



# ENERG

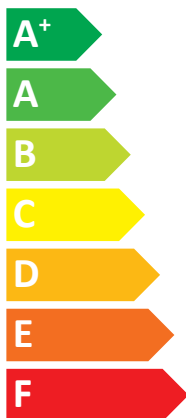
енергия · ενεργεια



Indoor unit E\*ST20C-\*\*D  
Outdoor unit PUHZ-SHW112YAA(-BS)



**A++**



**A+**

Two icons showing sound power levels: a speaker icon with a house and the text "40 dB", and a house icon with a speaker and the text "60 dB".



Legend for power consumption levels: a dark blue square for 11 kW, a medium blue square for 13 kW, and a light blue square for 11 kW.

2019

811/2013

BH79V003H46

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

Table with columns for Outdoor unit, Indoor unit, and various performance metrics (kWh, kW, %). It is organized into sections for medium-temperature and low-temperature applications, with sub-sections for different indoor unit models like PUHZ-SW75VAA(B-S).

English	Deutsch	Français	Italiano	Espanol
Nederlands	Svenska	Polski	Português	Ελληνικά
suomi	Čeština	Български	Polski	Ελληνικά
Outdoor unit	Außengerät	unit extérieure	unità esterna	unidad exterior
1 built-in unit	Utløst enhed	Utløst enhed	unità esteriore	Εξωτερική μονάδα
Ulkokäyttöinen	Yhtäkyllinen	Унітна інтегрована	unità integrata	υνιδια ενσωματωμένη
2 built-in unit	Integriert	Integriert	unità integrata	Εσωτερική μονάδα
Sisäyksiköllinen	Yhtäkyllinen	Вътрешно тягло	редовнака штемпилна	-
Mediintemperatuurtoepassing	Middeltemperatuurtoepassing	Исполнение в умеренной температуре	la aplicación a media temperatura	la aplicación de media temperatura
3 kestämälämpötilan sovellus	middletemperatuurtoepassing	среднетемпературно изпълнение	a aplicació a media temperatura	η εφαρμογή σε μέτρια θερμοκρασία
Low-temperature application	Niedertemperaturanwendung	приложение в basse temperature	la aplicación a bassa temperatura	-
4 laagtemperatuurtoepassing	lagertemperatuurtoepassing	исполнение в низкой температуре	a aplicació a baixa temperatura	-
5 de seizoensgebonden energie-efficiëntieklassen voor ruimteverwarming	de Klasse für die jahreszeitbedingte Raumheizungs-Energieeffizienz	la classe d'efficacité énergétique saisonnière, pour le chauffage des locaux	la classe de efficienza energética stagionale del riscaldamento d'ambiente	la classe de eficiència energètica estacional de calefacció
6 de seizoensgebonden energie-efficiëntieklassen voor ruimteverwarming	de Klasse für die jahreszeitbedingte Raumheizungs-Energieeffizienz	la classe d'efficacité énergétique saisonnière, pour le chauffage des locaux	la classe de eficiencia energética stagionale del riscaldamento d'ambiente	η τάξη ενεργειακής απόδοσης, της εποχικής θέρμανσης χώρου
7 de seizoensgebonden energie-efficiëntieklassen voor ruimteverwarming	de Klasse für die jahreszeitbedingte Raumheizungs-Energieeffizienz	la classe d'efficacité énergétique saisonnière, pour le chauffage des locaux	la classe de eficiencia energética stagionale del riscaldamento d'ambiente	η τάξη ενεργειακής απόδοσης, της εποχικής θέρμανσης χώρου
8 voor ruimteverwarming, het jaarlijkse energieverbruik(onder gemiddelde klimaatomstandigheden)	pro uitdrukt – rohn spotřeba energie za průměrných klimatických podmínkách	за отопление, годичного потребления на энергию(при средних климатичнiх условиях)	per il riscaldamento dell'acqua, il consumo annuo di energia(in condizioni climatiche medie)	para calefaccion de agua, el consumo anual de electricidad(en condiciones climáticas medias)
9 voor water heating, actual electricity consumption under average climate conditions	For water heating, actual electricity consumption under average climate conditions	pour le chauffage de l'eau, la consommation annuelle d'électricité(dans les conditions climatiques moyennes)	per il riscaldamento dell'acqua, il consumo annuo di energia(in condizioni climatiche medie)	para calefaccion de agua, el consumo anual de electricidad(en condiciones climáticas medias)
10 de seizoensgebonden energie-efficiëntie voor ruimteverwarming(onder gemiddelde klimaatomstandigheden)	de seizoensgebonden energie-efficiëntie voor ruimteverwarming(onder gemiddelde klimaatomstandigheden)	la eficiencia energética estacional de calefacción(en condiciones climáticas medias)	la eficiencia energética estacional de calefacción(en condiciones climáticas medias)	η ενεργειακή απόδοση εποχιακή θέρμανσης χώρου(υπό μέτριας κλιματικής συνθήκης)
11 de energie-efficiëntie van waterverwarmingsonder gemiddelde klimaatomstandigheden	de energie-efficiëntie van waterverwarmingsonder gemiddelde klimaatomstandigheden	la eficiencia energética de agua, o consumo anual de electricidad(en condiciones climáticas medias)	la eficiencia energética de agua, o consumo anual de electricidad(en condiciones climáticas medias)	η ενεργειακή απόδοση θέρμανσης χώρου(υπό μέτριας κλιματικής συνθήκης)
12 het gebruiksvormingsniveau van binnen	het gebruiksvormingsniveau van binnen	ниво на зрякуваната мощност във вътрешни помещения	per il riscaldamento d'ambiente, il consumo annuo di energia, in condizioni climatiche medie	η ενεργειακή απόδοση περιβάλλοντος, της εποχιακής θέρμανσης χώρου(υπό μέτριας κλιματικής συνθήκης)
13 de normale waartemperatuur, onder koudeere klimaatomstandigheden	de normale waartemperatuur, onder koudeere klimaatomstandigheden	la potencia calorífica nominal en condiciones climáticas medias	la potencia calorífica nominal en condiciones climáticas medias	η ονομαστική θερμική ισχύς, υπό τυπικές κλιματικές συνθήκες
14 de normale waartemperatuur, onder koudeere klimaatomstandigheden	de normale waartemperatuur, onder koudeere klimaatomstandigheden	la potencia calorífica nominal en condiciones climáticas medias	la potencia calorífica nominal en condiciones climáticas medias	η ονομαστική θερμική ισχύς, υπό τυπικές κλιματικές συνθήκες
15 de normale waartemperatuur, onder koudeere klimaatomstandigheden	de normale waartemperatuur, onder koudeere klimaatomstandigheden	la potencia calorífica nominal en condiciones climáticas medias	la potencia calorífica nominal en condiciones climáticas medias	η ονομαστική θερμική ισχύς, υπό τυπικές κλιματικές συνθήκες
16 voor ruimteverwarming, het jaarlijkse energieverbruik onder koudeere klimaatomstandigheden	voor ruimteverwarming, het jaarlijkse energieverbruik onder koudeere klimaatomstandigheden	η ενεργειακή απόδοση εποχιακή θέρμανσης χώρου(υπό μέτριας κλιματικής συνθήκης)	η ενεργειακή απόδοση εποχιακή θέρμανσης χώρου(υπό μέτριας κλιματικής συνθήκης)	η ενεργειακή απόδοση εποχιακή θέρμανσης χώρου(υπό μέτριας κλιματικής συνθήκης)
17 voor ruimteverwarming, het jaarlijkse energieverbruik onder warmeere klimaatomstandigheden	voor ruimteverwarming, het jaarlijkse energieverbruik onder warmeere klimaatomstandigheden	η ενεργειακή απόδοση εποχιακή θέρμανσης χώρου(υπό υψηλής κλιματικής συνθήκης)	η ενεργειακή απόδοση εποχιακή θέρμανσης χώρου(υπό υψηλής κλιματικής συνθήκης)	η ενεργειακή απόδοση εποχιακή θέρμανσης χώρου(υπό υψηλής κλιματικής συνθήκης)
18 voor water heating, actual energy consumption under colder climate conditions	For water heating, actual energy consumption under colder climate conditions	pour le chauffage de l'eau, la consommation annuelle d'électricité, dans les conditions climatiques plus froides	per il riscaldamento dell'acqua, il consumo annuo di energia, in condizioni climatiche più fredde e più calde	para calefaccion de agua, el consumo anual de electricidad en condiciones climáticas más calidas o más frías
19 voor water heating, het jaarlijkse elektriciteitsverbruik onder warmeere klimaatomstandigheden	voor water heating, het jaarlijkse elektriciteitsverbruik onder warmeere klimaatomstandigheden	pour le chauffage de l'eau, la consommation annuelle d'électricité, dans les conditions climatiques plus froides	per il riscaldamento dell'acqua, il consumo annuo di energia, in condizioni climatiche più fredde e più calde	para calefaccion de agua, el consumo anual de electricidad en condiciones climáticas más calidas o más frías
20 de seizoensgebonden energie-efficiëntie voor ruimteverwarming onder koudeere klimaatomstandigheden	de seizoensgebonden energie-efficiëntie voor ruimteverwarming onder koudeere klimaatomstandigheden	η ενεργειακή απόδοση εποχιακή θέρμανσης χώρου(υπό μέτριας κλιματικής συνθήκης)	η ενεργειακή απόδοση εποχιακή θέρμανσης χώρου(υπό μέτριας κλιματικής συνθήκης)	η ενεργειακή απόδοση εποχιακή θέρμανσης χώρου(υπό μέτριας κλιματικής συνθήκης)
21 de seizoensgebonden energie-efficiëntie voor ruimteverwarming onder warmeere klimaatomstandigheden	de seizoensgebonden energie-efficiëntie voor ruimteverwarming onder warmeere klimaatomstandigheden	η ενεργειακή απόδοση εποχιακή θέρμανσης χώρου(υπό υψηλής κλιματικής συνθήκης)	η ενεργειακή απόδοση εποχιακή θέρμανσης χώρου(υπό υψηλής κλιματικής συνθήκης)	η ενεργειακή απόδοση εποχιακή θέρμανσης χώρου(υπό υψηλής κλιματικής συνθήκης)
22 de energie-efficiëntie van waterverwarming onder koudeere klimaatomstandigheden	de energie-efficiëntie van waterverwarming onder koudeere klimaatomstandigheden	η ενεργειακή απόδοση θέρμανσης χώρου(υπό μέτριας κλιματικής συνθήκης)	η ενεργειακή απόδοση θέρμανσης χώρου(υπό μέτριας κλιματικής συνθήκης)	η ενεργειακή απόδοση θέρμανσης χώρου(υπό μέτριας κλιματικής συνθήκης)
23 de energie-efficiëntie van waterverwarming onder warmeere klimaatomstandigheden	de energie-efficiëntie van waterverwarming onder warmeere klimaatomstandigheden	η ενεργειακή απόδοση θέρμανσης χώρου(υπό υψηλής κλιματικής συνθήκης)	η ενεργειακή απόδοση θέρμανσης χώρου(υπό υψηλής κλιματικής συνθήκης)	η ενεργειακή απόδοση θέρμανσης χώρου(υπό υψηλής κλιματικής συνθήκης)
24 de gebruiksvormingsniveau van binnen	het gebruiksvormingsniveau van binnen	ниво на зрякуваната мощност във вътрешни помещения	per il riscaldamento dell'acqua, il consumo annuo di energia, in condizioni climatiche medie	η ενεργειακή απόδοση περιβάλλοντος, της εποχιακής θέρμανσης χώρου(υπό μέτριας κλιματικής συνθήκης)

Model(s):	Outdoor unit:	PUHZ-SHW112YAA(-BS)
	Indoor unit:	EHST20C-***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	12.7	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>	11.2	kW	T <sub>j</sub> = - 7 °C	COP <sub>d</sub>	2.12	-
Degradation co-efficient (**)	C <sub>dh</sub>	1.00	-				
T <sub>j</sub> = + 2 °C	P <sub>dh</sub>	6.8	kW	T <sub>j</sub> = + 2 °C	COP <sub>d</sub>	3.34	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.99	-				
T <sub>j</sub> = + 7 °C	P <sub>dh</sub>	4.7	kW	T <sub>j</sub> = + 7 °C	COP <sub>d</sub>	4.79	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.98	-				
T <sub>j</sub> = +12 °C	P <sub>dh</sub>	5.3	kW	T <sub>j</sub> = +12 °C	COP <sub>d</sub>	6.12	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.98	-				
T <sub>j</sub> = bivalent temperature	P <sub>dh</sub>	11.2	kW	T <sub>j</sub> = bivalent temperature	COP <sub>d</sub>	2.12	-
T <sub>j</sub> = operation limit temperature	P <sub>dh</sub>	9.0	kW	T <sub>j</sub> = operation limit temperature	COP <sub>d</sub>	1.50	-
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>	-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 <sub>OFF</sub>	0.022	kW	Rated heat output (*)	P <sub>sup</sub>	1.8	kW
Thermostat-off mode	P <sub>TO</sub>	0.022	kW	Type of energy input			
Standby mode	P <sub>SB</sub>	0.022	kW				
Crankcase heater mode	P <sub>CK</sub>	0.000	kW				
Other items				Rated air flow rate, outdoors			
Capacity control		variable				2700	m <sup>3</sup> /h
Sound power level, indoors/outdoors	L <sub>WA</sub>	40 / 60	dBA				
Annual energy consumption	Q <sub>HE</sub>	7457	kWh				
For heat pump combination heater:				Water heating energy efficiency			
Declared load profile		L		$\eta_{wh}$		145	%
Daily electricity consumption	Q <sub>elec</sub>	3.420	kW/h				
Annual electricity consumption	AEC	752	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-SHW112YAA(-BS)
	Indoor unit:	EHST20C-***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	13.9	kW	Seasonal space heating energy efficiency	$\eta_s$	169	%
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>	12.3	kW	T <sub>j</sub> = - 7 °C	COP <sub>d</sub>	3.15	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.99	-				
T <sub>j</sub> = + 2 °C	P <sub>dh</sub>	7.5	kW	T <sub>j</sub> = + 2 °C	COP <sub>d</sub>	4.12	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.99	-				
T <sub>j</sub> = + 7 °C	P <sub>dh</sub>	5.0	kW	T <sub>j</sub> = + 7 °C	COP <sub>d</sub>	5.56	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.97	-				
T <sub>j</sub> = +12 °C	P <sub>dh</sub>	5.6	kW	T <sub>j</sub> = +12 °C	COP <sub>d</sub>	7.45	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.97	-				
T <sub>j</sub> = bivalent temperature	P <sub>dh</sub>	12.3	kW	T <sub>j</sub> = bivalent temperature	COP <sub>d</sub>	3.18	-
T <sub>j</sub> = operation limit temperature	P <sub>dh</sub>	9.0	kW	T <sub>j</sub> = operation limit temperature	COP <sub>d</sub>	1.40	-
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>	-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 <sub>OFF</sub>	0.022	kW	Rated heat output (*)	P <sub>sup</sub>	2.1	kW
Thermostat-off mode	P <sub>TO</sub>	0.022	kW				
Standby mode	P <sub>SB</sub>	0.022	kW	Type of energy input			
Crankcase heater mode	P <sub>CK</sub>	0.000	kW				

