

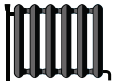


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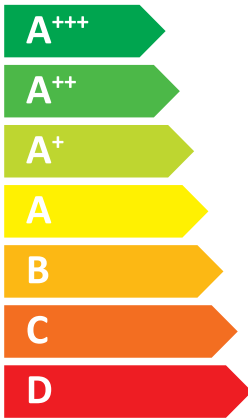


Indoor unit E\*SD-\*\*\*\*D  
Outdoor unit PUD-SHWM120VAA(-BS)



55 °C

35 °C



A++

A+++

**41** dB

**60** dB

■ 12	■ 12
■ <b>12</b>	■ <b>12</b>
■ 12	■ 12
kW	kW

2019

811/2013

BH79V004H08

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

Table with columns for Outdoor unit, Indoor unit, and various energy efficiency metrics (A++ to A) for medium-temperature and low-temperature applications. The table is organized into multiple sections based on product lines like PUD-SHWM00, PUD-SHWM01, etc.

English	Deutsch	Français	Italiano	Espanol
Nederlands	Svenska	Polski	Português	Ελληνικά
suomi	Čeština	Български	Polski	Ελληνικά
Outdoor unit	Außengerät	Unité extérieure	Unita esterna	Unitat exterior
1 buiteneenheid	Uitendørs enhed	Uitendørs enhed	Unitate exterieur	Εξωτερική μονάδα
Ulkokäyttöyksikkö	Vätkovni jednotka	Външно тяло	jednotka zvenění	Unitat exterior
Indoor unit	Innengerät	Unité intérieure	Unita interna	Unitat interior
2 binnenunit	Innenventilator	Innenventilator	Unitate interior	Εσωτερική μονάδα
Sisäyksyksikkö	Vätkovni jednotka	Вътрешно тяло	jednotka vnitřní	Εσωτερική μονάδα
Mediun-temperatuur applicatie	Middeltemperatuurtoepassing	Использование в умеренной температуре	La aplicación a media temperatura	Η εφαρμογή σε μέτρια θερμοκρασία
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
maatalonlämpötilan sovellus	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 de chauffage	Η τάξη ενεργειακής αποδοτικότητας εποχιακών συστημάτων θέρμανσης
6 de energie-efficiëntieklassen voor waterverwarming	de energie-efficiëntieklassen voor waterverwarming	Классы для энергоэффективных систем горячего водоснабжения	La classe de efficacité énergétique de chauffage de l'eau	Η τάξη ενεργειακής αποδοτικότητας συστημάτων θέρμανσης νερού
7 de energie-efficiëntieklassen voor waterverwarming	de energie-efficiëntieklassen voor waterverwarming	Классы для энергоэффективных систем горячего водоснабжения	La classe de efficacité énergétique de chauffage de l'eau	Η τάξη ενεργειακής αποδοτικότητας συστημάτων θέρμανσης νερού
8 voor ruimteverwarming, het jaarse gemiddelde klimaatomstandigheden	voor ruimteverwarming, het jaarse gemiddelde klimaatomstandigheden	voor ruimteverwarming, het jaarse gemiddelde klimaatomstandigheden	voor ruimteverwarming, het jaarse gemiddelde klimaatomstandigheden	για θέρμανση χώρων, η ετήσια κατανομή των ετήσιων κλιματικών συνθηκών
9 voor waterverwarming, het jaarse gemiddelde klimaatomstandigheden	voor waterverwarming, het jaarse gemiddelde klimaatomstandigheden	voor waterverwarming, het jaarse gemiddelde klimaatomstandigheden	voor waterverwarming, het jaarse gemiddelde klimaatomstandigheden	για θέρμανση νερού, η ετήσια κατανομή των ετήσιων κλιματικών συνθηκών
10 de seizoensgebonden energie-efficiëntie voor ruimteverwarming(onder gemiddelde klimaatomstandigheden)	de seizoensgebonden energie-efficiëntie voor ruimteverwarming(onder gemiddelde klimaatomstandigheden)	de seizoensgebonden energie-efficiëntie voor ruimteverwarming(onder gemiddelde klimaatomstandigheden)	de seizoensgebonden energie-efficiëntie voor ruimteverwarming(onder gemiddelde klimaatomstandigheden)	η ενεργειακή αποδοτικότητα εποχιακών συστημάτων θέρμανσης χώρων (στη μέση κλιματική κατάσταση)
11 de energie-efficiëntie van waterverwarming(onder gemiddelde klimaatomstandigheden)	de energie-efficiëntie van waterverwarming(onder gemiddelde klimaatomstandigheden)	de energie-efficiëntie van waterverwarming(onder gemiddelde klimaatomstandigheden)	de energie-efficiëntie van waterverwarming(onder gemiddelde klimaatomstandigheden)	η ενεργειακή αποδοτικότητα συστημάτων θέρμανσης νερού (στη μέση κλιματική κατάσταση)
12 het gebruiksvolume van binnen	het gebruiksvolume van binnen	нагрузка на внутреннюю установку	la carga de uso interior	η ετήσια χωρητικότητα εσωτερικών χώρων
