

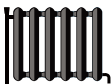


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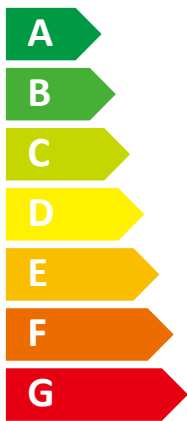
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Indoor unit E*ST20D-**C(W)
Outdoor unit PUHZ-SW50VKA(-BS)



A⁺⁺



A

Two icons showing sound power levels. The top icon shows a speaker inside a house with the text "40 dB". The bottom icon shows a speaker outside a house with the text "63 dB".



Legend for power consumption with three colored squares: dark blue, medium blue, and light blue. Next to each square is the text "04 kW".

2015

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	English	Dutch	French	Italian	Spanish
	Netherlands	Svenska	Български	Português	Español
	suomi	Čeština	Русский	Português	Espanol
	Outdoor unit	Außengerät	Unité extérieure	Unita esterna	Unidad exterior
	Indoor unit	Ulmuseniheit	Unités intérieure	Unita interna	Unidad interior
	Ulkoyksikko	Vätköön jatkoka	Внешнее устройство	pefonoska zvezdniza	Екстерниј уређај
	2 Sisäyksikko	Vätköön jatkoka	Unités intérieure	Unita interna	Екстерниј уређај
	Medium-temperature application	Vätköön jatkoka	Внешнее устройство	pefonoska zvezdniza	Екстерниј уређај
	3 Keskilämpötila sovellus	Vätköön jatkoka	Внешнее устройство	pefonoska zvezdniza	Екстерниј уређај
	Low-temperature application	Vätköön jatkoka	Внешнее устройство	pefonoska zvezdniza	Екстерниј уређај
	4 Lagtemperaturberäring	Vätköön jatkoka	Внешнее устройство	pefonoska zvezdniza	Екстерниј уређај
	5 Seasonal space heating energy efficiency class	Vätköön jatkoka	Внешнее устройство	pefonoska zvezdniza	Екстерниј уређај
	6 Water heating energy efficiency class	Vätköön jatkoka	Внешнее устройство	pefonoska zvezdniza	Екстерниј уређај
	7 RATED heat output under average climate conditions	Vätköön jatkoka	Внешнее устройство	pefonoska zvezdniza	Екстерниј уређај
	8 For space heating, annual electricity consumption under average climate conditions	Vätköön jatkoka	Внешнее устройство	pefonoska zvezdniza	Екстерниј уређај
	9 For water heating, annual electricity consumption under average climate conditions	Vätköön jatkoka	Внешнее устройство	pefonoska zvezdniza	Екстерниј уређај
	10 Seasonal space heating energy efficiency under average climate conditions	Vätköön jatkoka	Внешнее устройство	pefonoska zvezdniza	Екстерниј уређај
	11 Water heating energy efficiency under average climate conditions	Vätköön jatkoka	Внешнее устройство	pefonoska zvezdniza	Екстерниј уређај
	12 Sound power level L _{WA, indoor}	Vätköön jatkoka	Внешнее устройство	pefonoska zvezdniza	Екстерниј уређај
	13 Work only during off-peak hours	Vätköön jatkoka	Внешнее устройство	pefonoska zvezdniza	Екстерниј уређај
	14 Rated heat output under colder climate conditions	Vätköön jatkoka	Внешнее устройство	pefonoska zvezdniza	Екстерниј уређај
	15 Rated heat output under warmer climate conditions	Vätköön jatkoka	Внешнее устройство	pefonoska zvezdniza	Екстерниј уређај
	16 For space heating, annual energy consumption under colder climate conditions	Vätköön jatkoka	Внешнее устройство	pefonoska zvezdniza	Екстерниј уређај
	17 For space heating, annual energy consumption under warmer climate conditions	Vätköön jatkoka	Внешнее устройство	pefonoska zvezdniza	Екстерниј уређај
	18 For water heating, annual energy consumption under colder climate conditions	Vätköön jatkoka	Внешнее устройство	pefonoska zvezdniza	Екстерниј уређај
	19 For water heating, annual energy consumption under warmer climate conditions	Vätköön jatkoka	Внешнее устройство	pefonoska zvezdniza	Екстерниј уређај
	20 Seasonal space heating energy efficiency under colder climate conditions	Vätköön jatkoka	Внешнее устройство	pefonoska zvezdniza	Екстерниј уређај
	21 Water heating energy efficiency under warmer climate conditions	Vätköön jatkoka	Внешнее устройство	pefonoska zvezdniza	Екстерниј уређај
	22 For space heating, annual electricity consumption under average climate conditions	Vätköön jatkoka	Внешнее устройство	pefonoska zvezdniza	Екстерниј уређај
	23 For water heating, annual electricity consumption under average climate conditions	Vätköön jatkoka	Внешнее устройство	pefonoska zvezdniza	Екстерниј уређај
	24 Sound power level L _{WA, outdoor}	Vätköön jatkoka	Внешнее устройство	pefonoska zvezdniza	Екстерниј уређај

