

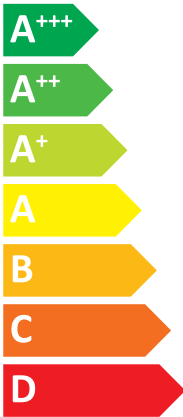


**ENERG**  
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Y IJA  
IE IA



Indoor unit E\*ST20D-\*\*\*\*D  
Outdoor unit PUD-SHWM120YAA(-BS)



**A++**



**A+**



41 dB

60 dB



- 12 kW
- 12 kW
- 12 kW

2019

811/2013

BH79V003H14





English	Deutsch	Français	Italiano	Espanol
Nederlands	Svenska	Polski	Português	Ελληνικά
suomi	Ceština	Български	Polski	Ελληνικά
Outdoor unit	Außengerät	Unité extérieure	Unita esterna	Unitat exterior
1 buiteneenh	Utenlufers enhed	Utenlufers enhed	Unitate exterieor	Εξωτερική μονάδα
Ulkokäyttö	Ulkokäytön yksikkö	Выпускное устройство	jednostka zewnętrzna	-
Indoor unit	Innengerät	Unité intérieure	Unita interna	Unitat interior
2 binnenunit	Innenbaueinheit	Innendørs enhed	Unitate interior	Εσωτερική μονάδα
Sisäykskäyttö	Indoor-luonnetilän käyttö	Вътрешно тяло	jednostka wewnętrzna	-
Mediintemperatuurtoepassing	Middeltemperatuurtoepassing	Использование по средним температурам	aplicação a média temperatura	la aplicación de media temperatura
3 keskilämpötilan sovellus	Mitteltemperaturanwendung	среднетемпературно приложение	zasosowanie w średnich temperaturach	η εφαρμογή σε μέτρια θερμοκρασία
Low-temperature application	Niedertemperaturanwendung	приложение в basse temperature	aplicação a baixa temperatura	la aplicación de baja temperatura
4 laagtemperatuurtoepassing	Nieder-temperaturanwendung	приложение в basse temperature	aplicação a baixa temperatura	η εφαρμογή σε χαμηλή θερμοκρασία
5 de seizoensgebonden energie-efficiëntieklassen voor ruimteverwarming	de seizoensgebonden energie-efficiëntieklassen voor ruimteverwarming	la classe d'efficacité énergétique saisonnière, pour le chauffage des locaux	la classe de efficacité énergétique saisonnière de l'isoleamento d'ambiente	la clase de eficiencia energética de aislamiento ambiental estacional
6 de energie-efficiëntieklassen voor waterverwarming	de energie-efficiëntieklassen voor waterverwarming	la classe d'efficacité énergétique saisonnière, pour le chauffage de l'eau	la classe de efficacité énergétique de l'isoleamento dell'acqua	la clase de eficiencia energética del aislamiento del agua
7 de nominale vermogensgrens (onder gemiddelde klimaatomstandigheden)	de nominale vermogensgrens (onder gemiddelde klimaatomstandigheden)	la puissance nominale (pour des conditions climatiques moyennes)	la potencia nominal (en condiciones climáticas medias)	la potencia calorífica nominal en condiciones climáticas medias
8 voor ruimteverwarming, het jaarlíjks energieverbruik (onder gemiddelde klimaatomstandigheden)	voor ruimteverwarming, het jaarlíjks energieverbruik (onder gemiddelde klimaatomstandigheden)	for programming of the air conditioning (under normal climate conditions)	per il riscaldamento d'ambiente, il consumo annuo di energia (in condizioni climatiche medie)	para o aquecimento ambiente, o consumo anual de energia (em condições climáticas médias)
9 voor waterverwarming, het jaarlíjks elektriciteitsverbruik (onder gemiddelde klimaatomstandigheden)	voor waterverwarming, het jaarlíjks elektriciteitsverbruik (onder gemiddelde klimaatomstandigheden)	for programming of the air conditioning (under normal climate conditions)	per il riscaldamento dell'acqua, il consumo annuo di energia (in condizioni climatiche medie)	para o aquecimento de água, o consumo anual de electricidade (em condições climáticas médias)
10 de seizoensgebonden energie-efficiëntie voor ruimteverwarming (onder gemiddelde klimaatomstandigheden)	de seizoensgebonden energie-efficiëntie voor ruimteverwarming (onder gemiddelde klimaatomstandigheden)	la puissance énergétique saisonnière, pour le chauffage des locaux (dans les conditions climatiques moyennes)	la eficiencia energética de aislamiento del agua (en condiciones climáticas medias)	η ενεργειακή αποδοτικότητα του θέρμανσης του νερού (σε συνθήκες μεσαίας θερμοκρασίας)
11 de energie-efficiëntie voor waterverwarming (onder gemiddelde klimaatomstandigheden)	de energie-efficiëntie voor waterverwarming (onder gemiddelde klimaatomstandigheden)	la puissance énergétique saisonnière, pour le chauffage des locaux (dans les conditions climatiques moyennes)	la eficiencia energética de aislamiento del agua (en condiciones climáticas medias)	η ενεργειακή αποδοτικότητα του θέρμανσης του νερού (σε συνθήκες μεσαίας θερμοκρασίας)
12 de energie-efficiëntie voor waterverwarming (onder gemiddelde klimaatomstandigheden)	de energie-efficiëntie voor waterverwarming (onder gemiddelde klimaatomstandigheden)	la puissance énergétique saisonnière, pour le chauffage des locaux (dans les conditions climatiques moyennes)	la eficiencia energética de aislamiento del agua (en condiciones climáticas medias)	η ενεργειακή αποδοτικότητα του θέρμανσης του νερού (σε συνθήκες μεσαίας θερμοκρασίας)
