Product Environmental Profile

Raritan KVM Over IP(DKX3 Series)

Raritan,Inc.
400 Cottontail Lane
Somerset,NJ 08873

www.raritan.com

COMPANY OVERVIEW

• Sustainability built in to support our associates, customers, and the environment
At Legrand North and Central America, we're committed to leading by example within our own operations, to developing high quality solutions for our customers' High Performance Buildings, and to transforming how people live and work – more safely, more comfortably, more efficiently.

• Better Performance
A core principle of designing for sustainability drives us to innovate products and systems that enable buildings to reach exceptional levels of performance, bringing about industry-leading ideas, inventions and initiatives.

• Better Operations
A commitment to a leadership role in operational excellence through environmental management, optimizing the way we manage energy, water and waste.

• Better Lives
A dedication to enhancing employee and community welfare through programs that help people enjoy healthier, more productive and more rewarding lives.

For more information on Legrand's PEPs and other sustainability initiatives, visit legrand.us/sustainability.

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 Legrand 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
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	The DKX3-864 Dominion KX III is an enterprise-class KVM-over IP switch that provides 8 users with BIOS-level remote management of 64 servers in a single switch. Featuring top quality video performance, solid security, and enhanced reliability, the Dominion KX III offers a powerful solution fit for a variety of configurations. With standard features such as DVI/HDMI/DisplayPort digital video, VGA analog video, audio, virtual media, smart card/CAC, and mobile access, the Dominion KXIII is suitable for both general server applications and dynamic broadcast applications.. This function is provided for 10 years.
Reference Product	
	Part Number 100-62-8640-00
	DKX3-864

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.

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🔍 PRODUCTS CONCERNED

The environmental data is representative of the Raritan KVM-over IP switch, which coding rule is DKX3-XXX,the first left digit of X would be 8 or 4 the other 2 digits represent number of ports.when ports number is longer than 32 the configuration would be 2U size.

PRODUCT TYPE	2U SIZE CONFIGURATION	1U SIZE CONFIGURATION
PART NUMBER	100-62-8640-00(DKX3-864)	100-62-8320-00(DKX3-832)
	100-62-4640-00(DKX3-464)	100-62-8080-00(DKX3-808)
		100-62-4320-00(DKX3-432)
		100-62-4160-00(DKX3-416)
		100-62-2320-00(DKX3-232)
		100-62-1320-00(DKX3-132)
		100-62-2160-00(DKX3-216)
		100-62-1160-00(DKX3-116)
		100-62-1080-00(DKX3-108)

🧪 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/EC.

Total weight of Reference Product with unit packaging	9253g				
Plastics as % of weight		**Metals as % of weight**		**Others as % of weight**	
Product					
PA	<0,1%	Steel	37.7%	electronic card	20.3%
Other plastic	0.1%	Aluminium	15.2%	cables / electric wires	3.7%
		Copper alloys	0.4%	Various electronic components	2.3%
		Other metal	0.2%	LED lamp	<0,1%
Packaging					
PET (packaging)	1.5%			Paper (packaging)	18.3%
PET (packaging)	0.2%			other (packaging)	<0,1%
Total plastics	**1.9%**	**Total metals**	**53.5%**	**Total others**	**44.6%**

Estimated recycled material content: 37% of weight.

🏭 MANUFACTURING

This Reference Product comes from a site that have received ISO 14001 certification.

🚚 DISTRIBUTION

Products are distributed from logistics centers located to optimize transport efficiency. Modeling data represents distribution 2800 km by truck, which represent an average logistic for North American market.

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▪ INSTALLATION

No electricity is required for installing the Reference Product.

▪ 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 this type of product.

▪ END OF LIFE

• **Hazardous waste* contained in the product:** no hazardous waste
(*) Hazardous waste as defined by European Commission decision 2000/532/EC.

• **Recycling rate:**
Calculated using the method described in the IEC/TR 62635 technical report, the recyclability rate of the Reference Product is estimated as 85%. This value is based on data collected from a technological channel using industrial procedures. It does not pre-validate the effective use of this channel for end-of-life electrical and electronic products.

Separated into:	(% mass of Reference Product)
- plastic materials:	0%
- metal materials:	54%
- other materials:	13%
- packing (all materials):	18%

▪ 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 North America.

The following modelling elements were taken into account:

|	
Manufacturing	Packaging taken into account. As required by the PEP ecopassport program, all transport for the manufacturing of the Reference Product, including materials and components, has been taken into account. The waste generated during manufacturing phase has been taken into account.
Distribution	Transport between the last distribution center and an average delivery to the sales area. The default scenario modelled maximizes the environmental impact.
Installation	The end of life of the packaging (1845 g) is taken into account at this phase. Transport of packaging to end of life treatment.
Use	• Under normal conditions of use, this type of product requires no servicing or maintenance. • No consumables are necessary to use this type of product. • Use scenario: for a 10 years working life, in continuous operation at 100 % of rated load 58 W all the time.This modelling duration does not constitute a minimum durability requirement. • Energy model: Electricity Mix; United States - 2009
End of life	The default end of life scenario modelled maximizes the environmental impact.
Software used	EIME V5 and its database ̈CODDE-2018-11 ̈ and the indicators defined in the PCR ed 3 in alignment with the EN15804 standard

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ENVIRONMENTAL IMPACTS (continued)

