

			ı echnic	cal parameters			
Model(s):			Outd	loor unit: MHA-V14W/D2RN1 Inde	oor unit: SMK-16	0/CSD45GN1-B	
Air-to-water heat pump:				YES			
Water-to-water heat pump:				NO			
Brine-to-water heat pump:				NO			
ow-temperature heat pump:				NO			
Equipped with a supplementary he	eater:			YES			
Heat pump combination heater:				NO AVERAGE			
Declared climate condition:  Parameters are declared for mediu	um-temperatu	re application.		AVERAGE			
tem	Symbol	Value	Unit	Item Seasonal space heating	Symbol	Value	Uni
Rated heat output (*)	Prated	14	kW	energy efficiency	ηs	130	%
Declared capacity for heating for land outdoor temperature Tj	part load at	indoor tempera	ature 20 °C	Declared coefficient of perform indoor temperature 20 °C and			part load
rj = -7℃	Pdh	12.4	kW	Tj = -7℃	COPd	2.02	-
Гј = 2°С	Pdh	7.5	kW	Tj = 2℃	COPd	3.09	-
Гј = 7°С	Pdh	5.0	kW	Tj = 7℃	COPd	4.71	-
Γj = 12 °C	Pdh	3.4	kW	Tj = 12℃	COPd	6.72	-
Γj = bivalent temperature	Pdh	12.4	kW	Tj = bivalent temperature	COPd	2.02	-
Γj = operating limit temperature	Pdh	11.5	kW	Tj = operating limit temperature	COPd	1.74	-
For air-to-water heat pumps: ΓJ = -15 ℃	Pdh	-	kW	For air-to-water heat pumps: Tj = -15 $^{\circ}$ C	COPd	-	-
Bivalent temperature	T <sub>biv</sub>	-7	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-10	°C
Cycling interval capacity for neating	P <sub>cych</sub>	-	kW	Cycling interval efficiency	COP <sub>cyc</sub>	-	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.9	-	Heating water operating limit temperature	W <sub>TOL</sub>	60	°C
Power consumption in modes other	er than activ	e mode		Supplementary heater			
Off mode	P <sub>off</sub>	0.015	kW	Rated heat output (**)	Psup	2.5	kW
Standby mode	P <sub>sb</sub>	0.015	kW	rtated heat output ( )	1 Sup	2.5	KVV
Thermostat-off mode Crankcase heater mode	P <sub>to</sub>	0.063 0.027	kW kW	Type of energy input		Electrical	
	Fck	0.027	KVV				
Other items					1		
Capacity control		variable		For air-to-water heat pumps: Rated air flow rate, outdoors	_	6500	m³/l
Sound power level, indoors/ outdoors	L <sub>WA</sub>	45/ 72	dB	For water- or brine-to-water heat pumps: Rated brine or		_	m³/l
Annual energy consumption	Q <sub>HE</sub>	8689	kWh	water flow rate, outdoor heat exchanger			/
For heat pump combination heater	r.						
Declared load profile		-		Water heating energy efficiency	$\eta_{\text{wh}}$	-	%
Daily electricity consumption	Q <sub>elec</sub>	-	kWh	Daily fuel consumption	Q <sub>fuel</sub>	-	kW
Annual electricity consumption	AEC	-	kWh	Annual fuel consumption	AFC	-	GJ

Model(s):			Outd		oor unit: SMK-16	60/CSD45GN1-B	
Air-to-water heat pump:				YES			
Water-to-water heat pump:				NO NO			
Brine-to-water heat pump:  _ow-temperature heat pump:				NO			
Equipped with a supplementary he	eater:			YES			
Heat pump combination heater:				NO			
Declared climate condition:				COLDER			
Parameters are declared for media	um-temperatu	re application.					
