

Product Environmental Profile

Safety boxes 90 series Emergency shutdown control device



LEGRAND'S ENVIRONMENTAL COMMITMENTS

- Incorporate environmental management into our industrial sites**

Of all Legrand sites worldwide, over 85% are ISO 14001-certified (sites belonging to the Group for more than five years).

- Offer our customers environmentally friendly solutions**

Develop innovative solutions to help our customers design more energy efficient, better managed and more environmentally friendly installations.


- Involve the environment in product design and provide informations in compliance with ISO 14025**

Reduce the environmental impact of products over their whole life cycle.

Provide our customers with all relevant information (composition, consumption, end of life, etc.).



REFERENCE PRODUCT

Function	Establish, support and interrupt for 20 years rated currents in normal conditions of circuit characterized by the current of 6 A in AC and 1 A to 5 A in DC including any conditions specified for overload in operation characterized by the current of 8 A, for the operating voltage of 250 V \sim and 24 V \equiv to 48V \equiv for a specified time, in IP 30 and IK 07.
Reference Product	 <p>Cat.No 1 380 71 Emergency shutdown control device - 1 contact.</p>

The company reserves the right to change specifications and designs without notice. All illustrations, descriptions, dimensions and weights in the document are for guidance and cannot be held binding on the company.



PRODUCTS CONCERNED

The environmental data is representative of the following products:

Cat. Numbers	Designation	Color	IP - IK
1 380 71	Emergency shutdown control device - 1 contact	White	IP 30 - IK 07
1 380 25	Extinguishing system device - 1 contact	Yellow	
1 380 73	Emergency shutdown control device - 2 contacts	White	

Product Environmental Profile

Safety boxes 90 series Emergency shutdown control device



■ CONSTITUENT MATERIALS

This Reference Product contains no substances prohibited by the regulations applicable at the time of its introduction to the market. It respects the restrictions on use of hazardous substances as defined in the RoHS directive 2011/65/EU.

Total weight of Reference Product		213 g (with unit packaging)			
Plastics as % of weight		Metals as % of weight		Other as % of weight	
ABS	32.8 %	Copper alloys	1.7 %		
PC	14.7 %	Steel	1.7 %		
PP	3.6 %	Other metal	0.8 %		
PA	2.0 %	Silver alloy	< 0.1 %	Packaging as % of weight	
Other plastic	0.1 %	Al	< 0.1 %	Wood (packaging)	21.9 %
PS	< 0.1 %			Paper (packaging)	20.2 %
				PE (packaging)	0.4 %
				PP (packaging)	0.1 %
Total plastics	53.2 %	Total metals	4.2 %	Total other and packaging	42.6 %

Estimated recycled material content: 15 % by mass.

For products other than the Reference Product, following materials' tables applies:

Total weight of Reference Product 1 380 25		259 g (with unit packaging)			
Plastics as % of weight		Metals as % of weight		Other as % of weight	
PC	55.3 %	Copper alloys	2.4 %		
PP	2.6 %	Steel	1.8 %		
PA	1.4 %	Other metal	1.1 %		
Other plastic	< 0.1 %	Silver alloy	< 0.1 %	Packaging as % of weight	
PS	< 0.1 %	Al	< 0.1 %	Wood(packaging)	20.7 %
				Paper (packaging)	14.3 %
				PE (packaging)	0.3 %
				PP (packaging)	0.1 %
Total plastics	59.3 %	Total metals	5.3 %	Total other and packaging	35.4 %

Estimated recycled material content: 15 % by mass.

Total weight of Reference Product 1 380 73		245 g (with unit packaging)			
Plastics as % of weight		Metals as % of weight		Other as % of weight	
ABS	28.5 %	Copper alloys	2.9 %		
PC	16.4 %	acier	2.2 %		
PP	3.2 %	Other metal	1.3 %		
PA	1.9 %	Silver alloy	< 0.1 %	Packaging as % of weight	
Other plastic	< 0.1 %	Al	< 0.1 %	Wood(packaging)	25.5 %
PS	< 0.1 %			Paper (packaging)	17.6 %
				PE (packaging)	0.3 %
				PP (packaging)	0.2 %
Total plastics	50.0 %	Total metals	6.4 %	Total other and packaging	43.6 %

Estimated recycled material content: 14 % by mass.

