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Product Environmental Profile

Control LIVING NOW series





■ BTICINO'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	Flush mounted control which can manage separate functions: ON/OFF, dimmer, rolling shutter UP/DOWN, scenario activation, call to the floor, staircase light and door lock activation for 10 years of life use time. It can also perform advanced rolling shutter functions. To be completed with 1 or 2-module covers.
Reference Product	
	BT-K4652M3
	Control 3 modules living now

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:

BT-K4652M3

BT-K4652M2



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Total weight of

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■ CONSTITUENT MATERIALS I

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 amended by delegated directive (EU) 2015/863, and its amendment 2017/2102/EU.

Reference Product	0.06 kg (0.06 kg (all packaging included)							
Product alone weight 0.03 kg									
Plastics as % of weight Metals as % of weight Other as % of weight									
PC	16.1 %	Steel	1.9 %	Electronic card (> 10cm²)	19 %				
ABS	9 %								
PA	1.9 %								
PET	1.4 %								

Packaging (alone) : 0.03 kg						
PE 3.6 % Cardboard						
		Wood	6 %			
		Paper	4.4 %			

Total plastics : 0.02 kg	32 %	Total metals : 0.00 kg	1.9 %	Total others : 0.04 kg	66.1 %	
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At the date of edition of this document, the content of recycled material(s) is :

- Product alone (excluding packaging): 0% by mass
- Packaging only: 70% by mass



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 322 km by road from our warehouse to the local point of distribution into the Italian market.

Packaging is compliant with european directive 2004/12/EU concerning packaging and packaging waste and to the Italian transposition decree (Legislative Decree 152/06 and subsequent amendments).



INSTALLATION I

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



USE USE

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



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■ END OF LIFE I

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:

- Electronic card (> 10cm2): 11 g

Extended producer responsability:

The sale of this product is subject to a contribution to eco-organisations in each country responsible for managing end of life products in the field of application of the European Waste Electronic and Electrical Equipment Directive.



■ 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 of products marketed and used in Italy.

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

	Manufacture A1-A3	Materials and components of the product, all transport for the manufacturing, the packaging and the waste generated by the manufacturing.
	Distribution A4	Transport between the last Group distribution centre and an average delivery point in the sales area.
n Limit	Installation A5	The end of life of the packaging.
System	Use B1-B7	 Product category: Active products. PSR0005 ed3 § 3.15. Specific rules for the 'Other Equipment' family Use scenario: for a 10 years working life, stand-by mode power: 0.27 W for 100 % of the reference life time. This modelling duration does not constitute a minimum durabilty requirement. Energy model: Electricity Mix_Low voltage_2018_Italy_IT.
	End of life C1-C4	The default end of life scenario maximizing the impacts.
D Mo	dule	Module D is calculated according to PCR-ed4-EN-2021 09 06 based on the materials recycled and the modelled end-of-life scenario. It expresses the net benefits and burdens beyond the boundaries of the system, and are not to be included in the life cycle totals.
	vare and data- used	EIME V6 and its CODDE-2023-02 database

Unless otherwise indicated the modelling energetic mix are those integrated in the data modules used from the aformentioned database.