tem	Symbol	Value	Unit	ltem	Symbol	Value	Uı
Rated heat output (*)	Prated	15	kW	Seasonal space heating energy efficiency	ηs	108	9/
Declared capacity for heating for and outdoor temperature Tj	part load at	indoor tempera	ature 20 °C	Declared coefficient of perform indoor temperature 20 °C and			part loa
īj = -7℃	Pdh	8.6	kW	Tj = -7 C	COPd	2.28	-
Тj = 2°С	Pdh	5.3	kW	Tj = 2°C	COPd	3.52	
η = <b>7</b> °C	Pdh	3.3	kW	Tj = 7°C	COPd	4.98	
				•			
Πj = 12 ℃	Pdh	3.4	kW	Tj = 12°C	COPd	7.83	
Tj = bivalent temperature	Pdh	10.7	kW	Tj = bivalent temperature	COPd	1.82	-
Tj = operating limit temperature	Pdh	7.7	kW	Tj = operating limit temperature	COPd	1.33	-
For air-to-water heat pumps: Tj = -15℃	Pdh	-	kW	For air-to-water heat pumps: Tj = -15 $^{\circ}$	COPd	-	-
Bivalent temperature	T <sub>biv</sub>	-12	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-20	°(
Cycling interval capacity for neating	P <sub>cych</sub>	-	kW	Cycling interval efficiency	COP <sub>cyc</sub>	-	
Degradation co-efficient (**)	C <sub>dh</sub>	0.9		Heating water operating limit temperature	W <sub>TOL</sub>	60	°(
Power consumption in modes other	er than activ	e mode		Supplementary heater			
Off mode	P <sub>off</sub>	0.015	kW	Rated heat output (**)	Psup	6.1	k\
Standby mode	P <sub>sb</sub>	0.015	kW	Rated Heat Output ( )	Psup	6.1	K.
Thermostat-off mode	Pto	0.063	kW	Type of energy input		Electrical	
Crankcase heater mode	P <sub>ck</sub>	0.027	kW				
Other items							
Capacity control		variable		For air-to-water heat pumps: Rated air flow rate, outdoors	_	6500	m <sup>:</sup>
Sound power level, indoors/ outdoors	L <sub>WA</sub>	-	dB	For water- or brine-to-water heat pumps: Rated brine or		-	m <sup>s</sup>
Annual energy consumption	Q <sub>HE</sub>	12892	kWh	water flow rate, outdoor heat exchanger			
For heat pump combination heate	r:						
Declared load profile		-		Water heating energy efficiency	η <sub>wh</sub>	-	9
Daily electricity consumption	Q <sub>elec</sub>	-	kWh	Daily fuel consumption	Q <sub>fuel</sub>	-	k۷
Annual electricity consumption	AEC	-	kWh	Annual fuel consumption	AFC	-	G

and outdoor temperature $T_j$ $T_j = -7  \text{C}$ Pdh $T_j = 2  \text{C}$ Pdh $T_j = 7  \text{C}$ Pdh $T_j = 7  \text{C}$ Pdh $T_j = 12  \text{C}$ Pdh $T_j = 15  \text{C}$ Pdh $T_j = \text{operating limit}$ Pdh  For air-to-water heat pumps: Pdh  For air-to-water heat pumps: $T_j = -15  \text{C}$ Pdh  Bivalent temperature $T_{\text{biv}}$ Pcych  Cycling interval capacity for heating Pcych  Degradation co-efficient (**) $T_{\text{ch}}$ Pcych  Power consumption in modes other than active of mode Poff	Value	Unit	Item  Seasonal space heating energy efficiency  Declared coefficient of perform indoor temperature 20 °C and Tj = -7 °C  Tj = 2 °C  Tj = 12 °C  Tj = bivalent temperature  Tj = operating limit  For air-to-water heat pumps: Tj = -15 °C  For air-to-water heat pumps: Operation limit temperature  Cycling interval efficiency	COPd COPd COPd COPd COPd COPd COPd COPd	Value 168 energy ratio for	Unit % part load
Water-to-water heat pump: Brine-to-water heat pump: Decirine-to-water heat output (*) Decirine-to-water heat pumping for part load at and outdoor temperature Tj  Decirine-to-water heat pumping for part load at and outdoor temperature Tj  Decirine-to-water heat pumping for part load at and outdoor temperature Tj  Decirine-to-water heat pumping for part load at and outdoor temperature Tj  Decirine-to-water heat pumping for part load at and outdoor temperature Pdh  Decirine-to-water heat pumping for part load at and outdoor temperature Pdh  Decirine-to-water heat pumping for part load at and