

Environmental Profile

This LCA is calculated according to: ISO 14044, ISO 14040 and EN 15804

Ecochain v4.3.1



Product: 3092854 - Calefa II DH unit S 40-H
Unit: 1 piece
Manufacturer: Wavin Denmark Hammel
Address: Wavinvej 1
8450 Hammel
Denmark
Contact: <https://www.wavin.com/en-en>

LCA standard: EN15804+A2 (2019)
Standard database: Worldwide - Ecoinvent v 3.6 Cut-Off
Externally verified: Yes
Issue date: 18-10-2024
End of validity: 18-10-2029
Verifier: Martijn van Hövell - SGS Search



Calefa II S is a direct district heating unit with flow-through water heater and mixing for space heating for villas and larger housing complexes.

This LCA was evaluated according to EN15804+A2. It was concluded that the LCA complies with this standard.

The LCA background information and project dossier have been registered in the online Ecochain application in the account Wavin Denmark Hammel (2020). (☑ = module declared, MND = module not declared).

A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
☑	☑	☑	MND	MND	MND	MND	MND	MND	MND	MND	MND	MND	☑	☑	☑	☑
Product stage					Use stage							End-of-Life stage				
A1 Raw material supply A2 Transport A3 Manufacturing					B1 Use B2 Maintenance B3 Repair B4 Replacement B5 Refurbishment B6 Operational energy use B7 Operational water use							C1 De-construction demolition C2 Transport C3 Waste processing C4 Disposal				
Construction process stage					Benefits and loads beyond the system boundaries											
A4 Transport gate to site					D Reuse- Recovery- Recycling- potential											
A5 Assembly / Construction installation process																

