

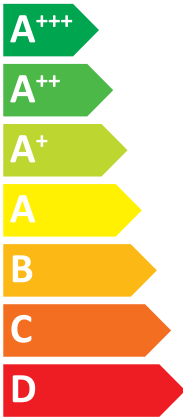
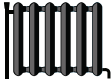


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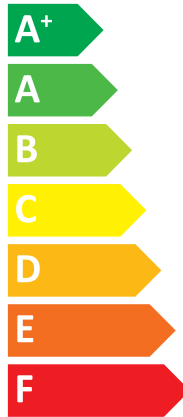
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Indoor unit E\*ST20D-\*\*\*\*D  
Outdoor unit PUD-SHWM100YAA(-BS)



**A++**



**A+**



41 dB

59 dB



- 10 kW
- 10 kW
- 10 kW

2019

811/2013

BH79V003H13



Mitsubishi Electric Erp Directive Related Product Information: erp.mitsubishielectric.eu/erp

Table with columns for Outdoor unit, Indoor unit, and various performance metrics (kW, kWh, etc.) for different models and conditions. The table is organized into sections for medium-temperature and low-temperature applications.

Details and precautions on installation, maintenance and assembly can be found in the installation and/or operation manuals. This information is based on COMMISSION DELEGATED REGULATION (EU) No 813/2013.

Engels	Russisch	Franses	Nederlands	Spaans	Italiaans	Spaans
Engels	Russisch	Franses	Nederlands	Spaans	Italiaans	Spaans
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31	32	33	34	35
36	37	38	39	40	41	42
43	44	45	46	47	48	49
50	51	52	53	54	55	56
57	58	59	60	61	62	63
64	65	66	67	68	69	70
71	72	73	74	75	76	77
78	79	80	81	82	83	84
85	86	87	88	89	90	91
92	93	94	95	96	97	98
99	100	101	102	103	104	105
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162	163	164	165	166	167	168
169	170	171	172	173	174	175
176	177	178	179	180	181	182
183	184	185	186	187	188	189
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246	247	248	249	250	251	252
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260	261	262	263	264	265	266
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351	352	353	354	355	356	357
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372	373	374	375	376	377	378
379	380	381	382	383	384	385
386	387	388	389	390	391	392
393	394	395	396	397	398	399
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407	408	409	410	411	412	413
414	415	416	417	418	419	420
421	422	423	424	425	426	427
428	429	430	431	432	433	434
435	436	437	438	439	440	441
442	443	444	445	446	447	448
449	450	451	452	453	454	455
456	457	458	459	460	461	462
463	464	465	466	467	468	469
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477	478	479	480	481	482	483
484	485	486	487	488	489	490
491	492	493	494	495	496	497
498	499	500	501	502	503	504
505	506	507	508	509	510	511
512	513	514	515	516	517	518
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526	527	528	529	530	531	532
533	534	535	536	537	538	539
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575	576	577	578	579	580	581
582	583	584	585	586	587	588
589	590	591	592	593	594	595
596	597	598	599	600	601	602
603	604	605	606	607	608	609
610	611	612	613	614	615	616
617	618	619	620	621	622	623
624	625	626	627	628	629	630
631	632	633	634	635	636	637
638	639	640	641	642	643	644
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680	681	682	683	684	685	686
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694	695	696	697	698	699	700
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715	716	717	718	719	720	721
722	723	724	725	726	727	728
729	730	731	732	733	734	735
736	737	738	739	740	741	742
743	744	745	746	747	748	749
750	751	752	753	754	755	756
757	758	759	760	761	762	763
764	765	766	767	768	769	770
771	772	773	774	775	776	777
778	779	780	781	782	783	784
785	786	787	788	789	790	791
792	793	794	795	796	797	798
799	800	801	802	803	804	805
806	807	808	809	810	811	812
813	814	815	816	817	818	819
820	821	822	823	824	825	826
827	828	829	830	831	832	833
834	835	836	837	838	839	840
841	842	843	844	845	846	847
848	849	850	851	852	853	854
855	856	857	858	859	860	861
862	863	864	865	866	867	868
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890	891	892	893	894	895	896
897	898	899	900	901	902	903
904	905	906	907	908	909	910
911	912	913	914	915	916	917
918	919	920	921	922	923	924
925	926	927	928	929	930	931
932	933	934	935	936	937	938
939	940	941	942	943	944	945
946	947	948	949	950	951	952
953	954	955	956	957	958	959
960	961	962	963	964	965	966
967	968	969	970	971	972	973
974	975	976	977	978	979	980
981	982	983	984	985	986	987
988	989	990	991	992	993	994
995	996	997	998	999	1000	

Model(s):	Outdoor unit:	PUD-SHWM100YAA(-BS)
	Indoor unit:	EHST20D-****D
Air-to-water heat pump:		yes
Water-to-water heat pump:		no
Brine-to-water heat pump:		no
Low-temperature heat pump:		no
Equipped with a supplementary heater:		yes
Heat pump combination heater:		yes
Parameters for		medium-temperature application.
Parameters for		average climate conditions.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	10.0	kW	Seasonal space heating energy efficiency	$\eta_s$	135	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T <sub>j</sub>				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature T <sub>j</sub>			
T <sub>j</sub> = - 7 °C	P <sub>dh</sub>	8.9	kW	T <sub>j</sub> = - 7 °C	COP <sub>d</sub>	2.18	-
Degradation co-efficient (**)	C <sub>dh</sub>	1.00	-				
T <sub>j</sub> = + 2 °C	P <sub>dh</sub>	5.4	kW	T <sub>j</sub> = + 2 °C	COP <sub>d</sub>	3.29	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.99	-				
T <sub>j</sub> = + 7 °C	P <sub>dh</sub>	5.2	kW	T <sub>j</sub> = + 7 °C	COP <sub>d</sub>	4.81	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.98	-				
T <sub>j</sub> = +12 °C	P <sub>dh</sub>	3.6	kW	T <sub>j</sub> = +12 °C	COP <sub>d</sub>	7.06	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.96	-				
T <sub>j</sub> = bivalent temperature	P <sub>dh</sub>	10.0	kW	T <sub>j</sub> = bivalent temperature	COP <sub>d</sub>	1.91	-
T <sub>j</sub> = operation limit temperature	P <sub>dh</sub>	7.7	kW	T <sub>j</sub> = operation limit temperature	COP <sub>d</sub>	1.57	-
T <sub>j</sub> = - 15 °C (if TOL < - 20 °C)	P <sub>dh</sub>	-	kW	T <sub>j</sub> = - 15 °C (if TOL < - 20 °C)	COP <sub>d</sub>	-	-
Bivalent temperature	T <sub>biv</sub>	-10	°C	Operation limit temperature	TOL	-28	°C
Reference design conditions for space heating	T <sub>designh</sub>	-10	°C	Heating water operating limit temperature	WTOL	60	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P <sub>OFF</sub>	0.022	kW	Rated heat output (*)	P <sub>sup</sub>	0.0	kW
Thermostat-off mode	P <sub>TO</sub>	0.022	kW	Type of energy input	Electrical		
Standby mode	P <sub>SB</sub>	0.022	kW				
Crankcase heater mode	P <sub>CK</sub>	0.000	kW				
Other items							
Capacity control		variable		Rated air flow rate, outdoors	-	2640	m <sup>3</sup> /h
Sound power level, indoors/outdoors	L <sub>WA</sub>	41 / 59	dB(A)				
Annual energy consumption	Q <sub>HE</sub>	5836	kWh				
For heat pump combination heater:				Water heating energy efficiency			
Declared load profile		L		$\eta_{wh}$	148	%	
Daily electricity consumption	Q <sub>elec</sub>	3.340	kWh				
Annual electricity consumption	AEC	736	kWh				

Contact details  
MITSUBISHI ELECTRIC AIR CODITIONING SYSTEM EUROPE LTD. Nettlehill Road, Houston Industrial Estate, Livingston, EH54 5EQ, Scotland, U.K.