Model(s):	Outdoor unit:	PUHZ-SW50VKA(-BS)
	Indoor unit:	EHST20D-VM2C2
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	4.3	kW	Seasonal space heating energy efficiency	η_s	125	%
Declared capacity for heating for part load at indoor <input type="checkbox"/> temperature 20 °C and outdoor temperature T _j				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature T _j			
T _j = - 7 °C	P _{dh}	3.8	kW	T _j = - 7 °C	COP _d	2.14	-
Degradation co-efficient (**)	C _{dh}	0.99	-				
T _j = + 2 °C	P _{dh}	2.3	kW	T _j = + 2 °C	COP _d	3.10	-
Degradation co-efficient (**)	C _{dh}	0.98	-				
T _j = + 7 °C	P _{dh}	2.2	kW	T _j = + 7 °C	COP _d	4.42	-
Degradation co-efficient (**)	C _{dh}	0.98	-				
T _j = +12 °C	P _{dh}	2.7	kW	T _j = +12 °C	COP _d	6.37	-
Degradation co-efficient (**)	C _{dh}	0.98	-				
T _j = bivalent temperature	P _{dh}	3.8	kW	T _j = bivalent temperature	COP _d	2.13	-
T _j = operation limit temperature	P _{dh}	3.2	kW	T _j = operation limit temperature	COP _d	1.33	-
T _j = - 15 °C (if TOL < - 20 °C)	P _{dh}	-	kW	T _j = - 15 °C (if TOL < - 20 °C)	COP _d	-	-
Bivalent temperature	T _{biv}	-7	°C	Operation limit temperature	TOL	-15	°C
				Heating water operating limit temperature	WTOL	60	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P _{OFF}	0.015	kW	Rated heat output (*)	P _{sup}	0.7	kW
Thermostat-off mode	P _{TO}	0.015	kW				
Standby mode	P _{SB}	0.015	kW	Type of energy input			
Crankcase heater mode	P _{CK}	0.000	kW				

Other items				Rated air flow rate, outdoors			
Capacity control		variable		-	2100	m ³ /h	
Sound power level, indoors/outdoors	L _{WA}	40/63	dB(A)				
Annual energy consumption	Q _{HE}	2669	kWh				

For heat pump combination heater:				Water heating energy efficiency			
Declared load profile		L		η_{wh}	146	%	
Daily electricity consumption	Q _{elec}	3.400	kW/h				
Annual electricity consumption	AEC	740	kW/h				

Contact details			
MITSUBISHI ELECTRIC CORPORATION SHIZUOKA WORKS		3-18-1, Oshika, Suruga-ku, Shizuoka 422-8528, Japan	

