

DAH Solar Co., Ltd.



ENVIRONMENTAL PRODUCT DECLARATION

DAH PV bifacial module

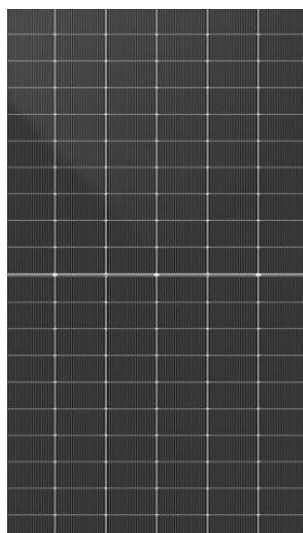
**DAH Solar Green Energy Co. , Ltd.
No. 118 Bantang Avenue, Chaohu
Economic Development Zone, Hefei
city, Anhui Province**

in compliance with ISO 14025 and EN15804

Program Operator	The Norwegian EPD Foundation
Publisher	EPDItaly

Declaration Number	NEPD-15069-17722
Registration Number	MR-EPDITALY0159

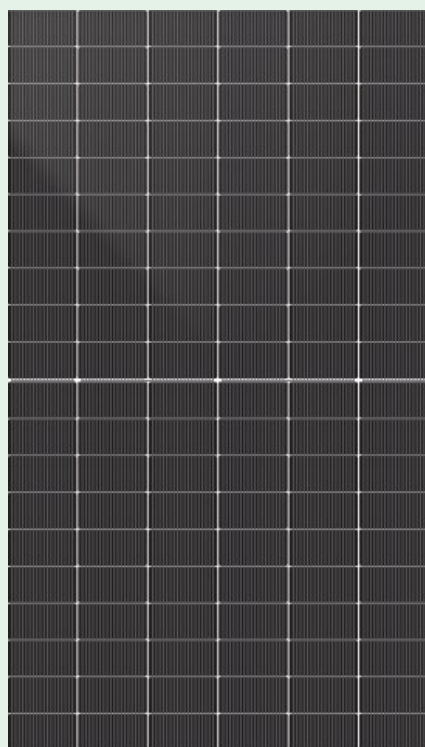
Issue Date	05/ 03/ 2026
Valid to	05/ 03 / 2031



Environmental Product Declaration

In accordance with ISO14025:2006 and EN15804:2012+A2:2019

DAH PV bifacial module



The Norwegian
EPD Foundation

Owner of the declaration:
DAH Solar Co., Ltd.

Product name:
PV bifacial module

Functional unit:
1 Wp of manufactured photovoltaic module,
from cradle-to-grave, with activities needed for
a study period for 25 years reference service
life ($\geq 80\%$ of the labelled power output)

Product category /PCR:
NPCR PART A: Construction products and
services Version 2.0 & NPCR PART A:
Construction products and services Version 2.0
and NPCR 029 Part B Version: 1.2

Program holder and publisher:
The Norwegian EPD foundation

Declaration number:
NEPD-15069-17722

Registration number:
NEPD-15069-17722

Issue date:
05.03.2026

Valid to:
05.03.2031

General information

Product:

Mono-crystalline, double glass, solar photovoltaic modules

This is an EPD which represents the average of 5 similar products from DAH.

Program operator:

The Norwegian EPD Foundation

Post Box 5250 Majorstuen, 0303 Oslo, Norway

Tlf: +47 23 08 80 00

e-mail: post@epd-norge.no

Declaration number:

NEPD-15069-17722

This declaration is based on Product

Category Rules:

NPCR PART A: Construction products and services

Version 2.0, valid to 2026-03-24 and NPCR

029:2022 Part B for photovoltaic modules 1.2,

valid to 2025-06-11

Statement of liability:

The owner of the declaration shall be liable for the underlying information and evidence. EPD

Norway shall not be liable with respect to manufacturer, life cycle assessment data and evidences.

Declared unit:

Not applicable.