(\*) For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating sup(Tj).  
(\*\*) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.

Model(s):	Outdoor unit:	PUD-SHWM100YAA(-BS)
	Indoor unit:	EHST20D-****D
Air-to-water heat pump:		yes
Water-to-water heat pump:		no
Brine-to-water heat pump:		no
Low-temperature heat pump:		no
Equipped with a supplementary heater:		yes
Heat pump combination heater:		yes
Parameters for		low-temperature application.
Parameters for		average climate conditions.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	10.0	kW	Seasonal space heating energy efficiency	$\eta_s$	178	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T <sub>j</sub>				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature T <sub>j</sub>			
T <sub>j</sub> = - 7 °C	P <sub>dh</sub>	8.9	kW	T <sub>j</sub> = - 7 °C	COP <sub>d</sub>	3.16	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.99	-				
T <sub>j</sub> = + 2 °C	P <sub>dh</sub>	5.7	kW	T <sub>j</sub> = + 2 °C	COP <sub>d</sub>	4.52	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.98	-				
T <sub>j</sub> = + 7 °C	P <sub>dh</sub>	5.4	kW	T <sub>j</sub> = + 7 °C	COP <sub>d</sub>	5.63	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.98	-				
T <sub>j</sub> = +12 °C	P <sub>dh</sub>	4.5	kW	T <sub>j</sub> = +12 °C	COP <sub>d</sub>	7.89	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.96	-				
T <sub>j</sub> = bivalent temperature	P <sub>dh</sub>	10.0	kW	T <sub>j</sub> = bivalent temperature	COP <sub>d</sub>	2.92	-
T <sub>j</sub> = operation limit temperature	P <sub>dh</sub>	7.7	kW	T <sub>j</sub> = operation limit temperature	COP <sub>d</sub>	1.57	-
T <sub>j</sub> = - 15 °C (if TOL < - 20 °C)	P <sub>dh</sub>	-	kW	T <sub>j</sub> = - 15 °C (if TOL < - 20 °C)	COP <sub>d</sub>	-	-
Bivalent temperature	T <sub>biv</sub>	-10	°C	Operation limit temperature	TOL	-28	°C
Reference design conditions for space heating	T <sub>designh</sub>	-10	°C	Heating water operating limit temperature	WTOL	60	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P <sub>OFF</sub>	0.022	kW	Rated heat output (*)	P <sub>sup</sub>	0.0	kW
Thermostat-off mode	P <sub>TO</sub>	0.022	kW				
Standby mode	P <sub>SB</sub>	0.022	kW				
Crankcase heater mode	P <sub>CK</sub>	0.000	kW				
				Type of energy input	Electrical		

Other items			
Capacity control		variable	
Sound power level, indoors/outdoors	L <sub>WA</sub>	41 / 59	dB(A)
Annual energy consumption	Q <sub>HE</sub>	4430	kWh
Rated air flow rate, outdoors			
-			
2640			
m <sup>3</sup> /h			

For heat pump combination heater:			
Declared load profile		L	
Daily electricity consumption	Q <sub>elec</sub>	3.340	kWh
Annual electricity consumption	AEC	736	kWh
Water heating energy efficiency			
$\eta_{wh}$			
148			
%			

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(\*) For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating sup(Tj).

(\*\*) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.

Model(s):	Outdoor unit:	PUD-SHWM100YAA(-BS)
	Indoor unit:	EHST20D-****D
Air-to-water heat pump:		yes
Water-to-water heat pump:		no
Brine-to-water heat pump:		no
Low-temperature heat pump:		no
Equipped with a supplementary heater:		yes
Heat pump combination heater:		yes
Parameters for		medium-temperature application.
Parameters for		colder climate conditions.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	10.0	kW	Seasonal space heating energy efficiency	$\eta_s$	114	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T <sub>j</sub>				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature T <sub>j</sub>			
T <sub>j</sub> = - 7 °C	P <sub>dh</sub>	6.1	kW	T <sub>j</sub> = - 7 °C	COP <sub>d</sub>	2.60	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.99	-				
T <sub>j</sub> = + 2 °C	P <sub>dh</sub>	3.7	kW	T <sub>j</sub> = + 2 °C	COP <sub>d</sub>	3.19	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.98	-				
T <sub>j</sub> = + 7 °C	P <sub>dh</sub>	3.8	kW	T <sub>j</sub> = + 7 °C	COP <sub>d</sub>	4.58	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.97	-				
T <sub>j</sub> = +12 °C	P <sub>dh</sub>	4.4	kW	T <sub>j</sub> = +12 °C	COP <sub>d</sub>	6.88	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.97	-				
T <sub>j</sub> = bivalent temperature	P <sub>dh</sub>	8.4	kW	T <sub>j</sub> = bivalent temperature	COP <sub>d</sub>	1.56	-
T <sub>j</sub> = operation limit temperature	P <sub>dh</sub>	7.7	kW	T <sub>j</sub> = operation limit temperature	COP <sub>d</sub>	1.57	-
T <sub>j</sub> = - 15 °C (if TOL < - 20 °C)	P <sub>dh</sub>	8.5	kW	T <sub>j</sub> = - 15 °C (if TOL < - 20 °C)	COP <sub>d</sub>	1.56	-
Bivalent temperature	T <sub>biv</sub>	-16	°C	Operation limit temperature	TOL	-28	°C
Reference design conditions for space heating	T <sub>designh</sub>	-22	°C	Heating water operating limit temperature	WTOL	60	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P <sub>OFF</sub>	0.022	kW	Rated heat output (*)	P <sub>sup</sub>	2.0	kW
Thermostat-off mode	P <sub>TO</sub>	0.022	kW				
Standby mode	P <sub>SB</sub>	0.022	kW				
Crankcase heater mode	P <sub>CK</sub>	0.000	kW				
				Type of energy input	Electrical		

Other items			
Capacity control		variable	
Sound power level, indoors/outdoors	L <sub>WA</sub>	41 / 59	dB(A)
Annual energy consumption	Q <sub>HE</sub>	7924	kWh
Rated air flow rate, outdoors - 2640 m <sup>3</sup> /h			

For heat pump combination heater:			
Declared load profile		L	
Daily electricity consumption	Q <sub>elec</sub>	4.090	kWh
Annual electricity consumption	AEC	900	kWh
Water heating energy efficiency $\eta_{wh}$ 120 %			

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(\*) For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating sup(Tj).

(\*\*) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.



