# **Product Environmental Profile**

#### **PowerLogic PFC Detuned Reactor**





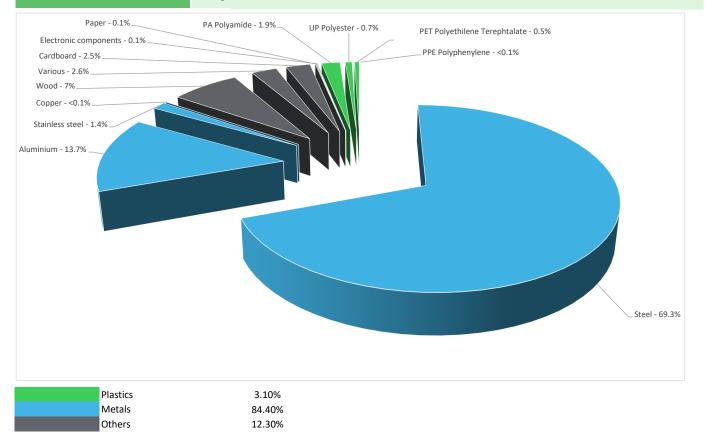


### General information

Reference product	PowerLogic PFC Detuned Reactor - LVR07500A40T
Description of the product	PowerLogic PFC Detuned Reactor should be associated with capacitor banks for Power Factor Correction in systems with significant non-linear loads,
Functional unit	The use of detuned reactors thus prevents harmonic resonance problems, avoids the risk of overloading the capacitors and helps reduce voltage harmonic distortion in the network.  Technical data:  - 3 Phase, Dry type, Iron core, Vacuum impregnated.  - Operating Network Voltage 220V to 690V  - Operating network frequency 50/60Hz  - Power ratings from 5kvar to 100 kvar  - Tuning order 2.7 / 3.8 / 4.2  - Insulation temperature class H (180°C)  - Insulation level 1.1KV  - Mounting Indoor, Upright  - Compliant with standards IEC60076-6  - Reference life time- 20 Years

#### **Constituent materials**

Reference product mass 33607 g including the product, its packaging and additional elements and accessories



## Substance assessment

Details of ROHS and REACH substances information are available on the Schneider-Electric Green Premium website <a href="https://www.se.com/ww/en/work/support/green-premium/">https://www.se.com/ww/en/work/support/green-premium/</a>



# (19) Additional environmental information

Recyclability potential:

93%

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'DEEE recyclability and recoverability calculation method" was taken. If no data was found a conservative assumption was used (0% recyclability).

# **Environmental impacts**

Reference service life time	20 years						
Installation elements	No special installation components need during installation phase, but transport of packaging to disposal, and disposal of packaging accounted for during installation'						
Use scenario	The product is in active mode for ~80% in fixed compensation applications and 50% in automatic PF control applications with a power use of 120W for 20 years						
Technological representativeness	The Modules of Technologies such as Coil winding, Crimping, Impregnation are used to make the product in production.						
Geographical representativeness	Europe, Asia,US						
	[A1 - A3]	[A5]	[B6]	[C1 - C4]			
Energy model used		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; 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; 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

