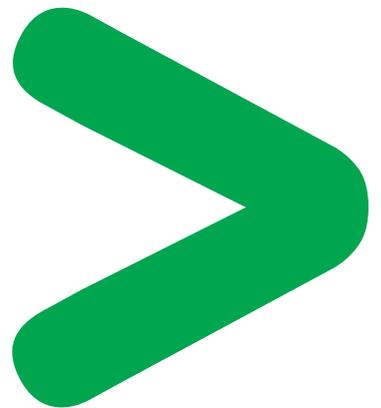


Product Environmental Profile

TCSESU043F1N0

ConneXium unmanaged Switch 4TX/1FX-MM



Schneider
Electric

Product Environmental Profile - PEP

Product Overview

The product described in this document is one in the next evolution of unmanaged switches for the ConneXium family. This particular product was chosen as representative of these switches because it is the most inclusive example.

These switches are RoHS compliant beginning with first production released in November 2007.

At the time of release, 10 November 2007, these products were manufactured using RoHS compliant components in a lead-free solder process.

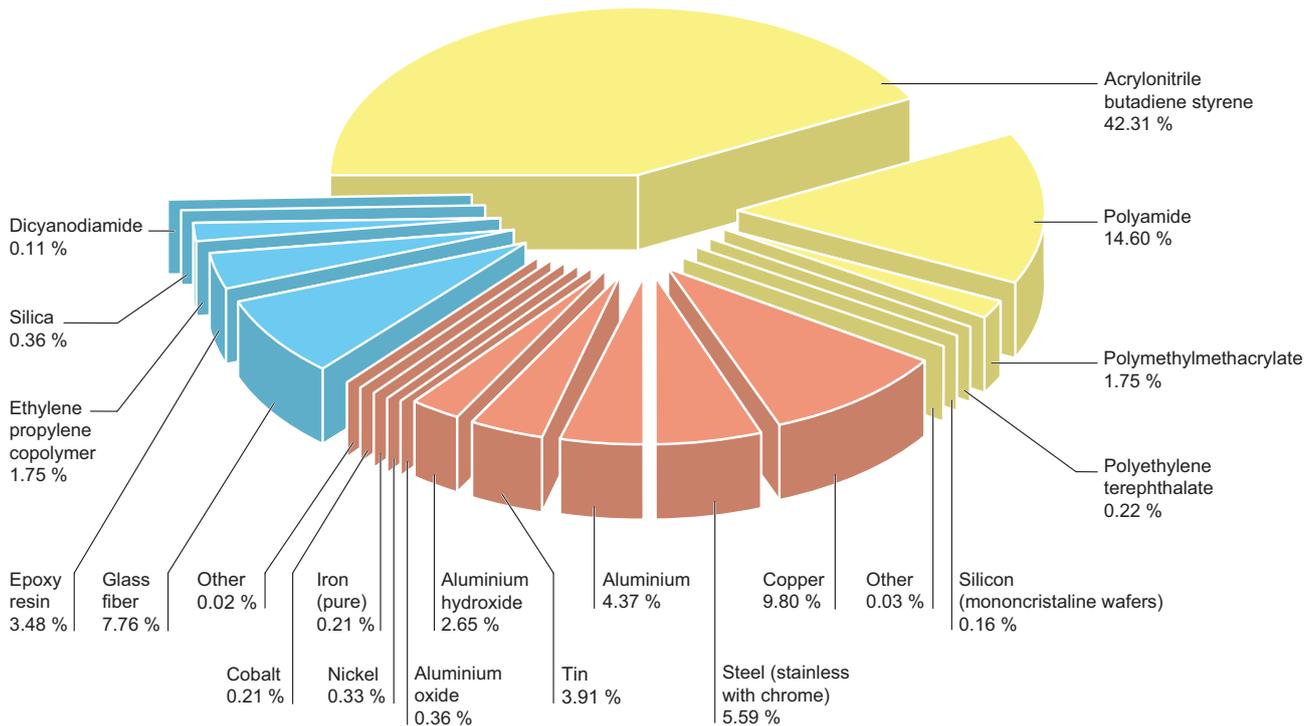
This product has been designed using ECO-Design principles to assure it meets requirements while reducing its environmental impact over its life cycle.

The following commercial reference numbers are covered by this document:

- TCSESU033FN0
- TCSESU043F1N0
- TCSESU053FN0
- TCSESU083FN0.

Constituent materials

This product does not contain batteries or any substances banned by regulation in force at the time of its commercialization except as noted in the product description.
The materials used in the Manufacturing (M) of this product can be broken down as follows:



Manufacturing

A Schneider Electric partner located in Germany is the original manufacturer of this product.

The manufacturing site has an Environmental Management System in accordance with ISO 14001.

