

# Product Environmental Profile

## PowerTag Energy F160





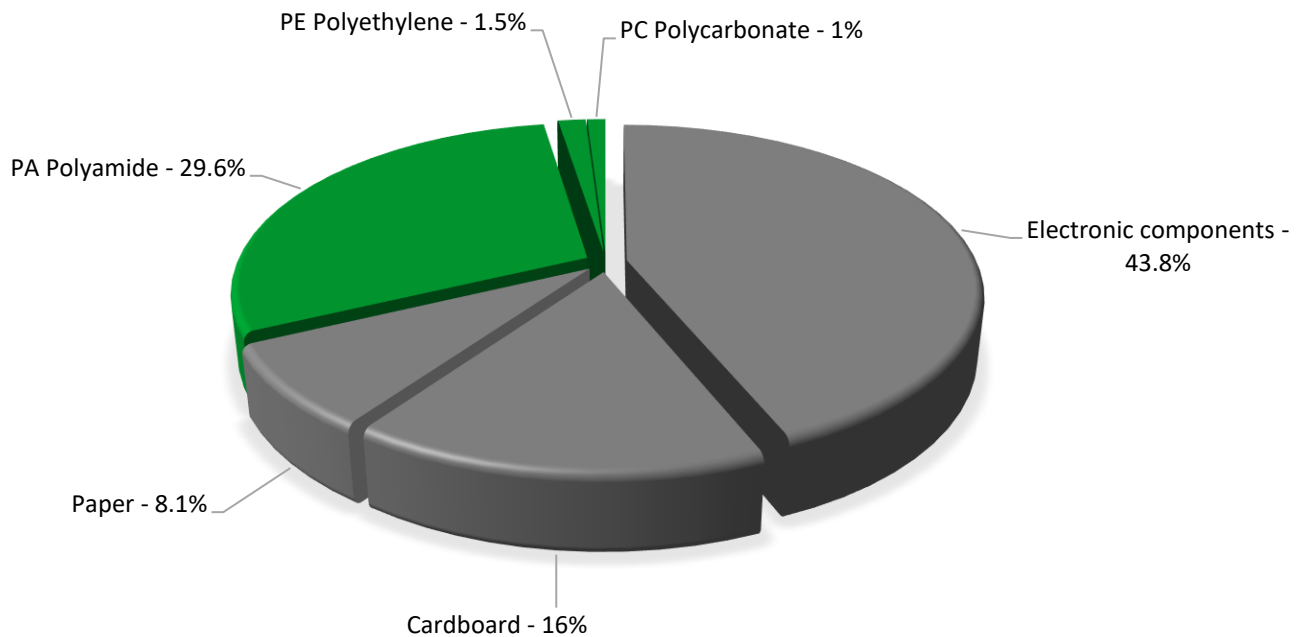
## General information

<b>Representative product</b>	PowerTag Energy F160 - A9MEM1580
<b>Description of the product</b>	The PowerTag F160 is a wireless energy sensor, used to manage energy and monitor load.
<b>Functional unit</b>	The PowerTag F160 is able to measure currents up to 160A and voltage from 100Vac to 480Vac. So that it can calculate Power, Energy, ... and send those values through wireless communication to a concentrator. It complies with the energy measurement standard 61557-12.



## Constituent materials

**Reference product mass** 133 g including the product, its packaging and additional elements and accessories



Plastics	32.1%
Metals	0.0%
Others	67.9%



## Substance assessment

Products of this range are designed in conformity with the requirements of the RoHS directive (European Directive 2011/65/EU of 2 January 2013, amended in March 2015, 2015/863/EU and in November 2017, 2017/2102/EU) and do not contain, or only contain in the authorised proportions, lead, mercury, cadmium, hexavalent chromium or flame retardants (polybrominated biphenyls - PBB, polybrominated diphenyl ethers - PBDE), Bis (2-ethylhexyl)phthalate - DEHP, Benzyl butyl phthalate - BBP, Dibutyl phthalate - DBP, Diisobutyl phthalate - DIBP) as mentioned in the Directive.