Model(s):	Outdoor unit:	PUD-SHWM100YAA(-BS)
	Indoor unit:	EHST20D-****D
Air-to-water heat pump:		yes
Water-to-water heat pump:		no
Brine-to-water heat pump:		no
Low-temperature heat pump:		no
Equipped with a supplementary heater:		yes
Heat pump combination heater:		yes
Parameters for		low-temperature application.
Parameters for		colder climate conditions.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	10.0	kW	Seasonal space heating energy efficiency	$\eta_s$	148	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T <sub>j</sub>				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature T <sub>j</sub>			
T <sub>j</sub> = - 7 °C	P <sub>dh</sub>	6.2	kW	T <sub>j</sub> = - 7 °C	COP <sub>d</sub>	3.71	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.99	-				
T <sub>j</sub> = + 2 °C	P <sub>dh</sub>	3.9	kW	T <sub>j</sub> = + 2 °C	COP <sub>d</sub>	4.02	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.98	-				
T <sub>j</sub> = + 7 °C	P <sub>dh</sub>	3.9	kW	T <sub>j</sub> = + 7 °C	COP <sub>d</sub>	5.34	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.97	-				
T <sub>j</sub> = +12 °C	P <sub>dh</sub>	4.5	kW	T <sub>j</sub> = +12 °C	COP <sub>d</sub>	7.50	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.96	-				
T <sub>j</sub> = bivalent temperature	P <sub>dh</sub>	8.4	kW	T <sub>j</sub> = bivalent temperature	COP <sub>d</sub>	2.15	-
T <sub>j</sub> = operation limit temperature	P <sub>dh</sub>	7.7	kW	T <sub>j</sub> = operation limit temperature	COP <sub>d</sub>	1.57	-
T <sub>j</sub> = - 15 °C (if TOL < - 20 °C)	P <sub>dh</sub>	8.5	kW	T <sub>j</sub> = - 15 °C (if TOL < - 20 °C)	COP <sub>d</sub>	2.20	-
Bivalent temperature	T <sub>biv</sub>	-16	°C	Operation limit temperature	TOL	-28	°C
Reference design conditions for space heating	T <sub>designh</sub>	-22	°C	Heating water operating limit temperature	WTOL	60	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P <sub>OFF</sub>	0.022	kW	Rated heat output (*)	P <sub>sup</sub>	2.0	kW
Thermostat-off mode	P <sub>TO</sub>	0.022	kW				
Standby mode	P <sub>SB</sub>	0.022	kW				
Crankcase heater mode	P <sub>CK</sub>	0.000	kW				
				Type of energy input	Electrical		

Other items				Rated air flow rate, outdoors	-	2640	m <sup>3</sup> /h
Capacity control	variable						
Sound power level, indoors/outdoors	L <sub>WA</sub>	41 / 59	dB(A)				
Annual energy consumption	Q <sub>HE</sub>	6106	kWh				

For heat pump combination heater:				Water heating energy efficiency	$\eta_{wh}$	120	%
Declared load profile	L						
Daily electricity consumption	Q <sub>elec</sub>	4.090	kWh				
Annual electricity consumption	AEC	900	kWh				

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(\*) For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating sup(Tj).

(\*\*) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.

Model(s):	Outdoor unit:	PUD-SHWM100YAA(-BS)
	Indoor unit:	EHST20D-****D
Air-to-water heat pump:		yes
Water-to-water heat pump:		no
Brine-to-water heat pump:		no
Low-temperature heat pump:		no
Equipped with a supplementary heater:		yes
Heat pump combination heater:		yes
Parameters for		medium-temperature application.
Parameters for		warmer climate conditions.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	10.0	kW	Seasonal space heating energy efficiency	$\eta_s$	161	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T <sub>j</sub>				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature T <sub>j</sub>			
T <sub>j</sub> = - 7 °C	P <sub>dh</sub>	-	kW	T <sub>j</sub> = - 7 °C	COP <sub>d</sub>	-	-
Degradation co-efficient (**)	C <sub>dh</sub>	-	-				
T <sub>j</sub> = + 2 °C	P <sub>dh</sub>	10.0	kW	T <sub>j</sub> = + 2 °C	COP <sub>d</sub>	2.05	-
Degradation co-efficient (**)	C <sub>dh</sub>	1.00	-				
T <sub>j</sub> = + 7 °C	P <sub>dh</sub>	6.4	kW	T <sub>j</sub> = + 7 °C	COP <sub>d</sub>	3.48	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.99	-				
T <sub>j</sub> = +12 °C	P <sub>dh</sub>	4.2	kW	T <sub>j</sub> = +12 °C	COP <sub>d</sub>	5.68	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.97	-				
T <sub>j</sub> = bivalent temperature	P <sub>dh</sub>	10.0	kW	T <sub>j</sub> = bivalent temperature	COP <sub>d</sub>	2.05	-
T <sub>j</sub> = operation limit temperature	P <sub>dh</sub>	7.7	kW	T <sub>j</sub> = operation limit temperature	COP <sub>d</sub>	1.57	-
T <sub>j</sub> = - 15 °C (if TOL < - 20 °C)	P <sub>dh</sub>	-	kW	T <sub>j</sub> = - 15 °C (if TOL < - 20 °C)	COP <sub>d</sub>	-	-
Bivalent temperature	T <sub>biv</sub>	2	°C	Operation limit temperature	TOL	-28	°C
Reference design conditions for space heating	T <sub>designh</sub>	2	°C	Heating water operating limit temperature	WTOL	60	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P <sub>OFF</sub>	0.022	kW	Rated heat output (*)	P <sub>sup</sub>	0.0	kW
Thermostat-off mode	P <sub>TO</sub>	0.022	kW				
Standby mode	P <sub>SB</sub>	0.022	kW				
Crankcase heater mode	P <sub>CK</sub>	0.000	kW				
				Type of energy input	Electrical		

Other items			
Capacity control		variable	
Sound power level, indoors/outdoors	L <sub>WA</sub>	41 / 59	dB(A)
Annual energy consumption	Q <sub>HE</sub>	3169	kWh
Rated air flow rate, outdoors			
-			
2640			
m <sup>3</sup> /h			

For heat pump combination heater:			
Declared load profile		L	
Daily electricity consumption	Q <sub>elec</sub>	3.070	kWh
Annual electricity consumption	AEC	675	kWh
Water heating energy efficiency			
$\eta_{wh}$			
162			
%			

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(\*) For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating sup(Tj).

(\*\*) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.



Model(s):	Outdoor unit:	PUD-SHWM100YAA(-BS)
	Indoor unit:	EHST20D-****D
Air-to-water heat pump:		yes
Water-to-water heat pump:		no
Brine-to-water heat pump:		no
Low-temperature heat pump:		no
Equipped with a supplementary heater:		yes
Heat pump combination heater:		yes
Parameters for		low-temperature application.
Parameters for		warmer climate conditions.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	10.0	kW	Seasonal space heating energy efficiency	$\eta_s$	232	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T <sub>j</sub>				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature T <sub>j</sub>			
T <sub>j</sub> = - 7 °C	P <sub>dh</sub>	-	kW	T <sub>j</sub> = - 7 °C	COP <sub>d</sub>	-	-
Degradation co-efficient (**)	C <sub>dh</sub>	-	-				
T <sub>j</sub> = + 2 °C	P <sub>dh</sub>	10.0	kW	T <sub>j</sub> = + 2 °C	COP <sub>d</sub>	3.45	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.99	-				
T <sub>j</sub> = + 7 °C	P <sub>dh</sub>	6.4	kW	T <sub>j</sub> = + 7 °C	COP <sub>d</sub>	5.42	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.98	-				
T <sub>j</sub> = +12 °C	P <sub>dh</sub>	4.4	kW	T <sub>j</sub> = +12 °C	COP <sub>d</sub>	7.46	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.96	-				
T <sub>j</sub> = bivalent temperature	P <sub>dh</sub>	10.0	kW	T <sub>j</sub> = bivalent temperature	COP <sub>d</sub>	3.45	-
T <sub>j</sub> = operation limit temperature	P <sub>dh</sub>	7.7	kW	T <sub>j</sub> = operation limit temperature	COP <sub>d</sub>	1.57	-
T <sub>j</sub> = - 15 °C (if TOL < - 20 °C)	P <sub>dh</sub>	-	kW	T <sub>j</sub> = - 15 °C (if TOL < - 20 °C)	COP <sub>d</sub>	-	-
Bivalent temperature	T <sub>biv</sub>	2	°C	Operation limit temperature	TOL	-28	°C
Reference design conditions for space heating	T <sub>designh</sub>	2	°C	Heating water operating limit temperature	WTOL	60	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P <sub>OFF</sub>	0.022	kW	Rated heat output (*)	P <sub>sup</sub>	0.0	kW
Thermostat-off mode	P <sub>TO</sub>	0.022	kW				
Standby mode	P <sub>SB</sub>	0.022	kW				
Crankcase heater mode	P <sub>CK</sub>	0.000	kW				
				Type of energy input	Electrical		

