

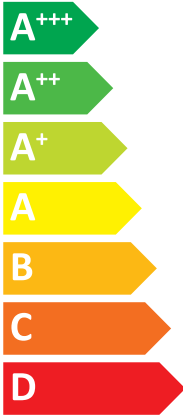
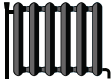


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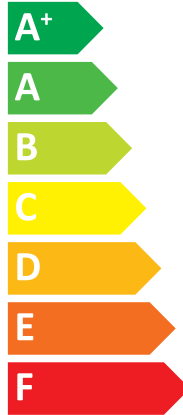
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Indoor unit E\*ST17/20D-\*\*\*\*D  
Outdoor unit PUD-SWM80VAA(-BS)



A++



A+



41 dB

56 dB



- 08 kW
- 08 kW
- 08 kW

2019

811/2013

BH79V003H02



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

Table with columns for Outdoor unit, Indoor unit, and various performance metrics (kW, kWh, %). Rows are categorized by product type (e.g., PU-D-SHWM100VAA, PU-D-SHWM120YAA) and include model numbers like EHST17D, ERST17D, etc.

Details and precautions on installation, maintenance and assembly can be found in the installation and/or operation manuals. This information is based on COMMISSION DELEGATED REGULATION (EU) No 813/2013.

English	French	German	Italian	Spanish
Energy	Energie	Energie	Energia	Energia
Power	Puissance	Potenza	Potenza	Potencia
Voltage	Tension	Tensione	Tensione	Tensión
Current	Force	Corrente	Corrente	Corriente
Power factor	Facteur de puissance	Factore di potenza	Factore de potencia	Factor de potencia
Energy storage	Stockage d'énergie	Energia di riserva	Energia di riserva	Almacenamiento de energía
Energy conversion	Conversion d'énergie	Conversione di energia	Conversione di energia	Conversion de energía
Energy efficiency	Efficacité énergétique	Efficienza energetica	Eficiencia energética	Eficiencia energética
Energy demand	Demande énergétique	Domanda energetica	Demanda energética	Demanda energética
Energy production	Production d'énergie	Produzione di energia	Producción de energía	Producción de energía
Energy distribution	Distribution d'énergie	Distribuzione di energia	Distribución de energía	Distribución de energía
Energy transmission	Transport d'énergie	Trasporto energetico	Transporte energético	Transporte energético
Energy storage system	Système de stockage d'énergie	Sistema di accumulo energetico	Sistema de almacenamiento energético	Sistema de almacenamiento energético
Energy conversion system	Système de conversion d'énergie	Sistema di conversione energetica	Sistema de conversión energética	Sistema de conversión energética
Energy efficiency system	Système d'efficacité énergétique	Sistema di efficienza energetica	Sistema de eficiencia energética	Sistema de eficiencia energética
Energy demand system	Système de demande énergétique	Sistema di domanda energetica	Sistema de demanda energética	Sistema de demanda energética
Energy production system	Système de production d'énergie	Sistema di produzione energetica	Sistema de producción energética	Sistema de producción energética
Energy distribution system	Système de distribution d'énergie	Sistema di distribuzione energetica	Sistema de distribución energética	Sistema de distribución energética
Energy transmission system	Système de transport d'énergie	Sistema di trasporto energetico	Sistema de transporte energético	Sistema de transporte energético
Energy storage technology	Technologie de stockage d'énergie	Tecnologia di accumulo energetico	Tecnología de almacenamiento energético	Tecnología de almacenamiento energético
Energy conversion technology	Technologie de conversion d'énergie	Tecnologia di conversione energetica	Tecnología de conversión energética	Tecnología de conversión energética
Energy efficiency technology	Technologie d'efficacité énergétique	Tecnologia di efficienza energetica	Tecnología de eficiencia energética	Tecnología de eficiencia energética
Energy demand technology	Technologie de demande énergétique	Tecnologia di domanda energetica	Tecnología de demanda energética	Tecnología de demanda energética
Energy production technology	Technologie de production d'énergie	Tecnologia di produzione energetica	Tecnología de producción energética	Tecnología de producción energética
Energy distribution technology	Technologie de distribution d'énergie	Tecnologia di distribuzione energetica	Tecnología de distribución energética	Tecnología de distribución energética
Energy transmission technology	Technologie de transport d'énergie	Tecnologia di trasporto energetico	Tecnología de transporte energético	Tecnología de transporte energético
Energy storage system design	Conception de système de stockage d'énergie	Progettazione del sistema di accumulo energetico	Concepción del sistema de almacenamiento energético	Concepción del sistema de almacenamiento energético
Energy conversion system design	Conception de système de conversion d'énergie	Progettazione del sistema di conversione energetica	Concepción del sistema de conversión energética	Concepción del sistema de conversión energética
Energy efficiency system design	Conception de système d'efficacité énergétique	Progettazione del sistema di efficienza energetica	Concepción del sistema de eficiencia energética	Concepción del sistema de eficiencia energética
Energy demand system design	Conception de système de demande énergétique	Progettazione del sistema di domanda energetica	Concepción del sistema de demanda energética	Concepción del sistema de demanda energética
Energy production system design	Conception de système de production d'énergie	Progettazione del sistema di produzione energetica	Concepción del sistema de producción energética	Concepción del sistema de producción energética
Energy distribution system design	Conception de système de distribution d'énergie	Progettazione del sistema di distribuzione energetica	Concepción del sistema de distribución energética	Concepción del sistema de distribución energética
Energy transmission system design	Conception de système de transport d'énergie	Progettazione del sistema di trasporto energetico	Concepción del sistema de transporte energético	Concepción del sistema de transporte energético
Energy storage system optimization	Optimisation de système de stockage d'énergie	Optimizzazione del sistema di accumulo energetico	Optimización del sistema de almacenamiento energético	Optimización del sistema de almacenamiento energético
Energy conversion system optimization	Optimisation de système de conversion d'énergie	Optimizzazione del sistema di conversione energetica	Optimización del sistema de conversión energética	Optimización del sistema de conversión energética
Energy efficiency system optimization	Optimisation de système d'efficacité énergétique	Optimizzazione del sistema di efficienza energetica	Optimización del sistema de eficiencia energética	Optimización del sistema de eficiencia energética
Energy demand system optimization	Optimisation de système de demande énergétique	Optimizzazione del sistema di domanda energetica	Optimización del sistema de demanda energética	Optimización del sistema de demanda energética
Energy production system optimization	Optimisation de système de production d'énergie	Optimizzazione del sistema di produzione energetica	Optimización del sistema de producción energética	Optimización del sistema de producción energética
Energy distribution system optimization	Optimisation de système de distribution d'énergie	Optimizzazione del sistema di distribuzione energetica	Optimización del sistema de distribución energética	Optimización del sistema de distribución energética
Energy transmission system optimization	Optimisation de système de transport d'énergie	Optimizzazione del sistema di trasporto energetico	Optimización del sistema de transporte energético	Optimización del sistema de transporte energético
Energy storage system research	Recherche sur le stockage d'énergie	Ricerca sul sistema di accumulo energetico	Investigación del sistema de almacenamiento energético	Investigación del sistema de almacenamiento energético
Energy conversion system research	Recherche sur la conversion d'énergie	Ricerca sul sistema di conversione energetica	Investigación del sistema de conversión energética	Investigación del sistema de conversión energética
Energy efficiency system research	Recherche sur l'efficacité énergétique	Ricerca sull'efficienza energetica	Investigación del sistema de eficiencia energética	Investigación del sistema de eficiencia energética
Energy demand system research	Recherche sur la demande énergétique	Ricerca sulla domanda energetica	Investigación del sistema de demanda energética	Investigación del sistema de demanda energética
Energy production system research	Recherche sur la production d'énergie	Ricerca sulla produzione energetica	Investigación del sistema de producción energética	Investigación del sistema de producción energética
Energy distribution system research	Recherche sur la distribution d'énergie	Ricerca sulla distribuzione energetica	Investigación del sistema de distribución energética	Investigación del sistema de distribución energética
Energy transmission system research	Recherche sur le transport d'énergie	Ricerca sul trasporto energetico	Investigación del sistema de transporte energético	Investigación del sistema de transporte energético
Energy storage system development	Développement de système de stockage d'énergie	Sviluppo del sistema di accumulo energetico	Desarrollo del sistema de almacenamiento energético	Desarrollo del sistema de almacenamiento energético
Energy conversion system development	Développement de système de conversion d'énergie	Sviluppo del sistema di conversione energetica	Desarrollo del sistema de conversión energética	Desarrollo del sistema de conversión energética
Energy efficiency system development	Développement de système d'efficacité énergétique	Sviluppo del sistema di efficienza energetica	Desarrollo del sistema de eficiencia energética	Desarrollo del sistema de eficiencia energética
Energy demand system development	Développement de système de demande énergétique	Sviluppo del sistema di domanda energetica	Desarrollo del sistema de demanda energética	Desarrollo del sistema de demanda energética
Energy production system development	Développement de système de production d'énergie	Sviluppo del sistema di produzione energetica	Desarrollo del sistema de producción energética	Desarrollo del sistema de producción energética
Energy distribution system development	Développement de système de distribution d'énergie	Sviluppo del sistema di distribuzione energetica	Desarrollo del sistema de distribución energética	Desarrollo del sistema de distribución energética
Energy transmission system development	Développement de système de transport d'énergie	Sviluppo del sistema di trasporto energetico	Desarrollo del sistema de transporte energético	Desarrollo del sistema de transporte energético
Energy storage system testing	Essai de système de stockage d'énergie	Test del sistema di accumulo energetico	Prueba del sistema de almacenamiento energético	Prueba del sistema de almacenamiento energético
Energy conversion system testing	Essai de système de conversion d'énergie	Test del sistema di conversione energetica	Prueba del sistema de conversión energética	Prueba del sistema de conversión energética
Energy efficiency system testing	Essai de système d'efficacité énergétique	Test del sistema di efficienza energetica	Prueba del sistema de eficiencia energética	Prueba del sistema de eficiencia energética
Energy demand system testing	Essai de système de demande énergétique	Test del sistema di domanda energetica	Prueba del sistema de demanda energética	Prueba del sistema de demanda energética
Energy production system testing	Essai de système de production d'énergie	Test del sistema di produzione energetica	Prueba del sistema de producción energética	Prueba del sistema de producción energética
Energy distribution system testing	Essai de système de distribution d'énergie	Test del sistema di distribuzione energetica	Prueba del sistema de distribución energética	Prueba del sistema de distribución energética
Energy transmission system testing	Essai de système de transport d'énergie	Test del sistema di trasporto energetico	Prueba del sistema de transporte energético	Prueba del sistema de transporte energético

