



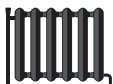
# ENERG

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Indoor unit  
Outdoor unit

E\*ST17/20D-\*\*\*\*D  
PUZ-SHWM80VAA



A<sup>+++</sup>

A<sup>++</sup>

A<sup>+</sup>

A

B

C

D

A<sup>++</sup>



A<sup>+</sup>

A

B

C

D

E

F

A<sup>+</sup>



41 dB



54 dB



08 kW  
08 kW  
08 kW

2019

811/2013

DG79V341H11

1		2		For medium-temperature application															For low-temperature application														
Outdoor unit	Indoor unit	3	6	8	11	9	13	15	16	21	22	17	18	25	4	6	8	11	9	13	15	16	21	22	17	18	25						
		Medium-temperature application															Low-temperature application																
		Seasonal space heating energy efficiency class															Seasonal space heating energy efficiency class																
		Rated heat output under average climate conditions															Rated heat output under average climate conditions																
		Seasonal space heating energy efficiency under average climate conditions															Seasonal space heating energy efficiency under average climate conditions																
		For space heating, annual energy consumption under average climate conditions															For space heating, annual energy consumption under average climate conditions																
		Sound power level L <sub>WA</sub> , indoor															Sound power level L <sub>WA</sub> , indoor																
		Rated heat output under warmer climate conditions															Rated heat output under warmer climate conditions																
		Seasonal space heating energy efficiency under warmer climate conditions															Seasonal space heating energy efficiency under warmer climate conditions																
		Rated heat output under colder climate conditions															Rated heat output under colder climate conditions																
		Seasonal space heating energy efficiency under colder climate conditions															Seasonal space heating energy efficiency under colder climate conditions																
		For space heating, annual energy consumption under colder climate conditions															For space heating, annual energy consumption under colder climate conditions																
		Sound power level L <sub>WA</sub> , outdoor															Sound power level L <sub>WA</sub> , outdoor																
		Low-temperature application															Low-temperature application																
		Seasonal space heating energy efficiency class															Seasonal space heating energy efficiency class																
		Rated heat output under average climate conditions															Rated heat output under average climate conditions																
		Seasonal space heating energy efficiency under average climate conditions															Seasonal space heating energy efficiency under average climate conditions																
		For space heating, annual energy consumption under average climate conditions															For space heating, annual energy consumption under average climate conditions																
		Sound power level L <sub>WA</sub> , indoor															Sound power level L <sub>WA</sub> , indoor																
		Rated heat output under colder climate conditions															Rated heat output under colder climate conditions																
		Seasonal space heating energy efficiency under warmer climate conditions															Seasonal space heating energy efficiency under warmer climate conditions																
		Rated heat output under warmer climate conditions															Rated heat output under warmer climate conditions																
		Seasonal space heating energy efficiency under average climate conditions															Seasonal space heating energy efficiency under average climate conditions																
		For space heating, annual energy consumption under average climate conditions															For space heating, annual energy consumption under average climate conditions																
		Sound power level L <sub>WA</sub> , outdoor															Sound power level L <sub>WA</sub> , outdoor																
PUZ-SWM60VAA	EHSD-****	✓	A++	6	126	3834	41	6	6	111	150	5181	2093	54	✓	A+++	6	181	2701	41	6	6	135	208	4284	1519	54						
	ERSD-****	✓	A++	6	128	3779	41	6	6	112	155	5147	2027	54	✓	A+++	6	184	2646	41	6	6	136	218	4251	1453	54						
PUZ-SWM80VAA	EHSD-****	✓	A++	8	129	5016	41	8	8	111	162	6890	2584	54	✓	A+++	8	181	3599	41	8	8	141	219	5460	1928	54						
	ERSD-****	✓	A++	8	130	4961	41	8	8	112	167	6857	2517	54	✓	A+++	8	184	3543	41	8	8	142	227	5427	1862	54						
PUZ-SWM80YAA	EHSD-****	✓	A++	8	128	5053	41	8	8	111	160	6923	2629	54	✓	A+++	8	179	3636	41	8	8	141	214	5493	1973	54						
	ERSD-****	✓	A++	8	130	4972	41	8	8	112	166	6875	2532	54	✓	A+++	8	183	3555	41	8	8	142	225	5444	1876	54						
PUZ-SWM100VAA	EHSD-****	✓	A++	10	132	6106	41	10	10	109	156	8813	3362	58	✓	A+++	10	178	4564	41	10	10	147	223	6575	2369	58						
	ERSD-****	✓	A++	10	134	6051	41	10	10	109	159	8780	3296	58	✓	A+++	10	180	4509	41	10	10	147	229	6555	2302	58						
PUZ-SWM100YAA	EHSD-****	✓	A++	10	132	6141	41	10	10	109	154	8840	3405	58	✓	A+++	10	177	4600	41	10	10	146	219	6601	2411	58						
	ERSD-****	✓	A++	10	133	6061	41	10	10	109	159	8791	3308	58	✓	A+++	10	180	4519	41	10	10	147	228	6565	2314	58						
PUZ-SWM120VAA	EHSD-****	✓	A++	12	131	7450	41	12	12	109	154	10673	4115	58	✓	A+++	12	177	5566	41	12	12	141	221	8290	2882	58						
	ERSD-****	✓	A++	12	132	7395	41	12	12	109	157	10640	4049	58	✓	A+++	12	178	5511	41	12	12	141	227	8257	2816	58						
PUZ-SWM120YAA	EHSD-****	✓	A++	12	131	7485	41	12	12	109	153	10698	4157	58	✓	A+++	12	176	5600	41	12	12	140	218	8316	2922	58						
	ERSD-****	✓	A++	12	132	7404	41	12	12	109	156	10649	4060	58	✓	A+++	12	178	5520	41	12	12	141	226	8267	2825	58						
PUZ-SWM140VAA	EHSD-****	✓	A++	14	134	8438	41	14	14	104	150	12843	4893	58	✓	A+++	14	175	6483	41	14	14	132	219	10250	3367	58						
	ERSD-****	✓	A++	14	135	8383	41	14	14	105	152	12810	4826	58	✓	A+++	14	177	6428	41	14	14	132	224	10217	3301	58						
PUZ-SWM140YAA	EHSD-****	✓	A++	14	134	8473	41	14	14	104	149	12867	4934	58	✓	A+++	14	175	6517	41	14	14	131	217	10275	3407	58						
	ERSD-****	✓	A++	14	135	8392	41	14	14	105	152	12819	4837	58	✓	A+++	14	177	6437	41	14	14	132	223	10226	3310	58						
PUZ-SHWM60VAA	EHSD-****	✓	A++	6	129	3761	41	6	6	115	159	4993	1980	54	✓	A+++	6	184	2655	41	6	6	138	220	4202	1437	54						
	ERSD-****	✓	A++	6	131	3706	41	6	6	116	165	4960	1914	54	✓	A+++	6	188	2600	41	6	6	139	231	4168	1371	54						
PUZ-SHWM80VAA	EHSD-****	✓	A++	8	132	4904	41	8	8	115	167	6705	2521	54	✓	A+++	8	184	3530	41	8	8	146	225	5299	1874	54						
	ERSD-****	✓	A++	8	133	4849	41	8	8	115	171	6672	2454	54	✓	A+++	8	187	3475	41	8	8	147	233	5266	1808	54						
PUZ-SHWM80YAA	EHSD-****	✓	A++	8	131	4941	41	8	8	114	164	6737	2566	54	✓	A+++	8	182	3568	41	8	8	145	220	5332	1920	54						
	ERSD-****	✓	A++	8	133	4860	41	8	8	115	170	6689	2469	54	✓	A+++	8	187	3487	41	8	8	146	232	5284	1823	54						
PUZ-SHWM100VAA	EHSD-****	✓	A++	10	136	5936	41	10	10	116	164	8272	3204	58	✓	A+++	10	183	4444	41	10	10	149	236	6480	2233	58						
	ERSD-****	✓	A++	10	138	5881	41	10	10	117	167	8239	3138	58	✓	A+++	10	185	4389	41	10	10	150	244	6447	2167	58						
PUZ-SHWM100YAA	EHSD-****	✓	A++	10	135	5972	41	10	10	116	162	8298	3246	58	✓	A+++	10	181	4480	41	10	10	149	232	6508	2276	58						
	ERSD-****	✓	A++	10	137	5891	41	10	10	117	167	8250	3149	58	✓	A+++	10	185	4399	41	10	10	150	242	6459	2179	58						
PUZ-SHWM120VAA	EHSD-****	✓	A++	12	136	7169	41	12	12	117	161	9902	3952	58	✓	A+++	12	179	5481	41	12	12	149	232	7843	2753	58						
	ERSD-****	✓	A++	12	138	7114	41	12	12	118	163	9869	3886	58	✓	A+++	12	181	5426	41	12	12	150	238	7810	2687	58						
PUZ-SHWM120YAA	EHSD-****	✓	A++	12	136	7204	41	12	12	117	159	9927	3995	58	✓	A+++	12	178	5516	41	12	12	149	238	7868	2793	58						
	ERSD-****	✓	A++	12	137	7123	41	12	12	118	163	9878	3988	58	✓	A+++	12	181	5435	41	12	12	150	237	7819	2696	58						
PUZ-SHWM140VAA	EHSD-****	✓	A++	14	141	8021	41	14	14	115	156	11650	4715	58	✓	A+++	14	183	6227	41	14	14	153	225	8841	3219	58						
	ERSD-****	✓	A++	14	142	7965	41	14	14	116	158	11617	4649	58	✓	A+++	14	184	6172	41	14	14	154	230	8807	3272	58						
PUZ-SHWM140YAA	EHSD-****	✓	A++	14	141	8055	41	14	14	115	154	11674	4757	58	✓	A+++	14	182	6262	41	14	14	153	222	8865	3319	58						
	ERSD-****	✓	A++	14	142	7974	41	14	14	116	158	11625	4659	58	✓	A+++	14	184	6181	41	14	14	154	229	8816	3222	58						