Other items							
Capacity control		variable		Rated air flow rate, outdoors	-	2640	m <sup>3</sup> /h
Sound power level, indoors/outdoors	L <sub>WA</sub>	41 / 59					
Annual energy consumption	Q <sub>HE</sub>	2191					

For heat pump combination heater:							
Declared load profile		L		Water heating energy efficiency	$\eta_{wh}$	162	%
Daily electricity consumption	Q <sub>elec</sub>	3.070	kWh				
Annual electricity consumption	AEC	675	kWh				

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(\*) For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating sup(Tj).  
(\*\*) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.

Model(s):	Outdoor unit:	PUD-SHWM100YAA(-BS)
	Indoor unit:	EHST20D-MED
Air-to-water heat pump:		yes
Water-to-water heat pump:		no
Brine-to-water heat pump:		no
Low-temperature heat pump:		no
Equipped with a supplementary heater:		no
Heat pump combination heater:		yes
Parameters for		medium-temperature application.
Parameters for		average climate conditions.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	10.0	kW	Seasonal space heating energy efficiency	$\eta_s$	135	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T <sub>j</sub>				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature T <sub>j</sub>			
T <sub>j</sub> = - 7 °C	P <sub>dh</sub>	8.9	kW	T <sub>j</sub> = - 7 °C	COP <sub>d</sub>	2.18	-
Degradation co-efficient (**)	C <sub>dh</sub>	1.00	-				
T <sub>j</sub> = + 2 °C	P <sub>dh</sub>	5.4	kW	T <sub>j</sub> = + 2 °C	COP <sub>d</sub>	3.29	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.99	-				
T <sub>j</sub> = + 7 °C	P <sub>dh</sub>	5.2	kW	T <sub>j</sub> = + 7 °C	COP <sub>d</sub>	4.81	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.98	-				
T <sub>j</sub> = +12 °C	P <sub>dh</sub>	3.6	kW	T <sub>j</sub> = +12 °C	COP <sub>d</sub>	7.06	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.96	-				
T <sub>j</sub> = bivalent temperature	P <sub>dh</sub>	10.0	kW	T <sub>j</sub> = bivalent temperature	COP <sub>d</sub>	1.91	-
T <sub>j</sub> = operation limit temperature	P <sub>dh</sub>	7.7	kW	T <sub>j</sub> = operation limit temperature	COP <sub>d</sub>	1.57	-
T <sub>j</sub> = - 15 °C (if TOL < - 20 °C)	P <sub>dh</sub>	-	kW	T <sub>j</sub> = - 15 °C (if TOL < - 20 °C)	COP <sub>d</sub>	-	-
Bivalent temperature	T <sub>biv</sub>	-10	°C	Operation limit temperature	TOL	-28	°C
Reference design conditions for space heating	T <sub>designh</sub>	-10	°C	Heating water operating limit temperature	WTOL	60	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P <sub>OFF</sub>	0.022	kW	Rated heat output (*)	P <sub>sup</sub>	0.0	kW
Thermostat-off mode	P <sub>TO</sub>	0.022	kW				
Standby mode	P <sub>SB</sub>	0.022	kW				
Crankcase heater mode	P <sub>CK</sub>	0.000	kW				
				Type of energy input	Electrical		

Other items			
Capacity control		variable	
Sound power level, indoors/outdoors	L <sub>WA</sub>	41 / 59	dB(A)
Annual energy consumption	Q <sub>HE</sub>	5836	kWh
Rated air flow rate, outdoors			
-			
2640			
m <sup>3</sup> /h			

For heat pump combination heater:			
Declared load profile		L	
Daily electricity consumption	Q <sub>elec</sub>	3.340	kWh
Annual electricity consumption	AEC	736	kWh
Water heating energy efficiency			
$\eta_{wh}$			
148			
%			

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(\*) For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating sup(Tj).

(\*\*) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.

Model(s):	Outdoor unit:	PUD-SHWM100YAA(-BS)
	Indoor unit:	EHST20D-MED
Air-to-water heat pump:		yes
Water-to-water heat pump:		no
Brine-to-water heat pump:		no
Low-temperature heat pump:		no
Equipped with a supplementary heater:		no
Heat pump combination heater:		yes
Parameters for		low-temperature application.
Parameters for		average climate conditions.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	10.0	kW	Seasonal space heating energy efficiency	$\eta_s$	178	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T <sub>j</sub>				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature T <sub>j</sub>			
T <sub>j</sub> = - 7 °C	P <sub>dh</sub>	8.9	kW	T <sub>j</sub> = - 7 °C	COP <sub>d</sub>	3.16	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.99	-				
T <sub>j</sub> = + 2 °C	P <sub>dh</sub>	5.7	kW	T <sub>j</sub> = + 2 °C	COP <sub>d</sub>	4.52	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.98	-				
T <sub>j</sub> = + 7 °C	P <sub>dh</sub>	5.4	kW	T <sub>j</sub> = + 7 °C	COP <sub>d</sub>	5.63	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.98	-				
T <sub>j</sub> = +12 °C	P <sub>dh</sub>	4.5	kW	T <sub>j</sub> = +12 °C	COP <sub>d</sub>	7.89	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.96	-				
T <sub>j</sub> = bivalent temperature	P <sub>dh</sub>	10.0	kW	T <sub>j</sub> = bivalent temperature	COP <sub>d</sub>	2.92	-
T <sub>j</sub> = operation limit temperature	P <sub>dh</sub>	7.7	kW	T <sub>j</sub> = operation limit temperature	COP <sub>d</sub>	1.57	-
T <sub>j</sub> = - 15 °C (if TOL < - 20 °C)	P <sub>dh</sub>	-	kW	T <sub>j</sub> = - 15 °C (if TOL < - 20 °C)	COP <sub>d</sub>	-	-
Bivalent temperature	T <sub>biv</sub>	-10	°C	Operation limit temperature	TOL	-28	°C
Reference design conditions for space heating	T <sub>designh</sub>	-10	°C	Heating water operating limit temperature	WTOL	60	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P <sub>OFF</sub>	0.022	kW	Rated heat output (*)	P <sub>sup</sub>	0.0	kW
Thermostat-off mode	P <sub>TO</sub>	0.022	kW	Type of energy input	Electrical		
Standby mode	P <sub>SB</sub>	0.022	kW				
Crankcase heater mode	P <sub>CK</sub>	0.000	kW				
Other items							
Capacity control		variable		Rated air flow rate, outdoors	-	2640	m <sup>3</sup> /h
Sound power level, indoors/outdoors	L <sub>WA</sub>	41 / 59	dB(A)				
Annual energy consumption	Q <sub>HE</sub>	4430	kWh				
For heat pump combination heater:				Water heating energy efficiency			
Declared load profile		L		$\eta_{wh}$	148	%	
Daily electricity consumption	Q <sub>elec</sub>	3.340	kWh				
Annual electricity consumption	AEC	736	kWh				

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(\*) For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating sup(Tj).

