PRODUCT INFORMATION / TECHNICAL DOCUMENTATION

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	ηs	131	%
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 Tj			
Tj = - 7 °C	Pdh	7.1	kW	Tj = - 7 °C	COPd	2.03	-
Degradation co-efficient (**)	Cdh	1.00	-				
Tj = + 2 °C	Pdh	4.3	kW	Tj = + 2 °C	COPd	3.16	-
Degradation co-efficient (**)	Cdh	0.99	-				
Tj = + 7 °C	Pdh	5.3	kW	Tj = + 7 °C	COPd	4.86	-
Degradation co-efficient (**)	Cdh	0.99	-				
Tj = +12 °C	Pdh	3.1	kW	Tj = +12 °C	COPd	6.89	-
Degradation co-efficient (**)	Cdh	0.97	-				
Tj = bivalent temperature	Pdh	7.1	kW	Tj = bivalent temperature	COPd	2.03	-
Tj = operation limit temperature (***)	Pdh	6.7	kW	Tj = operation limit temperature (***)	COPd	1.93	-
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_{OFF}	0.015	kW	Rated heat output (*)	Psup	1.3	kW
Thermostat-off mode	P_{TO}	0.015	kW				
Standby mode	P_{SB}	0.015	kW	Type of energy input		Electrical	
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 / 56	dBA				
Annual energy consumption	Q_{HE}	4929	kWh				
For heat pump combination heater:							
Declared load profile		L		Water heating energy efficiency	ηwh	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.

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

Atsushi EDAYOSHI
Manager, Quality Assuarance 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.

This information is based on EU regulation No 811/2013 and No 813/2013.

PRODUCT INFORMATION / TECHNICAL DOCUMENTATION

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	ηs	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 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	4.45	-
Degradation co-efficient (**)	Cdh	0.99	-				
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	6.7	kW	Tj = operation limit temperature (***)	COPd	2.74	-
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_{OFF}	0.015	kW	Rated heat output (*)	Psup	1.3	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							
Capacity control	variable			Rated air flow rate, outdoors	-	2220	m^3/h
Sound power level, indoors/outdoors	L_{WA}	41 / 56	dBA				
Annual energy consumption	Q_{HE}	3646	kWh				
For heat pump combination heater:							
Declared load profile	L			Water heating energy efficiency	ηwh	136	%
Daily electricity consumption	Qelec	3.630	kWh				
Annual electricity consumption	AEC	798	kWh				

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PRODUCT INFORMATION / TECHNICAL DOCUMENTATION

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	ηs	110	%
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 Tj			
Tj = - 7 °C	Pdh	4.9	kW	Tj = - 7 °C	COPd	2.62	-
Degradation co-efficient (**)	Cdh	0.99	-				
Tj = + 2 °C	Pdh	3.5	kW	Tj = + 2 °C	COPd	3.22	-
Degradation co-efficient (**)	Cdh	0.99	-				
Tj = + 7 °C	Pdh	4.3	kW	Tj = + 7 °C	COPd	4.90	-
Degradation co-efficient (**)	Cdh	0.98	-				
Tj = +12 °C	Pdh	3.1	kW	Tj = +12 °C	COPd	6.60	-
Degradation co-efficient (**)	Cdh	0.97	-				
Tj = bivalent temperature	Pdh	6.7	kW	Tj = bivalent temperature	COPd	1.36	-
Tj = operation limit temperature (***)	Pdh	5.4	kW	Tj = operation limit temperature (***)	COPd	1.41	-
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_{OFF}	0.015	kW	Rated heat output (*)	Psup	2.6	kW
Thermostat-off mode	P_{TO}	0.015	kW				
Standby mode	P_{SB}	0.015	kW	Type of energy input	Electrical		
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 / 56	dBA				
Annual energy consumption	Q_{HE}	7003	kWh				
For heat pump combination heater:							
Declared load profile	L			Water heating energy efficiency	ηwh	112	%
Daily electricity consumption	Qelec	4.400	kWh				
Annual electricity consumption	AEC	968	kWh				

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PRODUCT INFORMATION / TECHNICAL DOCUMENTATION

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	ηs	139	%
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 Tj			
Tj = - 7 °C	Pdh	4.8	kW	Tj = - 7 °C	COPd	3.36	-
Degradation co-efficient (**)	Cdh	0.99	-				
Tj = + 2 °C	Pdh	3.8	kW	Tj = + 2 °C	COPd	3.92	-
Degradation co-efficient (**)	Cdh	0.99	-				
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	5.4	kW	Tj = operation limit temperature (***)	COPd	1.66	-
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_{OFF}	0.015	kW	Rated heat output (*)	Psup	2.6	kW
Thermostat-off mode	P_{TO}	0.015	kW				
Standby mode	P_{SB}	0.015	kW	Type of energy input	Electrical		
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 / 56	dBA				
Annual energy consumption	Q_{HE}	5544	kWh				
For heat pump combination heater:							
Declared load profile	L			Water heating energy efficiency	ηwh	112	%
Daily electricity consumption	Qelec	4.400	kWh				
Annual electricity consumption	AEC	968	kWh				