Details of ROHS and REACH substances information are available on the Schneider-Electric Green Premium website

<http://www2.schneider-electric.com/sites/corporate/en/products-services/green-premium/green-premium.page>



## Additional environmental information

### The PowerTag Energy F160 presents the following relevant environmental aspects

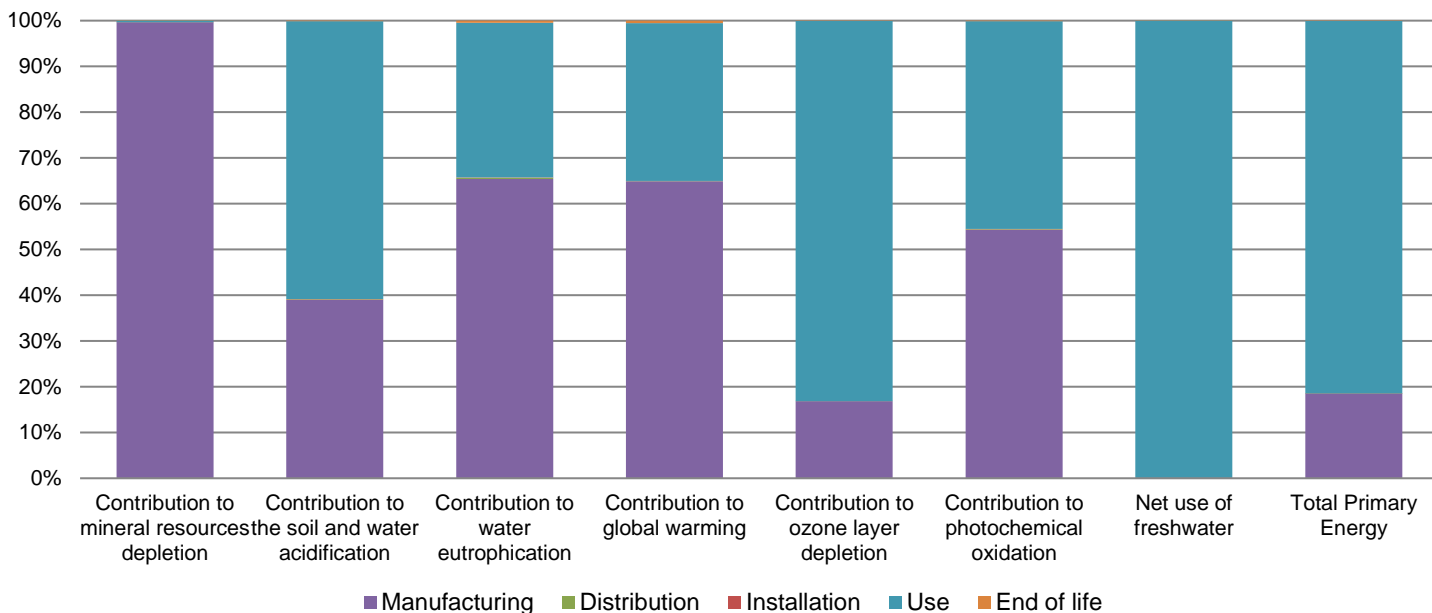
<b>Manufacturing</b>	Manufactured at a Schneider Electric production site ISO14001 certified
<b>Distribution</b>	Weight and volume of the packaging optimized, based on the European Union's packaging directive Packaging weight is 33.1 g, consisting of cardboard (66.46%), paper (33.54%)
<b>Installation</b>	The product does not require special installation procedure and requires little to no energy to install. The disposal of the packaging materials are accounted for during the installation phase (including transport to disposal).
<b>Use</b>	The product does not require special maintenance operations.
<b>End of life</b>	<p>End of life optimized to decrease the amount of waste and allow recovery of the product components and materials</p> <p>This product contains PCBA POWER(23.56g), PCBA ACQUISITION(contains 3 sensor PCBs)(36.75g) that should be separated from the stream of waste so as to optimize end-of-life treatment.</p> <p>The location of these components and other recommendations are given in the End of Life Instruction document which is available on the Schneider-Electric Green Premium website</p> <p><a href="http://www2.schneider-electric.com/sites/corporate/en/products-services/green-premium/green-premium.page">http://www2.schneider-electric.com/sites/corporate/en/products-services/green-premium/green-premium.page</a></p> <p>Recyclability potential: <b>12%</b> Based on "ECO'DEEE recyclability and recoverability calculation method" (version V1, 20 Sep. 2008 presented to the French Agency for Environment and Energy Management: ADEME).</p>



## Environmental impacts

<b>Reference life time</b>	10 years			
<b>Product category</b>	Other equipments - Active product			
<b>Installation elements</b>	The product does not require special installation procedure and requires little to no energy to install. The disposal of the packaging materials are accounted for during the installation phase (including transport to disposal).			
<b>Use scenario</b>	The product is in active mode 100% of the time with a power use of 0.7W, for 10 years.			
<b>Geographical representativeness</b>	France			
<b>Technological representativeness</b>	The PowerTag F160 is a wireless energy sensor, used to manage energy and monitor load.			
<b>Energy model used</b>	<b>Manufacturing</b>	<b>Installation</b>	<b>Use</b>	<b>End of life</b>
	Energy model used: Latvia	Electricity grid mix; AC; consumption mix, at consumer; 230V; FR	Electricity grid mix; AC; consumption mix, at consumer; 230V; FR	Electricity grid mix; AC; consumption mix, at consumer; 230V; FR