outdoor temperature Pdh  Decirine-to-water heat pumping for part load at and outdoor temperature Pdh  Decirine-to-water heat pumping for part load at and outdoor temperature Pdh  Decirine-to-water heat pumping for part load at and outdoor temperature Pdh  Decirine-to-water heat pumping for part load at and outdoor temperature Pdh  Decirine-to-water heat pumping for part load at and outdoor temperature Pdh  Decirine-to-water heat pumping for part load at and outdoor temperature Pdh  Decirine-to-water heat pumping for part load at and outdoor temperature Pdh  Decirine-to-water heat pumping for part load at and outdoor temperature Pdh  Decirine-to-water heat pumping for part load at and outdoor temperature Pdh  Decirine-to-water heat pumping for part load at and outdoor temperature Pdh  Decirine-to-water heat pumping for part load at and outdoor temperature Pdh  Decirine-to-water heat pumping for part load at and outdoor temperature Pdh  Decirine-to-water heat pumping for part load at and outdoor temperature Pdh  Decirine-to-water heat pumping for part load at and outdoor temperature Pdh  Decirine-to-water heat pumping for part load at and outdoor temperature Pdh  Decirine-to-water heat pumping for part load at and outdoor tempera	Value  14 indoor temperat  - 13.6 9.2 4.2 13.6 13.6 - 2	kW ture 20 °C kW kW kW kW kW kW cC	NO NO NO YES NO WARMER  Item Seasonal space heating energy efficiency Declared coefficient of perform indoor temperature 20 °C and  Tj = -7 °C Tj = 2 °C Tj = 12 °C Tj = bivalent temperature Tj = operating limit For air-to-water heat pumps: Tj = -15 °C For air-to-water heat pumps: Operation limit temperature	ns nance or primary outdoor temperature COPd COPd COPd COPd COPd COPd COPd COPd	168 energy ratio for ure Tj  - 2.29 3.41 5.97 2.29	% part load
Brine-to-water heat pump:  Low-temperature heat pump:  Equipped with a supplementary heater:  Heat pump combination heater:  Declared climate condition:  Parameters are declared for medium-temperature  tem Symbol  Rated heat output (*) Prated  Declared capacity for heating for part load at and outdoor temperature Tj  Tj = -7 C Pdh  Tj = 2 C Pdh  Tj = 12 C Pdh  Tj = 12 C Pdh  Tj = bivalent temperature Pdh  Tj = operating limit Pdh  For air-to-water heat pumps: Tj = -15 C Pdh  Degradation co-efficient (**) Cdh  Power consumption in modes other than active of the point of t	Value  14 indoor temperat  - 13.6 9.2 4.2 13.6 13.6 - 2	kW ture 20 °C kW kW kW kW kW kW cC	NO NO YES NO WARMER  Item Seasonal space heating energy efficiency Declared coefficient of perform indoor temperature 20 °C and  Tj = -7 °C Tj = 2 °C Tj = 12 °C Tj = bivalent temperature Tj = operating limit For air-to-water heat pumps: Tj = -15 °C For air-to-water heat pumps: Operation limit temperature	ns nance or primary outdoor temperature COPd COPd COPd COPd COPd COPd COPd COPd	168 energy ratio for ure Tj  - 2.29 3.41 5.97 2.29	% part load
Low-temperature heat pump: Equipped with a supplementary heater: Heat pump combination heater: Declared climate condition: Parameters are declared for medium-temperature tem Symbol Rated heat output (*) Prated Declared capacity for heating for part load at and outdoor temperature Tj  Tj = -7 C Pdh  Tj = 2 C Pdh  Tj = 12 C Pdh  Tj = 12 C Pdh  Tj = 12 C Pdh  Tj = 15 C Pdh  Tj = -15 C Pdh  Cycling interval capacity for neating Degradation co-efficient (**) Cdh  Power consumption in modes other than active Dff mode Poff Standby mode Pock Thermostat-off mode Pock Crankcase heater mode Pck	Value  14 indoor temperat  - 13.6 9.2 4.2 13.6 13.6 - 2	kW ture 20 °C kW kW kW kW kW kW cC	Item  Seasonal space heating energy efficiency Declared coefficient of perform indoor temperature 20 °C and  Tj = -7 °C  Tj = 2 °C  Tj = 12 °C  Tj = bivalent temperature  Tj = operating limit  For air-to-water heat pumps: Tj = -15 °C  For air-to-water heat pumps: Operation limit temperature	ns nance or primary outdoor temperature COPd COPd COPd COPd COPd COPd COPd COPd	168 energy ratio for ure Tj  - 2.29 3.41 5.97 2.29	% part load