13 de maximale vermogen bij kalere klimaatomstandigheden	de maximale vermogen bij kalere klimaatomstandigheden	максимальная мощность при более холодных условиях	la potencia máxima nominal en condiciones climáticas más frías	η ονομαστική θερμική ισχύς υπό χειρότερες κλιματικές συνθήκες
14 de nominale vermogen bij warmere klimaatomstandigheden	de nominale vermogen bij warmere klimaatomstandigheden	номинальная мощность при более теплых условиях	la potencia máxima nominal en condiciones climáticas más cálidas	η ονομαστική θερμική ισχύς υπό καλύτερες κλιματικές συνθήκες
15 de maximale vermogen bij warmere klimaatomstandigheden	de maximale vermogen bij warmere klimaatomstandigheden	номинальная мощность при более теплых условиях	la potencia máxima nominal en condiciones climáticas más cálidas	η ονομαστική θερμική ισχύς υπό καλύτερες κλιματικές συνθήκες
16 voor ruimteverwarming, het jaarse gemiddelde klimaatomstandigheden	voor ruimteverwarming, het jaarse gemiddelde klimaatomstandigheden	voor ruimteverwarming, het jaarse gemiddelde klimaatomstandigheden	voor ruimteverwarming, het jaarse gemiddelde klimaatomstandigheden	για θέρμανση χώρων, η ετήσια κατανομή των ετήσιων κλιματικών συνθηκών
17 voor waterverwarming, het jaarse gemiddelde klimaatomstandigheden	voor waterverwarming, het jaarse gemiddelde klimaatomstandigheden	voor waterverwarming, het jaarse gemiddelde klimaatomstandigheden	voor waterverwarming, het jaarse gemiddelde klimaatomstandigheden	για θέρμανση νερού, η ετήσια κατανομή των ετήσιων κλιματικών συνθηκών
18 voor waterverwarming, het jaarse gemiddelde klimaatomstandigheden	voor waterverwarming, het jaarse gemiddelde klimaatomstandigheden	voor waterverwarming, het jaarse gemiddelde klimaatomstandigheden	voor waterverwarming, het jaarse gemiddelde klimaatomstandigheden	για θέρμανση νερού, η ετήσια κατανομή των ετήσιων κλιματικών συνθηκών
19 voor waterverwarming, het jaarse gemiddelde klimaatomstandigheden	voor waterverwarming, het jaarse gemiddelde klimaatomstandigheden	voor waterverwarming, het jaarse gemiddelde klimaatomstandigheden	voor waterverwarming, het jaarse gemiddelde klimaatomstandigheden	για θέρμανση νερού, η ετήσια κατανομή των ετήσιων κλιματικών συνθηκών
20 de seizoensgebonden energie-efficiëntie voor ruimteverwarming(onder koude klimaatomstandigheden)	de seizoensgebonden energie-efficiëntie voor ruimteverwarming(onder koude klimaatomstandigheden)	de seizoensgebonden energie-efficiëntie voor ruimteverwarming(onder koude klimaatomstandigheden)	de seizoensgebonden energie-efficiëntie voor ruimteverwarming(onder koude klimaatomstandigheden)	η ενεργειακή αποδοτικότητα εποχιακών συστημάτων θέρμανσης χώρων (στη κρύα κλιματική κατάσταση)
21 de seizoensgebonden energie-efficiëntie voor ruimteverwarming(onder warme klimaatomstandigheden)	de seizoensgebonden energie-efficiëntie voor ruimteverwarming(onder warme klimaatomstandigheden)	de seizoensgebonden energie-efficiëntie voor ruimteverwarming(onder warme klimaatomstandigheden)	de seizoensgebonden energie-efficiëntie voor ruimteverwarming(onder warme klimaatomstandigheden)	η ενεργειακή αποδοτικότητα εποχιακών συστημάτων θέρμανσης χώρων (στη ζεστή κλιματική κατάσταση)
22 de energie-efficiëntie van waterverwarming(onder koude klimaatomstandigheden)	de energie-efficiëntie van waterverwarming(onder koude klimaatomstandigheden)	de energie-efficiëntie van waterverwarming(onder koude klimaatomstandigheden)	de energie-efficiëntie van waterverwarming(onder koude klimaatomstandigheden)	η ενεργειακή αποδοτικότητα συστημάτων θέρμανσης νερού (στη κρύα κλιματική κατάσταση)
23 de energie-efficiëntie van waterverwarming(onder warme klimaatomstandigheden)	de energie-efficiëntie van waterverwarming(onder warme klimaatomstandigheden)	de energie-efficiëntie van waterverwarming(onder warme klimaatomstandigheden)	de energie-efficiëntie van waterverwarming(onder warme klimaatomstandigheden)	η ενεργειακή αποδοτικότητα συστημάτων θέρμανσης νερού (στη ζεστή κλιματική κατάσταση)
24 de gebruiksvolume van binnen	het gebruiksvolume van binnen	нагрузка на внутреннюю установку	la carga de uso interior	η ετήσια χωρητικότητα εσωτερικών χώρων

