



PRODUCT FICHE

Mitsubishi Electric Erp Directive Related Product Information: erp.mitsubishielectric.eu/erp
Details and precautions on installation, maintenance and assembly can be found in the installation and or operation manuals.
This information is based on EU regulation No 811/2013 and No 813/2013.

Table 1: SPACE HEATER. Columns: Outdoor unit, Indoor unit, Medium-temperature application (3-25), For low-temperature application (4-25). Rows: PUD-SWM60VAA(-BS), PUD-SWM80VAA(-BS), PUD-SWM100VAA(-BS), PUD-SWM120VAA(-BS), PUD-SWM140VAA(-BS), PUD-SWM160VAA(-BS), PUD-SWM180VAA(-BS), PUD-SWM200VAA(-BS), PUD-SWM220VAA(-BS), PUD-SWM240VAA(-BS), PUD-SWM260VAA(-BS), PUD-SWM280VAA(-BS), PUD-SWM300VAA(-BS).

Table 2: COMBINATION HEATER. Columns: Outdoor unit, Indoor unit, Medium-temperature application (3-25), For low-temperature application (4-25). Rows: PUD-SWM60VAA(-BS), PUD-SWM80VAA(-BS), PUD-SWM100VAA(-BS), PUD-SWM120VAA(-BS), PUD-SWM140VAA(-BS), PUD-SWM160VAA(-BS), PUD-SWM180VAA(-BS), PUD-SWM200VAA(-BS), PUD-SWM220VAA(-BS), PUD-SWM240VAA(-BS), PUD-SWM260VAA(-BS), PUD-SWM280VAA(-BS), PUD-SWM300VAA(-BS).

PRODUCT INFORMATION / TECHNICAL DOCUMENTATION

Model(s):	Outdoor unit:	PUD-SHWM60VAA(-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	6.0	kW	Seasonal space heating energy efficiency	η_s	134	%
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	5.3	kW	Tj = - 7 °C	COPd	2.14	-
Degradation co-efficient (**)	Cdh	0.99	-	Tj = + 2 °C	COPd	3.23	-
Tj = + 2 °C	Pdh	4.3	kW	Tj = + 7 °C	COPd	4.91	-
Degradation co-efficient (**)	Cdh	0.99	-	Tj = +12 °C	COPd	6.89	-
Tj = + 7 °C	Pdh	5.3	kW	Tj = bivalent temperature	COPd	2.02	-
Degradation co-efficient (**)	Cdh	0.99	-	Tj = operation limit temperature (***)	COPd	2.02	-
Tj = +12 °C	Pdh	3.1	kW	Operation limit temperature	TOL	-28	°C
Degradation co-efficient (**)	Cdh	0.97	-	Heating water operating limit temperature	WTOL	60	°C
Tj = bivalent temperature	Pdh	6.0	kW	Supplementary heater			
Tj = operation limit temperature (***)	Pdh	6.0	kW	Rated heat output (*)	Psup	0.0	kW
Bivalent temperature	Tbiv	-10	°C	Type of energy input	Electrical		
Reference design conditions for space heating	Tdesignh	-10	°C	Power consumption in modes other than active mode			
Off mode				P _{OFF}			
Thermostat-off mode				P _{TO}			
Standby mode				P _{SB}			
Crankcase heater mode				P _{CK}			

Capacity control	variable			Rated air flow rate, outdoors	-	2220	m ³ /h
Sound power level, indoors/outdoors	L _{WA}	41 / 55	dBA				
Annual energy consumption	Q _{HE}	3631	kWh				

For heat pump combination heater:				Water heating energy efficiency			
Declared load profile	L			η_{wh}	136	%	
Daily electricity consumption	Q _{elec}	3.630	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.

The identification and signature of the person empowered to bind the supplier:



Atsushi EDAYOSHI
 Manager, Quality Assurance Department
 UNITED KINGDOM

· Details and precautions on installation, maintenance and assembly can be found in the installation and or operation manuals.
 · Details and precautions on recycling and/or disposal at end-of-life can be found in the installation and or operation manuals.
 (*) 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.
 (***) If the declared TOL is lower than the T designh of the considered climate then the outdoor dry bulb temperature Tj is equal to T designh.

PRODUCT INFORMATION / TECHNICAL DOCUMENTATION

Model(s):	Outdoor unit:	PUD-SHWM60VAA(-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	6.0	kW	Seasonal space heating energy efficiency	η_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	5.3	kW	Tj = - 7 °C	COPd	3.29	-
Degradation co-efficient (**)	Cdh	0.99	-	Tj = + 2 °C	COPd	4.45	-
Tj = + 2 °C	Pdh	4.7	kW	Tj = + 7 °C	COPd	5.67	-
Degradation co-efficient (**)	Cdh	0.99	-	Tj = +12 °C	COPd	7.80	-
Tj = + 7 °C	Pdh	5.1	kW	Tj = bivalent temperature	COPd	3.21	-
Degradation co-efficient (**)	Cdh	0.98	-	Tj = operation limit temperature (***)	COPd	3.21	-
Tj = +12 °C	Pdh	3.2	kW	Operation limit temperature	TOL	-28	°C
Degradation co-efficient (**)	Cdh	0.96	-	Heating water operating limit temperature	WTOL	60	°C
Tj = bivalent temperature	Pdh	6.0	kW	Supplementary heater			
Tj = operation limit temperature (***)	Pdh	6.0	kW	Rated heat output (*)	Psup	0.0	kW
Bivalent temperature	Tbiv	-10	°C	Type of energy input	Electrical		
Reference design conditions for space heating	Tdesignh	-10	°C	Power consumption in modes other than active mode			
Off mode				P _{OFF}			
Thermostat-off mode				P _{TO}			
Standby mode				P _{SB}			
Crankcase heater mode				P _{CK}			
Other items				Rated air flow rate, outdoors			
Capacity control	variable			-	2220	m ³ /h	
Sound power level, indoors/outdoors	L _{WA}	41 / 55	dBA				
Annual energy consumption	Q _{HE}	2743	kWh				
For heat pump combination heater:				Water heating energy efficiency			
Declared load profile	L			η_{wh}	136	%	
Daily electricity consumption	Qelec	3.630	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.			
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The signature is signed in the average climate / medium-temperature section.							
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UNITED KINGDOM							

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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.

(***) If the declared TOL is lower than the T designh of the considered climate then the outdoor dry bulb temperature Tj is equal to T designh.

PRODUCT INFORMATION / TECHNICAL DOCUMENTATION

Model(s):	Outdoor unit:	PUD-SHWM60VAA(-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	6.0	kW	Seasonal space heating energy efficiency	η_s	113	%
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	3.6	kW	Tj = - 7 °C	COPd	2.62	-
Degradation co-efficient (**)	Cdh	0.99	-	Tj = + 2 °C	COPd	3.40	-
Tj = + 2 °C	Pdh	3.5	kW	Tj = + 7 °C	COPd	5.05	-
Degradation co-efficient (**)	Cdh	0.99	-	Tj = +12 °C	COPd	7.00	-
Tj = + 7 °C	Pdh	4.3	kW	Tj = bivalent temperature	COPd	1.44	-
Degradation co-efficient (**)	Cdh	0.98	-	Tj = operation limit temperature (***)	COPd	1.43	-
Tj = +12 °C	Pdh	3.1	kW	Tj = - 15 °C (if TOL < - 20 °C)	COPd	1.44	-
Degradation co-efficient (**)	Cdh	0.97	-	Operation limit temperature	TOL	-28	°C
Tj = bivalent temperature	Pdh	5.1	kW	Heating water operating limit temperature	WTOL	60	°C
Tj = operation limit temperature (***)	Pdh	4.8	kW	Supplementary heater			
Tj = - 15 °C (if TOL < - 20 °C)	Pdh	5.2	kW	Rated heat output (*)	Psup	1.3	kW
Bivalent temperature	Tbiv	-16	°C	Type of energy input	Electrical		
Reference design conditions for space heating	Tdesignh	-22	°C	Power consumption in modes other than active mode			
Off mode				P _{OFF}			
Thermostat-off mode				P _{TO}			
Standby mode				P _{SB}			
Crankcase heater mode				P _{CK}			

Other items				Rated air flow rate, outdoors			
Capacity control	variable			-	2220	m ³ /h	
Sound power level, indoors/outdoors	L _{WA}	41 / 55	dBA				
Annual energy consumption	Q _{HE}	5100	kWh				

For heat pump combination heater:				Water heating energy efficiency			
Declared load profile	L			η_{wh}	112	%	
Daily electricity consumption	Q _{elec}	4.400	kWh				
Annual electricity consumption	AEC	968	kWh				

Contact details	MITSUBISHI ELECTRIC AIR CODITIONING SYSTEM EUROPE LTD.	Nettlehill Road, Houston Industrial Estate, Livingston, EH54 5EQ, Scotland, U.K.
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(**) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.

(***) If the declared TOL is lower than the T designh of the considered climate then the outdoor dry bulb temperature Tj is equal to T designh.