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■ ENVIRONMENTAL IMPACTS

	Total Life Cycle		Manufacturing Distribution Installation			End of Life			
			A1-A3	A4	A5	Total B1-B7	B2	B6	C1-C4
Climate change - total	1.10E+01	kg CO ₂ eq.	1.30E+00	0*	9.00E-03	9.67E+00	0*	9.67E+00	5.98E-02
Climate change - fossil fuels	1.10E+01	kg CO ₂ eq.	1.29E+00	0*	9.00E-03	9.66E+00	0*	9.66E+00	5.96E-02
Climate change - biogenics	1.64E-02	kg CO ₂ eq.	8.12E-03	0*	0*	8.03E-03	0*	8.03E-03	2.27E-04
Climate change - land use and land use transformation	1.44E-05	kg CO ₂ eq.	1.44E-05	0*	0*	0*	0*	0*	3.96E-09
Ozone depletion	3.72E-07	kg CFC-11 eq.	3.51E-07	0*	4.91E-11	1.93E-08	0*	1.93E-08	1.46E-09
Acidification (AP)	4.62E-02	mole of H+ eq.	5.14E-03	6.07E-06	2.24E-05	4.09E-02	0*	4.09E-02	8.98E-05
Freshwater eutrophication	1.24E-05	kg P eq.	4.81E-06	0*	5.78E-09	2.73E-07	0*	2.73E-07	7.30E-06
Marine aquatic eutrophication	5.67E-03	kg of N eq.	7.50E-04	2.85E-06	1.03E-05	4.89E-03	0*	4.89E-03	1.21E-05
Terrestrial eutrophication	9.05E-02	mole of N eq.	7.63E-03	3.12E-05	1.09E-04	8.26E-02	0*	8.26E-02	1.54E-04
Photochemical ozone formation	1.85E-02	kg NMVOC eq.	2.47E-03	7.88E-06	2.62E-05	1.60E-02	0*	1.60E-02	3.94E-05
Depletion of abiotic resources - elements	2.17E-04	kg Sb eq.	2.17E-04	0*	0*	4.22E-07	0*	4.22E-07	6.32E-08
Depletion of abiotic resources - fossil fuels	1.67E+02	МЈ	2.32E+01	0*	2.89E-02	1.44E+02	0*	1.44E+02	3.30E-01
Water requirement	8.11E-01	m³ deprivation worldwide eq.	5.41E-01	0*	3.16E-03	2.54E-01	0*	2.54E-01	1.37E-02
Emission of fine particles	2.81E-07	incidence of diseases	3.13E-08	4.94E-11	1.21E-10	2.48E-07	0*	2.48E-07	6.26E-10

^{*}Represents less than 0.01% of the total life cycle of the reference flow

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Module D -5.02E-03

-9.10E-03

4.09E-03

0.00E+00 -1.01E-09

-5.97E-04

2.20E-07 4.76E-06

-6.75E-05 -6.15E-05

-1.35E-04

-6.10E-01 -4.53E-02

-4.53E-02 -3.52E-09

⁽¹⁾ For the Use phase and according to the current PCR, the information modules B1, B3, B4, B5 and B7, all having indicator values equal to «0» (zero), are not listed in this table In accordance with current PCR rules, the environmental indicator values in the «Module D» column must not be summed with the values in the «Total Life Cycle» column



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	Total Life Cycle		Total Life Cycle Manufacturing Distribution Installation Use ⁽¹⁾				Use ⁽¹⁾		End of Life	
			A1-A3	A4	A5	Total B1-B7	B2	В6	C1-C4	
Ionizing radiation, human health	5.67E+00	kBq of U235 eq.	5.65E+00	0*	0*	2.28E-02	0*	2.28E-02	1.88E-03	
Ecotoxicity (fresh water)	8.79E+01	CTUe	2.63E+01	0*	1.69E-01	6.07E+01	0*	6.07E+01	6.74E-01	
Human toxicity, carcinogenic effects	2.21E-08	CTUh	2.06E-08	0*	2.23E-10	1.15E-09	0*	1.15E-09	8.74E-11	
Human toxicity, non-carcinogenic effects	6.05E-08	CTUh	3.28E-08	0*	7.92E-11	2.67E-08	0*	2.67E-08	8.43E-10	
Impacts related to land use/soil quality	2.24E-01	-	5.62E-02	0*	0*	1.46E-01	0*	1.46E-01	2.14E-02	
Use of renewable primary energy, excluding renewable primary energy resources used as raw materials	4.58E+01	МЈ	7.78E-01	0*	0*	4.50E+01	0*	4.50E+01	1.03E-02	
Use of renewable primary energy resources used as raw materials	1.78E-01	МЈ	1.78E-01	0*	0*	0*	0*	0*	0*	
Total use of renewable primary energy resources (primary energy and primary energy resources used as raw materials)	4.60E+01	МЈ	9.57E-01	0*	0*	4.50E+01	0*	4.50E+01	1.03E-02	
Use of non-renewable primary energy, excluding non-renewable primary energy resources used as raw materials	1.67E+02	мј	2.23E+01	0*	2.89E-02	1.44E+02	0*	1.44E+02	3.30E-01	
Use of non-renewable primary energy resources used as raw materials	8.18E-01	MJ	8.18E-01	0*	0*	0*	0*	0*	0*	
Total use of non-renewable primary energy resources (primary energy and primary energy resources used as raw materials)	1.67E+02	MJ	2.32E+01	0*	2.89E-02	1.44E+02	0*	1.44E+02	3.30E-01	