Model(s):	Outdoor unit:	PUD-SHWM120VAA
	Indoor unit:	EHSD-****
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 shall be declared for		medium-temperature application.
Parameters shall be declared for		average climate conditions.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	12.0	kW	Seasonal space heating energy efficiency	$\eta_s$	135	%
Declared capacity for heating for part load at indoor <input type="checkbox"/> 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>	10.6	kW	T <sub>j</sub> = - 7 °C	COP <sub>d</sub>	2.14	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.99	-				
T <sub>j</sub> = + 2 °C	P <sub>dh</sub>	6.5	kW	T <sub>j</sub> = + 2 °C	COP <sub>d</sub>	3.25	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.99	-				
T <sub>j</sub> = + 7 °C	P <sub>dh</sub>	5.3	kW	T <sub>j</sub> = + 7 °C	COP <sub>d</sub>	4.82	-
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>	6.94	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.97	-				
T <sub>j</sub> = bivalent temperature	P <sub>dh</sub>	12.0	kW	T <sub>j</sub> = bivalent temperature	COP <sub>d</sub>	1.87	-
T <sub>j</sub> = operation limit temperature	P <sub>dh</sub>	9.2	kW	T <sub>j</sub> = operation limit temperature	COP <sub>d</sub>	1.56	-
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>	-10	°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>	0.015	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	Electrical		
Crankcase heater mode	P <sub>CK</sub>	0.000	kW				

Other items				Rated air flow rate, outdoors			
Capacity control	variable			-	2640	m <sup>3</sup> /h	
Sound power level, indoors/outdoors	L <sub>WA</sub>	41/60	dB(A)				
Annual energy consumption	Q <sub>HE</sub>	7068	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				

