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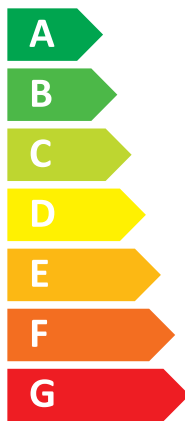


Indoor unit E*ST20C-**C (W)

Outdoor unit PUHZ-SHW80YAA (-BS)



A⁺⁺



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Two sound power level icons. The top one shows a speaker icon with sound waves and the text "40 dB". The bottom one shows a speaker icon with sound waves and the text "59 dB".



A legend for energy consumption in Europe, showing three colored squares with corresponding values: a dark blue square for "09 kW", a medium blue square for "09 kW", and a light blue square for "09 kW".

2015

811/2013

BH79J465H17

Model(s):	Outdoor unit:	PUHZ-SHW80YAA(-BS)
	Indoor unit:	EHST20C-****
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	9.0	kW	Seasonal space heating energy efficiency	η_s	132	%
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}	8.0	kW	T _j = - 7 °C	COP _d	2.13	-
Degradation co-efficient (**)	C _{dh}	0.99	-				
T _j = + 2 °C	P _{dh}	4.9	kW	T _j = + 2 °C	COP _d	3.31	-
Degradation co-efficient (**)	C _{dh}	0.98	-				
T _j = + 7 °C	P _{dh}	5.4	kW	T _j = + 7 °C	COP _d	4.66	-
Degradation co-efficient (**)	C _{dh}	0.98	-				
T _j = +12 °C	P _{dh}	5.3	kW	T _j = +12 °C	COP _d	5.92	-
Degradation co-efficient (**)	C _{dh}	0.97	-				
T _j = bivalent temperature	P _{dh}	8.0	kW	T _j = bivalent temperature	COP _d	2.13	-
T _j = operation limit temperature	P _{dh}	7.5	kW	T _j = operation limit temperature	COP _d	1.55	-
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	-28	°C
				Heating water operating limit temperature	WTOL	60	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P _{OFF}	0.022	kW	Rated heat output (*)	P _{sup}	1.1	kW
Thermostat-off mode	P _{TO}	0.022	kW				
Standby mode	P _{SB}	0.022	kW	Type of energy input			
Crankcase heater mode	P _{CK}	0.000	kW				

Other items				Rated air flow rate, outdoors			
Capacity control		variable		-	2700	m ³ /h	
Sound power level, indoors/outdoors	L _{WA}	40/59	dB(A)				
Annual energy consumption	Q _{HE}	5377	kWh				

For heat pump combination heater:				Water heating energy efficiency			
Declared load profile		L		η_{wh}	103	%	
Daily electricity consumption	Q _{elec}	4.800	kW/h				
Annual electricity consumption	AEC	1048	kW/h				

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:	PUHZ-SHW80YAA(-BS)
	Indoor unit:	EHST20C-****
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	9.6	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}	8.5	kW	T _j = - 7 °C	COP _d	3.15	-
Degradation co-efficient (**)	C _{dh}	0.99	-				
T _j = + 2 °C	P _{dh}	5.2	kW	T _j = + 2 °C	COP _d	4.10	-
Degradation co-efficient (**)	C _{dh}	0.98	-				
T _j = + 7 °C	P _{dh}	5.0	kW	T _j = + 7 °C	COP _d	5.62	-
Degradation co-efficient (**)	C _{dh}	0.97	-				
T _j = +12 °C	P _{dh}	5.6	kW	T _j = +12 °C	COP _d	7.53	-
Degradation co-efficient (**)	C _{dh}	0.96	-				
T _j = bivalent temperature	P _{dh}	8.5	kW	T _j = bivalent temperature	COP _d	3.15	-
T _j = operation limit temperature	P _{dh}	7.5	kW	T _j = operation limit temperature	COP _d	1.44	-
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	-28	°C
				Heating water operating limit temperature	WTOL	60	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P _{OFF}	0.022	kW	Rated heat output (*)	P _{sup}	1.2	kW
Thermostat-off mode	P _{TO}	0.022	kW				
Standby mode	P _{SB}	0.022	kW	Type of energy input			
Crankcase heater mode	P _{CK}	0.000	kW				

