Product Environmental Profile

InRow DX 300mm 10kW, Precision





Genera	al information
Reference product Description of the product	InRow DX 300mm 10kW, Precision - ACRD101P The InRow ACRD101P series is the newest close-coupled cooling solution from Schneider Electric with low GWP refrigerant and the optimal choice for edge and enterprise customers. The ACRD101P applied new M172 controller platform and brought a sub- controller on outdoor unit which provides the modular design of condensing unit. At the mean time, it keeps high energy efficiency and provides a wide range of cooling output from 2kW to 10kW for commercial use.
Functional unit	To produce 1 kW of cooling according to the appropriate usage scenario defined in the EN 14825 standard and during the 22 years reference lifetime of the product. Technical description at the typical use scenario condition@35°C: - Technology: air to air - non reversible - Cooling capacity 10kW - SEER 3.89 kW/kW - Refrigerant:R32 (filled at customer side during installation)



Substance assessment

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

Additional environmental information							
End Of Life	Recyclability potential:	87%	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% recyclability).				

O Environmental impacts

Reference service life time	22 years							
Installation elements	The InRow DX 300mm needs to fill Refrigerant R32 when installation. Installation is to be performed by qualified personnel.							
Use scenario	The energy consumption during the reference lifetime of the Air conditioner to guarantee a cooling capacity equal to 10 kW at the working conditions required by the EN 14825 standard, has been calculated considering the climatic influence. - Reference Lifetime:22 years - Cooling capacity:10 kW - SEER: 3.89 kW/kW - Number of equivalent active mode hours anually of the device for cooling: 8059.2 hrs							
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	USA							
	[A1 - A3]	[A5]	[B6]	[C1 - C4]				
Energy model used	Electricity Mix; Production mix; Low voltage; IN	Electricity Mix; Production mix; Low voltage; US	Electricity Mix; Production mix; Low voltage; US	Electricity Mix; Production mix; Low voltage; US				

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

The PEP is drawn up under the assumption 1 kW of cooling power being supplied. The real impact of the stages of the life cycle of a product installed in an actual situation is calculated by the user of the PEP by multiplying the impact concerned by the total cooling capacity in kW.

Mandatory Indicators			InRow DX 300mm 10kW, Precision - ACRD101P					
Impact indicators	Unit	Total	Manufacturing	Distribution	Installation	Use	End of Life	Loads and Benefits
	Onic	Total	[A1 - A3]	[A4]	[A5]	[B1 - B7]	[C1 - C4]	[D]
Contribution to climate change	kg CO2 eq	1.86E+04	3.65E+02	4.78E+00	3.95E+00	1.82E+04	7.85E+01	-1.14E+02
Contribution to climate change-fossil	kg CO2 eq	1.86E+04	3.61E+02	4.78E+00	5.86E+00	1.81E+04	7.84E+01	-1.13E+02
Contribution to climate change-biogenic	kg CO2 eq	2.19E+01	4.51E+00	0*	0*	1.92E+01	8.43E-02	-8.73E-01
Contribution to climate change-land use and land use change	kg CO2 eq	3.17E-06	1.41E-07	0*	1.67E-06	0*	1.36E-06	0.00E+00
Contribution to ozone depletion	kg CFC-11 eq	4.53E-04	3.75E-04	0*	2.08E-07	7.71E-05	3.26E-07	-1.65E-05
Contribution to acidification	mol H+ eq	9.96E+01	3.19E+00	3.07E-02	1.55E-02	9.60E+01	2.70E-01	-7.15E-01
Contribution to eutrophication, freshwater	kg (PO4)³ [—] eq	3.17E-02	7.60E-04	0*	4.77E-05	2.80E-02	2.92E-03	-2.56E-04
Contribution to eutrophication marine	kg N eq	1.20E+01	4.80E-01	1.44E-02	4.29E-03	1.14E+01	4.88E-02	-6.74E-02
Contribution to eutrophication, terrestrial	mol N eq	1.40E+02	5.28E+00	1.58E-01	3.75E-02	1.34E+02	5.29E-01	-7.67E-01
Contribution to photochemical ozone formation - human health	kg COVNM eq	3.96E+01	1.55E+00	4.00E-02	1.09E-02	3.79E+01	1.90E-01	-2.67E-01
Contribution to resource use, minerals and metals	kg Sb eq	6.18E-02	6.10E-02	0*	0*	7.32E-04	8.46E-05	-2.91E-02
Contribution to resource use, fossils	MJ	3.97E+05	5.97E+03	6.66E+01	7.14E+01	3.85E+05	5.52E+03	-2.39E+03
Contribution to water use	m3 eq	8.04E+02	1.07E+02	0*	1.76E+00	6.51E+02	4.30E+01	-4.61E+01

Additional indicators for the French regulation are available as well

Inventory flows Indicators				InRow DX 300mm 10kW, Precision - ACRD101P				
Inventory flows	Unit	Total	Manufact.	Distribution	Installation	Use	End of Life	Loads and Benefits
			[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	4.84E+04	8.22E+01	0*	1.73E+01	4.83E+04	0*	-1.39E+01
Contribution to use of renewable primary energy resources used as raw material	MJ	1.34E+02	1.34E+02	0*	0*	0*	0*	-4.44E+01
Contribution to total use of renewable primary energy resources	MJ	4.85E+04	2.16E+02	0*	1.73E+01	4.83E+04	0*	-5.83E+01
Contribution to use of non renewable primary energy excluding non renewable primary energy used as raw material	MJ	3.97E+05	5.83E+03	6.66E+01	7.14E+01	3.85E+05	5.52E+03	-2.38E+03
Contribution to use of non renewable primary energy resources used as raw material	MJ	1.31E+02	1.31E+02	0*	0*	0*	0*	-1.42E+01
Contribution to total use of non-renewable primary energy resources	MJ	3.97E+05	5.97E+03	6.66E+01	7.14E+01	3.85E+05	5.52E+03	-2.39E+03
Contribution to use of secondary material	kg	1.44E-02	1.44E-02	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	1.87E+01	2.50E+00	0*	4.09E-02	1.52E+01	1.04E+00	-1.07E+00
Contribution to hazardous waste disposed	kg	4.25E+03	3.86E+03	0*	0*	3.55E+02	3.19E+01	-2.31E+03
Contribution to non hazardous waste disposed	kg	2.98E+03	2.91E+02	0*	1.01E+01	2.68E+03	1.68E+00	-1.38E+02
Contribution to radioactive waste disposed	kg	6.38E-01	1.31E-01	1.19E-04	1.18E-03	5.05E-01	3.61E-04	-5.74E-02
Contribution to components for reuse	kg	0.00E+00	0*	0*	0*	0*	0*	0.00E+00
Contribution to materials for recycling	kg	3.10E+01	0*	0*	2.98E+00	0*	2.80E+01	0.00E+00
Contribution to materials for energy recovery	kg	6.05E-08	6.05E-08	0*	0*	0*	0*	0.00E+00
Contribution to exported energy	MJ	1.20E+00	0*	0*	1.20E+00	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	kg de C	0.00E+00	0*	0*	0*	0*	0*	0.00E+00

packaging kg de C * * 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.

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.

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Verifier accreditation N°		Supplemented by	PSR-0013-ed3-EN-2023 06 06			
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		Validity period	5 years			
Independent verification of the d	eclaration 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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