Equipped with a supplementary heater:  Heat pump combination heater:  Declared climate condition:  Parameters are declared for medium-temperature  tem Symbol  Rated heat output (*) Prated  Declared capacity for heating for part load at and outdoor temperature Tj  Tj = -7 C Pdh  Tj = 2 C Pdh  Tj = 12 C Pdh  Tj = bivalent temperature  Tj = operating limit Pdh  For air-to-water heat pumps: Tj = -15 C Pdh  Degradation co-efficient (**) Cdh  Power consumption in modes other than active  Off mode Poff Estandby mode Psb  Thermostat-off mode Pck  Crankcase heater mode Pck	Value  14 indoor temperat  - 13.6 9.2 4.2 13.6 13.6 - 2	kW ture 20 °C kW kW kW kW kW kW cC	ttem  Seasonal space heating energy efficiency  Declared coefficient of perform indoor temperature 20 °C and TJ = -7 °C  TJ = 2 °C  TJ = 7 °C  TJ = bivalent temperature  TJ = operating limit  For air-to-water heat pumps: TJ = -15 °C  For air-to-water heat pumps: Operation limit temperature	ns nance or primary outdoor temperature COPd COPd COPd COPd COPd COPd COPd COPd	168 energy ratio for ure Tj  - 2.29 3.41 5.97 2.29	% part load
Heat pump combination heater:  Declared climate condition:  Parameters are declared for medium-temperature litem  Rated heat output (*)  Declared capacity for heating for part load at and outdoor temperature Tj  Tj = -7 C  Pdh  Tj = 2 C  Pdh  Tj = 12 C  Pdh  Tj = bivalent temperature  Pdh  Tj = operating limit  Podh  For air-to-water heat pumps:  Tj = -15 C  Bivalent temperature  Cycling interval capacity for heating  Degradation co-efficient (**)  Power consumption in modes other than active off mode  Standby mode  Thermostat-off mode  Crankcase heater mode  Pck	Value  14 indoor temperat  - 13.6 9.2 4.2 13.6 13.6 - 2	kW ture 20 °C kW kW kW kW kW kW cC	Item  Seasonal space heating energy efficiency Declared coefficient of perform indoor temperature 20 °C and  Tj = -7 °C  Tj = 2 °C  Tj = 7 °C  Tj = 12 °C  Tj = bivalent temperature  Tj = operating limit  For air-to-water heat pumps: Tj = -15 °C  For air-to-water heat pumps: Operation limit temperature	ns nance or primary outdoor temperature COPd COPd COPd COPd COPd COPd COPd COPd	168 energy ratio for ure Tj  - 2.29 3.41 5.97 2.29	% part load
Declared climate condition:  Parameters are declared for medium-temperature.  Rated heat output (*) Prated.  Declared capacity for heating for part load at and outdoor temperature. Tj.  Tj. = -7 C. Pdh.  Tj. = 2 C. Pdh.  Tj. = 12 C. Pdh.  Tj. = 12 C. Pdh.  Tj. = bivalent temperature. Pdh.  Tj. = operating limit. Pdh.  For air-to-water heat pumps: Tj. = -15 C. Pdh.  Bivalent temperature. Tbiv.  Cycling interval capacity for heating. Pcych.  Degradation co-efficient (**) Cdh.  Power consumption in modes other than active. Off mode. Poff. Standby mode. Psb.  Thermostat-off mode. Pck.	Value  14 indoor temperat  - 13.6 9.2 4.2 13.6 13.6 - 2	kW ture 20 °C kW kW kW kW kW kW cC	Item  Seasonal space heating energy efficiency  Declared coefficient of perform indoor temperature 20 °C and  Tj = -7 °C  Tj = 2 °C  Tj = 7 °C  Tj = 12 °C  Tj = bivalent temperature  Tj = operating limit  For air-to-water heat pumps: Tj = -15 °C  For air-to-water heat pumps: Operation limit temperature	ns nance or primary outdoor temperature COPd COPd COPd COPd COPd COPd COPd COPd	168 energy ratio for ure Tj  - 2.29 3.41 5.97 2.29	% part load