**PRODUCT INFORMATION / TECHNICAL DOCUMENTATION**

Model(s):	Outdoor unit:	PUZ-SHWM80VAA
	Indoor unit:	EHST17D-****D
Air-to-water heat pump:		yes
Water-to-water heat pump:		no
Brine-to-water heat pump:		no
Low-temperature heat pump:		no
Equipped with a supplementary heater:		yes
Heat pump combination heater:		yes
Parameters for		medium-temperature application.
Parameters for		average climate conditions.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	8.0	kW	Seasonal space heating energy efficiency	$\eta_s$	132	%
Declared capacity for heating for part load at indoor temperature 20 ° C and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 ° C and outdoor temperature Tj			
Tj = - 7 ° C	Pdh	7.1	kW	Tj = - 7 ° C	COPd	2.31	-
Degradation co-efficient (**)	Cdh	1.00	-				
Tj = + 2 ° C	Pdh	4.4	kW	Tj = + 2 ° C	COPd	3.21	-
Degradation co-efficient (**)	Cdh	0.99	-				
Tj = + 7 ° C	Pdh	4.4	kW	Tj = + 7 ° C	COPd	4.40	-
Degradation co-efficient (**)	Cdh	0.99	-				
Tj = +12 ° C	Pdh	2.8	kW	Tj = +12 ° C	COPd	6.09	-
Degradation co-efficient (**)	Cdh	0.97	-				
Tj = bivalent temperature	Pdh	8.0	kW	Tj = bivalent temperature	COPd	1.83	-
Tj = operation limit temperature (***)	Pdh	8.0	kW	Tj = operation limit temperature (***)	COPd	1.83	-
Bivalent temperature	Tbiv	-10	° C	Operation limit temperature	TOL	-30	° C
Reference design conditions for space heating	Tdesignh	-10	° C	Heating water operating limit temperature	WTOL	60	° C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P <sub>OFF</sub>	0.015	kW	Rated heat output (*)	Psup	0.0	kW
Thermostat-off mode	P <sub>TO</sub>	0.015	kW				
Standby mode	P <sub>SB</sub>	0.015	kW	Type of energy input	Electrical		
Crankcase heater mode	P <sub>CK</sub>	0.000	kW				
Other items							
Capacity control	variable			Rated air flow rate, outdoors	-	2220	m³/h
Sound power level, indoors/outdoors	L <sub>WA</sub>	41 / 54	dBA				
Annual energy consumption	Q <sub>HE</sub>	4904	kWh				

For heat pump combination heater:

Declared load profile	L			Water heating energy efficiency	$\eta_{wh}$	134	%
Daily electricity consumption	Qelec	4.000	kWh				
Annual electricity consumption	AEC	880	kWh				

**Contact details**

MITSUBISHI ELECTRIC AIR CONDITIONING SYSTEMS MANUFACTURING TURKEY JOINT STOCK COMPANY

Manisa OSB 4.Kisim Kencilikoyosb Mah. Ahmet Nazif Zorlu Bulvari No:19 Yunusemre - Manisa, Turkey

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

Kenichi SAITO  
Manager, Quality Assurance Department  
TURKEY

斉藤 健一

\* 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:	PUZ-SHWM80VAA
	Indoor unit:	EHST17D-****D
Air-to-water heat pump:		yes
Water-to-water heat pump:		no
Brine-to-water heat pump:		no
Low-temperature heat pump:		no
Equipped with a supplementary heater:		yes
Heat pump combination heater:		yes
Parameters for		low-temperature application.
Parameters for		average climate conditions.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	8.0	kW	Seasonal space heating energy efficiency	$\eta_s$	184	%
Declared capacity for heating for part load at indoor temperature 20 ° C and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 ° C and outdoor temperature Tj			
Tj = - 7 ° C	Pdh	7.1	kW	Tj = - 7 ° C	COPd	3.22	-
Degradation co-efficient (**)	Cdh	0.99	-				
Tj = + 2 ° C	Pdh	4.4	kW	Tj = + 2 ° C	COPd	4.75	-
Degradation co-efficient (**)	Cdh	0.98	-				
Tj = + 7 ° C	Pdh	5.0	kW	Tj = + 7 ° C	COPd	5.90	-
Degradation co-efficient (**)	Cdh	0.98	-				
Tj = +12 ° C	Pdh	3.0	kW	Tj = +12 ° C	COPd	6.52	-
Degradation co-efficient (**)	Cdh	0.97	-				
Tj = bivalent temperature	Pdh	8.0	kW	Tj = bivalent temperature	COPd	2.65	-
Tj = operation limit temperature (***)	Pdh	8.0	kW	Tj = operation limit temperature (***)	COPd	2.65	-
Bivalent temperature	Tbiv	-10	° C	Operation limit temperature	TOL	-30	° C
Reference design conditions for space heating	Tdesignh	-10	° C	Heating water operating limit temperature	WTOL	60	° C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P <sub>OFF</sub>	0.015	kW	Rated heat output (*)	Psup	0.0	kW
Thermostat-off mode	P <sub>TO</sub>	0.015	kW				
Standby mode	P <sub>SB</sub>	0.015	kW	Type of energy input	Electrical		
Crankcase heater mode	P <sub>CK</sub>	0.000	kW				
Other items							
Capacity control	variable			Rated air flow rate, outdoors	-	2220	m <sup>3</sup> /h
Sound power level, indoors/outdoors	L <sub>WA</sub>	41 / 54	dBA				
Annual energy consumption	Q <sub>HE</sub>	3530	kWh				

