# **Product Environmental Profile**

#### Vigilohm IMD-IM9





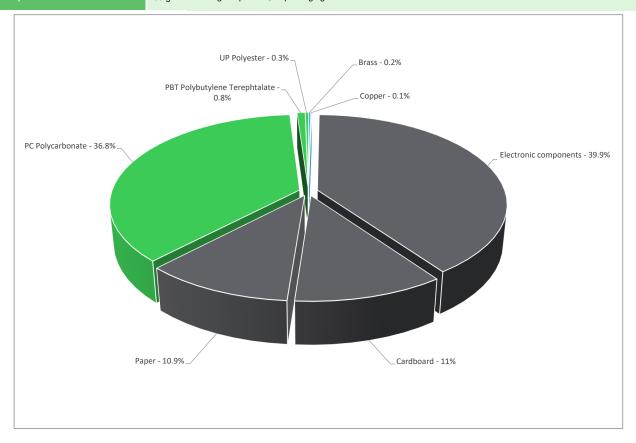


### General information

Reference product	Vigilohm IMD-IM9
Description of the product	Vigilohm IM9 designed to monitor ungrounded/IT electrical networks, in accordance to installation and products standards. According to standards, it is recommanded to equip your systems with Insulation Monitoring Devices (IMD).
Functional unit	To monitor the insulation resistance of an IT network by injecting a DC signal between this network and the ground during the lifetime of 10 years in accordance with the IEC 61557-8 & IEC 60664-1 standards. It measures the insulation resistance of the network, detects an insulation fault according to the set alarm threshold, closes or opens a contact relay in case of alarm. Power supply: 110415 VAC, or 125250 VDC Measurement current: 0-70 µA breaking capacity: 250 V - AC at 6 A and 1224 V - DC at 6 A Pollution degree 2 IP degree of protection - Front IP40 and Rear IP20

#### Constituent materials

Reference product mass 230 g including the product, its packaging and additional elements and accessories



 Plastics
 37.90%

 Metals
 0.30%

 Others
 61.80%

# Substance assessment

Details of ROHS and REACH substances information are available on the Schneider-Electric Green Premium website <a href="https://www.se.com/ww/en/work/support/green-premium/">https://www.se.com/ww/en/work/support/green-premium/</a>

## (1) Additional environmental information

End Of Life

Recyclability potential:

0%

Recyclability rate has been calculated based on REEECY'LAB tool developed by Ecosystem, for components/materials not covered by the tool, data from the "ECO'DEEE recyclability and recoverability calculation method" was taken. If no data was found a conservative assumption was used (0%  $\,$ 

#### **Tenvironmental impacts**

Reference service life time	10 years						
Product category	Other equipments - Active product						
Installation elements	No special installation components need during installation phase, but transport of packaging to disposal, and disposal of packaging accounted for during installation.						
Use scenario	The product is in active mode 5% of the time with a power use of 4.78 W and in stand-by mode 95% of the time with a power use of 2.97W, for 10 years						
Technological representativeness	The Modules of Technologies such as material production, manufacturing process and transport technology used in this PEP analysis (LCA-EIME in this case) are similar and representative of the actual type of technologies used to make the product in production.						
Geographical representativeness	Global						
	[A1 - A3]	[A5]	[B6]	[C1 - C4]			
Energy model used		Electricity Mix; Production mix; Low voltage; UE-27	Electricity Mix; Production mix; Low voltage; UE-27	Electricity Mix; Production mix; Low voltage; UE-27			
	Electricity Mix; Production mix; Low voltage; IN	Electricity Mix; Production mix; Low voltage; APAC	Electricity Mix; Production mix; Low voltage; APAC	Electricity Mix; Production mix; Low voltage; APAC			
		Electricity Mix; Production mix; Low voltage; TR	Electricity Mix; Production mix; Low voltage; TR	Electricity Mix; Production mix; Low voltage; TR			

Detailed results, including all the optional indicators mentioned in PCRed4, and the split of the Use Phase (B1 to B7), are available in the LCA report and on demand in a digital format - Country Customer Care Center - http://www.schneider-electric.com/contact

