



# ENERG

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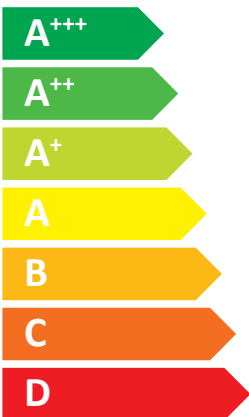
Indoor unit  
Outdoor unit

E\*SC-\*\*D  
PUHZ-SHW112YAA(-BS)



55 °C

35 °C



**A++**

**A++**



**40** dB



**60** dB

■ 11  
■ **13**  
■ 11  
kW

■ 14  
■ **14**  
■ 11  
kW



2019

811/2013

BH79V004H38

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

Table with columns for product models (e.g., PUHZ-SW75VAA, PUHZ-SW100VAA) and rows for various performance metrics (e.g., Rated heat output, Energy consumption, Sound power level) under different conditions (indoor/outdoor, heating/cooling). The table is organized into sections for medium-temperature and low-temperature applications.

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
Ulkokotkko	Yhtäkuulijedoka	Унітє інтєрнє	jednostka zewnętrzna	Εξωτερική μονάδα
Indoor unit	Innengerät	unit intérieure	unità interna	unidad interior
2 binnenunit	Innengerät	Innenansicht	unità interiore	Εσωτερική μονάδα
Sisäyksyksikö	Uhlmijedotkka	Вътрєшно тєло	jednostka wewnętrzna	Εσωτερική μονάδα
Mediintemperatuurtoepassing	Middeltemperatuurtoepassing	Использование в умеренной температуре	la aplicación a media temperatura	la aplicación de media temperatura
3 keskilämpötilan sovellus	Middeltemperatuurtoepassing	Использование в умеренной температуре	la aplicación a media temperatura	η εφαρμογή σε μέτρια θερμοκρασία
Low-temperature application	Niedertemperaturanwendung	Использование в низкой температуре	la aplicación a baja temperatura	η εφαρμογή σε χαμηλή θερμοκρασία
4 laagtemperatuurtoepassing	Niedertemperaturanwendung	Использование в низкой температуре	la aplicación a baja temperatura	η εφαρμογή σε χαμηλή θερμοκρασία
5 de seizoensgebonden energie-efficiëntieklassen voor ruimteverwarming	de seizoensgebonden energie-efficiëntieklassen voor ruimteverwarming	Классы для сезонных энергоэффективных систем отопления	la classe de efficacité énergétique saisonnière	la classe de eficiencia energética estacional de calefacción
6 de energie-efficiëntieklassen voor warmteverwarming	de energie-efficiëntieklassen voor warmteverwarming	Классы для сезонных энергоэффективных систем отопления	la classe de efficacité énergétique saisonnière	η τάξη ενεργειακής απόδοσης εποχιακής θέρμανσης
7 de energie-efficiëntieklassen voor warmteverwarming	de energie-efficiëntieklassen voor warmteverwarming	Классы для сезонных энергоэффективных систем отопления	la classe de efficacité énergétique saisonnière	η τάξη ενεργειακής απόδοσης εποχιακής θέρμανσης
8 voor ruimteverwarming, het jaarlijkse energieverbruik (onder gemiddelde klimaatomstandigheden)	voor ruimteverwarming, het jaarlijkse energieverbruik (onder gemiddelde klimaatomstandigheden)	for programming of the average energy consumption (under average climate conditions)	para o aquecimento ambiente, o consumo anual de energia (em condições climáticas médias)	για τη θέρμανση χώρου, η ετήσια κατανάλωση ενέργειας (υπό μέτριας κλιματικής συνθήκης)
9 voor warmteverwarming, het jaarlijkse elektriciteitsverbruik (onder gemiddelde klimaatomstandigheden)	voor warmteverwarming, het jaarlijkse elektriciteitsverbruik (onder gemiddelde klimaatomstandigheden)	for programming of the average electricity consumption (under average climate conditions)	para o aquecimento de água, o consumo anual de electricidade (em condições climáticas médias)	για την θέρμανση ύδατος, η ετήσια κατανάλωση ηλεκτρικής ενέργειας (υπό μέτριας κλιματικής συνθήκης)
10 de seizoensgebonden energie-efficiëntie voor ruimteverwarming (onder gemiddelde klimaatomstandigheden)	de seizoensgebonden energie-efficiëntie voor ruimteverwarming (onder gemiddelde klimaatomstandigheden)	сезонная энергия эффективна при отоплении (при средних климатич. условиях)	la eficiencia energética de calefacción en condiciones climáticas medias)	η ενεργειακή απόδοση θέρμανσης σε εποχιακές κλιματικές συνθήκες
11 de energie-efficiëntie van warmteverwarming (onder gemiddelde klimaatomstandigheden)	de energie-efficiëntie van warmteverwarming (onder gemiddelde klimaatomstandigheden)	сезонная энергия эффективна при отоплении (при средних климатич. условиях)	la eficiencia energética de calefacción en condiciones climáticas medias)	η ενεργειακή απόδοση θέρμανσης σε εποχιακές κλιματικές συνθήκες
12 het gebruiksvolume van binnen	het gebruiksvolume van binnen	нагрузка на систему	la potencia calorífica nominal en condiciones climáticas medias	η ονομαστική θερμική ισχύς υπό τυπικές κλιματικές συνθήκες