Parameters are declared for medium-temperature  Rated heat output (*) Prated  Declared capacity for heating for part load at and outdoor temperature Tj  Tj = -7 C Pdh  Tj = 2 C Pdh  Tj = 12 C Pdh  Tj = bivalent temperature Pdh  Tj = operating limit Pdh  For air-to-water heat pumps: Tj = -15 C  Bivalent temperature T <sub>biv</sub> Cycling interval capacity for heating Pcych  Degradation co-efficient (**) Cdh  Power consumption in modes other than active Off mode Poff Standby mode Psb  Thermostat-off mode Pck  Crankcase heater mode Pck	Value  14 indoor temperat  - 13.6 9.2 4.2 13.6 13.6 - 2	kW ture 20 °C kW kW kW kW kW kW cC	ttem  Seasonal space heating energy efficiency  Declared coefficient of perform indoor temperature 20 °C and  Tj = -7 °C  Tj = 2 °C  Tj = 7 °C  Tj = 12 °C  Tj = bivalent temperature  Tj = operating limit  For air-to-water heat pumps: Tj = -15 °C  For air-to-water heat pumps: Operation limit temperature	ns nance or primary outdoor temperature COPd COPd COPd COPd COPd COPd COPd COPd	168 energy ratio for ure Tj  - 2.29 3.41 5.97 2.29	% part load
Rated heat output (*)  Prated  Declared capacity for heating for part load at and outdoor temperature Tj  Tj = -7 C  Pdh  Tj = 2 C  Pdh  Tj = 12 C  Pdh  Tj = bivalent temperature  Pdh  Tj = operating limit  Pdh  For air-to-water heat pumps: Tj = -15 C  Pdh  Tobiv  Cycling interval capacity for heating  Degradation co-efficient (**)  Power consumption in modes other than active  Off mode  Standby mode  Thermostat-off mode  Crankcase heater mode  Pok	14 indoor temperate   - 13.6   9.2   4.2   13.6   13.6   - 2	kW ture 20 °C kW kW kW kW kW kW cC	Seasonal space heating energy efficiency  Declared coefficient of performindoor temperature 20 °C and TJ = -7 °C  TJ = 2 °C  TJ = 7 °C  TJ = 12 °C  TJ = bivalent temperature  TJ = operating limit  For air-to-water heat pumps: TJ = -15 °C  For air-to-water heat pumps: Operation limit temperature	ns nance or primary outdoor temperature COPd COPd COPd COPd COPd COPd COPd COPd	168 energy ratio for ure Tj  - 2.29 3.41 5.97 2.29	% part load
Rated heat output (*)  Prated  Declared capacity for heating for part load at and outdoor temperature Tj  Tj = -7 C  Pdh  Tj = -7 C  Pdh  Tj = 7 C  Pdh  Tj = 12 C  Pdh  Tj = bivalent temperature  Pdh  Tj = operating limit  Poh  For air-to-water heat pumps: Tj = -15 C  Poh  Bivalent temperature  Cycling interval capacity for heating  Degradation co-efficient (**)  Power consumption in modes other than active  Off mode  Standby mode  Thermostat-off mode  Crankcase heater mode  Pok	14 indoor temperate   - 13.6   9.2   4.2   13.6   13.6   - 2	kW ture 20 °C kW kW kW kW kW kW cC	Seasonal space heating energy efficiency  Declared coefficient of performindoor temperature 20 °C and TJ = -7 °C  TJ = 2 °C  TJ = 7 °C  TJ = 12 °C  TJ = bivalent temperature  TJ = operating limit  For air-to-water heat pumps: TJ = -15 °C  For air-to-water heat pumps: Operation limit temperature	ns nance or primary outdoor temperature COPd COPd COPd COPd COPd COPd COPd COPd	168 energy ratio for ure Tj  - 2.29 3.41 5.97 2.29	% part load