Other items				Rated air flow rate, outdoors	-	2700	m <sup>3</sup> /h
Capacity control	variable						
Sound power level, indoors/outdoors	L <sub>WA</sub>	40 / 60	dBA				
Annual energy consumption	Q <sub>HE</sub>	6484	kWh				

For heat pump combination heater:				Water heating energy efficiency	$\eta_{wh}$	145	%
Declared load profile	L						
Daily electricity consumption	Q <sub>elec</sub>	3.420	kWh/h				
Annual electricity consumption	AEC	752	kWh/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-SHW112YAA(-BS)
	Indoor unit:	EHST20C-***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	10.7	kW	Seasonal space heating energy efficiency	$\eta_s$	122	%
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>	6.5	kW	T <sub>j</sub> = - 7 °C	COP <sub>d</sub>	2.98	-
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>	3.26	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.98	-				
T <sub>j</sub> = + 7 °C	P <sub>dh</sub>	3.5	kW	T <sub>j</sub> = + 7 °C	COP <sub>d</sub>	4.50	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.97	-				
T <sub>j</sub> = +12 °C	P <sub>dh</sub>	4.2	kW	T <sub>j</sub> = +12 °C	COP <sub>d</sub>	6.28	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.97	-				
T <sub>j</sub> = bivalent temperature	P <sub>dh</sub>	9.0	kW	T <sub>j</sub> = bivalent temperature	COP <sub>d</sub>	1.86	-
T <sub>j</sub> = operation limit temperature	P <sub>dh</sub>	9.0	kW	T <sub>j</sub> = operation limit temperature	COP <sub>d</sub>	1.40	-
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>	-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 <sub>OFF</sub>	0.022	kW	Rated heat output (*)	P <sub>sup</sub>	1.7	kW
Thermostat-off mode	P <sub>TO</sub>	0.022	kW				
Standby mode	P <sub>SB</sub>	0.022	kW	Type of energy input			
Crankcase heater mode	P <sub>CK</sub>	0.000	kW				
Other items				Rated air flow rate, outdoors			
Capacity control		variable				2700	m <sup>3</sup> /h
Sound power level, indoors/outdoors	L <sub>WA</sub>	40 / 60	dBA				
Annual energy consumption	Q <sub>HE</sub>	8216	kWh				
For heat pump combination heater:				Water heating energy efficiency			
Declared load profile		L		$\eta_{wh}$		123	%
Daily electricity consumption	Q <sub>elec</sub>	3.990	kWh/h				
Annual electricity consumption	AEC	877	kWh/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-SHW112YAA(-BS)
	Indoor unit:	EHST20C-***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	13.9	kW	Seasonal space heating energy efficiency	$\eta_s$	163	%
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>	8.4	kW	T <sub>j</sub> = - 7 °C	COP <sub>d</sub>	4.22	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.99	-				
T <sub>j</sub> = + 2 °C	P <sub>dh</sub>	5.1	kW	T <sub>j</sub> = + 2 °C	COP <sub>d</sub>	4.35	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.98	-				
T <sub>j</sub> = + 7 °C	P <sub>dh</sub>	3.6	kW	T <sub>j</sub> = + 7 °C	COP <sub>d</sub>	5.38	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.97	-				
T <sub>j</sub> = +12 °C	P <sub>dh</sub>	4.3	kW	T <sub>j</sub> = +12 °C	COP <sub>d</sub>	7.00	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.96	-				
T <sub>j</sub> = bivalent temperature	P <sub>dh</sub>	11.7	kW	T <sub>j</sub> = bivalent temperature	COP <sub>d</sub>	2.62	-
T <sub>j</sub> = operation limit temperature	P <sub>dh</sub>	9.0	kW	T <sub>j</sub> = operation limit temperature	COP <sub>d</sub>	1.40	-
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>	-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 <sub>OFF</sub>	0.022	kW	Rated heat output (*)	P <sub>sup</sub>	3.6	kW
Thermostat-off mode	P <sub>TO</sub>	0.022	kW				
Standby mode	P <sub>SB</sub>	0.022	kW	Type of energy input			
Crankcase heater mode	P <sub>CK</sub>	0.000	kW				
Other items				Rated air flow rate, outdoors			
Capacity control		variable				2700	m <sup>3</sup> /h
Sound power level, indoors/outdoors	L <sub>WA</sub>	40 / 60	dBA				
Annual energy consumption	Q <sub>HE</sub>	7967	kWh				

For heat pump combination heater:

Declared load profile		L		Water heating energy efficiency	$\eta_{wh}$	123	%
Daily electricity consumption	Q <sub>elec</sub>	3.990	kW/h				
Annual electricity consumption	AEC	877	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-SHW112YAA(-BS)
	Indoor unit:	EHST20C-***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	11.2	kW	Seasonal space heating energy efficiency	$\eta_s$	157	%
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>	11.2	kW	T <sub>j</sub> = + 2 °C	COP <sub>d</sub>	2.29	-
Degradation co-efficient (**)	C <sub>dh</sub>	1.00	-				
T <sub>j</sub> = + 7 °C	P <sub>dh</sub>	7.2	kW	T <sub>j</sub> = + 7 °C	COP <sub>d</sub>	3.41	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.99	-				
T <sub>j</sub> = +12 °C	P <sub>dh</sub>	4.1	kW	T <sub>j</sub> = +12 °C	COP <sub>d</sub>	5.32	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.97	-				
T <sub>j</sub> = bivalent temperature	P <sub>dh</sub>	11.2	kW	T <sub>j</sub> = bivalent temperature	COP <sub>d</sub>	1.97	-
T <sub>j</sub> = operation limit temperature	P <sub>dh</sub>	9.0	kW	T <sub>j</sub> = operation limit temperature	COP <sub>d</sub>	1.40	-
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>	-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 <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			
Standby mode	P <sub>SB</sub>	0.022	kW				
Crankcase heater mode	P <sub>CK</sub>	0.000	kW				

Other items				Rated air flow rate, outdoors	-	2700	m <sup>3</sup> /h
Capacity control	variable						
Sound power level, indoors/outdoors	L <sub>WA</sub>	40 / 60	dBA				
Annual energy consumption	Q <sub>HE</sub>	3656	kWh				

For heat pump combination heater:				Water heating energy efficiency	$\eta_{wh}$	161	%
Declared load profile	L						
Daily electricity consumption	Q <sub>elec</sub>	3.080	kWh/h				
Annual electricity consumption	AEC	678	kWh/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-SHW112YAA(-BS)
	Indoor unit:	EHST20C-***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	11.2	kW	Seasonal space heating energy efficiency	$\eta_s$	216	%
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>	11.2	kW	T <sub>j</sub> = + 2 °C	COP <sub>d</sub>	3.49	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.99	-				
T <sub>j</sub> = + 7 °C	P <sub>dh</sub>	7.2	kW	T <sub>j</sub> = + 7 °C	COP <sub>d</sub>	5.17	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.98	-				
T <sub>j</sub> = +12 °C	P <sub>dh</sub>	4.3	kW	T <sub>j</sub> = +12 °C	COP <sub>d</sub>	6.62	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.96	-				
T <sub>j</sub> = bivalent temperature	P <sub>dh</sub>	12.3	kW	T <sub>j</sub> = bivalent temperature	COP <sub>d</sub>	3.18	-
T <sub>j</sub> = operation limit temperature	P <sub>dh</sub>	9.0	kW	T <sub>j</sub> = operation limit temperature	COP <sub>d</sub>	1.40	-
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>	-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 <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			
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	-	2700	m <sup>3</sup> /h
Sound power level, indoors/outdoors	L <sub>WA</sub>	40 / 60	dBA				
Annual energy consumption	Q <sub>HE</sub>	3656	kWh				

For heat pump combination heater:							
Declared load profile	L			Water heating energy efficiency	$\eta_{wh}$	161	%
Daily electricity consumption	Q <sub>elec</sub>	3.080	kWh/h				
Annual electricity consumption	AEC	678	kWh/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-SHW112YAA(-BS)
	Indoor unit:	EHST20C-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	12.7	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>	11.2	kW	T <sub>j</sub> = - 7 °C	COP <sub>d</sub>	2.12	-
Degradation co-efficient (**)	C <sub>dh</sub>	1.00	-				
T <sub>j</sub> = + 2 °C	P <sub>dh</sub>	6.8	kW	T <sub>j</sub> = + 2 °C	COP <sub>d</sub>	3.34	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.99	-				
T <sub>j</sub> = + 7 °C	P <sub>dh</sub>	4.7	kW	T <sub>j</sub> = + 7 °C	COP <sub>d</sub>	4.79	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.98	-				
T <sub>j</sub> = +12 °C	P <sub>dh</sub>	5.3	kW	T <sub>j</sub> = +12 °C	COP <sub>d</sub>	6.12	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.98	-				
T <sub>j</sub> = bivalent temperature	P <sub>dh</sub>	11.2	kW	T <sub>j</sub> = bivalent temperature	COP <sub>d</sub>	2.12	-
T <sub>j</sub> = operation limit temperature	P <sub>dh</sub>	9.0	kW	T <sub>j</sub> = operation limit temperature	COP <sub>d</sub>	1.50	-
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>	-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 <sub>OFF</sub>	0.022	kW	Rated heat output (*)	P <sub>sup</sub>	1.8	kW
Thermostat-off mode	P <sub>TO</sub>	0.022	kW				
Standby mode	P <sub>SB</sub>	0.022	kW	Type of energy input			
Crankcase heater mode	P <sub>CK</sub>	0.000	kW				
Other items				Rated air flow rate, outdoors			
Capacity control		variable				2700	m <sup>3</sup> /h
Sound power level, indoors/outdoors	L <sub>WA</sub>	40 / 60	dBA				
Annual energy consumption	Q <sub>HE</sub>	7457	kWh				

For heat pump combination heater:

Declared load profile	L			Water heating energy efficiency	$\eta_{wh}$	145	%
Daily electricity consumption	Q <sub>elec</sub>	3.420	kW/h				
Annual electricity consumption	AEC	752	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-SHW112YAA(-BS)
	Indoor unit:	EHST20C-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	13.9	kW	Seasonal space heating energy efficiency	$\eta_s$	169	%
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>	12.3	kW	T <sub>j</sub> = - 7 °C	COP <sub>d</sub>	3.15	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.99	-				
T <sub>j</sub> = + 2 °C	P <sub>dh</sub>	7.5	kW	T <sub>j</sub> = + 2 °C	COP <sub>d</sub>	4.12	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.99	-				
T <sub>j</sub> = + 7 °C	P <sub>dh</sub>	5.0	kW	T <sub>j</sub> = + 7 °C	COP <sub>d</sub>	5.56	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.97	-				
T <sub>j</sub> = +12 °C	P <sub>dh</sub>	5.6	kW	T <sub>j</sub> = +12 °C	COP <sub>d</sub>	7.45	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.97	-				
T <sub>j</sub> = bivalent temperature	P <sub>dh</sub>	12.3	kW	T <sub>j</sub> = bivalent temperature	COP <sub>d</sub>	3.18	-
T <sub>j</sub> = operation limit temperature	P <sub>dh</sub>	9.0	kW	T <sub>j</sub> = operation limit temperature	COP <sub>d</sub>	1.40	-
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>	-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 <sub>OFF</sub>	0.022	kW	Rated heat output (*)	P <sub>sup</sub>	2.1	kW
Thermostat-off mode	P <sub>TO</sub>	0.022	kW				
Standby mode	P <sub>SB</sub>	0.022	kW	Type of energy input			
Crankcase heater mode	P <sub>CK</sub>	0.000	kW				