13 de energie-efficiëntie voor waterverwarming (onder gemiddelde klimaatomstandigheden)	de energie-efficiëntie voor waterverwarming (onder gemiddelde klimaatomstandigheden)	la puissance énergétique saisonnière, pour le chauffage des locaux (dans les conditions climatiques moyennes)	la eficiencia energética de aislamiento del agua (en condiciones climáticas medias)	η ενεργειακή αποδοτικότητα του θέρμανσης του νερού (σε συνθήκες μεσαίας θερμοκρασίας)
14 de nominale vermogensgrens, onder normale klimaatomstandigheden	de nominale vermogensgrens, onder normale klimaatomstandigheden	la puissance nominale (pour des conditions climatiques moyennes)	la potencia nominal (en condiciones climáticas medias)	la potencia calorífica nominal en condiciones climáticas medias
15 nominale vermogensgrens, onder normale klimaatomstandigheden	de nominale vermogensgrens, onder normale klimaatomstandigheden	la puissance nominale (pour des conditions climatiques moyennes)	la potencia nominal (en condiciones climáticas medias)	la potencia calorífica nominal en condiciones climáticas medias
16 voor ruimteverwarming, het jaarlíjks energieverbruik (onder normale klimaatomstandigheden)	voor ruimteverwarming, het jaarlíjks energieverbruik (onder normale klimaatomstandigheden)	for programming of the air conditioning (under normal climate conditions)	per il riscaldamento d'ambiente, il consumo annuo di energia (in condizioni climatiche medie)	para o aquecimento ambiente, o consumo anual de energia (em condições climáticas médias)
17 voor ruimteverwarming, het jaarlíjks energieverbruik (onder normale klimaatomstandigheden)	voor ruimteverwarming, het jaarlíjks energieverbruik (onder normale klimaatomstandigheden)	for programming of the air conditioning (under normal climate conditions)	per il riscaldamento d'ambiente, il consumo annuo di energia (in condizioni climatiche medie)	para o aquecimento ambiente, o consumo anual de energia (em condições climáticas médias)
18 voor waterverwarming, het jaarlíjks elektriciteitsverbruik (onder normale klimaatomstandigheden)	voor waterverwarming, het jaarlíjks elektriciteitsverbruik (onder normale klimaatomstandigheden)	for programming of the air conditioning (under normal climate conditions)	per il riscaldamento dell'acqua, il consumo annuo di energia (in condizioni climatiche medie)	para o aquecimento de água, o consumo anual de electricidade (em condições climáticas médias)
19 voor waterverwarming, het jaarlíjks elektriciteitsverbruik (onder normale klimaatomstandigheden)	voor waterverwarming, het jaarlíjks elektriciteitsverbruik (onder normale klimaatomstandigheden)	for programming of the air conditioning (under normal climate conditions)	per il riscaldamento dell'acqua, il consumo annuo di energia (in condizioni climatiche medie)	para o aquecimento de água, o consumo anual de electricidade (em condições climáticas médias)
20 de seizoensgebonden energie-efficiëntie voor ruimteverwarming (onder normale klimaatomstandigheden)	de seizoensgebonden energie-efficiëntie voor ruimteverwarming (onder normale klimaatomstandigheden)	la puissance énergétique saisonnière, pour le chauffage des locaux, dans les conditions climatiques moyennes	la eficiencia energética de aislamiento del agua (en condiciones climáticas medias)	η ενεργειακή αποδοτικότητα του θέρμανσης του νερού (σε συνθήκες μεσαίας θερμοκρασίας)
21 de seizoensgebonden energie-efficiëntie voor waterverwarming (onder normale klimaatomstandigheden)	de seizoensgebonden energie-efficiëntie voor waterverwarming (onder normale klimaatomstandigheden)	la puissance énergétique saisonnière, pour le chauffage de l'eau, dans les conditions climatiques moyennes	la eficiencia energética de l'isoleamento dell'acqua (en condiciones climáticas medias)	la eficiencia energética del aislamiento del agua en condiciones climáticas medias
22 de energie-efficiëntie voor waterverwarming (onder normale klimaatomstandigheden)	de energie-efficiëntie voor waterverwarming (onder normale klimaatomstandigheden)	la puissance énergétique saisonnière, pour le chauffage de l'eau, dans les conditions climatiques moyennes	la eficiencia energética de l'isoleamento dell'acqua (en condiciones climáticas medias)	la eficiencia energética del aislamiento del agua en condiciones climáticas medias
23 de energie-efficiëntie voor waterverwarming (onder normale klimaatomstandigheden)	de energie-efficiëntie voor waterverwarming (onder normale klimaatomstandigheden)	la puissance énergétique saisonnière, pour le chauffage de l'eau, dans les conditions climatiques moyennes	la eficiencia energética de l'isoleamento dell'acqua (en condiciones climáticas medias)	la eficiencia energética del aislamiento del agua en condiciones climáticas medias
24 de energie-efficiëntie voor waterverwarming (onder normale klimaatomstandigheden)	de energie-efficiëntie voor waterverwarming (onder normale klimaatomstandigheden)	la puissance énergétique saisonnière, pour le chauffage de l'eau, dans les conditions climatiques moyennes	la eficiencia energética de l'isoleamento dell'acqua (en condiciones climáticas medias)	la eficiencia energética del aislamiento del agua en condiciones climáticas medias