Model(s):	Outdoor unit:	PUD-SWM80VAA(-BS)
	Indoor unit:	EHST17D-****D
Air-to-water heat pump:		yes
Water-to-water heat pump:		no
Brine-to-water heat pump:		no
Low-temperature heat pump:		no
Equipped with a supplementary heater:		yes
Heat pump combination heater:		yes
Parameters for		medium-temperature application.
Parameters for		average climate conditions.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	8.0	kW	Seasonal space heating energy efficiency	$\eta_s$	131	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T <sub>j</sub>				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature T <sub>j</sub>			
T <sub>j</sub> = - 7 °C	P <sub>dh</sub>	7.1	kW	T <sub>j</sub> = - 7 °C	COP <sub>d</sub>	2.03	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.99	-				
T <sub>j</sub> = + 2 °C	P <sub>dh</sub>	4.3	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>	5.3	kW	T <sub>j</sub> = + 7 °C	COP <sub>d</sub>	4.86	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.98	-				
T <sub>j</sub> = +12 °C	P <sub>dh</sub>	3.1	kW	T <sub>j</sub> = +12 °C	COP <sub>d</sub>	6.89	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.96	-				
T <sub>j</sub> = bivalent temperature	P <sub>dh</sub>	6.8	kW	T <sub>j</sub> = bivalent temperature	COP <sub>d</sub>	2.04	-
T <sub>j</sub> = operation limit temperature	P <sub>dh</sub>	4.7	kW	T <sub>j</sub> = operation limit temperature	COP <sub>d</sub>	1.44	-
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	-25	°C
Reference design conditions for space heating	T <sub>designh</sub>	-10	°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>	1.6	kW
Thermostat-off mode	P <sub>TO</sub>	0.015	kW	Type of energy input	Electrical		
Standby mode	P <sub>SB</sub>	0.015	kW				
Crankcase heater mode	P <sub>CK</sub>	0.000	kW				

Other items				Rated air flow rate, outdoors			
Capacity control	variable			-	2220	m <sup>3</sup> /h	
Sound power level, indoors/outdoors	L <sub>WA</sub>	41 / 56	dB(A)				
Annual energy consumption	Q <sub>HE</sub>	4814	kWh				

For heat pump combination heater:				Water heating energy efficiency			
Declared load profile	L			$\eta_{wh}$	136	%	
Daily electricity consumption	Q <sub>elec</sub>	3.600	kWh				
Annual electricity consumption	AEC	798	kWh				

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

(\*) For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating sup(Tj).  
(\*\*) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.

Model(s):	Outdoor unit:	PUD-SWM80VAA(-BS)
	Indoor unit:	EHST17D-****D
Air-to-water heat pump:		yes
Water-to-water heat pump:		no
Brine-to-water heat pump:		no
Low-temperature heat pump:		no
Equipped with a supplementary heater:		yes
Heat pump combination heater:		yes
Parameters for		low-temperature application.
Parameters for		average climate conditions.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	8.0	kW	Seasonal space heating energy efficiency	$\eta_s$	178	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = - 7 °C	Pdh	7.1	kW	Tj = - 7 °C	COPd	3.00	-
Degradation co-efficient (**)	Cdh	0.99	-				
Tj = + 2 °C	Pdh	4.7	kW	Tj = + 2 °C	COPd	4.52	-
Degradation co-efficient (**)	Cdh	0.98	-				
Tj = + 7 °C	Pdh	5.1	kW	Tj = + 7 °C	COPd	6.00	-
Degradation co-efficient (**)	Cdh	0.98	-				
Tj = +12 °C	Pdh	3.2	kW	Tj = +12 °C	COPd	8.00	-
Degradation co-efficient (**)	Cdh	0.96	-				
Tj = bivalent temperature	Pdh	7.1	kW	Tj = bivalent temperature	COPd	3.00	-
Tj = operation limit temperature	Pdh	4.8	kW	Tj = operation limit temperature	COPd	1.45	-
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	-25	°C
Reference design conditions for space heating	Tdesignh	-10	°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>	1.3	kW
Thermostat-off mode	P <sub>TO</sub>	0.015	kW	Type of energy input	Electrical		
Standby mode	P <sub>SB</sub>	0.015	kW				
Crankcase heater mode	P <sub>CK</sub>	0.000	kW				

Other items							
Capacity control	variable			Rated air flow rate, outdoors	-	2220	m <sup>3</sup> /h
Sound power level, indoors/outdoors	L <sub>WA</sub>	41 / 56	dB(A)				
Annual energy consumption	Q <sub>HE</sub>	3529	kWh				

For heat pump combination heater:							
Declared load profile	L			Water heating energy efficiency	$\eta_{wh}$	136	%
Daily electricity consumption	Q <sub>elec</sub>	3.600	kWh				
Annual electricity consumption	AEC	798	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-SWM80VAA(-BS)
	Indoor unit:	EHST17D-****D
Air-to-water heat pump:		yes
Water-to-water heat pump:		no
Brine-to-water heat pump:		no
Low-temperature heat pump:		no
Equipped with a supplementary heater:		yes
Heat pump combination heater:		yes
Parameters for		medium-temperature application.
Parameters for		colder climate conditions.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	8.0	kW	Seasonal space heating energy efficiency	$\eta_s$	110	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T <sub>j</sub>				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature T <sub>j</sub>			
T <sub>j</sub> = - 7 °C	P <sub>dh</sub>	4.9	kW	T <sub>j</sub> = - 7 °C	COP <sub>d</sub>	2.51	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.99	-				
T <sub>j</sub> = + 2 °C	P <sub>dh</sub>	3.5	kW	T <sub>j</sub> = + 2 °C	COP <sub>d</sub>	3.07	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.98	-				
T <sub>j</sub> = + 7 °C	P <sub>dh</sub>	4.3	kW	T <sub>j</sub> = + 7 °C	COP <sub>d</sub>	4.73	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.98	-				
T <sub>j</sub> = +12 °C	P <sub>dh</sub>	3.1	kW	T <sub>j</sub> = +12 °C	COP <sub>d</sub>	6.60	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.96	-				
T <sub>j</sub> = bivalent temperature	P <sub>dh</sub>	6.7	kW	T <sub>j</sub> = bivalent temperature	COP <sub>d</sub>	1.36	-
T <sub>j</sub> = operation limit temperature	P <sub>dh</sub>	4.7	kW	T <sub>j</sub> = operation limit temperature	COP <sub>d</sub>	1.44	-
T <sub>j</sub> = - 15 °C (if TOL < - 20 °C)	P <sub>dh</sub>	6.9	kW	T <sub>j</sub> = - 15 °C (if TOL < - 20 °C)	COP <sub>d</sub>	1.35	-
Bivalent temperature	T <sub>biv</sub>	-16	°C	Operation limit temperature	TOL	-25	°C
Reference design conditions for space heating	T <sub>designh</sub>	-22	°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>	2.6	kW
Thermostat-off mode	P <sub>TO</sub>	0.015	kW	Type of energy input	Electrical		
Standby mode	P <sub>SB</sub>	0.015	kW				
Crankcase heater mode	P <sub>CK</sub>	0.000	kW				

Other items				Rated air flow rate, outdoors			
Capacity control	variable			-	2220	m <sup>3</sup> /h	
Sound power level, indoors/outdoors	L <sub>WA</sub>	41 / 56	dB(A)				
Annual energy consumption	Q <sub>HE</sub>	6507	kWh				

For heat pump combination heater:				Water heating energy efficiency			
Declared load profile	L			$\eta_{wh}$	112	%	
Daily electricity consumption	Q <sub>elec</sub>	4.400	kWh				
Annual electricity consumption	AEC	968	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-SWM80VAA(-BS)
	Indoor unit:	EHST17D-****D
Air-to-water heat pump:		yes
Water-to-water heat pump:		no
Brine-to-water heat pump:		no
Low-temperature heat pump:		no
Equipped with a supplementary heater:		yes
Heat pump combination heater:		yes
Parameters for		low-temperature application.
Parameters for		colder climate conditions.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	8.0	kW	Seasonal space heating energy efficiency	$\eta_s$	139	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = - 7 °C	Pdh	4.8	kW	Tj = - 7 °C	COPd	3.40	-
Degradation co-efficient (**)	Cdh	0.98	-				
Tj = + 2 °C	Pdh	3.8	kW	Tj = + 2 °C	COPd	3.92	-
Degradation co-efficient (**)	Cdh	0.98	-				
Tj = + 7 °C	Pdh	4.5	kW	Tj = + 7 °C	COPd	5.49	-
Degradation co-efficient (**)	Cdh	0.98	-				
Tj = +12 °C	Pdh	3.1	kW	Tj = +12 °C	COPd	7.38	-
Degradation co-efficient (**)	Cdh	0.96	-				
Tj = bivalent temperature	Pdh	6.7	kW	Tj = bivalent temperature	COPd	2.09	-
Tj = operation limit temperature	Pdh	4.7	kW	Tj = operation limit temperature	COPd	1.44	-
Tj = - 15 °C (if TOL < - 20 °C)	Pdh	6.9	kW	Tj = - 15 °C (if TOL < - 20 °C)	COPd	2.16	-
Bivalent temperature	Tbiv	-16	°C	Operation limit temperature	TOL	-25	°C
Reference design conditions for space heating	Tdesignh	-22	°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>	2.6	kW
Thermostat-off mode	P <sub>TO</sub>	0.015	kW	Type of energy input	Electrical		
Standby mode	P <sub>SB</sub>	0.015	kW				
Crankcase heater mode	P <sub>CK</sub>	0.000	kW				
Other items							
Capacity control	variable			Rated air flow rate, outdoors	-	2220	m <sup>3</sup> /h
Sound power level, indoors/outdoors	L <sub>WA</sub>	41 / 56	dB(A)				
Annual energy consumption	Q <sub>HE</sub>	5083	kWh				
For heat pump combination heater:				Water heating energy efficiency			
Declared load profile	L			$\eta_{wh}$	112	%	
Daily electricity consumption	Q <sub>elec</sub>	4.400	kWh				
Annual electricity consumption	AEC	968	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-SWM80VAA(-BS)
	Indoor unit:	EHST17D-****D
Air-to-water heat pump:		yes
Water-to-water heat pump:		no
Brine-to-water heat pump:		no
Low-temperature heat pump:		no
Equipped with a supplementary heater:		yes
Heat pump combination heater:		yes
Parameters for		medium-temperature application.
Parameters for		warmer climate conditions.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	8.0	kW	Seasonal space heating energy efficiency	$\eta_s$	161	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T <sub>j</sub>				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature T <sub>j</sub>			
T <sub>j</sub> = - 7 °C	P <sub>dh</sub>	-	kW	T <sub>j</sub> = - 7 °C	COP <sub>d</sub>	-	-
Degradation co-efficient (**)	C <sub>dh</sub>	-	-				
T <sub>j</sub> = + 2 °C	P <sub>dh</sub>	8.0	kW	T <sub>j</sub> = + 2 °C	COP <sub>d</sub>	1.82	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.99	-				
T <sub>j</sub> = + 7 °C	P <sub>dh</sub>	5.2	kW	T <sub>j</sub> = + 7 °C	COP <sub>d</sub>	3.40	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.99	-				
T <sub>j</sub> = +12 °C	P <sub>dh</sub>	4.5	kW	T <sub>j</sub> = +12 °C	COP <sub>d</sub>	5.92	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.98	-				
T <sub>j</sub> = bivalent temperature	P <sub>dh</sub>	8.0	kW	T <sub>j</sub> = bivalent temperature	COP <sub>d</sub>	1.82	-
T <sub>j</sub> = operation limit temperature	P <sub>dh</sub>	4.7	kW	T <sub>j</sub> = operation limit temperature	COP <sub>d</sub>	1.44	-
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>	2	°C	Operation limit temperature	TOL	-25	°C
Reference design conditions for space heating	T <sub>designh</sub>	2	°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	Type of energy input	Electrical		
Standby mode	P <sub>SB</sub>	0.015	kW				
Crankcase heater mode	P <sub>CK</sub>	0.000	kW				