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:	PUD-SHWM120VAA
	Indoor unit:	EHSD-****
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 shall be declared for		low-temperature application.
Parameters shall be declared for		average climate conditions.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	12.0	kW	Seasonal space heating energy efficiency	$\eta_s$	179	%
Declared capacity for heating for part load at indoor <input type="checkbox"/> 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>	10.6	kW	T <sub>j</sub> = - 7 °C	COP <sub>d</sub>	2.85	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.99	-				
T <sub>j</sub> = + 2 °C	P <sub>dh</sub>	6.5	kW	T <sub>j</sub> = + 2 °C	COP <sub>d</sub>	4.51	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.99	-				
T <sub>j</sub> = + 7 °C	P <sub>dh</sub>	5.6	kW	T <sub>j</sub> = + 7 °C	COP <sub>d</sub>	5.89	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.98	-				
T <sub>j</sub> = +12 °C	P <sub>dh</sub>	4.4	kW	T <sub>j</sub> = +12 °C	COP <sub>d</sub>	8.00	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.97	-				
T <sub>j</sub> = bivalent temperature	P <sub>dh</sub>	12.0	kW	T <sub>j</sub> = bivalent temperature	COP <sub>d</sub>	2.77	-
T <sub>j</sub> = operation limit temperature	P <sub>dh</sub>	9.2	kW	T <sub>j</sub> = operation limit temperature	COP <sub>d</sub>	1.56	-
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>	-10	°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>	0.015	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	Electrical		
Crankcase heater mode	P <sub>CK</sub>	0.000	kW				

Other items				Rated air flow rate, outdoors			
Capacity control	variable			-	2640	m <sup>3</sup> /h	
Sound power level, indoors/outdoors	L <sub>WA</sub>	41/60	dB(A)				
Annual energy consumption	Q <sub>HE</sub>	5354	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:	PUD-SHWM120VAA
	Indoor unit:	EHSD-****
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 shall be declared for		medium-temperature application.
Parameters shall be declared for		colder climate conditions.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	12.0	kW	Seasonal space heating energy efficiency	$\eta_s$	115	%
Declared capacity for heating for part load at indoor <input type="checkbox"/> 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>	7.3	kW	T <sub>j</sub> = - 7 °C	COP <sub>d</sub>	2.56	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.99	-				
T <sub>j</sub> = + 2 °C	P <sub>dh</sub>	4.4	kW	T <sub>j</sub> = + 2 °C	COP <sub>d</sub>	3.19	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.98	-				
T <sub>j</sub> = + 7 °C	P <sub>dh</sub>	3.8	kW	T <sub>j</sub> = + 7 °C	COP <sub>d</sub>	4.58	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.98	-				
T <sub>j</sub> = +12 °C	P <sub>dh</sub>	4.4	kW	T <sub>j</sub> = +12 °C	COP <sub>d</sub>	6.88	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.97	-				
T <sub>j</sub> = bivalent temperature	P <sub>dh</sub>	10.1	kW	T <sub>j</sub> = bivalent temperature	COP <sub>d</sub>	1.52	-
T <sub>j</sub> = operation limit temperature	P <sub>dh</sub>	9.2	kW	T <sub>j</sub> = operation limit temperature	COP <sub>d</sub>	1.56	-
T <sub>j</sub> = - 15 °C (if TOL < - 20 °C)	P <sub>dh</sub>	10.2	kW	T <sub>j</sub> = - 15 °C (if TOL < - 20 °C)	COP <sub>d</sub>	1.52	-
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>	0.015	kW	Rated heat output (*)	P <sub>sup</sub>	2.4	kW
Thermostat-off mode	P <sub>TO</sub>	0.015	kW				
Standby mode	P <sub>SB</sub>	0.015	kW	Type of energy input	Electrical		
Crankcase heater mode	P <sub>CK</sub>	0.000	kW				