Other items							
Capacity control	variable			Rated air flow rate, outdoors	-	2700	m <sup>3</sup> /h
Sound power level, indoors/outdoors	L <sub>WA</sub>	40 / 60	dBA				
Annual energy consumption	Q <sub>HE</sub>	6484	kWh				

For heat pump combination heater:							
Declared load profile	L			Water heating energy efficiency	$\eta_{wh}$	145	%
Daily electricity consumption	Q <sub>elec</sub>	3.420	kWh/h				
Annual electricity consumption	AEC	752	kWh/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-SHW112YAA(-BS)
	Indoor unit:	EHST20C-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	10.7	kW	Seasonal space heating energy efficiency	$\eta_s$	122	%
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>	6.5	kW	T <sub>j</sub> = - 7 °C	COP <sub>d</sub>	2.98	-
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>	3.26	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.98	-				
T <sub>j</sub> = + 7 °C	P <sub>dh</sub>	3.5	kW	T <sub>j</sub> = + 7 °C	COP <sub>d</sub>	4.50	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.97	-				
T <sub>j</sub> = +12 °C	P <sub>dh</sub>	4.2	kW	T <sub>j</sub> = +12 °C	COP <sub>d</sub>	6.28	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.97	-				
T <sub>j</sub> = bivalent temperature	P <sub>dh</sub>	9.0	kW	T <sub>j</sub> = bivalent temperature	COP <sub>d</sub>	1.86	-
T <sub>j</sub> = operation limit temperature	P <sub>dh</sub>	9.0	kW	T <sub>j</sub> = operation limit temperature	COP <sub>d</sub>	1.40	-
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>	-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 <sub>OFF</sub>	0.022	kW	Rated heat output (*)	P <sub>sup</sub>	1.7	kW
Thermostat-off mode	P <sub>TO</sub>	0.022	kW	Type of energy input			
Standby mode	P <sub>SB</sub>	0.022	kW				
Crankcase heater mode	P <sub>CK</sub>	0.000	kW				
Other items				Rated air flow rate, outdoors			
Capacity control		variable				2700	m <sup>3</sup> /h
Sound power level, indoors/outdoors	L <sub>WA</sub>	40 / 60	dBA				
Annual energy consumption	Q <sub>HE</sub>	8216	kWh				

For heat pump combination heater:

Declared load profile		L		Water heating energy efficiency	$\eta_{wh}$	123	%
Daily electricity consumption	Q <sub>elec</sub>	3.990	kW/h				
Annual electricity consumption	AEC	877	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-SHW112YAA(-BS)
	Indoor unit:	EHST20C-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	13.9	kW	Seasonal space heating energy efficiency	$\eta_s$	163	%
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>	8.4	kW	T <sub>j</sub> = - 7 °C	COP <sub>d</sub>	4.22	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.99	-				
T <sub>j</sub> = + 2 °C	P <sub>dh</sub>	5.1	kW	T <sub>j</sub> = + 2 °C	COP <sub>d</sub>	4.35	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.98	-				
T <sub>j</sub> = + 7 °C	P <sub>dh</sub>	3.6	kW	T <sub>j</sub> = + 7 °C	COP <sub>d</sub>	5.38	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.97	-				
T <sub>j</sub> = +12 °C	P <sub>dh</sub>	4.3	kW	T <sub>j</sub> = +12 °C	COP <sub>d</sub>	7.00	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.96	-				
T <sub>j</sub> = bivalent temperature	P <sub>dh</sub>	11.7	kW	T <sub>j</sub> = bivalent temperature	COP <sub>d</sub>	2.62	-
T <sub>j</sub> = operation limit temperature	P <sub>dh</sub>	9.0	kW	T <sub>j</sub> = operation limit temperature	COP <sub>d</sub>	1.40	-
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>	-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 <sub>OFF</sub>	0.022	kW	Rated heat output (*)	P <sub>sup</sub>	3.6	kW
Thermostat-off mode	P <sub>TO</sub>	0.022	kW	Type of energy input			
Standby mode	P <sub>SB</sub>	0.022	kW				
Crankcase heater mode	P <sub>CK</sub>	0.000	kW				
Other items				Rated air flow rate, outdoors			
Capacity control		variable				2700	m <sup>3</sup> /h
Sound power level, indoors/outdoors	L <sub>WA</sub>	40 / 60	dBA				
Annual energy consumption	Q <sub>HE</sub>	7967	kWh				

For heat pump combination heater:

Declared load profile	L			Water heating energy efficiency	$\eta_{wh}$	123	%
Daily electricity consumption	Q <sub>elec</sub>	3.990	kW/h				
Annual electricity consumption	AEC	877	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-SHW112YAA(-BS)
	Indoor unit:	EHST20C-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	11.2	kW	Seasonal space heating energy efficiency	$\eta_s$	157	%
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>	11.2	kW	T <sub>j</sub> = + 2 °C	COP <sub>d</sub>	2.29	-
Degradation co-efficient (**)	C <sub>dh</sub>	1.00	-				
T <sub>j</sub> = + 7 °C	P <sub>dh</sub>	7.2	kW	T <sub>j</sub> = + 7 °C	COP <sub>d</sub>	3.41	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.99	-				
T <sub>j</sub> = +12 °C	P <sub>dh</sub>	4.1	kW	T <sub>j</sub> = +12 °C	COP <sub>d</sub>	5.32	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.97	-				
T <sub>j</sub> = bivalent temperature	P <sub>dh</sub>	11.2	kW	T <sub>j</sub> = bivalent temperature	COP <sub>d</sub>	1.97	-
T <sub>j</sub> = operation limit temperature	P <sub>dh</sub>	9.0	kW	T <sub>j</sub> = operation limit temperature	COP <sub>d</sub>	1.40	-
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>	-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 <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			
Standby mode	P <sub>SB</sub>	0.022	kW				
Crankcase heater mode	P <sub>CK</sub>	0.000	kW				

Other items				Rated air flow rate, outdoors	-	2700	m <sup>3</sup> /h
Capacity control	variable						
Sound power level, indoors/outdoors	L <sub>WA</sub>	40 / 60	dBA				
Annual energy consumption	Q <sub>HE</sub>	3656	kWh				

For heat pump combination heater:				Water heating energy efficiency	$\eta_{wh}$	161	%
Declared load profile	L						
Daily electricity consumption	Q <sub>elec</sub>	3.080	kWh/h				
Annual electricity consumption	AEC	678	kWh/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-SHW112YAA(-BS)
	Indoor unit:	EHST20C-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	11.2	kW	Seasonal space heating energy efficiency	$\eta_s$	216	%
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>	11.2	kW	T <sub>j</sub> = + 2 °C	COP <sub>d</sub>	3.49	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.99	-				
T <sub>j</sub> = + 7 °C	P <sub>dh</sub>	7.2	kW	T <sub>j</sub> = + 7 °C	COP <sub>d</sub>	5.17	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.98	-				
T <sub>j</sub> = +12 °C	P <sub>dh</sub>	4.3	kW	T <sub>j</sub> = +12 °C	COP <sub>d</sub>	6.62	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.96	-				
T <sub>j</sub> = bivalent temperature	P <sub>dh</sub>	12.3	kW	T <sub>j</sub> = bivalent temperature	COP <sub>d</sub>	3.18	-
T <sub>j</sub> = operation limit temperature	P <sub>dh</sub>	9.0	kW	T <sub>j</sub> = operation limit temperature	COP <sub>d</sub>	1.40	-
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>	-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 <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	Type of energy input			
Crankcase heater mode	P <sub>CK</sub>	0.000	kW				

Other items				Rated air flow rate, outdoors	-	2700	m <sup>3</sup> /h
Capacity control	variable						
Sound power level, indoors/outdoors	L <sub>WA</sub>	40 / 60	dBA				
Annual energy consumption	Q <sub>HE</sub>	3656	kWh				

For heat pump combination heater:				Water heating energy efficiency	$\eta_{wh}$	161	%
Declared load profile	L						
Daily electricity consumption	Q <sub>elec</sub>	3.080	kWh/h				
Annual electricity consumption	AEC	678	kWh/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-SHW112YAA(-BS)
	Indoor unit:	ERST20C-***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	12.7	kW	Seasonal space heating energy efficiency	$\eta_s$	137	%
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>	11.2	kW	T <sub>j</sub> = - 7 °C	COP <sub>d</sub>	2.12	-
Degradation co-efficient (**)	C <sub>dh</sub>	1.00	-				
T <sub>j</sub> = + 2 °C	P <sub>dh</sub>	6.8	kW	T <sub>j</sub> = + 2 °C	COP <sub>d</sub>	3.34	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.99	-				
T <sub>j</sub> = + 7 °C	P <sub>dh</sub>	4.7	kW	T <sub>j</sub> = + 7 °C	COP <sub>d</sub>	4.79	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.98	-				
T <sub>j</sub> = +12 °C	P <sub>dh</sub>	5.3	kW	T <sub>j</sub> = +12 °C	COP <sub>d</sub>	6.12	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.98	-				
T <sub>j</sub> = bivalent temperature	P <sub>dh</sub>	11.2	kW	T <sub>j</sub> = bivalent temperature	COP <sub>d</sub>	2.12	-
T <sub>j</sub> = operation limit temperature	P <sub>dh</sub>	9.0	kW	T <sub>j</sub> = operation limit temperature	COP <sub>d</sub>	1.50	-
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>	-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 <sub>OFF</sub>	0.022	kW	Rated heat output (*)	P <sub>sup</sub>	1.8	kW
Thermostat-off mode	P <sub>TO</sub>	0.022	kW				
Standby mode	P <sub>SB</sub>	0.022	kW	Type of energy input			
Crankcase heater mode	P <sub>CK</sub>	0.000	kW				
Other items				Rated air flow rate, outdoors			
Capacity control		variable				2700	m <sup>3</sup> /h
Sound power level, indoors/outdoors	L <sub>WA</sub>	40 / 60	dBA				
Annual energy consumption	Q <sub>HE</sub>	7457	kWh				
For heat pump combination heater:				Water heating energy efficiency			
Declared load profile		L		$\eta_{wh}$		145	%
Daily electricity consumption	Q <sub>elec</sub>	3.420	kWh				
Annual electricity consumption	AEC	752	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:	PUHZ-SHW112YAA(-BS)
	Indoor unit:	ERST20C-***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	13.9	kW	Seasonal space heating energy efficiency	$\eta_s$	173	%
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>	12.3	kW	T <sub>j</sub> = - 7 °C	COP <sub>d</sub>	3.15	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.99	-				
T <sub>j</sub> = + 2 °C	P <sub>dh</sub>	7.5	kW	T <sub>j</sub> = + 2 °C	COP <sub>d</sub>	4.12	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.99	-				
T <sub>j</sub> = + 7 °C	P <sub>dh</sub>	5.0	kW	T <sub>j</sub> = + 7 °C	COP <sub>d</sub>	5.56	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.97	-				
T <sub>j</sub> = +12 °C	P <sub>dh</sub>	5.6	kW	T <sub>j</sub> = +12 °C	COP <sub>d</sub>	7.45	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.97	-				
T <sub>j</sub> = bivalent temperature	P <sub>dh</sub>	12.3	kW	T <sub>j</sub> = bivalent temperature	COP <sub>d</sub>	3.18	-
T <sub>j</sub> = operation limit temperature	P <sub>dh</sub>	9.0	kW	T <sub>j</sub> = operation limit temperature	COP <sub>d</sub>	1.40	-
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>	-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 <sub>OFF</sub>	0.022	kW	Rated heat output (*)	P <sub>sup</sub>	2.1	kW
Thermostat-off mode	P <sub>TO</sub>	0.022	kW				
Standby mode	P <sub>SB</sub>	0.022	kW	Type of energy input			
Crankcase heater mode	P <sub>CK</sub>	0.000	kW				
Other items				Rated air flow rate, outdoors			
Capacity control		variable				2700	m <sup>3</sup> /h
Sound power level, indoors/outdoors	L <sub>WA</sub>	40 / 60	dBA				
Annual energy consumption	Q <sub>HE</sub>	6484	kWh				

For heat pump combination heater:

Declared load profile	L			Water heating energy efficiency	$\eta_{wh}$	145	%
Daily electricity consumption	Q <sub>elec</sub>	3.420	kWh				
Annual electricity consumption	AEC	752	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:	PUHZ-SHW112YAA(-BS)
	Indoor unit:	ERST20C-***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	10.7	kW	Seasonal space heating energy efficiency	$\eta_s$	124	%
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>	6.5	kW	T <sub>j</sub> = - 7 °C	COP <sub>d</sub>	2.98	-
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>	3.26	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.98	-				
T <sub>j</sub> = + 7 °C	P <sub>dh</sub>	3.5	kW	T <sub>j</sub> = + 7 °C	COP <sub>d</sub>	4.50	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.97	-				
T <sub>j</sub> = +12 °C	P <sub>dh</sub>	4.2	kW	T <sub>j</sub> = +12 °C	COP <sub>d</sub>	6.28	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.97	-				
T <sub>j</sub> = bivalent temperature	P <sub>dh</sub>	9.0	kW	T <sub>j</sub> = bivalent temperature	COP <sub>d</sub>	1.86	-
T <sub>j</sub> = operation limit temperature	P <sub>dh</sub>	9.0	kW	T <sub>j</sub> = operation limit temperature	COP <sub>d</sub>	1.40	-
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>	-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 <sub>OFF</sub>	0.022	kW	Rated heat output (*)	P <sub>sup</sub>	1.7	kW
Thermostat-off mode	P <sub>TO</sub>	0.022	kW				
Standby mode	P <sub>SB</sub>	0.022	kW	Type of energy input			
Crankcase heater mode	P <sub>CK</sub>	0.000	kW				
Other items				Rated air flow rate, outdoors			
Capacity control		variable				2700	m <sup>3</sup> /h
Sound power level, indoors/outdoors	L <sub>WA</sub>	40 / 60	dBA				
Annual energy consumption	Q <sub>HE</sub>	8216	kWh				