(*) 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:	PUHZ-SW50VKA(-BS)
	Indoor unit:	EHST20D-VM2C2
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	4.5	kW	Seasonal space heating energy efficiency	η_s	163	%
Declared capacity for heating for part load at indoor <input type="checkbox"/> temperature 20 °C and outdoor temperature T _j				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature T _j			
T _j = - 7 °C	P _{dh}	4.0	kW	T _j = - 7 °C	COP _d	2.87	-
Degradation co-efficient (**)	C _{dh}	0.99	-				
T _j = + 2 °C	P _{dh}	2.4	kW	T _j = + 2 °C	COP _d	4.10	-
Degradation co-efficient (**)	C _{dh}	0.98	-				
T _j = + 7 °C	P _{dh}	2.3	kW	T _j = + 7 °C	COP _d	5.79	-
Degradation co-efficient (**)	C _{dh}	0.98	-				
T _j = +12 °C	P _{dh}	2.7	kW	T _j = +12 °C	COP _d	7.59	-
Degradation co-efficient (**)	C _{dh}	0.98	-				
T _j = bivalent temperature	P _{dh}	4.0	kW	T _j = bivalent temperature	COP _d	2.87	-
T _j = operation limit temperature	P _{dh}	3.2	kW	T _j = operation limit temperature	COP _d	1.33	-
T _j = - 15 °C (if TOL < - 20 °C)	P _{dh}	-	kW	T _j = - 15 °C (if TOL < - 20 °C)	COP _d	-	-
Bivalent temperature	T _{biv}	-7	°C	Operation limit temperature	TOL	-15	°C
				Heating water operating limit temperature	WTOL	60	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P _{OFF}	0.015	kW	Rated heat output (*)	P _{sup}	0.8	kW
Thermostat-off mode	P _{TO}	0.015	kW				
Standby mode	P _{SB}	0.015	kW	Type of energy input			
Crankcase heater mode	P _{CK}	0.000	kW				

Other items				Rated air flow rate, outdoors			
Capacity control		variable		-	2100	m ³ /h	
Sound power level, indoors/outdoors	L _{WA}	40/63	dB(A)				
Annual energy consumption	Q _{HE}	2138	kWh				

For heat pump combination heater:				Water heating energy efficiency			
Declared load profile		L		η_{wh}	146	%	
Daily electricity consumption	Q _{elec}	3.400	kW/h				
Annual electricity consumption	AEC	740	kW/h				

Contact details

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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:	PUHZ-SW50VKA(-BS)
	Indoor unit:	EHST20D-VM2C2
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	4.0	kW	Seasonal space heating energy efficiency	η_s	101	%
Declared capacity for heating for part load at indoor <input type="checkbox"/> temperature 20 °C and outdoor temperature T _j				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature T _j			
T _j = - 7 °C	P _{dh}	2.4	kW	T _j = - 7 °C	COP _d	2.51	-
Degradation co-efficient (**)	C _{dh}	0.99	-				
T _j = + 2 °C	P _{dh}	1.5	kW	T _j = + 2 °C	COP _d	3.23	-
Degradation co-efficient (**)	C _{dh}	0.99	-				
T _j = + 7 °C	P _{dh}	2.2	kW	T _j = + 7 °C	COP _d	5.00	-
Degradation co-efficient (**)	C _{dh}	0.99	-				
T _j = +12 °C	P _{dh}	2.6	kW	T _j = +12 °C	COP _d	6.64	-
Degradation co-efficient (**)	C _{dh}	0.99	-				
T _j = bivalent temperature	P _{dh}	3.2	kW	T _j = bivalent temperature	COP _d	1.33	-
T _j = operation limit temperature	P _{dh}	3.2	kW	T _j = operation limit temperature	COP _d	1.33	-
T _j = - 15 °C (if TOL < - 20 °C)	P _{dh}	-	kW	T _j = - 15 °C (if TOL < - 20 °C)	COP _d	-	-
Bivalent temperature	T _{biv}	-15	°C	Operation limit temperature	TOL	-15	°C
				Heating water operating limit temperature	WTOL	60	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P _{OFF}	0.015	kW	Rated heat output (*)	P _{sup}	4.0	kW
Thermostat-off mode	P _{TO}	0.015	kW				
Standby mode	P _{SB}	0.015	kW	Type of energy input			
Crankcase heater mode	P _{CK}	0.000	kW				

Other items				Rated air flow rate, outdoors			
Capacity control		variable		-	2100	m ³ /h	
Sound power level, indoors/outdoors	L _{WA}	40/63	dB(A)				
Annual energy consumption	Q _{HE}	3614	kWh				

For heat pump combination heater:				Water heating energy efficiency			
Declared load profile		L		η_{wh}	122	%	
Daily electricity consumption	Q _{elec}	4.000	kW/h				
Annual electricity consumption	AEC	878	kW/h				

