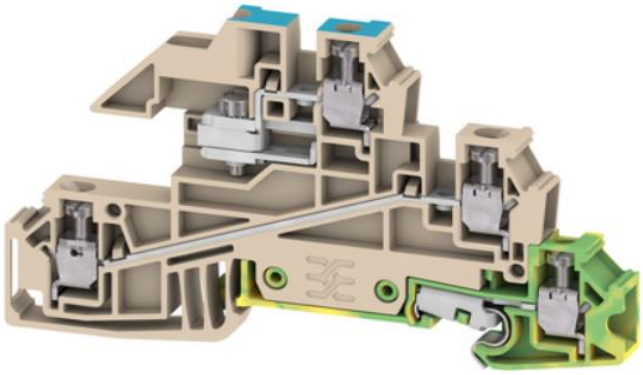
Product Environmental Profile

1x N-disc./ 1xF-through L /1x earth,4mm²



Company information

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A question concerning the Product Environmental Profile: info@hager.com

References covered

For the complete list of the covered references, see details in Appendix.

Methodology

PEP has been performed according to the PCR version PEP-PCR-ed4-2021 09 06 and PSR version PSR-0005-ed3.1-2023 12 08 issued by the PEP ecopassport© program.
For further information, please see the website of the program www.pep-ecopassport.org

Reference product

Reference product identification
KR02I1

Use scenario based on :
PSR product Category : PSR-0005-ed3.1-2023 12 08
3.14. TERMINAL BLOCKS

Functional unit

Connect 3 clamping units between 2 or more wires for a rated cross-section 4mm², with rated voltage 0.77 W, rated current 24 A, and a voltage drop 32 mV, according to the appropriate use scenario, and for the reference service life of the product of 20 years. Covered references also includes some accessories for terminal blocks to support main function.

The functional unit is based on the use scenario recommended by the PCR for the category of the reference product.

Materials and substances

All useful measures have been adopted to ensure that the materials used in the composition of the product do not contain any substances banned by the legislation in force at the time of marketing.

Plastics			Metals			Others		
	g	%		g	%		g	%
PA66	7.34	42.5%	Stainless steel	4.30	24.9%	Wood	0.41	2.4%
PUR	0.20	1.2%	Copper	4.17	24.1%	Cardboard	0.33	1.9%
PE-LD	0.08	0.5%	Steel	0.30	1.7%	Paper	0.01	<0.1%
			Zinc	0.13	0.7%	Other	0.00	<0.1%
			Tin	0.00	<0.1%			
			Silicon	0.00	<0.1%			
Total mass of reference product with raw material packaging :			**17.26 g**					

Total mass of reference product (Product + packaging)	**16.32 g**

System Boundaries

The environmental information included in the PEP covers all the stages of the life cycle, from "cradle to grave".

Manufacturing			Distribution	Installation	Use							End of life				Module D
Raw material extraction and processing	Transport to the manufacturer	Manufacturing	Distribution to the place of operation	Installation on the place of operation	Use or application of the product installed	Maintenance	Repair	Replacement	Restoration	Energy requirements during the use stage	Water requirements during the use stage	Deinstallation	Transport to the waste treatment site	Treatment of waste in view of its reuse, recovery and/or recycling	Disposal	Benefits and loads beyond the system boundaries
A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Life cycle stages																

Manufacturing

These products are manufactured by a site that has received an environmental certification ISO 14001.

This phase takes into account raw materials, manufacturing processes, production offcuts and their end-of-life treatment, upstream transport of materials and sub-assemblies to the manufacturing site, and transport from the manufacturing site to the final logistics platform.

Distribution

The packaging has been designed in accordance with current regulations. In particular, the European directive 94/62/CE relative to packaging and packaging waste.

The used packaging is 100% recyclable or recoverable.
Packaging and logistic flows are continuously improved in order to reduce their impact.

This phase taken into account the transport of the finished product, including packaging, to its place of use.

Installation

Installation processes

In accordance with the applicable product category rules and/or product specific rules, the installation stage (A5) includes the impacts associated with waste and losses generated, including end-of-life packaging and their related treatment.

Installation elements (non delivered with the product)

Elements non delivered with the product and needed to install the product are not considered.