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PRODUCT INFORMATION / TECHNICAL DOCUMENTATION

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	ηs	161	%
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 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	1.00	-				
Tj = + 7 °C	Pdh	5.2	kW	Tj = + 7 °C	COPd	3.48	-
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	8.0	kW	Tj = operation limit temperature (***)	COPd	1.82	-
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_{OFF}	0.015	kW	Rated heat output (*)	Psup	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							
Capacity control	variable			Rated air flow rate, outdoors	-	2220	m^3/h
Sound power level, indoors/outdoors	L_{WA}	41 / 56	dBA				
Annual energy consumption	Q_{HE}	2604	kWh				
For heat pump combination heater:							
Declared load profile	L			Water heating energy efficiency	ηwh	154	%
Daily electricity consumption	Qelec	3.220	kWh				
Annual electricity consumption	AEC	709	kWh				

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PRODUCT INFORMATION / TECHNICAL DOCUMENTATION

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	ηs	218	%
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 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	3.55	-
Degradation co-efficient (**)	Cdh	0.99	-				
Tj = + 7 °C	Pdh	5.1	kW	Tj = + 7 °C	COPd	5.05	-
Degradation co-efficient (**)	Cdh	0.99	-				
Tj = +12 °C	Pdh	4.7	kW	Tj = +12 °C	COPd	7.12	-
Degradation co-efficient (**)	Cdh	0.98	-				
Tj = bivalent temperature	Pdh	8.0	kW	Tj = bivalent temperature	COPd	3.55	-
Tj = operation limit temperature (***)	Pdh	8.0	kW	Tj = operation limit temperature (***)	COPd	3.55	-
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_{OFF}	0.015	kW	Rated heat output (*)	Psup	0.0	kW
Thermostat-off mode	P_{TO}	0.015	kW				
Standby mode	P_{SB}	0.015	kW	Type of energy input		Electrical	
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 / 56	dBA				
Annual energy consumption	Q_{HE}	1932	kWh				
For heat pump combination heater:							
Declared load profile		L		Water heating energy efficiency	ηwh	154	%
Daily electricity consumption	Qelec	3.220	kWh				
Annual electricity consumption	AEC	709	kWh				

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PRODUCT INFORMATION / TECHNICAL DOCUMENTATION

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
Rated heat output (*)	Prated	8.0	kW
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T j			
Tj = - 7 °C	Pdh	7.1	kW
Degradation co-efficient (**)	Cdh	1.00	-
Tj = + 2 °C	Pdh	4.3	kW
Degradation co-efficient (**)	Cdh	0.99	-
Tj = + 7 °C	Pdh	5.3	kW
Degradation co-efficient (**)	Cdh	0.99	-
Tj = +12 °C	Pdh	3.1	kW
Degradation co-efficient (**)	Cdh	0.97	-
Tj = bivalent temperature	Pdh	7.1	kW
Tj = operation limit temperature (***)	Pdh	6.7	kW
Bivalent temperature	Tbiv	-7	°C
Reference design conditions for space heating	Tdesignh	-10	°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			
Capacity control		variable	
Sound power level, indoors/outdoors	L_{WA}	41 / 56	dBA
Annual energy consumption	Q_{HE}	4929	kWh
For heat pump combination heater:			
Declared load profile		L	
Daily electricity consumption	Qelec	3.630	kWh
Annual electricity consumption	AEC	798	kWh

Item	Symbol	Value	Unit
Seasonal space heating energy efficiency	ηs	131	%
Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = - 7 °C	COPd	2.03	-
Tj = + 2 °C	COPd	3.16	-
Tj = + 7 °C	COPd	4.86	-
Tj = +12 °C	COPd	6.89	-
Tj = bivalent temperature	COPd	2.03	-
Tj = operation limit temperature (***)	COPd	1.93	-
Operation limit temperature	TOL	-25	°C
Heating water operating limit temperature	WTOL	60	°C
Supplementary heater			
Rated heat output (*)	Psup	1.3	kW
Type of energy input		Electrical	
Rated air flow rate, outdoors	-	2220	m^3/h
Water heating energy efficiency	ηwh	136	%

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PRODUCT INFORMATION / TECHNICAL DOCUMENTATION

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	ηs	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 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	4.45	-
Degradation co-efficient (**)	Cdh	0.99	-				
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	6.7	kW	Tj = operation limit temperature (***)	COPd	2.74	-
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_{OFF}	0.015	kW	Rated heat output (*)	Psup	1.3	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							
Capacity control	variable			Rated air flow rate, outdoors	-	2220	m^3/h
Sound power level, indoors/outdoors	L_{WA}	41 / 56	dBA				
Annual energy consumption	Q_{HE}	3646	kWh				
For heat pump combination heater:							
Declared load profile	L			Water heating energy efficiency	ηwh	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.