Contact details

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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:	PUHZ-SW50VKA(-BS)
	Indoor unit:	EHST20D-VM2C2
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	4.2	kW	Seasonal space heating energy efficiency	η_s	141	%
Declared capacity for heating for part load at indoor <input type="checkbox"/> temperature 20 °C and outdoor temperature T _j				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature T _j			
T _j = - 7 °C	P _{dh}	2.5	kW	T _j = - 7 °C	COP _d	3.29	-
Degradation co-efficient (**)	C _{dh}	0.99	-				
T _j = + 2 °C	P _{dh}	1.5	kW	T _j = + 2 °C	COP _d	4.14	-
Degradation co-efficient (**)	C _{dh}	0.99	-				
T _j = + 7 °C	P _{dh}	2.3	kW	T _j = + 7 °C	COP _d	6.14	-
Degradation co-efficient (**)	C _{dh}	0.99	-				
T _j = +12 °C	P _{dh}	2.7	kW	T _j = +12 °C	COP _d	6.08	-
Degradation co-efficient (**)	C _{dh}	0.99	-				
T _j = bivalent temperature	P _{dh}	3.4	kW	T _j = bivalent temperature	COP _d	2.50	-
T _j = operation limit temperature	P _{dh}	3.4	kW	T _j = operation limit temperature	COP _d	2.50	-
T _j = - 15 °C (if TOL < - 20 °C)	P _{dh}	-	kW	T _j = - 15 °C (if TOL < - 20 °C)	COP _d	-	-
Bivalent temperature	T _{biv}	-15	°C	Operation limit temperature	TOL	-15	°C
				Heating water operating limit temperature	WTOL	60	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P _{OFF}	0.015	kW	Rated heat output (*)	P _{sup}	4.2	kW
Thermostat-off mode	P _{TO}	0.015	kW				
Standby mode	P _{SB}	0.015	kW	Type of energy input			
Crankcase heater mode	P _{CK}	0.000	kW				

Other items				Rated air flow rate, outdoors			
Capacity control		variable		-	2100	m ³ /h	
Sound power level, indoors/outdoors	L _{WA}	40/63	dB(A)				
Annual energy consumption	Q _{HE}	2709	kWh				

For heat pump combination heater:				Water heating energy efficiency			
Declared load profile		L		η_{wh}	122	%	
Daily electricity consumption	Q _{elec}	4.000	kW/h				
Annual electricity consumption	AEC	878	kW/h				

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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:	PUHZ-SW50VKA(-BS)
	Indoor unit:	EHST20D-VM2C2
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	4.3	kW	Seasonal space heating energy efficiency	η_s	157	%
Declared capacity for heating for part load at indoor <input type="checkbox"/> temperature 20 °C and outdoor temperature T _j				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature T _j			
T _j = - 7 °C	P _{dh}	-	kW	T _j = - 7 °C	COP _d	-	-
Degradation co-efficient (**)	C _{dh}	-	-				
T _j = + 2 °C	P _{dh}	4.3	kW	T _j = + 2 °C	COP _d	1.80	-
Degradation co-efficient (**)	C _{dh}	0.99	-				
T _j = + 7 °C	P _{dh}	2.8	kW	T _j = + 7 °C	COP _d	3.64	-
Degradation co-efficient (**)	C _{dh}	0.98	-				
T _j = +12 °C	P _{dh}	2.5	kW	T _j = +12 °C	COP _d	5.47	-
Degradation co-efficient (**)	C _{dh}	0.98	-				
T _j = bivalent temperature	P _{dh}	3.8	kW	T _j = bivalent temperature	COP _d	2.13	-
T _j = operation limit temperature	P _{dh}	3.2	kW	T _j = operation limit temperature	COP _d	1.33	-
T _j = - 15 °C (if TOL < - 20 °C)	P _{dh}	-	kW	T _j = - 15 °C (if TOL < - 20 °C)	COP _d	-	-
Bivalent temperature	T _{biv}	-7	°C	Operation limit temperature	TOL	-15	°C
				Heating water operating limit temperature	WTOL	60	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P _{OFF}	0.015	kW	Rated heat output (*)	P _{sup}	0.0	kW
Thermostat-off mode	P _{TO}	0.015	kW				
Standby mode	P _{SB}	0.015	kW	Type of energy input			
Crankcase heater mode	P _{CK}	0.000	kW				

Other items			
Capacity control		variable	
Sound power level, indoors/outdoors	L _{WA}	40/63	dB(A)
Annual energy consumption	Q _{HE}	1378	kWh
Rated air flow rate, outdoors		2100	m ³ /h