Use

Power loss / load dependent			
Active mode		Inactive mode	
Watt	% of time	Watt	% of time
0.0693	90.0%	0	10.0%

Power consumption / not load dependent					
Active Sleep phase		Passive Sleep phase		Turn off phase	
Watt	% of time	Watt	% of time	Watt	% of time
0	0.0%	0	0.0%	0	100.0%

This corresponds to a total energy consumption of 10.93 kWh for the use span of 20 years.

Energy model of the use phase :
Europe

Consumables and maintenance :
None

End of life

Considering the complexity of the recycling channels for electric and electronic equipment impacts, we rely mainly on ESR modules (datasets for WEEE product end of life).

The recycling potential of the product is: 48%. The calculation of this rate is based on the method of the IEC/TR 62635.

Environmental impacts

Evaluation of the environmental impact covers the following life cycle stages: raw materials + manufacturing (RMM), distribution (D), installation (I), use (U) and end of life (EoL).
An impact of 0 means that this impact represents either less than 0.01% of the total life-cycle impact of the reference stream, or no impact at all, when the global impact is zero.

All calculations are done with EIME software Version 6.3.5-57 with the database Version 2026-04-15.
Indicators set : Indicators for PEF EF 3.1 (Compliance: PEP ed.4, EN15804+A2) v2.0
PEP representative of the covered products marketed in: Europe
Energy models considered for each phase

Manufacturing A1-A3	Distribution A4	Installation A5	Use B1-B7	End Of Life C1-C4
Europe	-	Europe	Europe	Europe

Environmental impact indicators

Indicators	Unit	Manufacturing A1-A3	Distribution A4	Installation A5	Use B1-B7	End Of Life C1-C4	GLOBAL	Module D
Acidification (PEF-AP)	mole H+ eq.	1.26E-03	4.23E-06	3.70E-07	1.50E-02	3.20E-04	1.66E-02	-2.36E-03
Climate change - Total (PEF-GWP)	kg CO2 eq.	1.10E-01	2.71E-03	1.02E-04	2.52E+00	2.62E-02	2.66E+00	-4.92E-02
Climate change-Biogenic (PEF-GWPb)	kg CO2 eq.	1.85E-03	4.46E-06	2.71E-05	9.76E-02	1.17E-03	1.01E-01	-1.24E-03
Climate change-Fossil (PEF-GWPf)	kg CO2 eq.	1.08E-01	2.70E-03	7.48E-05	2.42E+00	2.50E-02	2.56E+00	-4.80E-02
Climate change-Land use and land use change (PEF-GWPlu)	kg CO2 eq.	2.41E-09	4.10E-09	4.68E-12	8.27E-08	1.16E-10	8.93E-08	0.00E+00
Ecotoxicity, freshwater (PEF-CTUe)	CTUe	1.32E+02	7.75E-02	1.41E-03	4.98E+00	2.11E-01	1.37E+02	-6.14E-01
EF-particulate Matter (PEF-PM)	Incidence of diseases	1.37E-08	3.64E-11	2.68E-12	1.32E-07	1.72E-09	1.47E-07	-6.09E-09
Eutrophication, freshwater (PEF-Epf)	kg P eq.	2.21E-06	1.01E-08	6.57E-10	1.18E-05	5.89E-07	1.46E-05	-2.23E-04
Eutrophication, marine (PEF-Epm)	kg N eq.	7.95E-05	7.70E-07	9.20E-08	1.52E-03	1.65E-04	1.76E-03	-1.18E-04
Eutrophication, terrestrial (PEF-Ept)	mole of N eq.	8.35E-04	8.46E-06	1.10E-06	2.90E-02	2.65E-04	3.01E-02	-1.48E-03
Human toxicity, cancer (PEF-CTUh-c)	CTUh	4.14E-08	5.25E-13	1.96E-12	3.31E-09	1.10E-10	4.48E-08	-5.51E-10
Human toxicity, non-cancer (PEF-CTUh-nc)	CTUh	2.10E-08	1.00E-11	5.14E-13	1.14E-08	1.91E-09	3.43E-08	-2.65E-08
Ionising radiation, human health (PEF-IR)	kg Bq U235 eq.	4.93E-02	9.49E-05	5.86E-05	6.26E+00	1.34E-03	6.31E+00	-9.54E-04
Land use (PEF-LU)	No dimension	1.67E-02	1.79E-05	3.92E-05	3.98E+00	7.69E-02	4.07E+00	-1.22E+00
Ozone depletion (PEF-ODP)	kg CFC-11 eq.	1.32E-08	3.15E-11	2.15E-12	2.40E-08	2.71E-09	3.99E-08	-1.94E-09
Photochemical ozone formation - human health (PEF-POCP)	kg of NMVOC eq.	3.21E-04	2.73E-06	2.26E-07	4.89E-03	8.78E-05	5.30E-03	-4.30E-04
Resource use, fossils (PEF-ADPf)	MJ	1.92E+00	4.81E-02	1.28E-03	8.13E+01	3.79E-01	8.37E+01	-3.98E-01
Resource use, minerals and metals (PEF-ADPe)	kg Sb eq	1.29E-05	9.81E-10	8.98E-11	8.96E-06	1.68E-07	2.21E-05	-6.96E-06
Water use (PEF-WU)	m3 eq.	7.63E-02	9.94E-05	9.26E-06	1.66E-01	1.31E+01	1.33E+01	-3.68E+01

