

Product Environmental Profile

Motorised Control DX³ - 230 V ~ - standard - 1 module




LEGRAND'S ENVIRONMENTAL COMMITMENTS

- Incorporate environmental management into our industrial sites
Of all Legrand sites worldwide, over 80% are ISO 14001-certified (sites belonging to the Group for more than five years).
- Involve the environment in product design
Provide our customers with all relevant informations (composition, consumption, end of life, etc.).
Reduce the environmental impact of products over their whole life cycle.
- Offer our customers environmentally friendly solutions
Develop innovative solutions to help our customers to design more energy efficient, better managed and more environmentally friendly installations.



REFERENCE PRODUCT

Function	The product has to be mounted on the left-hand of 1 module/pole MCBs, RCBOs and RCDs and it enables the products with which they are used to be opened and closed remotely. It takes one control auxiliary and one signaling auxiliary. The signaling auxiliary must be placed between the remote control and the control auxiliary. PCR Category: active product, used during 10 years. See details of the use scenario on page 3.
Reference Product	 <p style="text-align: center;">LG-406291 Motorised Control DX³ - 230 V ~ - standard - 1 module</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.



CONCERNED PRODUCTS

The environmental data for the Reference Product represent the following Catalogue Numbers:

- LG-406291

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■ CONSTITUENT MATERIALS

This product contains no substances prohibited by the regulations applicable at the time of its introduction to the market. At the date of publication of this document, this product contains no substances to which the RoHS directives apply (2002/95/EC and review 2011/65/EC) and no substances appearing on the list of candidates for authorisation of the European REACH regulation.

Total weight of Reference Product:	215 g (unit packaging included)
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Plastics as % of weight		Metals as % of weight		Other as % of weight	
Polycarbonates (PC)	13,9 %	Steel	6,7 %	Glass Fiber	6,5 %
Polyamide (PA 66)	4,7 %	Copper (Cu)	4,6 %	Ferrites	1,6 %
Epoxy Resin	1,4 %	Other metals	3,0 %	Talcum	0,9 %
Polybutylene Terephthalate (PBT)	1,2 %			Other	4,4 %
Polyethylene Terephthalate (PET)	0,9 %			Packaging as % of weight	
Other plastics	1,4 %			Cardboard	44,1 %
				Paper	4,6 %
				Ink and glue	0,1 %
Total plastics	23,5 %	Total metals	14,3 %	Total other and packaging	62,2 %

Estimated recycled material content: 49 % by weight



■ MANUFACTURE

This product comes from sites that have received ISO 14001 certification



■ DISTRIBUTION

The Group's products are distributed from logistics centres located to optimize transport efficiency.

The Reference Product is therefore transported over an average distance of 780 km, essentially by road, representing a marketing in Europe.

Packaging is compliant with Directive 2004/12/EC concerning packaging and packaging waste. At the end of product life, the theoretical recycling potential is 100 % and their energy recovery potential is 100 % (as % of packaging weight).



■ INSTALLATION

Installation components not delivered with the product are not taken into account.



■ USE

Servicing and maintenance:

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

Consumable

No consumables are necessary to use the products.

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END OF LIFE

• Non-hazardous waste contained in the product: 105 g

• Hazardous waste contained in the product:
This product contains no hazardous waste.

• Theoretical recycling potential:

The theoretical recycling potential of a product is the percentage of material that can be recycled using existing techniques. It takes no account of the existence or lack of recycling services, which are highly dependent on the local situation.

This product contains 70 % by weight of potentially recyclable material (excluding packaging):

- Plastic materials : 42 %
- Metal materials : 28 %

• Energy recovery potential:

Energy recovery consists in using the calories contained in waste by burning it and recovering the energy produced, for example, to heat buildings or to produce electricity. The process uses the convertible energy contained in the waste. 49 % of the product mass can be recycled with energy recovery.