Distribution

The distribution is ensured by distribution centers in Europe and America, through our subsidiaries in each country. Packaging is designed to facilitate the use of standardized containers.

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Use

This product was designed to optimize energy consumption while in use. This product is soundless and produces no waste in use.

End of life

The ECO-Design program at Schneider Electric has among its objectives, the recycling optimization of its products. The proportion of recyclable materials in this product is approximately 86 %. This percentage is calculated using databases based on national averages, and on existing recycling networks.

Environmental impacts

The environmental impact resulting from the product's life cycle where calculated by Environmental Information and Management Explorer (EIME) software for a product life of 10 years. They take into account the Manufacturing (M), Distribution (D), and Usage (U) phases.

Presentation of the environmental impacts

Environmental indicators	Unit	TCSESU043F1N0 (1.000 unit)			
		S = M + D + U	M	D	U
Raw Material Depletion	Y-1	2.58 10 ⁻¹⁴	2.38 10 ⁻¹⁴	2.63 10 ⁻¹⁹	1.97 10 ⁻¹⁵
Energy Depletion	MJ	2.16 10 ³	1.56 10 ²	1.89 10 ⁻¹	2 10 ³
Water depletion	dm ³	3.72 10 ²	77.7	1.83 10 ⁻²	2.94 10 ²
Global Warming	g≈CO ₂	1.2 10 ⁵	9.7 10 ³	16.5	1.1 10 ⁵
Ozone Depletion	g≈CFC-11	1.25 10 ⁻²	1.18 10 ⁻³	1.08 10 ⁻⁵	1.13 10 ⁻²
Air Toxicity	m ³	2.28 10 ⁷	2.15 10 ⁶	6.1 10 ³	2.07 10 ⁷
Photochemical Ozone Creation	g≈C ₂ H ₄	44.4	6.67	2.06 10 ⁻²	37.7
Air acidification	g≈H ⁺	18.7	1.74	3.91 10 ⁻³	16.9
Water Toxicity	dm ³	2.51 10 ⁴	2.54 10 ³	1.89	2.26 10 ⁴
Water Eutrophication	g≈PO ₄	2.64	2.25	2.77 10 ⁻⁴	3.84 10 ⁻¹
Hazardous waste production	kg	1.66	1.57 10 ⁻¹	5.84 10 ⁻⁶	1.5

Product Environmental Profile - PEP

System approach

As the product of the range are designed in accordance with the RoHS Directive (European Directive 2002/95/EC of 27 January 2003), they can be incorporated without any restriction within an assembly or an installation submitted to this Directive.

N.B.: please note that the environmental impacts of the product depend on the use and installation conditions of the product.

Impacts values given above are only valid within the context specified and cannot be directly used to draw up the environmental assessment of the installation.

Glossary

Raw Material Depletion (RMD)

This indicator quantifies the consumption of raw materials during the life cycle of the product. It is expressed as the fraction of natural resources that disappear each year, with respect to all the annual reserves of the material.

Energy Depletion (ED)

This indicator gives the quantity of energy consumed, whether it be from fossil, hydroelectric, nuclear or other sources. This indicator takes into account the energy from the material produced during combustion. It is expressed in MJ.

Water Depletion (WD)

This indicator calculates the volume of water consumed, including drinking water and water from industrial sources. It is expressed in dm³.

Global Warming (GW)

The global warming of the planet is the result of the increase in the greenhouse effect due to the sunlight reflected by the earth's surface being absorbed by certain gases known as "greenhouse-effect" gases. The effect is quantified in gram equivalent of CO₂.

Ozone Depletion (OD)

This indicator defines the contribution to the phenomenon of the disappearance of the stratospheric ozone layer due to the emission of certain specific gases. The effect is expressed in gram equivalent of CFC-11.

Photochemical Ozone Creation (POC)

This indicator quantifies the contribution to the "smog" phenomenon (the photochemical oxidation of certain gases which generates ozone) and is expressed in gram equivalent of ethylene (C₂H₄).

Air Acidification (AA)

The acid substances present in the atmosphere are carried by rain. A high level of acidity in the rain can cause damage to forests. The contribution of acidification is calculated using the acidification potentials of the substances concerned and is expressed in mode equivalent of H⁺.

Hazardous Waste Production (HWP)

This indicator calculates the quantity of specially treated waste created during all the life cycle phases (manufacturing, distribution and utilization). For example, special industrial waste in the manufacturing phase, waste associated with the production of electrical power, etc. It is expressed in kg.



We are committed to safeguarding our planet by "Combining innovation and continuous improvement to meet the new environmental challenges".

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This document is based on ISO 14020 which relates to the general principles of environmental declarations and the ISO 14025 technical report relating to type III environmental declarations. Product Environmental Profiles Drafting Guide version 12.

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