Other items				Rated air flow rate, outdoors			
Capacity control		variable		-	2700	m ³ /h	
Sound power level, indoors/outdoors	L _{WA}	40/59	dB(A)				
Annual energy consumption	Q _{HE}	4500	kWh				

For heat pump combination heater:				Water heating energy efficiency			
Declared load profile		L		η_{wh}	103	%	
Daily electricity consumption	Q _{elec}	4.800	kW/h				
Annual electricity consumption	AEC	1048	kW/h				

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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-SHW80YAA(-BS)
	Indoor unit:	EHST20C-****
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	9.0	kW	Seasonal space heating energy efficiency	η_s	111	%
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}	5.4	kW	T _j = - 7 °C	COP _d	2.56	-
Degradation co-efficient (**)	C _{dh}	0.98	-				
T _j = + 2 °C	P _{dh}	3.3	kW	T _j = + 2 °C	COP _d	3.08	-
Degradation co-efficient (**)	C _{dh}	0.97	-				
T _j = + 7 °C	P _{dh}	3.5	kW	T _j = + 7 °C	COP _d	4.47	-
Degradation co-efficient (**)	C _{dh}	0.97	-				
T _j = +12 °C	P _{dh}	4.2	kW	T _j = +12 °C	COP _d	6.23	-
Degradation co-efficient (**)	C _{dh}	0.96	-				
T _j = bivalent temperature	P _{dh}	7.6	kW	T _j = bivalent temperature	COP _d	2.05	-
T _j = operation limit temperature	P _{dh}	7.5	kW	T _j = operation limit temperature	COP _d	1.44	-
T _j = - 15 °C (if TOL < - 20 °C)	P _{dh}	7.6	kW	T _j = - 15 °C (if TOL < - 20 °C)	COP _d	2.10	-
Bivalent temperature	T _{biv}	-16	°C	Operation limit temperature	TOL	-28	°C
				Heating water operating limit temperature	WTOL	60	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P _{OFF}	0.022	kW	Rated heat output (*)	P _{sup}	1.5	kW
Thermostat-off mode	P _{TO}	0.022	kW				
Standby mode	P _{SB}	0.022	kW	Type of energy input			
Crankcase heater mode	P _{CK}	0.000	kW				

Other items				Rated air flow rate, outdoors			
Capacity control		variable		-	2700	m ³ /h	
Sound power level, indoors/outdoors	L _{WA}	40/59	dB(A)				
Annual energy consumption	Q _{HE}	7558	kWh				

For heat pump combination heater:				Water heating energy efficiency			
Declared load profile		L		η_{wh}	82	%	
Daily electricity consumption	Q _{elec}	6.000	kW/h				
Annual electricity consumption	AEC	1320	kW/h				

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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-SHW80YAA(-BS)
	Indoor unit:	EHST20C-****
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	9.6	kW	Seasonal space heating energy efficiency	η_s	146	%
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}	5.8	kW	T _j = - 7 °C	COP _d	3.68	-
Degradation co-efficient (**)	C _{dh}	0.98	-				
T _j = + 2 °C	P _{dh}	3.5	kW	T _j = + 2 °C	COP _d	3.91	-
Degradation co-efficient (**)	C _{dh}	0.97	-				
T _j = + 7 °C	P _{dh}	3.7	kW	T _j = + 7 °C	COP _d	5.34	-
Degradation co-efficient (**)	C _{dh}	0.96	-				
T _j = +12 °C	P _{dh}	4.3	kW	T _j = +12 °C	COP _d	6.96	-
Degradation co-efficient (**)	C _{dh}	0.96	-				
T _j = bivalent temperature	P _{dh}	8.1	kW	T _j = bivalent temperature	COP _d	3.26	-
T _j = operation limit temperature	P _{dh}	7.5	kW	T _j = operation limit temperature	COP _d	1.44	-
T _j = - 15 °C (if TOL < - 20 °C)	P _{dh}	8.2	kW	T _j = - 15 °C (if TOL < - 20 °C)	COP _d	3.41	-
Bivalent temperature	T _{biv}	-16	°C	Operation limit temperature	TOL	-28	°C
				Heating water operating limit temperature	WTOL	60	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P _{OFF}	0.022	kW	Rated heat output (*)	P _{sup}	1.8	kW
Thermostat-off mode	P _{TO}	0.022	kW				
Standby mode	P _{SB}	0.022	kW	Type of energy input			
Crankcase heater mode	P _{CK}	0.000	kW				