(\*\*) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.

Model(s):	Outdoor unit:	PUD-SHWM100YAA(-BS)
	Indoor unit:	EHST20D-MED
Air-to-water heat pump:		yes
Water-to-water heat pump:		no
Brine-to-water heat pump:		no
Low-temperature heat pump:		no
Equipped with a supplementary heater:		no
Heat pump combination heater:		yes
Parameters for		medium-temperature application.
Parameters for		colder climate conditions.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	10.0	kW	Seasonal space heating energy efficiency	$\eta_s$	114	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T <sub>j</sub>				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature T <sub>j</sub>			
T <sub>j</sub> = - 7 °C	P <sub>dh</sub>	6.1	kW	T <sub>j</sub> = - 7 °C	COP <sub>d</sub>	2.60	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.99	-				
T <sub>j</sub> = + 2 °C	P <sub>dh</sub>	3.7	kW	T <sub>j</sub> = + 2 °C	COP <sub>d</sub>	3.19	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.98	-				
T <sub>j</sub> = + 7 °C	P <sub>dh</sub>	3.8	kW	T <sub>j</sub> = + 7 °C	COP <sub>d</sub>	4.58	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.97	-				
T <sub>j</sub> = +12 °C	P <sub>dh</sub>	4.4	kW	T <sub>j</sub> = +12 °C	COP <sub>d</sub>	6.88	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.97	-				
T <sub>j</sub> = bivalent temperature	P <sub>dh</sub>	8.4	kW	T <sub>j</sub> = bivalent temperature	COP <sub>d</sub>	1.56	-
T <sub>j</sub> = operation limit temperature	P <sub>dh</sub>	7.7	kW	T <sub>j</sub> = operation limit temperature	COP <sub>d</sub>	1.57	-
T <sub>j</sub> = - 15 °C (if TOL < - 20 °C)	P <sub>dh</sub>	8.5	kW	T <sub>j</sub> = - 15 °C (if TOL < - 20 °C)	COP <sub>d</sub>	1.56	-
Bivalent temperature	T <sub>biv</sub>	-16	°C	Operation limit temperature	TOL	-28	°C
Reference design conditions for space heating	T <sub>designh</sub>	-22	°C	Heating water operating limit temperature	WTOL	60	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P <sub>OFF</sub>	0.022	kW	Rated heat output (*)	P <sub>sup</sub>	2.0	kW
Thermostat-off mode	P <sub>TO</sub>	0.022	kW				
Standby mode	P <sub>SB</sub>	0.022	kW				
Crankcase heater mode	P <sub>CK</sub>	0.000	kW				
				Type of energy input	Electrical		

Other items				Rated air flow rate, outdoors	-	2640	m <sup>3</sup> /h
Capacity control	variable						
Sound power level, indoors/outdoors	L <sub>WA</sub>	41 / 59	dB(A)				
Annual energy consumption	Q <sub>HE</sub>	7924	kWh				

For heat pump combination heater:				Water heating energy efficiency	$\eta_{wh}$	120	%
Declared load profile	L						
Daily electricity consumption	Q <sub>elec</sub>	4.090	kWh				
Annual electricity consumption	AEC	900	kWh				

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(\*) For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating sup(Tj).

(\*\*) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.

Model(s):	Outdoor unit:	PUD-SHWM100YAA(-BS)
	Indoor unit:	EHST20D-MED
Air-to-water heat pump:		yes
Water-to-water heat pump:		no
Brine-to-water heat pump:		no
Low-temperature heat pump:		no
Equipped with a supplementary heater:		no
Heat pump combination heater:		yes
Parameters for		low-temperature application.
Parameters for		colder climate conditions.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	10.0	kW	Seasonal space heating energy efficiency	$\eta_s$	148	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T <sub>j</sub>				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature T <sub>j</sub>			
T <sub>j</sub> = - 7 °C	P <sub>dh</sub>	6.2	kW	T <sub>j</sub> = - 7 °C	COP <sub>d</sub>	3.71	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.99	-				
T <sub>j</sub> = + 2 °C	P <sub>dh</sub>	3.9	kW	T <sub>j</sub> = + 2 °C	COP <sub>d</sub>	4.02	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.98	-				
T <sub>j</sub> = + 7 °C	P <sub>dh</sub>	3.9	kW	T <sub>j</sub> = + 7 °C	COP <sub>d</sub>	5.34	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.97	-				
T <sub>j</sub> = +12 °C	P <sub>dh</sub>	4.5	kW	T <sub>j</sub> = +12 °C	COP <sub>d</sub>	7.50	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.96	-				
T <sub>j</sub> = bivalent temperature	P <sub>dh</sub>	8.4	kW	T <sub>j</sub> = bivalent temperature	COP <sub>d</sub>	2.15	-
T <sub>j</sub> = operation limit temperature	P <sub>dh</sub>	7.7	kW	T <sub>j</sub> = operation limit temperature	COP <sub>d</sub>	1.57	-
T <sub>j</sub> = - 15 °C (if TOL < - 20 °C)	P <sub>dh</sub>	8.5	kW	T <sub>j</sub> = - 15 °C (if TOL < - 20 °C)	COP <sub>d</sub>	2.20	-
Bivalent temperature	T <sub>biv</sub>	-16	°C	Operation limit temperature	TOL	-28	°C
Reference design conditions for space heating	T <sub>designh</sub>	-22	°C	Heating water operating limit temperature	WTOL	60	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P <sub>OFF</sub>	0.022	kW	Rated heat output (*)	P <sub>sup</sub>	2.0	kW
Thermostat-off mode	P <sub>TO</sub>	0.022	kW				
Standby mode	P <sub>SB</sub>	0.022	kW				
Crankcase heater mode	P <sub>CK</sub>	0.000	kW				
				Type of energy input	Electrical		

Other items				Rated air flow rate, outdoors	-	2640	m <sup>3</sup> /h
Capacity control	variable						
Sound power level, indoors/outdoors	L <sub>WA</sub>	41 / 59	dB(A)				
Annual energy consumption	Q <sub>HE</sub>	6106	kWh				

For heat pump combination heater:				Water heating energy efficiency	$\eta_{wh}$	120	%
Declared load profile	L						
Daily electricity consumption	Q <sub>elec</sub>	4.090	kWh				
Annual electricity consumption	AEC	900	kWh				

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(\*\*) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.