Resource use indicators

Indicators	Unit	Manufacturing A1-A3	Distribution A4	Installation A5	Use B1-B7	End Of Life C1-C4	GLOBAL	Module D
Net use of fresh water	m3	1.78E-03	2.32E-06	2.73E-07	4.01E-03	3.27E-01	3.33E-01	-8.59E-01
Total primary energy	MJ	2.13E+00	4.83E-02	1.80E-03	1.34E+02	4.25E-01	1.37E+02	-6.30E-01
Total non renewable primary energy	MJ	1.92E+00	4.81E-02	1.28E-03	8.13E+01	3.79E-01	8.37E+01	-3.98E-01
Total renewable primary energy	MJ	2.10E-01	1.96E-04	5.24E-04	5.31E+01	4.56E-02	5.33E+01	-2.32E-01
Non renewable primary energy used as energy	MJ	1.67E+00	4.81E-02	1.28E-03	8.13E+01	3.79E-01	8.34E+01	-3.98E-01
Non renewable primary energy used as raw material	MJ	2.51E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.51E-01	0.00E+00
Use of non renewable secondary fuels	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Renewable primary energy used as energy	MJ	1.96E-01	1.96E-04	5.24E-04	5.31E+01	4.56E-02	5.33E+01	-2.32E-01
Renewable primary energy used as raw material	MJ	1.36E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.36E-02	0.00E+00
Use of renewable secondary fuels	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of secondary material	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Waste category indicators

Indicators	Unit	Manufacturing A1-A3	Distribution A4	Installation A5	Use B1-B7	End Of Life C1-C4	GLOBAL	Module D
Hazardous waste disposed	kg	9.52E-01	1.14E-05	2.96E-05	1.45E-01	3.22E-07	1.10E+00	0.00E+00
Non hazardous waste disposed	kg	1.69E-02	2.51E-04	1.22E-05	4.58E-01	7.08E-06	4.75E-01	0.00E+00
Radioactive waste disposed	kg	6.54E-06	1.99E-07	3.69E-09	1.12E-04	5.61E-09	1.19E-04	0.00E+00

Output flow indicators

Indicators	Unit	Manufacturing A1-A3	Distribution A4	Installation A5	Use B1-B7	End Of Life C1-C4	GLOBAL	Module D
Components for re-use	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Exported energy	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Materials for energy recovery	kg	1.77E-04	0.00E+00	7.54E-05	0.00E+00	0.00E+00	2.52E-04	0.00E+00
Materials for recycling	kg	2.98E-03	4.59E-13	9.51E-05	2.83E-07	1.29E-14	3.07E-03	0.00E+00

Biogenic carbon content

Packaging	Unit	GLOBAL
Biogenic carbon content (Declared Unit)	kg of C	3.06E-04
Biogenic carbon content (Functional Unit)	kg of C	3.06E-04

Product	Unit	GLOBAL
Biogenic carbon content (Declared Unit)	kg of C	0.00E+00
Biogenic carbon content (Functional Unit)	kg of C	0.00E+00

Extrapolation rules

For each reference in this homogeneous family (see Appendix), the environmental impacts for each phase and indicator are extrapolated: for the use phase, based on power consumption, and for the other phases, based on material type and component weight.