Declared capacity for heating for part load at and outdoor temperature Tj  Tj = -7 C Pdh  Tj = 2 C Pdh  Tj = 12 C Pdh  Tj = bivalent temperature Pdh  Tj = operating limit Pdh  For air-to-water heat pumps: Tj = -15 C  Bivalent temperature T <sub>biv</sub> Cycling interval capacity for heating Pcych  Degradation co-efficient (**) Cdh  Power consumption in modes other than active Off mode Poff Standby mode Psb  Thermostat-off mode Pck	- 13.6 9.2 4.2 13.6 13.6 2 - 2	kW kW kW kW kW kW cC	Declared coefficient of perform indoor temperature 20 °C and TJ = -7 °C  TJ = -7 °C  TJ = 2 °C  TJ = 12 °C  TJ = bivalent temperature  TJ = operating limit  For air-to-water heat pumps: TJ = -15 °C  For air-to-water heat pumps: Operation limit temperature	copd copd copd copd copd copd copd copd	energy ratio for ure Tj - 2.29 3.41 5.97 2.29 2.29	part load
and outdoor temperature $T_j$ $T_j = -7  \text{C}$ Pdh $T_j = 2  \text{C}$ Pdh $T_j = 7  \text{C}$ Pdh $T_j = 7  \text{C}$ Pdh $T_j = 12  \text{C}$ Pdh $T_j = 12  \text{C}$ Pdh $T_j = \text{bivalent temperature}$ Pdh $T_j = \text{operating limit}$ Pdh  For air-to-water heat pumps: Pdh  Evaluating Pdh  For air-to-water heat pumps: Pdh  For air-to-water heat pump	- 13.6 9.2 4.2 13.6 13.6	kW kW kW kW kW	indoor temperature 20 °C and  Tj = -7 °C  Tj = 2 °C  Tj = 7 °C  Tj = 12 °C  Tj = bivalent temperature  Tj = operating limit  For air-to-water heat pumps: Tj = -15 °C  For air-to-water heat pumps: Operation limit temperature	COPd COPd COPd COPd COPd COPd COPd COPd	2.29 3.41 5.97 2.29 2.29	-
Tj = 2°C Pdh  Tj = 7°C Pdh  Tj = 12°C Pdh  Tj = bivalent temperature Pdh  Tj = operating limit Pdh  For air-to-water heat pumps: Tj = -15°C Pdh  Bivalent temperature Tbiv  Cycling interval capacity for heating Pcych  Degradation co-efficient (**) Cdh  Power consumption in modes other than active Off mode Poff  Standby mode Psb  Thermostat-off mode Pck	9.2 4.2 13.6 13.6 -	kW kW kW kW kW	Tj = 2 C  Tj = 7 C  Tj = 12 C  Tj = bivalent temperature  Tj = operating limit  For air-to-water heat pumps: Tj = -15 C  For air-to-water heat pumps: Operation limit temperature	COPd COPd COPd COPd COPd COPd TOL	3.41 5.97 2.29 2.29	°C
Tj = 7°C Pdh  Tj = 12°C Pdh  Tj = bivalent temperature Pdh  Tj = operating limit Pdh  For air-to-water heat pumps: Pdh  For air-to-water heat pumps: Pdh  Bivalent temperature Tbiv  Cycling interval capacity for heating Pcych  Degradation co-efficient (**) Cdh  Power consumption in modes other than active Off mode Poff  Standby mode Psb  Thermostat-off mode Pck	9.2 4.2 13.6 13.6 -	kW kW kW kW	Tj = 7 C  Tj = 12 C  Tj = bivalent temperature  Tj = operating limit  For air-to-water heat pumps: Tj = -15 C  For air-to-water heat pumps: Operation limit temperature	COPd COPd COPd COPd COPd TOL	3.41 5.97 2.29 2.29	- - - - - °C
Tj = 12 C Pdh  Tj = bivalent temperature Pdh  Tj = operating limit Pdh  For air-to-water heat pumps: Pdh  Bivalent temperature Tbiv  Cycling interval capacity for heating Pcych  Degradation co-efficient (**) Cdh  Power consumption in modes other than active  Off mode Poff Standby mode Psb  Thermostat-off mode Pto  Crankcase heater mode Pck	4.2 13.6 13.6 - 2	kW kW kW	Tj = 12 C  Tj = bivalent temperature  Tj = operating limit  For air-to-water heat pumps: Tj = -15 C  For air-to-water heat pumps: Operation limit temperature	COPd COPd COPd COPd TOL	5.97 2.29 2.29	- - - - - - °C
$T_{J} = \text{bivalent temperature} \qquad \qquad \text{Pdh}$ $T_{J} = \text{operating limit} \qquad \qquad \text{Pdh}$ For air-to-water heat pumps: $T_{J} = -15  \text{C}$ Bivalent temperature $T_{biv}$ Cycling interval capacity for heating $T_{cych}$ Degradation co-efficient (**) $C_{dh}$ Power consumption in modes other than active $T_{biv}$ Off mode $T_{cych}$ Standby mode $T_{cych}$ Thermostat-off mode $T_{cych}$ Crankcase heater mode $T_{cych}$	13.6	kW kW kW	Tj = bivalent temperature  Tj = operating limit  For air-to-water heat pumps: Tj = -15 ℃  For air-to-water heat pumps: Operation limit temperature	COPd COPd COPd TOL	2.29	- - - - °C