Functional unit:

1 Wp of manufactured photovoltaic module, from cradle-to-grave, with activities needed for a study period for 25 years reference service life.

Verification:

Independent verification of the declaration and data, according to ISO14025:2010

internal ☐ external ☒

Juanjuan Yao

Juanjuan Yao

Independent verifier approved by EPD Norway

Owner of the declaration:

DAH Solar Co., Ltd. <https://en.dahsolar.com/>

Contact person: Kevin Jiang

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e-mail: KevinJiang@dahsolar.com

Manufacturer:

DAH Solar Green Energy Co., Ltd.

No. 118 Bantang Avenue, Chaohu Economic Development Zone, Hefei city, Anhui Province

Phone: +86-18655051861

e-mail: KevinJiang@dahsolar.com

Place of production:

China

Management system:

ISO 14001, ISO 9001

Organisation no:

91340100686890473Q

Issue date:

05.03.2026

Valid to:

05.03.2031

Year of study:

Sep 2024 to Aug 2025

Comparability:

EPD of construction products may not be able to compare if they do not comply with EN 15804 and are seen in a building context.

The EPD has been worked out by:

Helen Ji

Approved

Helen Ji

Manager of EPD Norway

Product

Product description:

EPD for multiple products: This is an EPD which represents the average of 5 similar products from DAH Solar Green Energy Co. , Ltd. (DAH). The environmental performance of the products included vary less than+/- 10%.

DAH PV bifacial module is high performance monocrystalline TOPCon module. The power output range is 435-645Wp. Maximum Efficiency is 23.37%.

Product specification:

The products can be identified by its name.

Five types of modules are included, which are Z16/Z20 - N66-doubel glass, Z16/Z20 - N54-doubel glass, Z16/Z20 - N48-doubel glass , X16 - N78-double glass and X16 - N72-doubel glass.

Type	DHN-66Z16/DG-xxxW DHN-66Z16/DG(BW)-xxxW DHN-66Z16/DG(BB)-xxxW DHN-66Z16/DG/FS-xxxW DHN-66Z16/DG/FS(BW)-xxxW DHN-66Z16/DG/FS(BB)-xxxW DHN-66Z20/DG-xxxW DHN-66Z20/DG(BW)-xxxW DHN-66Z20/DG(BB)-xxxW DHN-66Z20/DG/FS-xxxW DHN-66Z20/DG/FS(BW)-xxxW DHN-66Z20/DG/FS(BB)-xxxW	DHN-54Z16/DG-xxxW DHN-54Z16/DG(BW)-xxxW DHN-54Z16/DG(BB)-xxxW DHN-54Z16/DG/FS-xxxW DHN-54Z16/DG/FS(BW)-xxxW DHN-54Z16/DG/FS(BB)-xxxW DHN-54Z20/DG-xxxW DHN-54Z20/DG(BW)-xxxW DHN-54Z20/DG(BB)-xxxW DHN-54Z20/DG/FS-xxxW DHN-54Z20/DG/FS(BW)-xxxW DHN-54Z22/DG/FS(BB)-xxxW	DHN-48Z16/DG-xxxW DHN-48Z16/DG(BW)-xxxW DHN-48Z16/DG(BB)-xxxW DHN-48Z16/DG/FS-xxxW DHN-48Z16/DG/FS(BW)-xxxW DHN-48Z16/DG/FS(BB)-xxxW DHN-48Z20/DG-xxxW DHN-48Z20/DG(BW)-xxxW DHN-48Z20/DG(BB)-xxxW DHN-48Z20/DG/FS-xxxW DHN-48Z20/DG/FS(BW)-xxxW DHN-48Z20/DG/FS(BB)-xxxW	DHN-78X16/DG-xxxW DHN-78X16/DG(BW)-xxxW DHN-78X16/DG(BB)-xxxW DHN-78X16/DG/FS-xxxW DHN-78X16/DG/FS(BW)-xxxW DHN-78X16/DG/FS(BB)-xxxW	DHN-72X16/DG-xxxW DHN-72X16/DG(BW)-xxxW DHN-72X16/DG(BB)-xxxW DHN-72X16/DG/FS-xxxW DHN-72X16/DG/FS(BW)-xxxW DHN-72X16/DG/FS(BB)-xxxW
Rated output (Wp)	600-635	490-520	435-465	620-645	575-595
Height(m)	2.382	1.962	1.762	2.465	2.278
Width(m)	1.134	1.134	1.134	1.134	1.134
Area(m2)	2.701	2.225	1.998	2.795	2.584
Bifacial	Yes	Yes	Yes	Yes	Yes
Lifetime	25	25	25	25	25
Yearly degradation	0.7%	0.7%	0.7%	0.7%	0.7%
No. of cells (pcs)	66.0	54.0	48.0	78.0	72.0