Model(s):	Outdoor unit:	PUD-SHWM100YAA(-BS)
	Indoor unit:	EHST20D-MED
Air-to-water heat pump:		yes
Water-to-water heat pump:		no
Brine-to-water heat pump:		no
Low-temperature heat pump:		no
Equipped with a supplementary heater:		no
Heat pump combination heater:		yes
Parameters for		medium-temperature application.
Parameters for		warmer climate conditions.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	10.0	kW	Seasonal space heating energy efficiency	$\eta_s$	161	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T <sub>j</sub>				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature T <sub>j</sub>			
T <sub>j</sub> = - 7 °C	P <sub>dh</sub>	-	kW	T <sub>j</sub> = - 7 °C	COP <sub>d</sub>	-	-
Degradation co-efficient (**)	C <sub>dh</sub>	-	-				
T <sub>j</sub> = + 2 °C	P <sub>dh</sub>	10.0	kW	T <sub>j</sub> = + 2 °C	COP <sub>d</sub>	2.05	-
Degradation co-efficient (**)	C <sub>dh</sub>	1.00	-				
T <sub>j</sub> = + 7 °C	P <sub>dh</sub>	6.4	kW	T <sub>j</sub> = + 7 °C	COP <sub>d</sub>	3.48	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.99	-				
T <sub>j</sub> = +12 °C	P <sub>dh</sub>	4.2	kW	T <sub>j</sub> = +12 °C	COP <sub>d</sub>	5.68	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.97	-				
T <sub>j</sub> = bivalent temperature	P <sub>dh</sub>	10.0	kW	T <sub>j</sub> = bivalent temperature	COP <sub>d</sub>	2.05	-
T <sub>j</sub> = operation limit temperature	P <sub>dh</sub>	7.7	kW	T <sub>j</sub> = operation limit temperature	COP <sub>d</sub>	1.57	-
T <sub>j</sub> = - 15 °C (if TOL < - 20 °C)	P <sub>dh</sub>	-	kW	T <sub>j</sub> = - 15 °C (if TOL < - 20 °C)	COP <sub>d</sub>	-	-
Bivalent temperature	T <sub>biv</sub>	2	°C	Operation limit temperature	TOL	-28	°C
Reference design conditions for space heating	T <sub>designh</sub>	2	°C	Heating water operating limit temperature	WTOL	60	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P <sub>OFF</sub>	0.022	kW	Rated heat output (*)	P <sub>sup</sub>	0.0	kW
Thermostat-off mode	P <sub>TO</sub>	0.022	kW				
Standby mode	P <sub>SB</sub>	0.022	kW				
Crankcase heater mode	P <sub>CK</sub>	0.000	kW				
				Type of energy input	Electrical		

Other items			
Capacity control		variable	
Sound power level, indoors/outdoors	L <sub>WA</sub>	41 / 59	dB(A)
Annual energy consumption	Q <sub>HE</sub>	3169	kWh
Rated air flow rate, outdoors			
-			
2640			
m <sup>3</sup> /h			

For heat pump combination heater:			
Declared load profile		L	
Daily electricity consumption	Q <sub>elec</sub>	3.070	kWh
Annual electricity consumption	AEC	675	kWh
Water heating energy efficiency			
$\eta_{wh}$			
162			
%			

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(\*) For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating sup(Tj).  
(\*\*) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.



Model(s):	Outdoor unit:	PUD-SHWM100YAA(-BS)
	Indoor unit:	EHST20D-MED
Air-to-water heat pump:		yes
Water-to-water heat pump:		no
Brine-to-water heat pump:		no
Low-temperature heat pump:		no
Equipped with a supplementary heater:		no
Heat pump combination heater:		yes
Parameters for		low-temperature application.
Parameters for		warmer climate conditions.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	10.0	kW	Seasonal space heating energy efficiency	$\eta_s$	232	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = - 7 °C	Pdh	-	kW	Tj = - 7 °C	COPd	-	-
Degradation co-efficient (**)	Cdh	-	-				
Tj = + 2 °C	Pdh	10.0	kW	Tj = + 2 °C	COPd	3.45	-
Degradation co-efficient (**)	Cdh	0.99	-				
Tj = + 7 °C	Pdh	6.4	kW	Tj = + 7 °C	COPd	5.42	-
Degradation co-efficient (**)	Cdh	0.98	-				
Tj = +12 °C	Pdh	4.4	kW	Tj = +12 °C	COPd	7.46	-
Degradation co-efficient (**)	Cdh	0.96	-				
Tj = bivalent temperature	Pdh	10.0	kW	Tj = bivalent temperature	COPd	3.45	-
Tj = operation limit temperature	Pdh	7.7	kW	Tj = operation limit temperature	COPd	1.57	-
Tj = - 15 °C (if TOL < - 20 °C)	Pdh	-	kW	Tj = - 15 °C (if TOL < - 20 °C)	COPd	-	-
Bivalent temperature	Tbiv	2	°C	Operation limit temperature	TOL	-28	°C
Reference design conditions for space heating	Tdesignh	2	°C	Heating water operating limit temperature	WTOL	60	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P <sub>OFF</sub>	0.022	kW	Rated heat output (*)	P <sub>sup</sub>	0.0	kW
Thermostat-off mode	P <sub>TO</sub>	0.022	kW				
Standby mode	P <sub>SB</sub>	0.022	kW				
Crankcase heater mode	P <sub>CK</sub>	0.000	kW				
				Type of energy input	Electrical		

Other items			
Capacity control		variable	
Sound power level, indoors/outdoors	L <sub>WA</sub>	41 / 59	dB(A)
Annual energy consumption	Q <sub>HE</sub>	2191	kWh
Rated air flow rate, outdoors			
-			
2640			
m <sup>3</sup> /h			

For heat pump combination heater:			
Declared load profile		L	
Daily electricity consumption	Q <sub>elec</sub>	3.070	kWh
Annual electricity consumption	AEC	675	kWh
Water heating energy efficiency			
$\eta_{wh}$			
162			
%			

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(\*) For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating sup(Tj).

(\*\*) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.

Model(s):	Outdoor unit:	PUD-SHWM100YAA(-BS)
	Indoor unit:	ERST20D-****D
Air-to-water heat pump:		yes
Water-to-water heat pump:		no
Brine-to-water heat pump:		no
Low-temperature heat pump:		no
Equipped with a supplementary heater:		yes
Heat pump combination heater:		yes
Parameters for		medium-temperature application.
Parameters for		average climate conditions.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	10.0	kW	Seasonal space heating energy efficiency	$\eta_s$	135	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = - 7 °C	Pdh	8.9	kW	Tj = - 7 °C	COPd	2.18	-
Degradation co-efficient (**)	Cdh	1.00	-				
Tj = + 2 °C	Pdh	5.4	kW	Tj = + 2 °C	COPd	3.29	-
Degradation co-efficient (**)	Cdh	0.99	-				
Tj = + 7 °C	Pdh	5.2	kW	Tj = + 7 °C	COPd	4.81	-
Degradation co-efficient (**)	Cdh	0.98	-				
Tj = +12 °C	Pdh	3.6	kW	Tj = +12 °C	COPd	7.06	-
Degradation co-efficient (**)	Cdh	0.96	-				
Tj = bivalent temperature	Pdh	10.0	kW	Tj = bivalent temperature	COPd	1.91	-
Tj = operation limit temperature	Pdh	7.7	kW	Tj = operation limit temperature	COPd	1.57	-
Tj = - 15 °C (if TOL < - 20 °C)	Pdh	-	kW	Tj = - 15 °C (if TOL < - 20 °C)	COPd	-	-
Bivalent temperature	Tbiv	-10	°C	Operation limit temperature	TOL	-28	°C
Reference design conditions for space heating	Tdesignh	-10	°C	Heating water operating limit temperature	WTOL	60	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P <sub>OFF</sub>	0.022	kW	Rated heat output (*)	P <sub>sup</sub>	0.0	kW
Thermostat-off mode	P <sub>TO</sub>	0.022	kW				
Standby mode	P <sub>SB</sub>	0.022	kW				
Crankcase heater mode	P <sub>CK</sub>	0.000	kW				
				Type of energy input	Electrical		

Other items			
Capacity control		variable	
Sound power level, indoors/outdoors	L <sub>WA</sub>	41 / 59	dB(A)
Annual energy consumption	Q <sub>HE</sub>	5836	kWh
Rated air flow rate, outdoors			
-			
2640			
m <sup>3</sup> /h			

For heat pump combination heater:			
Declared load profile		L	
Daily electricity consumption	Q <sub>elec</sub>	3.340	kWh
Annual electricity consumption	AEC	736	kWh
Water heating energy efficiency			
$\eta_{wh}$			
148			
%			

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(\*) For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating sup(Tj).