Other items				Rated air flow rate, outdoors			
Capacity control		variable		-	2700	m ³ /h	
Sound power level, indoors/outdoors	L _{WA}	40/59	dB(A)				
Annual energy consumption	Q _{HE}	6128	kWh				

For heat pump combination heater:				Water heating energy efficiency			
Declared load profile		L		η_{wh}	82	%	
Daily electricity consumption	Q _{elec}	6.000	kW/h				
Annual electricity consumption	AEC	1320	kW/h				

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(**) If C_{dh} is not determined by measurement then the default degradation coefficient is C_{dh} = 0,9.

Model(s):	Outdoor unit:	PUHZ-SHW80YAA(-BS)
	Indoor unit:	EHST20C-****
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	9.0	kW	Seasonal space heating energy efficiency	η_s	155	%
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}	9	kW	T _j = + 2 °C	COP _d	2.25	-
Degradation co-efficient (**)	C _{dh}	0.99	-				
T _j = + 7 °C	P _{dh}	5.8	kW	T _j = + 7 °C	COP _d	3.42	-
Degradation co-efficient (**)	C _{dh}	0.98	-				
T _j = +12 °C	P _{dh}	4.0	kW	T _j = +12 °C	COP _d	5.27	-
Degradation co-efficient (**)	C _{dh}	0.96	-				
T _j = bivalent temperature	P _{dh}	8.0	kW	T _j = bivalent temperature	COP _d	1.98	-
T _j = operation limit temperature	P _{dh}	7.5	kW	T _j = operation limit temperature	COP _d	1.44	-
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	-28	°C
				Heating water operating limit temperature	WTOL	60	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P _{OFF}	0.022	kW	Rated heat output (*)	P _{sup}	0.0	kW
Thermostat-off mode	P _{TO}	0.022	kW				
Standby mode	P _{SB}	0.022	kW	Type of energy input			
Crankcase heater mode	P _{CK}	0.000	kW				

Other items				Rated air flow rate, outdoors			
Capacity control		variable		-	2700	m ³ /h	
Sound power level, indoors/outdoors	L _{WA}	40/59	dB(A)				
Annual energy consumption	Q _{HE}	2963	kWh				

For heat pump combination heater:				Water heating energy efficiency			
Declared load profile		L		η_{wh}	113	%	
Daily electricity consumption	Q _{elec}	4.400	kW/h				
Annual electricity consumption	AEC	962	kW/h				

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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-SHW80YAA(-BS)
	Indoor unit:	EHST20C-****
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	9.0	kW	Seasonal space heating energy efficiency	η_s	213	%
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}	9	kW	T _j = + 2 °C	COP _d	3.85	-
Degradation co-efficient (**)	C _{dh}	0.99	-				
T _j = + 7 °C	P _{dh}	5.8	kW	T _j = + 7 °C	COP _d	5.10	-
Degradation co-efficient (**)	C _{dh}	0.97	-				
T _j = +12 °C	P _{dh}	4.2	kW	T _j = +12 °C	COP _d	6.58	-
Degradation co-efficient (**)	C _{dh}	0.96	-				
T _j = bivalent temperature	P _{dh}	8.5	kW	T _j = bivalent temperature	COP _d	3.15	-
T _j = operation limit temperature	P _{dh}	7.5	kW	T _j = operation limit temperature	COP _d	1.44	-
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	-28	°C
				Heating water operating limit temperature	WTOL	60	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P _{OFF}	0.022	kW	Rated heat output (*)	P _{sup}	0.0	kW
Thermostat-off mode	P _{TO}	0.022	kW				
Standby mode	P _{SB}	0.022	kW	Type of energy input			
Crankcase heater mode	P _{CK}	0.000	kW				