For heat pump combination heater:

Declared load profile	L			Water heating energy efficiency	$\eta_{wh}$	134	%
Daily electricity consumption	Q <sub>elec</sub>	4.000	kWh				
Annual electricity consumption	AEC	880	kWh				

**Contact details**

MITSUBISHI ELECTRIC AIR CONDITIONING SYSTEMS MANUFACTURING TURKEY JOINT STOCK COMPANY	Manisa OSB 4.Kisim Kccilikoyosb Mah. Ahmet Nazif Zorlu Bulvari No:19 Yunusemre - Manisa, Turkey
The identification and signature of the person empowered to bind the supplier;	Kenichi SAITO
The signature is signed in the average climate / medium-temperature section.	Manager, Quality Assurance Department
	TURKEY

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• 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:	PUZ-SHWM80VAA
	Indoor unit:	EHST17D-****D
Air-to-water heat pump:		yes
Water-to-water heat pump:		no
Brine-to-water heat pump:		no
Low-temperature heat pump:		no
Equipped with a supplementary heater:		yes
Heat pump combination heater:		yes
Parameters for		medium-temperature application.
Parameters for		colder climate conditions.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	8.0	kW	Seasonal space heating energy efficiency	$\eta_s$	115	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = - 7 °C	Pdh	4.9	kW	Tj = - 7 °C	COPd	2.65	-
Degradation co-efficient (**)	Cdh	0.99	-	Tj = + 2 °C	COPd	3.45	-
Tj = + 2 °C	Pdh	4.0	kW	Tj = + 7 °C	COPd	4.78	-
Degradation co-efficient (**)	Cdh	0.99	-	Tj = +12 °C	COPd	6.74	-
Tj = + 7 °C	Pdh	4.3	kW	Tj = bivalent temperature	COPd	1.51	-
Degradation co-efficient (**)	Cdh	0.98	-	Tj = operation limit temperature (***)	COPd	1.41	-
Tj = +12 °C	Pdh	3.1	kW	Tj = - 15 °C (if TOL < - 20 °C)	COPd	1.51	-
Degradation co-efficient (**)	Cdh	0.97	-	Operation limit temperature	TOL	-30	°C
Tj = bivalent temperature	Pdh	6.7	kW	Heating water operating limit temperature	WTOL	60	°C
Tj = operation limit temperature (***)	Pdh	5.3	kW				
Tj = - 15 °C (if TOL < - 20 °C)	Pdh	6.5	kW				
Bivalent temperature	Tbiv	-16	°C				
Reference design conditions for space heating	Tdesignh	-22	°C				
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P <sub>OFF</sub>	0.015	kW	Rated heat output (*)	Psup	2.7	kW
Thermostat-off mode	P <sub>TO</sub>	0.015	kW	Type of energy input	Electrical		
Standby mode	P <sub>SB</sub>	0.015	kW				
Crankcase heater mode	P <sub>CK</sub>	0.000	kW				

**Other items**

Capacity control	variable			Rated air flow rate, outdoors	-	2220	m³/h
Sound power level, indoors/outdoors	L <sub>WA</sub>	41 / 54	dBA				
Annual energy consumption	Q <sub>HE</sub>	6705	kWh				

**For heat pump combination heater:**

Declared load profile	L			Water heating energy efficiency	$\eta_{wh}$	105	%
Daily electricity consumption	Qelec	4.820	kWh				
Annual electricity consumption	AEC	1060	kWh				

**Contact details**

MITSUBISHI ELECTRIC AIR CONDITIONING SYSTEMS MANUFACTURING TURKEY JOINT STOCK COMPANY	Manisa OSB 4.Kisim Kecilikoyosb Mah. Ahmet Nazif Zorlu Bulvari No:19 Yunusemre - Manisa, Turkey
The identification and signature of the person empowered to bind the supplier:	Kenichi SAITO
The signature is signed in the average climate / medium-temperature section.	Manager, Quality Assurance Department
	TURKEY

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

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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:	PUZ-SHWM80VAA
	Indoor unit:	EHST17D-****D
Air-to-water heat pump:		yes
Water-to-water heat pump:		no
Brine-to-water heat pump:		no
Low-temperature heat pump:		no
Equipped with a supplementary heater:		yes
Heat pump combination heater:		yes
Parameters for		low-temperature application.
Parameters for		colder climate conditions.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	8.0	kW	Seasonal space heating energy efficiency	$\eta_s$	146	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T <sub>j</sub>				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature T <sub>j</sub>			
T <sub>j</sub> = - 7 °C	P <sub>dh</sub>	4.8	kW	T <sub>j</sub> = - 7 °C	COP <sub>d</sub>	3.53	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.99	-	T <sub>j</sub> = + 2 °C	COP <sub>d</sub>	4.30	-
T <sub>j</sub> = + 2 °C	P <sub>dh</sub>	4.0	kW	T <sub>j</sub> = + 7 °C	COP <sub>d</sub>	5.56	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.98	-	T <sub>j</sub> = +12 °C	COP <sub>d</sub>	7.56	-
T <sub>j</sub> = + 7 °C	P <sub>dh</sub>	4.5	kW	T <sub>j</sub> = bivalent temperature	COP <sub>d</sub>	2.05	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.98	-	T <sub>j</sub> = operation limit temperature (***)	COP <sub>d</sub>	1.41	-
T <sub>j</sub> = +12 °C	P <sub>dh</sub>	3.1	kW	T <sub>j</sub> = - 15 °C (if TOL < - 20 °C)	COP <sub>d</sub>	2.05	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.96	-	Operation limit temperature	TOL	-30	°C
T <sub>j</sub> = bivalent temperature	P <sub>dh</sub>	6.7	kW	Heating water operating limit temperature	WTOL	60	°C
T <sub>j</sub> = operation limit temperature (***)	P <sub>dh</sub>	5.4	kW				
T <sub>j</sub> = - 15 °C (if TOL < - 20 °C)	P <sub>dh</sub>	6.5	kW				
Bivalent temperature	T <sub>biv</sub>	-16	°C				
Reference design conditions for space heating	T <sub>designh</sub>	-22	°C				
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P <sub>OFF</sub>	0.015	kW	Rated heat output (*)	P <sub>sup</sub>	2.6	kW
Thermostat-off mode	P <sub>TO</sub>	0.015	kW	Type of energy input	Electrical		
Standby mode	P <sub>SB</sub>	0.015	kW				
Crankcase heater mode	P <sub>CK</sub>	0.000	kW				

**Other items**

Capacity control	variable			Rated air flow rate, outdoors	-	2220	m³/h
Sound power level, indoors/outdoors	L <sub>WA</sub>	41 / 54	dBA				
Annual energy consumption	Q <sub>HE</sub>	5299	kWh				

**For heat pump combination heater:**

Declared load profile	L			Water heating energy efficiency	$\eta_{wh}$	105	%
Daily electricity consumption	Q <sub>elec</sub>	4.820	kWh				
Annual electricity consumption	AEC	1060	kWh				

**Contact details**

MITSUBISHI ELECTRIC AIR CONDITIONING SYSTEMS MANUFACTURING TURKEY JOINT STOCK COMPANY	Manisa OSB 4.Kisim Kecilikoyosb Mah. Ahmet Nazif Zorlu Bulvari No:19 Yunusemre - Manisa, Turkey
The identification and signature of the person empowered to bind the supplier:	Kenichi SAITO
The signature is signed in the average climate / medium-temperature section.	Manager, Quality Assurance Department
	TURKEY