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

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

Atsushi EDAYOSHI
Manager, Quality Assuarance 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.

This information is based on EU regulation No 811/2013 and No 813/2013.

PRODUCT INFORMATION / TECHNICAL DOCUMENTATION

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	ηs	110	%
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 Tj			
Tj = - 7 °C	Pdh	4.9	kW	Tj = - 7 °C	COPd	2.62	-
Degradation co-efficient (**)	Cdh	0.99	-				
Tj = + 2 °C	Pdh	3.5	kW	Tj = + 2 °C	COPd	3.22	-
Degradation co-efficient (**)	Cdh	0.99	-				
Tj = + 7 °C	Pdh	4.3	kW	Tj = + 7 °C	COPd	4.90	-
Degradation co-efficient (**)	Cdh	0.98	-				
Tj = +12 °C	Pdh	3.1	kW	Tj = +12 °C	COPd	6.60	-
Degradation co-efficient (**)	Cdh	0.97	-				
Tj = bivalent temperature	Pdh	6.7	kW	Tj = bivalent temperature	COPd	1.36	-
Tj = operation limit temperature (***)	Pdh	5.4	kW	Tj = operation limit temperature (***)	COPd	1.41	-
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_{OFF}	0.015	kW	Rated heat output (*)	Psup	2.6	kW
Thermostat-off mode	P_{TO}	0.015	kW				
Standby mode	P_{SB}	0.015	kW	Type of energy input	Electrical		
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 / 56	dBA				
Annual energy consumption	Q_{HE}	7003	kWh				
For heat pump combination heater:							
Declared load profile	L			Water heating energy efficiency	ηwh	112	%
Daily electricity consumption	Qelec	4.400	kWh				
Annual electricity consumption	AEC	968	kWh				

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PRODUCT INFORMATION / TECHNICAL DOCUMENTATION

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	ηs	139	%
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 Tj			
Tj = - 7 °C	Pdh	4.8	kW	Tj = - 7 °C	COPd	3.36	-
Degradation co-efficient (**)	Cdh	0.99	-				
Tj = + 2 °C	Pdh	3.8	kW	Tj = + 2 °C	COPd	3.92	-
Degradation co-efficient (**)	Cdh	0.99	-				
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	5.4	kW	Tj = operation limit temperature (***)	COPd	1.66	-
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_{OFF}	0.015	kW	Rated heat output (*)	Psup	2.6	kW
Thermostat-off mode	P_{TO}	0.015	kW				
Standby mode	P_{SB}	0.015	kW	Type of energy input	Electrical		
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 / 56	dBA				
Annual energy consumption	Q_{HE}	5544	kWh				
For heat pump combination heater:							
Declared load profile	L			Water heating energy efficiency	ηwh	112	%
Daily electricity consumption	Qelec	4.400	kWh				
Annual electricity consumption	AEC	968	kWh				

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PRODUCT INFORMATION / TECHNICAL DOCUMENTATION

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	ηs	161	%
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 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	1.00	-				
Tj = + 7 °C	Pdh	5.2	kW	Tj = + 7 °C	COPd	3.48	-
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	8.0	kW	Tj = operation limit temperature (***)	COPd	1.82	-
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_{OFF}	0.015	kW	Rated heat output (*)	Psup	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							
Capacity control	variable			Rated air flow rate, outdoors	-	2220	m^3/h
Sound power level, indoors/outdoors	L_{WA}	41 / 56	dBA				
Annual energy consumption	Q_{HE}	2604	kWh				
For heat pump combination heater:							
Declared load profile	L			Water heating energy efficiency	ηwh	154	%
Daily electricity consumption	Qelec	3.220	kWh				
Annual electricity consumption	AEC	709	kWh				

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PRODUCT INFORMATION / TECHNICAL DOCUMENTATION

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	ηs	218	%
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 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	3.55	-
Degradation co-efficient (**)	Cdh	0.99	-				
Tj = + 7 °C	Pdh	5.1	kW	Tj = + 7 °C	COPd	5.05	-
Degradation co-efficient (**)	Cdh	0.99	-				
Tj = +12 °C	Pdh	4.7	kW	Tj = +12 °C	COPd	7.12	-
Degradation co-efficient (**)	Cdh	0.98	-				
Tj = bivalent temperature	Pdh	8.0	kW	Tj = bivalent temperature	COPd	3.55	-
Tj = operation limit temperature (***)	Pdh	8.0	kW	Tj = operation limit temperature (***)	COPd	3.55	-
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_{OFF}	0.015	kW	Rated heat output (*)	Psup	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							
Capacity control	variable			Rated air flow rate, outdoors	-	2220	m^3/h
Sound power level, indoors/outdoors	L_{WA}	41 / 56	dBA				
Annual energy consumption	Q_{HE}	1932	kWh				
For heat pump combination heater:							
Declared load profile	L			Water heating energy efficiency	ηwh	154	%
Daily electricity consumption	Qelec	3.220	kWh				
Annual electricity consumption	AEC	709	kWh				

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This information is based on EU regulation No 811/2013 and No 813/2013.