Verification

Registration N°: HAGE-01559-V01.01-EN	Drafting Rules	PEP-PCR-ed4-2021 09 06
	Supplemented by	PSR-0005-ed3.1-2023 12 08
Verifier accreditation N°: VH65	Information and reference documents: www.pep-ecopassport.org	
Date of issue: 8-2026	Validity period:	5 years
Independent verification of the declaration and data, in compliance with ISO 14025 : 2006		
Internal ● External ○		
The PCR review was conducted by a panel of experts chaired by Julie Orgelet (DDemain)		
PEPs are compliant with XP C08-100-1:2016 or EN 50693:2019 The elements of the present PEP cannot be compared with elements from another program.		
Document in compliance with ISO 14025 : 2006 « Environmental labels and declarations. Type III environmental declarations »		

Nota :

The picture has no contractual value.

All numerical values indicated in this document may vary and depend of many factors such as the tolerance related to materials, the usage and environment conditions of the products, installation characteristics ... , real values for a product in a concrete application may therefore change.

The usage time mentioned in this document is an average duration chosen for the need of the calculations. This value cannot be assimilated to the minimum, average or real life time.

The responsibility of the company, issuing this document, can never be engaged if differences would be noticed between the values given by this document and real ones, whatever the causes and/or consequences would be.

Appendix

COMMERCIAL REFERENCE	VEIGHT / pc (in g)	Manufacturing A1-A3	Distribution A4	Installation A5	Use B1-B7	End of life C1-C4
KR02I1	16.10	1.00	1.00	1.00	1.00	1.00
KR01AP	2.57	0.16	0.16	0.16	0.00	0.16
KR01BE	68.50	4.25	4.25	4.25	0.00	4.25
KR01EV	13.64	0.85	0.85	0.85	0.00	0.85
KR01MA	1.29	0.08	0.08	0.08	0.00	0.08
KR01NBB	267.00	16.58	16.58	16.58	0.00	16.58
KR01SAP	1.95	0.12	0.12	0.12	0.00	0.12
KR025B	1.51	0.09	0.09	0.09	0.00	0.09
KR025B10	7.88	0.49	0.49	0.49	0.00	0.49
KR025KD	10.11	0.63	0.63	0.63	1.00	0.63
KR025L	7.76	0.48	0.48	0.48	1.00	0.48
KR025LM	10.99	0.68	0.68	0.68	1.00	0.68
KR025N	7.76	0.48	0.48	0.48	1.00	0.48
KR025PE	20.59	1.28	1.28	1.28	0.00	1.28
KR025SB	1.68	0.10	0.10	0.10	0.00	0.10
KR025SB10	8.65	0.54	0.54	0.54	0.00	0.54
KR025SL	8.94	0.55	0.55	0.55	1.00	0.55
KR025SLM	19.38	1.20	1.20	1.20	1.00	1.20
KR025SN	8.94	0.55	0.55	0.55	1.00	0.55
KR025SNM	19.38	1.20	1.20	1.20	1.00	1.20
KR025SPE	12.14	0.75	0.75	0.75	0.00	0.75
KR025SPEM	17.22	1.07	1.07	1.07	0.00	1.07
KR02AP	4.27	0.27	0.27	0.27	0.00	0.27
KR02BE	68.50	4.25	4.25	4.25	0.00	4.25
KR02EV	6.95	0.43	0.43	0.43	0.00	0.43
KR02I2	12.48	0.78	0.78	0.78	1.00	0.78
KR02I3	15.84	0.98	0.98	0.98	1.00	0.98
KR02I4	18.89	1.17	1.17	1.17	1.00	1.17
KR02I5	15.03	0.93	0.93	0.93	1.00	0.93
KR02IB	6.41	0.40	0.40	0.40	0.00	0.40
KR02IB10	33.21	2.06	2.06	2.06	0.00	2.06
KR02MA	15.80	0.98	0.98	0.98	0.00	0.98
KR02SAP	2.13	0.13	0.13	0.13	0.00	0.13
KR02SI1	19.12	1.19	1.19	1.19	1.00	1.19
KR02SI2	14.93	0.93	0.93	0.93	1.00	0.93
KR02SI3	17.57	1.09	1.09	1.09	1.00	1.09
KR02SI4	20.89	1.30	1.30	1.30	1.00	1.30
KR02SI5	16.04	1.00	1.00	1.00	1.00	1.00
KR02SIN	4.25	0.26	0.26	0.26	3.16	0.26
KR03AP	5.20	0.32	0.32	0.32	0.00	0.32
KR03BE	68.50	4.25	4.25	4.25	0.00	4.25
KR03SAP	2.72	0.17	0.17	0.17	0.00	0.17
KR040B	1.73	0.11	0.11	0.11	0.00	0.11
KR040B10	8.52	0.53	0.53	0.53	0.00	0.53
KR040L	9.60	0.60	0.60	0.60	1.32	0.60
KR040LM	14.24	0.88	0.88	0.88	1.32	0.88
KR040N	9.60	0.60	0.60	0.60	1.32	0.60
KR040PE	1.73	0.11	0.11	0.11	0.00	0.11
KR040SB	3.35	0.21	0.21	0.21	0.00	0.21
KR040SB10	17.25	1.07	1.07	1.07	0.00	1.07
KR040SL	9.54	0.59	0.59	0.59	1.32	0.59
KR040SN	9.54	0.59	0.59	0.59	1.32	0.59
KR040SPE	13.93	0.87	0.87	0.87	0.00	0.87
KR04AP	4.15	0.26	0.26	0.26	0.00	0.26
KR04BE	100.00	6.21	6.21	6.21	0.00	6.21
KR04F5	10.75	0.67	0.67	0.67	1.32	0.67
KR04ND	15.49	0.96	0.96	0.96	1.32	0.96
KR04SAP	3.34	0.21	0.21	0.21	0.00	0.21
KR05BE	61.83	3.84	3.84	3.84	0.00	3.84
KR060B	2.45	0.15	0.15	0.15	0.00	0.15
KR060B10	13.14	0.82	0.82	0.82	0.00	0.82
KR060L	13.61	0.85	0.85	0.85	1.70	0.85