Other items				Rated air flow rate, outdoors			
Capacity control	variable			-	2640	m <sup>3</sup> /h	
Sound power level, indoors/outdoors	L <sub>WA</sub>	41/60	dB(A)				
Annual energy consumption	Q <sub>HE</sub>	9563	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:	PUD-SHWM120VAA
	Indoor unit:	EHSD-****
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 shall be declared for		low-temperature application.
Parameters shall be declared for		colder climate conditions.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	12.0	kW	Seasonal space heating energy efficiency	$\eta_s$	149	%
Declared capacity for heating for part load at indoor <input type="checkbox"/> 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>	7.3	kW	T <sub>j</sub> = - 7 °C	COP <sub>d</sub>	3.67	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.99	-				
T <sub>j</sub> = + 2 °C	P <sub>dh</sub>	4.5	kW	T <sub>j</sub> = + 2 °C	COP <sub>d</sub>	4.02	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.98	-				
T <sub>j</sub> = + 7 °C	P <sub>dh</sub>	3.9	kW	T <sub>j</sub> = + 7 °C	COP <sub>d</sub>	5.34	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.97	-				
T <sub>j</sub> = +12 °C	P <sub>dh</sub>	5.5	kW	T <sub>j</sub> = +12 °C	COP <sub>d</sub>	7.43	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.98	-				
T <sub>j</sub> = bivalent temperature	P <sub>dh</sub>	10.1	kW	T <sub>j</sub> = bivalent temperature	COP <sub>d</sub>	2.10	-
T <sub>j</sub> = operation limit temperature	P <sub>dh</sub>	9.2	kW	T <sub>j</sub> = operation limit temperature	COP <sub>d</sub>	1.56	-
T <sub>j</sub> = - 15 °C (if TOL < - 20 °C)	P <sub>dh</sub>	10.2	kW	T <sub>j</sub> = - 15 °C (if TOL < - 20 °C)	COP <sub>d</sub>	2.15	-
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>	0.015	kW	Rated heat output (*)	P <sub>sup</sub>	2.4	kW
Thermostat-off mode	P <sub>TO</sub>	0.015	kW				
Standby mode	P <sub>SB</sub>	0.015	kW	Type of energy input	Electrical		
Crankcase heater mode	P <sub>CK</sub>	0.000	kW				

Other items				Rated air flow rate, outdoors			
Capacity control	variable			-	2640	m <sup>3</sup> /h	
Sound power level, indoors/outdoors	L <sub>WA</sub>	41/60	dB(A)				
Annual energy consumption	Q <sub>HE</sub>	7333	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				

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:	PUD-SHWM120VAA
	Indoor unit:	EHSD-****
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 shall be declared for		medium-temperature application.
Parameters shall be declared for		warmer climate conditions.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	12.0	kW	Seasonal space heating energy efficiency	$\eta_s$	159	%
Declared capacity for heating for part load at indoor <input type="checkbox"/> 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>	12	kW	T <sub>j</sub> = + 2 °C	COP <sub>d</sub>	2.03	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.99	-				
T <sub>j</sub> = + 7 °C	P <sub>dh</sub>	7.7	kW	T <sub>j</sub> = + 7 °C	COP <sub>d</sub>	3.35	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.99	-				
T <sub>j</sub> = +12 °C	P <sub>dh</sub>	5.2	kW	T <sub>j</sub> = +12 °C	COP <sub>d</sub>	5.59	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.98	-				
T <sub>j</sub> = bivalent temperature	P <sub>dh</sub>	1.0	kW	T <sub>j</sub> = bivalent temperature	COP <sub>d</sub>	0.96	-
T <sub>j</sub> = operation limit temperature	P <sub>dh</sub>	9.2	kW	T <sub>j</sub> = operation limit temperature	COP <sub>d</sub>	1.56	-
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>	0.015	kW	Rated heat output (*)	P <sub>sup</sub>	5.0	kW
Thermostat-off mode	P <sub>TO</sub>	0.015	kW				
Standby mode	P <sub>SB</sub>	0.015	kW	Type of energy input	Electrical		
Crankcase heater mode	P <sub>CK</sub>	0.000	kW				

Other items				Rated air flow rate, outdoors	-	2640	m <sup>3</sup> /h
Capacity control	variable						
Sound power level, indoors/outdoors	L <sub>WA</sub>	41/60	dB(A)				
Annual energy consumption	Q <sub>HE</sub>	3901	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:	PUD-SHWM120VAA
	Indoor unit:	EHSD-****
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 shall be declared for		low-temperature application.
Parameters shall be declared for		warmer climate conditions.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	12.0	kW	Seasonal space heating energy efficiency	$\eta_s$	231	%
Declared capacity for heating for part load at indoor <input type="checkbox"/> 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>	12	kW	T <sub>j</sub> = + 2 °C	COP <sub>d</sub>	3.30	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.99	-				
T <sub>j</sub> = + 7 °C	P <sub>dh</sub>	7.7	kW	T <sub>j</sub> = + 7 °C	COP <sub>d</sub>	5.17	-
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>	7.46	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.97	-				
T <sub>j</sub> = bivalent temperature	P <sub>dh</sub>	1.0	kW	T <sub>j</sub> = bivalent temperature	COP <sub>d</sub>	1.00	-
T <sub>j</sub> = operation limit temperature	P <sub>dh</sub>	9.2	kW	T <sub>j</sub> = operation limit temperature	COP <sub>d</sub>	1.56	-
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>	0.015	kW	Rated heat output (*)	P <sub>sup</sub>	5.0	kW
Thermostat-off mode	P <sub>TO</sub>	0.015	kW				
Standby mode	P <sub>SB</sub>	0.015	kW	Type of energy input	Electrical		
Crankcase heater mode	P <sub>CK</sub>	0.000	kW				