PRODUCT INFORMATION / TECHNICAL DOCUMENTATION

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	ηs	131	%
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 Tj			
Tj = - 7 °C	Pdh	7.1	kW	Tj = - 7 °C	COPd	2.03	-
Degradation co-efficient (**)	Cdh	1.00	-				
Tj = + 2 °C	Pdh	4.3	kW	Tj = + 2 °C	COPd	3.16	-
Degradation co-efficient (**)	Cdh	0.99	-				
Tj = + 7 °C	Pdh	5.3	kW	Tj = + 7 °C	COPd	4.86	-
Degradation co-efficient (**)	Cdh	0.99	-				
Tj = +12 °C	Pdh	3.1	kW	Tj = +12 °C	COPd	6.89	-
Degradation co-efficient (**)	Cdh	0.97	-				
Tj = bivalent temperature	Pdh	7.1	kW	Tj = bivalent temperature	COPd	2.03	-
Tj = operation limit temperature (***)	Pdh	6.7	kW	Tj = operation limit temperature (***)	COPd	1.93	-
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_{OFF}	0.015	kW	Rated heat output (*)	Psup	1.3	kW
Thermostat-off mode	P_{TO}	0.015	kW				
Standby mode	P_{SB}	0.015	kW	Type of energy input		Electrical	
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 / 56	dBA				
Annual energy consumption	Q_{HE}	4929	kWh				
For heat pump combination heater:							
Declared load profile		L		Water heating energy efficiency	ηwh	148	%
Daily electricity consumption	Qelec	3.340	kWh				
Annual electricity consumption	AEC	736	kWh				

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This information is based on EU regulation No 811/2013 and No 813/2013.

PRODUCT INFORMATION / TECHNICAL DOCUMENTATION

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
Rated heat output (*)	Prated	8.0	kW
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T j			
Tj = - 7 °C	Pdh	7.1	kW
Degradation co-efficient (**)	Cdh	0.99	-
Tj = + 2 °C	Pdh	4.7	kW
Degradation co-efficient (**)	Cdh	0.99	-
Tj = + 7 °C	Pdh	5.1	kW
Degradation co-efficient (**)	Cdh	0.98	-
Tj = +12 °C	Pdh	3.2	kW
Degradation co-efficient (**)	Cdh	0.96	-
Tj = bivalent temperature	Pdh	7.1	kW
Tj = operation limit temperature (***)	Pdh	6.7	kW
Bivalent temperature	Tbiv	-7	°C
Reference design conditions for space heating	Tdesignh	-10	°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			
Capacity control		variable	
Sound power level, indoors/outdoors	L_{WA}	41 / 56	dBA
Annual energy consumption	Q_{HE}	3646	kWh
For heat pump combination heater:			
Declared load profile		L	
Daily electricity consumption	Qelec	3.340	kWh
Annual electricity consumption	AEC	736	kWh

Item	Symbol	Value	Unit
Seasonal space heating energy efficiency	ηs	178	%
Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = - 7 °C	COPd	3.00	-
Tj = + 2 °C	COPd	4.45	-
Tj = + 7 °C	COPd	6.00	-
Tj = +12 °C	COPd	8.00	-
Tj = bivalent temperature	COPd	3.00	-
Tj = operation limit temperature (***)	COPd	2.74	-
Operation limit temperature	TOL	-25	°C
Heating water operating limit temperature	WTOL	60	°C
Supplementary heater			
Rated heat output (*)	Psup	1.3	kW
Type of energy input		Electrical	
Rated air flow rate, outdoors	-	2220	m^3/h
Water heating energy efficiency	ηwh	148	%

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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.

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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	ηs	110	%
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 Tj			
Tj = - 7 °C	Pdh	4.9	kW	Tj = - 7 °C	COPd	2.62	-
Degradation co-efficient (**)	Cdh	0.99	-				
Tj = + 2 °C	Pdh	3.5	kW	Tj = + 2 °C	COPd	3.22	-
Degradation co-efficient (**)	Cdh	0.99	-				
Tj = + 7 °C	Pdh	4.3	kW	Tj = + 7 °C	COPd	4.90	-
Degradation co-efficient (**)	Cdh	0.98	-				
Tj = +12 °C	Pdh	3.1	kW	Tj = +12 °C	COPd	6.60	-
Degradation co-efficient (**)	Cdh	0.97	-				
Tj = bivalent temperature	Pdh	6.7	kW	Tj = bivalent temperature	COPd	1.36	-
Tj = operation limit temperature (***)	Pdh	5.4	kW	Tj = operation limit temperature (***)	COPd	1.41	-
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_{OFF}	0.015	kW	Rated heat output (*)	Psup	2.6	kW
Thermostat-off mode	P_{TO}	0.015	kW				
Standby mode	P_{SB}	0.015	kW	Type of energy input	Electrical		
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 / 56	dBA				
Annual energy consumption	Q_{HE}	7003	kWh				
For heat pump combination heater:							
Declared load profile	L			Water heating energy efficiency	ηwh	120	%
Daily electricity consumption	Qelec	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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Atsushi EDAYOSHI
Manager, Quality Assuarance 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.