Other items				Rated air flow rate, outdoors			
Capacity control	variable			-	2220	m <sup>3</sup> /h	
Sound power level, indoors/outdoors	L <sub>WA</sub>	41 / 56	dB(A)				
Annual energy consumption	Q <sub>HE</sub>	2554	kWh				

For heat pump combination heater:				Water heating energy efficiency			
Declared load profile	L			$\eta_{wh}$	154	%	
Daily electricity consumption	Q <sub>elec</sub>	3.200	kWh				
Annual electricity consumption	AEC	709	kWh				

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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-SWM80VAA(-BS)
	Indoor unit:	EHST17D-****D
Air-to-water heat pump:		yes
Water-to-water heat pump:		no
Brine-to-water heat pump:		no
Low-temperature heat pump:		no
Equipped with a supplementary heater:		yes
Heat pump combination heater:		yes
Parameters for	low-temperature application.	
Parameters for	warmer climate conditions.	

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	8.0	kW	Seasonal space heating energy efficiency	$\eta_s$	218	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T <sub>j</sub>				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature T <sub>j</sub>			
T <sub>j</sub> = - 7 °C	P <sub>dh</sub>	-	kW	T <sub>j</sub> = - 7 °C	COP <sub>d</sub>	-	-
Degradation co-efficient (**)	C <sub>dh</sub>	-	-				
T <sub>j</sub> = + 2 °C	P <sub>dh</sub>	8.0	kW	T <sub>j</sub> = + 2 °C	COP <sub>d</sub>	3.56	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.99	-				
T <sub>j</sub> = + 7 °C	P <sub>dh</sub>	5.1	kW	T <sub>j</sub> = + 7 °C	COP <sub>d</sub>	4.90	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.98	-				
T <sub>j</sub> = +12 °C	P <sub>dh</sub>	4.7	kW	T <sub>j</sub> = +12 °C	COP <sub>d</sub>	7.12	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.97	-				
T <sub>j</sub> = bivalent temperature	P <sub>dh</sub>	8.0	kW	T <sub>j</sub> = bivalent temperature	COP <sub>d</sub>	3.56	-
T <sub>j</sub> = operation limit temperature	P <sub>dh</sub>	4.7	kW	T <sub>j</sub> = operation limit temperature	COP <sub>d</sub>	1.44	-
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>	2	°C	Operation limit temperature	TOL	-25	°C
Reference design conditions for space heating	T <sub>designh</sub>	2	°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	Type of energy input	Electrical		
Standby mode	P <sub>SB</sub>	0.015	kW				
Crankcase heater mode	P <sub>CK</sub>	0.000	kW				

Other items				Rated air flow rate, outdoors			
Capacity control	variable			-	2220	m <sup>3</sup> /h	
Sound power level, indoors/outdoors	L <sub>WA</sub>	41 / 56	dB(A)				
Annual energy consumption	Q <sub>HE</sub>	1879	kWh				

For heat pump combination heater:				Water heating energy efficiency			
Declared load profile	L			$\eta_{wh}$	154	%	
Daily electricity consumption	Q <sub>elec</sub>	3.200	kWh				
Annual electricity consumption	AEC	709	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-SWM80VAA(-BS)
	Indoor unit:	EHST20D-****D
Air-to-water heat pump:		yes
Water-to-water heat pump:		no
Brine-to-water heat pump:		no
Low-temperature heat pump:		no
Equipped with a supplementary heater:		yes
Heat pump combination heater:		yes
Parameters for		medium-temperature application.
Parameters for		average climate conditions.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	8.0	kW	Seasonal space heating energy efficiency	$\eta_s$	131	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T <sub>j</sub>				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature T <sub>j</sub>			
T <sub>j</sub> = - 7 °C	P <sub>dh</sub>	7.1	kW	T <sub>j</sub> = - 7 °C	COP <sub>d</sub>	2.03	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.99	-				
T <sub>j</sub> = + 2 °C	P <sub>dh</sub>	4.3	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>	5.3	kW	T <sub>j</sub> = + 7 °C	COP <sub>d</sub>	4.86	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.98	-				
T <sub>j</sub> = +12 °C	P <sub>dh</sub>	3.1	kW	T <sub>j</sub> = +12 °C	COP <sub>d</sub>	6.89	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.96	-				
T <sub>j</sub> = bivalent temperature	P <sub>dh</sub>	6.8	kW	T <sub>j</sub> = bivalent temperature	COP <sub>d</sub>	2.04	-
T <sub>j</sub> = operation limit temperature	P <sub>dh</sub>	4.7	kW	T <sub>j</sub> = operation limit temperature	COP <sub>d</sub>	1.44	-
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	-25	°C
Reference design conditions for space heating	T <sub>designh</sub>	-10	°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>	1.6	kW
Thermostat-off mode	P <sub>TO</sub>	0.015	kW	Type of energy input	Electrical		
Standby mode	P <sub>SB</sub>	0.015	kW				
Crankcase heater mode	P <sub>CK</sub>	0.000	kW				

Other items				Rated air flow rate, outdoors			
Capacity control	variable			-	2220	m <sup>3</sup> /h	
Sound power level, indoors/outdoors	L <sub>WA</sub>	41 / 56	dB(A)				
Annual energy consumption	Q <sub>HE</sub>	4814	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	kWh				
Annual electricity consumption	AEC	736	kWh				

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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-SWM80VAA(-BS)
	Indoor unit:	EHST20D-****D
Air-to-water heat pump:		yes
Water-to-water heat pump:		no
Brine-to-water heat pump:		no
Low-temperature heat pump:		no
Equipped with a supplementary heater:		yes
Heat pump combination heater:		yes
Parameters for		low-temperature application.
Parameters for		average climate conditions.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	8.0	kW	Seasonal space heating energy efficiency	$\eta_s$	178	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = - 7 °C	Pdh	7.1	kW	Tj = - 7 °C	COPd	3.00	-
Degradation co-efficient (**)	Cdh	0.99	-				
Tj = + 2 °C	Pdh	4.7	kW	Tj = + 2 °C	COPd	4.52	-
Degradation co-efficient (**)	Cdh	0.98	-				
Tj = + 7 °C	Pdh	5.1	kW	Tj = + 7 °C	COPd	6.00	-
Degradation co-efficient (**)	Cdh	0.98	-				
Tj = +12 °C	Pdh	3.2	kW	Tj = +12 °C	COPd	8.00	-
Degradation co-efficient (**)	Cdh	0.96	-				
Tj = bivalent temperature	Pdh	7.1	kW	Tj = bivalent temperature	COPd	3.00	-
Tj = operation limit temperature	Pdh	4.8	kW	Tj = operation limit temperature	COPd	1.45	-
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	-25	°C
Reference design conditions for space heating	Tdesignh	-10	°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>	1.3	kW
Thermostat-off mode	P <sub>TO</sub>	0.015	kW	Type of energy input	Electrical		
Standby mode	P <sub>SB</sub>	0.015	kW				
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 / 56	dB(A)
Annual energy consumption	Q <sub>HE</sub>	3529	kWh
Rated air flow rate, outdoors			
-			
2220			
m <sup>3</sup> /h			

For heat pump combination heater:			
Declared load profile		L	
Daily electricity consumption	Q <sub>elec</sub>	3.300	kWh
Annual electricity consumption	AEC	736	kWh
Water heating energy efficiency			
$\eta_{wh}$			
148			
%			

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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-SWM80VAA(-BS)
	Indoor unit:	EHST20D-****D
Air-to-water heat pump:		yes
Water-to-water heat pump:		no
Brine-to-water heat pump:		no
Low-temperature heat pump:		no
Equipped with a supplementary heater:		yes
Heat pump combination heater:		yes
Parameters for		medium-temperature application.
Parameters for		colder climate conditions.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	8.0	kW	Seasonal space heating energy efficiency	$\eta_s$	110	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T <sub>j</sub>				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature T <sub>j</sub>			
T <sub>j</sub> = - 7 °C	P <sub>dh</sub>	4.9	kW	T <sub>j</sub> = - 7 °C	COP <sub>d</sub>	2.51	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.99	-				
T <sub>j</sub> = + 2 °C	P <sub>dh</sub>	3.5	kW	T <sub>j</sub> = + 2 °C	COP <sub>d</sub>	3.07	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.98	-				
T <sub>j</sub> = + 7 °C	P <sub>dh</sub>	4.3	kW	T <sub>j</sub> = + 7 °C	COP <sub>d</sub>	4.73	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.98	-				
T <sub>j</sub> = +12 °C	P <sub>dh</sub>	3.1	kW	T <sub>j</sub> = +12 °C	COP <sub>d</sub>	6.60	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.96	-				
T <sub>j</sub> = bivalent temperature	P <sub>dh</sub>	6.7	kW	T <sub>j</sub> = bivalent temperature	COP <sub>d</sub>	1.36	-
T <sub>j</sub> = operation limit temperature	P <sub>dh</sub>	4.7	kW	T <sub>j</sub> = operation limit temperature	COP <sub>d</sub>	1.44	-
T <sub>j</sub> = - 15 °C (if TOL < - 20 °C)	P <sub>dh</sub>	6.9	kW	T <sub>j</sub> = - 15 °C (if TOL < - 20 °C)	COP <sub>d</sub>	1.35	-
Bivalent temperature	T <sub>biv</sub>	-16	°C	Operation limit temperature	TOL	-25	°C
Reference design conditions for space heating	T <sub>designh</sub>	-22	°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>	2.6	kW
Thermostat-off mode	P <sub>TO</sub>	0.015	kW	Type of energy input	Electrical		
Standby mode	P <sub>SB</sub>	0.015	kW				
Crankcase heater mode	P <sub>CK</sub>	0.000	kW				
Other items							
Capacity control	variable			Rated air flow rate, outdoors	-	2220	m <sup>3</sup> /h
Sound power level, indoors/outdoors	L <sub>WA</sub>	41 / 56	dB(A)				
Annual energy consumption	Q <sub>HE</sub>	6507	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	kWh				
Annual electricity consumption	AEC	900	kWh				