	Total for Life cycle		Raw material and manufacturing		Distribution		Installation		Use		End of life	
Global warming (GW)	3.94E+03	kg CO_2 eq.	1.84E+02	5%	2.37E+02	6%	1.24E-01	< 1%	3.52E+03	89%	6.13E-01	< 1%
Ozone depletion (OD)	9.81E-05	kg CFC-11 eq.	3.39E-05	35%	3.64E-07	< 1%	1.21E-09	< 1%	6.38E-05	65%	9.56E-09	< 1%
Acidification of soil and water (A)	4.44E+00	kg SO_2 eq.	3.53E-01	8%	7.11E-01	16%	5.87E-04	< 1%	3.37E+00	76%	2.47E-03	< 1%
Water eutrophication (WE)	1.11E+00	kg PO_4^{3-} eq.	6.40E-02	6%	1.58E-01	14%	6.37E-04	< 1%	8.88E-01	80%	3.53E-03	< 1%
Photochemical ozone creation (POCP)	6.33E-01	kg C_2H_4 eq.	4.41E-02	7%	4.94E-02	8%	4.19E-05	< 1%	5.40E-01	85%	1.89E-04	< 1%
Depletion of abiotic resources - elements (ADPe)	1.01E-01	kg Sb eq.	1.01E-01	100%	9.49E-06	< 1%	5.80E-09	< 1%	3.46E-05	< 1%	3.23E-08	< 1%
Total use of primary energy (PE)	5.42E+04	MJ	3.51E+03	6%	3.36E+03	6%	1.65E+00	< 1%	4.74E+04	87%	7.20E+00	< 1%
Net use of fresh water (FW)	1.32E+01	m³	6.99E+00	53%	2.22E-02	< 1%	4.98E-05	< 1%	6.22E+00	47%	3.41E-04	< 1%
Depletion of abiotic resources – fossil fuels (ADPf)	4.78E+04	MJ	1.65E+03	3%	3.34E+03	7%	1.58E+00	< 1%	4.28E+04	90%	6.76E+00	< 1%
Water pollution (WP)	2.28E+05	m³	1.58E+04	7%	3.91E+04	17%	1.84E+01	< 1%	1.73E+05	76%	7.87E+01	< 1%
Air pollution (AP)	3.25E+05	m³	2.15E+04	7%	4.72E+03	1%	1.55E+01	< 1%	2.99E+05	92%	5.29E+01	< 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. The environmental impacts of the Reference Product are representative of the products covered by the PEP, which therefore constitute a homogeneous environmental family.
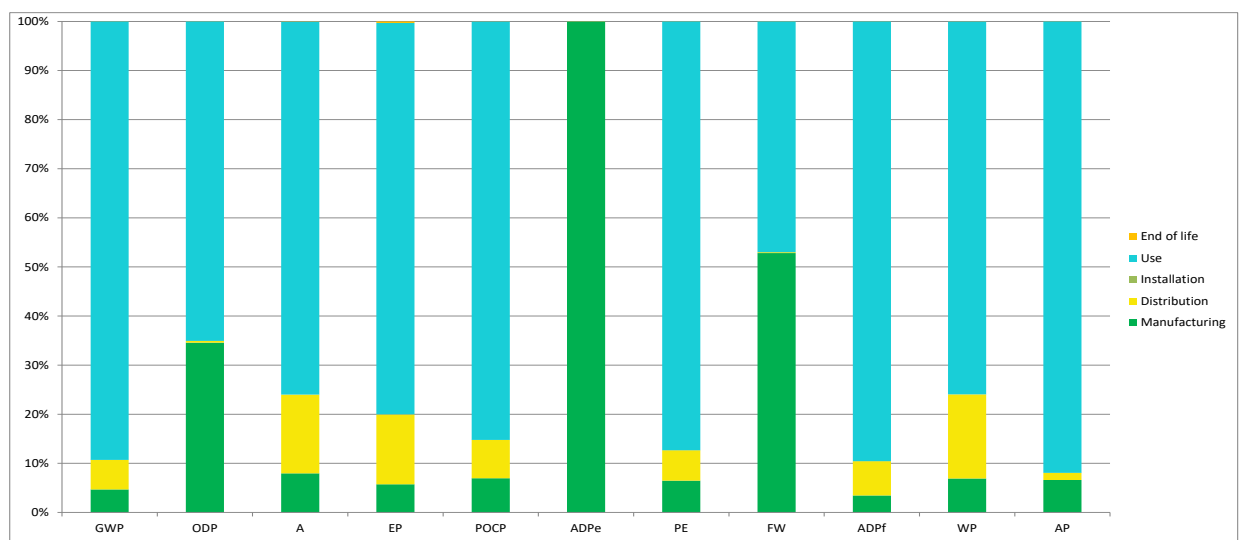
The environmental impact of the Reference Product occurs predominantly during the use phase.

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ENVIRONMENTAL IMPACTS (continued)

Data shows most of the environmental impacts are dominated by "Use" phase (ADPe excluded) which subjects to service life as well as rated power and "Manufacturing" phase. Both are relevant to product configuration. A summary table attached below with calculated factors for extrapolation.

PRODUCT TYPE	MANUFACTURING	USE
DKX3-864/DKX3-464	1.0	1.0
DKX3-XXX(1U) WITH 60W	ADPE:0.77 A:0.77 THE OTHERS :0.85	0.7
DKX3-XXX(1U) WITH 35W	ADPE:0.96 A:0.83 THE OTHERS :0.87	0.46

Registration number: LGRP-00634-V01.01-EN	Drafting rules: "PCR-ed3-EN-2015 04"
Verifier's accreditation number: VH02	Information and reference documents: **www.pep-ecopassport.org**
Date of issue: 07-2021	Validity period: 5 years
Independent 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).	
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"	PEP eco PASS PORT®
In compliance with ISO 14040:2006: "Environmental management – LCA – Principles and framework" In compliance with ISO 14044:2006: "Environmental management – LCA – Requirements and guidelines" In alignment with EN 15804:2012+A1:2013: "Sustainability of construction works - EPD's - Core rules for the product category of construction products"	