This information is based on EU regulation No 811/2013 and No 813/2013.

PRODUCT INFORMATION / TECHNICAL DOCUMENTATION

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	ηs	139	%
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 Tj			
Tj = - 7 °C	Pdh	4.8	kW	Tj = - 7 °C	COPd	3.36	-
Degradation co-efficient (**)	Cdh	0.99	-				
Tj = + 2 °C	Pdh	3.8	kW	Tj = + 2 °C	COPd	3.92	-
Degradation co-efficient (**)	Cdh	0.99	-				
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	5.4	kW	Tj = operation limit temperature (***)	COPd	1.66	-
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_{OFF}	0.015	kW	Rated heat output (*)	Psup	2.6	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							
Capacity control	variable			Rated air flow rate, outdoors	-	2220	m^3/h
Sound power level, indoors/outdoors	L_{WA}	41 / 56	dBA				
Annual energy consumption	Q_{HE}	5544	kWh				
For heat pump combination heater:							
Declared load profile	L			Water heating energy efficiency	ηwh	120	%
Daily electricity consumption	Qelec	4.090	kWh				
Annual electricity consumption	AEC	900	kWh				

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PRODUCT INFORMATION / TECHNICAL DOCUMENTATION

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	ηs	161	%
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 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	1.00	-				
Tj = + 7 °C	Pdh	5.2	kW	Tj = + 7 °C	COPd	3.48	-
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	8.0	kW	Tj = operation limit temperature (***)	COPd	1.82	-
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_{OFF}	0.015	kW	Rated heat output (*)	Psup	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							
Capacity control	variable			Rated air flow rate, outdoors	-	2220	m^3/h
Sound power level, indoors/outdoors	L_{WA}	41 / 56	dBA				
Annual energy consumption	Q_{HE}	2604	kWh				
For heat pump combination heater:							
Declared load profile	L			Water heating energy efficiency	ηwh	162	%
Daily electricity consumption	Qelec	3.070	kWh				
Annual electricity consumption	AEC	675	kWh				

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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-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	ηs	218	%
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 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	3.55	-
Degradation co-efficient (**)	Cdh	0.99	-				
Tj = + 7 °C	Pdh	5.1	kW	Tj = + 7 °C	COPd	5.05	-
Degradation co-efficient (**)	Cdh	0.99	-				
Tj = +12 °C	Pdh	4.7	kW	Tj = +12 °C	COPd	7.12	-
Degradation co-efficient (**)	Cdh	0.98	-				
Tj = bivalent temperature	Pdh	8.0	kW	Tj = bivalent temperature	COPd	3.55	-
Tj = operation limit temperature (***)	Pdh	8.0	kW	Tj = operation limit temperature (***)	COPd	3.55	-
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_{OFF}	0.015	kW	Rated heat output (*)	Psup	0.0	kW
Thermostat-off mode	P_{TO}	0.015	kW				
Standby mode	P_{SB}	0.015	kW	Type of energy input		Electrical	
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 / 56	dBA				
Annual energy consumption	Q_{HE}	1932	kWh				
For heat pump combination heater:							
Declared load profile		L		Water heating energy efficiency	ηwh	162	%
Daily electricity consumption	Qelec	3.070	kWh				
Annual electricity consumption	AEC	675	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.

This information is based on EU regulation No 811/2013 and No 813/2013.