PRODUCT INFORMATION / TECHNICAL DOCUMENTATION

Model(s):	Outdoor unit:	PUD-SHWM60VAA(-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	6.0	kW	Seasonal space heating energy efficiency	η_s	138	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T _j				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature T _j			
T _j = - 7 °C	P _d h	3.6	kW	T _j = - 7 °C	COP _d	3.21	-
Degradation co-efficient (**)	C _d h	0.99	-	T _j = + 2 °C	COP _d	3.93	-
T _j = + 2 °C	P _d h	3.8	kW	T _j = + 7 °C	COP _d	5.42	-
Degradation co-efficient (**)	C _d h	0.98	-	T _j = +12 °C	COP _d	7.56	-
T _j = + 7 °C	P _d h	4.5	kW	T _j = bivalent temperature	COP _d	2.22	-
Degradation co-efficient (**)	C _d h	0.98	-	T _j = operation limit temperature (***)	COP _d	1.82	-
T _j = +12 °C	P _d h	3.1	kW	T _j = - 15 °C (if TOL < - 20 °C)	COP _d	2.29	-
Degradation co-efficient (**)	C _d h	0.96	-	Operation limit temperature	TOL	-28	°C
T _j = bivalent temperature	P _d h	5.1	kW	Heating water operating limit temperature	WTOL	60	°C
T _j = operation limit temperature (***)	P _d h	4.8	kW	Supplementary heater			
T _j = - 15 °C (if TOL < - 20 °C)	P _d h	5.2	kW	Rated heat output (*)	P _{sup}	1.3	kW
Bivalent temperature	T _{biv}	-16	°C	Type of energy input	Electrical		
Reference design conditions for space heating	T _{designh}	-22	°C	Power consumption in modes other than active mode			
Off mode				P _{OFF}			
Thermostat-off mode				P _{TO}			
Standby mode				P _{SB}			
Crankcase heater mode				P _{CK}			

Other items				Rated air flow rate, outdoors			
Capacity control	variable			-	2220	m ³ /h	
Sound power level, indoors/outdoors	L _{WA}	41 / 55	dBA				
Annual energy consumption	Q _{HE}	4197	kWh				

For heat pump combination heater:							
Declared load profile				Water heating energy efficiency			
L				η_{wh}	112	%	
Daily electricity consumption	Q _{elec}	4.400	kWh				
Annual electricity consumption	AEC	968	kWh				

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

(***) If the declared TOL is lower than the T designh of the considered climate then the outdoor dry bulb temperature T_j is equal to T designh.

PRODUCT INFORMATION / TECHNICAL DOCUMENTATION

Model(s):	Outdoor unit:	PUD-SHWM60VAA(-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	6.0	kW	Seasonal space heating energy efficiency	η_s	159	%
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	COPd	1.91	-
Tj = + 2 °C	Pdh	6.0	kW	Tj = + 7 °C	COPd	3.36	-
Degradation co-efficient (**)	Cdh	1.00	-	Tj = +12 °C	COPd	6.16	-
Tj = + 7 °C	Pdh	3.9	kW	Tj = bivalent temperature	COPd	1.91	-
Degradation co-efficient (**)	Cdh	0.99	-	Tj = operation limit temperature (***)	COPd	1.91	-
Tj = +12 °C	Pdh	4.5	kW	Operation limit temperature	TOL	-28	°C
Degradation co-efficient (**)	Cdh	0.98	-	Heating water operating limit temperature	WTOL	60	°C
Tj = bivalent temperature	Pdh	6.0	kW	Supplementary heater			
Tj = operation limit temperature (***)	Pdh	6.0	kW	Rated heat output (*)	Psup	0.0	kW
Bivalent temperature	Tbiv	2	°C	Type of energy input	Electrical		
Reference design conditions for space heating	Tdesignh	2	°C	Power consumption in modes other than active mode			
Off mode				P _{OFF}			
Thermostat-off mode				P _{TO}			
Standby mode				P _{SB}			
Crankcase heater mode				P _{CK}			
Other items				Rated air flow rate, outdoors			
Capacity control	variable			-	2220	m ³ /h	
Sound power level, indoors/outdoors	L _{WA}	41 / 55	dBA				
Annual energy consumption	Q _{HE}	1975	kWh				
For heat pump combination heater:				Water heating energy efficiency			
Declared load profile	L			η_{wh}	154	%	
Daily electricity consumption	Q _{elec}	3.220	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.

(***) If the declared TOL is lower than the T designh of the considered climate then the outdoor dry bulb temperature Tj is equal to T designh.

PRODUCT INFORMATION / TECHNICAL DOCUMENTATION

Model(s):	Outdoor unit:	PUD-SHWM60VAA(-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	6.0	kW	Seasonal space heating energy efficiency	η_s	220	%
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	COPd	3.80	-
Tj = + 2 °C	Pdh	6.0	kW	Tj = + 7 °C	COPd	5.00	-
Degradation co-efficient (**)	Cdh	0.99	-	Tj = +12 °C	COPd	7.58	-
Tj = + 7 °C	Pdh	4.4	kW	Tj = bivalent temperature	COPd	3.80	-
Degradation co-efficient (**)	Cdh	0.98	-	Tj = operation limit temperature (***)	COPd	3.80	-
Tj = +12 °C	Pdh	4.7	kW	Operation limit temperature	TOL	-28	°C
Degradation co-efficient (**)	Cdh	0.98	-	Heating water operating limit temperature	WTOL	60	°C
Tj = bivalent temperature	Pdh	6.0	kW	Supplementary heater			
Tj = operation limit temperature (***)	Pdh	6.0	kW	Rated heat output (*)	Psup	0.0	kW
Bivalent temperature	Tbiv	2	°C	Type of energy input	Electrical		
Reference design conditions for space heating	Tdesignh	2	°C	Power consumption in modes other than active mode			
Off mode				P _{OFF}			
Thermostat-off mode				P _{TO}			
Standby mode				P _{SB}			
Crankcase heater mode				P _{CK}			

Other items	Capacity control	variable	Rated air flow rate, outdoors	-	2220	m ³ /h
	Sound power level, indoors/outdoors	L _{WA}	41 / 55	dB		
	Annual energy consumption	Q _{HE}	1439	kWh		

For heat pump combination heater:						
Declared load profile	L			Water heating energy efficiency	η_{wh}	154 %
Daily electricity consumption	Q _{elec}	3.220	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.

(***) If the declared TOL is lower than the T designh of the considered climate then the outdoor dry bulb temperature Tj is equal to T designh.

PRODUCT INFORMATION / TECHNICAL DOCUMENTATION

Model(s):	Outdoor unit:	PUD-SHWM60VAA(-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	6.0	kW	Seasonal space heating energy efficiency	η_s	134	%
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	5.3	kW	Tj = - 7 °C	COPd	2.14	-
Degradation co-efficient (**)	Cdh	0.99	-	Tj = + 2 °C	COPd	3.23	-
Tj = + 2 °C	Pdh	4.3	kW	Tj = + 7 °C	COPd	4.91	-
Degradation co-efficient (**)	Cdh	0.99	-	Tj = +12 °C	COPd	6.89	-
Tj = + 7 °C	Pdh	5.3	kW	Tj = bivalent temperature	COPd	2.02	-
Degradation co-efficient (**)	Cdh	0.99	-	Tj = operation limit temperature (***)	COPd	2.02	-
Tj = +12 °C	Pdh	3.1	kW	Operation limit temperature	TOL	-28	°C
Degradation co-efficient (**)	Cdh	0.97	-	Heating water operating limit temperature	WTOL	60	°C
Tj = bivalent temperature	Pdh	6.0	kW	Supplementary heater			
Tj = operation limit temperature (***)	Pdh	6.0	kW	Rated heat output (*)	Psup	0.0	kW
Bivalent temperature	Tbiv	-10	°C	Type of energy input	Electrical		
Reference design conditions for space heating	Tdesignh	-10	°C	Power consumption in modes other than active mode			
Off mode				P _{OFF}			
Thermostat-off mode				P _{TO}			
Standby mode				P _{SB}			
Crankcase heater mode				P _{CK}			

Capacity control	variable			Rated air flow rate, outdoors	-	2220	m ³ /h
Sound power level, indoors/outdoors	L _{WA}	41 / 55	dBA				
Annual energy consumption	Q _{HE}	3631	kWh				

For heat pump combination heater:				Water heating energy efficiency			
Declared load profile	L			η_{wh}	148	%	
Daily electricity consumption	Q _{elec}	3.340	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.
 (***) If the declared TOL is lower than the T designh of the considered climate then the outdoor dry bulb temperature Tj is equal to T designh.