Results

Environmental impact	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total	
GWP-total	kg CO2 eq	8.523E+1	1.869E+0	2.898E-1	8.739E+1	5.046E-1	3.785E+0	2.908E-2	-2.164E+1	7.006E+1	
GWP-f	kg CO2 eq	8.553E+1	1.868E+0	2.821E-1	8.768E+1	5.043E-1	2.733E+0	2.907E-2	-2.143E+1	6.951E+1	
GWP-b	kg CO2 eq	-3.905E-1	6.967E-4	7.522E-3	-3.823E-1	1.932E-4	1.051E+0	7.058E-6	-1.854E-1	4.834E-1	
GWP-luluc	kg CO2 eq	8.932E-2	6.844E-4	1.612E-4	9.017E-2	1.785E-4	7.451E-4	2.998E-6	-2.470E-2	6.639E-2	
ODP	kg CFC11 eq	2.070E-4	4.122E-7	3.370E-8	2.075E-4	1.162E-7	1.094E-7	4.410E-9	-1.504E-6	2.062E-4	
AP	mol H+ eq	2.513E+0	1.083E-2	2.503E-3	2.527E+0	2.873E-3	6.125E-3	1.021E-4	-2.979E-1	2.238E+0	
EP-fw	kg P eq	2.011E-2	1.884E-5	1.343E-5	2.014E-2	4.150E-6	3.226E-5	1.223E-7	-2.475E-3	1.770E-2	
EP-m	kg N eq	1.676E-1	3.817E-3	8.702E-4	1.723E-1	1.028E-3	1.556E-3	3.984E-5	-3.691E-2	1.380E-1	
EP-T	mol N eq	2.283E+0	4.208E-2	8.143E-3	2.333E+0	1.133E-2	1.760E-2	3.903E-4	-4.885E-1	1.874E+0	
POCP	kg NMVOC eq	6.512E-1	1.201E-2	2.334E-3	6.655E-1	3.238E-3	5.157E-3	1.174E-4	-1.277E-1	5.463E-1	
ADP-mm	kg Sb eq	1.729E-1	4.732E-5	1.405E-5	1.729E-1	1.305E-5	2.621E-5	9.904E-8	-8.702E-2	8.594E-2	
ADP-f	MJ	1.049E+3	2.817E+1	2.860E+0	1.080E+3	7.741E+0	1.206E+1	3.020E-1	-3.234E+2	7.765E+2	
WDP	m3 depriv.	3.842E+1	1.008E-1	8.607E-2	3.861E+1	2.376E-2	1.258E-1	1.213E-2	-1.123E+1	2.754E+1	
PM	disease inc.	8.664E-6	1.677E-7	4.621E-8	8.878E-6	4.552E-8	9.275E-8	2.000E-9	-1.644E-6	7.375E-6	
IR	kBq U-235 eq	2.847E+0	1.180E-1	1.010E-2	2.975E+0	3.384E-2	4.532E-2	1.258E-3	-1.041E+0	2.014E+0	
ETP-fw	CTUe	2.491E+4	2.512E+1	1.290E+1	2.495E+4	6.286E+0	2.761E+1	2.063E-1	-4.680E+3	2.031E+4	
HTP-c	CTUh	7.592E-7	8.147E-10	5.996E-10	7.606E-7	2.237E-10	1.543E-9	4.904E-12	-1.959E-7	5.665E-7	
HTP-nc	CTUh	2.930E-5	2.747E-8	1.358E-8	2.934E-5	7.494E-9	3.369E-8	1.431E-10	-6.564E-6	2.282E-5	
SQP	Pt	6.144E+2	2.444E+1	2.352E+0	6.412E+2	6.623E+0	1.496E+1	6.500E-1	-1.352E+2	5.282E+2	
Resource use		Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.700E+2	3.526E-1	1.554E+1	1.859E+2	1.111E-1	9.896E-1	3.548E-3	-4.592E+1	1.410E+2	
PERM	MJ	0	0	0	0	0	0	0	0	0	
PERT	MJ	1.700E+2	3.526E-1	1.554E+1	1.859E+2	1.111E-1	9.896E-1	3.548E-3	-4.592E+1	1.410E+2	
PENRE	MJ	1.119E+3	2.991E+1	3.016E+0	1.152E+3	8.219E+0	1.283E+1	3.207E-1	-3.460E+2	8.272E+2	
PENRM	MJ	0	0	0	0	0	0	0	0	0	
PENRT	MJ	1.119E+3	2.991E+1	3.016E+0	1.152E+3	8.219E+0	1.283E+1	3.207E-1	-3.460E+2	8.272E+2	
PET	MJ	1.289E+3	3.026E+1	1.855E+1	1.338E+3	8.330E+0	1.382E+1	3.242E-1	-3.919E+2	9.682E+2	
SM	kg	0	0	0	0	0	0	0	0	0	
RSF	MJ	0	0	0	0	0	0	0	0	0	
NRSF	MJ	0	0	0	0	0	0	0	0	0	
FW	m3	1.038E+0	3.431E-3	2.328E-3	1.044E+0	8.760E-4	4.810E-3	3.283E-4	-3.047E-1	7.455E-1	

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	2.386E-2	7.138E-5	6.085E-6	2.394E-2	1.980E-5	2.617E-5	4.411E-7	-1.129E-2	1.270E-2
NHWD	kg	3.743E+1	1.787E+0	5.138E-2	3.927E+1	4.798E-1	5.208E-1	1.964E+0	-1.090E+1	3.133E+1
RWD	kg	2.551E-3	1.850E-4	1.448E-5	2.750E-3	5.265E-5	5.712E-5	1.981E-6	-8.911E-4	1.971E-3
CRU	kg	0	0	0	0	0	0	0	0	0
MFR	kg	0	0	0	0	0	0	0	0	0
MER	kg	0	0	0	0	0	0	0	0	0
EET	MJ	0	0	0	0	0	0	0	0	0
EEE	MJ	0	0	0	0	0	0	0	0	0
Others	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
BIO-C-Product	kg C	0	0	0	0	0	0	0	0	0
BIO-C-Packaging	kg C	2.865E-1	0	0	2.865E-1	0	0	0	0	2.865E-1



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