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Mandatory Indicators			PowerLogic PFC Detuned Reactor - LVR07500A40T					
Impact indicators	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life	Benefits
impact mulcators	Oill	Total	[A1 - A3]	[A4]	[A5]	[B1 - B7]	[C1 - C4]	[D]
Contribution to climate change	kg CO2 eq	5.72E+03	2.54E+02	9.69E+00	3.42E+00	5.38E+03	6.94E+01	-2.23E+02
Contribution to climate change-fossil	kg CO2 eq	5.71E+03	2.51E+02	9.69E+00	4.73E+00	5.37E+03	6.94E+01	-2.20E+02
Contribution to climate change-biogenic	kg CO2 eq	6.31E+00	2.32E+00	0*	0*	5.29E+00	6.13E-03	-2.82E+00
Contribution to climate change-land use and land use change	e kg CO2 eq	3.38E-06	3.38E-06	0*	0*	0*	3.39E-09	0.00E+00
Contribution to ozone depletion	kg CFC-11 eq	1.14E-04	8.05E-05	8.55E-06	0*	2.44E-05	3.71E-07	-3.17E-05
Contribution to acidification	mol H+ eq	3.36E+01	1.11E+00	4.21E-02	4.18E-03	3.22E+01	2.35E-01	-1.36E+00
Contribution to eutrophication, freshwater	kg (PO4) <sup>3-</sup> eq	1.03E-02	9.86E-04	1.13E-06	3.09E-05	9.30E-03	2.00E-05	-5.31E-04
Contribution to eutrophication marine	kg N eq	3.96E+00	2.63E-01	1.93E-02	1.51E-03	3.63E+00	4.31E-02	-1.25E-01
Contribution to eutrophication, terrestrial	mol N eq	5.14E+01	2.80E+00	2.10E-01	1.44E-02	4.79E+01	4.64E-01	-1.43E+00
Contribution to photochemical ozone formation - human health	kg COVNM eq	1.31E+01	9.49E-01	6.87E-02	5.07E-03	1.19E+01	1.69E-01	-4.89E-01
Contribution to resource use, minerals and metals	kg Sb eq	1.68E-03	1.42E-03	0*	0*	2.60E-04	2.74E-06	-4.28E-02
Contribution to resource use, fossils	MJ	1.29E+05	6.97E+03	1.18E+02	3.94E+01	1.17E+05	4.91E+03	-4.26E+03
Contribution to water use	m3 eq	3.13E+02	7.44E+01	4.91E-01	2.22E-01	2.00E+02	3.78E+01	-7.23E+01

Additional indicators for the French regulation are available as well

Inventory flows Indicators			PowerLogic PFC Detuned Reactor - LVR07500A40T					
lavortan flavo	Unit	Total	Manufact.	Distribution	Installation	Use	End of Life	Benefits
Inventory flows	Onit	Total	[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	1.85E+04	6.41E+01	0*	9.83E+00	1.84E+04	0*	-7.88E+01
Contribution to use of renewable primary energy resources used as raw material	MJ	5.27E+01	5.27E+01	0*	0*	0*	0*	-1.29E+01
Contribution to total use of renewable primary energy resources	MJ	1.85E+04	1.17E+02	0*	9.83E+00	1.84E+04	0*	-9.17E+01
Contribution to use of non renewable primary energy excluding non renewable primary energy used as raw materia	ıl MJ	1.29E+05	6.91E+03	1.18E+02	3.94E+01	1.17E+05	4.91E+03	-4.26E+03
Contribution to use of non renewable primary energy resources used as raw material	MJ	5.95E+01	5.95E+01	0*	0*	0*	0*	5.72E-01
Contribution to total use of non-renewable primary energy resources	MJ	1.29E+05	6.97E+03	1.18E+02	3.94E+01	1.17E+05	4.91E+03	-4.26E+03
Contribution to use of secondary material	kg	1.93E+00	1.93E+00	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	7.32E+00	1.73E+00	1.14E-02	5.17E-03	4.66E+00	9.16E-01	-1.68E+00
Contribution to hazardous waste disposed	kg	2.62E+02	1.16E+02	0*	0*	1.15E+02	3.15E+01	-3.38E+03
Contribution to non hazardous waste disposed	kg	9.69E+02	1.53E+02	0*	2.82E+00	8.12E+02	1.40E+00	-2.54E+02
Contribution to radioactive waste disposed	kg	2.57E-01	1.24E-01	1.93E-03	9.84E-05	1.31E-01	3.21E-04	-1.64E-01
Contribution to components for reuse	kg	0.00E+00	0*	0*	0*	0*	0*	0.00E+00
Contribution to materials for recycling	kg	3.01E+01	1.54E+00	0*	8.45E-01	0*	2.77E+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	4.21E+00	2.26E+00	0*	1.94E+00	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

 $<sup>^{\</sup>star}$  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

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Raw material & manufacturing stage is the main contributor for the impact indicators Climate change- Land use and land use change and Ozone depletion, Resource use minerals and metals due to the manufacturing of steel & Aluminium, The usage stage is the great contributor for all other impact indicator like climate change, Biogenic, fossils, Acidification, Eutrophication, freshwater, marine, terrestrial, POCP human health, water use and fossils due to the energy losses throughout the product reference service lifetime.

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 :	ENVPEP121215EN_V2	Drafting rules	PEP-PCR-ed4-2021 09 06			
Date of issue	12023/05/22	Information and reference documents	www.pep-ecopassport.org			
		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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