Total mass of 1 photovoltaic panel related to the FU/DU, excluding packaging	31.53	27.10	24.43	34.49	30.49
Total mass of 1 photovoltaic panel related to the FU/DU, including packaging	32.65	28.22	25.54	35.61	31.61
Converting factor to convert results related to the FU to 1 m2 photovoltaic module	222	220	218	222	222
Type of technology	Mono-Si	Mono-Si	Mono-Si	Mono-Si	Mono-Si

Content declaration:

Materials ¹	Value kg/FU	%
Cell	1.18E-03	2.15%
Glass	4.45E-02	81.23%
EVA	2.12E-03	3.86%
POE	2.05E-03	3.73%
Aluminium frame	3.90E-03	7.11%
Sealant and Pottant	5.96E-04	1.09%
Junction box	6.74E-05	0.12%
Ribon string	3.03E-04	0.55%
Ribon interconnection	8.53E-05	0.16%
Total	5.48E-02	100%
Packaging	Value	%
Wooden pallet	1.51E-03	2.75%
Cardboard box	4.46E-04	0.81%
Packaging corner	9.85E-05	0.18%
L-shaped corner protector	3.95E-06	0.01%
Wrap	2.91E-05	0.05%
Band	6.24E-06	0.01%
Packaging label	2.08E-07	0.0004%
Total	2.09E-03	3.81%

Technical data:

The modules are tested according to the following norms: IEC 61215 and IEC 61730.

Market:

Global

Reference service life, product:

25 years. It is a standard reference service life of 25 years for $\geq 80\%$ of the labelled power output according to the PCR.

Reference service life, building:

N/A

¹ The average mass composition in the table is obtained based on the average calculation of the BoM (bill of materials) of the five types of modules.

Additional technical information

N/A

LCA: Calculation rules

Functional unit:

1 Wp of manufactured photovoltaic module, from cradle to-grave and module D ($\geq 80\%$ of the labelled power output).

Cut-off criteria:

For the processes within the system boundary, all available energy and material flow data have been included in the model. No cut-off has been applied in this study.

Allocation:

In this study, onsite energy such as electricity and diesel consumption, auxiliary consumption, emissions and waste at DAH plant is allocated according to the ratio between the total weight of produced reference products and the weight of all produced products of the plant in Sep 2024 to Aug 2025.

Data quality:

Primary data (such as materials or energy flows that enter and leave the production system and the upstream Cell data) is from DAH manufacturing facilities from Sep 2024 to Aug 2025.