For heat pump combination heater:

Declared load profile	L			Water heating energy efficiency	$\eta_{wh}$	123	%
Daily electricity consumption	Q <sub>elec</sub>	3.990	kW/h				
Annual electricity consumption	AEC	877	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-SHW112YAA(-BS)
	Indoor unit:	ERST20C-***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	13.9	kW	Seasonal space heating energy efficiency	$\eta_s$	166	%
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>	8.4	kW	T <sub>j</sub> = - 7 °C	COP <sub>d</sub>	4.22	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.99	-				
T <sub>j</sub> = + 2 °C	P <sub>dh</sub>	5.1	kW	T <sub>j</sub> = + 2 °C	COP <sub>d</sub>	4.35	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.98	-				
T <sub>j</sub> = + 7 °C	P <sub>dh</sub>	3.6	kW	T <sub>j</sub> = + 7 °C	COP <sub>d</sub>	5.38	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.97	-				
T <sub>j</sub> = +12 °C	P <sub>dh</sub>	4.3	kW	T <sub>j</sub> = +12 °C	COP <sub>d</sub>	7.00	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.96	-				
T <sub>j</sub> = bivalent temperature	P <sub>dh</sub>	11.7	kW	T <sub>j</sub> = bivalent temperature	COP <sub>d</sub>	2.62	-
T <sub>j</sub> = operation limit temperature	P <sub>dh</sub>	9.0	kW	T <sub>j</sub> = operation limit temperature	COP <sub>d</sub>	1.40	-
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>	-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 <sub>OFF</sub>	0.022	kW	Rated heat output (*)	P <sub>sup</sub>	3.6	kW
Thermostat-off mode	P <sub>TO</sub>	0.022	kW				
Standby mode	P <sub>SB</sub>	0.022	kW	Type of energy input			
Crankcase heater mode	P <sub>CK</sub>	0.000	kW				
Other items				Rated air flow rate, outdoors			
Capacity control		variable				2700	m <sup>3</sup> /h
Sound power level, indoors/outdoors	L <sub>WA</sub>	40 / 60	dBA				
Annual energy consumption	Q <sub>HE</sub>	7967	kWh				

For heat pump combination heater:

Declared load profile		L		Water heating energy efficiency	$\eta_{wh}$	123	%
Daily electricity consumption	Q <sub>elec</sub>	3.990	kW/h				
Annual electricity consumption	AEC	877	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-SHW112YAA(-BS)
	Indoor unit:	ERST20C-***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	11.2	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>	11.2	kW	T <sub>j</sub> = + 2 °C	COP <sub>d</sub>	2.29	-
Degradation co-efficient (**)	C <sub>dh</sub>	1.00	-				
T <sub>j</sub> = + 7 °C	P <sub>dh</sub>	7.2	kW	T <sub>j</sub> = + 7 °C	COP <sub>d</sub>	3.41	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.99	-				
T <sub>j</sub> = +12 °C	P <sub>dh</sub>	4.1	kW	T <sub>j</sub> = +12 °C	COP <sub>d</sub>	5.32	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.97	-				
T <sub>j</sub> = bivalent temperature	P <sub>dh</sub>	11.2	kW	T <sub>j</sub> = bivalent temperature	COP <sub>d</sub>	1.97	-
T <sub>j</sub> = operation limit temperature	P <sub>dh</sub>	9.0	kW	T <sub>j</sub> = operation limit temperature	COP <sub>d</sub>	1.40	-
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>	-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 <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	Type of energy input			
Crankcase heater mode	P <sub>CK</sub>	0.000	kW				
Other items				Rated air flow rate, outdoors			
Capacity control		variable				2700	m <sup>3</sup> /h
Sound power level, indoors/outdoors	L <sub>WA</sub>	40 / 60	dBA				
Annual energy consumption	Q <sub>HE</sub>	3656	kWh				
For heat pump combination heater:				Water heating energy efficiency			
Declared load profile		L		$\eta_{wh}$		161	%
Daily electricity consumption	Q <sub>elec</sub>	3.080	kWh/h				
Annual electricity consumption	AEC	678	kWh/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-SHW112YAA(-BS)
	Indoor unit:	ERST20C-***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	11.2	kW	Seasonal space heating energy efficiency	$\eta_s$	223	%
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>	11.2	kW	T <sub>j</sub> = + 2 °C	COP <sub>d</sub>	3.49	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.99	-				
T <sub>j</sub> = + 7 °C	P <sub>dh</sub>	7.2	kW	T <sub>j</sub> = + 7 °C	COP <sub>d</sub>	5.17	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.98	-				
T <sub>j</sub> = +12 °C	P <sub>dh</sub>	4.3	kW	T <sub>j</sub> = +12 °C	COP <sub>d</sub>	6.62	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.96	-				
T <sub>j</sub> = bivalent temperature	P <sub>dh</sub>	12.3	kW	T <sub>j</sub> = bivalent temperature	COP <sub>d</sub>	3.18	-
T <sub>j</sub> = operation limit temperature	P <sub>dh</sub>	9.0	kW	T <sub>j</sub> = operation limit temperature	COP <sub>d</sub>	1.40	-
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>	-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 <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			
Standby mode	P <sub>SB</sub>	0.022	kW				
Crankcase heater mode	P <sub>CK</sub>	0.000	kW				

Other items				Rated air flow rate, outdoors	-	2700	m <sup>3</sup> /h
Capacity control	variable						
Sound power level, indoors/outdoors	L <sub>WA</sub>	40 / 60	dBA				
Annual energy consumption	Q <sub>HE</sub>	3656	kWh				

For heat pump combination heater:				Water heating energy efficiency	$\eta_{wh}$	161	%
Declared load profile	L						
Daily electricity consumption	Q <sub>elec</sub>	3.080	kWh/h				
Annual electricity consumption	AEC	678	kWh/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-SHW112YAA(-BS)
	Indoor unit:	ERST20C-MEC
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	12.7	kW	Seasonal space heating energy efficiency	$\eta_s$	137	%
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>	11.2	kW	T <sub>j</sub> = - 7 °C	COP <sub>d</sub>	2.12	-
Degradation co-efficient (**)	C <sub>dh</sub>	1.00	-				
T <sub>j</sub> = + 2 °C	P <sub>dh</sub>	6.8	kW	T <sub>j</sub> = + 2 °C	COP <sub>d</sub>	3.34	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.99	-				
T <sub>j</sub> = + 7 °C	P <sub>dh</sub>	4.7	kW	T <sub>j</sub> = + 7 °C	COP <sub>d</sub>	4.79	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.98	-				
T <sub>j</sub> = +12 °C	P <sub>dh</sub>	5.3	kW	T <sub>j</sub> = +12 °C	COP <sub>d</sub>	6.12	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.98	-				
T <sub>j</sub> = bivalent temperature	P <sub>dh</sub>	11.2	kW	T <sub>j</sub> = bivalent temperature	COP <sub>d</sub>	2.12	-
T <sub>j</sub> = operation limit temperature	P <sub>dh</sub>	9.0	kW	T <sub>j</sub> = operation limit temperature	COP <sub>d</sub>	1.50	-
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>	-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 <sub>OFF</sub>	0.022	kW	Rated heat output (*)	P <sub>sup</sub>	1.8	kW
Thermostat-off mode	P <sub>TO</sub>	0.022	kW	Type of energy input			
Standby mode	P <sub>SB</sub>	0.022	kW				
Crankcase heater mode	P <sub>CK</sub>	0.000	kW				
Other items				Rated air flow rate, outdoors			
Capacity control		variable				2700	m <sup>3</sup> /h
Sound power level, indoors/outdoors	L <sub>WA</sub>	40 / 60	dBA				
Annual energy consumption	Q <sub>HE</sub>	7457	kWh				
For heat pump combination heater:				Water heating energy efficiency			
Declared load profile		L		$\eta_{wh}$		103	%
Daily electricity consumption	Q <sub>elec</sub>	4.760	kWh/h				
Annual electricity consumption	AEC	1048	kWh/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-SHW112YAA(-BS)
	Indoor unit:	ERST20C-MEC
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	13.9	kW	Seasonal space heating energy efficiency	$\eta_s$	173	%
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>	12.3	kW	T <sub>j</sub> = - 7 °C	COP <sub>d</sub>	3.15	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.99	-				
T <sub>j</sub> = + 2 °C	P <sub>dh</sub>	7.5	kW	T <sub>j</sub> = + 2 °C	COP <sub>d</sub>	4.12	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.99	-				
T <sub>j</sub> = + 7 °C	P <sub>dh</sub>	5.0	kW	T <sub>j</sub> = + 7 °C	COP <sub>d</sub>	5.56	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.97	-				
T <sub>j</sub> = +12 °C	P <sub>dh</sub>	5.6	kW	T <sub>j</sub> = +12 °C	COP <sub>d</sub>	7.45	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.97	-				
T <sub>j</sub> = bivalent temperature	P <sub>dh</sub>	12.3	kW	T <sub>j</sub> = bivalent temperature	COP <sub>d</sub>	3.18	-
T <sub>j</sub> = operation limit temperature	P <sub>dh</sub>	9.0	kW	T <sub>j</sub> = operation limit temperature	COP <sub>d</sub>	1.40	-
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>	-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 <sub>OFF</sub>	0.022	kW	Rated heat output (*)	P <sub>sup</sub>	2.1	kW
Thermostat-off mode	P <sub>TO</sub>	0.022	kW				
Standby mode	P <sub>SB</sub>	0.022	kW	Type of energy input			
Crankcase heater mode	P <sub>CK</sub>	0.000	kW				

Other items							
Capacity control	variable			Rated air flow rate, outdoors	-	2700	m <sup>3</sup> /h
Sound power level, indoors/outdoors	L <sub>WA</sub>	40 / 60	dBA				
Annual energy consumption	Q <sub>HE</sub>	6484	kWh				

For heat pump combination heater:							
Declared load profile	L			Water heating energy efficiency	$\eta_{wh}$	103	%
Daily electricity consumption	Q <sub>elec</sub>	4.760	kWh/h				
Annual electricity consumption	AEC	1048	kWh/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-SHW112YAA(-BS)
	Indoor unit:	ERST20C-MEC
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	10.7	kW	Seasonal space heating energy efficiency	$\eta_s$	124	%
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>	6.5	kW	T <sub>j</sub> = - 7 °C	COP <sub>d</sub>	2.98	-
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>	3.26	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.98	-				
T <sub>j</sub> = + 7 °C	P <sub>dh</sub>	3.5	kW	T <sub>j</sub> = + 7 °C	COP <sub>d</sub>	4.50	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.97	-				
T <sub>j</sub> = +12 °C	P <sub>dh</sub>	4.2	kW	T <sub>j</sub> = +12 °C	COP <sub>d</sub>	6.28	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.97	-				
T <sub>j</sub> = bivalent temperature	P <sub>dh</sub>	9.0	kW	T <sub>j</sub> = bivalent temperature	COP <sub>d</sub>	1.86	-
T <sub>j</sub> = operation limit temperature	P <sub>dh</sub>	9.0	kW	T <sub>j</sub> = operation limit temperature	COP <sub>d</sub>	1.40	-
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>	-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 <sub>OFF</sub>	0.022	kW	Rated heat output (*)	P <sub>sup</sub>	1.7	kW
Thermostat-off mode	P <sub>TO</sub>	0.022	kW				
Standby mode	P <sub>SB</sub>	0.022	kW	Type of energy input			
Crankcase heater mode	P <sub>CK</sub>	0.000	kW				
Other items				Rated air flow rate, outdoors			
Capacity control		variable				2700	m <sup>3</sup> /h
Sound power level, indoors/outdoors	L <sub>WA</sub>	40 / 60	dBA				
Annual energy consumption	Q <sub>HE</sub>	8216	kWh				

For heat pump combination heater:

Declared load profile		L		Water heating energy efficiency	$\eta_{wh}$	82	%
Daily electricity consumption	Q <sub>elec</sub>	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-SHW112YAA(-BS)
	Indoor unit:	ERST20C-MEC
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	13.9	kW	Seasonal space heating energy efficiency	$\eta_s$	166	%
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>	8.4	kW	T <sub>j</sub> = - 7 °C	COP <sub>d</sub>	4.22	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.99	-				
T <sub>j</sub> = + 2 °C	P <sub>dh</sub>	5.1	kW	T <sub>j</sub> = + 2 °C	COP <sub>d</sub>	4.35	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.98	-				
T <sub>j</sub> = + 7 °C	P <sub>dh</sub>	3.6	kW	T <sub>j</sub> = + 7 °C	COP <sub>d</sub>	5.38	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.97	-				
T <sub>j</sub> = +12 °C	P <sub>dh</sub>	4.3	kW	T <sub>j</sub> = +12 °C	COP <sub>d</sub>	7.00	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.96	-				
T <sub>j</sub> = bivalent temperature	P <sub>dh</sub>	11.7	kW	T <sub>j</sub> = bivalent temperature	COP <sub>d</sub>	2.62	-
T <sub>j</sub> = operation limit temperature	P <sub>dh</sub>	9.0	kW	T <sub>j</sub> = operation limit temperature	COP <sub>d</sub>	1.40	-
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>	-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 <sub>OFF</sub>	0.022	kW	Rated heat output (*)	P <sub>sup</sub>	3.6	kW
Thermostat-off mode	P <sub>TO</sub>	0.022	kW				
Standby mode	P <sub>SB</sub>	0.022	kW	Type of energy input			
Crankcase heater mode	P <sub>CK</sub>	0.000	kW				
Other items				Rated air flow rate, outdoors			
Capacity control		variable				2700	m <sup>3</sup> /h
Sound power level, indoors/outdoors	L <sub>WA</sub>	40 / 60	dBA				
Annual energy consumption	Q <sub>HE</sub>	7967	kWh				