PRODUCT INFORMATION / TECHNICAL DOCUMENTATION

Model(s):	Outdoor unit:	PUD-SHWM60VAA(-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	6.0	kW	Seasonal space heating energy efficiency	η_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	5.3	kW	Tj = - 7 °C	COPd	3.29	-
Degradation co-efficient (**)	Cdh	0.99	-	Tj = + 2 °C	COPd	4.45	-
Tj = + 2 °C	Pdh	4.7	kW	Tj = + 7 °C	COPd	5.67	-
Degradation co-efficient (**)	Cdh	0.99	-	Tj = +12 °C	COPd	7.80	-
Tj = + 7 °C	Pdh	5.1	kW	Tj = bivalent temperature	COPd	3.21	-
Degradation co-efficient (**)	Cdh	0.98	-	Tj = operation limit temperature (***)	COPd	3.21	-
Tj = +12 °C	Pdh	3.2	kW	Operation limit temperature	TOL	-28	°C
Degradation co-efficient (**)	Cdh	0.96	-	Heating water operating limit temperature	WTOL	60	°C
Tj = bivalent temperature	Pdh	6.0	kW	Supplementary heater			
Tj = operation limit temperature (***)	Pdh	6.0	kW	Rated heat output (*)	Psup	0.0	kW
Bivalent temperature	Tbiv	-10	°C	Type of energy input	Electrical		
Reference design conditions for space heating	Tdesignh	-10	°C	Power consumption in modes other than active mode			
Off mode				P _{OFF}			
Thermostat-off mode				P _{TO}			
Standby mode				P _{SB}			
Crankcase heater mode				P _{CK}			

Other items				Rated air flow rate, outdoors			
Capacity control	variable			-	2220	m ³ /h	
Sound power level, indoors/outdoors	L _{WA}	41 / 55	dBA				
Annual energy consumption	Q _{HE}	2743	kWh				

For heat pump combination heater:				Water heating energy efficiency			
Declared load profile	L			η_{wh}	148	%	
Daily electricity consumption	Q _{elec}	3.340	kWh				
Annual electricity consumption	AEC	736	kWh				

Contact details

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

The identification and signature of the person empowered to bind the supplier;

Atsushi EDAYOSHI

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Manager, Quality Assurance Department

UNITED KINGDOM

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

(***) If the declared TOL is lower than the T designh of the considered climate then the outdoor dry bulb temperature Tj is equal to T designh.

PRODUCT INFORMATION / TECHNICAL DOCUMENTATION

Model(s):	Outdoor unit:	PUD-SHWM60VAA(-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	6.0	kW	Seasonal space heating energy efficiency	η_s	113	%
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	3.6	kW	Tj = - 7 °C	COPd	2.62	-
Degradation co-efficient (**)	Cdh	0.99	-	Tj = + 2 °C	COPd	3.40	-
Tj = + 2 °C	Pdh	3.5	kW	Tj = + 7 °C	COPd	5.05	-
Degradation co-efficient (**)	Cdh	0.99	-	Tj = +12 °C	COPd	7.00	-
Tj = + 7 °C	Pdh	4.3	kW	Tj = bivalent temperature	COPd	1.44	-
Degradation co-efficient (**)	Cdh	0.98	-	Tj = operation limit temperature (***)	COPd	1.43	-
Tj = +12 °C	Pdh	3.1	kW	Tj = - 15 °C (if TOL < - 20 °C)	COPd	1.44	-
Degradation co-efficient (**)	Cdh	0.97	-	Operation limit temperature	TOL	-28	°C
Tj = bivalent temperature	Pdh	5.1	kW	Heating water operating limit temperature	WTOL	60	°C
Tj = operation limit temperature (***)	Pdh	4.8	kW	Supplementary heater			
Tj = - 15 °C (if TOL < - 20 °C)	Pdh	5.2	kW	Rated heat output (*)	Psup	1.3	kW
Bivalent temperature	Tbiv	-16	°C	Type of energy input	Electrical		
Reference design conditions for space heating	Tdesignh	-22	°C	Power consumption in modes other than active mode			
Off mode				P _{OFF}			
Thermostat-off mode				P _{TO}			
Standby mode				P _{SB}			
Crankcase heater mode				P _{CK}			

Other items				Rated air flow rate, outdoors			
Capacity control	variable			-	2220	m ³ /h	
Sound power level, indoors/outdoors	L _{WA}	41 / 55	dBA				
Annual energy consumption	Q _{HE}	5100	kWh				

For heat pump combination heater:				Water heating energy efficiency			
Declared load profile	L			η_{wh}	120	%	
Daily electricity consumption	Q _{elec}	4.090	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.

(***) If the declared TOL is lower than the T designh of the considered climate then the outdoor dry bulb temperature Tj is equal to T designh.

PRODUCT INFORMATION / TECHNICAL DOCUMENTATION

Model(s):	Outdoor unit:	PUD-SHWM60VAA(-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	6.0	kW	Seasonal space heating energy efficiency	η_s	138	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T _j				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature T _j			
T _j = - 7 °C	P _{d,h}	3.6	kW	T _j = - 7 °C	COP _d	3.21	-
Degradation co-efficient (**)	C _{d,h}	0.99	-	T _j = + 2 °C	COP _d	3.93	-
T _j = + 2 °C	P _{d,h}	3.8	kW	T _j = + 7 °C	COP _d	5.42	-
Degradation co-efficient (**)	C _{d,h}	0.98	-	T _j = +12 °C	COP _d	7.56	-
T _j = + 7 °C	P _{d,h}	4.5	kW	T _j = bivalent temperature	COP _d	2.22	-
Degradation co-efficient (**)	C _{d,h}	0.98	-	T _j = operation limit temperature (***)	COP _d	1.82	-
T _j = +12 °C	P _{d,h}	3.1	kW	T _j = - 15 °C (if TOL < - 20 °C)	COP _d	2.29	-
Degradation co-efficient (**)	C _{d,h}	0.96	-	Operation limit temperature	TOL	-28	°C
T _j = bivalent temperature	P _{d,h}	5.1	kW	Heating water operating limit temperature	WTOL	60	°C
T _j = operation limit temperature (***)	P _{d,h}	4.8	kW	Supplementary heater			
T _j = - 15 °C (if TOL < - 20 °C)	P _{d,h}	5.2	kW	Rated heat output (*)	P _{sup}	1.3	kW
Bivalent temperature	T _{biv}	-16	°C	Type of energy input	Electrical		
Reference design conditions for space heating	T _{designh}	-22	°C				
Power consumption in modes other than active mode							
Off mode	P _{OFF}	0.015	kW				
Thermostat-off mode	P _{TO}	0.015	kW				
Standby mode	P _{SB}	0.015	kW				
Crankcase heater mode	P _{CK}	0.000	kW				

Other items				Rated air flow rate, outdoors			
Capacity control	variable			-	2220	m ³ /h	
Sound power level, indoors/outdoors	L _{WA}	41 / 55	dBA				
Annual energy consumption	Q _{HE}	4197	kWh				

For heat pump combination heater:							
Declared load profile	L			Water heating energy efficiency	η_{wh}	120	%
Daily electricity consumption	Q _{elec}	4.090	kWh				
Annual electricity consumption	AEC	900	kWh				

Contact details		MITSUBISHI ELECTRIC AIR CODITIONING SYSTEM EUROPE LTD.	Nettlehill Road, Houston Industrial Estate, Livingston, EH54 5EQ, Scotland, U.K.
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(**) If C_{d,h} is not determined by measurement then the default degradation coefficient is C_{d,h} = 0,9.

(***) If the declared TOL is lower than the T_{designh} of the considered climate then the outdoor dry bulb temperature T_j is equal to T_{designh}.

PRODUCT INFORMATION / TECHNICAL DOCUMENTATION

Model(s):	Outdoor unit:	PUD-SHWM60VAA(-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	6.0	kW	Seasonal space heating energy efficiency	η_s	159	%
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	COPd	1.91	-
Tj = + 2 °C	Pdh	6.0	kW	Tj = + 7 °C	COPd	3.36	-
Degradation co-efficient (**)	Cdh	1.00	-	Tj = +12 °C	COPd	6.16	-
Tj = + 7 °C	Pdh	3.9	kW	Tj = bivalent temperature	COPd	1.91	-
Degradation co-efficient (**)	Cdh	0.99	-	Tj = operation limit temperature (***)	COPd	1.91	-
Tj = +12 °C	Pdh	4.5	kW	Operation limit temperature	TOL	-28	°C
Degradation co-efficient (**)	Cdh	0.98	-	Heating water operating limit temperature	WTOL	60	°C
Tj = bivalent temperature	Pdh	6.0	kW	Supplementary heater			
Tj = operation limit temperature (***)	Pdh	6.0	kW	Rated heat output (*)	Psup	0.0	kW
Bivalent temperature	Tbiv	2	°C	Type of energy input	Electrical		
Reference design conditions for space heating	Tdesignh	2	°C	Power consumption in modes other than active mode			
Off mode				P _{OFF}			
Thermostat-off mode				P _{TO}			
Standby mode				P _{SB}			
Crankcase heater mode				P _{CK}			

Other items	Capacity control	variable	Rated air flow rate, outdoors	-	2220	m ³ /h
	Sound power level, indoors/outdoors	L _{WA}	41 / 55			dBA
	Annual energy consumption	Q _{HE}	1975			kWh

For heat pump combination heater:						
Declared load profile	L			Water heating energy efficiency	η_{wh}	162 %
Daily electricity consumption	Qelec	3.070	kWh			
Annual electricity consumption	AEC	675	kWh			

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(***) If the declared TOL is lower than the T designh of the considered climate then the outdoor dry bulb temperature Tj is equal to T designh.