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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-SWM80VAA(-BS)
	Indoor unit:	EHST20D-****D
Air-to-water heat pump:		yes
Water-to-water heat pump:		no
Brine-to-water heat pump:		no
Low-temperature heat pump:		no
Equipped with a supplementary heater:		yes
Heat pump combination heater:		yes
Parameters for		low-temperature application.
Parameters for		colder climate conditions.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	8.0	kW	Seasonal space heating energy efficiency	$\eta_s$	139	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T <sub>j</sub>				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature T <sub>j</sub>			
T <sub>j</sub> = - 7 °C	P <sub>dh</sub>	4.8	kW	T <sub>j</sub> = - 7 °C	COP <sub>d</sub>	3.40	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.98	-				
T <sub>j</sub> = + 2 °C	P <sub>dh</sub>	3.8	kW	T <sub>j</sub> = + 2 °C	COP <sub>d</sub>	3.92	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.98	-				
T <sub>j</sub> = + 7 °C	P <sub>dh</sub>	4.5	kW	T <sub>j</sub> = + 7 °C	COP <sub>d</sub>	5.49	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.98	-				
T <sub>j</sub> = +12 °C	P <sub>dh</sub>	3.1	kW	T <sub>j</sub> = +12 °C	COP <sub>d</sub>	7.38	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.96	-				
T <sub>j</sub> = bivalent temperature	P <sub>dh</sub>	6.7	kW	T <sub>j</sub> = bivalent temperature	COP <sub>d</sub>	2.09	-
T <sub>j</sub> = operation limit temperature	P <sub>dh</sub>	4.7	kW	T <sub>j</sub> = operation limit temperature	COP <sub>d</sub>	1.44	-
T <sub>j</sub> = - 15 °C (if TOL < - 20 °C)	P <sub>dh</sub>	6.9	kW	T <sub>j</sub> = - 15 °C (if TOL < - 20 °C)	COP <sub>d</sub>	2.16	-
Bivalent temperature	T <sub>biv</sub>	-16	°C	Operation limit temperature	TOL	-25	°C
Reference design conditions for space heating	T <sub>designh</sub>	-22	°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>	2.6	kW
Thermostat-off mode	P <sub>TO</sub>	0.015	kW	Type of energy input	Electrical		
Standby mode	P <sub>SB</sub>	0.015	kW				
Crankcase heater mode	P <sub>CK</sub>	0.000	kW				

Other items				Rated air flow rate, outdoors			
Capacity control	variable			-	2220	m <sup>3</sup> /h	
Sound power level, indoors/outdoors	L <sub>WA</sub>	41 / 56	dB(A)				
Annual energy consumption	Q <sub>HE</sub>	5083	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	kWh				
Annual electricity consumption	AEC	900	kWh				

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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-SWM80VAA(-BS)
	Indoor unit:	EHST20D-****D
Air-to-water heat pump:		yes
Water-to-water heat pump:		no
Brine-to-water heat pump:		no
Low-temperature heat pump:		no
Equipped with a supplementary heater:		yes
Heat pump combination heater:		yes
Parameters for		medium-temperature application.
Parameters for		warmer climate conditions.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	8.0	kW	Seasonal space heating energy efficiency	$\eta_s$	161	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = - 7 °C	Pdh	-	kW	Tj = - 7 °C	COPd	-	-
Degradation co-efficient (**)	Cdh	-	-				
Tj = + 2 °C	Pdh	8.0	kW	Tj = + 2 °C	COPd	1.82	-
Degradation co-efficient (**)	Cdh	0.99	-				
Tj = + 7 °C	Pdh	5.2	kW	Tj = + 7 °C	COPd	3.40	-
Degradation co-efficient (**)	Cdh	0.99	-				
Tj = +12 °C	Pdh	4.5	kW	Tj = +12 °C	COPd	5.92	-
Degradation co-efficient (**)	Cdh	0.98	-				
Tj = bivalent temperature	Pdh	8.0	kW	Tj = bivalent temperature	COPd	1.82	-
Tj = operation limit temperature	Pdh	4.7	kW	Tj = operation limit temperature	COPd	1.44	-
Tj = - 15 °C (if TOL < - 20 °C)	Pdh	-	kW	Tj = - 15 °C (if TOL < - 20 °C)	COPd	-	-
Bivalent temperature	Tbiv	2	°C	Operation limit temperature	TOL	-25	°C
Reference design conditions for space heating	Tdesignh	2	°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	Type of energy input	Electrical		
Standby mode	P <sub>SB</sub>	0.015	kW				
Crankcase heater mode	P <sub>CK</sub>	0.000	kW				
Other items							
Capacity control	variable			Rated air flow rate, outdoors	-	2220	m <sup>3</sup> /h
Sound power level, indoors/outdoors	L <sub>WA</sub>	41 / 56	dB(A)				
Annual energy consumption	Q <sub>HE</sub>	2554	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				

Other items							
Capacity control	variable			Rated air flow rate, outdoors	-	2220	m <sup>3</sup> /h
Sound power level, indoors/outdoors	L <sub>WA</sub>	41 / 56	dB(A)				
Annual energy consumption	Q <sub>HE</sub>	2554	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				

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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-SWM80VAA(-BS)
	Indoor unit:	EHST20D-****D
Air-to-water heat pump:		yes
Water-to-water heat pump:		no
Brine-to-water heat pump:		no
Low-temperature heat pump:		no
Equipped with a supplementary heater:		yes
Heat pump combination heater:		yes
Parameters for		low-temperature application.
Parameters for		warmer climate conditions.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	8.0	kW	Seasonal space heating energy efficiency	$\eta_s$	218	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T <sub>j</sub>				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature T <sub>j</sub>			
T <sub>j</sub> = - 7 °C	P <sub>dh</sub>	-	kW	T <sub>j</sub> = - 7 °C	COP <sub>d</sub>	-	-
Degradation co-efficient (**)	C <sub>dh</sub>	-	-				
T <sub>j</sub> = + 2 °C	P <sub>dh</sub>	8.0	kW	T <sub>j</sub> = + 2 °C	COP <sub>d</sub>	3.56	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.99	-				
T <sub>j</sub> = + 7 °C	P <sub>dh</sub>	5.1	kW	T <sub>j</sub> = + 7 °C	COP <sub>d</sub>	4.90	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.98	-				
T <sub>j</sub> = +12 °C	P <sub>dh</sub>	4.7	kW	T <sub>j</sub> = +12 °C	COP <sub>d</sub>	7.12	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.97	-				
T <sub>j</sub> = bivalent temperature	P <sub>dh</sub>	8.0	kW	T <sub>j</sub> = bivalent temperature	COP <sub>d</sub>	3.56	-
T <sub>j</sub> = operation limit temperature	P <sub>dh</sub>	4.7	kW	T <sub>j</sub> = operation limit temperature	COP <sub>d</sub>	1.44	-
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>	2	°C	Operation limit temperature	TOL	-25	°C
Reference design conditions for space heating	T <sub>designh</sub>	2	°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	Type of energy input	Electrical		
Standby mode	P <sub>SB</sub>	0.015	kW				
Crankcase heater mode	P <sub>CK</sub>	0.000	kW				
Other items							
Capacity control		variable		Rated air flow rate, outdoors	-	2220	m <sup>3</sup> /h
Sound power level, indoors/outdoors	L <sub>WA</sub>	41 / 56	dB(A)				
Annual energy consumption	Q <sub>HE</sub>	1879	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				

Capacity control		variable		Rated air flow rate, outdoors	-	2220	m <sup>3</sup> /h
Sound power level, indoors/outdoors	L <sub>WA</sub>	41 / 56	dB(A)				
Annual energy consumption	Q <sub>HE</sub>	1879	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				

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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-SWM80VAA(-BS)
	Indoor unit:	EHST20D-MED
Air-to-water heat pump:		yes
Water-to-water heat pump:		no
Brine-to-water heat pump:		no
Low-temperature heat pump:		no
Equipped with a supplementary heater:		no
Heat pump combination heater:		yes
Parameters for		medium-temperature application.
Parameters for		average climate conditions.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	8.0	kW	Seasonal space heating energy efficiency	$\eta_s$	131	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T <sub>j</sub>				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature T <sub>j</sub>			
T <sub>j</sub> = - 7 °C	P <sub>dh</sub>	7.1	kW	T <sub>j</sub> = - 7 °C	COP <sub>d</sub>	2.03	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.99	-				
T <sub>j</sub> = + 2 °C	P <sub>dh</sub>	4.3	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>	5.3	kW	T <sub>j</sub> = + 7 °C	COP <sub>d</sub>	4.86	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.98	-				
T <sub>j</sub> = +12 °C	P <sub>dh</sub>	3.1	kW	T <sub>j</sub> = +12 °C	COP <sub>d</sub>	6.89	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.96	-				
T <sub>j</sub> = bivalent temperature	P <sub>dh</sub>	6.8	kW	T <sub>j</sub> = bivalent temperature	COP <sub>d</sub>	2.04	-
T <sub>j</sub> = operation limit temperature	P <sub>dh</sub>	4.7	kW	T <sub>j</sub> = operation limit temperature	COP <sub>d</sub>	1.44	-
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	-25	°C
Reference design conditions for space heating	T <sub>designh</sub>	-10	°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>	1.6	kW
Thermostat-off mode	P <sub>TO</sub>	0.015	kW	Type of energy input	Electrical		
Standby mode	P <sub>SB</sub>	0.015	kW				
Crankcase heater mode	P <sub>CK</sub>	0.000	kW				