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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:	PUZ-SHWM80VAA
	Indoor unit:	EHST17D-****D
Air-to-water heat pump:		yes
Water-to-water heat pump:		no
Brine-to-water heat pump:		no
Low-temperature heat pump:		no
Equipped with a supplementary heater:		yes
Heat pump combination heater:		yes
Parameters for		medium-temperature application.
Parameters for		warmer climate conditions.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit			
Rated heat output (*)	Prated	8.0	kW	Seasonal space heating energy efficiency	$\eta_s$	167	%			
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj						
Tj = - 7 °C	Pdh	-	kW	Tj = - 7 °C	COPd	-	-			
Degradation co-efficient (**)	Cdh	-	-							
Tj = + 2 °C	Pdh	8.0	kW	Tj = + 2 °C	COPd	2.05	-			
Degradation co-efficient (**)	Cdh	1.00	-							
Tj = + 7 °C	Pdh	5.2	kW	Tj = + 7 °C	COPd	3.60	-			
Degradation co-efficient (**)	Cdh	0.99	-							
Tj = +12 °C	Pdh	4.5	kW	Tj = +12 °C	COPd	6.02	-			
Degradation co-efficient (**)	Cdh	0.98	-							
Tj = bivalent temperature	Pdh	8.0	kW	Tj = bivalent temperature	COPd	2.05	-			
Tj = operation limit temperature (***)	Pdh	8.0	kW	Tj = operation limit temperature (***)	COPd	2.05	-			
Bivalent temperature	Tbiv	2	°C	Operation limit temperature	TOL	-30	°C			
Reference design conditions for space heating	Tdesignh	2	°C	Heating water operating limit temperature	WTOL	60	°C			
Power consumption in modes other than active mode				Supplementary heater						
Off mode	P <sub>OFF</sub>	0.015	kW	Rated heat output (*)	P <sub>sup</sub>	0.0	kW			
Thermostat-off mode	P <sub>TO</sub>	0.015	kW							
Standby mode	P <sub>SB</sub>	0.015	kW							
Crankcase heater mode	P <sub>CK</sub>	0.000	kW							
Other items				Type of energy input						
Capacity control	variable			Electrical						
Sound power level, indoors/outdoors	L <sub>WA</sub>	41 / 54	dBA	Rated air flow rate, outdoors						
Annual energy consumption	Q <sub>HE</sub>	2521	kWh	-						
				2220						
				m <sup>3</sup> /h						

For heat pump combination heater:

Declared load profile	L			Water heating energy efficiency	$\eta_{wh}$	135	%
Daily electricity consumption	Qelec	3.850	kWh				
Annual electricity consumption	AEC	846	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:	PUZ-SHWM80VAA
	Indoor unit:	EHST17D-****D
Air-to-water heat pump:		yes
Water-to-water heat pump:		no
Brine-to-water heat pump:		no
Low-temperature heat pump:		no
Equipped with a supplementary heater:		yes
Heat pump combination heater:		yes
Parameters for		low-temperature application.
Parameters for		warmer climate conditions.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit			
Rated heat output (*)	Prated	8.0	kW	Seasonal space heating energy efficiency	$\eta_s$	225	%			
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj						
Tj = - 7 °C	Pdh	-	kW	Tj = - 7 °C	COPd	-	-			
Degradation co-efficient (**)	Cdh	-	-							
Tj = + 2 °C	Pdh	8.0	kW	Tj = + 2 °C	COPd	3.75	-			
Degradation co-efficient (**)	Cdh	0.99	-							
Tj = + 7 °C	Pdh	5.1	kW	Tj = + 7 °C	COPd	5.20	-			
Degradation co-efficient (**)	Cdh	0.99	-							
Tj = +12 °C	Pdh	4.7	kW	Tj = +12 °C	COPd	7.34	-			
Degradation co-efficient (**)	Cdh	0.98	-							
Tj = bivalent temperature	Pdh	8.0	kW	Tj = bivalent temperature	COPd	3.75	-			
Tj = operation limit temperature (***)	Pdh	8.0	kW	Tj = operation limit temperature (***)	COPd	3.75	-			
Bivalent temperature	Tbiv	2	°C	Operation limit temperature	TOL	-30	°C			
Reference design conditions for space heating	Tdesignh	2	°C	Heating water operating limit temperature	WTOL	60	°C			
Power consumption in modes other than active mode				Supplementary heater						
Off mode	P <sub>OFF</sub>	0.015	kW	Rated heat output (*)	Psup	0.0	kW			
Thermostat-off mode	P <sub>TO</sub>	0.015	kW							
Standby mode	P <sub>SB</sub>	0.015	kW							
Crankcase heater mode	P <sub>CK</sub>	0.000	kW							
Other items				Type of energy input						
Capacity control	variable			Electrical						
Sound power level, indoors/outdoors	L <sub>WA</sub>	41 / 54	dBA	Rated air flow rate, outdoors						
Annual energy consumption	Q <sub>HE</sub>	1874	kWh	-						
				2220						
				m³/h						

For heat pump combination heater:

Declared load profile	L			Water heating energy efficiency	$\eta_{wh}$	135	%
Daily electricity consumption	Qelec	3.850	kWh				
Annual electricity consumption	AEC	846	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:	PUZ-SHWM80VAA
	Indoor unit:	EHST20D-****D
Air-to-water heat pump:		yes
Water-to-water heat pump:		no
Brine-to-water heat pump:		no
Low-temperature heat pump:		no
Equipped with a supplementary heater:		yes
Heat pump combination heater:		yes
Parameters for		medium-temperature application.
Parameters for		average climate conditions.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	8.0	kW	Seasonal space heating energy efficiency	$\eta_s$	132	%
Declared capacity for heating for part load at indoor temperature 20 ° C and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 ° C and outdoor temperature Tj			
Tj = - 7 ° C	Pdh	7.1	kW	Tj = - 7 ° C	COPd	2.31	-
Degradation co-efficient (**)	Cdh	1.00	-				
Tj = + 2 ° C	Pdh	4.4	kW	Tj = + 2 ° C	COPd	3.21	-
Degradation co-efficient (**)	Cdh	0.99	-				
Tj = + 7 ° C	Pdh	4.4	kW	Tj = + 7 ° C	COPd	4.40	-
Degradation co-efficient (**)	Cdh	0.99	-				
Tj = +12 ° C	Pdh	2.8	kW	Tj = +12 ° C	COPd	6.09	-
Degradation co-efficient (**)	Cdh	0.97	-				
Tj = bivalent temperature	Pdh	8.0	kW	Tj = bivalent temperature	COPd	1.83	-
Tj = operation limit temperature (***)	Pdh	8.0	kW	Tj = operation limit temperature (***)	COPd	1.83	-
Bivalent temperature	Tbiv	-10	° C	Operation limit temperature	TOL	-30	° C
Reference design conditions for space heating	Tdesignh	-10	° C	Heating water operating limit temperature	WTOL	60	° C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P <sub>OFF</sub>	0.015	kW	Rated heat output (*)	Psup	0.0	kW
Thermostat-off mode	P <sub>TO</sub>	0.015	kW				
Standby mode	P <sub>SB</sub>	0.015	kW	Type of energy input	Electrical		
Crankcase heater mode	P <sub>CK</sub>	0.000	kW				
Other items							
Capacity control	variable			Rated air flow rate, outdoors	-	2220	m³/h
Sound power level, indoors/outdoors	L <sub>WA</sub>	41 / 54	dBA				
Annual energy consumption	Q <sub>HE</sub>	4904	kWh				

For heat pump combination heater:

Declared load profile	L			Water heating energy efficiency	$\eta_{wh}$	134	%
Daily electricity consumption	Qelec	4.080	kWh				
Annual electricity consumption	AEC	898	kWh				

**Contact details**

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Kenichi SAITO  
Manager, Quality Assurance Department  
TURKEY

斉藤 健一

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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:	PUZ-SHWM80VAA
	Indoor unit:	EHST20D-****D
Air-to-water heat pump:		yes
Water-to-water heat pump:		no
Brine-to-water heat pump:		no
Low-temperature heat pump:		no
Equipped with a supplementary heater:		yes
Heat pump combination heater:		yes
Parameters for		low-temperature application.
Parameters for		average climate conditions.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	8.0	kW	Seasonal space heating energy efficiency	$\eta_s$	184	%
Declared capacity for heating for part load at indoor temperature 20 ° C and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 ° C and outdoor temperature Tj			
Tj = - 7 ° C	Pdh	7.1	kW	Tj = - 7 ° C	COPd	3.22	-
Degradation co-efficient (**)	Cdh	0.99	-				
Tj = + 2 ° C	Pdh	4.4	kW	Tj = + 2 ° C	COPd	4.75	-
Degradation co-efficient (**)	Cdh	0.98	-				
Tj = + 7 ° C	Pdh	5.0	kW	Tj = + 7 ° C	COPd	5.90	-
Degradation co-efficient (**)	Cdh	0.98	-				
Tj = +12 ° C	Pdh	3.0	kW	Tj = +12 ° C	COPd	6.52	-
Degradation co-efficient (**)	Cdh	0.97	-				
Tj = bivalent temperature	Pdh	8.0	kW	Tj = bivalent temperature	COPd	2.65	-
Tj = operation limit temperature (***)	Pdh	8.0	kW	Tj = operation limit temperature (***)	COPd	2.65	-
Bivalent temperature	Tbiv	-10	° C	Operation limit temperature	TOL	-30	° C
Reference design conditions for space heating	Tdesignh	-10	° C	Heating water operating limit temperature	WTOL	60	° C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P <sub>OFF</sub>	0.015	kW	Rated heat output (*)	Psup	0.0	kW
Thermostat-off mode	P <sub>TO</sub>	0.015	kW				
Standby mode	P <sub>SB</sub>	0.015	kW	Type of energy input	Electrical		
Crankcase heater mode	P <sub>CK</sub>	0.000	kW				
Other items							
Capacity control	variable			Rated air flow rate, outdoors	-	2220	m³/h
Sound power level, indoors/outdoors	L <sub>WA</sub>	41 / 54	dBA				
Annual energy consumption	Q <sub>HE</sub>	3530	kWh				

For heat pump combination heater:

Declared load profile	L			Water heating energy efficiency	$\eta_{wh}$	134	%
Daily electricity consumption	Q <sub>elec</sub>	4.080	kWh				
Annual electricity consumption	AEC	898	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:	PUZ-SHWM80VAA
	Indoor unit:	EHST20D-****D
Air-to-water heat pump:		yes
Water-to-water heat pump:		no
Brine-to-water heat pump:		no
Low-temperature heat pump:		no
Equipped with a supplementary heater:		yes
Heat pump combination heater:		yes
Parameters for		medium-temperature application.
Parameters for		colder climate conditions.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	8.0	kW	Seasonal space heating energy efficiency	$\eta_s$	115	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T <sub>j</sub>				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature T <sub>j</sub>			
T <sub>j</sub> = - 7 °C	P <sub>dh</sub>	4.9	kW	T <sub>j</sub> = - 7 °C	COP <sub>d</sub>	2.65	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.99	-	T <sub>j</sub> = + 2 °C	COP <sub>d</sub>	3.45	-
T <sub>j</sub> = + 2 °C	P <sub>dh</sub>	4.0	kW	T <sub>j</sub> = + 7 °C	COP <sub>d</sub>	4.78	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.99	-	T <sub>j</sub> = +12 °C	COP <sub>d</sub>	6.74	-
T <sub>j</sub> = + 7 °C	P <sub>dh</sub>	4.3	kW	T <sub>j</sub> = bivalent temperature	COP <sub>d</sub>	1.51	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.98	-	T <sub>j</sub> = operation limit temperature (***)	COP <sub>d</sub>	1.41	-
T <sub>j</sub> = +12 °C	P <sub>dh</sub>	3.1	kW	T <sub>j</sub> = - 15 °C (if TOL < - 20 °C)	COP <sub>d</sub>	1.51	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.97	-	Operation limit temperature	TOL	-30	°C
T <sub>j</sub> = bivalent temperature	P <sub>dh</sub>	6.7	kW	Heating water operating limit temperature	WTOL	60	°C
T <sub>j</sub> = operation limit temperature (***)	P <sub>dh</sub>	5.3	kW				
T <sub>j</sub> = - 15 °C (if TOL < - 20 °C)	P <sub>dh</sub>	6.5	kW				
Bivalent temperature	T <sub>biv</sub>	-16	°C				
Reference design conditions for space heating	T <sub>designh</sub>	-22	°C				
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P <sub>OFF</sub>	0.015	kW	Rated heat output (*)	P <sub>sup</sub>	2.7	kW
Thermostat-off mode	P <sub>TO</sub>	0.015	kW	Type of energy input	Electrical		
Standby mode	P <sub>SB</sub>	0.015	kW				
Crankcase heater mode	P <sub>CK</sub>	0.000	kW				

**Other items**

Capacity control	variable			Rated air flow rate, outdoors	-	2220	m <sup>3</sup> /h
Sound power level, indoors/outdoors	L <sub>WA</sub>	41 / 54	dBA				
Annual energy consumption	Q <sub>HE</sub>	6705	kWh				

**For heat pump combination heater:**

Declared load profile	L			Water heating energy efficiency	$\eta_{wh}$	109	%
Daily electricity consumption	Q <sub>elec</sub>	4.750	kWh				
Annual electricity consumption	AEC	1044	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:	PUZ-SHWM80VAA
	Indoor unit:	EHST20D-****D
Air-to-water heat pump:		yes
Water-to-water heat pump:		no
Brine-to-water heat pump:		no
Low-temperature heat pump:		no
Equipped with a supplementary heater:		yes
Heat pump combination heater:		yes
Parameters for		low-temperature application.
Parameters for		colder climate conditions.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	8.0	kW	Seasonal space heating energy efficiency	$\eta_s$	146	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T <sub>j</sub>				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature T <sub>j</sub>			
T <sub>j</sub> = - 7 °C	P <sub>dh</sub>	4.8	kW	T <sub>j</sub> = - 7 °C	COP <sub>d</sub>	3.53	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.99	-	T <sub>j</sub> = + 2 °C	COP <sub>d</sub>	4.30	-
T <sub>j</sub> = + 2 °C	P <sub>dh</sub>	4.0	kW	T <sub>j</sub> = + 7 °C	COP <sub>d</sub>	5.56	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.98	-	T <sub>j</sub> = +12 °C	COP <sub>d</sub>	7.56	-
T <sub>j</sub> = + 7 °C	P <sub>dh</sub>	4.5	kW	T <sub>j</sub> = bivalent temperature	COP <sub>d</sub>	2.05	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.98	-	T <sub>j</sub> = operation limit temperature (***)	COP <sub>d</sub>	1.41	-
T <sub>j</sub> = +12 °C	P <sub>dh</sub>	3.1	kW	T <sub>j</sub> = - 15 °C (if TOL < - 20 °C)	COP <sub>d</sub>	2.05	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.96	-	Operation limit temperature	TOL	-30	°C
T <sub>j</sub> = bivalent temperature	P <sub>dh</sub>	6.7	kW	Heating water operating limit temperature	WTOL	60	°C
T <sub>j</sub> = operation limit temperature (***)	P <sub>dh</sub>	5.4	kW				
T <sub>j</sub> = - 15 °C (if TOL < - 20 °C)	P <sub>dh</sub>	6.5	kW				
Bivalent temperature	T <sub>biv</sub>	-16	°C				
Reference design conditions for space heating	T <sub>designh</sub>	-22	°C				
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P <sub>OFF</sub>	0.015	kW	Rated heat output (*)	P <sub>sup</sub>	2.6	kW
Thermostat-off mode	P <sub>TO</sub>	0.015	kW	Type of energy input	Electrical		
Standby mode	P <sub>SB</sub>	0.015	kW				
Crankcase heater mode	P <sub>CK</sub>	0.000	kW				