PRODUCT INFORMATION / TECHNICAL DOCUMENTATION

Model(s):	Outdoor unit:	PUD-SHWM60VAA(-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	6.0	kW	Seasonal space heating energy efficiency	η_s	220	%
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	COPd	3.80	-
Tj = + 2 °C	Pdh	6.0	kW	Tj = + 7 °C	COPd	5.00	-
Degradation co-efficient (**)	Cdh	0.99	-	Tj = +12 °C	COPd	7.58	-
Tj = + 7 °C	Pdh	4.4	kW	Tj = bivalent temperature	COPd	3.80	-
Degradation co-efficient (**)	Cdh	0.98	-	Tj = operation limit temperature (***)	COPd	3.80	-
Tj = +12 °C	Pdh	4.7	kW	Operation limit temperature	TOL	-28	°C
Degradation co-efficient (**)	Cdh	0.98	-	Heating water operating limit temperature	WTOL	60	°C
Tj = bivalent temperature	Pdh	6.0	kW	Supplementary heater			
Tj = operation limit temperature (***)	Pdh	6.0	kW	Rated heat output (*)	Psup	0.0	kW
Bivalent temperature	Tbiv	2	°C	Type of energy input	Electrical		
Reference design conditions for space heating	Tdesignh	2	°C	Power consumption in modes other than active mode			
Off mode				P _{OFF}			
Thermostat-off mode				P _{TO}			
Standby mode				P _{SB}			
Crankcase heater mode				P _{CK}			
Other items				Rated air flow rate, outdoors			
Capacity control	variable			-	2220	m ³ /h	
Sound power level, indoors/outdoors	L _{WA}	41 / 55	dBA				
Annual energy consumption	Q _{HE}	1439	kWh				
For heat pump combination heater:				Water heating energy efficiency			
Declared load profile	L			η_{wh}	162	%	
Daily electricity consumption	Q _{elec}	3.070	kWh				
Annual electricity consumption	AEC	675	kWh				

Contact details

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

(***) If the declared TOL is lower than the T designh of the considered climate then the outdoor dry bulb temperature Tj is equal to T designh.

PRODUCT INFORMATION / TECHNICAL DOCUMENTATION

Model(s):	Outdoor unit:	PUD-SHWM60VAA(-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.

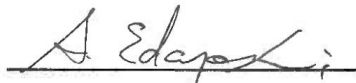
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	6.0	kW	Seasonal space heating energy efficiency	η_s	134	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = - 7 °C	Pdh	5.3	kW	Tj = - 7 °C	COPd	2.14	-
Degradation co-efficient (**)	Cdh	0.99	-	Tj = + 2 °C	COPd	3.23	-
Tj = + 2 °C	Pdh	4.3	kW	Tj = + 7 °C	COPd	4.91	-
Degradation co-efficient (**)	Cdh	0.99	-	Tj = +12 °C	COPd	6.89	-
Tj = + 7 °C	Pdh	5.3	kW	Tj = bivalent temperature	COPd	2.02	-
Degradation co-efficient (**)	Cdh	0.99	-	Tj = operation limit temperature (***)	COPd	2.02	-
Tj = +12 °C	Pdh	3.1	kW	Operation limit temperature	TOL	-28	°C
Degradation co-efficient (**)	Cdh	0.97	-	Heating water operating limit temperature	WTOL	60	°C
Tj = bivalent temperature	Pdh	6.0	kW	Supplementary heater			
Tj = operation limit temperature (***)	Pdh	6.0	kW	Rated heat output (*)	Psup	0.0	kW
Bivalent temperature	Tbiv	-10	°C	Type of energy input	Electrical		
Reference design conditions for space heating	Tdesignh	-10	°C	Power consumption in modes other than active mode			
Off mode				P _{OFF}			
Thermostat-off mode				P _{TO}			
Standby mode				P _{SB}			
Crankcase heater mode				P _{CK}			

Other items				Rated air flow rate, outdoors	-	2220	m ³ /h
Capacity control	variable						
Sound power level, indoors/outdoors	L _{WA}	41 / 55	dBA				
Annual energy consumption	Q _{HE}	3631	kWh				

For heat pump combination heater:				Water heating energy efficiency	η_{wh}	148	%
Declared load profile	L						
Daily electricity consumption	Q _{elec}	3.340	kWh				
Annual electricity consumption	AEC	736	kWh				

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 (***) If the declared TOL is lower than the T designh of the considered climate then the outdoor dry bulb temperature Tj is equal to T designh.

PRODUCT INFORMATION / TECHNICAL DOCUMENTATION

Model(s):	Outdoor unit:	PUD-SHWM60VAA(-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	6.0	kW	Seasonal space heating energy efficiency	η_s	178	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T _j				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature T _j			
T _j = - 7 °C	P _{d,h}	5.3	kW	T _j = - 7 °C	COP _d	3.29	-
Degradation co-efficient (**)	C _{d,h}	0.99	-	T _j = + 2 °C	COP _d	4.45	-
T _j = + 2 °C	P _{d,h}	4.7	kW	T _j = + 7 °C	COP _d	5.67	-
Degradation co-efficient (**)	C _{d,h}	0.99	-	T _j = +12 °C	COP _d	7.80	-
T _j = + 7 °C	P _{d,h}	5.1	kW	T _j = bivalent temperature	COP _d	3.21	-
Degradation co-efficient (**)	C _{d,h}	0.98	-	T _j = operation limit temperature (***)	COP _d	3.21	-
T _j = +12 °C	P _{d,h}	3.2	kW	Operation limit temperature	TOL	-28	°C
Degradation co-efficient (**)	C _{d,h}	0.96	-	Heating water operating limit temperature	WTOL	60	°C
T _j = bivalent temperature	P _{d,h}	6.0	kW	Supplementary heater			
T _j = operation limit temperature (***)	P _{d,h}	6.0	kW	Rated heat output (*)	P _{sup}	0.0	kW
Bivalent temperature	T _{biv}	-10	°C	Type of energy input	Electrical		
Reference design conditions for space heating	T _{designh}	-10	°C	Power consumption in modes other than active mode			
Power consumption in modes other than active mode				Off mode			
Off mode	P _{OFF}	0.015	kW	Thermostat-off mode	P _{TO}	0.015	kW
Thermostat-off mode	P _{TO}	0.015	kW	Standby mode	P _{SB}	0.015	kW
Standby mode	P _{SB}	0.015	kW	Crankcase heater mode	P _{CK}	0.000	kW
Crankcase heater mode	P _{CK}	0.000	kW	Other items			
Capacity control				Rated air flow rate, outdoors			
variable				-			
Sound power level, indoors/outdoors	L _{WA}	41 / 55	dBA	2220			
Annual energy consumption	Q _{HE}	2743	kWh	m ³ /h			

For heat pump combination heater:							
Declared load profile	L			Water heating energy efficiency	η_{wh}	148	%
Daily electricity consumption	Q _{elec}	3.340	kWh				
Annual electricity consumption	AEC	736	kWh				

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UNITED KINGDOM

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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(T_j).

(**) If C_{d,h} is not determined by measurement then the default degradation coefficient is C_{d,h} = 0,9.

(***) If the declared TOL is lower than the T_{designh} of the considered climate then the outdoor dry bulb temperature T_j is equal to T_{designh}.

PRODUCT INFORMATION / TECHNICAL DOCUMENTATION

Model(s):	Outdoor unit:	PUD-SHWM60VAA(-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	6.0	kW	Seasonal space heating energy efficiency	η_s	113	%
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	3.6	kW	Tj = - 7 °C	COPd	2.62	-
Degradation co-efficient (**)	Cdh	0.99	-	Tj = + 2 °C	COPd	3.40	-
Tj = + 2 °C	Pdh	3.5	kW	Tj = + 7 °C	COPd	5.05	-
Degradation co-efficient (**)	Cdh	0.99	-	Tj = +12 °C	COPd	7.00	-
Tj = + 7 °C	Pdh	4.3	kW	Tj = bivalent temperature	COPd	1.44	-
Degradation co-efficient (**)	Cdh	0.98	-	Tj = operation limit temperature (***)	COPd	1.43	-
Tj = +12 °C	Pdh	3.1	kW	Tj = - 15 °C (if TOL < - 20 °C)	COPd	1.44	-
Degradation co-efficient (**)	Cdh	0.97	-	Operation limit temperature	TOL	-28	°C
Tj = bivalent temperature	Pdh	5.1	kW	Heating water operating limit temperature	WTOL	60	°C
Tj = operation limit temperature (***)	Pdh	4.8	kW	Supplementary heater			
Tj = - 15 °C (if TOL < - 20 °C)	Pdh	5.2	kW	Rated heat output (*)	Psup	1.3	kW
Bivalent temperature	Tbiv	-16	°C	Type of energy input	Electrical		
Reference design conditions for space heating	Tdesignh	-22	°C	Power consumption in modes other than active mode			
Off mode				P _{OFF}			
Thermostat-off mode				P _{TO}			
Standby mode				P _{SB}			
Crankcase heater mode				P _{CK}			

Other items				Rated air flow rate, outdoors			
Capacity control	variable			-	2220	m ³ /h	
Sound power level, indoors/outdoors	L _{WA}	41 / 55	dBA				
Annual energy consumption	Q _{HE}	5100	kWh				

For heat pump combination heater:				Water heating energy efficiency			
Declared load profile	L			η_{wh}	120	%	
Daily electricity consumption	Q _{elec}	4.090	kWh				
Annual electricity consumption	AEC	900	kWh				

Contact details		MITSUBISHI ELECTRIC AIR CODITIONING SYSTEM EUROPE LTD.		Nettlehill Road, Houston Industrial Estate, Livingston, EH54 5EQ, Scotland, U.K.	
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The identification and signature of the person empowered to bind the supplier;

Atsushi EDAYOSHI

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Manager, Quality Assurance Department

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

(***) If the declared TOL is lower than the T designh of the considered climate then the outdoor dry bulb temperature Tj is equal to T designh.