Vigilohm IMD-IM9 - IMD-IM9							
Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life	Loads and Benefits
		[A1 - A3]	[A4]	[A5]	[B1 - B7]	[C1 - C4]	[D]
kg CO2 eq	1.68E+02	6.03E+00	3.01E-02	9.22E-02	1.61E+02	3.99E-01	-1.22E-01
kg CO2 eq	1.68E+02	6.01E+00	3.01E-02	8.81E-02	1.61E+02	3.90E-01	-1.18E-01
kg CO2 eq	1.56E-01	2.76E-02	0*	4.10E-03	1.15E-01	8.77E-03	-3.88E-03
kg CO2 eq	1.93E-08	1.57E-08	0*	3.10E-09	0*	5.30E-10	0.00E+00
kg CFC-11 eq	1.45E-06	6.68E-07	0*	6.12E-09	7.68E-07	1.18E-08	-6.41E-09
mol H+ eq	1.07E+00	4.19E-02	1.93E-04	3.66E-04	1.02E+00	4.47E-03	-5.98E-04
kg (PO4)³- eq	1.64E-04	1.54E-05	0*	6.80E-07	1.43E-04	4.20E-06	-1.18E-06
kg N eq	1.23E-01	5.65E-03	9.08E-05	9.70E-05	1.14E-01	3.20E-03	-1.42E-04
mol N eq	1.47E+00	6.02E-02	9.97E-04	7.33E-04	1.41E+00	1.60E-03	-1.20E-03
kg COVNM eq	3.97E-01	1.96E-02	2.52E-04	1.96E-04	3.76E-01	6.28E-04	-3.26E-04
kg Sb eq	1.26E-03	1.25E-03	0*	0*	5.45E-06	0*	-5.49E-07
MJ	3.08E+03	7.57E+01	4.19E-01	9.59E-01	3.01E+03	1.88E+00	-1.13E+00
m3 eq	6.60E+01	2.57E+00	0*	4.01E-02	6.25E+00	5.71E+01	-7.37E-02
	kg CO2 eq kg CO2 eq kg CO2 eq kg CO2 eq kg CFC-11 eq mol H+ eq kg (PO4)³ eq kg N eq mol N eq kg COVNM eq kg Sb eq MJ	kg CO2 eq 1.68E+02 kg CO2 eq 1.68E+02 kg CO2 eq 1.56E-01 kg CO2 eq 1.93E-08 kg CFC-11 1.45E-06 eq 1.07E+00 kg (PO4)³ eq 1.64E-04 kg N eq 1.23E-01 mol N eq 1.47E+00 kg COVNM eq 3.97E-01 kg Sb eq 1.26E-03 MJ 3.08E+03	Unit         Total         [A1 - A3]           kg CO2 eq         1.68E+02         6.03E+00           kg CO2 eq         1.68E+02         6.01E+00           kg CO2 eq         1.56E-01         2.76E-02           kg CO2 eq         1.93E-08         1.57E-08           kg CFC-11 eq         1.45E-06         6.68E-07           mol H+ eq         1.07E+00         4.19E-02           kg (PO4) <sup>37</sup> eq         1.64E-04         1.54E-05           kg N eq         1.23E-01         5.65E-03           mol N eq         1.47E+00         6.02E-02           kg COVNM eq         3.97E-01         1.96E-02           kg Sb eq         1.26E-03         1.25E-03           MJ         3.08E+03         7.57E+01	Unit         Total         Manufacturing [A1 - A3]         Distribution [A4]           kg CO2 eq         1.68E+02         6.03E+00         3.01E-02           kg CO2 eq         1.68E+02         6.01E+00         3.01E-02           kg CO2 eq         1.56E-01         2.76E-02         0°           kg CO2 eq         1.93E-08         1.57E-08         0°           kg CFC-11 eq         1.45E-06         6.68E-07         0°           mol H+ eq         1.07E+00         4.19E-02         1.93E-04           kg (PO4)*F eq         1.64E-04         1.54E-05         0°           kg N eq         1.23E-01         5.65E-03         9.08E-05           mol N eq         1.47E+00         6.02E-02         9.97E-04           kg COVNM eq         3.97E-01         1.96E-02         2.52E-04           kg Sb eq         1.26E-03         1.25E-03         0°           MJ         3.08E+03         7.57E+01         4.19E-01	Unit         Total         Manufacturing         Distribution         Installation           kg CO2 eq         1.68E+02         6.03E+00         3.01E-02         9.22E-02           kg CO2 eq         1.68E+02         6.01E+00         