - REL15000					
Inventory flows	Unit	Total	Manufact. [A1 - A3]	Distribution [A4]	Installation [A5]	Use [B1 - B7]	End of Life [C1 - C4]	Benefits [D]
Contribution to use of renewable primary energy excluding renewable primary energy used as raw material	MJ	3.57E+02	1.36E+01	0*	4.49E-01	3.42E+02	1.34E+00	-1.85E+01
Contribution to use of renewable primary energy resources used as raw material	MJ	6.43E+00	6.43E+00	0*	0*	0*	0*	-5.95E+00
Contribution to total use of renewable primary energy resources	MJ	3.64E+02	2.01E+01	0*	4.49E-01	3.42E+02	1.34E+00	-2.45E+01
Contribution to use of non renewable primary energy excluding non renewable primary energy used as raw material	MJ	3.61E+03	9.72E+02	3.61E+00	6.25E+00	2.62E+03	8.81E+00	-2.01E+02
Contribution to use of non renewable primary energy resources used as raw material	MJ	1.21E+01	1.21E+01	0*	0*	0*	0*	0.00E+00
Contribution to total use of non-renewable primary energy resources	MJ	3.62E+03	9.84E+02	3.61E+00	6.25E+00	2.62E+03	8.81E+00	-2.01E+02
Contribution to use of secondary material	kg	5.41E-05	5.41E-05	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	7.58E+00	3.74E-01	0*	5.97E-03	1.46E-01	7.05E+00	-9.85E-01
Contribution to hazardous waste disposed	kg	1.00E+02	9.55E+01	0*	0*	3.98E+00	7.13E-01	-6.47E+02
Contribution to non hazardous waste disposed	kg	4.56E+01	1.80E+01	0*	1.95E+00	2.54E+01	2.50E-01	-9.50E+00
Contribution to radioactive waste disposed	kg	1.57E-02	1.28E-02	5.90E-05	2.62E-04	2.55E-03	1.31E-05	-1.38E-03
Contribution to components for reuse	kg	0.00E+00	0*	0*	0*	0*	0*	0.00E+00
Contribution to materials for recycling	kg	3.64E-01	1.36E-03	0*	3.30E-01	0*	3.29E-02	0.00E+00
Contribution to materials for energy recovery	kg	3.70E-08	3.70E-08	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.

The indicators set used is « Indicators for PEF EF 3.0 (Compliance: PEP ed.4, EN15804+A2) v2.0 »

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 stage is the greatest contributor due to the energy losses occurring throughout the product reference service lifetime for all the impact indicators except the ADPe, PEF-ODP, PEF-WU and PEF-Epf. The raw material and manufacturing stage is the main contributor for ADPe and PEF-ODP, due to the manufacturing of electronic components. The End of Life stage is the main contributor for PEF-WU and PEF-Epf.

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 :	SCHN-00486-V02.01-EN	Drafting rules	PEP-PCR-ed4-2021 09 06
Verifier accreditation N°	VH48	Supplemented by	PSR-0005-ed2-2016 03 29
Date of issue	01/2024	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 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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SCHN-00486-V02.01-EN

Published by Schneider Electric

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01/2024