For heat pump combination heater:			
Declared load profile		L	
Daily electricity consumption	Q _{elec}	2.900	kWh
Annual electricity consumption	AEC	643	kWh
Water heating energy efficiency	η_{wh}	168	%

Contact details

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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:	PUHZ-SW50VKA(-BS)
	Indoor unit:	EHST20D-VM2C2
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	4.5	kW	Seasonal space heating energy efficiency	η_s	207	%
Declared capacity for heating for part load at indoor <input type="checkbox"/> temperature 20 °C and outdoor temperature T _j				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature T _j			
T _j = - 7 °C	P _{dh}	-	kW	T _j = - 7 °C	COP _d	-	-
Degradation co-efficient (**)	C _{dh}	-	-				
T _j = + 2 °C	P _{dh}	4.5	kW	T _j = + 2 °C	COP _d	2.71	-
Degradation co-efficient (**)	C _{dh}	0.99	-				
T _j = + 7 °C	P _{dh}	2.9	kW	T _j = + 7 °C	COP _d	5.44	-
Degradation co-efficient (**)	C _{dh}	0.98	-				
T _j = +12 °C	P _{dh}	2.6	kW	T _j = +12 °C	COP _d	6.30	-
Degradation co-efficient (**)	C _{dh}	0.98	-				
T _j = bivalent temperature	P _{dh}	4.0	kW	T _j = bivalent temperature	COP _d	2.87	-
T _j = operation limit temperature	P _{dh}	3.2	kW	T _j = operation limit temperature	COP _d	1.33	-
T _j = - 15 °C (if TOL < - 20 °C)	P _{dh}	-	kW	T _j = - 15 °C (if TOL < - 20 °C)	COP _d	-	-
Bivalent temperature	T _{biv}	-7	°C	Operation limit temperature	TOL	-15	°C
				Heating water operating limit temperature	WTOL	60	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P _{OFF}	0.015	kW	Rated heat output (*)	P _{sup}	0.0	kW
Thermostat-off mode	P _{TO}	0.015	kW				
Standby mode	P _{SB}	0.015	kW	Type of energy input			
Crankcase heater mode	P _{CK}	0.000	kW				

Other items				Rated air flow rate, outdoors			
Capacity control		variable		-	2100	m ³ /h	
Sound power level, indoors/outdoors	L _{WA}	40/63	dB(A)				
Annual energy consumption	Q _{HE}	1095	kWh				

For heat pump combination heater:				Water heating energy efficiency			
Declared load profile		L		η_{wh}	168	%	
Daily electricity consumption	Q _{elec}	2.900	kW/h				
Annual electricity consumption	AEC	643	kW/h				

Contact details

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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:	PUHZ-SW50VKA(-BS)
	Indoor unit:	ERST20D-VM2C2
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	4.3	kW	Seasonal space heating energy efficiency	η_s	128	%
Declared capacity for heating for part load at indoor <input type="checkbox"/> temperature 20 °C and outdoor temperature T _j				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature T _j			
T _j = - 7 °C	P _{dh}	3.8	kW	T _j = - 7 °C	COP _d	2.14	-
Degradation co-efficient (**)	C _{dh}	0.99	-				
T _j = + 2 °C	P _{dh}	2.3	kW	T _j = + 2 °C	COP _d	3.10	-
Degradation co-efficient (**)	C _{dh}	0.98	-				
T _j = + 7 °C	P _{dh}	2.2	kW	T _j = + 7 °C	COP _d	4.42	-
Degradation co-efficient (**)	C _{dh}	0.98	-				
T _j = +12 °C	P _{dh}	2.7	kW	T _j = +12 °C	COP _d	6.37	-
Degradation co-efficient (**)	C _{dh}	0.98	-				
T _j = bivalent temperature	P _{dh}	3.8	kW	T _j = bivalent temperature	COP _d	2.13	-
T _j = operation limit temperature	P _{dh}	3.2	kW	T _j = operation limit temperature	COP _d	1.33	-
T _j = - 15 °C (if TOL < - 20 °C)	P _{dh}	-	kW	T _j = - 15 °C (if TOL < - 20 °C)	COP _d	-	-
Bivalent temperature	T _{biv}	-7	°C	Operation limit temperature	TOL	-15	°C
				Heating water operating limit temperature	WTOL	60	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P _{OFF}	0.015	kW	Rated heat output (*)	P _{sup}	0.7	kW
Thermostat-off mode	P _{TO}	0.015	kW				
Standby mode	P _{SB}	0.015	kW	Type of energy input			
Crankcase heater mode	P _{CK}	0.000	kW				