Product Environmental Profile

Safety boxes 90 series Emergency shutdown control device



MANUFACTURE

This Reference Product comes from a site that has received ISO14001 certification.



DISTRIBUTION

Products are distributed from logistics centres located with a view to optimize transport efficiency. The Reference Product is therefore transported over an average distance of 780 km by road from our warehouse to the local point of distribution into the market in Europe. Packaging is compliant with european directive 2004/12/EU concerning packaging and packaging waste. At their end of life, its recyclability rate is 96 % (in % of packaging weight).



INSTALLATION

For the installation of the product, only standard tools are needed.



USE

Under normal conditions of use, this product requires no servicing, no maintenance or additional products.

Product Environmental Profile

Safety boxes 90 series Emergency shutdown control device



END OF LIFE

The product end-of-life factors are taken into account during the design phase. Dismantling and sorting of components or materials is made as easy as possible with a view to recycling or failing that, another form of reuse. This product falls within the scope of the WEEE directive (2012/19/EU). Therefore it must be processed through local WEEE recycling/recovery channels.

• **Elements to process specifically:**

In accordance with the requirements of this Directive, the following components must be removed and sent to specific channels for processing which comply with the WEEE Directive 2012/19/EU:

- plastic parts with brominated flame retardant: 32 g

• **Extended producer responsibility:**

In France, the sale of products covered by the field of application of the European Directive on Waste Electronic and Electrical Equipment (WEEE) is subject to a contribution to a certified eco-organisation.

• **Recyclability rate:**

Calculated using the method described in technical report IEC/TR 62635, the recyclability rate of the product is estimated at 95 %. This value is based on data collected from a technological channel operating on an industrial basis. It does not pre-validate the effective use of this channel for the end of life of this product.

Separated into:

- plastic materials (excluding packaging) : 50 %
- metal materials (excluding packaging) : 4 %
- other materials (excluding packaging) : 0 %
- packaging (all types of materials) : 41 %



ENVIRONMENTAL IMPACTS

The evaluation of environmental impacts examines the stages of the Reference Product life cycle: manufacturing, distribution, installation, use and end-of-life. It is representative from products marketed and used in Europe, in compliance with the local current standards.

For each phase, the following modelling elements were taken in account:

Manufacture	Materials and components of the product, all transport for the manufacturing, the packaging and the waste generated by the manufacturing.
Distribution	Transport between the last Group distribution centre and an average delivery point in the sales area.
Installation	The end of life of the packaging.
Use	<ul style="list-style-type: none"> • Product category: passive product. • Use scenario: non-continuous operation for 20 years at 30 % of rated load, during 30 % of the time. This modelling duration does not constitute a minimum durability requirement. • Energy model: Electricity mix AC, consumption mix, at power plant, FR: module ECO-0165 - selon référentiel NF Environnement - Blocs d'éclairage de sécurité NF-413 en vigueur - 2005.
End of life	The default end of life scenario maximizing the impacts.
Software and database used	EIME V5 and its database «CODDE-2015-04»