13 de nominale vermogen van de buiten	de nominale vermogen van de buiten	нагрузка на систему	la potencia calorífica nominal en condiciones climáticas medias	η ονομαστική θερμική ισχύς υπό τυπικές κλιματικές συνθήκες
14 de nominale vermogen van de binnen	de nominale vermogen van de binnen	нагрузка на систему	la potencia calorífica nominal en condiciones climáticas medias	η ονομαστική θερμική ισχύς υπό τυπικές κλιματικές συνθήκες
15 de nominale vermogen van de binnen	de nominale vermogen van de binnen	нагрузка на систему	la potencia calorífica nominal en condiciones climáticas medias	η ονομαστική θερμική ισχύς υπό τυπικές κλιματικές συνθήκες
16 voor ruimteverwarming, het jaarlijkse energieverbruik (onder gemiddelde klimaatomstandigheden)	voor ruimteverwarming, het jaarlijkse energieverbruik (onder gemiddelde klimaatomstandigheden)	for programming of the average energy consumption (under average climate conditions)	para o aquecimento ambiente, o consumo anual de energia (em condições climáticas médias)	για θέρμανση χώρου, η ετήσια κατανάλωση ενέργειας (υπό μέτριας κλιματικής συνθήκης)
17 voor warmteverwarming, het jaarlijkse elektriciteitsverbruik (onder gemiddelde klimaatomstandigheden)	voor warmteverwarming, het jaarlijkse elektriciteitsverbruik (onder gemiddelde klimaatomstandigheden)	for programming of the average electricity consumption (under average climate conditions)	para o aquecimento de água, o consumo anual de electricidade (em condições climáticas médias)	για θέρμανση ύδατος, η ετήσια κατανάλωση ηλεκτρικής ενέργειας (υπό μέτριας κλιματικής συνθήκης)
18 voor warmteverwarming, het jaarlijkse elektriciteitsverbruik (onder gemiddelde klimaatomstandigheden)	voor warmteverwarming, het jaarlijkse elektriciteitsverbruik (onder gemiddelde klimaatomstandigheden)	for programming of the average electricity consumption (under average climate conditions)	para o aquecimento de água, o consumo anual de electricidade (em condições climáticas médias)	για θέρμανση ύδατος, η ετήσια κατανάλωση ηλεκτρικής ενέργειας (υπό μέτριας κλιματικής συνθήκης)
19 voor warmteverwarming, het jaarlijkse elektriciteitsverbruik (onder gemiddelde klimaatomstandigheden)	voor warmteverwarming, het jaarlijkse elektriciteitsverbruik (onder gemiddelde klimaatomstandigheden)	for programming of the average electricity consumption (under average climate conditions)	para o aquecimento de água, o consumo anual de electricidade (em condições climáticas médias)	για θέρμανση ύδατος, η ετήσια κατανάλωση ηλεκτρικής ενέργειας (υπό μέτριας κλιματικής συνθήκης)
20 de seizoensgebonden energie-efficiëntie voor ruimteverwarming (onder gemiddelde klimaatomstandigheden)	de seizoensgebonden energie-efficiëntie voor ruimteverwarming (onder gemiddelde klimaatomstandigheden)	сезонная энергия эффективна при отоплении (при средних климатич. условиях)	la eficiencia energética estacional de calefacción en condiciones climáticas medias	η ενεργειακή απόδοση θέρμανσης σε εποχιακές κλιματικές συνθήκες
21 de energie-efficiëntie van warmteverwarming (onder gemiddelde klimaatomstandigheden)	de energie-efficiëntie van warmteverwarming (onder gemiddelde klimaatomstandigheden)	сезонная энергия эффективна при отоплении (при средних климатич. условиях)	la eficiencia energética de calefacción en condiciones climáticas medias	η ενεργειακή απόδοση θέρμανσης σε εποχιακές κλιματικές συνθήκες
22 de energie-efficiëntie van warmteverwarming (onder gemiddelde klimaatomstandigheden)	de energie-efficiëntie van warmteverwarming (onder gemiddelde klimaatomstandigheden)	сезонная энергия эффективна при отоплении (при средних климатич. условиях)	la eficiencia energética de calefacción en condiciones climáticas medias	η ενεργειακή απόδοση θέρμανσης σε εποχιακές κλιματικές συνθήκες
23 de energie-efficiëntie van warmteverwarming (onder gemiddelde klimaatomstandigheden)	de energie-efficiëntie van warmteverwarming (onder gemiddelde klimaatomstandigheden)	сезонная энергия эффективна при отоплении (при средних климатич. условиях)	la eficiencia energética de calefacción en condiciones climáticas medias	η ενεργειακή απόδοση θέρμανσης σε εποχιακές κλιματικές συνθήκες
24 de energie-efficiëntie van warmteverwarming (onder gemiddelde klimaatomstandigheden)	de energie-efficiëntie van warmteverwarming (onder gemiddelde klimaatomstandigheden)	сезонная энергия эффективна при отоплении (при средних климатич. условиях)	la eficiencia energética de calefacción en condiciones climáticas medias	η ενεργειακή απόδοση θέρμανσης σε εποχιακές κλιματικές συνθήκες