Other items				Rated air flow rate, outdoors			
Capacity control		variable		-	2700	m ³ /h	
Sound power level, indoors/outdoors	L _{WA}	40/59	dB(A)				
Annual energy consumption	Q _{HE}	2142	kWh				

For heat pump combination heater:				Water heating energy efficiency			
Declared load profile		L		η_{wh}	113	%	
Daily electricity consumption	Q _{elec}	4.400	kW/h				
Annual electricity consumption	AEC	962	kW/h				

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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-SHW80YAA(-BS)
	Indoor unit:	ERST20C-****
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	9.0	kW	Seasonal space heating energy efficiency	η_s	134	%
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}	8.0	kW	T _j = - 7 °C	COP _d	2.13	-
Degradation co-efficient (**)	C _{dh}	0.99	-				
T _j = + 2 °C	P _{dh}	4.9	kW	T _j = + 2 °C	COP _d	3.31	-
Degradation co-efficient (**)	C _{dh}	0.98	-				
T _j = + 7 °C	P _{dh}	5.4	kW	T _j = + 7 °C	COP _d	4.66	-
Degradation co-efficient (**)	C _{dh}	0.98	-				
T _j = +12 °C	P _{dh}	5.3	kW	T _j = +12 °C	COP _d	5.92	-
Degradation co-efficient (**)	C _{dh}	0.97	-				
T _j = bivalent temperature	P _{dh}	8.0	kW	T _j = bivalent temperature	COP _d	2.13	-
T _j = operation limit temperature	P _{dh}	7.5	kW	T _j = operation limit temperature	COP _d	1.55	-
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	-28	°C
				Heating water operating limit temperature	WTOL	60	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P _{OFF}	0.022	kW	Rated heat output (*)	P _{sup}	1.1	kW
Thermostat-off mode	P _{TO}	0.022	kW				
Standby mode	P _{SB}	0.022	kW	Type of energy input			
Crankcase heater mode	P _{CK}	0.000	kW				

Other items				Rated air flow rate, outdoors			
Capacity control		variable		-	2700	m ³ /h	
Sound power level, indoors/outdoors	L _{WA}	40/59	dB(A)				
Annual energy consumption	Q _{HE}	5377	kWh				

For heat pump combination heater:				Water heating energy efficiency			
Declared load profile		L		η_{wh}	103	%	
Daily electricity consumption	Q _{elec}	4.800	kW/h				
Annual electricity consumption	AEC	1048	kW/h				

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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-SHW80YAA(-BS)
	Indoor unit:	ERST20C-****
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	9.6	kW	Seasonal space heating energy efficiency	η_s	172	%
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}	8.5	kW	T _j = - 7 °C	COP _d	3.15	-
Degradation co-efficient (**)	C _{dh}	0.99	-				
T _j = + 2 °C	P _{dh}	5.2	kW	T _j = + 2 °C	COP _d	4.10	-
Degradation co-efficient (**)	C _{dh}	0.98	-				
T _j = + 7 °C	P _{dh}	5.0	kW	T _j = + 7 °C	COP _d	5.62	-
Degradation co-efficient (**)	C _{dh}	0.97	-				
T _j = +12 °C	P _{dh}	5.6	kW	T _j = +12 °C	COP _d	7.53	-
Degradation co-efficient (**)	C _{dh}	0.96	-				
T _j = bivalent temperature	P _{dh}	8.5	kW	T _j = bivalent temperature	COP _d	3.15	-
T _j = operation limit temperature	P _{dh}	7.5	kW	T _j = operation limit temperature	COP _d	1.44	-
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	-28	°C
				Heating water operating limit temperature	WTOL	60	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P _{OFF}	0.022	kW	Rated heat output (*)	P _{sup}	1.2	kW
Thermostat-off mode	P _{TO}	0.022	kW				
Standby mode	P _{SB}	0.022	kW	Type of energy input			
Crankcase heater mode	P _{CK}	0.000	kW				