PRODUCT INFORMATION / TECHNICAL DOCUMENTATION

Model(s):	Outdoor unit:	PUD-SHWM60VAA(-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	6.0	kW	Seasonal space heating energy efficiency	η_s	138	%
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	3.6	kW	Tj = - 7 °C	COPd	3.21	-
Degradation co-efficient (**)	Cdh	0.99	-	Tj = + 2 °C	COPd	3.93	-
Tj = + 2 °C	Pdh	3.8	kW	Tj = + 7 °C	COPd	5.42	-
Degradation co-efficient (**)	Cdh	0.98	-	Tj = +12 °C	COPd	7.56	-
Tj = + 7 °C	Pdh	4.5	kW	Tj = bivalent temperature	COPd	2.22	-
Degradation co-efficient (**)	Cdh	0.98	-	Tj = operation limit temperature (***)	COPd	1.82	-
Tj = +12 °C	Pdh	3.1	kW	Tj = - 15 °C (if TOL < - 20 °C)	COPd	2.29	-
Degradation co-efficient (**)	Cdh	0.96	-	Operation limit temperature	TOL	-28	°C
Tj = bivalent temperature	Pdh	5.1	kW	Heating water operating limit temperature	WTOL	60	°C
Tj = operation limit temperature (***)	Pdh	4.8	kW	Supplementary heater			
Tj = - 15 °C (if TOL < - 20 °C)	Pdh	5.2	kW	Rated heat output (*)	Psup	1.3	kW
Bivalent temperature	Tbiv	-16	°C	Type of energy input	Electrical		
Reference design conditions for space heating	Tdesignh	-22	°C	Power consumption in modes other than active mode			
Off mode				P _{OFF}			
Thermostat-off mode				P _{TO}			
Standby mode				P _{SB}			
Crankcase heater mode				P _{CK}			
Other items				Rated air flow rate, outdoors			
Capacity control	variable			-	2220	m ³ /h	
Sound power level, indoors/outdoors	L _{WA}	41 / 55	dBA				
Annual energy consumption	Q _{HE}	4197	kWh				
For heat pump combination heater:				Water heating energy efficiency			
Declared load profile	L			η_{wh}	120	%	
Daily electricity consumption	Q _{elec}	4.090	kWh				
Annual electricity consumption	AEC	900	kWh				

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

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PRODUCT INFORMATION / TECHNICAL DOCUMENTATION

Model(s):	Outdoor unit:	PUD-SHWM60VAA(-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	6.0	kW	Seasonal space heating energy efficiency	η_s	159	%
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	COPd	1.91	-
Tj = + 2 °C	Pdh	6.0	kW	Tj = + 7 °C	COPd	3.36	-
Degradation co-efficient (**)	Cdh	1.00	-	Tj = +12 °C	COPd	6.16	-
Tj = + 7 °C	Pdh	3.9	kW	Tj = bivalent temperature	COPd	1.91	-
Degradation co-efficient (**)	Cdh	0.99	-	Tj = operation limit temperature (***)	COPd	1.91	-
Tj = +12 °C	Pdh	4.5	kW	Operation limit temperature	TOL	-28	°C
Degradation co-efficient (**)	Cdh	0.98	-	Heating water operating limit temperature	WTOL	60	°C
Tj = bivalent temperature	Pdh	6.0	kW	Supplementary heater			
Tj = operation limit temperature (***)	Pdh	6.0	kW	Rated heat output (*)	Psup	0.0	kW
Bivalent temperature	Tbiv	2	°C	Type of energy input	Electrical		
Reference design conditions for space heating	Tdesignh	2	°C	Power consumption in modes other than active mode			
Off mode				P _{OFF}			
Thermostat-off mode				P _{TO}			
Standby mode				P _{SB}			
Crankcase heater mode				P _{CK}			

Capacity control	variable			Rated air flow rate, outdoors	-	2220	m ³ /h
Sound power level, indoors/outdoors	L _{WA}	41 / 55	dBA				
Annual energy consumption	Q _{HE}	1975	kWh				

For heat pump combination heater:				Water heating energy efficiency			
Declared load profile	L			η_{wh}	162	%	
Daily electricity consumption	Q _{elec}	3.070	kWh				
Annual electricity consumption	AEC	675	kWh				

Contact details

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

(***) If the declared TOL is lower than the T designh of the considered climate then the outdoor dry bulb temperature Tj is equal to T designh.

PRODUCT INFORMATION / TECHNICAL DOCUMENTATION

Model(s):	Outdoor unit:	PUD-SHWM60VAA(-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	6.0	kW	Seasonal space heating energy efficiency	η_s	220	%
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	COPd	3.80	-
Tj = + 2 °C	Pdh	6.0	kW	Tj = + 7 °C	COPd	5.00	-
Degradation co-efficient (**)	Cdh	0.99	-	Tj = +12 °C	COPd	7.58	-
Tj = + 7 °C	Pdh	4.4	kW	Tj = bivalent temperature	COPd	3.80	-
Degradation co-efficient (**)	Cdh	0.98	-	Tj = operation limit temperature (***)	COPd	3.80	-
Tj = +12 °C	Pdh	4.7	kW	Operation limit temperature	TOL	-28	°C
Degradation co-efficient (**)	Cdh	0.98	-	Heating water operating limit temperature	WTOL	60	°C
Tj = bivalent temperature	Pdh	6.0	kW	Supplementary heater			
Tj = operation limit temperature (***)	Pdh	6.0	kW	Rated heat output (*)	Psup	0.0	kW
Bivalent temperature	Tbiv	2	°C	Type of energy input	Electrical		
Reference design conditions for space heating	Tdesignh	2	°C	Power consumption in modes other than active mode			
Off mode				P _{OFF}			
Thermostat-off mode				P _{TO}			
Standby mode				P _{SB}			
Crankcase heater mode				P _{CK}			

Other items				Rated air flow rate, outdoors			
Capacity control	variable			-	2220	m ³ /h	
Sound power level, indoors/outdoors	L _{WA}	41 / 55	dBA				
Annual energy consumption	Q _{HE}	1439	kWh				

For heat pump combination heater:				Water heating energy efficiency			
Declared load profile	L			η_{wh}	162	%	
Daily electricity consumption	Q _{elec}	3.070	kWh				
Annual electricity consumption	AEC	675	kWh				

Contact details

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

(***) If the declared TOL is lower than the T designh of the considered climate then the outdoor dry bulb temperature Tj is equal to T designh.

PRODUCT INFORMATION / TECHNICAL DOCUMENTATION

Model(s):	Outdoor unit:	PUD-SHWM60VAA(-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	6.0	kW	Seasonal space heating energy efficiency	η_s	134	%
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	5.3	kW	Tj = - 7 °C	COPd	2.14	-
Degradation co-efficient (**)	Cdh	0.99	-	Tj = + 2 °C	COPd	3.23	-
Tj = + 2 °C	Pdh	4.3	kW	Tj = + 7 °C	COPd	4.91	-
Degradation co-efficient (**)	Cdh	0.99	-	Tj = +12 °C	COPd	6.89	-
Tj = + 7 °C	Pdh	5.3	kW	Tj = bivalent temperature	COPd	2.02	-
Degradation co-efficient (**)	Cdh	0.99	-	Tj = operation limit temperature (***)	COPd	2.02	-
Tj = +12 °C	Pdh	3.1	kW	Operation limit temperature	TOL	-28	°C
Degradation co-efficient (**)	Cdh	0.97	-	Heating water operating limit temperature	WTOL	60	°C
Tj = bivalent temperature	Pdh	6.0	kW	Supplementary heater			
Tj = operation limit temperature (***)	Pdh	6.0	kW	Rated heat output (*)	Psup	0.0	kW
Bivalent temperature	Tbiv	-10	°C	Type of energy input	Electrical		
Reference design conditions for space heating	Tdesignh	-10	°C	Power consumption in modes other than active mode			
Off mode				P _{OFF}			
Thermostat-off mode				P _{TO}			
Standby mode				P _{SB}			
Crankcase heater mode				P _{CK}			

Capacity control	variable			Rated air flow rate, outdoors	-	2220	m ³ /h
Sound power level, indoors/outdoors	L _{WA}	41 / 55	dBA				
Annual energy consumption	Q _{HE}	3631	kWh				

For heat pump combination heater:				Water heating energy efficiency			
Declared load profile	L			η_{wh}	136	%	
Daily electricity consumption	Q _{elec}	3.630	kWh				
Annual electricity consumption	AEC	798	kWh				

Contact details
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The identification and signature of the person empowered to bind the supplier:



Atsushi EDAYOSHI
 Manager, Quality Assurance Department
 UNITED KINGDOM

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 (**) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.
 (***) If the declared TOL is lower than the T designh of the considered climate then the outdoor dry bulb temperature Tj is equal to T designh.