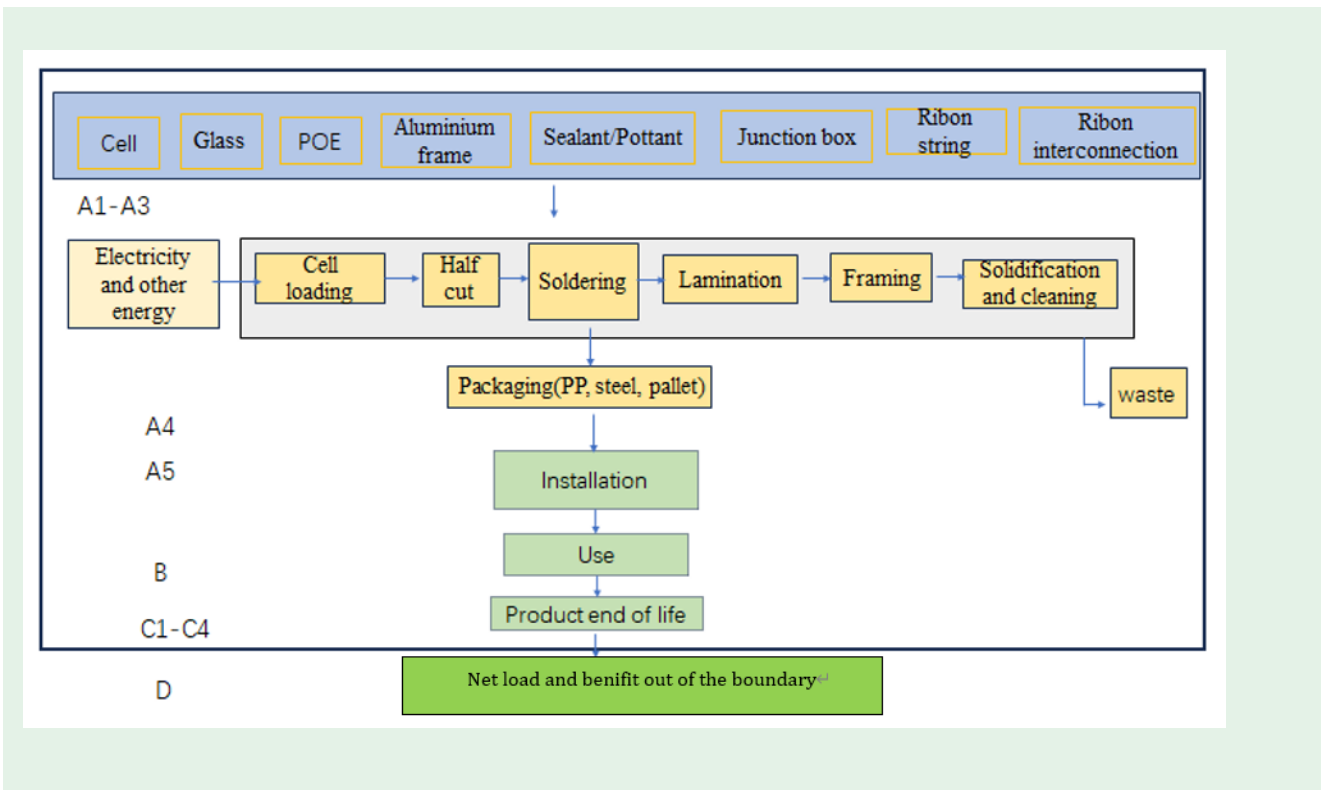
Generic data related to the life cycle impacts of the material or energy flows that enter and leave the production system is sourced from Ecoinvent 3.11. The data quality is assessed through the ISO 14044 standard and EN 15804, the data quality level results of the study shows good level.

System boundaries (X=included, MND=module not declared, MNR=module not relevant)

Product stage			Assembly stage		Use stage							End of life stage				Benefits & loads beyond system boundary
Raw materials	Transport	Manufacturing	Transport	Assembly	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	De-construction demolition	Transport	Waste processing	Disposal	Reuse-Recovery-Recycling-potential
A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

System boundary:

This LCA of DAH PV module is a cradle-to-grave study with the consideration of the load and benefits in module D .



According to the PCR, A1-A3(production of commodities, raw materials), A4 and A5(Construction processes), B1-B7(Use processes), C1-C4(End-of -life processes) and D(Next product system) should be included in the system boundary. In D module, load or benefit is considered as zero.

LCA: Scenarios and additional technical information

The following information describe the scenarios in the different modules of the EPD.

Transport from production place to assembly/user (A4)

Transport from production place to assembly/user (A4)	Capacity utilisation (incl. return) %	Distance (km)	Fuel/Energy consumption	Unit	Value
Truck	53.3%	500	Diesel	tkm	14.8
Ship	50%	10000	Heavy fuel	tkm	296

The reference product is produced in China and distributed around the world. The product is assumed to be sold in International market.