Other items				Rated air flow rate, outdoors			
Capacity control		variable		-	2100	m ³ /h	
Sound power level, indoors/outdoors	L _{WA}	40/63	dB(A)				
Annual energy consumption	Q _{HE}	2669	kWh				

For heat pump combination heater:				Water heating energy efficiency			
Declared load profile		L		η_{wh}	146	%	
Daily electricity consumption	Q _{elec}	3.400	kW/h				
Annual electricity consumption	AEC	740	kW/h				

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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:	PUHZ-SW50VKA(-BS)
	Indoor unit:	ERST20D-VM2C2
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	4.5	kW	Seasonal space heating energy efficiency	η_s	167	%
Declared capacity for heating for part load at indoor <input type="checkbox"/> temperature 20 °C and outdoor temperature T _j				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature T _j			
T _j = - 7 °C	P _{dh}	4.0	kW	T _j = - 7 °C	COP _d	2.87	-
Degradation co-efficient (**)	C _{dh}	0.99	-				
T _j = + 2 °C	P _{dh}	2.4	kW	T _j = + 2 °C	COP _d	4.10	-
Degradation co-efficient (**)	C _{dh}	0.98	-				
T _j = + 7 °C	P _{dh}	2.3	kW	T _j = + 7 °C	COP _d	5.79	-
Degradation co-efficient (**)	C _{dh}	0.98	-				
T _j = +12 °C	P _{dh}	2.7	kW	T _j = +12 °C	COP _d	7.59	-
Degradation co-efficient (**)	C _{dh}	0.98	-				
T _j = bivalent temperature	P _{dh}	4.0	kW	T _j = bivalent temperature	COP _d	2.87	-
T _j = operation limit temperature	P _{dh}	3.2	kW	T _j = operation limit temperature	COP _d	1.33	-
T _j = - 15 °C (if TOL < - 20 °C)	P _{dh}	-	kW	T _j = - 15 °C (if TOL < - 20 °C)	COP _d	-	-
Bivalent temperature	T _{biv}	-7	°C	Operation limit temperature	TOL	-15	°C
				Heating water operating limit temperature	WTOL	60	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P _{OFF}	0.015	kW	Rated heat output (*)	P _{sup}	0.8	kW
Thermostat-off mode	P _{TO}	0.015	kW				
Standby mode	P _{SB}	0.015	kW	Type of energy input			
Crankcase heater mode	P _{CK}	0.000	kW				

Other items				Rated air flow rate, outdoors			
Capacity control		variable		-	2100	m ³ /h	
Sound power level, indoors/outdoors	L _{WA}	40/63	dB(A)				
Annual energy consumption	Q _{HE}	2138	kWh				

For heat pump combination heater:				Water heating energy efficiency			
Declared load profile		L		η_{wh}	146	%	
Daily electricity consumption	Q _{elec}	3.400	kW/h				
Annual electricity consumption	AEC	740	kW/h				

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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:	PUHZ-SW50VKA(-BS)
	Indoor unit:	ERST20D-VM2C2
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	4.0	kW	Seasonal space heating energy efficiency	η_s	103	%
Declared capacity for heating for part load at indoor <input type="checkbox"/> temperature 20 °C and outdoor temperature T _j				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature T _j			
T _j = - 7 °C	P _{dh}	2.4	kW	T _j = - 7 °C	COP _d	2.51	-
Degradation co-efficient (**)	C _{dh}	0.99	-				
T _j = + 2 °C	P _{dh}	1.5	kW	T _j = + 2 °C	COP _d	3.23	-
Degradation co-efficient (**)	C _{dh}	0.99	-				
T _j = + 7 °C	P _{dh}	2.2	kW	T _j = + 7 °C	COP _d	5.00	-
Degradation co-efficient (**)	C _{dh}	0.99	-				
T _j = +12 °C	P _{dh}	2.6	kW	T _j = +12 °C	COP _d	6.64	-
Degradation co-efficient (**)	C _{dh}	0.99	-				
T _j = bivalent temperature	P _{dh}	3.2	kW	T _j = bivalent temperature	COP _d	1.33	-
T _j = operation limit temperature	P _{dh}	3.2	kW	T _j = operation limit temperature	COP _d	1.33	-
T _j = - 15 °C (if TOL < - 20 °C)	P _{dh}	-	kW	T _j = - 15 °C (if TOL < - 20 °C)	COP _d	-	-
Bivalent temperature	T _{biv}	-15	°C	Operation limit temperature	TOL	-15	°C
				Heating water operating limit temperature	WTOL	60	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P _{OFF}	0.015	kW	Rated heat output (*)	P _{sup}	4.0	kW
Thermostat-off mode	P _{TO}	0.015	kW				
Standby mode	P _{SB}	0.015	kW	Type of energy input			
Crankcase heater mode	P _{CK}	0.000	kW				

