Product Environmental Profile

ISO 14025 COMPLIANT

Current measurement modules
DIRIS Digiware S

The commitments of Socomec to respect the environment

As part of its environmental policy, Socomec is committed to:

- Develop innovating solutions primarily focused on energy efficiency to help its customer in the design of less energy-consuming, better managed and ecofriendly installations.
- Diversify its product offer in the renewable energy and energy efficiency sectors,
- Minimize the environmental impact of its industrial activities through the progressive ISO 14001 certification of its production sites,
- Minimize at the preliminary design stage the environmental impacts of its products taking into account their whole life cycle,
- Provide his customers with reliable data on the environmental performance of the products.

Socomec is member of :

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THE GLOBAL COMPACT

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Environment and sustainable development commissions

PEP ecopassport

PEP ecopassport N° Enregistrement : SOCO-00006-V01.01-EN

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socomec Innovative Power Solutions

Representative product

Reference product
The representative product is the DIRIS Digiware S-135 with sales reference 48290161.

References covered by this PEP
DIRIS Digiware S-130, S-Datacenter respectively of the sales references 48290160, 48290162.

Product description
DIRIS Digiware S modules are used with DIRIS Digiware system designed for monitoring and reporting electrical energy.

DIRIS Digiware S modules integrate current sensors and can replace or complete DIRIS Digiware I modules and their associated current sensors.

Functional unit
Measure the current with integrated current sensors to measure circuits up to 63A during 10 years.

Material and substances

Declaration of the constitutive materials according to IEC 62474
Total mass of the reference product (including packaging): 78,9g (packaging: 26,8g and electronic components: 33,2g)
The packaging is composed of cardboard (19,4 g), labels and instruction sheet (7,4 g)

For the DIRIS Digiware S

Metals, % weight		Plastics, % weight		Others, % weight	
Copper and its alloys	8,7%	Other Thermoplastics	26,5%	Other Organic Materials	35,0%
Other non-ferrous metals and alloys	3,8%	Other Plastics and Rubber	5,8%	Other inorganic materials	7,1%
Nickel et ses alliages	2,4%	PolyVinylChloride (PVC)	<0,1%	Ceramics/Glass	7,0%
Other Ferrous alloys, non-stainless steels	2,2%				
Zinc and its alloys	1,2%				
Precious metals	0,3%				
Stainless steel	<0,1%				
Aluminium and its alloys	<0,1%				
Magnesium and its alloys	<0,1%				

The estimated content of recycled materials is 22,9%, based on a Life Cycle Analysis model with EIME software which is a software distributed by CODDE, a subsidiary of Bureau Veritas.

Substances management
Socomec is leading a program to limit the use of hazardous substances in the design of new products and to monitor the presence of substances of concern in its supplies to anticipate future use restrictions.

ROHS directive 2011/65/EC compliance: although the majority of Socomec products are outside the scope of the ROHS directives, a ROHS compliance process has been in progress on a voluntary basis since 2006. Product references covered by this PEP meet the requirements of the RoHS Directive on the restriction of substances such as lead, mercury, cadmium, hexavalent chromium, polybrominated biphenyl (PBB) and polybrominated diphenyl ethers (PBDEs).

REACH 1907/2006 regulation: to the best of our knowledge at the publication date of this document, none of the substance of the candidate list to authorization (SVHC) has been found in the references covered by this PEP.

Manufacturing

The products covered by this PEP are manufactured on a site where impacts on the environment are reduced by optimizing its energy consumption and by practicing a rigorous waste management.

Moreover, Socomec is committed to the progressive ISO 14001 certification of its manufacturing sites.

Distribution

As part of its distribution policy aiming to respect the environment, Socomec is in favor of groupage transports and ISO14001 certified logistic partners.
No reconditionning is needed for this product.

The packaging complies with Directive 94/62/EC.
The sizing of the packaging has been optimized to ensure the best possible protection of the product at the lowest possible volume in order to reduce the impact of the transport stage on the environment.

Packaging design solutions favors mono-material recyclable cardboard without coloring or bleaching. The wedging of the packaged product is made of recycled cardboard, no polystyrene is used.

Installation

The installation stage consists in connecting the product to the existing electrical installation. The installation does not generate any significant impacts on the environment, except impacts from packaging waste.

Use phase

Consumption scenario
Use phase scenario: European energy mix

Mode	Power consumption of the reference product (W)	Load rate (%)	Time distribution (%)
Active	DIRIS Digiware S-135 : 0,31	100	100

Product power consumption during its total lifespan (10 years): 27,2 kWh.

Care and maintenance
The product does not require any maintenance under normal conditions of use.

Consumables
The product does not require consumables.

End of life

End of life treatment
During dismantling, some parts could constitute a safety hazard for treatment operators and damage environment. See below the location of such components that need to be dismantled and oriented towards appropriate end of life facilities according to the applicable local legislation.

1) With a screwdriver in the notches*, dissociate the 2 parts of the plastic housing.

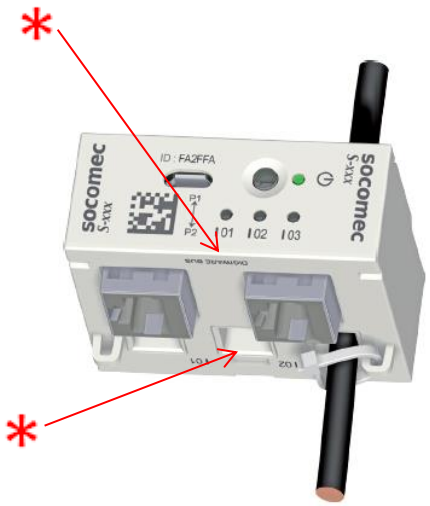
   Then repeat the operations on the opposite face of the product.