Other items			
Capacity control		variable	
Sound power level, indoors/outdoors	L <sub>WA</sub>	41/60	dB(A)
Annual energy consumption	Q <sub>HE</sub>	2688	kWh
Rated air flow rate, outdoors		2640	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:	PUD-SHWM120VAA
	Indoor unit:	ERSD-****
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 shall be declared for		medium-temperature application.
Parameters shall be declared for		average climate conditions.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	12.0	kW	Seasonal space heating energy efficiency	$\eta_s$	135	%
Declared capacity for heating for part load at indoor <input type="checkbox"/> 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>	10.6	kW	T <sub>j</sub> = - 7 °C	COP <sub>d</sub>	2.14	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.99	-				
T <sub>j</sub> = + 2 °C	P <sub>dh</sub>	6.5	kW	T <sub>j</sub> = + 2 °C	COP <sub>d</sub>	3.25	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.99	-				
T <sub>j</sub> = + 7 °C	P <sub>dh</sub>	5.3	kW	T <sub>j</sub> = + 7 °C	COP <sub>d</sub>	4.82	-
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>	6.94	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.97	-				
T <sub>j</sub> = bivalent temperature	P <sub>dh</sub>	12.0	kW	T <sub>j</sub> = bivalent temperature	COP <sub>d</sub>	1.87	-
T <sub>j</sub> = operation limit temperature	P <sub>dh</sub>	9.2	kW	T <sub>j</sub> = operation limit temperature	COP <sub>d</sub>	1.56	-
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>	-10	°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>	0.015	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	Electrical		
Crankcase heater mode	P <sub>CK</sub>	0.000	kW				

Other items				Rated air flow rate, outdoors			
Capacity control	variable			-	2640	m <sup>3</sup> /h	
Sound power level, indoors/outdoors	L <sub>WA</sub>	41/60	dB(A)				
Annual energy consumption	Q <sub>HE</sub>	7068	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:	PUD-SHWM120VAA
	Indoor unit:	ERSD-****
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 shall be declared for		low-temperature application.
Parameters shall be declared for		average climate conditions.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	12.0	kW	Seasonal space heating energy efficiency	$\eta_s$	179	%
Declared capacity for heating for part load at indoor <input type="checkbox"/> 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>	10.6	kW	T <sub>j</sub> = - 7 °C	COP <sub>d</sub>	2.85	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.99	-				
T <sub>j</sub> = + 2 °C	P <sub>dh</sub>	6.5	kW	T <sub>j</sub> = + 2 °C	COP <sub>d</sub>	4.51	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.99	-				
T <sub>j</sub> = + 7 °C	P <sub>dh</sub>	5.6	kW	T <sub>j</sub> = + 7 °C	COP <sub>d</sub>	5.89	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.98	-				
T <sub>j</sub> = +12 °C	P <sub>dh</sub>	4.4	kW	T <sub>j</sub> = +12 °C	COP <sub>d</sub>	8.00	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.97	-				
T <sub>j</sub> = bivalent temperature	P <sub>dh</sub>	12.0	kW	T <sub>j</sub> = bivalent temperature	COP <sub>d</sub>	2.77	-
T <sub>j</sub> = operation limit temperature	P <sub>dh</sub>	9.2	kW	T <sub>j</sub> = operation limit temperature	COP <sub>d</sub>	1.56	-
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>	-10	°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>	0.015	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	Electrical		
Crankcase heater mode	P <sub>CK</sub>	0.000	kW				