Other items				Rated air flow rate, outdoors			
Capacity control		variable		-	2100	m ³ /h	
Sound power level, indoors/outdoors	L _{WA}	40/63	dB(A)				
Annual energy consumption	Q _{HE}	3614	kWh				

For heat pump combination heater:				Water heating energy efficiency			
Declared load profile		L		η_{wh}	122	%	
Daily electricity consumption	Q _{elec}	4.000	kW/h				
Annual electricity consumption	AEC	878	kW/h				

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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:	PUHZ-SW50VKA(-BS)
	Indoor unit:	ERST20D-VM2C2
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	4.2	kW	Seasonal space heating energy efficiency	η_s	145	%
Declared capacity for heating for part load at indoor <input type="checkbox"/> temperature 20 °C and outdoor temperature T _j				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature T _j			
T _j = - 7 °C	P _{dh}	2.5	kW	T _j = - 7 °C	COP _d	3.29	-
Degradation co-efficient (**)	C _{dh}	0.99	-				
T _j = + 2 °C	P _{dh}	1.5	kW	T _j = + 2 °C	COP _d	4.14	-
Degradation co-efficient (**)	C _{dh}	0.99	-				
T _j = + 7 °C	P _{dh}	2.3	kW	T _j = + 7 °C	COP _d	6.14	-
Degradation co-efficient (**)	C _{dh}	0.99	-				
T _j = +12 °C	P _{dh}	2.7	kW	T _j = +12 °C	COP _d	6.08	-
Degradation co-efficient (**)	C _{dh}	0.99	-				
T _j = bivalent temperature	P _{dh}	3.4	kW	T _j = bivalent temperature	COP _d	2.50	-
T _j = operation limit temperature	P _{dh}	3.4	kW	T _j = operation limit temperature	COP _d	2.50	-
T _j = - 15 °C (if TOL < - 20 °C)	P _{dh}	-	kW	T _j = - 15 °C (if TOL < - 20 °C)	COP _d	-	-
Bivalent temperature	T _{biv}	-15	°C	Operation limit temperature	TOL	-15	°C
				Heating water operating limit temperature	WTOL	60	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P _{OFF}	0.015	kW	Rated heat output (*)	P _{sup}	4.2	kW
Thermostat-off mode	P _{TO}	0.015	kW				
Standby mode	P _{SB}	0.015	kW	Type of energy input			
Crankcase heater mode	P _{CK}	0.000	kW				

Other items				Rated air flow rate, outdoors			
Capacity control		variable		-	2100	m ³ /h	
Sound power level, indoors/outdoors	L _{WA}	40/63	dB(A)				
Annual energy consumption	Q _{HE}	2709	kWh				

For heat pump combination heater:				Water heating energy efficiency			
Declared load profile		L		η_{wh}	122	%	
Daily electricity consumption	Q _{elec}	4.000	kW/h				
Annual electricity consumption	AEC	878	kW/h				