Other items				Rated air flow rate, outdoors			
Capacity control		variable		-	2700	m ³ /h	
Sound power level, indoors/outdoors	L _{WA}	40/59	dB(A)				
Annual energy consumption	Q _{HE}	4500	kWh				

For heat pump combination heater:				Water heating energy efficiency			
Declared load profile		L		η_{wh}	103	%	
Daily electricity consumption	Q _{elec}	4.800	kW/h				
Annual electricity consumption	AEC	1048	kW/h				

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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-SHW80YAA(-BS)
	Indoor unit:	ERST20C-****
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	9.0	kW	Seasonal space heating energy efficiency	η_s	114	%
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}	5.4	kW	T _j = - 7 °C	COP _d	2.56	-
Degradation co-efficient (**)	C _{dh}	0.98	-				
T _j = + 2 °C	P _{dh}	3.3	kW	T _j = + 2 °C	COP _d	3.08	-
Degradation co-efficient (**)	C _{dh}	0.97	-				
T _j = + 7 °C	P _{dh}	3.5	kW	T _j = + 7 °C	COP _d	4.47	-
Degradation co-efficient (**)	C _{dh}	0.97	-				
T _j = +12 °C	P _{dh}	4.2	kW	T _j = +12 °C	COP _d	6.23	-
Degradation co-efficient (**)	C _{dh}	0.96	-				
T _j = bivalent temperature	P _{dh}	7.6	kW	T _j = bivalent temperature	COP _d	2.05	-
T _j = operation limit temperature	P _{dh}	7.5	kW	T _j = operation limit temperature	COP _d	1.44	-
T _j = - 15 °C (if TOL < - 20 °C)	P _{dh}	7.6	kW	T _j = - 15 °C (if TOL < - 20 °C)	COP _d	2.10	-
Bivalent temperature	T _{biv}	-16	°C	Operation limit temperature	TOL	-28	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P _{OFF}	0.022	kW	Rated heat output (*)	P _{sup}	1.5	kW
Thermostat-off mode	P _{TO}	0.022	kW				
Standby mode	P _{SB}	0.022	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}	40/59	dB(A)
Annual energy consumption	Q _{HE}	7558	kWh
Rated air flow rate, outdoors		2700	m ³ /h

For heat pump combination heater:			
Declared load profile		L	
Daily electricity consumption	Q _{elec}	6.000	kWh
Annual electricity consumption	AEC	1320	kWh
Water heating energy efficiency	η_{wh}	82	%

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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-SHW80YAA(-BS)
	Indoor unit:	ERST20C-****
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	9.6	kW	Seasonal space heating energy efficiency	η_s	150	%
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}	5.8	kW	T _j = - 7 °C	COP _d	3.68	-
Degradation co-efficient (**)	C _{dh}	0.98	-				
T _j = + 2 °C	P _{dh}	3.5	kW	T _j = + 2 °C	COP _d	3.91	-
Degradation co-efficient (**)	C _{dh}	0.97	-				
T _j = + 7 °C	P _{dh}	3.7	kW	T _j = + 7 °C	COP _d	5.34	-
Degradation co-efficient (**)	C _{dh}	0.96	-				
T _j = +12 °C	P _{dh}	4.3	kW	T _j = +12 °C	COP _d	6.96	-
Degradation co-efficient (**)	C _{dh}	0.96	-				
T _j = bivalent temperature	P _{dh}	8.1	kW	T _j = bivalent temperature	COP _d	3.26	-
T _j = operation limit temperature	P _{dh}	7.5	kW	T _j = operation limit temperature	COP _d	1.44	-
T _j = - 15 °C (if TOL < - 20 °C)	P _{dh}	8.2	kW	T _j = - 15 °C (if TOL < - 20 °C)	COP _d	3.41	-
Bivalent temperature	T _{biv}	-16	°C	Operation limit temperature	TOL	-28	°C
				Heating water operating limit temperature	WTOL	60	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P _{OFF}	0.022	kW	Rated heat output (*)	P _{sup}	1.8	kW
Thermostat-off mode	P _{TO}	0.022	kW				
Standby mode	P _{SB}	0.022	kW	Type of energy input			
Crankcase heater mode	P _{CK}	0.000	kW				