Other items				Rated air flow rate, outdoors			
Capacity control	variable			-	2640	m <sup>3</sup> /h	
Sound power level, indoors/outdoors	L <sub>WA</sub>	41/60	dB(A)				
Annual energy consumption	Q <sub>HE</sub>	5354	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:	PUD-SHWM120VAA
	Indoor unit:	ERSD-****
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 shall be declared for		medium-temperature application.
Parameters shall be declared for		colder climate conditions.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	12.0	kW	Seasonal space heating energy efficiency	$\eta_s$	115	%
Declared capacity for heating for part load at indoor <input type="checkbox"/> 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>	7.3	kW	T <sub>j</sub> = - 7 °C	COP <sub>d</sub>	2.56	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.99	-				
T <sub>j</sub> = + 2 °C	P <sub>dh</sub>	4.4	kW	T <sub>j</sub> = + 2 °C	COP <sub>d</sub>	3.19	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.98	-				
T <sub>j</sub> = + 7 °C	P <sub>dh</sub>	3.8	kW	T <sub>j</sub> = + 7 °C	COP <sub>d</sub>	4.58	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.98	-				
T <sub>j</sub> = +12 °C	P <sub>dh</sub>	4.4	kW	T <sub>j</sub> = +12 °C	COP <sub>d</sub>	6.88	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.97	-				
T <sub>j</sub> = bivalent temperature	P <sub>dh</sub>	10.1	kW	T <sub>j</sub> = bivalent temperature	COP <sub>d</sub>	1.52	-
T <sub>j</sub> = operation limit temperature	P <sub>dh</sub>	9.2	kW	T <sub>j</sub> = operation limit temperature	COP <sub>d</sub>	1.56	-
T <sub>j</sub> = - 15 °C (if TOL < - 20 °C)	P <sub>dh</sub>	10.2	kW	T <sub>j</sub> = - 15 °C (if TOL < - 20 °C)	COP <sub>d</sub>	1.52	-
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>	0.015	kW	Rated heat output (*)	P <sub>sup</sub>	2.4	kW
Thermostat-off mode	P <sub>TO</sub>	0.015	kW				
Standby mode	P <sub>SB</sub>	0.015	kW	Type of energy input	Electrical		
Crankcase heater mode	P <sub>CK</sub>	0.000	kW				

Other items				Rated air flow rate, outdoors			
Capacity control	variable			-	2640	m <sup>3</sup> /h	
Sound power level, indoors/outdoors	L <sub>WA</sub>	41/60	dB(A)				
Annual energy consumption	Q <sub>HE</sub>	9563	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				

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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:	PUD-SHWM120VAA
	Indoor unit:	ERSD-****
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 shall be declared for		low-temperature application.
Parameters shall be declared for		colder climate conditions.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	12.0	kW	Seasonal space heating energy efficiency	$\eta_s$	149	%
Declared capacity for heating for part load at indoor <input type="checkbox"/> 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>	7.3	kW	T <sub>j</sub> = - 7 °C	COP <sub>d</sub>	3.67	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.99	-				
T <sub>j</sub> = + 2 °C	P <sub>dh</sub>	4.5	kW	T <sub>j</sub> = + 2 °C	COP <sub>d</sub>	4.02	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.98	-				
T <sub>j</sub> = + 7 °C	P <sub>dh</sub>	3.9	kW	T <sub>j</sub> = + 7 °C	COP <sub>d</sub>	5.34	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.97	-				
T <sub>j</sub> = +12 °C	P <sub>dh</sub>	5.5	kW	T <sub>j</sub> = +12 °C	COP <sub>d</sub>	7.43	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.98	-				
T <sub>j</sub> = bivalent temperature	P <sub>dh</sub>	10.1	kW	T <sub>j</sub> = bivalent temperature	COP <sub>d</sub>	2.10	-
T <sub>j</sub> = operation limit temperature	P <sub>dh</sub>	9.2	kW	T <sub>j</sub> = operation limit temperature	COP <sub>d</sub>	1.56	-
T <sub>j</sub> = - 15 °C (if TOL < - 20 °C)	P <sub>dh</sub>	10.2	kW	T <sub>j</sub> = - 15 °C (if TOL < - 20 °C)	COP <sub>d</sub>	2.15	-
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>	0.015	kW	Rated heat output (*)	P <sub>sup</sub>	2.4	kW
Thermostat-off mode	P <sub>TO</sub>	0.015	kW				
Standby mode	P <sub>SB</sub>	0.015	kW	Type of energy input	Electrical		
Crankcase heater mode	P <sub>CK</sub>	0.000	kW				