Other items				Rated air flow rate, outdoors			
Capacity control	variable			-	2220	m <sup>3</sup> /h	
Sound power level, indoors/outdoors	L <sub>WA</sub>	41 / 56	dB(A)				
Annual energy consumption	Q <sub>HE</sub>	4814	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	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-SWM80VAA(-BS)
	Indoor unit:	EHST20D-MED
Air-to-water heat pump:		yes
Water-to-water heat pump:		no
Brine-to-water heat pump:		no
Low-temperature heat pump:		no
Equipped with a supplementary heater:		no
Heat pump combination heater:		yes
Parameters for		low-temperature application.
Parameters for		average climate conditions.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	8.0	kW	Seasonal space heating energy efficiency	$\eta_s$	178	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T <sub>j</sub>				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature T <sub>j</sub>			
T <sub>j</sub> = - 7 °C	P <sub>dh</sub>	7.1	kW	T <sub>j</sub> = - 7 °C	COP <sub>d</sub>	3.00	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.99	-				
T <sub>j</sub> = + 2 °C	P <sub>dh</sub>	4.7	kW	T <sub>j</sub> = + 2 °C	COP <sub>d</sub>	4.52	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.98	-				
T <sub>j</sub> = + 7 °C	P <sub>dh</sub>	5.1	kW	T <sub>j</sub> = + 7 °C	COP <sub>d</sub>	6.00	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.98	-				
T <sub>j</sub> = +12 °C	P <sub>dh</sub>	3.2	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>	7.1	kW	T <sub>j</sub> = bivalent temperature	COP <sub>d</sub>	3.00	-
T <sub>j</sub> = operation limit temperature	P <sub>dh</sub>	4.8	kW	T <sub>j</sub> = operation limit temperature	COP <sub>d</sub>	1.45	-
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	-25	°C
Reference design conditions for space heating	T <sub>designh</sub>	-10	°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>	1.3	kW
Thermostat-off mode	P <sub>TO</sub>	0.015	kW	Type of energy input	Electrical		
Standby mode	P <sub>SB</sub>	0.015	kW				
Crankcase heater mode	P <sub>CK</sub>	0.000	kW				
Other items							
Capacity control	variable			Rated air flow rate, outdoors	-	2220	m <sup>3</sup> /h
Sound power level, indoors/outdoors	L <sub>WA</sub>	41 / 56	dB(A)				
Annual energy consumption	Q <sub>HE</sub>	3529	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	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-SWM80VAA(-BS)
	Indoor unit:	EHST20D-MED
Air-to-water heat pump:		yes
Water-to-water heat pump:		no
Brine-to-water heat pump:		no
Low-temperature heat pump:		no
Equipped with a supplementary heater:		no
Heat pump combination heater:		yes
Parameters for		medium-temperature application.
Parameters for		colder climate conditions.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	8.0	kW	Seasonal space heating energy efficiency	$\eta_s$	110	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T <sub>j</sub>				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature T <sub>j</sub>			
T <sub>j</sub> = - 7 °C	P <sub>dh</sub>	4.9	kW	T <sub>j</sub> = - 7 °C	COP <sub>d</sub>	2.51	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.99	-				
T <sub>j</sub> = + 2 °C	P <sub>dh</sub>	3.5	kW	T <sub>j</sub> = + 2 °C	COP <sub>d</sub>	3.07	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.98	-				
T <sub>j</sub> = + 7 °C	P <sub>dh</sub>	4.3	kW	T <sub>j</sub> = + 7 °C	COP <sub>d</sub>	4.73	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.98	-				
T <sub>j</sub> = +12 °C	P <sub>dh</sub>	3.1	kW	T <sub>j</sub> = +12 °C	COP <sub>d</sub>	6.60	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.96	-				
T <sub>j</sub> = bivalent temperature	P <sub>dh</sub>	6.7	kW	T <sub>j</sub> = bivalent temperature	COP <sub>d</sub>	1.36	-
T <sub>j</sub> = operation limit temperature	P <sub>dh</sub>	4.7	kW	T <sub>j</sub> = operation limit temperature	COP <sub>d</sub>	1.44	-
T <sub>j</sub> = - 15 °C (if TOL < - 20 °C)	P <sub>dh</sub>	6.9	kW	T <sub>j</sub> = - 15 °C (if TOL < - 20 °C)	COP <sub>d</sub>	1.35	-
Bivalent temperature	T <sub>biv</sub>	-16	°C	Operation limit temperature	TOL	-25	°C
Reference design conditions for space heating	T <sub>designh</sub>	-22	°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>	2.6	kW
Thermostat-off mode	P <sub>TO</sub>	0.015	kW	Type of energy input	Electrical		
Standby mode	P <sub>SB</sub>	0.015	kW				
Crankcase heater mode	P <sub>CK</sub>	0.000	kW				
Other items							
Capacity control	variable			Rated air flow rate, outdoors	-	2220	m <sup>3</sup> /h
Sound power level, indoors/outdoors	L <sub>WA</sub>	41 / 56	dB(A)				
Annual energy consumption	Q <sub>HE</sub>	6507	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	kWh				
Annual electricity consumption	AEC	900	kWh				

Other items				Supplementary heater			
Off mode	P <sub>OFF</sub>	0.015	kW	Rated heat output (*)	P <sub>sup</sub>	2.6	kW
Thermostat-off mode	P <sub>TO</sub>	0.015	kW	Type of energy input	Electrical		
Standby mode	P <sub>SB</sub>	0.015	kW				
Crankcase heater mode	P <sub>CK</sub>	0.000	kW				
Other items							
Capacity control	variable			Rated air flow rate, outdoors	-	2220	m <sup>3</sup> /h
Sound power level, indoors/outdoors	L <sub>WA</sub>	41 / 56	dB(A)				
Annual energy consumption	Q <sub>HE</sub>	6507	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	kWh				
Annual electricity consumption	AEC	900	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-SWM80VAA(-BS)
	Indoor unit:	EHST20D-MED
Air-to-water heat pump:		yes
Water-to-water heat pump:		no
Brine-to-water heat pump:		no
Low-temperature heat pump:		no
Equipped with a supplementary heater:		no
Heat pump combination heater:		yes
Parameters for		low-temperature application.
Parameters for		colder climate conditions.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	8.0	kW	Seasonal space heating energy efficiency	$\eta_s$	139	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T <sub>j</sub>				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature T <sub>j</sub>			
T <sub>j</sub> = - 7 °C	P <sub>dh</sub>	4.8	kW	T <sub>j</sub> = - 7 °C	COP <sub>d</sub>	3.40	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.98	-				
T <sub>j</sub> = + 2 °C	P <sub>dh</sub>	3.8	kW	T <sub>j</sub> = + 2 °C	COP <sub>d</sub>	3.92	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.98	-				
T <sub>j</sub> = + 7 °C	P <sub>dh</sub>	4.5	kW	T <sub>j</sub> = + 7 °C	COP <sub>d</sub>	5.49	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.98	-				
T <sub>j</sub> = +12 °C	P <sub>dh</sub>	3.1	kW	T <sub>j</sub> = +12 °C	COP <sub>d</sub>	7.38	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.96	-				
T <sub>j</sub> = bivalent temperature	P <sub>dh</sub>	6.7	kW	T <sub>j</sub> = bivalent temperature	COP <sub>d</sub>	2.09	-
T <sub>j</sub> = operation limit temperature	P <sub>dh</sub>	4.7	kW	T <sub>j</sub> = operation limit temperature	COP <sub>d</sub>	1.44	-
T <sub>j</sub> = - 15 °C (if TOL < - 20 °C)	P <sub>dh</sub>	6.9	kW	T <sub>j</sub> = - 15 °C (if TOL < - 20 °C)	COP <sub>d</sub>	2.16	-
Bivalent temperature	T <sub>biv</sub>	-16	°C	Operation limit temperature	TOL	-25	°C
Reference design conditions for space heating	T <sub>designh</sub>	-22	°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>	2.6	kW
Thermostat-off mode	P <sub>TO</sub>	0.015	kW	Type of energy input	Electrical		
Standby mode	P <sub>SB</sub>	0.015	kW				
Crankcase heater mode	P <sub>CK</sub>	0.000	kW				
Other items							
Capacity control	variable			Rated air flow rate, outdoors	-	2220	m <sup>3</sup> /h
Sound power level, indoors/outdoors	L <sub>WA</sub>	41 / 56	dB(A)				
Annual energy consumption	Q <sub>HE</sub>	5083	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	kWh				
Annual electricity consumption	AEC	900	kWh				

Other items							
Capacity control	variable			Rated air flow rate, outdoors	-	2220	m <sup>3</sup> /h
Sound power level, indoors/outdoors	L <sub>WA</sub>	41 / 56	dB(A)				
Annual energy consumption	Q <sub>HE</sub>	5083	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	kWh				
Annual electricity consumption	AEC	900	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-SWM80VAA(-BS)
	Indoor unit:	EHST20D-MED
Air-to-water heat pump:		yes
Water-to-water heat pump:		no
Brine-to-water heat pump:		no
Low-temperature heat pump:		no
Equipped with a supplementary heater:		no
Heat pump combination heater:		yes
Parameters for		medium-temperature application.
Parameters for		warmer climate conditions.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	8.0	kW	Seasonal space heating energy efficiency	$\eta_s$	161	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T <sub>j</sub>				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature T <sub>j</sub>			
T <sub>j</sub> = - 7 °C	P <sub>dh</sub>	-	kW	T <sub>j</sub> = - 7 °C	COP <sub>d</sub>	-	-
Degradation co-efficient (**)	C <sub>dh</sub>	-	-				
T <sub>j</sub> = + 2 °C	P <sub>dh</sub>	8.0	kW	T <sub>j</sub> = + 2 °C	COP <sub>d</sub>	1.82	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.99	-				
T <sub>j</sub> = + 7 °C	P <sub>dh</sub>	5.2	kW	T <sub>j</sub> = + 7 °C	COP <sub>d</sub>	3.40	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.99	-				
T <sub>j</sub> = +12 °C	P <sub>dh</sub>	4.5	kW	T <sub>j</sub> = +12 °C	COP <sub>d</sub>	5.92	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.98	-				
T <sub>j</sub> = bivalent temperature	P <sub>dh</sub>	8.0	kW	T <sub>j</sub> = bivalent temperature	COP <sub>d</sub>	1.82	-
T <sub>j</sub> = operation limit temperature	P <sub>dh</sub>	4.7	kW	T <sub>j</sub> = operation limit temperature	COP <sub>d</sub>	1.44	-
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>	2	°C	Operation limit temperature	TOL	-25	°C
Reference design conditions for space heating	T <sub>designh</sub>	2	°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	Type of energy input	Electrical		
Standby mode	P <sub>SB</sub>	0.015	kW				
Crankcase heater mode	P <sub>CK</sub>	0.000	kW				

Other items				Rated air flow rate, outdoors			
Capacity control	variable			-	2220	m <sup>3</sup> /h	
Sound power level, indoors/outdoors	L <sub>WA</sub>	41 / 56	dB(A)				
Annual energy consumption	Q <sub>HE</sub>	2554	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				