Assembly (A5)

The modules are installed by hand. The screwdriver electricity consumption is neglected. As in PCR part B, the fasteners (screws) are not included in the LCA. The only impact is the packaging waste given in the table below:

Packaging	Unit	Value
Wood pallet	Kg	1.51E-03
Cardboard box	Kg	4.46E-04
Packaging corner	Kg	9.85E-05
L-shaped corner protector	Kg	3.95E-06
Wrap	Kg	2.91E-05
Band	Kg	6.24E-06
Packaging lable	Kg	2.08E-07

Use (B1)

There are no material or energy inputs, nor emissions during the use phase (B1) of the PV module.

Maintenance (B2)/Repair (B3)

	Unit	Value
Water consumption	m3	2.26E+00
Electricity consumption	kWh	1.25E-03

It is assumed that the product needs to be cleaned once per year. For each cleaning, water consumption is 20 kg/m2/year, the electricity needed to pump the water is 0.0011 kWh/m2/year.

Replacement (B4)/Refurbishment (B5)

No replacement or refurbishment is required during the lifetime.

Operational energy (B6) and water consumption (B7)

The products do not require any energy or water consumption.:

To calculate the electricity production, following method should be used. Photovoltaic modules harness solar energy throughout their entire lifecycle via the photovoltaic effect. The amount of electricity they produce is directly influenced by solar irradiance. The electricity production is calculated as below:

Electricity production in the first year of operation:

$$(1) \quad E1 = Srad * A * y * PR * (1 - deg)$$

Electricity production second year of operation:

$$(2) \quad E2 = E1 * (1 - deg)$$

Electricity production n year of operation:

$$(3) \quad En = E1 * (1 - deg)^{n-1}$$

Energy production over reference service life of module, assuming linear annual degradation:

$$(4) E_{RSL} = E_1 \times (1 + \sum_{n=1}^{RSL-1} (1 - deg)^n)$$

RSL = Reference service life for energy-producing unit, from functional unit (FU), stated in the EPD

n = year of operation

The data used to calculate electricity production is show below:

Electricity production parameter	Unit	Value
Srad	kWh/kWp/year	1541
A	m ²	2.461
y	kWp/m ²	0.221
PR	Site sepcific	-
deg	Site sepcific	-

End of Life (C1, C3, C4)

	Unit	Value
To landfill	kg	5.27E-02

Assumptions are made for C1, C3 and C4 stage. Deconstruction/Deinstallation is zero as the product would be manually deconstructed. For C4, 100% are assumed to be landfilled.

Transport to waste processing (C2)

Transport from production place to assembly/user (C2)	Capacity utilisation (incl. return) %	Distance (km)	Fuel/Energy consumption	Unit	Value
Truck	53.3%	50	Diesel	tkm	2.73E-03

According to the PCR, distance for this stage is 50km.

Benefits and loads beyond the system boundaries (D)

Benefits and loads are considered as zero for conservative estimation.

LCA: Results

The LCA results show the environmental impacts and resource input and output flows calculated according to EN 15804:2012+A2. The results are shown per functional unit (1Wp). The LCA results have been calculated using the LCA software openLCA2.5.0

The EPD represents the average of the 5 similar products (module 1, module 2, module 3 , module 4 and module 5) from DAH Solar Green Energy Co. , Ltd. (DAH). The LCI of the five modules are done separately. The impact of the five modules are calculated respectively, and then average result of the five modules are used for this EPD. The difference between the minimum value and the maximum value for every environmental indicators is calculated. All the environmental indicators have less than 10% difference, which means that the results can represent all the five modules and can be used in the same EPD.

The estimated impact results are only relative statements which do not indicate the end points of the impact categories, exceeding threshold values, safety margins or risks.

