

Product Environmental Profile

APC Smart-UPS RT 20KVA, 220V/380V, No batteries





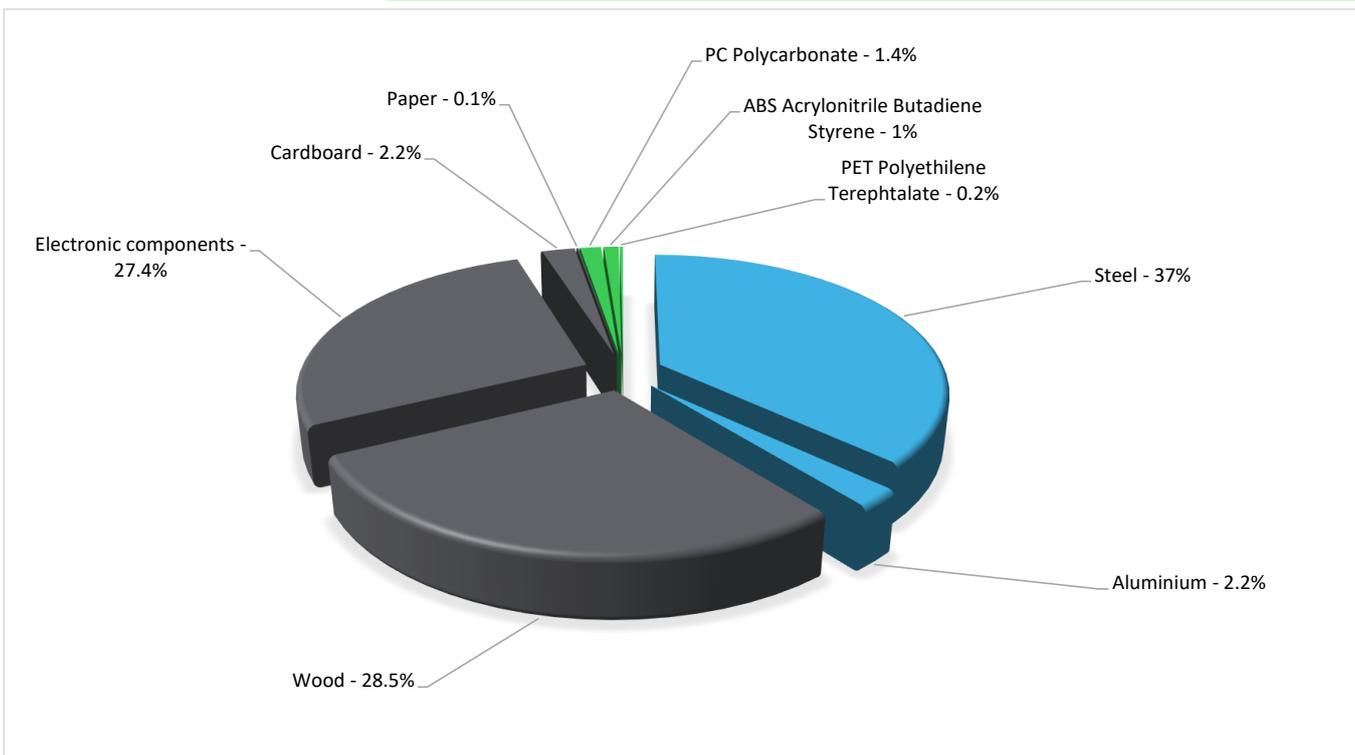
General information

Reference product	APC Smart-UPS RT 20KVA, 220V/380V, No batteries - SURT20KUXI-CH
Description of the product	Smart-UPS™ On-Line provides high-density, true double-conversion online power protection for servers, voice/data networks, medical labs, and light industrial applications.
Description of the range	APC Smart-UPS RT 10-20KVA (220V/380V) The environmental impacts of this referenced product are representative of the impacts of the other products of the range which are developed with a similar technology.
Functional unit	To protect the load of 20000 Watts against input power failure during 15 years and switch to the energy storage system to avoid power outage.



Constituent materials

Reference product mass	61000 g including the product, its packaging and additional elements and accessories
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Plastics	2.60%
Metals	39.20%
Others	58.20%



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:	56%	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	15 years		
Installation elements	Ref SURTSURT20KUXI-CH does not require any installation operations, the disposal of the packaging materials are accounted for 30.9% during the installation phase (including transport to disposal).		
Use scenario	Power consumption conforms to the requirements in PSR0010 where it is modeled to operate at 25% load for 25% of the time, 50% load for 50% of the time and 75% load for 25% of the time. The UPS is also modeled to operate in normal mode (average efficiency of 94.2% and annual use of 4947.21kWh) 75% of the time and ECO mode (average efficiency of 98% and annual use of 1666.59kWh) the remaining 25% of the time.		
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	China		
Energy model used	[A1 - A3]	[A5]	[B6]
	Electricity Mix; Production mix; Low voltage; CN	Electricity Mix; Production mix; Low voltage; CN	Electricity Mix; Production mix; Low voltage; CN
			[C1 - C4]
			Electricity Mix; Production mix; Low voltage; CN