PRODUCT INFORMATION / TECHNICAL DOCUMENTATION

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	ηs	131	%
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 Tj			
Tj = - 7 °C	Pdh	7.1	kW	Tj = - 7 °C	COPd	2.03	-
Degradation co-efficient (**)	Cdh	1.00	-				
Tj = + 2 °C	Pdh	4.3	kW	Tj = + 2 °C	COPd	3.16	-
Degradation co-efficient (**)	Cdh	0.99	-				
Tj = + 7 °C	Pdh	5.3	kW	Tj = + 7 °C	COPd	4.86	-
Degradation co-efficient (**)	Cdh	0.99	-				
Tj = +12 °C	Pdh	3.1	kW	Tj = +12 °C	COPd	6.89	-
Degradation co-efficient (**)	Cdh	0.97	-				
Tj = bivalent temperature	Pdh	7.1	kW	Tj = bivalent temperature	COPd	2.03	-
Tj = operation limit temperature (***)	Pdh	6.7	kW	Tj = operation limit temperature (***)	COPd	1.93	-
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_{OFF}	0.015	kW	Rated heat output (*)	Psup	1.3	kW
Thermostat-off mode	P_{TO}	0.015	kW				
Standby mode	P_{SB}	0.015	kW	Type of energy input		Electrical	
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 / 56	dBA				
Annual energy consumption	Q_{HE}	4929	kWh				
For heat pump combination heater:							
Declared load profile		L		Water heating energy efficiency	ηwh	148	%
Daily electricity consumption	Qelec	3.340	kWh				
Annual electricity consumption	AEC	736	kWh				

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This information is based on EU regulation No 811/2013 and No 813/2013.

PRODUCT INFORMATION / TECHNICAL DOCUMENTATION

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	ηs	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 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	4.45	-
Degradation co-efficient (**)	Cdh	0.99	-				
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	6.7	kW	Tj = operation limit temperature (***)	COPd	2.74	-
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_{OFF}	0.015	kW	Rated heat output (*)	Psup	1.3	kW
Thermostat-off mode	P_{TO}	0.015	kW				
Standby mode	P_{SB}	0.015	kW	Type of energy input		Electrical	
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 / 56	dBA				
Annual energy consumption	Q_{HE}	3646	kWh				
For heat pump combination heater:							
Declared load profile		L		Water heating energy efficiency	ηwh	148	%
Daily electricity consumption	Qelec	3.340	kWh				
Annual electricity consumption	AEC	736	kWh				

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PRODUCT INFORMATION / TECHNICAL DOCUMENTATION

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
Rated heat output (*)	Prated	8.0	kW
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T j			
Tj = - 7 °C	Pdh	4.9	kW
Degradation co-efficient (**)	Cdh	0.99	-
Tj = + 2 °C	Pdh	3.5	kW
Degradation co-efficient (**)	Cdh	0.99	-
Tj = + 7 °C	Pdh	4.3	kW
Degradation co-efficient (**)	Cdh	0.98	-
Tj = +12 °C	Pdh	3.1	kW
Degradation co-efficient (**)	Cdh	0.97	-
Tj = bivalent temperature	Pdh	6.7	kW
Tj = operation limit temperature (***)	Pdh	5.4	kW
Tj = – 15 °C (if TOL < – 20 °C)	Pdh	6.9	kW
Bivalent temperature	Tbiv	-16	°C
Reference design conditions for space heating	Tdesignh	-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			
Capacity control		variable	
Sound power level, indoors/outdoors	L_{WA}	41 / 56	dBA
Annual energy consumption	Q_{HE}	7003	kWh
For heat pump combination heater:			
Declared load profile		L	
Daily electricity consumption	Qelec	4.090	kWh
Annual electricity consumption	AEC	900	kWh

Item	Symbol	Value	Unit
Seasonal space heating energy efficiency	ηs	110	%
Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = - 7 °C	COPd	2.62	-
Tj = + 2 °C	COPd	3.22	-
Tj = + 7 °C	COPd	4.90	-
Tj = +12 °C	COPd	6.60	-
Tj = bivalent temperature	COPd	1.36	-
Tj = operation limit temperature (***)	COPd	1.41	-
Tj = – 15 °C (if TOL < – 20 °C)	COPd	1.35	-
Operation limit temperature	TOL	-25	°C
Heating water operating limit temperature	WTOL	60	°C
Supplementary heater			
Rated heat output (*)	Psup	2.6	kW
Type of energy input		Electrical	
Rated air flow rate, outdoors	-	2220	m^3/h
Water heating energy efficiency	ηwh	120	%

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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.

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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	ηs	139	%
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 Tj			
Tj = - 7 °C	Pdh	4.8	kW	Tj = - 7 °C	COPd	3.36	-
Degradation co-efficient (**)	Cdh	0.99	-				
Tj = + 2 °C	Pdh	3.8	kW	Tj = + 2 °C	COPd	3.92	-
Degradation co-efficient (**)	Cdh	0.99	-				
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	5.4	kW	Tj = operation limit temperature (***)	COPd	1.66	-
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_{OFF}	0.015	kW	Rated heat output (*)	Psup	2.6	kW
Thermostat-off mode	P_{TO}	0.015	kW				
Standby mode	P_{SB}	0.015	kW	Type of energy input	Electrical		
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 / 56	dBA				
Annual energy consumption	Q_{HE}	5544	kWh				
For heat pump combination heater:							
Declared load profile	L			Water heating energy efficiency	ηwh	120	%
Daily electricity consumption	Qelec	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.

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

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Atsushi EDAYOSHI
Manager, Quality Assuarance 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.