For heat pump combination heater:

Declared load profile		L		Water heating energy efficiency	$\eta_{wh}$	82	%
Daily electricity consumption	Q <sub>elec</sub>	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-SHW112YAA(-BS)
	Indoor unit:	ERST20C-MEC
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	11.2	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>	11.2	kW	T <sub>j</sub> = + 2 °C	COP <sub>d</sub>	2.29	-
Degradation co-efficient (**)	C <sub>dh</sub>	1.00	-				
T <sub>j</sub> = + 7 °C	P <sub>dh</sub>	7.2	kW	T <sub>j</sub> = + 7 °C	COP <sub>d</sub>	3.41	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.99	-				
T <sub>j</sub> = +12 °C	P <sub>dh</sub>	4.1	kW	T <sub>j</sub> = +12 °C	COP <sub>d</sub>	5.32	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.97	-				
T <sub>j</sub> = bivalent temperature	P <sub>dh</sub>	11.2	kW	T <sub>j</sub> = bivalent temperature	COP <sub>d</sub>	1.97	-
T <sub>j</sub> = operation limit temperature	P <sub>dh</sub>	9.0	kW	T <sub>j</sub> = operation limit temperature	COP <sub>d</sub>	1.40	-
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>	-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 <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	Type of energy input			
Crankcase heater mode	P <sub>CK</sub>	0.000	kW				

Other items				Rated air flow rate, outdoors	-	2700	m <sup>3</sup> /h
Capacity control	variable						
Sound power level, indoors/outdoors	L <sub>WA</sub>	40 / 60	dBA				
Annual energy consumption	Q <sub>HE</sub>	3656	kWh				

For heat pump combination heater:				Water heating energy efficiency	$\eta_{wh}$	113	%
Declared load profile	L						
Daily electricity consumption	Q <sub>elec</sub>	4.370	kWh/h				
Annual electricity consumption	AEC	962	kWh/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-SHW112YAA(-BS)
	Indoor unit:	ERST20C-MEC
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	11.2	kW	Seasonal space heating energy efficiency	$\eta_s$	223	%
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>	11.2	kW	T <sub>j</sub> = + 2 °C	COP <sub>d</sub>	3.49	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.99	-				
T <sub>j</sub> = + 7 °C	P <sub>dh</sub>	7.2	kW	T <sub>j</sub> = + 7 °C	COP <sub>d</sub>	5.17	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.98	-				
T <sub>j</sub> = +12 °C	P <sub>dh</sub>	4.3	kW	T <sub>j</sub> = +12 °C	COP <sub>d</sub>	6.62	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.96	-				
T <sub>j</sub> = bivalent temperature	P <sub>dh</sub>	12.3	kW	T <sub>j</sub> = bivalent temperature	COP <sub>d</sub>	3.18	-
T <sub>j</sub> = operation limit temperature	P <sub>dh</sub>	9.0	kW	T <sub>j</sub> = operation limit temperature	COP <sub>d</sub>	1.40	-
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>	-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 <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	Type of energy input			
Crankcase heater mode	P <sub>CK</sub>	0.000	kW				

Other items				Rated air flow rate, outdoors	-	2700	m <sup>3</sup> /h
Capacity control	variable						
Sound power level, indoors/outdoors	L <sub>WA</sub>	40 / 60	dBA				
Annual energy consumption	Q <sub>HE</sub>	3656	kWh				

For heat pump combination heater:				Water heating energy efficiency	$\eta_{wh}$	113	%
Declared load profile	L						
Daily electricity consumption	Q <sub>elec</sub>	4.370	kWh/h				
Annual electricity consumption	AEC	962	kWh/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-SW75YAA-SC
	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	7.1	kW	Seasonal space heating energy efficiency	$\eta_s$	132	%
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>	6.3	kW	T <sub>j</sub> = - 7 °C	COP <sub>d</sub>	2.04	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.99	-				
T <sub>j</sub> = + 2 °C	P <sub>dh</sub>	3.8	kW	T <sub>j</sub> = + 2 °C	COP <sub>d</sub>	3.23	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.98	-				
T <sub>j</sub> = + 7 °C	P <sub>dh</sub>	2.9	kW	T <sub>j</sub> = + 7 °C	COP <sub>d</sub>	4.59	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.97	-				
T <sub>j</sub> = +12 °C	P <sub>dh</sub>	2.8	kW	T <sub>j</sub> = +12 °C	COP <sub>d</sub>	6.10	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.95	-				
T <sub>j</sub> = bivalent temperature	P <sub>dh</sub>	6.3	kW	T <sub>j</sub> = bivalent temperature	COP <sub>d</sub>	2.04	-
T <sub>j</sub> = operation limit temperature	P <sub>dh</sub>	5.6	kW	T <sub>j</sub> = operation limit temperature	COP <sub>d</sub>	1.37	-
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>	-7	°C	Operation limit temperature	TOL	-20	°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>	1.0	kW
Thermostat-off mode	P <sub>TO</sub>	0.022	kW	Type of energy input			
Standby mode	P <sub>SB</sub>	0.022	kW				
Crankcase heater mode	P <sub>CK</sub>	0.000	kW				

Other items				Rated air flow rate, outdoors	-	2660	m <sup>3</sup> /h
Capacity control	variable						
Sound power level, indoors/outdoors	L <sub>WA</sub>	41 / 58	dBA				
Annual energy consumption	Q <sub>HE</sub>	4329	kWh				

For heat pump combination heater:				Water heating energy efficiency	$\eta_{wh}$	145	%
Declared load profile	L						
Daily electricity consumption	Q <sub>elec</sub>	3.420	kWh/h				
Annual electricity consumption	AEC	752	kWh/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-SW75YAA-SC
	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	7.2	kW	Seasonal space heating energy efficiency	$\eta_s$	165	%
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>	6.4	kW	T <sub>j</sub> = - 7 °C	COP <sub>d</sub>	2.54	-
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>	4.16	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.98	-				
T <sub>j</sub> = + 7 °C	P <sub>dh</sub>	2.6	kW	T <sub>j</sub> = + 7 °C	COP <sub>d</sub>	5.62	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.95	-				
T <sub>j</sub> = +12 °C	P <sub>dh</sub>	3.1	kW	T <sub>j</sub> = +12 °C	COP <sub>d</sub>	7.00	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.94	-				
T <sub>j</sub> = bivalent temperature	P <sub>dh</sub>	6.4	kW	T <sub>j</sub> = bivalent temperature	COP <sub>d</sub>	2.43	-
T <sub>j</sub> = operation limit temperature	P <sub>dh</sub>	5.6	kW	T <sub>j</sub> = operation limit temperature	COP <sub>d</sub>	1.30	-
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>	-7	°C	Operation limit temperature	TOL	-20	°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>	1.0	kW
Thermostat-off mode	P <sub>TO</sub>	0.022	kW				
Standby mode	P <sub>SB</sub>	0.022	kW	Type of energy input			
Crankcase heater mode	P <sub>CK</sub>	0.000	kW				
Other items				Rated air flow rate, outdoors			
Capacity control		variable				2660	m <sup>3</sup> /h
Sound power level, indoors/outdoors	L <sub>WA</sub>	41 / 58	dBA				
Annual energy consumption	Q <sub>HE</sub>	3507	kWh				
For heat pump combination heater:				Water heating energy efficiency			
Declared load profile		L		$\eta_{wh}$		145	%
Daily electricity consumption	Q <sub>elec</sub>	3.420	kWh/h				
Annual electricity consumption	AEC	752	kWh/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-SW75YAA-SC
	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	6.0	kW	Seasonal space heating energy efficiency	$\eta_s$	109	%
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>	3.6	kW	T <sub>j</sub> = - 7 °C	COP <sub>d</sub>	2.37	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.99	-				
T <sub>j</sub> = + 2 °C	P <sub>dh</sub>	2.2	kW	T <sub>j</sub> = + 2 °C	COP <sub>d</sub>	3.24	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.97	-				
T <sub>j</sub> = + 7 °C	P <sub>dh</sub>	2.5	kW	T <sub>j</sub> = + 7 °C	COP <sub>d</sub>	4.70	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.96	-				
T <sub>j</sub> = +12 °C	P <sub>dh</sub>	3.0	kW	T <sub>j</sub> = +12 °C	COP <sub>d</sub>	6.74	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.95	-				
T <sub>j</sub> = bivalent temperature	P <sub>dh</sub>	5.7	kW	T <sub>j</sub> = bivalent temperature	COP <sub>d</sub>	1.30	-
T <sub>j</sub> = operation limit temperature	P <sub>dh</sub>	5.6	kW	T <sub>j</sub> = operation limit temperature	COP <sub>d</sub>	1.30	-
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>	-20	°C	Operation limit temperature	TOL	-20	°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>	6.0	kW
Thermostat-off mode	P <sub>TO</sub>	0.022	kW				
Standby mode	P <sub>SB</sub>	0.022	kW	Type of energy input			
Crankcase heater mode	P <sub>CK</sub>	0.000	kW				
Other items				Rated air flow rate, outdoors			
Capacity control		variable				2660	m <sup>3</sup> /h
Sound power level, indoors/outdoors	L <sub>WA</sub>	41 / 58	dBA				
Annual energy consumption	Q <sub>HE</sub>	5169	kWh				

For heat pump combination heater:

Declared load profile	L			Water heating energy efficiency	$\eta_{wh}$	123	%
Daily electricity consumption	Q <sub>elec</sub>	3.990	kW/h				
Annual electricity consumption	AEC	877	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-SW75YAA-SC
	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	6.0	kW	Seasonal space heating energy efficiency	$\eta_s$	132	%
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>	3.6	kW	T <sub>j</sub> = - 7 °C	COP <sub>d</sub>	2.85	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.98	-				
T <sub>j</sub> = + 2 °C	P <sub>dh</sub>	2.4	kW	T <sub>j</sub> = + 2 °C	COP <sub>d</sub>	4.14	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.96	-				
T <sub>j</sub> = + 7 °C	P <sub>dh</sub>	2.6	kW	T <sub>j</sub> = + 7 °C	COP <sub>d</sub>	5.82	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.95	-				
T <sub>j</sub> = +12 °C	P <sub>dh</sub>	3.1	kW	T <sub>j</sub> = +12 °C	COP <sub>d</sub>	7.81	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.94	-				
T <sub>j</sub> = bivalent temperature	P <sub>dh</sub>	5.7	kW	T <sub>j</sub> = bivalent temperature	COP <sub>d</sub>	1.56	-
T <sub>j</sub> = operation limit temperature	P <sub>dh</sub>	5.6	kW	T <sub>j</sub> = operation limit temperature	COP <sub>d</sub>	1.30	-
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>	-20	°C	Operation limit temperature	TOL	-20	°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>	6.0	kW
Thermostat-off mode	P <sub>TO</sub>	0.022	kW				
Standby mode	P <sub>SB</sub>	0.022	kW	Type of energy input			
Crankcase heater mode	P <sub>CK</sub>	0.000	kW				

Other items				Rated air flow rate, outdoors	-	2660	m <sup>3</sup> /h
Capacity control	variable						
Sound power level, indoors/outdoors	L <sub>WA</sub>	41 / 58	dBA				
Annual energy consumption	Q <sub>HE</sub>	4265	kWh				

For heat pump combination heater:				Water heating energy efficiency	$\eta_{wh}$	123	%
Declared load profile	L						
Daily electricity consumption	Q <sub>elec</sub>	3.990	kWh/h				
Annual electricity consumption	AEC	877	kWh/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-SW75YAA-SC
	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	7.1	kW	Seasonal space heating energy efficiency	$\eta_s$	158	%
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>	7.1	kW	T <sub>j</sub> = + 2 °C	COP <sub>d</sub>	1.98	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.99	-				
T <sub>j</sub> = + 7 °C	P <sub>dh</sub>	4.6	kW	T <sub>j</sub> = + 7 °C	COP <sub>d</sub>	3.19	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.98	-				
T <sub>j</sub> = +12 °C	P <sub>dh</sub>	2.9	kW	T <sub>j</sub> = +12 °C	COP <sub>d</sub>	5.70	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.95	-				
T <sub>j</sub> = bivalent temperature	P <sub>dh</sub>	6.3	kW	T <sub>j</sub> = bivalent temperature	COP <sub>d</sub>	1.94	-
T <sub>j</sub> = operation limit temperature	P <sub>dh</sub>	5.6	kW	T <sub>j</sub> = operation limit temperature	COP <sub>d</sub>	1.30	-
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>	-7	°C	Operation limit temperature	TOL	-20	°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	Type of energy input			
Crankcase heater mode	P <sub>CK</sub>	0.000	kW				
Other items				Rated air flow rate, outdoors			
Capacity control		variable				2660	m <sup>3</sup> /h
Sound power level, indoors/outdoors	L <sub>WA</sub>	41 / 58	dBA				
Annual energy consumption	Q <sub>HE</sub>	2358	kWh				