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			APC Smart-UPS RT 20KVA, 220V/380V, No batteries - SURT20KUXI-CH					
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	5.52E+04	1.07E+03	1.76E+01	1.70E+01	5.40E+04	7.29E+01	-1.11E+02
Contribution to climate change-fossil	kg CO2 eq	5.52E+04	1.07E+03	1.76E+01	2.67E+01	5.40E+04	7.28E+01	-1.10E+02
Contribution to climate change-biogenic	kg CO2 eq	-2.95E-01	0*	0*	-9.71E+00	0*	0*	-8.64E-01
Contribution to climate change-land use and land use change	kg CO2 eq	2.95E-06	2.30E-06	0*	6.52E-07	0*	0*	0.00E+00
Contribution to ozone depletion	kg CFC-11 eq	4.75E-04	1.50E-04	1.55E-05	2.02E-07	3.09E-04	6.65E-07	-1.59E-05
Contribution to acidification	mol H+ eq	4.13E+02	8.20E+00	7.64E-02	0*	4.05E+02	3.08E-01	-6.58E-01
Contribution to eutrophication, freshwater	kg (PO4) ³⁻ eq	1.37E-02	2.11E-03	2.06E-06	1.23E-04	1.14E-02	6.60E-05	-2.43E-04
Contribution to eutrophication marine	kg N eq	4.42E+01	8.51E-01	3.51E-02	8.69E-03	4.33E+01	9.87E-02	-6.60E-02
Contribution to eutrophication, terrestrial	mol N eq	5.00E+02	9.01E+00	3.80E-01	7.98E-02	4.90E+02	4.83E-01	-7.49E-01
Contribution to photochemical ozone formation - human health	kg COVNM eq	1.48E+02	3.08E+00	1.25E-01	2.67E-02	1.45E+02	1.76E-01	-2.57E-01
Contribution to resource use, minerals and metals	kg Sb eq	1.10E-01	1.09E-01	0*	0*	6.93E-04	0*	-2.74E-02
Contribution to resource use, fossils	MJ	8.94E+05	1.52E+04	2.14E+02	0*	8.74E+05	4.77E+03	-2.30E+03
Contribution to water use	m3 eq	3.72E+03	2.88E+02	8.92E-01	1.47E+00	2.38E+03	1.04E+03	-4.19E+01

Additional indicators for the French regulation are available as well

Inventory flows Indicators			APC Smart-UPS RT 20KVA, 220V/380V, No batteries - SURT20KUXI-CH					
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	9.32E+04	7.10E+02	0*	7.54E+01	9.24E+04	0*	-1.34E+01
Contribution to use of renewable primary energy resources used as raw material	MJ	3.78E+02	3.78E+02	0*	0*	0*	0*	-1.21E+02
Contribution to total use of renewable primary energy resources	MJ	9.36E+04	1.09E+03	0*	7.54E+01	9.24E+04	0*	-1.35E+02
Contribution to use of non renewable primary energy excluding non renewable primary energy used as raw material	MJ	8.94E+05	1.49E+04	2.14E+02	0*	8.74E+05	4.77E+03	-2.29E+03
Contribution to use of non renewable primary energy resources used as raw material	MJ	2.81E+02	2.81E+02	0*	0*	0*	0*	-5.55E+00
Contribution to total use of non-renewable primary energy resources	MJ	8.94E+05	1.52E+04	2.14E+02	0*	8.74E+05	4.77E+03	-2.30E+03
Contribution to use of secondary material	kg	2.98E-03	2.98E-03	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	8.95E+01	6.72E+00	2.08E-02	3.42E-02	5.55E+01	2.72E+01	-9.75E-01
Contribution to hazardous waste disposed	kg	4.50E+03	2.82E+03	0*	0*	1.64E+03	4.27E+01	-2.16E+03
Contribution to non hazardous waste disposed	kg	9.78E+03	3.43E+02	0*	2.23E+01	9.41E+03	1.24E+00	-1.39E+02
Contribution to radioactive waste disposed	kg	5.46E-01	1.55E-01	3.50E-03	1.60E-03	3.85E-01	3.54E-04	-5.90E-02
Contribution to components for reuse	kg	0.00E+00	0*	0*	0*	0*	0*	0.00E+00
Contribution to materials for recycling	kg	3.04E+01	9.09E-02	0*	6.58E+00	0*	2.37E+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	1.20E+01	1.13E+00	0*	1.09E+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.

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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		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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