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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:	PUHZ-SW50VKA(-BS)
	Indoor unit:	ERST20D-VM2C2
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	4.3	kW	Seasonal space heating energy efficiency	η_s	161	%
Declared capacity for heating for part load at indoor <input type="checkbox"/> temperature 20 °C and outdoor temperature T _j				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature T _j			
T _j = - 7 °C	P _{dh}	-	kW	T _j = - 7 °C	COP _d	-	-
Degradation co-efficient (**)	C _{dh}	-	-				
T _j = + 2 °C	P _{dh}	4.3	kW	T _j = + 2 °C	COP _d	1.80	-
Degradation co-efficient (**)	C _{dh}	0.99	-				
T _j = + 7 °C	P _{dh}	2.8	kW	T _j = + 7 °C	COP _d	3.64	-
Degradation co-efficient (**)	C _{dh}	0.98	-				
T _j = +12 °C	P _{dh}	2.5	kW	T _j = +12 °C	COP _d	5.47	-
Degradation co-efficient (**)	C _{dh}	0.98	-				
T _j = bivalent temperature	P _{dh}	3.8	kW	T _j = bivalent temperature	COP _d	2.13	-
T _j = operation limit temperature	P _{dh}	3.2	kW	T _j = operation limit temperature	COP _d	1.33	-
T _j = - 15 °C (if TOL < - 20 °C)	P _{dh}	-	kW	T _j = - 15 °C (if TOL < - 20 °C)	COP _d	-	-
Bivalent temperature	T _{biv}	-7	°C	Operation limit temperature	TOL	-15	°C
				Heating water operating limit temperature	WTOL	60	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P _{OFF}	0.015	kW	Rated heat output (*)	P _{sup}	0.0	kW
Thermostat-off mode	P _{TO}	0.015	kW				
Standby mode	P _{SB}	0.015	kW	Type of energy input			
Crankcase heater mode	P _{CK}	0.000	kW				

Other items			
Capacity control		variable	
Sound power level, indoors/outdoors	L _{WA}	40/63	dB(A)
Annual energy consumption	Q _{HE}	1378	kWh
Rated air flow rate, outdoors		2100	m ³ /h

For heat pump combination heater:			
Declared load profile		L	
Daily electricity consumption	Q _{elec}	2.900	kWh
Annual electricity consumption	AEC	643	kWh
Water heating energy efficiency	η_{wh}	168	%

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

Model(s):	Outdoor unit:	PUHZ-SW50VKA(-BS)
	Indoor unit:	ERST20D-VM2C2
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	4.5	kW	Seasonal space heating energy efficiency	η_s	214	%
Declared capacity for heating for part load at indoor <input type="checkbox"/> temperature 20 °C and outdoor temperature T _j				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature T _j			
T _j = - 7 °C	P _{dh}	-	kW	T _j = - 7 °C	COP _d	-	-
Degradation co-efficient (**)	C _{dh}	-	-				
T _j = + 2 °C	P _{dh}	4.5	kW	T _j = + 2 °C	COP _d	2.71	-
Degradation co-efficient (**)	C _{dh}	0.99	-				
T _j = + 7 °C	P _{dh}	2.9	kW	T _j = + 7 °C	COP _d	5.44	-
Degradation co-efficient (**)	C _{dh}	0.98	-				
T _j = +12 °C	P _{dh}	2.6	kW	T _j = +12 °C	COP _d	6.30	-
Degradation co-efficient (**)	C _{dh}	0.98	-				
T _j = bivalent temperature	P _{dh}	4.0	kW	T _j = bivalent temperature	COP _d	2.87	-
T _j = operation limit temperature	P _{dh}	3.2	kW	T _j = operation limit temperature	COP _d	1.33	-
T _j = - 15 °C (if TOL < - 20 °C)	P _{dh}	-	kW	T _j = - 15 °C (if TOL < - 20 °C)	COP _d	-	-
Bivalent temperature	T _{biv}	-7	°C	Operation limit temperature	TOL	-15	°C
				Heating water operating limit temperature	WTOL	60	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P _{OFF}	0.015	kW	Rated heat output (*)	P _{sup}	0.0	kW
Thermostat-off mode	P _{TO}	0.015	kW				
Standby mode	P _{SB}	0.015	kW	Type of energy input			
Crankcase heater mode	P _{CK}	0.000	kW				

Other items			
Capacity control		variable	
Sound power level, indoors/outdoors	L _{WA}	40/63	dB(A)
Annual energy consumption	Q _{HE}	1095	kWh
Rated air flow rate, outdoors		2100	m ³ /h

For heat pump combination heater:			
Declared load profile		L	
Daily electricity consumption	Q _{elec}	2.900	kWh
Annual electricity consumption	AEC	643	kWh
Water heating energy efficiency	η_{wh}	168	%

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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.