Core environmental impact indicators (per funtional unit Wp) location-based approach

Indicator	Unit	A1-A3	A4	A5	B2	C1	C2	C3	C4	D
GWP-fossil	kg CO2 eq.	3.84E-01	8.61E-03	1.72E-04	1.89E-03	0.00E+00	6.96E-04	0.00E+00	1.58E-04	0.00E+00
GWP-biogenic	kg CO2 eq.	-2.33E-03	1.70E-07	3.52E-03	0.00E+00	0.00E+00	3.47E-07	0.00E+00	2.64E-08	0.00E+00
GWP-luluc	kg CO2 eq.	5.26E-04	4.37E-06	7.50E-08	1.56E-06	0.00E+00	3.06E-07	0.00E+00	1.72E-08	0.00E+00
GWP-total	kg CO2 eq.	3.82E-01	8.62E-03	3.69E-03	1.89E-03	0.00E+00	6.96E-04	0.00E+00	1.58E-04	0.00E+00
ODP	kg CFC 11 eq.	1.88E-08	1.20E-10	2.13E-12	9.75E-12	0.00E+00	8.57E-12	0.00E+00	2.22E-12	0.00E+00
AP	mol H+ eq.	2.39E-03	1.74E-04	6.36E-07	1.06E-05	0.00E+00	2.32E-06	0.00E+00	1.38E-06	0.00E+00
EP-freshwater	kg P eq.	1.86E-05	5.88E-08	2.14E-09	5.85E-08	0.00E+00	8.66E-09	0.00E+00	8.83E-10	0.00E+00
EP-marine	kg N eq.	4.32E-04	4.41E-05	2.06E-07	2.01E-06	0.00E+00	7.07E-07	0.00E+00	6.23E-07	0.00E+00
EP-terrestrial	mol N eq.	4.91E-03	4.90E-04	2.26E-06	2.22E-05	0.00E+00	7.82E-06	0.00E+00	6.80E-06	0.00E+00
POCP	kg NMVOC eq.	1.44E-03	1.38E-04	8.42E-07	6.30E-06	0.00E+00	3.08E-06	0.00E+00	2.07E-06	0.00E+00
ADP-minerals&metals*	kg Sb eq.	3.02E-05	1.43E-08	5.45E-10	6.29E-09	0.00E+00	2.34E-09	0.00E+00	5.96E-11	0.00E+00
ADP-fossil*	MJ	4.71E+00	1.12E-01	2.33E-03	2.33E-02	0.00E+00	9.46E-03	0.00E+00	2.01E-03	0.00E+00
WDP*	m3	4.11E-01	4.54E-04	1.19E-05	4.29E-04	0.00E+00	4.81E-05	0.00E+00	5.43E-06	0.00E+00

GWP-total: Global Warming Potential; **GWP-fossil:** Global Warming Potential fossil fuels; **GWP-biogenic:** Global Warming Potential biogenic; **GWP-LULUC:** Global Warming Potential land use and land use change; **ODP:** Depletion potential of the stratospheric ozone layer; **AP:** Acidification potential, Accumulated Exceedance; **EP-freshwater:** Eutrophication potential, fraction of nutrients reaching freshwater end compartment; See "additional Norwegian requirements" for indicator given as PO4 eq. **EP-marine:** Eutrophication potential, fraction of nutrients reaching freshwater end compartment; **EP-terrestrial:** Eutrophication potential, Accumulated Exceedance; **POCP:** Formation potential of tropospheric ozone; **ADP-M&M:** Abiotic depletion potential for non-fossil resources (minerals and metals); **ADP-fossil:** Abiotic depletion potential for fossil resources; **WDP:** Water deprivation potential, deprivation weighted water consumption

Additional environmental impact indicators (per funtional unit Wp) location-based approach