Model(s):	Outdoor unit:	PUHZ-SHW112YAA(-BS)
	Indoor unit:	EHSC-***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:		no
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		-		$\eta_{wh}$		-	%
Daily electricity consumption	Q <sub>elec</sub>	-	kWh/h				
Annual electricity consumption	AEC	-	kWh/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:	EHSC-***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:		no
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			
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		-		Water heating energy efficiency	$\eta_{wh}$	-	%
Daily electricity consumption	Q <sub>elec</sub>	-	kWh/h				
Annual electricity consumption	AEC	-	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:	EHSC-***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:		no
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:				Water heating energy efficiency			
Declared load profile		-		$\eta_{wh}$		-	%
Daily electricity consumption	Q <sub>elec</sub>	-	kWh/h				
Annual electricity consumption	AEC	-	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:	EHSC-***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:		no
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		-		Water heating energy efficiency	$\eta_{wh}$	-	%
Daily electricity consumption	Q <sub>elec</sub>	-	kWh/h				
Annual electricity consumption	AEC	-	kWh/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:	EHSC-***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:		no
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	$\eta_{wh}$	-	%
Declared load profile	-						
Daily electricity consumption	Q <sub>elec</sub>	-	kWh/h				
Annual electricity consumption	AEC	-	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:	EHSC-***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:		no
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				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		-			$\eta_{wh}$	-	%
Daily electricity consumption	Q <sub>elec</sub>	-	kWh/h				
Annual electricity consumption	AEC	-	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:	EHSC-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:		no
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:				Water heating energy efficiency			
Declared load profile		-			$\eta_{wh}$	-	%
Daily electricity consumption	Q <sub>elec</sub>	-	kWh/h				
Annual electricity consumption	AEC	-	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:	EHSC-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:		no
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			
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		-		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-SHW112YAA(-BS)
	Indoor unit:	EHSC-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:		no
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:				Water heating energy efficiency			
Declared load profile		-			$\eta_{wh}$	-	%
Daily electricity consumption	Q <sub>elec</sub>	-	kWh/h				
Annual electricity consumption	AEC	-	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:	EHSC-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:		no
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		-		Water heating energy efficiency	$\eta_{wh}$	-	%
Daily electricity consumption	Q <sub>elec</sub>	-	kWh				
Annual electricity consumption	AEC	-	kWh				

Contact details

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

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

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

Model(s):	Outdoor unit:	PUHZ-SHW112YAA(-BS)
	Indoor unit:	EHSC-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:		no
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				
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		-		$\eta_{wh}$		-	%
Daily electricity consumption	Q <sub>elec</sub>	-	kWh/h				
Annual electricity consumption	AEC	-	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:	EHSC-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:		no
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			
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:

Declared load profile		-		Water heating energy efficiency	$\eta_{wh}$	-	%
Daily electricity consumption	Q <sub>elec</sub>	-	kWh/h				
Annual electricity consumption	AEC	-	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:	ERSC-***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:		no
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:

Declared load profile		-		Water heating energy efficiency	$\eta_{wh}$	-	%
Daily electricity consumption	Q <sub>elec</sub>	-	kWh/h				
Annual electricity consumption	AEC	-	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:	ERSC-***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:		no
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		-		Water heating energy efficiency	$\eta_{wh}$	-	%
Daily electricity consumption	Q <sub>elec</sub>	-	kWh				
Annual electricity consumption	AEC	-	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:	ERSC-***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:		no
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	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:				Water heating energy efficiency			
Declared load profile		-			$\eta_{wh}$	-	%
Daily electricity consumption	Q <sub>elec</sub>	-	kWh/h				
Annual electricity consumption	AEC	-	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:	ERSC-***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:		no
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	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:				Water heating energy efficiency			
Declared load profile		-		$\eta_{wh}$		-	%
Daily electricity consumption	Q <sub>elec</sub>	-	kWh				
Annual electricity consumption	AEC	-	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:	ERSC-***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:		no
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		-			$\eta_{wh}$	-	%
Daily electricity consumption	Q <sub>elec</sub>	-	kWh/h				
Annual electricity consumption	AEC	-	kWh/h				

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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:	ERSC-***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:		no
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			
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:

Declared load profile		-		Water heating energy efficiency	$\eta_{wh}$	-	%
Daily electricity consumption	Q <sub>elec</sub>	-	kWh				
Annual electricity consumption	AEC	-	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:	ERSC-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:		no
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		-			$\eta_{wh}$	-	%
Daily electricity consumption	Q <sub>elec</sub>	-	kWh/h				
Annual electricity consumption	AEC	-	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:	ERSC-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:		no
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		-		Water heating energy efficiency	$\eta_{wh}$	-	%
Daily electricity consumption	Q <sub>elec</sub>	-	kWh/h				
Annual electricity consumption	AEC	-	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:	ERSC-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:		no
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	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:				Water heating energy efficiency			
Declared load profile		-			$\eta_{wh}$	-	%
Daily electricity consumption	Q <sub>elec</sub>	-	kWh/h				
Annual electricity consumption	AEC	-	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:	ERSC-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:		no
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		-		Water heating energy efficiency	$\eta_{wh}$	-	%
Daily electricity consumption	Q <sub>elec</sub>	-	kWh/h				
Annual electricity consumption	AEC	-	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:	ERSC-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:		no
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:

Declared load profile		-		Water heating energy efficiency	$\eta_{wh}$	-	%
Daily electricity consumption	Q <sub>elec</sub>	-	kWh/h				
Annual electricity consumption	AEC	-	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:	ERSC-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:		no
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			
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:

Declared load profile		-		Water heating energy efficiency	$\eta_{wh}$	-	%
Daily electricity consumption	Q <sub>elec</sub>	-	kWh				
Annual electricity consumption	AEC	-	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-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				
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>	4329	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-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							
Capacity control	variable			Rated air flow rate, outdoors	-	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:							
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-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	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				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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(\*) 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		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			
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>	4265	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-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	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-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			
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	kWh/h				
Annual electricity consumption	AEC	678	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-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			
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
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-***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:	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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(\*) 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		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-***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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(\*) 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		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			
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:				Water heating energy efficiency			
Declared load profile		-		$\eta_{wh}$	-	%	
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>	-	kW/h
Annual electricity consumption	AEC	-	kW/h
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	-	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.

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			
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
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:	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				

#### 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-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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(\*\*) 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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(\*\*) 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		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>	-	kW/h
Annual electricity consumption	AEC	-	kW/h
Water heating energy efficiency	$\eta_{wh}$	-	%

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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		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 Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = - 7 °C	Pdh	-	kW	Tj = - 7 °C	COPd	-	-
Degradation co-efficient (**)	Cdh	-	-				
Tj = + 2 °C	Pdh	7.1	kW	Tj = + 2 °C	COPd	1.99	-
Degradation co-efficient (**)	Cdh	0.99	-				
Tj = + 7 °C	Pdh	4.6	kW	Tj = + 7 °C	COPd	3.20	-
Degradation co-efficient (**)	Cdh	0.99	-				
Tj = +12 °C	Pdh	4.2	kW	Tj = +12 °C	COPd	5.50	-
Degradation co-efficient (**)	Cdh	0.99	-				
Tj = bivalent temperature	Pdh	6.3	kW	Tj = bivalent temperature	COPd	1.85	-
Tj = operation limit temperature	Pdh	6.0	kW	Tj = operation limit temperature	COPd	1.28	-
Tj = - 15 °C (if TOL < - 20 °C)	Pdh	-	kW	Tj = - 15 °C (if TOL < - 20 °C)	COPd	-	-
Bivalent temperature	Tbiv	-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			
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
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 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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(\*\*) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.