(\*\*) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.

Model(s):	Outdoor unit:	PUD-SHWM100YAA(-BS)
	Indoor unit:	ERST20D-****D
Air-to-water heat pump:		yes
Water-to-water heat pump:		no
Brine-to-water heat pump:		no
Low-temperature heat pump:		no
Equipped with a supplementary heater:		yes
Heat pump combination heater:		yes
Parameters for		low-temperature application.
Parameters for		average climate conditions.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	10.0	kW	Seasonal space heating energy efficiency	$\eta_s$	178	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T <sub>j</sub>				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature T <sub>j</sub>			
T <sub>j</sub> = - 7 °C	P <sub>dh</sub>	8.9	kW	T <sub>j</sub> = - 7 °C	COP <sub>d</sub>	3.16	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.99	-				
T <sub>j</sub> = + 2 °C	P <sub>dh</sub>	5.7	kW	T <sub>j</sub> = + 2 °C	COP <sub>d</sub>	4.52	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.98	-				
T <sub>j</sub> = + 7 °C	P <sub>dh</sub>	5.4	kW	T <sub>j</sub> = + 7 °C	COP <sub>d</sub>	5.63	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.98	-				
T <sub>j</sub> = +12 °C	P <sub>dh</sub>	4.5	kW	T <sub>j</sub> = +12 °C	COP <sub>d</sub>	7.89	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.96	-				
T <sub>j</sub> = bivalent temperature	P <sub>dh</sub>	10.0	kW	T <sub>j</sub> = bivalent temperature	COP <sub>d</sub>	2.92	-
T <sub>j</sub> = operation limit temperature	P <sub>dh</sub>	7.7	kW	T <sub>j</sub> = operation limit temperature	COP <sub>d</sub>	1.57	-
T <sub>j</sub> = - 15 °C (if TOL < - 20 °C)	P <sub>dh</sub>	-	kW	T <sub>j</sub> = - 15 °C (if TOL < - 20 °C)	COP <sub>d</sub>	-	-
Bivalent temperature	T <sub>biv</sub>	-10	°C	Operation limit temperature	TOL	-28	°C
Reference design conditions for space heating	T <sub>designh</sub>	-10	°C	Heating water operating limit temperature	WTOL	60	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P <sub>OFF</sub>	0.022	kW	Rated heat output (*)	P <sub>sup</sub>	0.0	kW
Thermostat-off mode	P <sub>TO</sub>	0.022	kW				
Standby mode	P <sub>SB</sub>	0.022	kW				
Crankcase heater mode	P <sub>CK</sub>	0.000	kW				
				Type of energy input	Electrical		

Other items			
Capacity control		variable	
Sound power level, indoors/outdoors	L <sub>WA</sub>	41 / 59	dB(A)
Annual energy consumption	Q <sub>HE</sub>	4430	kWh
Rated air flow rate, outdoors			
-			
2640			
m <sup>3</sup> /h			

For heat pump combination heater:			
Declared load profile		L	
Daily electricity consumption	Q <sub>elec</sub>	3.340	kWh
Annual electricity consumption	AEC	736	kWh
Water heating energy efficiency			
$\eta_{wh}$			
148			
%			

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(\*) For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating sup(Tj).

(\*\*) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.

Model(s):	Outdoor unit:	PUD-SHWM100YAA(-BS)
	Indoor unit:	ERST20D-****D
Air-to-water heat pump:		yes
Water-to-water heat pump:		no
Brine-to-water heat pump:		no
Low-temperature heat pump:		no
Equipped with a supplementary heater:		yes
Heat pump combination heater:		yes
Parameters for		medium-temperature application.
Parameters for		colder climate conditions.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	10.0	kW	Seasonal space heating energy efficiency	$\eta_s$	114	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = - 7 °C	Pdh	6.1	kW	Tj = - 7 °C	COPd	2.60	-
Degradation co-efficient (**)	Cdh	0.99	-				
Tj = + 2 °C	Pdh	3.7	kW	Tj = + 2 °C	COPd	3.19	-
Degradation co-efficient (**)	Cdh	0.98	-				
Tj = + 7 °C	Pdh	3.8	kW	Tj = + 7 °C	COPd	4.58	-
Degradation co-efficient (**)	Cdh	0.97	-				
Tj = +12 °C	Pdh	4.4	kW	Tj = +12 °C	COPd	6.88	-
Degradation co-efficient (**)	Cdh	0.97	-				
Tj = bivalent temperature	Pdh	8.4	kW	Tj = bivalent temperature	COPd	1.56	-
Tj = operation limit temperature	Pdh	7.7	kW	Tj = operation limit temperature	COPd	1.57	-
Tj = - 15 °C (if TOL < - 20 °C)	Pdh	8.5	kW	Tj = - 15 °C (if TOL < - 20 °C)	COPd	1.56	-
Bivalent temperature	Tbiv	-16	°C	Operation limit temperature	TOL	-28	°C
Reference design conditions for space heating	Tdesignh	-22	°C	Heating water operating limit temperature	WTOL	60	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P <sub>OFF</sub>	0.022	kW	Rated heat output (*)	P <sub>sup</sub>	2.0	kW
Thermostat-off mode	P <sub>TO</sub>	0.022	kW				
Standby mode	P <sub>SB</sub>	0.022	kW				
Crankcase heater mode	P <sub>CK</sub>	0.000	kW				
				Type of energy input	Electrical		

Other items			
Capacity control		variable	
Sound power level, indoors/outdoors	L <sub>WA</sub>	41 / 59	dB(A)
Annual energy consumption	Q <sub>HE</sub>	7924	kWh
Rated air flow rate, outdoors			
-			
2640			
m <sup>3</sup> /h			

For heat pump combination heater:			
Declared load profile		L	
Daily electricity consumption	Q <sub>elec</sub>	4.090	kWh
Annual electricity consumption	AEC	900	kWh
Water heating energy efficiency			
$\eta_{wh}$			
120			
%			

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(\*) For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating sup(Tj).

(\*\*) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.

Model(s):	Outdoor unit:	PUD-SHWM100YAA(-BS)
	Indoor unit:	ERST20D-****D
Air-to-water heat pump:		yes
Water-to-water heat pump:		no
Brine-to-water heat pump:		no
Low-temperature heat pump:		no
Equipped with a supplementary heater:		yes
Heat pump combination heater:		yes
Parameters for		low-temperature application.
Parameters for		colder climate conditions.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	10.0	kW	Seasonal space heating energy efficiency	$\eta_s$	148	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T <sub>j</sub>				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature T <sub>j</sub>			
T <sub>j</sub> = - 7 °C	P <sub>dh</sub>	6.2	kW	T <sub>j</sub> = - 7 °C	COP <sub>d</sub>	3.71	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.99	-				
T <sub>j</sub> = + 2 °C	P <sub>dh</sub>	3.9	kW	T <sub>j</sub> = + 2 °C	COP <sub>d</sub>	4.02	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.98	-				
T <sub>j</sub> = + 7 °C	P <sub>dh</sub>	3.9	kW	T <sub>j</sub> = + 7 °C	COP <sub>d</sub>	5.34	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.97	-				
T <sub>j</sub> = +12 °C	P <sub>dh</sub>	4.5	kW	T <sub>j</sub> = +12 °C	COP <sub>d</sub>	7.50	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.96	-				
T <sub>j</sub> = bivalent temperature	P <sub>dh</sub>	8.4	kW	T <sub>j</sub> = bivalent temperature	COP <sub>d</sub>	2.15	-
T <sub>j</sub> = operation limit temperature	P <sub>dh</sub>	7.7	kW	T <sub>j</sub> = operation limit temperature	COP <sub>d</sub>	1.57	-
T <sub>j</sub> = - 15 °C (if TOL < - 20 °C)	P <sub>dh</sub>	8.5	kW	T <sub>j</sub> = - 15 °C (if TOL < - 20 °C)	COP <sub>d</sub>	2.20	-
Bivalent temperature	T <sub>biv</sub>	-16	°C	Operation limit temperature	TOL	-28	°C
Reference design conditions for space heating	T <sub>designh</sub>	-22	°C	Heating water operating limit temperature	WTOL	60	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P <sub>OFF</sub>	0.022	kW	Rated heat output (*)	P <sub>sup</sub>	2.0	kW
Thermostat-off mode	P <sub>TO</sub>	0.022	kW				
Standby mode	P <sub>SB</sub>	0.022	kW				
Crankcase heater mode	P <sub>CK</sub>	0.000	kW				
				Type of energy input	Electrical		