COMMERCIAL REFERENCE	VEIGHT / pc (in g)	Manufacturing A1-A3	Distribution A4	Installation A5	Use B1-B7	End of life C1-C4
KR060N	13.61	0.85	0.85	0.85	1.70	0.85
KR060PE	45.50	2.83	2.83	2.83	0.00	2.83
KR060SB	1.76	0.11	0.11	0.11	0.00	0.11
KR060SB3	3.52	0.22	0.22	0.22	0.00	0.22
KR060SB4	3.47	0.22	0.22	0.22	0.00	0.22
KR060SL	19.77	1.23	1.23	1.23	1.70	1.23
KR060SN	19.77	1.23	1.23	1.23	1.70	1.23
KR060SPE	20.82	1.29	1.29	1.29	0.00	1.29
KR06SAP	4.36	0.27	0.27	0.27	0.00	0.27
KR07SAP	4.46	0.28	0.28	0.28	0.00	0.28
KR08SAP	3.20	0.20	0.20	0.20	0.00	0.20
KR100B	2.85	0.18	0.18	0.18	0.00	0.18
KR100B10	15.45	0.96	0.96	0.96	0.00	0.96
KR100L	17.67	1.10	1.10	1.10	2.49	1.10
KR100N	17.67	1.10	1.10	1.10	2.49	1.10
KR100PE	10.70	0.66	0.66	0.66	0.00	0.66
KR160B	3.23	0.20	0.20	0.20	0.00	0.20
KR160L	24.77	1.54	1.54	1.54	3.16	1.54
KR160N	24.77	1.54	1.54	1.54	3.16	1.54
KR160PE	30.35	1.88	1.88	1.88	0.00	1.88
KR1HC	10.32	0.64	0.64	0.64	0.00	0.64
KR350B	8.64	0.54	0.54	0.54	0.00	0.54
KR350L	46.92	2.91	2.91	2.91	5.19	2.91
KR350N	46.92	2.91	2.91	2.91	5.19	2.91
KR350PE	61.74	3.83	3.83	3.83	0.00	3.83
KR700L	124.68	7.74	7.74	7.74	7.97	7.74
KR700N	124.68	7.74	7.74	7.74	7.97	7.74
KR700PE	148.25	9.21	9.21	9.21	0.00	9.21