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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-SWM80VAA(-BS)
	Indoor unit:	EHST20D-MED
Air-to-water heat pump:		yes
Water-to-water heat pump:		no
Brine-to-water heat pump:		no
Low-temperature heat pump:		no
Equipped with a supplementary heater:		no
Heat pump combination heater:		yes
Parameters for		low-temperature application.
Parameters for		warmer climate conditions.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	8.0	kW	Seasonal space heating energy efficiency	$\eta_s$	218	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T <sub>j</sub>				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature T <sub>j</sub>			
T <sub>j</sub> = - 7 °C	P <sub>dh</sub>	-	kW	T <sub>j</sub> = - 7 °C	COP <sub>d</sub>	-	-
Degradation co-efficient (**)	C <sub>dh</sub>	-	-				
T <sub>j</sub> = + 2 °C	P <sub>dh</sub>	8.0	kW	T <sub>j</sub> = + 2 °C	COP <sub>d</sub>	3.56	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.99	-				
T <sub>j</sub> = + 7 °C	P <sub>dh</sub>	5.1	kW	T <sub>j</sub> = + 7 °C	COP <sub>d</sub>	4.90	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.98	-				
T <sub>j</sub> = +12 °C	P <sub>dh</sub>	4.7	kW	T <sub>j</sub> = +12 °C	COP <sub>d</sub>	7.12	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.97	-				
T <sub>j</sub> = bivalent temperature	P <sub>dh</sub>	8.0	kW	T <sub>j</sub> = bivalent temperature	COP <sub>d</sub>	3.56	-
T <sub>j</sub> = operation limit temperature	P <sub>dh</sub>	4.7	kW	T <sub>j</sub> = operation limit temperature	COP <sub>d</sub>	1.44	-
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>	2	°C	Operation limit temperature	TOL	-25	°C
Reference design conditions for space heating	T <sub>designh</sub>	2	°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	Type of energy input	Electrical		
Standby mode	P <sub>SB</sub>	0.015	kW				
Crankcase heater mode	P <sub>CK</sub>	0.000	kW				

Other items				Rated air flow rate, outdoors			
Capacity control	variable			-	2220	m <sup>3</sup> /h	
Sound power level, indoors/outdoors	L <sub>WA</sub>	41 / 56	dB(A)				
Annual energy consumption	Q <sub>HE</sub>	1879	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				

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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-SWM80VAA(-BS)
	Indoor unit:	ERST17D-****D
Air-to-water heat pump:		yes
Water-to-water heat pump:		no
Brine-to-water heat pump:		no
Low-temperature heat pump:		no
Equipped with a supplementary heater:		yes
Heat pump combination heater:		yes
Parameters for		medium-temperature application.
Parameters for		average climate conditions.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	8.0	kW	Seasonal space heating energy efficiency	$\eta_s$	131	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T <sub>j</sub>				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature T <sub>j</sub>			
T <sub>j</sub> = - 7 °C	P <sub>dh</sub>	7.1	kW	T <sub>j</sub> = - 7 °C	COP <sub>d</sub>	2.03	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.99	-				
T <sub>j</sub> = + 2 °C	P <sub>dh</sub>	4.3	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>	5.3	kW	T <sub>j</sub> = + 7 °C	COP <sub>d</sub>	4.86	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.98	-				
T <sub>j</sub> = +12 °C	P <sub>dh</sub>	3.1	kW	T <sub>j</sub> = +12 °C	COP <sub>d</sub>	6.89	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.96	-				
T <sub>j</sub> = bivalent temperature	P <sub>dh</sub>	6.8	kW	T <sub>j</sub> = bivalent temperature	COP <sub>d</sub>	2.04	-
T <sub>j</sub> = operation limit temperature	P <sub>dh</sub>	4.7	kW	T <sub>j</sub> = operation limit temperature	COP <sub>d</sub>	1.44	-
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	-25	°C
Reference design conditions for space heating	T <sub>designh</sub>	-10	°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>	1.6	kW
Thermostat-off mode	P <sub>TO</sub>	0.015	kW	Type of energy input	Electrical		
Standby mode	P <sub>SB</sub>	0.015	kW				
Crankcase heater mode	P <sub>CK</sub>	0.000	kW				

Other items				Rated air flow rate, outdoors			
Capacity control	variable			-	2220	m <sup>3</sup> /h	
Sound power level, indoors/outdoors	L <sub>WA</sub>	41 / 56	dBA				
Annual energy consumption	Q <sub>HE</sub>	4814	kWh				

For heat pump combination heater:				Water heating energy efficiency			
Declared load profile	L			$\eta_{wh}$	136	%	
Daily electricity consumption	Q <sub>elec</sub>	3.600	kWh				
Annual electricity consumption	AEC	798	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-SWM80VAA(-BS)
	Indoor unit:	ERST17D-****D
Air-to-water heat pump:		yes
Water-to-water heat pump:		no
Brine-to-water heat pump:		no
Low-temperature heat pump:		no
Equipped with a supplementary heater:		yes
Heat pump combination heater:		yes
Parameters for		low-temperature application.
Parameters for		average climate conditions.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	8.0	kW	Seasonal space heating energy efficiency	$\eta_s$	178	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T <sub>j</sub>				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature T <sub>j</sub>			
T <sub>j</sub> = - 7 °C	P <sub>dh</sub>	7.1	kW	T <sub>j</sub> = - 7 °C	COP <sub>d</sub>	3.00	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.99	-				
T <sub>j</sub> = + 2 °C	P <sub>dh</sub>	4.7	kW	T <sub>j</sub> = + 2 °C	COP <sub>d</sub>	4.52	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.98	-				
T <sub>j</sub> = + 7 °C	P <sub>dh</sub>	5.1	kW	T <sub>j</sub> = + 7 °C	COP <sub>d</sub>	6.00	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.98	-				
T <sub>j</sub> = +12 °C	P <sub>dh</sub>	3.2	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>	7.1	kW	T <sub>j</sub> = bivalent temperature	COP <sub>d</sub>	3.00	-
T <sub>j</sub> = operation limit temperature	P <sub>dh</sub>	4.8	kW	T <sub>j</sub> = operation limit temperature	COP <sub>d</sub>	1.45	-
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	-25	°C
Reference design conditions for space heating	T <sub>designh</sub>	-10	°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>	1.3	kW
Thermostat-off mode	P <sub>TO</sub>	0.015	kW	Type of energy input	Electrical		
Standby mode	P <sub>SB</sub>	0.015	kW				
Crankcase heater mode	P <sub>CK</sub>	0.000	kW				

Other items				Rated air flow rate, outdoors			
Capacity control	variable			-	2220	m <sup>3</sup> /h	
Sound power level, indoors/outdoors	L <sub>WA</sub>	41 / 56	dB(A)				
Annual energy consumption	Q <sub>HE</sub>	3529	kWh				

For heat pump combination heater:				Water heating energy efficiency			
Declared load profile	L			$\eta_{wh}$	136	%	
Daily electricity consumption	Q <sub>elec</sub>	3.600	kWh				
Annual electricity consumption	AEC	798	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-SWM80VAA(-BS)
	Indoor unit:	ERST17D-****D
Air-to-water heat pump:		yes
Water-to-water heat pump:		no
Brine-to-water heat pump:		no
Low-temperature heat pump:		no
Equipped with a supplementary heater:		yes
Heat pump combination heater:		yes
Parameters for		medium-temperature application.
Parameters for		colder climate conditions.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	8.0	kW	Seasonal space heating energy efficiency	$\eta_s$	110	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = - 7 °C	Pdh	4.9	kW	Tj = - 7 °C	COPd	2.51	-
Degradation co-efficient (**)	Cdh	0.99	-				
Tj = + 2 °C	Pdh	3.5	kW	Tj = + 2 °C	COPd	3.07	-
Degradation co-efficient (**)	Cdh	0.98	-				
Tj = + 7 °C	Pdh	4.3	kW	Tj = + 7 °C	COPd	4.73	-
Degradation co-efficient (**)	Cdh	0.98	-				
Tj = +12 °C	Pdh	3.1	kW	Tj = +12 °C	COPd	6.60	-
Degradation co-efficient (**)	Cdh	0.96	-				
Tj = bivalent temperature	Pdh	6.7	kW	Tj = bivalent temperature	COPd	1.36	-
Tj = operation limit temperature	Pdh	4.7	kW	Tj = operation limit temperature	COPd	1.44	-
Tj = - 15 °C (if TOL < - 20 °C)	Pdh	6.9	kW	Tj = - 15 °C (if TOL < - 20 °C)	COPd	1.35	-
Bivalent temperature	Tbiv	-16	°C	Operation limit temperature	TOL	-25	°C
Reference design conditions for space heating	Tdesignh	-22	°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>	2.6	kW
Thermostat-off mode	P <sub>TO</sub>	0.015	kW	Type of energy input	Electrical		
Standby mode	P <sub>SB</sub>	0.015	kW				
Crankcase heater mode	P <sub>CK</sub>	0.000	kW				
Other items							
Capacity control	variable			Rated air flow rate, outdoors	-	2220	m <sup>3</sup> /h
Sound power level, indoors/outdoors	L <sub>WA</sub>	41 / 56	dB(A)				
Annual energy consumption	Q <sub>HE</sub>	6507	kWh				
For heat pump combination heater:				Water heating energy efficiency			
Declared load profile	L			$\eta_{wh}$	112	%	
Daily electricity consumption	Q <sub>elec</sub>	4.400	kWh				
Annual electricity consumption	AEC	968	kWh				

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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-SWM80VAA(-BS)
	Indoor unit:	ERST17D-****D
Air-to-water heat pump:		yes
Water-to-water heat pump:		no
Brine-to-water heat pump:		no
Low-temperature heat pump:		no
Equipped with a supplementary heater:		yes
Heat pump combination heater:		yes
Parameters for		low-temperature application.
Parameters for		colder climate conditions.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	8.0	kW	Seasonal space heating energy efficiency	$\eta_s$	139	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T <sub>j</sub>				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature T <sub>j</sub>			
T <sub>j</sub> = - 7 °C	P <sub>dh</sub>	4.8	kW	T <sub>j</sub> = - 7 °C	COP <sub>d</sub>	3.40	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.98	-				
T <sub>j</sub> = + 2 °C	P <sub>dh</sub>	3.8	kW	T <sub>j</sub> = + 2 °C	COP <sub>d</sub>	3.92	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.98	-				
T <sub>j</sub> = + 7 °C	P <sub>dh</sub>	4.5	kW	T <sub>j</sub> = + 7 °C	COP <sub>d</sub>	5.49	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.98	-				
T <sub>j</sub> = +12 °C	P <sub>dh</sub>	3.1	kW	T <sub>j</sub> = +12 °C	COP <sub>d</sub>	7.38	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.96	-				
T <sub>j</sub> = bivalent temperature	P <sub>dh</sub>	6.7	kW	T <sub>j</sub> = bivalent temperature	COP <sub>d</sub>	2.09	-
T <sub>j</sub> = operation limit temperature	P <sub>dh</sub>	4.7	kW	T <sub>j</sub> = operation limit temperature	COP <sub>d</sub>	1.44	-
T <sub>j</sub> = - 15 °C (if TOL < - 20 °C)	P <sub>dh</sub>	6.9	kW	T <sub>j</sub> = - 15 °C (if TOL < - 20 °C)	COP <sub>d</sub>	2.16	-
Bivalent temperature	T <sub>biv</sub>	-16	°C	Operation limit temperature	TOL	-25	°C
Reference design conditions for space heating	T <sub>designh</sub>	-22	°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>	2.6	kW
Thermostat-off mode	P <sub>TO</sub>	0.015	kW	Type of energy input	Electrical		
Standby mode	P <sub>SB</sub>	0.015	kW				
Crankcase heater mode	P <sub>CK</sub>	0.000	kW				
Other items							
Capacity control	variable			Rated air flow rate, outdoors	-	2220	m <sup>3</sup> /h
Sound power level, indoors/outdoors	L <sub>WA</sub>	41 / 56	dB(A)				
Annual energy consumption	Q <sub>HE</sub>	5083	kWh				
For heat pump combination heater:				Water heating energy efficiency			
Declared load profile	L			$\eta_{wh}$	112	%	
Daily electricity consumption	Q <sub>elec</sub>	4.400	kWh				
Annual electricity consumption	AEC	968	kWh				