This information is based on EU regulation No 811/2013 and No 813/2013.

PRODUCT INFORMATION / TECHNICAL DOCUMENTATION

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	ηs	161	%
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 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	1.00	-				
Tj = + 7 °C	Pdh	5.2	kW	Tj = + 7 °C	COPd	3.48	-
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	8.0	kW	Tj = operation limit temperature (***)	COPd	1.82	-
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_{OFF}	0.015	kW	Rated heat output (*)	Psup	0.0	kW
Thermostat-off mode	P_{TO}	0.015	kW				
Standby mode	P_{SB}	0.015	kW	Type of energy input		Electrical	
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 / 56	dBA				
Annual energy consumption	Q_{HE}	2604	kWh				
For heat pump combination heater:							
Declared load profile		L		Water heating energy efficiency	ηwh	162	%
Daily electricity consumption	Qelec	3.070	kWh				
Annual electricity consumption	AEC	675	kWh				

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PRODUCT INFORMATION / TECHNICAL DOCUMENTATION

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	ηs	218	%
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 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	3.55	-
Degradation co-efficient (**)	Cdh	0.99	-				
Tj = + 7 °C	Pdh	5.1	kW	Tj = + 7 °C	COPd	5.05	-
Degradation co-efficient (**)	Cdh	0.99	-				
Tj = +12 °C	Pdh	4.7	kW	Tj = +12 °C	COPd	7.12	-
Degradation co-efficient (**)	Cdh	0.98	-				
Tj = bivalent temperature	Pdh	8.0	kW	Tj = bivalent temperature	COPd	3.55	-
Tj = operation limit temperature (***)	Pdh	8.0	kW	Tj = operation limit temperature (***)	COPd	3.55	-
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_{OFF}	0.015	kW	Rated heat output (*)	Psup	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							
Capacity control	variable			Rated air flow rate, outdoors	-	2220	m^3/h
Sound power level, indoors/outdoors	L_{WA}	41 / 56	dBA				
Annual energy consumption	Q_{HE}	1932	kWh				
For heat pump combination heater:							
Declared load profile	L			Water heating energy efficiency	ηwh	162	%
Daily electricity consumption	Qelec	3.070	kWh				
Annual electricity consumption	AEC	675	kWh				

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PRODUCT INFORMATION / TECHNICAL DOCUMENTATION

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
Rated heat output (*)	Prated	8.0	kW
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T j			
Tj = - 7 °C	Pdh	7.1	kW
Degradation co-efficient (**)	Cdh	1.00	-
Tj = + 2 °C	Pdh	4.3	kW
Degradation co-efficient (**)	Cdh	0.99	-
Tj = + 7 °C	Pdh	5.3	kW
Degradation co-efficient (**)	Cdh	0.99	-
Tj = +12 °C	Pdh	3.1	kW
Degradation co-efficient (**)	Cdh	0.97	-
Tj = bivalent temperature	Pdh	7.1	kW
Tj = operation limit temperature (***)	Pdh	6.7	kW
Bivalent temperature	Tbiv	-7	°C
Reference design conditions for space heating	Tdesignh	-10	°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			
Capacity control		variable	
Sound power level, indoors/outdoors	L_{WA}	41 / 56	dBA
Annual energy consumption	Q_{HE}	4929	kWh
For heat pump combination heater:			
Declared load profile		L	
Daily electricity consumption	Qelec	3.340	kWh
Annual electricity consumption	AEC	736	kWh

Item	Symbol	Value	Unit
Seasonal space heating energy efficiency	ηs	131	%
Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = - 7 °C	COPd	2.03	-
Tj = + 2 °C	COPd	3.16	-
Tj = + 7 °C	COPd	4.86	-
Tj = +12 °C	COPd	6.89	-
Tj = bivalent temperature	COPd	2.03	-
Tj = operation limit temperature (***)	COPd	1.93	-
Operation limit temperature	TOL	-25	°C
Heating water operating limit temperature	WTOL	60	°C
Supplementary heater			
Rated heat output (*)	Psup	1.3	kW
Type of energy input		Electrical	
Rated air flow rate, outdoors	-	2220	m^3/h
Water heating energy efficiency	ηwh	148	%

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

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This information is based on EU regulation No 811/2013 and No 813/2013.

PRODUCT INFORMATION / TECHNICAL DOCUMENTATION

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	ηs	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 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	4.45	-
Degradation co-efficient (**)	Cdh	0.99	-				
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	6.7	kW	Tj = operation limit temperature (***)	COPd	2.74	-
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_{OFF}	0.015	kW	Rated heat output (*)	Psup	1.3	kW
Thermostat-off mode	P_{TO}	0.015	kW				
Standby mode	P_{SB}	0.015	kW	Type of energy input		Electrical	
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 / 56	dBA				
Annual energy consumption	Q_{HE}	3646	kWh				
For heat pump combination heater:							
Declared load profile		L		Water heating energy efficiency	ηwh	148	%
Daily electricity consumption	Qelec	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.