Model(s):	Outdoor unit:	PUD-SHWM120YAA
	Indoor unit:	EHST20D-****
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 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	$\eta_s$	134	%
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>	0.98	-				
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>	0.96	-				
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>	0.022	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	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	L			Water heating energy efficiency	$\eta_{wh}$	148	%
Daily electricity consumption	Q <sub>elec</sub>	3.300	kW/h				
Annual electricity consumption	AEC	736	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-SHWM120YAA
	Indoor unit:	EHST20D-****
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 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	$\eta_s$	177	%
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>	0.98	-				
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>	0.97	-				
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>	0.96	-				
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>	0.022	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	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	L			Water heating energy efficiency	$\eta_{wh}$	148	%
Daily electricity consumption	Q <sub>elec</sub>	3.300	kW/h				
Annual electricity consumption	AEC	736	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-SHWM120YAA
	Indoor unit:	EHST20D-****
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 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	$\eta_s$	114	%
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>	0.97	-				
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>	0.96	-				
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>	0.022	kW	Rated heat output (*)	P <sub>sup</sub>	2.4	kW
Thermostat-off mode	P <sub>TO</sub>	0.022	kW				
Standby mode	P <sub>SB</sub>	0.022	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	L			Water heating energy efficiency	$\eta_{wh}$	162	%
Daily electricity consumption	Q <sub>elec</sub>	3.100	kW/h				
Annual electricity consumption	AEC	675	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:	PUD-SHWM120YAA
	Indoor unit:	EHST20D-****
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 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	$\eta_s$	148	%
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>	0.98	-				
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>	0.97	-				
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>	0.022	kW	Rated heat output (*)	P <sub>sup</sub>	2.4	kW
Thermostat-off mode	P <sub>TO</sub>	0.022	kW				
Standby mode	P <sub>SB</sub>	0.022	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:				Water heating energy efficiency			
Declared load profile	L			$\eta_{wh}$	162	%	
Daily electricity consumption	Q <sub>elec</sub>	3.100	kWh				
Annual electricity consumption	AEC	675	kWh				