For heat pump combination heater:

Declared load profile		L		Water heating energy efficiency	$\eta_{wh}$	161	%
Daily electricity consumption	Q <sub>elec</sub>	3.080	kW/h				
Annual electricity consumption	AEC	678	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-SW75YAA-SC
	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	7.2	kW	Seasonal space heating energy efficiency	$\eta_s$	225	%
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>	7.2	kW	T <sub>j</sub> = + 2 °C	COP <sub>d</sub>	3.13	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.99	-				
T <sub>j</sub> = + 7 °C	P <sub>dh</sub>	4.6	kW	T <sub>j</sub> = + 7 °C	COP <sub>d</sub>	4.79	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.98	-				
T <sub>j</sub> = +12 °C	P <sub>dh</sub>	3.1	kW	T <sub>j</sub> = +12 °C	COP <sub>d</sub>	7.57	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.94	-				
T <sub>j</sub> = bivalent temperature	P <sub>dh</sub>	6.4	kW	T <sub>j</sub> = bivalent temperature	COP <sub>d</sub>	2.43	-
T <sub>j</sub> = operation limit temperature	P <sub>dh</sub>	5.6	kW	T <sub>j</sub> = operation limit temperature	COP <sub>d</sub>	1.30	-
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>	-7	°C	Operation limit temperature	TOL	-20	°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			
Standby mode	P <sub>SB</sub>	0.022	kW				
Crankcase heater mode	P <sub>CK</sub>	0.000	kW				

Other items				Rated air flow rate, outdoors	-	2660	m <sup>3</sup> /h
Capacity control	variable						
Sound power level, indoors/outdoors	L <sub>WA</sub>	41 / 58	dBA				
Annual energy consumption	Q <sub>HE</sub>	2358	kWh				

For heat pump combination heater:				Water heating energy efficiency	$\eta_{wh}$	161	%
Declared load profile	L						
Daily electricity consumption	Q <sub>elec</sub>	3.080	kWh/h				
Annual electricity consumption	AEC	678	kWh/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-SW75VHA(-BS)
	Indoor unit:	ERSC-***C
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:		no
Parameters for		medium-temperature application.
Parameters for		average climate conditions.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	7.1	kW	Seasonal space heating energy efficiency	$\eta_s$	129	%
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>	6.3	kW	T <sub>j</sub> = - 7 °C	COP <sub>d</sub>	1.95	-
Degradation co-efficient (**)	C <sub>dh</sub>	1.00	-				
T <sub>j</sub> = + 2 °C	P <sub>dh</sub>	3.8	kW	T <sub>j</sub> = + 2 °C	COP <sub>d</sub>	3.24	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.99	-				
T <sub>j</sub> = + 7 °C	P <sub>dh</sub>	3.7	kW	T <sub>j</sub> = + 7 °C	COP <sub>d</sub>	4.46	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.98	-				
T <sub>j</sub> = +12 °C	P <sub>dh</sub>	4.3	kW	T <sub>j</sub> = +12 °C	COP <sub>d</sub>	5.89	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.98	-				
T <sub>j</sub> = bivalent temperature	P <sub>dh</sub>	6.3	kW	T <sub>j</sub> = bivalent temperature	COP <sub>d</sub>	1.95	-
T <sub>j</sub> = operation limit temperature	P <sub>dh</sub>	6.0	kW	T <sub>j</sub> = operation limit temperature	COP <sub>d</sub>	1.35	-
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>	-7	°C	Operation limit temperature	TOL	-20	°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>	0.015	kW	Rated heat output (*)	P <sub>sup</sub>	0.9	kW
Thermostat-off mode	P <sub>TO</sub>	0.015	kW				
Standby mode	P <sub>SB</sub>	0.015	kW	Type of energy input			
Crankcase heater mode	P <sub>CK</sub>	0.000	kW				

Other items				Rated air flow rate, outdoors	-	3300	m <sup>3</sup> /h
Capacity control		variable					
Sound power level, indoors/outdoors	L <sub>WA</sub>	40 / 68	dB(A)				
Annual energy consumption	Q <sub>HE</sub>	4403	kWh				

For heat pump combination heater:				Water heating energy efficiency	$\eta_{wh}$	-	%
Declared load profile		-					
Daily electricity consumption	Q <sub>elec</sub>	-	kW/h				
Annual electricity consumption	AEC	-	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-SW75VHA(-BS)
	Indoor unit:	ERSC-***C
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:		no
Parameters for		low-temperature application.
Parameters for		average climate conditions.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	7.2	kW	Seasonal space heating energy efficiency	$\eta_s$	167	%
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>	6.4	kW	T <sub>j</sub> = - 7 °C	COP <sub>d</sub>	2.98	-
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>	4.04	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.99	-				
T <sub>j</sub> = + 7 °C	P <sub>dh</sub>	3.9	kW	T <sub>j</sub> = + 7 °C	COP <sub>d</sub>	5.55	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.99	-				
T <sub>j</sub> = +12 °C	P <sub>dh</sub>	4.6	kW	T <sub>j</sub> = +12 °C	COP <sub>d</sub>	7.50	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.99	-				
T <sub>j</sub> = bivalent temperature	P <sub>dh</sub>	6.4	kW	T <sub>j</sub> = bivalent temperature	COP <sub>d</sub>	2.98	-
T <sub>j</sub> = operation limit temperature	P <sub>dh</sub>	6.0	kW	T <sub>j</sub> = operation limit temperature	COP <sub>d</sub>	1.28	-
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>	-7	°C	Operation limit temperature	TOL	-20	°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>	0.015	kW	Rated heat output (*)	P <sub>sup</sub>	0.9	kW
Thermostat-off mode	P <sub>TO</sub>	0.015	kW				
Standby mode	P <sub>SB</sub>	0.015	kW	Type of energy input			
Crankcase heater mode	P <sub>CK</sub>	0.000	kW				

Other items			
Capacity control		variable	
Sound power level, indoors/outdoors	L <sub>WA</sub>	40 / 68	dB(A)
Annual energy consumption	Q <sub>HE</sub>	3449	kWh
Rated air flow rate, outdoors		3300	m <sup>3</sup> /h

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

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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 P<sub>designh</sub>, and the rated heat output of a supplementary heater P<sub>sup</sub> is equal to the supplementary capacity for heating sup(T<sub>j</sub>).

(\*\*) If C<sub>dh</sub> is not determined by measurement then the default degradation coefficient is C<sub>dh</sub> = 0,9.

Model(s):	Outdoor unit:	PUHZ-SW75VHA(-BS)
	Indoor unit:	ERSC-***C
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:		no
Parameters for		medium-temperature application.
Parameters for		colder climate conditions.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	6.3	kW	Seasonal space heating energy efficiency	$\eta_s$	101	%
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>	3.8	kW	T <sub>j</sub> = - 7 °C	COP <sub>d</sub>	2.22	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.99	-				
T <sub>j</sub> = + 2 °C	P <sub>dh</sub>	2.3	kW	T <sub>j</sub> = + 2 °C	COP <sub>d</sub>	2.93	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.99	-				
T <sub>j</sub> = + 7 °C	P <sub>dh</sub>	3.7	kW	T <sub>j</sub> = + 7 °C	COP <sub>d</sub>	4.32	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.99	-				
T <sub>j</sub> = +12 °C	P <sub>dh</sub>	4.4	kW	T <sub>j</sub> = +12 °C	COP <sub>d</sub>	6.23	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.99	-				
T <sub>j</sub> = bivalent temperature	P <sub>dh</sub>	6.0	kW	T <sub>j</sub> = bivalent temperature	COP <sub>d</sub>	1.28	-
T <sub>j</sub> = operation limit temperature	P <sub>dh</sub>	6.0	kW	T <sub>j</sub> = operation limit temperature	COP <sub>d</sub>	1.28	-
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>	-20	°C	Operation limit temperature	TOL	-20	°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>	0.015	kW	Rated heat output (*)	P <sub>sup</sub>	6.3	kW
Thermostat-off mode	P <sub>TO</sub>	0.015	kW				
Standby mode	P <sub>SB</sub>	0.015	kW	Type of energy input			
Crankcase heater mode	P <sub>CK</sub>	0.000	kW				

Other items				Rated air flow rate, outdoors	-	3300	m <sup>3</sup> /h
Capacity control		variable					
Sound power level, indoors/outdoors	L <sub>WA</sub>	40 / 68	dB(A)				
Annual energy consumption	Q <sub>HE</sub>	5967	kWh				

For heat pump combination heater:				Water heating energy efficiency	$\eta_{wh}$	-	%
Declared load profile		-					
Daily electricity consumption	Q <sub>elec</sub>	-	kW/h				
Annual electricity consumption	AEC	-	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-SW75VHA(-BS)
	Indoor unit:	ERSC-***C
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:		no
Parameters for		low-temperature application.
Parameters for		colder climate conditions.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	6.4	kW	Seasonal space heating energy efficiency	$\eta_s$	141	%
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>	3.9	kW	T <sub>j</sub> = - 7 °C	COP <sub>d</sub>	3.55	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.99	-				
T <sub>j</sub> = + 2 °C	P <sub>dh</sub>	2.4	kW	T <sub>j</sub> = + 2 °C	COP <sub>d</sub>	3.91	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.99	-				
T <sub>j</sub> = + 7 °C	P <sub>dh</sub>	3.9	kW	T <sub>j</sub> = + 7 °C	COP <sub>d</sub>	5.54	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.99	-				
T <sub>j</sub> = +12 °C	P <sub>dh</sub>	4.6	kW	T <sub>j</sub> = +12 °C	COP <sub>d</sub>	7.50	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.99	-				
T <sub>j</sub> = bivalent temperature	P <sub>dh</sub>	6.1	kW	T <sub>j</sub> = bivalent temperature	COP <sub>d</sub>	1.28	-
T <sub>j</sub> = operation limit temperature	P <sub>dh</sub>	6.1	kW	T <sub>j</sub> = operation limit temperature	COP <sub>d</sub>	1.28	-
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>	-20	°C	Operation limit temperature	TOL	-20	°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>	0.015	kW	Rated heat output (*)	P <sub>sup</sub>	6.4	kW
Thermostat-off mode	P <sub>TO</sub>	0.015	kW				
Standby mode	P <sub>SB</sub>	0.015	kW	Type of energy input			
Crankcase heater mode	P <sub>CK</sub>	0.000	kW				

Other items			
Capacity control		variable	
Sound power level, indoors/outdoors	L <sub>WA</sub>	40 / 68	dB(A)
Annual energy consumption	Q <sub>HE</sub>	4379	kWh
Rated air flow rate, outdoors		3300	m <sup>3</sup> /h

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

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(\*\*) If C<sub>dh</sub> is not determined by measurement then the default degradation coefficient is C<sub>dh</sub> = 0,9.



Model(s):	Outdoor unit:	PUHZ-SW75VHA(-BS)
	Indoor unit:	ERSC-***C
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:		no
Parameters for		medium-temperature application.
Parameters for		warmer climate conditions.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	7.1	kW	Seasonal space heating energy efficiency	$\eta_s$	155	%
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>	7.1	kW	T <sub>j</sub> = + 2 °C	COP <sub>d</sub>	1.99	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.99	-				
T <sub>j</sub> = + 7 °C	P <sub>dh</sub>	4.6	kW	T <sub>j</sub> = + 7 °C	COP <sub>d</sub>	3.20	-
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>	5.50	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.99	-				
T <sub>j</sub> = bivalent temperature	P <sub>dh</sub>	6.3	kW	T <sub>j</sub> = bivalent temperature	COP <sub>d</sub>	1.85	-
T <sub>j</sub> = operation limit temperature	P <sub>dh</sub>	6.0	kW	T <sub>j</sub> = operation limit temperature	COP <sub>d</sub>	1.28	-
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>	-7	°C	Operation limit temperature	TOL	-20	°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>	0.015	kW	Rated heat output (*)	P <sub>sup</sub>	0.0	kW
Thermostat-off mode	P <sub>TO</sub>	0.015	kW				
Standby mode	P <sub>SB</sub>	0.015	kW	Type of energy input			
Crankcase heater mode	P <sub>CK</sub>	0.000	kW				

Other items				Rated air flow rate, outdoors	-	3300	m <sup>3</sup> /h
Capacity control		variable					
Sound power level, indoors/outdoors	L <sub>WA</sub>	40 / 68	dB(A)				
Annual energy consumption	Q <sub>HE</sub>	2389	kWh				