Other items				Rated air flow rate, outdoors	-	2220	m³/h
Capacity control	variable						
Sound power level, indoors/outdoors	L <sub>WA</sub>	41 / 54	dBA				
Annual energy consumption	Q <sub>HE</sub>	5299	kWh				

For heat pump combination heater:

Declared load profile	L			Water heating energy efficiency	$\eta_{wh}$	109	%
Daily electricity consumption	Q <sub>elec</sub>	4.750	kWh				
Annual electricity consumption	AEC	1044	kWh				

**Contact details**

MITSUBISHI ELECTRIC AIR CONDITIONING SYSTEMS MANUFACTURING TURKEY JOINT STOCK COMPANY	Manisa OSB 4.Kisim Kecilikoyosb Mah. Ahmet Nazif Zorlu Bulvari No:19 Yunusemre - Manisa, Turkey
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The signature is signed in the average climate / medium-temperature section.	Manager, Quality Assurance Department
	TURKEY

• 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:	PUZ-SHWM80VAA
	Indoor unit:	EHST20D-****D
Air-to-water heat pump:		yes
Water-to-water heat pump:		no
Brine-to-water heat pump:		no
Low-temperature heat pump:		no
Equipped with a supplementary heater:		yes
Heat pump combination heater:		yes
Parameters for		medium-temperature application.
Parameters for		warmer climate conditions.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit			
Rated heat output (*)	Prated	8.0	kW	Seasonal space heating energy efficiency	$\eta_s$	167	%			
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj						
Tj = - 7 °C	Pdh	-	kW	Tj = - 7 °C	COPd	-	-			
Degradation co-efficient (**)	Cdh	-	-							
Tj = + 2 °C	Pdh	8.0	kW	Tj = + 2 °C	COPd	2.05	-			
Degradation co-efficient (**)	Cdh	1.00	-							
Tj = + 7 °C	Pdh	5.2	kW	Tj = + 7 °C	COPd	3.60	-			
Degradation co-efficient (**)	Cdh	0.99	-							
Tj = +12 °C	Pdh	4.5	kW	Tj = +12 °C	COPd	6.02	-			
Degradation co-efficient (**)	Cdh	0.98	-							
Tj = bivalent temperature	Pdh	8.0	kW	Tj = bivalent temperature	COPd	2.05	-			
Tj = operation limit temperature (***)	Pdh	8.0	kW	Tj = operation limit temperature (***)	COPd	2.05	-			
Bivalent temperature	Tbiv	2	°C	Operation limit temperature	TOL	-30	°C			
Reference design conditions for space heating	Tdesignh	2	°C	Heating water operating limit temperature	WTOL	60	°C			
Power consumption in modes other than active mode				Supplementary heater						
Off mode	P <sub>OFF</sub>	0.015	kW	Rated heat output (*)	P <sub>sup</sub>	0.0	kW			
Thermostat-off mode	P <sub>TO</sub>	0.015	kW							
Standby mode	P <sub>SB</sub>	0.015	kW							
Crankcase heater mode	P <sub>CK</sub>	0.000	kW							
Other items				Type of energy input						
Capacity control	variable			Electrical						
Sound power level, indoors/outdoors	L <sub>WA</sub>	41 / 54	dBA	Rated air flow rate, outdoors						
Annual energy consumption	Q <sub>HE</sub>	2521	kWh	-						
				2220						
				m <sup>3</sup> /h						

For heat pump combination heater:

Declared load profile	L			Water heating energy efficiency	$\eta_{wh}$	139	%
Daily electricity consumption	Qelec	3.820	kWh				
Annual electricity consumption	AEC	841	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:	PUZ-SHWM80VAA
	Indoor unit:	EHST20D-****D
Air-to-water heat pump:		yes
Water-to-water heat pump:		no
Brine-to-water heat pump:		no
Low-temperature heat pump:		no
Equipped with a supplementary heater:		yes
Heat pump combination heater:		yes
Parameters for		low-temperature application.
Parameters for		warmer climate conditions.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit			
Rated heat output (*)	Prated	8.0	kW	Seasonal space heating energy efficiency	$\eta_s$	225	%			
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj						
Tj = - 7 °C	Pdh	-	kW	Tj = - 7 °C	COPd	-	-			
Degradation co-efficient (**)	Cdh	-	-							
Tj = + 2 °C	Pdh	8.0	kW	Tj = + 2 °C	COPd	3.75	-			
Degradation co-efficient (**)	Cdh	0.99	-							
Tj = + 7 °C	Pdh	5.1	kW	Tj = + 7 °C	COPd	5.20	-			
Degradation co-efficient (**)	Cdh	0.99	-							
Tj = +12 °C	Pdh	4.7	kW	Tj = +12 °C	COPd	7.34	-			
Degradation co-efficient (**)	Cdh	0.98	-							
Tj = bivalent temperature	Pdh	8.0	kW	Tj = bivalent temperature	COPd	3.75	-			
Tj = operation limit temperature (***)	Pdh	8.0	kW	Tj = operation limit temperature (***)	COPd	3.75	-			
Bivalent temperature	Tbiv	2	°C	Operation limit temperature	TOL	-30	°C			
Reference design conditions for space heating	Tdesignh	2	°C	Heating water operating limit temperature	WTOL	60	°C			
Power consumption in modes other than active mode				Supplementary heater						
Off mode	P <sub>OFF</sub>	0.015	kW	Rated heat output (*)	P <sub>sup</sub>	0.0	kW			
Thermostat-off mode	P <sub>TO</sub>	0.015	kW							
Standby mode	P <sub>SB</sub>	0.015	kW							
Crankcase heater mode	P <sub>CK</sub>	0.000	kW							
Other items				Type of energy input						
Capacity control	variable			Electrical						
Sound power level, indoors/outdoors	L <sub>WA</sub>	41 / 54	dBA	Rated air flow rate, outdoors						
Annual energy consumption	Q <sub>HE</sub>	1874	kWh	-						
				2220						
				m <sup>3</sup> /h						

For heat pump combination heater:

Declared load profile	L			Water heating energy efficiency	$\eta_{wh}$	139	%
Daily electricity consumption	Qelec	3.820	kWh				
Annual electricity consumption	AEC	841	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:	PUZ-SHWM80VAA
	Indoor unit:	ERST17D-****D
Air-to-water heat pump:		yes
Water-to-water heat pump:		no
Brine-to-water heat pump:		no
Low-temperature heat pump:		no
Equipped with a supplementary heater:		yes
Heat pump combination heater:		yes
Parameters for		medium-temperature application.
Parameters for		average climate conditions.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	8.0	kW	Seasonal space heating energy efficiency	$\eta_s$	133	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = - 7 °C	Pdh	7.1	kW	Tj = - 7 °C	COPd	2.31	-
Degradation co-efficient (**)	Cdh	1.00	-				
Tj = + 2 °C	Pdh	4.4	kW	Tj = + 2 °C	COPd	3.21	-
Degradation co-efficient (**)	Cdh	0.99	-				
Tj = + 7 °C	Pdh	4.4	kW	Tj = + 7 °C	COPd	4.40	-
Degradation co-efficient (**)	Cdh	0.99	-				
Tj = +12 °C	Pdh	2.8	kW	Tj = +12 °C	COPd	6.09	-
Degradation co-efficient (**)	Cdh	0.97	-				
Tj = bivalent temperature	Pdh	8.0	kW	Tj = bivalent temperature	COPd	1.83	-
Tj = operation limit temperature (***)	Pdh	8.0	kW	Tj = operation limit temperature (***)	COPd	1.83	-
Bivalent temperature	Tbiv	-10	°C	Operation limit temperature	TOL	-30	°C
Reference design conditions for space heating	Tdesignh	-10	°C	Heating water operating limit temperature	WTOL	60	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P <sub>OFF</sub>	0.015	kW	Rated heat output (*)	Psup	0.0	kW
Thermostat-off mode	P <sub>TO</sub>	0.015	kW				
Standby mode	P <sub>SB</sub>	0.015	kW	Type of energy input	Electrical		
Crankcase heater mode	P <sub>CK</sub>	0.000	kW				
Other items							
Capacity control	variable			Rated air flow rate, outdoors	-	2220	m³/h
Sound power level, indoors/outdoors	L <sub>WA</sub>	41 / 54	dBA				
Annual energy consumption	Q <sub>HE</sub>	4849	kWh				

For heat pump combination heater:

Declared load profile	L			Water heating energy efficiency	$\eta_{wh}$	134	%
Daily electricity consumption	Q <sub>elec</sub>	4.000	kWh				
Annual electricity consumption	AEC	880	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:	PUZ-SHWM80VAA
	Indoor unit:	ERST17D-****D
Air-to-water heat pump:		yes
Water-to-water heat pump:		no
Brine-to-water heat pump:		no
Low-temperature heat pump:		no
Equipped with a supplementary heater:		yes
Heat pump combination heater:		yes
Parameters for		low-temperature application.
Parameters for		average climate conditions.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit			
Rated heat output (*)	Prated	8.0	kW	Seasonal space heating energy efficiency	$\eta_s$	187	%			
Declared capacity for heating for part load at indoor temperature 20 ° C and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 ° C and outdoor temperature Tj						
Tj = - 7 ° C	Pdh	7.1	kW	Tj = - 7 ° C	COPd	3.22	-			
Degradation co-efficient (**)	Cdh	0.99	-							
Tj = + 2 ° C	Pdh	4.4	kW	Tj = + 2 ° C	COPd	4.75	-			
Degradation co-efficient (**)	Cdh	0.98	-							
Tj = + 7 ° C	Pdh	5.0	kW	Tj = + 7 ° C	COPd	5.90	-			
Degradation co-efficient (**)	Cdh	0.98	-							
Tj = +12 ° C	Pdh	3.0	kW	Tj = +12 ° C	COPd	6.52	-			
Degradation co-efficient (**)	Cdh	0.97	-							
Tj = bivalent temperature	Pdh	8.0	kW	Tj = bivalent temperature	COPd	2.65	-			
Tj = operation limit temperature (***)	Pdh	8.0	kW	Tj = operation limit temperature (***)	COPd	2.65	-			
Bivalent temperature	Tbiv	-10	° C	Operation limit temperature	TOL	-30	° C			
Reference design conditions for space heating	Tdesignh	-10	° C	Heating water operating limit temperature	WTOL	60	° C			
Power consumption in modes other than active mode				Supplementary heater						
Off mode	P <sub>OFF</sub>	0.015	kW	Rated heat output (*)	P <sub>sup</sub>	0.0	kW			
Thermostat-off mode	P <sub>TO</sub>	0.015	kW							
Standby mode	P <sub>SB</sub>	0.015	kW							
Crankcase heater mode	P <sub>CK</sub>	0.000	kW							
Other items				Type of energy input						
Capacity control	variable			Electrical						
Sound power level, indoors/outdoors	L <sub>WA</sub>	41 / 54	dBA	Rated air flow rate, outdoors						
Annual energy consumption	Q <sub>HE</sub>	3475	kWh	-	2220	m <sup>3</sup> /h				

For heat pump combination heater:

Declared load profile	L			Water heating energy efficiency	$\eta_{wh}$	134	%
Daily electricity consumption	Qelec	4.000	kWh				
Annual electricity consumption	AEC	880	kWh				

**Contact details**

MITSUBISHI ELECTRIC AIR CONDITIONING SYSTEMS MANUFACTURING TURKEY JOINT STOCK COMPANY	Manisa OSB 4.Kisim Kecilikoyosb Mah. Ahmet Nazif Zorlu Bulvari No:19 Yunusemre - Manisa, Turkey
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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:	PUZ-SHWM80VAA
	Indoor unit:	ERST17D-****D
Air-to-water heat pump:		yes
Water-to-water heat pump:		no
Brine-to-water heat pump:		no
Low-temperature heat pump:		no
Equipped with a supplementary heater:		yes
Heat pump combination heater:		yes
Parameters for		medium-temperature application.
Parameters for		colder climate conditions.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	8.0	kW	Seasonal space heating energy efficiency	$\eta_s$	115	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = - 7 °C	Pdh	4.9	kW	Tj = - 7 °C	COPd	2.65	-
Degradation co-efficient (**)	Cdh	0.99	-	Tj = + 2 °C	COPd	3.45	-
Tj = + 2 °C	Pdh	4.0	kW	Tj = + 7 °C	COPd	4.78	-
Degradation co-efficient (**)	Cdh	0.99	-	Tj = +12 °C	COPd	6.74	-
Tj = + 7 °C	Pdh	4.3	kW	Tj = bivalent temperature	COPd	1.51	-
Degradation co-efficient (**)	Cdh	0.98	-	Tj = operation limit temperature (***)	COPd	1.41	-
Tj = +12 °C	Pdh	3.1	kW	Tj = - 15 °C (if TOL < - 20 °C)	COPd	1.51	-
Degradation co-efficient (**)	Cdh	0.97	-	Operation limit temperature	TOL	-30	°C
Tj = bivalent temperature	Pdh	6.7	kW	Heating water operating limit temperature	WTOL	60	°C
Tj = operation limit temperature (***)	Pdh	5.3	kW				
Tj = - 15 °C (if TOL < - 20 °C)	Pdh	6.5	kW				
Bivalent temperature	Tbiv	-16	°C				
Reference design conditions for space heating	Tdesignh	-22	°C				
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P <sub>OFF</sub>	0.015	kW	Rated heat output (*)	Psup	2.7	kW
Thermostat-off mode	P <sub>TO</sub>	0.015	kW	Type of energy input	Electrical		
Standby mode	P <sub>SB</sub>	0.015	kW				
Crankcase heater mode	P <sub>CK</sub>	0.000	kW				

Other items				Rated air flow rate, outdoors	-	2220	m³/h
Capacity control	variable						
Sound power level, indoors/outdoors	L <sub>WA</sub>	41 / 54	dBA				
Annual energy consumption	Q <sub>HE</sub>	6672	kWh				

For heat pump combination heater:				Water heating energy efficiency	$\eta_{wh}$	105	%
Declared load profile	L						
Daily electricity consumption	Qelec	4.820	kWh				
Annual electricity consumption	AEC	1060	kWh				