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-SHWM120YAA
	Indoor unit:	EHST20D-****
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 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	$\eta_s$	158	%
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>	0.97	-				
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>	0.022	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	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>	3901	kWh				

For heat pump combination heater:				Water heating energy efficiency			
Declared load profile	L			$\eta_{wh}$	120	%	
Daily electricity consumption	Q <sub>elec</sub>	4.100	kW/h				
Annual electricity consumption	AEC	900	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-SHWM120YAA
	Indoor unit:	EHST20D-****
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 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	$\eta_s$	229	%
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>	0.98	-				
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>	0.96	-				
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>	0.022	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	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	L			Water heating energy efficiency	$\eta_{wh}$	120	%
Daily electricity consumption	Q <sub>elec</sub>	4.100	kW/h				
Annual electricity consumption	AEC	900	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-SHWM120YAA
	Indoor unit:	ERST20D-****
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 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	$\eta_s$	134	%
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>	0.98	-				
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>	0.96	-				
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>	0.022	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	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	L			Water heating energy efficiency	$\eta_{wh}$	148	%
Daily electricity consumption	Q <sub>elec</sub>	3.300	kWh				
Annual electricity consumption	AEC	736	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:	PUD-SHWM120YAA
	Indoor unit:	ERST20D-****
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 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	$\eta_s$	177	%
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>	0.98	-				
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>	0.97	-				
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>	0.96	-				
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>	0.022	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	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:				Water heating energy efficiency			
Declared load profile	L			$\eta_{wh}$	148	%	
Daily electricity consumption	Q <sub>elec</sub>	3.300	kW/h				
Annual electricity consumption	AEC	736	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-SHWM120YAA
	Indoor unit:	ERST20D-****
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 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	$\eta_s$	114	%
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>	0.97	-				
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>	0.96	-				
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>	0.022	kW	Rated heat output (*)	P <sub>sup</sub>	2.4	kW
Thermostat-off mode	P <sub>TO</sub>	0.022	kW				
Standby mode	P <sub>SB</sub>	0.022	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	L			$\eta_{wh}$	162	%	
Daily electricity consumption	Q <sub>elec</sub>	3.100	kW/h				
Annual electricity consumption	AEC	675	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-SHWM120YAA
	Indoor unit:	ERST20D-****
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 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	$\eta_s$	148	%
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>	0.98	-				
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>	0.97	-				
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>	0.022	kW	Rated heat output (*)	P <sub>sup</sub>	2.4	kW
Thermostat-off mode	P <sub>TO</sub>	0.022	kW				
Standby mode	P <sub>SB</sub>	0.022	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:				Water heating energy efficiency			
Declared load profile	L			$\eta_{wh}$	162	%	
Daily electricity consumption	Q <sub>elec</sub>	3.100	kW/h				
Annual electricity consumption	AEC	675	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-SHWM120YAA
	Indoor unit:	ERST20D-****
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 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	$\eta_s$	158	%
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>	0.97	-				
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>	0.022	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	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>	3901	kWh				

For heat pump combination heater:				Water heating energy efficiency			
Declared load profile	L			$\eta_{wh}$	120	%	
Daily electricity consumption	Q <sub>elec</sub>	4.100	kW/h				
Annual electricity consumption	AEC	900	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:	PUD-SHWM120YAA
	Indoor unit:	ERST20D-****
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 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	$\eta_s$	229	%
Declared capacity for heating for part load at indoor <input type="checkbox"/> 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	12	kW	Tj = + 2 °C	COPd	3.30	-
Degradation co-efficient (**)	Cdh	0.99	-				
Tj = + 7 °C	Pdh	7.7	kW	Tj = + 7 °C	COPd	5.17	-
Degradation co-efficient (**)	Cdh	0.98	-				
Tj = +12 °C	Pdh	4.4	kW	Tj = +12 °C	COPd	7.46	-
Degradation co-efficient (**)	Cdh	0.96	-				
Tj = bivalent temperature	Pdh	1.0	kW	Tj = bivalent temperature	COPd	1.00	-
Tj = operation limit temperature	Pdh	9.2	kW	Tj = operation limit temperature	COPd	1.56	-
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	-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>	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	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		L	
Daily electricity consumption	Q <sub>elec</sub>	4.100	kWh
Annual electricity consumption	AEC	900	kWh
Water heating energy efficiency	$\eta_{wh}$	120	%

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