PRODUCT INFORMATION / TECHNICAL DOCUMENTATION

Model(s):	Outdoor unit:	PUD-SHWM60VAA(-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	6.0	kW	Seasonal space heating energy efficiency	η_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	5.3	kW	Tj = - 7 °C	COPd	3.29	-
Degradation co-efficient (**)	Cdh	0.99	-	Tj = + 2 °C	COPd	4.45	-
Tj = + 2 °C	Pdh	4.7	kW	Tj = + 7 °C	COPd	5.67	-
Degradation co-efficient (**)	Cdh	0.99	-	Tj = +12 °C	COPd	7.80	-
Tj = + 7 °C	Pdh	5.1	kW	Tj = bivalent temperature	COPd	3.21	-
Degradation co-efficient (**)	Cdh	0.98	-	Tj = operation limit temperature (***)	COPd	3.21	-
Tj = +12 °C	Pdh	3.2	kW	Operation limit temperature	TOL	-28	°C
Degradation co-efficient (**)	Cdh	0.96	-	Heating water operating limit temperature	WTOL	60	°C
Tj = bivalent temperature	Pdh	6.0	kW	Supplementary heater			
Tj = operation limit temperature (***)	Pdh	6.0	kW	Rated heat output (*)	Psup	0.0	kW
Bivalent temperature	Tbiv	-10	°C	Type of energy input	Electrical		
Reference design conditions for space heating	Tdesignh	-10	°C	Power consumption in modes other than active mode			
Off mode				P _{OFF}			
Thermostat-off mode				P _{TO}			
Standby mode				P _{SB}			
Crankcase heater mode				P _{CK}			
Other items				Rated air flow rate, outdoors			
Capacity control	variable			-	2220	m ³ /h	
Sound power level, indoors/outdoors	L _{WA}	41 / 55	dBA				
Annual energy consumption	Q _{HE}	2743	kWh				
For heat pump combination heater:				Water heating energy efficiency			
Declared load profile	L			η_{wh}	136	%	
Daily electricity consumption	Qelec	3.630	kWh				
Annual electricity consumption	AEC	798	kWh				

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

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PRODUCT INFORMATION / TECHNICAL DOCUMENTATION

Model(s):	Outdoor unit:	PUD-SHWM60VAA(-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	6.0	kW	Seasonal space heating energy efficiency	η_s	113	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T _j				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature T _j			
T _j = - 7 °C	P _d h	3.6	kW	T _j = - 7 °C	COP _d	2.62	-
Degradation co-efficient (**)	C _d h	0.99	-	T _j = + 2 °C	COP _d	3.40	-
T _j = + 2 °C	P _d h	3.5	kW	T _j = + 7 °C	COP _d	5.05	-
Degradation co-efficient (**)	C _d h	0.99	-	T _j = +12 °C	COP _d	7.00	-
T _j = + 7 °C	P _d h	4.3	kW	T _j = bivalent temperature	COP _d	1.44	-
Degradation co-efficient (**)	C _d h	0.98	-	T _j = operation limit temperature (***)	COP _d	1.43	-
T _j = +12 °C	P _d h	3.1	kW	T _j = - 15 °C (if TOL < - 20 °C)	COP _d	1.44	-
Degradation co-efficient (**)	C _d h	0.97	-	Operation limit temperature	TOL	-28	°C
T _j = bivalent temperature	P _d h	5.1	kW	Heating water operating limit temperature	WTOL	60	°C
T _j = operation limit temperature (***)	P _d h	4.8	kW	Supplementary heater			
T _j = - 15 °C (if TOL < - 20 °C)	P _d h	5.2	kW	Rated heat output (*)	P _{sup}	1.3	kW
Bivalent temperature	T _{biv}	-16	°C	Type of energy input	Electrical		
Reference design conditions for space heating	T _{designh}	-22	°C	Power consumption in modes other than active mode			
Off mode				P _{OFF}			
Thermostat-off mode				P _{TO}			
Standby mode				P _{SB}			
Crankcase heater mode				P _{CK}			

Other items				Rated air flow rate, outdoors			
Capacity control	variable			-	2220	m ³ /h	
Sound power level, indoors/outdoors	L _{WA}	41 / 55	dBA				
Annual energy consumption	Q _{HE}	5100	kWh				

For heat pump combination heater:							
Declared load profile	L			Water heating energy efficiency	η_{wh}	112	%
Daily electricity consumption	Q _{elec}	4.400	kWh				
Annual electricity consumption	AEC	968	kWh				

Contact details		MITSUBISHI ELECTRIC AIR CODITIONING SYSTEM EUROPE LTD.	Nettlehill Road, Houston Industrial Estate, Livingston, EH54 5EQ, Scotland, U.K.
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(**) If C_dh is not determined by measurement then the default degradation coefficient is C_dh = 0,9.

(***) If the declared TOL is lower than the T_{designh} of the considered climate then the outdoor dry bulb temperature T_j is equal to T_{designh}.

PRODUCT INFORMATION / TECHNICAL DOCUMENTATION

Model(s):	Outdoor unit:	PUD-SHWM60VAA(-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	6.0	kW	Seasonal space heating energy efficiency	η_s	138	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T _j				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature T _j			
T _j = - 7 °C	P _{dH}	3.6	kW	T _j = - 7 °C	COP _d	3.21	-
Degradation co-efficient (**)	C _{dH}	0.99	-	T _j = + 2 °C	COP _d	3.93	-
T _j = + 2 °C	P _{dH}	3.8	kW	T _j = + 7 °C	COP _d	5.42	-
Degradation co-efficient (**)	C _{dH}	0.98	-	T _j = +12 °C	COP _d	7.56	-
T _j = + 7 °C	P _{dH}	4.5	kW	T _j = bivalent temperature	COP _d	2.22	-
Degradation co-efficient (**)	C _{dH}	0.98	-	T _j = operation limit temperature (***)	COP _d	1.82	-
T _j = +12 °C	P _{dH}	3.1	kW	T _j = - 15 °C (if TOL < - 20 °C)	COP _d	2.29	-
Degradation co-efficient (**)	C _{dH}	0.96	-	Operation limit temperature	TOL	-28	°C
T _j = bivalent temperature	P _{dH}	5.1	kW	Heating water operating limit temperature	WTOL	60	°C
T _j = operation limit temperature (***)	P _{dH}	4.8	kW	Supplementary heater			
T _j = - 15 °C (if TOL < - 20 °C)	P _{dH}	5.2	kW	Rated heat output (*)	P _{sup}	1.3	kW
Bivalent temperature	T _{biv}	-16	°C	Type of energy input	Electrical		
Reference design conditions for space heating	T _{designh}	-22	°C				
Power consumption in modes other than active mode							
Off mode	P _{OFF}	0.015	kW				
Thermostat-off mode	P _{TO}	0.015	kW				
Standby mode	P _{SB}	0.015	kW				
Crankcase heater mode	P _{CK}	0.000	kW				

Other items				Rated air flow rate, outdoors			
Capacity control	variable			-	2220	m ³ /h	
Sound power level, indoors/outdoors	L _{WA}	41 / 55	dBA				
Annual energy consumption	Q _{HE}	4197	kWh				

For heat pump combination heater:							
Declared load profile	L			Water heating energy efficiency	η_{wh}	112	%
Daily electricity consumption	Q _{elec}	4.400	kWh				
Annual electricity consumption	AEC	968	kWh				

Contact details		MITSUBISHI ELECTRIC AIR CODITIONING SYSTEM EUROPE LTD.	Nettlehill Road, Houston Industrial Estate, Livingston, EH54 5EQ, Scotland, U.K.
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The identification and signature of the person empowered to bind the supplier;

Atsushi EDAYOSHI

The signature is signed in the average climate / medium-temperature section.

Manager, Quality Assurance Department

UNITED KINGDOM

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(**) If C_{dH} is not determined by measurement then the default degradation coefficient is C_{dH} = 0,9.

(***) If the declared TOL is lower than the T_{designh} of the considered climate then the outdoor dry bulb temperature T_j is equal to T_{designh}.

PRODUCT INFORMATION / TECHNICAL DOCUMENTATION

Model(s):	Outdoor unit:	PUD-SHWM60VAA(-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	6.0	kW	Seasonal space heating energy efficiency	η_s	159	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T _j				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature T _j			
T _j = - 7 °C	P _{d,h}	-	kW	T _j = - 7 °C	COP _d	-	-
Degradation co-efficient (**)	C _{d,h}	-	-	T _j = + 2 °C	COP _d	1.91	-
T _j = + 2 °C	P _{d,h}	6.0	kW	T _j = + 7 °C	COP _d	3.36	-
Degradation co-efficient (**)	C _{d,h}	1.00	-	T _j = +12 °C	COP _d	6.16	-
T _j = + 7 °C	P _{d,h}	3.9	kW	T _j = bivalent temperature	COP _d	1.91	-
Degradation co-efficient (**)	C _{d,h}	0.99	-	T _j = operation limit temperature (***)	COP _d	1.91	-
T _j = +12 °C	P _{d,h}	4.5	kW	Operation limit temperature	TOL	-28	°C
Degradation co-efficient (**)	C _{d,h}	0.98	-	Heating water operating limit temperature	WTOL	60	°C
T _j = bivalent temperature	P _{d,h}	6.0	kW	Supplementary heater			
T _j = operation limit temperature (***)	P _{d,h}	6.0	kW	Rated heat output (*)	P _{sup}	0.0	kW
Bivalent temperature	T _{biv}	2	°C	Type of energy input	Electrical		
Reference design conditions for space heating	T _{designh}	2	°C	Power consumption in modes other than active mode			
Off mode				P _{OFF}			
Thermostat-off mode				P _{TO}			
Standby mode				P _{SB}			
Crankcase heater mode				P _{CK}			
Other items				Rated air flow rate, outdoors			
Capacity control	variable			-	2220	m ³ /h	
Sound power level, indoors/outdoors	L _{WA}	41 / 55	dBA				
Annual energy consumption	Q _{HE}	1975	kWh				
For heat pump combination heater:				Water heating energy efficiency			
Declared load profile	L			η_{wh}	154	%	
Daily electricity consumption	Q _{elec}	3.220	kWh				
Annual electricity consumption	AEC	709	kWh				

Contact details

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 (**) If C_{d,h} is not determined by measurement then the default degradation coefficient is C_{d,h} = 0,9.