Indicator	Unit	A1-A3	A4	A5	B2	C1	C2	C3	C4	D
ETP-fw2	CTUe	2.82E+00	1.19E-02	4.47E-04	5.28E-03	0.00E+00	1.89E-03	0.00E+00	1.27E-04	0.00E+00
HTP-nc2	CTUh	9.72E-09	4.43E-11	1.31E-12	1.39E-11	0.00E+00	5.55E-12	0.00E+00	3.06E-13	0.00E+00
HTP-c2	CTUh	1.28E-10	1.68E-12	2.68E-14	3.11E-13	0.00E+00	1.10E-13	0.00E+00	1.81E-14	0.00E+00
IRP1	kBq U235 eq.	1.01E-02	2.61E-05	8.24E-07	7.32E-05	0.00E+00	3.04E-06	0.00E+00	3.61E-07	0.00E+00
PM	Disease Incidence	2.79E-08	4.59E-10	1.34E-11	1.29E-10	0.00E+00	4.70E-11	0.00E+00	3.87E-11	0.00E+00
SQP2	Dimensionless	1.13E+00	4.79E-02	1.48E-03	4.29E-03	0.00E+00	4.82E-03	0.00E+00	2.38E-03	0.00E+00

PM: Particulate matter emissions; **IRP:** Ionising radiation, human health; **ETP-fw:** Ecotoxicity (freshwater); **ETP-c:** Human toxicity, cancer effects; **HTP-nc:** Human toxicity, non-cancer effects; **SQP:** Land use related impacts / soil quality

Resource use (per funtional unit Wp) location-based approach

Parameter	Unit	A1-A3	A4	A5	B2	C1	C2	C3	C4	D
PERE	MJ	7.63E-01	1.12E-03	3.63E-05	1.99E-03	0.00E+00	1.39E-04	0.00E+00	1.79E-05	0.00E+00
PERM	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
PERT	MJ	7.63E-01	1.12E-03	3.63E-05	1.99E-03	0.00E+00	1.39E-04	0.00E+00	1.79E-05	0.00E+00
PENRE	MJ	4.71E+00	1.12E-01	2.33E-03	2.33E-02	0.00E+00	9.46E-03	0.00E+00	2.01E-03	0.00E+00
PENRM	MJ.	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
PENRT	MJ	4.71E+00	1.12E-01	2.33E-03	2.33E-02	0.00E+00	9.46E-03	0.00E+00	2.01E-03	0.00E+00
SM	kg	1.09E-02	7.56E-05	1.61E-06	1.64E-05	0.00E+00	6.38E-06	0.00E+00	1.22E-06	0.00E+00
RSF	MJ	5.47E-03	7.99E-06	2.06E-07	5.58E-06	0.00E+00	7.44E-07	0.00E+00	1.75E-07	0.00E+00
NRSF	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
FW	m3	9.54E-03	1.09E-05	2.99E-07	2.27E-03	0.00E+00	1.22E-06	0.00E+00	1.34E-07	0.00E+00

RPEE Renewable primary energy resources used as energy carrier; **RPEM** Renewable primary energy resources used as raw materials; **TPE** Total use of renewable primary energy resources; **NRPE** Nonrenewable primary energy resources used as energy carrier; **NRPM** Nonrenewable primary energy resources used as materials; **TRPE** Total use of non-renewable primary energy resources; **SM** Use of secondary materials; **RSF** Use of renewable secondary fuels; **NRSF** Use of non-renewable secondary fuels; **W** Use of net fresh water.

End of life – Waste (per funtional unit Wp) location-based approach

Parameter	Unit	A1-A3	A4	A5	B2	C1	C2	C3	C4	D
HW	kg	3.80E-02	1.44E-04	3.86E-06	1.43E-04	0.00E+00	1.58E-05	0.00E+00	1.97E-06	0.00E+00
NHW	kg	1.94E-01	9.05E-04	2.16E-05	3.06E-02	0.00E+00	8.97E-05	0.00E+00	1.30E-05	0.00E+00
RW	kg	6.77E-06	1.64E-08	5.16E-10	5.01E-08	0.00E+00	1.89E-09	0.00E+00	2.26E-10	0.00E+00

HW Hazardous waste disposed; **NHW** Non-hazardous waste disposed; **RW** Radioactive waste disposed.