3.01E-02         8.81E-02           kg CO2 eq         1.56E-01         2.76E-02         0*         4.10E-03           kg CO2 eq         1.93E-08         1.57E-08         0*         3.10E-09           kg CFC-11 eq         1.45E-06         6.68E-07         0*         6.12E-09           mol H+ eq         1.07E+00         4.19E-02         1.93E-04         3.66E-04           kg (PO4)* eq         1.64E-04         1.54E-05         0*         6.80E-07           kg N eq         1.23E-01         5.65E-03         9.08E-05         9.70E-05           mol N eq         1.47E+00         6.02E-02         9.97E-04         7.33E-04           kg COVNM eq         3.97E-01         1.96E-02         2.52E-04         1.96E-04           kg Sb eq         1.26E-03         7.57E+01         4.19E-01         9.59E-01	Unit         Total         Manufacturing         Distribution         Installation         Use           kg CO2 eq         1.68E+02         6.03E+00         3.01E-02         9.22E-02         1.61E+02           kg CO2 eq         1.68E+02         6.01E+00         3.01E-02         8.81E-02         1.61E+02           kg CO2 eq         1.56E-01         2.76E-02         0*         4.10E-03         1.15E-01           kg CO2 eq         1.93E-08         1.57E-08         0*         3.10E-09         0*           kg CFC-11 eq         1.45E-06         6.68E-07         0*         6.12E-09         7.68E-07           mol H+ eq         1.07E+00         4.19E-02         1.93E-04         3.66E-04         1.02E+00           kg (PO4)³ eq         1.64E-04         1.54E-05         0*         6.80E-07         1.43E-04           kg N eq         1.23E-01         5.65E-03         9.08E-05         9.70E-05         1.14E-01           mol N eq         1.47E+00         6.02E-02         9.97E-04         7.33E-04         1.41E+00           kg COVNM eq         1.26E-03         1.25E-03         0*         0*         5.45E-06           MJ         3.08E+03         7.57E+01         4.19E-01         9.59E-01	Unit         Total         Manufacturing [A1 - A3]         Distribution         Installation         Use         End of Life           kg CO2 eq         1.68E+02         6.03E+00         3.01E-02         9.22E-02         1.61E+02         3.99E-01           kg CO2 eq         1.68E+02         6.01E+00         3.01E-02         8.81E-02         1.61E+02         3.90E-01           kg CO2 eq         1.56E-01         2.76E-02         0°         4.10E-03         1.15E-01         8.77E-03           kg CO2 eq         1.93E-08         1.57E-08         0°         3.10E-09         0°         5.30E-10           kg CFC-11 eq         1.45E-06         6.68E-07         0°         6.12E-09         7.68E-07         1.18E-08           mol H+ eq         1.07E+00         4.19E-02         1.93E-04         3.66E-04         1.02E+00         4.47E-03           kg N eq         1.23E-01         5.65E-03         9.08E-05         9.70E-05         1.14E-01         3.20E-03           mol N eq         1.47E+00         6.02E-02         9.97E-04         7.33E-04         1.41E+00         1.60E-03           kg COVNM eq         1.26E-03         1.25E-03         0°         0°         5.45E-06         0°           MJ         3.08E+03 </td