Compulsory indicators		PowerTag Energy F160 - A9MEM1580					
Impact indicators	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life
Contribution to mineral resources depletion	kg Sb eq	9.39E-04	9.36E-04	0*	0*	3.25E-06	0*
Contribution to the soil and water acidification	kg SO <sub>2</sub> eq	4.09E-02	1.59E-02	7.84E-05	7.46E-06	2.48E-02	5.83E-05
Contribution to water eutrophication	kg PO <sub>4</sub> <sup>3-</sup> eq	6.69E-03	4.38E-03	1.80E-05	1.81E-06	2.26E-03	3.11E-05
Contribution to global warming	kg CO <sub>2</sub> eq	1.93E+01	1.25E+01	1.72E-02	0*	6.67E+00	1.01E-01
Contribution to ozone layer depletion	kg CFC11 eq	1.15E-05	1.94E-06	0*	0*	9.53E-06	3.42E-09
Contribution to photochemical oxidation	kg C <sub>2</sub> H <sub>4</sub> eq	3.16E-03	1.72E-03	5.59E-06	5.58E-07	1.44E-03	4.63E-06
Resources use	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life
Net use of freshwater	m <sup>3</sup>	1.58E+02	5.63E-02	0*	0*	1.58E+02	0*
Total Primary Energy	MJ	7.47E+02	1.38E+02	2.43E-01	0*	6.08E+02	2.43E-01



Optional indicators		PowerTag Energy F160 - A9MEM1580					
Impact indicators	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life
Contribution to fossil resources depletion	MJ	1.92E+02	1.15E+02	2.41E-01	2.32E-02	7.67E+01	2.00E-01
Contribution to air pollution	m <sup>3</sup>	1.21E+03	9.82E+02	7.30E-01	0*	2.22E+02	1.77E+00
Contribution to water pollution	m <sup>3</sup>	1.56E+03	1.21E+03	2.82E+00	2.72E-01	3.38E+02	4.14E+00
Resources use	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life
Use of secondary material	kg	2.11E-02	2.11E-02	0*	0*	0*	0*
Total use of renewable primary energy resources	MJ	4.91E+01	4.99E+00	0*	0*	4.41E+01	0*
Total use of non-renewable primary energy resources	MJ	6.98E+02	1.33E+02	2.42E-01	0*	5.64E+02	2.42E-01
Use of renewable primary energy excluding renewable primary energy used as raw material	MJ	4.88E+01	4.74E+00	0*	0*	4.41E+01	0*
Use of renewable primary energy resources used as raw material	MJ	2.55E-01	2.55E-01	0*	0*	0*	0*
Use of non renewable primary energy excluding non renewable primary energy used as raw material	MJ	6.96E+02	1.32E+02	2.42E-01	0*	5.64E+02	2.42E-01
Use of non renewable primary energy resources used as raw material	MJ	1.82E+00	1.82E+00	0*	0*	0*	0*
Use of non renewable secondary fuels	MJ	0.00E+00	0*	0*	0*	0*	0*
Use of renewable secondary fuels	MJ	0.00E+00	0*	0*	0*	0*	0*
Waste categories	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life
Hazardous waste disposed	kg	2.24E+00	1.97E+00	0*	0*	1.26E-02	2.57E-01
Non hazardous waste disposed	kg	1.67E+01	3.01E+00	0*	0*	1.36E+01	0*
Radioactive waste disposed	kg	2.03E-01	1.57E-03	0*	0*	2.01E-01	0*
Other environmental information	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life
Materials for recycling	kg	5.33E-02	7.76E-03	0*	3.29E-02	0*	1.26E-02
Components for reuse	kg	0.00E+00	0*	0*	0*	0*	0*
Materials for energy recovery	kg	2.80E-02	0*	0*	0*	0*	2.80E-02
Exported Energy	MJ	1.05E-04	9.84E-06	0*	9.48E-05	0*	0*

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

Life cycle assessment performed with EIME version EIME v5.8.1, database version 2016-11 in compliance with ISO14044.

The manufacturing and use phase are the life cycle phases which have the greatest impact on the majority of environmental indicators (based on compulsory indicators). The manufacturing phase has the greatest impact on Abiotic depletion, Eutrophication, Global warming, Photochemical oxidation; The Use phase has the greatest impact on Acidification potential of soil and water, Ozone layer depletion ODP steady state, Net use of freshwater and Total primary energy.

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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Verifier accreditation N°	VH39	Supplemented by	PSR-0005-ed2-EN-2016 03 29
Date of issue	07/2020	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 Philippe Osset (SOLINNEN)			
PEP are compliant with XP C08-100-1 :2016			
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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