Other items				Rated air flow rate, outdoors			
Capacity control		variable		-	2640	m <sup>3</sup> /h	
Sound power level, indoors/outdoors	L <sub>WA</sub>	41 / 59				dBA	
Annual energy consumption	Q <sub>HE</sub>	6106				kWh	

For heat pump combination heater:				Water heating energy efficiency			
Declared load profile		L		$\eta_{wh}$	120	%	
Daily electricity consumption	Q <sub>elec</sub>	4.090	kWh				
Annual electricity consumption	AEC	900	kWh				

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(\*) For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating sup(Tj).

(\*\*) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.

Model(s):	Outdoor unit:	PUD-SHWM100YAA(-BS)
	Indoor unit:	ERST20D-****D
Air-to-water heat pump:		yes
Water-to-water heat pump:		no
Brine-to-water heat pump:		no
Low-temperature heat pump:		no
Equipped with a supplementary heater:		yes
Heat pump combination heater:		yes
Parameters for		medium-temperature application.
Parameters for		warmer climate conditions.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	10.0	kW	Seasonal space heating energy efficiency	$\eta_s$	161	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T <sub>j</sub>				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature T <sub>j</sub>			
T <sub>j</sub> = - 7 °C	P <sub>dh</sub>	-	kW	T <sub>j</sub> = - 7 °C	COP <sub>d</sub>	-	-
Degradation co-efficient (**)	C <sub>dh</sub>	-	-				
T <sub>j</sub> = + 2 °C	P <sub>dh</sub>	10.0	kW	T <sub>j</sub> = + 2 °C	COP <sub>d</sub>	2.05	-
Degradation co-efficient (**)	C <sub>dh</sub>	1.00	-				
T <sub>j</sub> = + 7 °C	P <sub>dh</sub>	6.4	kW	T <sub>j</sub> = + 7 °C	COP <sub>d</sub>	3.48	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.99	-				
T <sub>j</sub> = +12 °C	P <sub>dh</sub>	4.2	kW	T <sub>j</sub> = +12 °C	COP <sub>d</sub>	5.68	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.97	-				
T <sub>j</sub> = bivalent temperature	P <sub>dh</sub>	10.0	kW	T <sub>j</sub> = bivalent temperature	COP <sub>d</sub>	2.05	-
T <sub>j</sub> = operation limit temperature	P <sub>dh</sub>	7.7	kW	T <sub>j</sub> = operation limit temperature	COP <sub>d</sub>	1.57	-
T <sub>j</sub> = - 15 °C (if TOL < - 20 °C)	P <sub>dh</sub>	-	kW	T <sub>j</sub> = - 15 °C (if TOL < - 20 °C)	COP <sub>d</sub>	-	-
Bivalent temperature	T <sub>biv</sub>	2	°C	Operation limit temperature	TOL	-28	°C
Reference design conditions for space heating	T <sub>designh</sub>	2	°C	Heating water operating limit temperature	WTOL	60	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P <sub>OFF</sub>	0.022	kW	Rated heat output (*)	P <sub>sup</sub>	0.0	kW
Thermostat-off mode	P <sub>TO</sub>	0.022	kW				
Standby mode	P <sub>SB</sub>	0.022	kW				
Crankcase heater mode	P <sub>CK</sub>	0.000	kW				
				Type of energy input	Electrical		

Other items			
Capacity control		variable	
Sound power level, indoors/outdoors	L <sub>WA</sub>	41 / 59	dB(A)
Annual energy consumption	Q <sub>HE</sub>	3169	kWh
Rated air flow rate, outdoors			
-			
2640			
m <sup>3</sup> /h			

For heat pump combination heater:			
Declared load profile		L	
Daily electricity consumption	Q <sub>elec</sub>	3.070	kWh
Annual electricity consumption	AEC	675	kWh
Water heating energy efficiency			
$\eta_{wh}$			
162			
%			

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(\*) For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating sup(Tj).  
(\*\*) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.



Model(s):	Outdoor unit:	PUD-SHWM100YAA(-BS)
	Indoor unit:	ERST20D-****D
Air-to-water heat pump:		yes
Water-to-water heat pump:		no
Brine-to-water heat pump:		no
Low-temperature heat pump:		no
Equipped with a supplementary heater:		yes
Heat pump combination heater:		yes
Parameters for		low-temperature application.
Parameters for		warmer climate conditions.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	10.0	kW	Seasonal space heating energy efficiency	$\eta_s$	232	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = - 7 °C	Pdh	-	kW	Tj = - 7 °C	COPd	-	-
Degradation co-efficient (**)	Cdh	-	-				
Tj = + 2 °C	Pdh	10.0	kW	Tj = + 2 °C	COPd	3.45	-
Degradation co-efficient (**)	Cdh	0.99	-				
Tj = + 7 °C	Pdh	6.4	kW	Tj = + 7 °C	COPd	5.42	-
Degradation co-efficient (**)	Cdh	0.98	-				
Tj = +12 °C	Pdh	4.4	kW	Tj = +12 °C	COPd	7.46	-
Degradation co-efficient (**)	Cdh	0.96	-				
Tj = bivalent temperature	Pdh	10.0	kW	Tj = bivalent temperature	COPd	3.45	-
Tj = operation limit temperature	Pdh	7.7	kW	Tj = operation limit temperature	COPd	1.57	-
Tj = - 15 °C (if TOL < - 20 °C)	Pdh	-	kW	Tj = - 15 °C (if TOL < - 20 °C)	COPd	-	-
Bivalent temperature	Tbiv	2	°C	Operation limit temperature	TOL	-28	°C
Reference design conditions for space heating	Tdesignh	2	°C	Heating water operating limit temperature	WTOL	60	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P <sub>OFF</sub>	0.022	kW	Rated heat output (*)	P <sub>sup</sub>	0.0	kW
Thermostat-off mode	P <sub>TO</sub>	0.022	kW	Type of energy input	Electrical		
Standby mode	P <sub>SB</sub>	0.022	kW				
Crankcase heater mode	P <sub>CK</sub>	0.000	kW				
Other items							
Capacity control	variable			Rated air flow rate, outdoors	-	2640	m <sup>3</sup> /h
Sound power level, indoors/outdoors	L <sub>WA</sub>	41 / 59	dB(A)				
Annual energy consumption	Q <sub>HE</sub>	2191	kWh				
For heat pump combination heater:				Water heating energy efficiency			
Declared load profile	L			$\eta_{wh}$	162	%	
Daily electricity consumption	Q <sub>elec</sub>	3.070	kWh				
Annual electricity consumption	AEC	675	kWh				

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(\*) For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating sup(Tj).

(\*\*) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.