Additional indicators for the French regulation are available as well

Inventory flows Indicators			Vigilohm IMD-IM9 - IMD-IM9					
lavoretoro (lavor	Unit	Total	Manufact.	Distribution	Installation	Use	End of Life	Loads and Benefits
Inventory flows	Unit	lotai	[A1 - A3]	[A4]	[A5]	[B1 - B7]	[C1 - C4]	[D]
Contribution to use of renewable primary energy excluding renewable primary energy used as raw material	MJ	4.52E+02	1.75E+00	0*	6.94E-02	4.50E+02	2.50E-01	5.44E-01
Contribution to use of renewable primary energy resources used as raw material	MJ	9.50E-01	9.50E-01	0*	0*	0*	0*	-9.11E-01
Contribution to total use of renewable primary energy resources	MJ	4.53E+02	2.70E+00	0*	6.94E-02	4.50E+02	2.50E-01	-3.67E-01
Contribution to use of non renewable primary energy excluding non renewable primary energy used as raw material	MJ	3.08E+03	7.19E+01	4.19E-01	9.59E-01	3.01E+03	1.88E+00	-1.10E+00
Contribution to use of non renewable primary energy resources used as raw material	MJ	3.76E+00	3.76E+00	0*	0*	0*	0*	-2.64E-02
Contribution to total use of non-renewable primary energy resources	MJ	3.08E+03	7.57E+01	4.19E-01	9.59E-01	3.01E+03	1.88E+00	-1.13E+00
Contribution to use of secondary material	kg	2.74E-05	2.74E-05	0*	0*	0*	0*	0.00E+00
Contribution to use of renewable secondary fuels	MJ	0.00E+00	0*	0*	0*	0*	0*	0.00E+00
Contribution to use of non renewable secondary fuels	MJ	0.00E+00	0*	0*	0*	0*	0*	0.00E+00
Contribution to net use of freshwater	m³	1.70E+00	6.24E-02	0*	9.35E-04	1.45E-01	1.50E+00	-1.72E-03
Contribution to hazardous waste disposed	kg	1.50E+01	1.10E+01	0*	0*	3.83E+00	1.81E-01	-4.59E-02
Contribution to non hazardous waste disposed	kg	2.78E+01	2.01E+00	0*	3.00E-01	2.54E+01	9.31E-02	-1.32E+00
Contribution to radioactive waste disposed	kg	3.80E-03	6.23E-04	7.51E-07	4.03E-05	3.13E-03	4.23E-06	-6.81E-05
Contribution to components for reuse	kg	0.00E+00	0*	0*	0*	0*	0*	0.00E+00
Contribution to materials for recycling	kg	5.18E-02	0*	0*	5.12E-02	0*	6.38E-04	0.00E+00
Contribution to materials for energy recovery	kg	1.37E-08	1.37E-08	0*	0*	0*	0*	0.00E+00
Contribution to exported energy	MJ	0.00E+00	0*	0*	0*	0*	0*	0.00E+00
Contribution to biogenic carbon content of the product	kg de C	0.00E+00	0*	0*	0*	0*	0*	0.00E+00
Contribution to biogenic carbon content of the associated packaging	kg de C	0.00E+00	0*	0*	0*	0*	0*	0.00E+00

 $<sup>^{\</sup>star}$  represents less than 0.01% of the total life cycle of the reference flow

Life cycle assessment performed with EIME version v5.9.4, database version 2022-01 in compliance with ISO14044.

The Use phase has the greatest impacts contribution on the majority of environmental indicators, except for Resource use, minerals and metals (PEF-ADPe) & Water use (PEF-WU). The manufacturing phase has impact of Resource use, minerals and metals (PEF-ADPe). The EOLI Phase has the major impact of Water use (PEF-WU).

Detailed results, including all the optional indicators mentioned in PCRed4, and the split of the Use Phase (B1 to B7), are available in the LCA report and on demand in a digital format - Country Customer Care Center - http://www.schneider-electric.com/contact

Please note that the values given above are only valid within the context specified and cannot be used directly to draw up the environmental assessment of an installation.

Registration number:	ENVPEP110115_V1	Drafting rules	PEP-PCR-ed4-2021 09 06			
Verifier accreditation N°	0	Supplemented by	PSR-0005-ed2-2016 03 29			
Date of issue	11/2023	Information and reference documents	www.pep-ecopassport.org			
		Validity period	5 years			
Independent verification of the declaration and data, in compliance with ISO 14021: 2016						
Internal X External						
The PCR review was conducted by a panel of experts chaired by Julie ORGELET (DDemain)						
PEP 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 14021 : 2016 « Environmental labels and declarations. Type II environmental declarations »						

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