2) Remove the superior part of the plastic housing in order to access the electronic cards.

   Take the electronic card out of the plastic housing.

   Head all of the parts towards the appropriate recycling industry according to the legislation.

   Remark:
   This product does not contain any battery.



Recovery potential of the product according to IEC TR 62635

The total potential value of this product is 45 %.
This potential value takes into account the material recycling and energy recovery.

Environmental impacts

Calculation methodology: life cycle assessment (LCA)

The calculation of the impacts on the environment was made using a life cycle assessment methodology in accordance with the ISO 14040 requirements and with PEP eco passport product category rules. For more details follow the link: www.pep-ecopassport.org
This study was carried out with the version 5.3 of the software EIME with version database CODDE_2016_11. The software is distributed by CODDE which is a subsidiary of Bureau Veritas.

The whole life cycle has been taken into account:

Step	Geographical representativeness	Scenario
Manufacturing (M)	Production of electronic components : Asia Production of other components and packaging : Europe Assembly : France	From the raw material extraction to the last Socomec logistic platform, including packaging
Distribution (D)	Distribution scenario : Europe	From the last Socomec logistic platform to the final customer
Installation (I)	Transport and treatment of packaging wastes : Local	1000 km local road transport of generated wastes to the treatment site, and landfilling
Use phase (U)	Energy mix : Europe	Power consumption required during 10 years according to consumption scenario described on page 4.
End Of Life (EOL)	Transport and treatment : Local	1000 km road transport from the final customer to the treatment sites. End of life treatment.

Environmental impacts of the DIRIS Digiware S
The following impacts have been calculated to best represent geographically and technologically each step of the life cycle.

Indicators	Unit	Total impact	M	D	I	U	EOL
Contribution to global warming	kg CO_2 eq.	1,89E+01	5,49E+00	4,12E-02	5,88E-03	1,33E+01	1,14E-02
Contribution to ozone layer depletion	kg CFC11 eq.	1,55E-06	6,79E-07	0*	0*	8,67E-07	1,70E-10
Contribution to the soil and water acidification	kg SO_2 eq.	6,30E-02	7,26E-03	1,85E-04	2,42E-05	5,55E-02	4,69E-05
Contribution to water eutrophication	kg $(PO_4)^{3-}$ eq.	5,31E-03	1,87E-03	4,26E-05	1,67E-05	3,35E-03	3,24E-05
Contribution to photochemical ozone formation	kg C_2H_4 eq.	3,87E-03	8,01E-04	1,32E-05	1,81E-06	3,05E-03	3,50E-06
Contribution to the depletion of abiotic resources - elements	kg Sb eq.	3,99E-03	3,99E-03	0*	0*	1,16E-06	0*
Contribution to the depletion of abiotic resources - fossil fuels	MJ	2,13E+02	6,11E+01	5,79E-01	8,34E-02	1,51E+02	1,61E-01
Contribution to water pollution	m^3	9,91E+02	4,33E+02	6,78E+00	8,02E-01	5,49E+02	1,55E+00
Contribution to air pollution	m^3	1,05E+03	4,75E+02	1,69E+00	4,91E-01	5,73E+02	9,50E-01
Use of renewable primary energy (excl. raw materials)	MJ	3,58E+01	2,03E+00	0*	0*	3,38E+01	0*
Use of renewable primary energy used as raw materials	MJ	5,42E-01	5,42E-01	0*	0*	0*	0*
Total use of renewable primary energy resources	MJ	3,64E+01	2,57E+00	0*	0*	3,38E+01	0*
Use of non-renewable primary energy (excl. raw materials)	MJ	2,94E+02	6,18E+01	5,82E-01	7,18E-02	2,32E+02	1,39E-01
Use of non-renewable primary energy used as raw materials	MJ	3,25E-01	3,25E-01	0*	0*	0*	0*
Total use of non-renewable primary energy resources	MJ	2,95E+02	6,21E+01	5,82E-01	7,18E-02	2,32E+02	1,39E-01
Use of secondary materials	Kg	1,94E-02	1,94E-02	0*	0*	0*	0*
Use of renewable secondary fuels	MJ	0,00E+00	0*	0*	0*	0*	0*
Use of non-renewable secondary fuels	MJ	0,00E+00	0*	0*	0*	0*	0*
Net use of fresh water	m^3	4,83E+01	4,75E-02	0*	0*	4,82E+01	0*

Hazardous waste disposed of	Kg	6,14E+00	6,13E+00	0*	0*	6,94E-03	0*
Non-hazardous waste disposed of	Kg	5,19E+01	2,18E+00	0*	3,00E-02	4,96E+01	5,82E-02
Radioactive waste disposed of	Kg	3,39E-02	8,07E-04	0*	0*	3,31E-02	0*
Components for reuse	Kg	0,00E+00	0*	0*	0*	0*	0*
Materials for recycling	Kg	0,00E+00	0*	0*	0*	0*	0*
Materials for energy recovery	Kg	0,00E+00	0*	0*	0*	0*	0*
Exported energy	MJ by energy vector	0,00E+00	0*	0*	0*	0*	0*
Total use of primary energy during the life cycle	MJ	3,31E+02	6,47E+01	5,83E-01	7,28E-02	2,66E+02	1,41E-01

NB : 0 means that this impact either represents less than 0.01% of the total life cycle of the reference flow, or has no impact (in the case where the total impact is zero).*

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Independant verification of the declaration and data, in compliance with ISO 14025 : 2010	
Internal : ☒	**External :** ☐
The PCR review was conducted by a panel of experts chaired by Philippe Osset (SOLINNEN)	
PEP are compliant with XP C08-100-1 :2014 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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