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PRODUCT INFORMATION / TECHNICAL DOCUMENTATION

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	ηs	110	%
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 Tj			
Tj = - 7 °C	Pdh	4.9	kW	Tj = - 7 °C	COPd	2.62	-
Degradation co-efficient (**)	Cdh	0.99	-				
Tj = + 2 °C	Pdh	3.5	kW	Tj = + 2 °C	COPd	3.22	-
Degradation co-efficient (**)	Cdh	0.99	-				
Tj = + 7 °C	Pdh	4.3	kW	Tj = + 7 °C	COPd	4.90	-
Degradation co-efficient (**)	Cdh	0.98	-				
Tj = +12 °C	Pdh	3.1	kW	Tj = +12 °C	COPd	6.60	-
Degradation co-efficient (**)	Cdh	0.97	-				
Tj = bivalent temperature	Pdh	6.7	kW	Tj = bivalent temperature	COPd	1.36	-
Tj = operation limit temperature (***)	Pdh	5.4	kW	Tj = operation limit temperature (***)	COPd	1.41	-
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_{OFF}	0.015	kW	Rated heat output (*)	Psup	2.6	kW
Thermostat-off mode	P_{TO}	0.015	kW				
Standby mode	P_{SB}	0.015	kW	Type of energy input	Electrical		
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 / 56	dBA				
Annual energy consumption	Q_{HE}	7003	kWh				
For heat pump combination heater:							
Declared load profile	L			Water heating energy efficiency	ηwh	120	%
Daily electricity consumption	Qelec	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.

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PRODUCT INFORMATION / TECHNICAL DOCUMENTATION

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	ηs	139	%
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 Tj			
Tj = - 7 °C	Pdh	4.8	kW	Tj = - 7 °C	COPd	3.36	-
Degradation co-efficient (**)	Cdh	0.99	-				
Tj = + 2 °C	Pdh	3.8	kW	Tj = + 2 °C	COPd	3.92	-
Degradation co-efficient (**)	Cdh	0.99	-				
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	5.4	kW	Tj = operation limit temperature (***)	COPd	1.66	-
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_{OFF}	0.015	kW	Rated heat output (*)	Psup	2.6	kW
Thermostat-off mode	P_{TO}	0.015	kW				
Standby mode	P_{SB}	0.015	kW	Type of energy input	Electrical		
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 / 56	dBA				
Annual energy consumption	Q_{HE}	5544	kWh				
For heat pump combination heater:							
Declared load profile	L			Water heating energy efficiency	ηwh	120	%
Daily electricity consumption	Qelec	4.090	kWh				
Annual electricity consumption	AEC	900	kWh				

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PRODUCT INFORMATION / TECHNICAL DOCUMENTATION

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	ηs	161	%
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 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	1.00	-				
Tj = + 7 °C	Pdh	5.2	kW	Tj = + 7 °C	COPd	3.48	-
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	8.0	kW	Tj = operation limit temperature (***)	COPd	1.82	-
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_{OFF}	0.015	kW	Rated heat output (*)	Psup	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							
Capacity control	variable			Rated air flow rate, outdoors	-	2220	m^3/h
Sound power level, indoors/outdoors	L_{WA}	41 / 56	dBA				
Annual energy consumption	Q_{HE}	2604	kWh				
For heat pump combination heater:							
Declared load profile	L			Water heating energy efficiency	ηwh	162	%
Daily electricity consumption	Qelec	3.070	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.

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

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

Atsushi EDAYOSHI
Manager, Quality Assuarance 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.

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PRODUCT INFORMATION / TECHNICAL DOCUMENTATION

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	ηs	218	%
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 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	3.55	-
Degradation co-efficient (**)	Cdh	0.99	-				
Tj = + 7 °C	Pdh	5.1	kW	Tj = + 7 °C	COPd	5.05	-
Degradation co-efficient (**)	Cdh	0.99	-				
Tj = +12 °C	Pdh	4.7	kW	Tj = +12 °C	COPd	7.12	-
Degradation co-efficient (**)	Cdh	0.98	-				
Tj = bivalent temperature	Pdh	8.0	kW	Tj = bivalent temperature	COPd	3.55	-
Tj = operation limit temperature (***)	Pdh	8.0	kW	Tj = operation limit temperature (***)	COPd	3.55	-
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_{OFF}	0.015	kW	Rated heat output (*)	Psup	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							
Capacity control	variable			Rated air flow rate, outdoors	-	2220	m^3/h
Sound power level, indoors/outdoors	L_{WA}	41 / 56	dBA				
Annual energy consumption	Q_{HE}	1932	kWh				
For heat pump combination heater:							
Declared load profile	L			Water heating energy efficiency	ηwh	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.

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