 (***) If the declared TOL is lower than the T_{designh} of the considered climate then the outdoor dry bulb temperature T_j is equal to T_{designh}.

PRODUCT INFORMATION / TECHNICAL DOCUMENTATION

Model(s):	Outdoor unit:	PUD-SHWM60VAA(-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	6.0	kW	Seasonal space heating energy efficiency	η_s	220	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T _j				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature T _j			
T _j = - 7 °C	P _{d,h}	-	kW	T _j = - 7 °C	COP _d	-	-
Degradation co-efficient (**)	C _{d,h}	-	-	T _j = + 2 °C	COP _d	3.80	-
T _j = + 2 °C	P _{d,h}	6.0	kW	T _j = + 7 °C	COP _d	5.00	-
Degradation co-efficient (**)	C _{d,h}	0.99	-	T _j = +12 °C	COP _d	7.58	-
T _j = + 7 °C	P _{d,h}	4.4	kW	T _j = bivalent temperature	COP _d	3.80	-
Degradation co-efficient (**)	C _{d,h}	0.98	-	T _j = operation limit temperature (***)	COP _d	3.80	-
T _j = +12 °C	P _{d,h}	4.7	kW	Operation limit temperature	TOL	-28	°C
Degradation co-efficient (**)	C _{d,h}	0.98	-	Heating water operating limit temperature	WTOL	60	°C
T _j = bivalent temperature	P _{d,h}	6.0	kW	Supplementary heater			
T _j = operation limit temperature (***)	P _{d,h}	6.0	kW	Rated heat output (*)	P _{sup}	0.0	kW
Bivalent temperature	T _{biv}	2	°C	Type of energy input	Electrical		
Reference design conditions for space heating	T _{designh}	2	°C	Power consumption in modes other than active mode			
Off mode				P _{OFF}			
Thermostat-off mode				P _{TO}			
Standby mode				P _{SB}			
Crankcase heater mode				P _{CK}			

Other items				Rated air flow rate, outdoors			
Capacity control	variable			-	2220	m ³ /h	
Sound power level, indoors/outdoors	L _{WA}	41 / 55	dBA				
Annual energy consumption	Q _{HE}	1439	kWh				

For heat pump combination heater:				Water heating energy efficiency			
Declared load profile	L			η_{wh}	154	%	
Daily electricity consumption	Q _{elec}	3.220	kWh				
Annual electricity consumption	AEC	709	kWh				

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(**) If C_{d,h} is not determined by measurement then the default degradation coefficient is C_{d,h} = 0,9.

(***) If the declared TOL is lower than the T_{designh} of the considered climate then the outdoor dry bulb temperature T_j is equal to T_{designh}.

PRODUCT INFORMATION / TECHNICAL DOCUMENTATION

Model(s):	Outdoor unit:	PUD-SHWM60VAA(-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	6.0	kW	Seasonal space heating energy efficiency	η_s	134	%
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	5.3	kW	Tj = - 7 °C	COPd	2.14	-
Degradation co-efficient (**)	Cdh	0.99	-	Tj = + 2 °C	COPd	3.23	-
Tj = + 2 °C	Pdh	4.3	kW	Tj = + 7 °C	COPd	4.91	-
Degradation co-efficient (**)	Cdh	0.99	-	Tj = +12 °C	COPd	6.89	-
Tj = + 7 °C	Pdh	5.3	kW	Tj = bivalent temperature	COPd	2.02	-
Degradation co-efficient (**)	Cdh	0.99	-	Tj = operation limit temperature (***)	COPd	2.02	-
Tj = +12 °C	Pdh	3.1	kW	Operation limit temperature	TOL	-28	°C
Degradation co-efficient (**)	Cdh	0.97	-	Heating water operating limit temperature	WTOL	60	°C
Tj = bivalent temperature	Pdh	6.0	kW	Supplementary heater			
Tj = operation limit temperature (***)	Pdh	6.0	kW	Rated heat output (*)	Psup	0.0	kW
Bivalent temperature	Tbiv	-10	°C	Type of energy input	Electrical		
Reference design conditions for space heating	Tdesignh	-10	°C	Power consumption in modes other than active mode			
Off mode				P _{OFF}			
Thermostat-off mode				P _{TO}			
Standby mode				P _{SB}			
Crankcase heater mode				P _{CK}			

Other items				Rated air flow rate, outdoors			
Capacity control	variable			-	2220	m ³ /h	
Sound power level, indoors/outdoors	L _{WA}	41 / 55	dBA				
Annual energy consumption	Q _{HE}	3631	kWh				

For heat pump combination heater:				Water heating energy efficiency			
Declared load profile	L			η_{wh}	148	%	
Daily electricity consumption	Q _{elec}	3.340	kWh				
Annual electricity consumption	AEC	736	kWh				

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

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 (**) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.
 (***) If the declared TOL is lower than the T designh of the considered climate then the outdoor dry bulb temperature Tj is equal to T designh.

PRODUCT INFORMATION / TECHNICAL DOCUMENTATION

Model(s):	Outdoor unit:	PUD-SHWM60VAA(-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	6.0	kW	Seasonal space heating energy efficiency	η_s	178	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T _j				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature T _j			
T _j = - 7 °C	P _{d,h}	5.3	kW	T _j = - 7 °C	COP _d	3.29	-
Degradation co-efficient (**)	C _{d,h}	0.99	-	T _j = + 2 °C	COP _d	4.45	-
T _j = + 2 °C	P _{d,h}	4.7	kW	T _j = + 7 °C	COP _d	5.67	-
Degradation co-efficient (**)	C _{d,h}	0.99	-	T _j = +12 °C	COP _d	7.80	-
T _j = + 7 °C	P _{d,h}	5.1	kW	T _j = bivalent temperature	COP _d	3.21	-
Degradation co-efficient (**)	C _{d,h}	0.98	-	T _j = operation limit temperature (***)	COP _d	3.21	-
T _j = +12 °C	P _{d,h}	3.2	kW	Operation limit temperature	TOL	-28	°C
Degradation co-efficient (**)	C _{d,h}	0.96	-	Heating water operating limit temperature	WTOL	60	°C
T _j = bivalent temperature	P _{d,h}	6.0	kW	Supplementary heater			
T _j = operation limit temperature (***)	P _{d,h}	6.0	kW	Rated heat output (*)	P _{sup}	0.0	kW
Bivalent temperature	T _{biv}	-10	°C	Type of energy input	Electrical		
Reference design conditions for space heating	T _{designh}	-10	°C	Power consumption in modes other than active mode			
Power consumption in modes other than active mode				Off mode			
Off mode	P _{OFF}	0.015	kW	Thermostat-off mode	P _{TO}	0.015	kW
Thermostat-off mode	P _{TO}	0.015	kW	Standby mode	P _{SB}	0.015	kW
Standby mode	P _{SB}	0.015	kW	Crankcase heater mode	P _{CK}	0.000	kW
Crankcase heater mode	P _{CK}	0.000	kW	Other items			
Capacity control				Rated air flow rate, outdoors			
variable				-			
Sound power level, indoors/outdoors	L _{WA}	41 / 55	dBA	2220			
Annual energy consumption	Q _{HE}	2743	kWh	m ³ /h			

For heat pump combination heater:							
Declared load profile	L			Water heating energy efficiency	η_{wh}	148	%
Daily electricity consumption	Q _{elec}	3.340	kWh				
Annual electricity consumption	AEC	736	kWh				

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

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(**) If C_{d,h} is not determined by measurement then the default degradation coefficient is C_{d,h} = 0,9.

(***) If the declared TOL is lower than the T_{designh} of the considered climate then the outdoor dry bulb temperature T_j is equal to T_{designh}.