Module D

-3.09E-01 8.93E-02 1.64E-08 -1.48E-08 2.33E-04 -9.15E-02 3.66E-01 2.75E-01 -5.85E-01 -2.46E-02 -6.10E-01

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^{*}Represents less than 0.01% of the total life cycle of the reference flow

⁽¹⁾ For the Use phase and according to the current PCR, the information modules B1, B3, B4, B5 and B7, all having indicator values equal to «0» (zero), are not listed in this table In accordance with current PCR rules, the environmental indicator values in the «Module D» column must not be summed with the values in the «Total Life Cycle» column



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	Total L	ife Cycle	Manufacturing	9				Use ⁽¹⁾			
			A1-A3	A4	A5	Total B1-B7	B2	B6	C1-C4		
Use of secondary materials	2.10E-02	kg	2.10E-02	0*	0*	0*	0*	0*	0*		
Use of renewable secondary fuels	0.00E+00	МЈ	0*	0*	0*	0*	0*	0*	0*		
Use of non-renewable secondary fuels	0.00E+00	МЈ	0*	0*	0*	0*	0*	0*	0*		
Net use of fresh water	1.91E-02	m³	1.28E-02	0*	7.36E-05	5.91E-03	0*	5.91E-03	3.20E-04		
Hazardous waste disposed of	3.95E+00	kg	3.82E+00	0*	0*	1.03E-01	0*	1.03E-01	1.98E-02		
Non-hazardous waste disposed of	1.50E+00	kg	6.90E-01	0*	3.03E-02	7.59E-01	0*	7.59E-01	1.95E-02		
Radioactive waste disposed of	3.83E-03	kg	3.73E-03	0*	0*	8.18E-05	0*	8.18E-05	1.23E-05		
Components for re-use	0.00E+00	kg	0*	0*	0*	0*	0*	0*	0*		
Materials for recycling	5.23E-03	kg	7.11E-04	0*	0*	0*	0*	0*	4.52E-03		
Materials for energy recovery	0.00E+00	MJ by energy vector	0*	0*	0*	0*	0*	0*	0*		
Exported energy	0.00E+00	MJ	0*	0*	0*	0*	0*	0*	0*		
Total use of primary energy during the life cycle	2.13E+02	МЈ	2.41E+01	0*	2.89E-02	1.89E+02	0*	1.89E+02	3.40E-01		
Biogenic carbon content of the product	0.00E+00	kg of C	0*	0*	0*	0*	0*	0*	0*		
Biogenic carbon content of the associated packaging	8.48E-03	kg of C	8.48E-03	0*	0*	0*	0*	0*	0*		

0.00E+00
0.00E+00
-1.06E-03
-2.29E+00
-1.25E-02
3.25E-06
0.00E+00
0.00E+00
-3.35E-01
0.00E+00

Module D

In accordance with current PCR rules, the environmental indicator values in the «Module D» column must not be summed with the values in the «Total Life Cycle» column

The values of the indicators defined in the PCR-ed4-EN-2021 09 06 are available in the digital database of pep-ecopassport.org website.

The environmental impacts are calculated for the 3 modules control BT-K4652M3. For products covered by the PEP other than the Reference product, the environmental impacts of each phase of the lifecycle are calculated using the coefficients in the following table:

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^{*}Represents less than 0.01% of the total life cycle of the reference flow

⁽¹⁾ For the Use phase and according to the current PCR, the information modules B1, B3, B4, B5 and B7, all having indicator values equal to «0» (zero), are not listed in this table