Other items				Rated air flow rate, outdoors			
Capacity control	variable			-	2640	m <sup>3</sup> /h	
Sound power level, indoors/outdoors	L <sub>WA</sub>	41/60	dB(A)				
Annual energy consumption	Q <sub>HE</sub>	7333	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				

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:	PUD-SHWM120VAA
	Indoor unit:	ERSD-****
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 shall be declared for		medium-temperature application.
Parameters shall be declared for		warmer climate conditions.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	12.0	kW	Seasonal space heating energy efficiency	$\eta_s$	159	%
Declared capacity for heating for part load at indoor <input type="checkbox"/> 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>	12	kW	T <sub>j</sub> = + 2 °C	COP <sub>d</sub>	2.03	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.99	-				
T <sub>j</sub> = + 7 °C	P <sub>dh</sub>	7.7	kW	T <sub>j</sub> = + 7 °C	COP <sub>d</sub>	3.35	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.99	-				
T <sub>j</sub> = +12 °C	P <sub>dh</sub>	5.2	kW	T <sub>j</sub> = +12 °C	COP <sub>d</sub>	5.59	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.98	-				
T <sub>j</sub> = bivalent temperature	P <sub>dh</sub>	1.0	kW	T <sub>j</sub> = bivalent temperature	COP <sub>d</sub>	0.96	-
T <sub>j</sub> = operation limit temperature	P <sub>dh</sub>	9.2	kW	T <sub>j</sub> = operation limit temperature	COP <sub>d</sub>	1.56	-
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>	0.015	kW	Rated heat output (*)	P <sub>sup</sub>	5.0	kW
Thermostat-off mode	P <sub>TO</sub>	0.015	kW				
Standby mode	P <sub>SB</sub>	0.015	kW	Type of energy input	Electrical		
Crankcase heater mode	P <sub>CK</sub>	0.000	kW				

Other items			
Capacity control		variable	
Sound power level, indoors/outdoors	L <sub>WA</sub>	41/60	dB(A)
Annual energy consumption	Q <sub>HE</sub>	3901	kWh
Rated air flow rate, outdoors		2640	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:	PUD-SHWM120VAA
	Indoor unit:	ERSD-****
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 shall be declared for		low-temperature application.
Parameters shall be declared for		warmer climate conditions.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	12.0	kW	Seasonal space heating energy efficiency	$\eta_s$	231	%
Declared capacity for heating for part load at indoor <input type="checkbox"/> 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>	12	kW	T <sub>j</sub> = + 2 °C	COP <sub>d</sub>	3.30	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.99	-				
T <sub>j</sub> = + 7 °C	P <sub>dh</sub>	7.7	kW	T <sub>j</sub> = + 7 °C	COP <sub>d</sub>	5.17	-
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>	7.46	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.97	-				
T <sub>j</sub> = bivalent temperature	P <sub>dh</sub>	1.0	kW	T <sub>j</sub> = bivalent temperature	COP <sub>d</sub>	1.00	-
T <sub>j</sub> = operation limit temperature	P <sub>dh</sub>	9.2	kW	T <sub>j</sub> = operation limit temperature	COP <sub>d</sub>	1.56	-
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>	0.015	kW	Rated heat output (*)	P <sub>sup</sub>	5.0	kW
Thermostat-off mode	P <sub>TO</sub>	0.015	kW				
Standby mode	P <sub>SB</sub>	0.015	kW	Type of energy input	Electrical		
Crankcase heater mode	P <sub>CK</sub>	0.000	kW				

Other items				Rated air flow rate, outdoors			
Capacity control	variable			-	2640	m <sup>3</sup> /h	
Sound power level, indoors/outdoors	L <sub>WA</sub>	41/60	dB(A)				
Annual energy consumption	Q <sub>HE</sub>	2688	kWh				

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

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