PRODUCT INFORMATION / TECHNICAL DOCUMENTATION

Model(s):	Outdoor unit:	PUD-SHWM60VAA(-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	6.0	kW	Seasonal space heating energy efficiency	η_s	113	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T _j				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature T _j			
T _j = - 7 °C	P _d h	3.6	kW	T _j = - 7 °C	COP _d	2.62	-
Degradation co-efficient (**)	C _d h	0.99	-	T _j = + 2 °C	COP _d	3.40	-
T _j = + 2 °C	P _d h	3.5	kW	T _j = + 7 °C	COP _d	5.05	-
Degradation co-efficient (**)	C _d h	0.99	-	T _j = +12 °C	COP _d	7.00	-
T _j = + 7 °C	P _d h	4.3	kW	T _j = bivalent temperature	COP _d	1.44	-
Degradation co-efficient (**)	C _d h	0.98	-	T _j = operation limit temperature (***)	COP _d	1.43	-
T _j = +12 °C	P _d h	3.1	kW	T _j = - 15 °C (if TOL < - 20 °C)	COP _d	1.44	-
Degradation co-efficient (**)	C _d h	0.97	-	Operation limit temperature	TOL	-28	°C
T _j = bivalent temperature	P _d h	5.1	kW	Heating water operating limit temperature	WTOL	60	°C
T _j = operation limit temperature (***)	P _d h	4.8	kW	Supplementary heater			
T _j = - 15 °C (if TOL < - 20 °C)	P _d h	5.2	kW	Rated heat output (*)	P _{sup}	1.3	kW
Bivalent temperature	T _{biv}	-16	°C	Type of energy input	Electrical		
Reference design conditions for space heating	T _{designh}	-22	°C	Power consumption in modes other than active mode			
Power consumption in modes other than active mode				Off mode			
Off mode	P _{OFF}	0.015	kW	Thermostat-off mode	P _{TO}	0.015	kW
Thermostat-off mode	P _{TO}	0.015	kW	Standby mode	P _{SB}	0.015	kW
Standby mode	P _{SB}	0.015	kW	Crankcase heater mode	P _{CK}	0.000	kW
Crankcase heater mode	P _{CK}	0.000	kW	Other items			

Capacity control	variable			Rated air flow rate, outdoors	-	2220	m ³ /h
Sound power level, indoors/outdoors	L _{WA}	41 / 55	dBA				
Annual energy consumption	Q _{HE}	5100	kWh				

For heat pump combination heater:				Declared load profile			
Declared load profile	L			Water heating energy efficiency	η_{wh}	120	%
Daily electricity consumption	Q _{elec}	4.090	kWh				
Annual electricity consumption	AEC	900	kWh				

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

(***) If the declared TOL is lower than the T designh of the considered climate then the outdoor dry bulb temperature T_j is equal to T designh.

PRODUCT INFORMATION / TECHNICAL DOCUMENTATION

Model(s):	Outdoor unit:	PUD-SHWM60VAA(-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	6.0	kW	Seasonal space heating energy efficiency	η_s	138	%
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	3.6	kW	Tj = - 7 °C	COPd	3.21	-
Degradation co-efficient (**)	Cdh	0.99	-	Tj = + 2 °C	COPd	3.93	-
Tj = + 2 °C	Pdh	3.8	kW	Tj = + 7 °C	COPd	5.42	-
Degradation co-efficient (**)	Cdh	0.98	-	Tj = +12 °C	COPd	7.56	-
Tj = + 7 °C	Pdh	4.5	kW	Tj = bivalent temperature	COPd	2.22	-
Degradation co-efficient (**)	Cdh	0.98	-	Tj = operation limit temperature (***)	COPd	1.82	-
Tj = +12 °C	Pdh	3.1	kW	Tj = - 15 °C (if TOL < - 20 °C)	COPd	2.29	-
Degradation co-efficient (**)	Cdh	0.96	-	Operation limit temperature	TOL	-28	°C
Tj = bivalent temperature	Pdh	5.1	kW	Heating water operating limit temperature	WTOL	60	°C
Tj = operation limit temperature (***)	Pdh	4.8	kW	Supplementary heater			
Tj = - 15 °C (if TOL < - 20 °C)	Pdh	5.2	kW	Rated heat output (*)	Psup	1.3	kW
Bivalent temperature	Tbiv	-16	°C	Type of energy input	Electrical		
Reference design conditions for space heating	Tdesignh	-22	°C	Power consumption in modes other than active mode			
Off mode				P _{OFF}			
Thermostat-off mode				P _{TO}			
Standby mode				P _{SB}			
Crankcase heater mode				P _{CK}			

Other items				Rated air flow rate, outdoors			
Capacity control	variable			-	2220	m ³ /h	
Sound power level, indoors/outdoors	L _{WA}	41 / 55	dBA				
Annual energy consumption	Q _{HE}	4197	kWh				

For heat pump combination heater:							
Declared load profile				Water heating energy efficiency			
L				η_{wh}	120	%	
Daily electricity consumption	Q _{elec}	4.090	kWh				
Annual electricity consumption	AEC	900	kWh				

Contact details		MITSUBISHI ELECTRIC AIR CODITIONING SYSTEM EUROPE LTD.		Nettlehill Road, Houston Industrial Estate, Livingston, EH54 5EQ, Scotland, U.K.	
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The identification and signature of the person empowered to bind the supplier;

Atsushi EDAYOSHI

The signature is signed in the average climate / medium-temperature section.

Manager, Quality Assurance Department

UNITED KINGDOM

· Details and precautions on installation, maintenance and assembly can be found in the installation and or operation manuals.

· Details and precautions on recycling and/or disposal at end-of-life can be found in the installation and or operation manuals.

(*) 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.

(***) If the declared TOL is lower than the T designh of the considered climate then the outdoor dry bulb temperature Tj is equal to T designh.

PRODUCT INFORMATION / TECHNICAL DOCUMENTATION

Model(s):	Outdoor unit:	PUD-SHWM60VAA(-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	6.0	kW	Seasonal space heating energy efficiency	η_s	159	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T _j				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature T _j			
T _j = - 7 °C	P _{d,h}	-	kW	T _j = - 7 °C	COP _d	-	-
Degradation co-efficient (**)	C _{d,h}	-	-	T _j = + 2 °C	COP _d	1.91	-
T _j = + 2 °C	P _{d,h}	6.0	kW	T _j = + 7 °C	COP _d	3.36	-
Degradation co-efficient (**)	C _{d,h}	1.00	-	T _j = +12 °C	COP _d	6.16	-
T _j = + 7 °C	P _{d,h}	3.9	kW	T _j = bivalent temperature	COP _d	1.91	-
Degradation co-efficient (**)	C _{d,h}	0.99	-	T _j = operation limit temperature (***)	COP _d	1.91	-
T _j = +12 °C	P _{d,h}	4.5	kW	Operation limit temperature	TOL	-28	°C
Degradation co-efficient (**)	C _{d,h}	0.98	-	Heating water operating limit temperature	WTOL	60	°C
T _j = bivalent temperature	P _{d,h}	6.0	kW	Supplementary heater			
T _j = operation limit temperature (***)	P _{d,h}	6.0	kW	Rated heat output (*)	P _{sup}	0.0	kW
Bivalent temperature	T _{biv}	2	°C	Type of energy input	Electrical		
Reference design conditions for space heating	T _{designh}	2	°C	Power consumption in modes other than active mode			
Off mode				P _{OFF}			
Thermostat-off mode				P _{TO}			
Standby mode				P _{SB}			
Crankcase heater mode				P _{CK}			

Other items				Rated air flow rate, outdoors			
Capacity control	variable			-	2220	m ³ /h	
Sound power level, indoors/outdoors	L _{WA}	41 / 55	dBA				
Annual energy consumption	Q _{HE}	1975	kWh				

For heat pump combination heater:				Water heating energy efficiency			
Declared load profile	L			η_{wh}	162	%	
Daily electricity consumption	Q _{elec}	3.070	kWh				
Annual electricity consumption	AEC	675	kWh				

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(**) If C_{d,h} is not determined by measurement then the default degradation coefficient is C_{d,h} = 0,9.

(***) If the declared TOL is lower than the T_{designh} of the considered climate then the outdoor dry bulb temperature T_j is equal to T_{designh}.

PRODUCT INFORMATION / TECHNICAL DOCUMENTATION

Model(s):	Outdoor unit:	PUD-SHWM60VAA(-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	6.0	kW	Seasonal space heating energy efficiency	η_s	220	%
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	6.0	kW	Tj = + 2 °C	COPd	3.80	-
Degradation co-efficient (**)	Cdh	0.99	-				
Tj = + 7 °C	Pdh	4.4	kW	Tj = + 7 °C	COPd	5.00	-
Degradation co-efficient (**)	Cdh	0.98	-				
Tj = +12 °C	Pdh	4.7	kW	Tj = +12 °C	COPd	7.58	-
Degradation co-efficient (**)	Cdh	0.98	-				
Tj = bivalent temperature	Pdh	6.0	kW	Tj = bivalent temperature	COPd	3.80	-
Tj = operation limit temperature (***)	Pdh	6.0	kW	Tj = operation limit temperature (***)	COPd	3.80	-
Bivalent temperature	Tbiv	2	°C	Operation limit temperature	TOL	-28	°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 _{OFF}	0.015	kW	Rated heat output (*)	P _{sup}	0.0	kW
Thermostat-off mode	P _{TO}	0.015	kW	Type of energy input	Electrical		
Standby mode	P _{SB}	0.015	kW				
Crankcase heater mode	P _{CK}	0.000	kW				
Other items				Rated air flow rate, outdoors			
Capacity control	variable					2220	m ³ /h
Sound power level, indoors/outdoors	L _{WA}	41 / 55	dBA				
Annual energy consumption	Q _{HE}	1439	kWh				
For heat pump combination heater:				Water heating energy efficiency			
Declared load profile	L			η_{wh}	162	%	
Daily electricity consumption	Q _{elec}	3.070	kWh				
Annual electricity consumption	AEC	675	kWh				

Contact details

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