For heat pump combination heater:				Water heating energy efficiency	$\eta_{wh}$	-	%
Declared load profile		-					
Daily electricity consumption	Q <sub>elec</sub>	-	kW/h				
Annual electricity consumption	AEC	-	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-SW75VHA(-BS)
	Indoor unit:	ERSC-***C
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:		no
Parameters for		low-temperature application.
Parameters for		warmer climate conditions.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	7.2	kW	Seasonal space heating energy efficiency	$\eta_s$	236	%
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>	7.2	kW	T <sub>j</sub> = + 2 °C	COP <sub>d</sub>	2.87	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.99	-				
T <sub>j</sub> = + 7 °C	P <sub>dh</sub>	4.7	kW	T <sub>j</sub> = + 7 °C	COP <sub>d</sub>	5.83	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.99	-				
T <sub>j</sub> = +12 °C	P <sub>dh</sub>	4.5	kW	T <sub>j</sub> = +12 °C	COP <sub>d</sub>	7.05	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.99	-				
T <sub>j</sub> = bivalent temperature	P <sub>dh</sub>	6.4	kW	T <sub>j</sub> = bivalent temperature	COP <sub>d</sub>	2.98	-
T <sub>j</sub> = operation limit temperature	P <sub>dh</sub>	6.0	kW	T <sub>j</sub> = operation limit temperature	COP <sub>d</sub>	1.28	-
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>	-7	°C	Operation limit temperature	TOL	-20	°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>	0.015	kW	Rated heat output (*)	P <sub>sup</sub>	0.0	kW
Thermostat-off mode	P <sub>TO</sub>	0.015	kW				
Standby mode	P <sub>SB</sub>	0.015	kW	Type of energy input			
Crankcase heater mode	P <sub>CK</sub>	0.000	kW				

Other items				Rated air flow rate, outdoors	-	3300	m <sup>3</sup> /h
Capacity control		variable					
Sound power level, indoors/outdoors	L <sub>WA</sub>	40 / 68	dB(A)				
Annual energy consumption	Q <sub>HE</sub>	2389	kWh				

For heat pump combination heater:				Water heating energy efficiency	$\eta_{wh}$	-	%
Declared load profile		-					
Daily electricity consumption	Q <sub>elec</sub>	-	kW/h				
Annual electricity consumption	AEC	-	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-SW75VHA(-BS)
	Indoor unit:	ERSC-MEC
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:		no
Parameters for		medium-temperature application.
Parameters for		average climate conditions.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	7.1	kW	Seasonal space heating energy efficiency	$\eta_s$	129	%
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>	6.3	kW	T <sub>j</sub> = - 7 °C	COP <sub>d</sub>	1.95	-
Degradation co-efficient (**)	C <sub>dh</sub>	1.00	-				
T <sub>j</sub> = + 2 °C	P <sub>dh</sub>	3.8	kW	T <sub>j</sub> = + 2 °C	COP <sub>d</sub>	3.24	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.99	-				
T <sub>j</sub> = + 7 °C	P <sub>dh</sub>	3.7	kW	T <sub>j</sub> = + 7 °C	COP <sub>d</sub>	4.46	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.98	-				
T <sub>j</sub> = +12 °C	P <sub>dh</sub>	4.3	kW	T <sub>j</sub> = +12 °C	COP <sub>d</sub>	5.89	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.98	-				
T <sub>j</sub> = bivalent temperature	P <sub>dh</sub>	6.3	kW	T <sub>j</sub> = bivalent temperature	COP <sub>d</sub>	1.95	-
T <sub>j</sub> = operation limit temperature	P <sub>dh</sub>	6.0	kW	T <sub>j</sub> = operation limit temperature	COP <sub>d</sub>	1.35	-
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>	-7	°C	Operation limit temperature	TOL	-20	°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>	0.015	kW	Rated heat output (*)	P <sub>sup</sub>	0.9	kW
Thermostat-off mode	P <sub>TO</sub>	0.015	kW				
Standby mode	P <sub>SB</sub>	0.015	kW	Type of energy input			
Crankcase heater mode	P <sub>CK</sub>	0.000	kW				

Other items				Rated air flow rate, outdoors	-	3300	m <sup>3</sup> /h
Capacity control		variable					
Sound power level, indoors/outdoors	L <sub>WA</sub>	40 / 68	dB(A)				
Annual energy consumption	Q <sub>HE</sub>	4403	kWh				

For heat pump combination heater:				Water heating energy efficiency	$\eta_{wh}$	-	%
Declared load profile		-					
Daily electricity consumption	Q <sub>elec</sub>	-	kW/h				
Annual electricity consumption	AEC	-	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-SW75VHA(-BS)
	Indoor unit:	ERSC-MEC
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:		no
Parameters for		low-temperature application.
Parameters for		average climate conditions.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	7.2	kW	Seasonal space heating energy efficiency	$\eta_s$	167	%
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>	6.4	kW	T <sub>j</sub> = - 7 °C	COP <sub>d</sub>	2.98	-
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>	4.04	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.99	-				
T <sub>j</sub> = + 7 °C	P <sub>dh</sub>	3.9	kW	T <sub>j</sub> = + 7 °C	COP <sub>d</sub>	5.55	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.99	-				
T <sub>j</sub> = +12 °C	P <sub>dh</sub>	4.6	kW	T <sub>j</sub> = +12 °C	COP <sub>d</sub>	7.50	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.99	-				
T <sub>j</sub> = bivalent temperature	P <sub>dh</sub>	6.4	kW	T <sub>j</sub> = bivalent temperature	COP <sub>d</sub>	2.98	-
T <sub>j</sub> = operation limit temperature	P <sub>dh</sub>	6.0	kW	T <sub>j</sub> = operation limit temperature	COP <sub>d</sub>	1.28	-
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>	-7	°C	Operation limit temperature	TOL	-20	°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>	0.015	kW	Rated heat output (*)	P <sub>sup</sub>	0.9	kW
Thermostat-off mode	P <sub>TO</sub>	0.015	kW				
Standby mode	P <sub>SB</sub>	0.015	kW	Type of energy input			
Crankcase heater mode	P <sub>CK</sub>	0.000	kW				

Other items				Rated air flow rate, outdoors	-	3300	m <sup>3</sup> /h
Capacity control		variable					
Sound power level, indoors/outdoors	L <sub>WA</sub>	40 / 68	dB(A)				
Annual energy consumption	Q <sub>HE</sub>	3449	kWh				

For heat pump combination heater:				Water heating energy efficiency	$\eta_{wh}$	-	%
Declared load profile		-					
Daily electricity consumption	Q <sub>elec</sub>	-	kW/h				
Annual electricity consumption	AEC	-	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-SW75VHA(-BS)
	Indoor unit:	ERSC-MEC
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:		no
Parameters for		medium-temperature application.
Parameters for		colder climate conditions.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	6.3	kW	Seasonal space heating energy efficiency	$\eta_s$	101	%
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>	3.8	kW	T <sub>j</sub> = - 7 °C	COP <sub>d</sub>	2.22	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.99	-				
T <sub>j</sub> = + 2 °C	P <sub>dh</sub>	2.3	kW	T <sub>j</sub> = + 2 °C	COP <sub>d</sub>	2.93	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.99	-				
T <sub>j</sub> = + 7 °C	P <sub>dh</sub>	3.7	kW	T <sub>j</sub> = + 7 °C	COP <sub>d</sub>	4.32	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.99	-				
T <sub>j</sub> = +12 °C	P <sub>dh</sub>	4.4	kW	T <sub>j</sub> = +12 °C	COP <sub>d</sub>	6.23	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.99	-				
T <sub>j</sub> = bivalent temperature	P <sub>dh</sub>	6.0	kW	T <sub>j</sub> = bivalent temperature	COP <sub>d</sub>	1.28	-
T <sub>j</sub> = operation limit temperature	P <sub>dh</sub>	6.0	kW	T <sub>j</sub> = operation limit temperature	COP <sub>d</sub>	1.28	-
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>	-20	°C	Operation limit temperature	TOL	-20	°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>	0.015	kW	Rated heat output (*)	P <sub>sup</sub>	6.3	kW
Thermostat-off mode	P <sub>TO</sub>	0.015	kW				
Standby mode	P <sub>SB</sub>	0.015	kW	Type of energy input			
Crankcase heater mode	P <sub>CK</sub>	0.000	kW				

Other items				Rated air flow rate, outdoors	-	3300	m <sup>3</sup> /h
Capacity control		variable					
Sound power level, indoors/outdoors	L <sub>WA</sub>	40 / 68	dB(A)				
Annual energy consumption	Q <sub>HE</sub>	5967	kWh				

For heat pump combination heater:				Water heating energy efficiency	$\eta_{wh}$	-	%
Declared load profile		-					
Daily electricity consumption	Q <sub>elec</sub>	-	kW/h				
Annual electricity consumption	AEC	-	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-SW75VHA(-BS)
	Indoor unit:	ERSC-MEC
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:		no
Parameters for		low-temperature application.
Parameters for		colder climate conditions.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	6.4	kW	Seasonal space heating energy efficiency	$\eta_s$	141	%
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>	3.9	kW	T <sub>j</sub> = - 7 °C	COP <sub>d</sub>	3.55	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.99	-				
T <sub>j</sub> = + 2 °C	P <sub>dh</sub>	2.4	kW	T <sub>j</sub> = + 2 °C	COP <sub>d</sub>	3.91	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.99	-				
T <sub>j</sub> = + 7 °C	P <sub>dh</sub>	3.9	kW	T <sub>j</sub> = + 7 °C	COP <sub>d</sub>	5.54	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.99	-				
T <sub>j</sub> = +12 °C	P <sub>dh</sub>	4.6	kW	T <sub>j</sub> = +12 °C	COP <sub>d</sub>	7.50	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.99	-				
T <sub>j</sub> = bivalent temperature	P <sub>dh</sub>	6.1	kW	T <sub>j</sub> = bivalent temperature	COP <sub>d</sub>	1.28	-
T <sub>j</sub> = operation limit temperature	P <sub>dh</sub>	6.1	kW	T <sub>j</sub> = operation limit temperature	COP <sub>d</sub>	1.28	-
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>	-20	°C	Operation limit temperature	TOL	-20	°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>	0.015	kW	Rated heat output (*)	P <sub>sup</sub>	6.4	kW
Thermostat-off mode	P <sub>TO</sub>	0.015	kW				
Standby mode	P <sub>SB</sub>	0.015	kW	Type of energy input			
Crankcase heater mode	P <sub>CK</sub>	0.000	kW				

Other items			
Capacity control		variable	
Sound power level, indoors/outdoors	L <sub>WA</sub>	40 / 68	dB(A)
Annual energy consumption	Q <sub>HE</sub>	4379	kWh
Rated air flow rate, outdoors		3300	m <sup>3</sup> /h

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

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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-SW75VHA(-BS)
	Indoor unit:	ERSC-MEC
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:		no
Parameters for		medium-temperature application.
Parameters for		warmer climate conditions.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	7.1	kW	Seasonal space heating energy efficiency	$\eta_s$	155	%
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>	7.1	kW	T <sub>j</sub> = + 2 °C	COP <sub>d</sub>	1.99	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.99	-				
T <sub>j</sub> = + 7 °C	P <sub>dh</sub>	4.6	kW	T <sub>j</sub> = + 7 °C	COP <sub>d</sub>	3.20	-
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>	5.50	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.99	-				
T <sub>j</sub> = bivalent temperature	P <sub>dh</sub>	6.3	kW	T <sub>j</sub> = bivalent temperature	COP <sub>d</sub>	1.85	-
T <sub>j</sub> = operation limit temperature	P <sub>dh</sub>	6.0	kW	T <sub>j</sub> = operation limit temperature	COP <sub>d</sub>	1.28	-
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>	-7	°C	Operation limit temperature	TOL	-20	°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>	0.015	kW	Rated heat output (*)	P <sub>sup</sub>	0.0	kW
Thermostat-off mode	P <sub>TO</sub>	0.015	kW				
Standby mode	P <sub>SB</sub>	0.015	kW	Type of energy input			
Crankcase heater mode	P <sub>CK</sub>	0.000	kW				

Other items				Rated air flow rate, outdoors			
Capacity control		variable		-	3300	m <sup>3</sup> /h	
Sound power level, indoors/outdoors	L <sub>WA</sub>	40 / 68	dB(A)				
Annual energy consumption	Q <sub>HE</sub>	2389	kWh				

For heat pump combination heater:							
Declared load profile		-		Water heating energy efficiency	$\eta_{wh}$	-	%
Daily electricity consumption	Q <sub>elec</sub>	-	kW/h				
Annual electricity consumption	AEC	-	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-SW75VHA(-BS)
	Indoor unit:	ERSC-MEC
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:		no
Parameters for		low-temperature application.
Parameters for		warmer climate conditions.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	7.2	kW	Seasonal space heating energy efficiency	$\eta_s$	236	%
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>	7.2	kW	T <sub>j</sub> = + 2 °C	COP <sub>d</sub>	2.87	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.99	-				
T <sub>j</sub> = + 7 °C	P <sub>dh</sub>	4.7	kW	T <sub>j</sub> = + 7 °C	COP <sub>d</sub>	5.83	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.99	-				
T <sub>j</sub> = +12 °C	P <sub>dh</sub>	4.5	kW	T <sub>j</sub> = +12 °C	COP <sub>d</sub>	7.05	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.99	-				
T <sub>j</sub> = bivalent temperature	P <sub>dh</sub>	6.4	kW	T <sub>j</sub> = bivalent temperature	COP <sub>d</sub>	2.98	-
T <sub>j</sub> = operation limit temperature	P <sub>dh</sub>	6.0	kW	T <sub>j</sub> = operation limit temperature	COP <sub>d</sub>	1.28	-
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>	-7	°C	Operation limit temperature	TOL	-20	°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>	0.015	kW	Rated heat output (*)	P <sub>sup</sub>	0.0	kW
Thermostat-off mode	P <sub>TO</sub>	0.015	kW				
Standby mode	P <sub>SB</sub>	0.015	kW	Type of energy input			
Crankcase heater mode	P <sub>CK</sub>	0.000	kW				

Other items				Rated air flow rate, outdoors	-	3300	m <sup>3</sup> /h
Capacity control		variable					
Sound power level, indoors/outdoors	L <sub>WA</sub>	40 / 68	dB(A)				
Annual energy consumption	Q <sub>HE</sub>	2389	kWh				