Product Environmental Profile

Safety boxes 90 series
Emergency shutdown control device



SELECTION OF ENVIRONMENTAL IMPACTS

	Total for Life cycle		Raw material and manufacture		Distribution		Installation		Use		End of life	
Global warming	2.75E+00	kgCO₂ eq.	1.04E+00	38 %	8.27E-03	< 1 %	5.15E-03	< 1 %	1.68E+00	61 %	1.42E-02	< 1 %
Ozone depletion	8.49E-07	kgCFC-11 eq.	4.39E-07	52 %	1.68E-11	< 1 %	2.64E-11	< 1 %	4.09E-07	48 %	3.51E-10	< 1 %
Acidification of soils and water	1.40E-02	kgSO₂ eq.	1.18E-03	8 %	3.72E-05	< 1 %	2.41E-05	< 1 %	1.27E-02	91 %	5.42E-05	< 1 %
Water eutrophication	9.50E-04	kg[PO₄]³⁻ eq.	3.83E-04	40 %	8.54E-06	< 1 %	1.72E-05	2 %	4.77E-04	50 %	6.32E-05	7 %
Photochemical ozone formation	7.97E-04	kgC₂H₄ eq.	1.87E-04	23 %	2.64E-06	< 1 %	1.71E-06	< 1 %	6.02E-04	76 %	4.23E-06	< 1 %
Depletion of abiotic resources - elements	9.87E-05	kgSb eq.	9.86E-05	100 %	3.31E-10	< 1 %	2.19E-10	< 1 %	7.67E-08	< 1 %	9.01E-10	< 1 %
Total use of primary energy	5.71E+01	MJ	2.26E+01	40 %	1.17E-01	< 1 %	7.34E-02	< 1 %	3.41E+01	60 %	2.18E-01	< 1 %
Net use of fresh water	1.04E-02	m³	5.99E-03	58 %	7.40E-07	< 1 %	1.16E-06	< 1 %	4.39E-03	42 %	1.21E-05	< 1 %
Depletion of abiotic resources - fossil fuels	3.40E+01	MJ	1.62E+01	48 %	1.16E-01	< 1 %	7.20E-02	< 1 %	1.73E+01	51 %	2.02E-01	< 1 %
Water pollution	3.05E+02	m³	2.30E+02	76 %	1.36E+00	< 1 %	8.14E-01	< 1 %	7.07E+01	23 %	1.62E+00	< 1 %
Air pollution	2.07E+02	m³	1.33E+02	64 %	3.39E-01	< 1 %	4.51E-01	< 1 %	7.22E+01	35 %	1.65E+00	< 1 %

The values of the 27 impacts defined in the PCR-ed3-EN-2015 04 02 are available in the digital database of pep-ecopassport.org website.

Product Environmental Profile

Safety boxes 90 series
Emergency shutdown control device



SELECTION OF ENVIRONMENTAL IMPACTS (CONTINUED)

For products covered by the PEP other than the Reference Product, the environmental impacts of each phase of the lifecycle are calculated with following tables:

The use phase, and installation phase do not represent significant differences with the Reference Product	Rate 1 380 71	Rate 1 380 25				
	All impacts	Manufacturing	Distribution	Installation	Use	End of life
Global warming	1	1.7	1.2	1.2	1	1.6
Ozon depletion		1				
Acidification of soil and water		1.6				
Water eutrophication		1.5				
Photochemical ozone creation		1.5				
Depletion of abiotic resources - elements		1.2				
Total use of primary energy during the life cycle		1.4				
Net use of fresh water		1.3				
Depletion of abiotic resources - fossil fuels		1.4				
Water pollution		3.8				
Air pollution		1.2				

The use phase, and installation phase do not represent significant differences with the Reference Product	Rate 1 380 71	Rate 1 380 73				
	All impacts	Manufacturing	Distribution	Installation	Use	End of life
Global warming	1	1.1	1.1	1.2	2	1.1
Ozon depletion		1				
Acidification of soil and water		1.2				
Water eutrophication		1.1				
Photochemical ozone creation		1.1				
Depletion of abiotic resources - elements		2				
Total use of primary energy during the life cycle		1.1				
Net use of fresh water		1.2				
Depletion of abiotic resources - fossil fuels		1.1				
Water pollution		1.3				
Air pollution		1.3				

Registration N°: LGRP-00144-V01.01-EN	Drafting rules: «PEP-PCR-ed3-EN-2015 04 02» Supplemented by «PSR-0005-ed1-2012 12 11»
Verifier accreditation N°: VH23	Information and reference documents : www.pep-ecopassport.org
Date of issue: 08-2016	Validity period: 5 years
Independent verification of the declaration and data, in compliance with ISO 14025:2010 Internal <input checked="" type="checkbox"/> External <input type="checkbox"/>	
The PCR review was conducted by a panel of experts chaired by Philippe Osset (SOLINNEN)	
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»	
Environmental data in alignment with EN 15804 : 2012 + A1 : 2013	