$T_{J} = \text{operating limit} \qquad \qquad \text{Pdh}$ For air-to-water heat pumps: $T_{J} = -15  \text{C}$ Bivalent temperature $T_{biv}$ Cycling interval capacity for heating $T_{cych}$ Degradation co-efficient (**) $T_{ch}$ Power consumption in modes other than active $T_{ch}$ Off mode $T_{ch}$ Standby mode $T_{ch}$ Thermostat-off mode $T_{ch}$ Crankcase heater mode $T_{ch}$	13.6	kW kW °C	Tj = operating limit  For air-to-water heat pumps: Tj = -15 C  For air-to-water heat pumps: Operation limit temperature	COPd COPd TOL	2.29	- - - *C
For air-to-water heat pumps: $P_{cych}$ Pdh  Bivalent temperature $P_{cych}$ Cycling interval capacity for heating $P_{cych}$ Degradation co-efficient (**) $P_{cych}$ Power consumption in modes other than active Off mode $P_{cych}$ Standby mode $P_{cych}$ Thermostat-off mode $P_{cych}$ Crankcase heater mode $P_{cych}$	2	kW °C	For air-to-water heat pumps: Tj = -15 °C  For air-to-water heat pumps: Operation limit temperature	COPd	-	- - °C
$T_{J} = -15  \text{C}$ Bivalent temperature $T_{biv}$ Cycling interval capacity for heating $P_{cych}$ Degradation co-efficient (**) $C_{dh}$ Power consumption in modes other than active $Off \ mode \qquad \qquad P_{off}$ Standby mode $P_{sb}$ Thermostat-off mode $P_{to}$ Crankcase heater mode $P_{ck}$	2	°C	Tj = -15 C  For air-to-water heat pumps: Operation limit temperature	TOL		°C
Cycling interval capacity for heating $P_{cych}$ Degradation co-efficient (**) $C_{dh}$ Power consumption in modes other than active Off mode $P_{off}$ Standby mode $P_{sb}$ Thermostat-off mode $P_{to}$ Crankcase heater mode $P_{ck}$	-		Operation limit temperature		2	°C
heating $P_{cych}$ Degradation co-efficient (**) $P_{cych}$ Power consumption in modes other than active $P_{cych}$ Off mode $P_{cych}$ Standby mode $P_{cych}$ Thermostat-off mode $P_{to}$ Crankcase heater mode $P_{ck}$		kW	Cycling interval efficiency			
Power consumption in modes other than active Off mode $ \begin{array}{c c} P_{off} \\ \text{Standby mode} \\ \text{Thermostat-off mode} \\ \text{Crankcase heater mode} \end{array} \begin{array}{c} P_{ck} \\ \end{array} $	0.9			COP <sub>cyc</sub>	-	-
Off mode         Poff           Standby mode         Psb           Thermostat-off mode         Pto           Crankcase heater mode         Pck			Heating water operating limit temperature	W <sub>TOL</sub>	60	°C
$ \begin{array}{ccc} \text{Standby mode} & & P_{\text{sb}} \\ \text{Thermostat-off mode} & & P_{\text{to}} \\ \text{Crankcase heater mode} & & P_{\text{ck}} \\ \end{array} $	e mode		Supplementary heater			
Thermostat-off mode Pto Crankcase heater mode Pck	0.015	kW	Dotad hoot output (**)	Doug		kW
Crankcase heater mode P <sub>ck</sub>	0.015	kW	Rated heat output (**)	Psup	0	KVV
•	0.063	kW	Type of energy input		Electrical	
Other items	0.027	kW				
				1		
Capacity control	variable		For air-to-water heat pumps: Rated air flow rate, outdoors	_	6500	m³/l
Sound power level, indoors/ outdoors L <sub>WA</sub>	-	dB	For water- or brine-to-water heat pumps: Rated brine or		_	m <sup>3</sup> /l
Annual energy consumption Q <sub>HE</sub>	4249	kWh	water flow rate, outdoor heat exchanger			
For heat pump combination heater:						
Declared load profile	-		Water heating energy efficiency	$\eta_{wh}$	-	%
Daily electricity consumption Q <sub>elec</sub>	-	kWh	Daily fuel consumption	Q <sub>fuel</sub>	-	kW
Annual electricity consumption AEC	-	kWh	Annual fuel consumption	AFC	-	GJ
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