End of life – output flow (per funtional unit Wp) location-based approach

Parameter	Unit	A1-A3	A4	A5	B2	C1	C2	C3	C4	D
CR	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
EEE	MJ	1.53E-03	7.05E-06	2.06E-07	8.70E-06	0.00E+00	7.59E-07	0.00E+00	9.93E-08	0.00E+00
ETE	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
MER	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
MR	kg	1.63E-02	1.26E-04	1.37E-06	1.64E-05	0.00E+00	5.39E-06	0.00E+00	1.02E-06	0.00E+00

CR Components for reuse; **MR** Materials for recycling; **MER** Materials for energy recovery; **EEE** Exported electric energy; **ETE** Exported thermal energy.

Information describing the biogenic carbon content at the factory gate

Biogenic carbon content	Unit	Value
Biogenic carbon content in product	kg C	0
Biogenic carbon content in the accompanying packaging	kg C	9.59E-04

Additional requirements

Location based electricity mix from the use of electricity in manufacturing

National production mix from import, medium voltage (production of transmission lines, in addition to direct emissions and losses in grid) of applied electricity for the manufacturing prosess (foreground/core) per functional unit.

National electricity grid	Data source	GWP _{total} [kg CO ₂ -eq/kWh]
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Electricity, medium voltage {CN-ECGC} market group for electricity, medium voltage Cut-off, U	Ecoinvent 3.11	0.759
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Additional environmental impact indicators required for construction products

In order to increase the transparency of biogenic carbon contribution to climate impact, the indicator GWP-IOBC is required as it declares climate impacts calculated according to the principle of instantaneous oxidation. GWP-IOBC is also referred to as GWP-GHG in context to Swedish public procurement legislation.

Parameter	Unit	A1-A3	A4	A5	B2	C1	C2	C3	C4	D
GWP-IOBC	kg	3.85E-01	8.62E-03	1.72E-04	1.89E-03	0.00E+00	6.96E-04	0.00E+00	1.58E-04	0.00E+00

GWP-IOBC Global warming potential calculated according to the principle of instantaneous oxidation.

Hazardous substances

The declaration is based upon reference to threshold values and/or test results and/or material safety data sheets provided to EPD verifiers. Documentation available upon request to EPD owner.

- ☒ The product contains no substances given by the REACH Candidate list.
- ☐ The product contains substances given by the REACH Candidate list that are less than 0,1 % by weight.
- ☐ The product contains dangerous substances, more than 0,1% by weight, given by the REACH Candidate List, see table.
- ☐ The product contains no substances given by the REACH Candidate list.
- ☐ The product is classified as hazardous waste, see table.

Name	CAS no.	Amount
NA	NA	NA

Indoor environment

The product meets the requirements for low emissions.

N/A

Carbon footprint (A1-C4)

While a carbon footprint analysis has not been conducted for the product separately, the results section does include an evaluation of Global Warming Potential (GWP) with such an analysis. The GWP total results presented in this EPD document represents the carbon footprint of the product studied:

The carbon footprint (per Wp) for the product included in the study is 3.97E-1kg CO₂ eq./Wp.

Bibliography

ISO 14025:2010	Environmental labels and declarations - Type III environmental declarations - Principles and procedures
ISO 14044:2006	Environmental management - Life cycle assessment - Requirements and guidelines

EN 15804:2012+A2:2019	Sustainability of construction works - Environmental product declaration - Core rules for the product category of construction products
ISO 21930:2007	Sustainability in building construction - Environmental declaration of building products
GPI	General Programme Instructions for the Norwegian EPD Foundation Version 4.0, 2024-09-18
NPCR Part A:	Construction products and services. Ver. 2.0. April 2021
PCR NPCR 029 version 1.2	PCR – Part B for photovoltaic modules used in the building and construction industry, including production of cell, wafer, ingot block, solar grade silicon, solar substrates, solar superstrates and other solar grade semiconductor materials
LCA report	LCA Report of DAH PV module version 2.0. Feb2026

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