Other items				Rated air flow rate, outdoors			
Capacity control	variable			-	2700	m ³ /h	
Sound power level, indoors/outdoors	L _{WA}	40/59	dB(A)				
Annual energy consumption	Q _{HE}	6128	kWh				

For heat pump combination heater:				Water heating energy efficiency			
Declared load profile	L			η_{wh}	82	%	
Daily electricity consumption	Q _{elec}	6.000	kW/h				
Annual electricity consumption	AEC	1320	kW/h				

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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-SHW80YAA(-BS)
	Indoor unit:	ERST20C-****
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	9.0	kW	Seasonal space heating energy efficiency	η_s	159	%
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}	9	kW	T _j = + 2 °C	COP _d	2.25	-
Degradation co-efficient (**)	C _{dh}	0.99	-				
T _j = + 7 °C	P _{dh}	5.8	kW	T _j = + 7 °C	COP _d	3.42	-
Degradation co-efficient (**)	C _{dh}	0.98	-				
T _j = +12 °C	P _{dh}	4.0	kW	T _j = +12 °C	COP _d	5.27	-
Degradation co-efficient (**)	C _{dh}	0.96	-				
T _j = bivalent temperature	P _{dh}	8.0	kW	T _j = bivalent temperature	COP _d	1.98	-
T _j = operation limit temperature	P _{dh}	7.5	kW	T _j = operation limit temperature	COP _d	1.44	-
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	-28	°C
				Heating water operating limit temperature	WTOL	60	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P _{OFF}	0.022	kW	Rated heat output (*)	P _{sup}	0.0	kW
Thermostat-off mode	P _{TO}	0.022	kW				
Standby mode	P _{SB}	0.022	kW	Type of energy input			
Crankcase heater mode	P _{CK}	0.000	kW				

Other items				Rated air flow rate, outdoors			
Capacity control		variable		-	2700	m ³ /h	
Sound power level, indoors/outdoors	L _{WA}	40/59	dB(A)				
Annual energy consumption	Q _{HE}	2963	kWh				

For heat pump combination heater:				Water heating energy efficiency			
Declared load profile		L		η_{wh}	113	%	
Daily electricity consumption	Q _{elec}	4.400	kW/h				
Annual electricity consumption	AEC	962	kW/h				

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(**) If C_{dh} is not determined by measurement then the default degradation coefficient is C_{dh} = 0,9.

Model(s):	Outdoor unit:	PUHZ-SHW80YAA(-BS)
	Indoor unit:	ERST20C-****
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	9.0	kW	Seasonal space heating energy efficiency	η_s	221	%
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}	9	kW	T _j = + 2 °C	COP _d	3.85	-
Degradation co-efficient (**)	C _{dh}	0.99	-				
T _j = + 7 °C	P _{dh}	5.8	kW	T _j = + 7 °C	COP _d	5.10	-
Degradation co-efficient (**)	C _{dh}	0.97	-				
T _j = +12 °C	P _{dh}	4.2	kW	T _j = +12 °C	COP _d	6.58	-
Degradation co-efficient (**)	C _{dh}	0.96	-				
T _j = bivalent temperature	P _{dh}	8.5	kW	T _j = bivalent temperature	COP _d	3.15	-
T _j = operation limit temperature	P _{dh}	7.5	kW	T _j = operation limit temperature	COP _d	1.44	-
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	-28	°C
				Heating water operating limit temperature	WTOL	60	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P _{OFF}	0.022	kW	Rated heat output (*)	P _{sup}	0.0	kW
Thermostat-off mode	P _{TO}	0.022	kW				
Standby mode	P _{SB}	0.022	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}	40/59	dB(A)
Annual energy consumption	Q _{HE}	2142	kWh
Rated air flow rate, outdoors		2700	m ³ /h

For heat pump combination heater:			
Declared load profile		L	
Daily electricity consumption	Q _{elec}	4.400	kWh
Annual electricity consumption	AEC	962	kWh
Water heating energy efficiency	η_{wh}	113	%

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