Other items				Supplementary heater			
Off mode	P <sub>OFF</sub>	0.015	kW	Rated heat output (*)	P <sub>sup</sub>	2.6	kW
Thermostat-off mode	P <sub>TO</sub>	0.015	kW	Type of energy input	Electrical		
Standby mode	P <sub>SB</sub>	0.015	kW				
Crankcase heater mode	P <sub>CK</sub>	0.000	kW				
Other items							
Capacity control	variable			Rated air flow rate, outdoors	-	2220	m <sup>3</sup> /h
Sound power level, indoors/outdoors	L <sub>WA</sub>	41 / 56	dB(A)				
Annual energy consumption	Q <sub>HE</sub>	5083	kWh				

For heat pump combination heater:				Water heating energy efficiency			
Declared load profile	L			$\eta_{wh}$	112	%	
Daily electricity consumption	Q <sub>elec</sub>	4.400	kWh				
Annual electricity consumption	AEC	968	kWh				

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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-SWM80VAA(-BS)
	Indoor unit:	ERST17D-****D
Air-to-water heat pump:		yes
Water-to-water heat pump:		no
Brine-to-water heat pump:		no
Low-temperature heat pump:		no
Equipped with a supplementary heater:		yes
Heat pump combination heater:		yes
Parameters for		medium-temperature application.
Parameters for		warmer climate conditions.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	8.0	kW	Seasonal space heating energy efficiency	$\eta_s$	161	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T <sub>j</sub>				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature T <sub>j</sub>			
T <sub>j</sub> = - 7 °C	P <sub>dh</sub>	-	kW	T <sub>j</sub> = - 7 °C	COP <sub>d</sub>	-	-
Degradation co-efficient (**)	C <sub>dh</sub>	-	-				
T <sub>j</sub> = + 2 °C	P <sub>dh</sub>	8.0	kW	T <sub>j</sub> = + 2 °C	COP <sub>d</sub>	1.82	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.99	-				
T <sub>j</sub> = + 7 °C	P <sub>dh</sub>	5.2	kW	T <sub>j</sub> = + 7 °C	COP <sub>d</sub>	3.40	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.99	-				
T <sub>j</sub> = +12 °C	P <sub>dh</sub>	4.5	kW	T <sub>j</sub> = +12 °C	COP <sub>d</sub>	5.92	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.98	-				
T <sub>j</sub> = bivalent temperature	P <sub>dh</sub>	8.0	kW	T <sub>j</sub> = bivalent temperature	COP <sub>d</sub>	1.82	-
T <sub>j</sub> = operation limit temperature	P <sub>dh</sub>	4.7	kW	T <sub>j</sub> = operation limit temperature	COP <sub>d</sub>	1.44	-
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>	2	°C	Operation limit temperature	TOL	-25	°C
Reference design conditions for space heating	T <sub>designh</sub>	2	°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	Type of energy input	Electrical		
Standby mode	P <sub>SB</sub>	0.015	kW				
Crankcase heater mode	P <sub>CK</sub>	0.000	kW				

Other items				Rated air flow rate, outdoors			
Capacity control	variable			-	2220	m <sup>3</sup> /h	
Sound power level, indoors/outdoors	L <sub>WA</sub>	41 / 56	dB(A)				
Annual energy consumption	Q <sub>HE</sub>	2554	kWh				

For heat pump combination heater:				Water heating energy efficiency			
Declared load profile	L			$\eta_{wh}$	154	%	
Daily electricity consumption	Q <sub>elec</sub>	3.200	kWh				
Annual electricity consumption	AEC	709	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-SWM80VAA(-BS)
	Indoor unit:	ERST17D-****D
Air-to-water heat pump:		yes
Water-to-water heat pump:		no
Brine-to-water heat pump:		no
Low-temperature heat pump:		no
Equipped with a supplementary heater:		yes
Heat pump combination heater:		yes
Parameters for		low-temperature application.
Parameters for		warmer climate conditions.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	8.0	kW	Seasonal space heating energy efficiency	$\eta_s$	218	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = - 7 °C	Pdh	-	kW	Tj = - 7 °C	COPd	-	-
Degradation co-efficient (**)	Cdh	-	-				
Tj = + 2 °C	Pdh	8.0	kW	Tj = + 2 °C	COPd	3.56	-
Degradation co-efficient (**)	Cdh	0.99	-				
Tj = + 7 °C	Pdh	5.1	kW	Tj = + 7 °C	COPd	4.90	-
Degradation co-efficient (**)	Cdh	0.98	-				
Tj = +12 °C	Pdh	4.7	kW	Tj = +12 °C	COPd	7.12	-
Degradation co-efficient (**)	Cdh	0.97	-				
Tj = bivalent temperature	Pdh	8.0	kW	Tj = bivalent temperature	COPd	3.56	-
Tj = operation limit temperature	Pdh	4.7	kW	Tj = operation limit temperature	COPd	1.44	-
Tj = - 15 °C (if TOL < - 20 °C)	Pdh	-	kW	Tj = - 15 °C (if TOL < - 20 °C)	COPd	-	-
Bivalent temperature	Tbiv	2	°C	Operation limit temperature	TOL	-25	°C
Reference design conditions for space heating	Tdesignh	2	°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	Type of energy input	Electrical		
Standby mode	P <sub>SB</sub>	0.015	kW				
Crankcase heater mode	P <sub>CK</sub>	0.000	kW				
Other items							
Capacity control	variable			Rated air flow rate, outdoors	-	2220	m <sup>3</sup> /h
Sound power level, indoors/outdoors	L <sub>WA</sub>	41 / 56	dB(A)				
Annual energy consumption	Q <sub>HE</sub>	1879	kWh				
For heat pump combination heater:				Water heating energy efficiency			
Declared load profile	L			$\eta_{wh}$	154	%	
Daily electricity consumption	Q <sub>elec</sub>	3.200	kWh				
Annual electricity consumption	AEC	709	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-SWM80VAA(-BS)
	Indoor unit:	ERST20D-****D
Air-to-water heat pump:		yes
Water-to-water heat pump:		no
Brine-to-water heat pump:		no
Low-temperature heat pump:		no
Equipped with a supplementary heater:		yes
Heat pump combination heater:		yes
Parameters for		medium-temperature application.
Parameters for		average climate conditions.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	8.0	kW	Seasonal space heating energy efficiency	$\eta_s$	131	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T <sub>j</sub>				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature T <sub>j</sub>			
T <sub>j</sub> = - 7 °C	P <sub>dh</sub>	7.1	kW	T <sub>j</sub> = - 7 °C	COP <sub>d</sub>	2.03	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.99	-				
T <sub>j</sub> = + 2 °C	P <sub>dh</sub>	4.3	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>	5.3	kW	T <sub>j</sub> = + 7 °C	COP <sub>d</sub>	4.86	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.98	-				
T <sub>j</sub> = +12 °C	P <sub>dh</sub>	3.1	kW	T <sub>j</sub> = +12 °C	COP <sub>d</sub>	6.89	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.96	-				
T <sub>j</sub> = bivalent temperature	P <sub>dh</sub>	6.8	kW	T <sub>j</sub> = bivalent temperature	COP <sub>d</sub>	2.04	-
T <sub>j</sub> = operation limit temperature	P <sub>dh</sub>	4.7	kW	T <sub>j</sub> = operation limit temperature	COP <sub>d</sub>	1.44	-
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	-25	°C
Reference design conditions for space heating	T <sub>designh</sub>	-10	°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>	1.6	kW
Thermostat-off mode	P <sub>TO</sub>	0.015	kW	Type of energy input	Electrical		
Standby mode	P <sub>SB</sub>	0.015	kW				
Crankcase heater mode	P <sub>CK</sub>	0.000	kW				
Other items							
Capacity control	variable			Rated air flow rate, outdoors	-	2220	m <sup>3</sup> /h
Sound power level, indoors/outdoors	L <sub>WA</sub>	41 / 56	dB(A)				
Annual energy consumption	Q <sub>HE</sub>	4814	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	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-SWM80VAA(-BS)
	Indoor unit:	ERST20D-****D
Air-to-water heat pump:		yes
Water-to-water heat pump:		no
Brine-to-water heat pump:		no
Low-temperature heat pump:		no
Equipped with a supplementary heater:		yes
Heat pump combination heater:		yes
Parameters for		low-temperature application.
Parameters for		average climate conditions.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	8.0	kW	Seasonal space heating energy efficiency	$\eta_s$	178	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = - 7 °C	Pdh	7.1	kW	Tj = - 7 °C	COPd	3.00	-
Degradation co-efficient (**)	Cdh	0.99	-				
Tj = + 2 °C	Pdh	4.7	kW	Tj = + 2 °C	COPd	4.52	-
Degradation co-efficient (**)	Cdh	0.98	-				
Tj = + 7 °C	Pdh	5.1	kW	Tj = + 7 °C	COPd	6.00	-
Degradation co-efficient (**)	Cdh	0.98	-				
Tj = +12 °C	Pdh	3.2	kW	Tj = +12 °C	COPd	8.00	-
Degradation co-efficient (**)	Cdh	0.96	-				
Tj = bivalent temperature	Pdh	7.1	kW	Tj = bivalent temperature	COPd	3.00	-
Tj = operation limit temperature	Pdh	4.8	kW	Tj = operation limit temperature	COPd	1.45	-
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	-25	°C
Reference design conditions for space heating	Tdesignh	-10	°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>	1.3	kW
Thermostat-off mode	P <sub>TO</sub>	0.015	kW	Type of energy input	Electrical		
Standby mode	P <sub>SB</sub>	0.015	kW				
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 / 56	dB(A)
Annual energy consumption	Q <sub>HE</sub>	3529	kWh
Rated air flow rate, outdoors			
-			
2220			
m <sup>3</sup> /h			

For heat pump combination heater:			
Declared load profile		L	
Daily electricity consumption	Q <sub>elec</sub>	3.300	kWh
Annual electricity consumption	AEC	736	kWh
Water heating energy efficiency			
$\eta_{wh}$			
148			
%			