ENVIRONMENTAL IMPACTS

The evaluation of environmental impacts examines the stages of the Reference Product life cycle: manufacturing, distribution, installation, use and end of life of the product marketed and used in Europe. The following modelling elements were taken into account:

Manufacture	Unit packaging taken into account.
Distribution	Transport between the last Group distribution centre and an average delivery to the sales area.
Installation	Installation components not delivered with the product are not taken into account.
Use	<ul style="list-style-type: none"> • Maintenance: under normal conditions of use, this type of product requires no servicing or maintenance. No consumables are necessary to use the product. • Product category: active product • Use scenario: 10 years working life; non-active mode with a consumption of 1,5 W for the whole life of the Reference Product with the exception of the closing operation where, for a duration of 0,7 seconds/year, the consumption is 19 W. This modelling duration does not constitute a minimum durability requirement. • Energy model: Electricity Europe 2005.
End of life	In view of the data available on the date of creation of the document, and in accordance with the requirements of the PCR of the « PEP ecopassport » programme, was counted transport of the Reference Product by road only once, over a distance of 1000 km, to a processing site at end of life.
Software used	EIME V4.1 and its database, version 11.3 developed from version 11.0.

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ENVIRONMENTAL IMPACTS

		Total for Life cycle		Raw material and manufacture		Distribution		Installation		Use		End of life	
Mandatory indicators	Contribution to greenhouse effect	7,74E+04	g~CO ₂	1,47E+03	2%	3,33E+01	< 1%	0,00E+00	0%	7,59E+04	98%	2,55E+01	< 1%
	Damage to the ozone layer	4,63E-03	g~CFC-11	4,69E-04	10%	2,36E-05	< 1%	0,00E+00	0%	4,12E-03	89%	1,80E-05	< 1%
	Eutrophisation of water	5,09E-01	g~PO ₄ ³⁻	3,30E-01	65%	5,54E-04	< 1%	0,00E+00	0%	1,78E-01	35%	4,23E-04	< 1%
	Photochemical ozone formation	2,64E+01	g~C ₂ H ₄	6,03E-01	2%	2,85E-02	< 1%	0,00E+00	0%	2,57E+01	98%	2,18E-02	< 1%
	Acidification of the air	1,06E+01	g~H ⁺	3,12E-01	3%	4,25E-03	< 1%	0,00E+00	0%	1,03E+01	97%	3,25E-03	< 1%
	Total energy consumed	1,53E+03	MJ	2,88E+01	2%	4,21E-01	< 1%	0,00E+00	0%	1,50E+03	98%	3,22E-01	< 1%
	Consumption of water	2,38E+02	dm ³	2,01E+01	8%	4,00E-02	< 1%	0,00E+00	0%	2,17E+02	92%	3,05E-02	< 1%

Optional indicators	Depletion of natural resources	2,22E-14	years ⁻¹	2,05E-14	92%	5,74E-19	< 1%	0,00E+00	0%	1,71E-15	8%	4,39E-19	< 1%
	Toxicity of the air	1,30E+07	m ³	4,43E+05	3%	6,28E+03	< 1%	0,00E+00	0%	1,26E+07	97%	4,80E+03	< 1%
	Toxicity of the water	2,23E+04	dm ³	5,95E+02	3%	4,17E+00	< 1%	0,00E+00	0%	2,17E+04	97%	3,18E+00	< 1%
	Production of hazardous waste	1,30E+00	kg	4,01E-02	3%	1,24E-05	< 1%	0,00E+00	0%	1,26E+00	97%	9,47E-06	< 1%

The environmental impacts of the Reference Product are representative of the products covered by the PEP, which therefore constitute a homogeneous environmental family.

The values of these impacts are valid for the context specified in this document. They must not be used directly to draw up the environmental balance sheet for the installation.

Registration number: LGRP-2012-097-v1-en	Drafting rule: PEP-PCR-ed 2-FR-2011 12 09
Authorisation number of checker: VH02	Programme information: www.pep-ecopassport.org
Date of issue: October 2012	Validity period: 4 years
Independent verification of the declaration and data, in accordance with ISO 14025:2006 Interne <input checked="" type="checkbox"/> Externe <input type="checkbox"/>	
In accordance with ISO 14025 :2006 Type III environmental declaration	
The critical review of the PCR was conducted by a panel of experts chaired by J.Chevalier (CSTB)	
The elements of the present PEP cannot be compared with elements from another programme	