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Associated references	Coefficient of extrapolation of environnemental indicators										
		Total life Cycle	Manufacturing	Distribution	Installation	Use	End of life				
	Climate change - total	0.8	0.9	0.6	0.9	0.8	0.7				
	Climate change - fossil fuels	0.8	0.9	0.6	0.9	0.8	0.7				
	Climate change - biogenics	0.8	0.7	0.0	0.5	0.8	0.8				
	Climate change - land use and land use transformation	0.7	0.7	0.0	0.0	0.0	0.7				
	Ozone depletion	0.9	0.9	0.6	0.6	0.8	0.7				
	Acidification (AP)	0.8	0.8	0.6	0.6	0.8	0.7				
	Freshwater eutrophication	0.8	0.9	0.6	0.6	0.8	0.8				
	Marine aquatic eutrophication	0.8	0.9	0.6	0.6	0.8	0.7				
	Terrestrial eutrophication	0.8	0.9	0.6	0.6	0.8	0.7				
	Photochemical ozone formation	0.8	0.8	0.6	0.6	0.8	0.7				
	Depletion of abiotic resources - elements	1.0	1.0	0.6	0.6	0.8	0.9				
	Depletion of abiotic resources - fossil fuels	0.8	0.9	0.6	0.6	0.8	0.8				
	Water requirement	0.9	0.9	0.6	0.6	0.8	0.7				
	Emission of fine particles	0.8	0.8	0.6	0.6	0.8	0.7				
	Ionizing radiation, human health	1.0	1.0	0.6	0.7	0.8	0.7				
	Ecotoxicity (fresh water)	0.8	0.9	0.6	0.5	0.8	0.7				
	Human toxicity, carcinogenic effects	1.0	1.0	0.6	0.5	0.8	0.7				
	Human toxicity, non-carcinogenic effects	0.9	1.0	0.6	0.6	0.8	0.7				
	Impacts related to land use/soil quality	0.8	0.7	0.0	0.0	0.8	0.8				
BT-K4652M2	Use of renewable primary energy, excluding renewable primary energy resources used as raw materials	0.8	0.9	0.6	0.8	0.8	0.7				
DT IX TOOLINE	Use of renewable primary energy resources used as raw materials	0.6	0.6	0.0	0.0	0.0	0.0				
	Total use of renewable primary energy resources (primary energy and primary energy resources used as raw materials)	0.8	0.9	0.6	0.8	0.8	0.7				
	Use of non-renewable primary energy, excluding non-renewable primary energy resources used as raw materials	0.8	0.9	0.6	0.6	0.8	0.8				
	Use of non-renewable primary energy resources used as raw materials	0.7	0.7	0.0	0.0	0.0	0.0				
	Total use of non-renewable primary energy resources (primary energy and primary energy resources used as raw materials)	0.8	0.9	0.6	0.6	0.8	0.8				
	Use of secondary materials	0.5	0.5	0.0	0.0	0.0	0.0				
	Use of renewable secondary fuels	0.0	0.0	0.0	0.0	0.0	0.0				
	Use of non-renewable secondary fuels	0.0	0.0	0.0	0.0	0.0	0.0				
	Net use of fresh water	0.9	0.9	0.6	0.6	0.8	0.7				
	Hazardous waste disposed of	1.0	1.0	0.0	0.6	0.8	0.7				
	Non-hazardous waste disposed of	0.8	0.9	0.6	0.6	0.8	0.7				
	Radioactive waste disposed of	1.0	1.0	0.6	0.8	0.8	0.7				
	Components for re-use	0.0	0.0	0.0	0.0	0.0	0.0				
	Materials for recycling	0.7	0.8	0.0	0.0	0.0	0.7				
	Materials for energy recovery	0.0	0.0	0.0	0.0	0.0	0.0				
	Exported energy	0.0	0.0	0.0	0.0	0.0	0.0				
	Total use of primary energy during the life cycle	0.8	0.9	0.6	0.6	0.8	0.8				
	Biogenic carbon content of the product	0.0	0.0	0.0	0.0	0.0	0.0				
	Biogenic carbon content of the associated packaging	0.6	0.6	0.0	0.0	0.0	0.0				

Registration number: LGRP-01860-V01.01-EN	09 06» 3 06 06»				
Verifier accreditation N°: VH08 Information and reference documents: www.po					
Date of issue: 12-2023	Validity period: 5 years				
Independent verification of the declaration and data, in comp	liance with ISO 14025 : 2006				
Internal ☐ External ⊠		PEP			
The PCR review was conducted by a panel of experts chaired by	eco				
PEP are compliant with XP C08-100-1:2016 or EN 50693:2019 The elements of the present PEP cannot be compared with elem	PASS				
Document in compliance with ISO 14025 : 2006: «Environmental Type III environmental declarations»	PORI®				

Environmental data in alignment with EN 15804: 2012 + A2: 2019