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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-SWM80VAA(-BS)
	Indoor unit:	ERST20D-****D
Air-to-water heat pump:		yes
Water-to-water heat pump:		no
Brine-to-water heat pump:		no
Low-temperature heat pump:		no
Equipped with a supplementary heater:		yes
Heat pump combination heater:		yes
Parameters for		medium-temperature application.
Parameters for		colder climate conditions.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	8.0	kW	Seasonal space heating energy efficiency	$\eta_s$	110	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T <sub>j</sub>				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature T <sub>j</sub>			
T <sub>j</sub> = - 7 °C	P <sub>dh</sub>	4.9	kW	T <sub>j</sub> = - 7 °C	COP <sub>d</sub>	2.51	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.99	-				
T <sub>j</sub> = + 2 °C	P <sub>dh</sub>	3.5	kW	T <sub>j</sub> = + 2 °C	COP <sub>d</sub>	3.07	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.98	-				
T <sub>j</sub> = + 7 °C	P <sub>dh</sub>	4.3	kW	T <sub>j</sub> = + 7 °C	COP <sub>d</sub>	4.73	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.98	-				
T <sub>j</sub> = +12 °C	P <sub>dh</sub>	3.1	kW	T <sub>j</sub> = +12 °C	COP <sub>d</sub>	6.60	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.96	-				
T <sub>j</sub> = bivalent temperature	P <sub>dh</sub>	6.7	kW	T <sub>j</sub> = bivalent temperature	COP <sub>d</sub>	1.36	-
T <sub>j</sub> = operation limit temperature	P <sub>dh</sub>	4.7	kW	T <sub>j</sub> = operation limit temperature	COP <sub>d</sub>	1.44	-
T <sub>j</sub> = - 15 °C (if TOL < - 20 °C)	P <sub>dh</sub>	6.9	kW	T <sub>j</sub> = - 15 °C (if TOL < - 20 °C)	COP <sub>d</sub>	1.35	-
Bivalent temperature	T <sub>biv</sub>	-16	°C	Operation limit temperature	TOL	-25	°C
Reference design conditions for space heating	T <sub>designh</sub>	-22	°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>	2.6	kW
Thermostat-off mode	P <sub>TO</sub>	0.015	kW	Type of energy input	Electrical		
Standby mode	P <sub>SB</sub>	0.015	kW				
Crankcase heater mode	P <sub>CK</sub>	0.000	kW				
Other items							
Capacity control	variable			Rated air flow rate, outdoors	-	2220	m <sup>3</sup> /h
Sound power level, indoors/outdoors	L <sub>WA</sub>	41 / 56	dB(A)				
Annual energy consumption	Q <sub>HE</sub>	6507	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	kWh				
Annual electricity consumption	AEC	900	kWh				

Other items				Supplementary heater			
Off mode	P <sub>OFF</sub>	0.015	kW	Rated heat output (*)	P <sub>sup</sub>	2.6	kW
Thermostat-off mode	P <sub>TO</sub>	0.015	kW	Type of energy input	Electrical		
Standby mode	P <sub>SB</sub>	0.015	kW				
Crankcase heater mode	P <sub>CK</sub>	0.000	kW				
Other items							
Capacity control	variable			Rated air flow rate, outdoors	-	2220	m <sup>3</sup> /h
Sound power level, indoors/outdoors	L <sub>WA</sub>	41 / 56	dB(A)				
Annual energy consumption	Q <sub>HE</sub>	6507	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	kWh				
Annual electricity consumption	AEC	900	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-SWM80VAA(-BS)
	Indoor unit:	ERST20D-****D
Air-to-water heat pump:		yes
Water-to-water heat pump:		no
Brine-to-water heat pump:		no
Low-temperature heat pump:		no
Equipped with a supplementary heater:		yes
Heat pump combination heater:		yes
Parameters for		low-temperature application.
Parameters for		colder climate conditions.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	8.0	kW	Seasonal space heating energy efficiency	$\eta_s$	139	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T <sub>j</sub>				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature T <sub>j</sub>			
T <sub>j</sub> = - 7 °C	P <sub>dh</sub>	4.8	kW	T <sub>j</sub> = - 7 °C	COP <sub>d</sub>	3.40	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.98	-				
T <sub>j</sub> = + 2 °C	P <sub>dh</sub>	3.8	kW	T <sub>j</sub> = + 2 °C	COP <sub>d</sub>	3.92	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.98	-				
T <sub>j</sub> = + 7 °C	P <sub>dh</sub>	4.5	kW	T <sub>j</sub> = + 7 °C	COP <sub>d</sub>	5.49	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.98	-				
T <sub>j</sub> = +12 °C	P <sub>dh</sub>	3.1	kW	T <sub>j</sub> = +12 °C	COP <sub>d</sub>	7.38	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.96	-				
T <sub>j</sub> = bivalent temperature	P <sub>dh</sub>	6.7	kW	T <sub>j</sub> = bivalent temperature	COP <sub>d</sub>	2.09	-
T <sub>j</sub> = operation limit temperature	P <sub>dh</sub>	4.7	kW	T <sub>j</sub> = operation limit temperature	COP <sub>d</sub>	1.44	-
T <sub>j</sub> = - 15 °C (if TOL < - 20 °C)	P <sub>dh</sub>	6.9	kW	T <sub>j</sub> = - 15 °C (if TOL < - 20 °C)	COP <sub>d</sub>	2.16	-
Bivalent temperature	T <sub>biv</sub>	-16	°C	Operation limit temperature	TOL	-25	°C
Reference design conditions for space heating	T <sub>designh</sub>	-22	°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>	2.6	kW
Thermostat-off mode	P <sub>TO</sub>	0.015	kW	Type of energy input	Electrical		
Standby mode	P <sub>SB</sub>	0.015	kW				
Crankcase heater mode	P <sub>CK</sub>	0.000	kW				

Other items				Rated air flow rate, outdoors			
Capacity control	variable			-	2220	m <sup>3</sup> /h	
Sound power level, indoors/outdoors	L <sub>WA</sub>	41 / 56	dB(A)				
Annual energy consumption	Q <sub>HE</sub>	5083	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	kWh				
Annual electricity consumption	AEC	900	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-SWM80VAA(-BS)
	Indoor unit:	ERST20D-****D
Air-to-water heat pump:		yes
Water-to-water heat pump:		no
Brine-to-water heat pump:		no
Low-temperature heat pump:		no
Equipped with a supplementary heater:		yes
Heat pump combination heater:		yes
Parameters for		medium-temperature application.
Parameters for		warmer climate conditions.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	8.0	kW	Seasonal space heating energy efficiency	$\eta_s$	161	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T <sub>j</sub>				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature T <sub>j</sub>			
T <sub>j</sub> = - 7 °C	P <sub>dh</sub>	-	kW	T <sub>j</sub> = - 7 °C	COP <sub>d</sub>	-	-
Degradation co-efficient (**)	C <sub>dh</sub>	-	-				
T <sub>j</sub> = + 2 °C	P <sub>dh</sub>	8.0	kW	T <sub>j</sub> = + 2 °C	COP <sub>d</sub>	1.82	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.99	-				
T <sub>j</sub> = + 7 °C	P <sub>dh</sub>	5.2	kW	T <sub>j</sub> = + 7 °C	COP <sub>d</sub>	3.40	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.99	-				
T <sub>j</sub> = +12 °C	P <sub>dh</sub>	4.5	kW	T <sub>j</sub> = +12 °C	COP <sub>d</sub>	5.92	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.98	-				
T <sub>j</sub> = bivalent temperature	P <sub>dh</sub>	8.0	kW	T <sub>j</sub> = bivalent temperature	COP <sub>d</sub>	1.82	-
T <sub>j</sub> = operation limit temperature	P <sub>dh</sub>	4.7	kW	T <sub>j</sub> = operation limit temperature	COP <sub>d</sub>	1.44	-
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>	2	°C	Operation limit temperature	TOL	-25	°C
Reference design conditions for space heating	T <sub>designh</sub>	2	°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	Type of energy input	Electrical		
Standby mode	P <sub>SB</sub>	0.015	kW				
Crankcase heater mode	P <sub>CK</sub>	0.000	kW				

Other items				Rated air flow rate, outdoors			
Capacity control	variable			-	2220	m <sup>3</sup> /h	
Sound power level, indoors/outdoors	L <sub>WA</sub>	41 / 56	dB(A)				
Annual energy consumption	Q <sub>HE</sub>	2554	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  
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-SWM80VAA(-BS)
	Indoor unit:	ERST20D-****D
Air-to-water heat pump:		yes
Water-to-water heat pump:		no
Brine-to-water heat pump:		no
Low-temperature heat pump:		no
Equipped with a supplementary heater:		yes
Heat pump combination heater:		yes
Parameters for		low-temperature application.
Parameters for		warmer climate conditions.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	8.0	kW	Seasonal space heating energy efficiency	$\eta_s$	218	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T <sub>j</sub>				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature T <sub>j</sub>			
T <sub>j</sub> = - 7 °C	P <sub>dh</sub>	-	kW	T <sub>j</sub> = - 7 °C	COP <sub>d</sub>	-	-
Degradation co-efficient (**)	C <sub>dh</sub>	-	-				
T <sub>j</sub> = + 2 °C	P <sub>dh</sub>	8.0	kW	T <sub>j</sub> = + 2 °C	COP <sub>d</sub>	3.56	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.99	-				
T <sub>j</sub> = + 7 °C	P <sub>dh</sub>	5.1	kW	T <sub>j</sub> = + 7 °C	COP <sub>d</sub>	4.90	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.98	-				
T <sub>j</sub> = +12 °C	P <sub>dh</sub>	4.7	kW	T <sub>j</sub> = +12 °C	COP <sub>d</sub>	7.12	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.97	-				
T <sub>j</sub> = bivalent temperature	P <sub>dh</sub>	8.0	kW	T <sub>j</sub> = bivalent temperature	COP <sub>d</sub>	3.56	-
T <sub>j</sub> = operation limit temperature	P <sub>dh</sub>	4.7	kW	T <sub>j</sub> = operation limit temperature	COP <sub>d</sub>	1.44	-
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>	2	°C	Operation limit temperature	TOL	-25	°C
Reference design conditions for space heating	T <sub>designh</sub>	2	°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	Type of energy input	Electrical		
Standby mode	P <sub>SB</sub>	0.015	kW				
Crankcase heater mode	P <sub>CK</sub>	0.000	kW				
Other items							
Capacity control	variable			Rated air flow rate, outdoors	-	2220	m <sup>3</sup> /h
Sound power level, indoors/outdoors	L <sub>WA</sub>	41 / 56	dB(A)				
Annual energy consumption	Q <sub>HE</sub>	1879	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				

Other items							
Capacity control	variable			Rated air flow rate, outdoors	-	2220	m <sup>3</sup> /h
Sound power level, indoors/outdoors	L <sub>WA</sub>	41 / 56	dB(A)				
Annual energy consumption	Q <sub>HE</sub>	1879	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				

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