For heat pump combination heater:				Water heating energy efficiency	$\eta_{wh}$	-	%
Declared load profile		-					
Daily electricity consumption	Q <sub>elec</sub>	-	kW/h				
Annual electricity consumption	AEC	-	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-SW75VHA(-BS)
	Indoor unit:	ERSD-***C
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:		no
Parameters for		medium-temperature application.
Parameters for		average climate conditions.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	7.1	kW	Seasonal space heating energy efficiency	$\eta_s$	129	%
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>	6.3	kW	T <sub>j</sub> = - 7 °C	COP <sub>d</sub>	1.95	-
Degradation co-efficient (**)	C <sub>dh</sub>	1.00	-				
T <sub>j</sub> = + 2 °C	P <sub>dh</sub>	3.8	kW	T <sub>j</sub> = + 2 °C	COP <sub>d</sub>	3.24	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.99	-				
T <sub>j</sub> = + 7 °C	P <sub>dh</sub>	3.7	kW	T <sub>j</sub> = + 7 °C	COP <sub>d</sub>	4.46	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.98	-				
T <sub>j</sub> = +12 °C	P <sub>dh</sub>	4.3	kW	T <sub>j</sub> = +12 °C	COP <sub>d</sub>	5.89	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.98	-				
T <sub>j</sub> = bivalent temperature	P <sub>dh</sub>	6.3	kW	T <sub>j</sub> = bivalent temperature	COP <sub>d</sub>	1.95	-
T <sub>j</sub> = operation limit temperature	P <sub>dh</sub>	6.0	kW	T <sub>j</sub> = operation limit temperature	COP <sub>d</sub>	1.35	-
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>	-7	°C	Operation limit temperature	TOL	-20	°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>	0.015	kW	Rated heat output (*)	P <sub>sup</sub>	0.9	kW
Thermostat-off mode	P <sub>TO</sub>	0.015	kW				
Standby mode	P <sub>SB</sub>	0.015	kW	Type of energy input			
Crankcase heater mode	P <sub>CK</sub>	0.000	kW				

Other items				Rated air flow rate, outdoors	-	3300	m <sup>3</sup> /h
Capacity control		variable					
Sound power level, indoors/outdoors	L <sub>WA</sub>	40 / 68	dB(A)				
Annual energy consumption	Q <sub>HE</sub>	4403	kWh				

For heat pump combination heater:				Water heating energy efficiency	$\eta_{wh}$	-	%
Declared load profile		-					
Daily electricity consumption	Q <sub>elec</sub>	-	kW/h				
Annual electricity consumption	AEC	-	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-SW75VHA(-BS)
	Indoor unit:	ERSD-***C
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:		no
Parameters for		low-temperature application.
Parameters for		average climate conditions.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	7.2	kW	Seasonal space heating energy efficiency	$\eta_s$	167	%
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>	6.4	kW	T <sub>j</sub> = - 7 °C	COP <sub>d</sub>	2.98	-
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>	4.04	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.99	-				
T <sub>j</sub> = + 7 °C	P <sub>dh</sub>	3.9	kW	T <sub>j</sub> = + 7 °C	COP <sub>d</sub>	5.55	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.99	-				
T <sub>j</sub> = +12 °C	P <sub>dh</sub>	4.6	kW	T <sub>j</sub> = +12 °C	COP <sub>d</sub>	7.50	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.99	-				
T <sub>j</sub> = bivalent temperature	P <sub>dh</sub>	6.4	kW	T <sub>j</sub> = bivalent temperature	COP <sub>d</sub>	2.98	-
T <sub>j</sub> = operation limit temperature	P <sub>dh</sub>	6.0	kW	T <sub>j</sub> = operation limit temperature	COP <sub>d</sub>	1.28	-
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>	-7	°C	Operation limit temperature	TOL	-20	°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>	0.015	kW	Rated heat output (*)	P <sub>sup</sub>	0.9	kW
Thermostat-off mode	P <sub>TO</sub>	0.015	kW				
Standby mode	P <sub>SB</sub>	0.015	kW	Type of energy input			
Crankcase heater mode	P <sub>CK</sub>	0.000	kW				

Other items				Rated air flow rate, outdoors	-	3300	m <sup>3</sup> /h
Capacity control		variable					
Sound power level, indoors/outdoors	L <sub>WA</sub>	40 / 68	dB(A)				
Annual energy consumption	Q <sub>HE</sub>	3449	kWh				

For heat pump combination heater:				Water heating energy efficiency	$\eta_{wh}$	-	%
Declared load profile		-					
Daily electricity consumption	Q <sub>elec</sub>	-	kW/h				
Annual electricity consumption	AEC	-	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-SW75VHA(-BS)
	Indoor unit:	ERSD-***C
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:		no
Parameters for		medium-temperature application.
Parameters for		colder climate conditions.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	6.3	kW	Seasonal space heating energy efficiency	$\eta_s$	101	%
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>	3.8	kW	T <sub>j</sub> = - 7 °C	COP <sub>d</sub>	2.22	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.99	-				
T <sub>j</sub> = + 2 °C	P <sub>dh</sub>	2.3	kW	T <sub>j</sub> = + 2 °C	COP <sub>d</sub>	2.93	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.99	-				
T <sub>j</sub> = + 7 °C	P <sub>dh</sub>	3.7	kW	T <sub>j</sub> = + 7 °C	COP <sub>d</sub>	4.32	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.99	-				
T <sub>j</sub> = +12 °C	P <sub>dh</sub>	4.4	kW	T <sub>j</sub> = +12 °C	COP <sub>d</sub>	6.23	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.99	-				
T <sub>j</sub> = bivalent temperature	P <sub>dh</sub>	6.0	kW	T <sub>j</sub> = bivalent temperature	COP <sub>d</sub>	1.28	-
T <sub>j</sub> = operation limit temperature	P <sub>dh</sub>	6.0	kW	T <sub>j</sub> = operation limit temperature	COP <sub>d</sub>	1.28	-
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>	-20	°C	Operation limit temperature	TOL	-20	°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>	0.015	kW	Rated heat output (*)	P <sub>sup</sub>	6.3	kW
Thermostat-off mode	P <sub>TO</sub>	0.015	kW				
Standby mode	P <sub>SB</sub>	0.015	kW	Type of energy input			
Crankcase heater mode	P <sub>CK</sub>	0.000	kW				

Other items				Rated air flow rate, outdoors	-	3300	m <sup>3</sup> /h
Capacity control		variable					
Sound power level, indoors/outdoors	L <sub>WA</sub>	40 / 68	dB(A)				
Annual energy consumption	Q <sub>HE</sub>	5967	kWh				

For heat pump combination heater:				Water heating energy efficiency	$\eta_{wh}$	-	%
Declared load profile		-					
Daily electricity consumption	Q <sub>elec</sub>	-	kW/h				
Annual electricity consumption	AEC	-	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 P<sub>designh</sub>, and the rated heat output of a supplementary heater P<sub>sup</sub> is equal to the supplementary capacity for heating sup(T<sub>j</sub>).

(\*\*) If C<sub>dh</sub> is not determined by measurement then the default degradation coefficient is C<sub>dh</sub> = 0,9.

Model(s):	Outdoor unit:	PUHZ-SW75VHA(-BS)
	Indoor unit:	ERSD-***C
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:		no
Parameters for		low-temperature application.
Parameters for		colder climate conditions.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	6.4	kW	Seasonal space heating energy efficiency	$\eta_s$	141	%
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>	3.9	kW	T <sub>j</sub> = - 7 °C	COP <sub>d</sub>	3.55	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.99	-				
T <sub>j</sub> = + 2 °C	P <sub>dh</sub>	2.4	kW	T <sub>j</sub> = + 2 °C	COP <sub>d</sub>	3.91	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.99	-				
T <sub>j</sub> = + 7 °C	P <sub>dh</sub>	3.9	kW	T <sub>j</sub> = + 7 °C	COP <sub>d</sub>	5.54	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.99	-				
T <sub>j</sub> = +12 °C	P <sub>dh</sub>	4.6	kW	T <sub>j</sub> = +12 °C	COP <sub>d</sub>	7.50	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.99	-				
T <sub>j</sub> = bivalent temperature	P <sub>dh</sub>	6.1	kW	T <sub>j</sub> = bivalent temperature	COP <sub>d</sub>	1.28	-
T <sub>j</sub> = operation limit temperature	P <sub>dh</sub>	6.1	kW	T <sub>j</sub> = operation limit temperature	COP <sub>d</sub>	1.28	-
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>	-20	°C	Operation limit temperature	TOL	-20	°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>	0.015	kW	Rated heat output (*)	P <sub>sup</sub>	6.4	kW
Thermostat-off mode	P <sub>TO</sub>	0.015	kW				
Standby mode	P <sub>SB</sub>	0.015	kW	Type of energy input			
Crankcase heater mode	P <sub>CK</sub>	0.000	kW				

Other items			
Capacity control		variable	
Sound power level, indoors/outdoors	L <sub>WA</sub>	40 / 68	dB(A)
Annual energy consumption	Q <sub>HE</sub>	4379	kWh
Rated air flow rate, outdoors		3300	m <sup>3</sup> /h

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

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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 P<sub>designh</sub>, and the rated heat output of a supplementary heater P<sub>sup</sub> is equal to the supplementary capacity for heating sup(T<sub>j</sub>).

(\*\*) If C<sub>dh</sub> is not determined by measurement then the default degradation coefficient is C<sub>dh</sub> = 0,9.

Model(s):	Outdoor unit:	PUHZ-SW75VHA(-BS)
	Indoor unit:	ERSD-***C
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:		no
Parameters for		medium-temperature application.
Parameters for		warmer climate conditions.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	7.1	kW	Seasonal space heating energy efficiency	$\eta_s$	155	%
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>	7.1	kW	T <sub>j</sub> = + 2 °C	COP <sub>d</sub>	1.99	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.99	-				
T <sub>j</sub> = + 7 °C	P <sub>dh</sub>	4.6	kW	T <sub>j</sub> = + 7 °C	COP <sub>d</sub>	3.20	-
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>	5.50	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.99	-				
T <sub>j</sub> = bivalent temperature	P <sub>dh</sub>	6.3	kW	T <sub>j</sub> = bivalent temperature	COP <sub>d</sub>	1.85	-
T <sub>j</sub> = operation limit temperature	P <sub>dh</sub>	6.0	kW	T <sub>j</sub> = operation limit temperature	COP <sub>d</sub>	1.28	-
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>	-7	°C	Operation limit temperature	TOL	-20	°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>	0.015	kW	Rated heat output (*)	P <sub>sup</sub>	0.0	kW
Thermostat-off mode	P <sub>TO</sub>	0.015	kW				
Standby mode	P <sub>SB</sub>	0.015	kW	Type of energy input			
Crankcase heater mode	P <sub>CK</sub>	0.000	kW				

Other items				Rated air flow rate, outdoors			
Capacity control		variable		-	3300	m <sup>3</sup> /h	
Sound power level, indoors/outdoors	L <sub>WA</sub>	40 / 68	dB(A)				
Annual energy consumption	Q <sub>HE</sub>	2389	kWh				

For heat pump combination heater:							
Declared load profile		-		Water heating energy efficiency	$\eta_{wh}$	-	%
Daily electricity consumption	Q <sub>elec</sub>	-	kW/h				
Annual electricity consumption	AEC	-	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-SW75VHA(-BS)
	Indoor unit:	ERSD-***C
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:		no
Parameters for		low-temperature application.
Parameters for		warmer climate conditions.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	7.2	kW	Seasonal space heating energy efficiency	$\eta_s$	236	%
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>	7.2	kW	T <sub>j</sub> = + 2 °C	COP <sub>d</sub>	2.87	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.99	-				
T <sub>j</sub> = + 7 °C	P <sub>dh</sub>	4.7	kW	T <sub>j</sub> = + 7 °C	COP <sub>d</sub>	5.83	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.99	-				
T <sub>j</sub> = +12 °C	P <sub>dh</sub>	4.5	kW	T <sub>j</sub> = +12 °C	COP <sub>d</sub>	7.05	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.99	-				
T <sub>j</sub> = bivalent temperature	P <sub>dh</sub>	6.4	kW	T <sub>j</sub> = bivalent temperature	COP <sub>d</sub>	2.98	-
T <sub>j</sub> = operation limit temperature	P <sub>dh</sub>	6.0	kW	T <sub>j</sub> = operation limit temperature	COP <sub>d</sub>	1.28	-
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>	-7	°C	Operation limit temperature	TOL	-20	°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>	0.015	kW	Rated heat output (*)	P <sub>sup</sub>	0.0	kW
Thermostat-off mode	P <sub>TO</sub>	0.015	kW				
Standby mode	P <sub>SB</sub>	0.015	kW	Type of energy input			
Crankcase heater mode	P <sub>CK</sub>	0.000	kW				

Other items				Rated air flow rate, outdoors	-	3300	m <sup>3</sup> /h
Capacity control		variable					
Sound power level, indoors/outdoors	L <sub>WA</sub>	40 / 68	dB(A)				
Annual energy consumption	Q <sub>HE</sub>	2389	kWh				

For heat pump combination heater:				Water heating energy efficiency	$\eta_{wh}$	-	%
Declared load profile		-					
Daily electricity consumption	Q <sub>elec</sub>	-	kW/h				
Annual electricity consumption	AEC	-	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.