Contact details				Mitsubishi Electric Air Conditioning Systems Manufacturing Turkey Joint Stock Company			
				Manisa OSB 4.Kisim Kecilikoyosb Mah. Ahmet Nazif Zorlu Bulvari No:19 Yunusemre - Manisa, Turkey			
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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:	PUZ-SHWM80VAA
	Indoor unit:	ERST17D-****D
Air-to-water heat pump:		yes
Water-to-water heat pump:		no
Brine-to-water heat pump:		no
Low-temperature heat pump:		no
Equipped with a supplementary heater:		yes
Heat pump combination heater:		yes
Parameters for		low-temperature application.
Parameters for		colder climate conditions.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	8.0	kW	Seasonal space heating energy efficiency	$\eta_s$	147	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T <sub>j</sub>				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature T <sub>j</sub>			
T <sub>j</sub> = - 7 °C	P <sub>dh</sub>	4.8	kW	T <sub>j</sub> = - 7 °C	COP <sub>d</sub>	3.53	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.99	-	T <sub>j</sub> = + 2 °C	COP <sub>d</sub>	4.30	-
T <sub>j</sub> = + 2 °C	P <sub>dh</sub>	4.0	kW	T <sub>j</sub> = + 7 °C	COP <sub>d</sub>	5.56	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.98	-	T <sub>j</sub> = +12 °C	COP <sub>d</sub>	7.56	-
T <sub>j</sub> = + 7 °C	P <sub>dh</sub>	4.5	kW	T <sub>j</sub> = bivalent temperature	COP <sub>d</sub>	2.05	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.98	-	T <sub>j</sub> = operation limit temperature (***)	COP <sub>d</sub>	1.41	-
T <sub>j</sub> = +12 °C	P <sub>dh</sub>	3.1	kW	T <sub>j</sub> = - 15 °C (if TOL < - 20 °C)	COP <sub>d</sub>	2.05	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.96	-	Operation limit temperature	TOL	-30	°C
T <sub>j</sub> = bivalent temperature	P <sub>dh</sub>	6.7	kW	Heating water operating limit temperature	WTOL	60	°C
T <sub>j</sub> = operation limit temperature (***)	P <sub>dh</sub>	5.4	kW				
T <sub>j</sub> = - 15 °C (if TOL < - 20 °C)	P <sub>dh</sub>	6.5	kW				
Bivalent temperature	T <sub>biv</sub>	-16	°C				
Reference design conditions for space heating	T <sub>designh</sub>	-22	°C				
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P <sub>OFF</sub>	0.015	kW	Rated heat output (*)	P <sub>sup</sub>	2.6	kW
Thermostat-off mode	P <sub>TO</sub>	0.015	kW	Type of energy input	Electrical		
Standby mode	P <sub>SB</sub>	0.015	kW				
Crankcase heater mode	P <sub>CK</sub>	0.000	kW				

**Other items**

Capacity control	variable			Rated air flow rate, outdoors	-	2220	m³/h
Sound power level, indoors/outdoors	L <sub>WA</sub>	41 / 54	dBA				
Annual energy consumption	Q <sub>HE</sub>	5266	kWh				

**For heat pump combination heater:**

Declared load profile	L			Water heating energy efficiency	$\eta_{wh}$	105	%
Daily electricity consumption	Q <sub>elec</sub>	4.820	kWh				
Annual electricity consumption	AEC	1060	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:	PUZ-SHWM80VAA
	Indoor unit:	ERST17D-****D
Air-to-water heat pump:		yes
Water-to-water heat pump:		no
Brine-to-water heat pump:		no
Low-temperature heat pump:		no
Equipped with a supplementary heater:		yes
Heat pump combination heater:		yes
Parameters for		medium-temperature application.
Parameters for		warmer climate conditions.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit			
Rated heat output (*)	Prated	8.0	kW	Seasonal space heating energy efficiency	$\eta_s$	171	%			
Declared capacity for heating for part load at indoor temperature 20 ° C and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 ° C and outdoor temperature Tj						
Tj = - 7 ° C	Pdh	-	kW	Tj = - 7 ° C	COPd	-	-			
Degradation co-efficient (**)	Cdh	-	-							
Tj = + 2 ° C	Pdh	8.0	kW	Tj = + 2 ° C	COPd	2.05	-			
Degradation co-efficient (**)	Cdh	1.00	-							
Tj = + 7 ° C	Pdh	5.2	kW	Tj = + 7 ° C	COPd	3.60	-			
Degradation co-efficient (**)	Cdh	0.99	-							
Tj = +12 ° C	Pdh	4.5	kW	Tj = +12 ° C	COPd	6.02	-			
Degradation co-efficient (**)	Cdh	0.98	-							
Tj = bivalent temperature	Pdh	8.0	kW	Tj = bivalent temperature	COPd	2.05	-			
Tj = operation limit temperature (***)	Pdh	8.0	kW	Tj = operation limit temperature (***)	COPd	2.05	-			
Bivalent temperature	Tbiv	2	° C	Operation limit temperature	TOL	-30	° C			
Reference design conditions for space heating	Tdesignh	2	° C	Heating water operating limit temperature	WTOL	60	° C			
Power consumption in modes other than active mode				Supplementary heater						
Off mode	P <sub>OFF</sub>	0.015	kW	Rated heat output (*)	Psup	0.0	kW			
Thermostat-off mode	P <sub>TO</sub>	0.015	kW							
Standby mode	P <sub>SB</sub>	0.015	kW							
Crankcase heater mode	P <sub>CK</sub>	0.000	kW							
Other items				Type of energy input						
Capacity control	variable			Electrical						
Sound power level, indoors/outdoors	L <sub>WA</sub>	41 / 54	dBA	Rated air flow rate, outdoors						
Annual energy consumption	Q <sub>HE</sub>	2454	kWh	-						
				2220						
				m³/h						

For heat pump combination heater:

Declared load profile	L			Water heating energy efficiency	$\eta_{wh}$	135	%
Daily electricity consumption	Qelec	3.850	kWh				
Annual electricity consumption	AEC	846	kWh				

**Contact details**

MITSUBISHI ELECTRIC AIR CONDITIONING SYSTEMS MANUFACTURING TURKEY JOINT STOCK COMPANY	Manisa OSB 4.Kisim Kccilikoyosb Mah. Ahmet Nazif Zorlu Bulvari No:19 Yunusemre - Manisa, Turkey
The identification and signature of the person empowered to bind the supplier:	Kenichi SAITO
The signature is signed in the average climate / medium-temperature section.	Manager, Quality Assurance Department
	TURKEY

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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:	PUZ-SHWM80VAA
	Indoor unit:	ERST17D-****D
Air-to-water heat pump:		yes
Water-to-water heat pump:		no
Brine-to-water heat pump:		no
Low-temperature heat pump:		no
Equipped with a supplementary heater:		yes
Heat pump combination heater:		yes
Parameters for		low-temperature application.
Parameters for		warmer climate conditions.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit			
Rated heat output (*)	Prated	8.0	kW	Seasonal space heating energy efficiency	$\eta_s$	233	%			
Declared capacity for heating for part load at indoor temperature 20 ° C and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 ° C and outdoor temperature Tj						
Tj = - 7 ° C	Pdh	-	kW	Tj = - 7 ° C	COPd	-	-			
Degradation co-efficient (**)	Cdh	-	-							
Tj = + 2 ° C	Pdh	8.0	kW	Tj = + 2 ° C	COPd	3.75	-			
Degradation co-efficient (**)	Cdh	0.99	-							
Tj = + 7 ° C	Pdh	5.1	kW	Tj = + 7 ° C	COPd	5.20	-			
Degradation co-efficient (**)	Cdh	0.99	-							
Tj = +12 ° C	Pdh	4.7	kW	Tj = +12 ° C	COPd	7.34	-			
Degradation co-efficient (**)	Cdh	0.98	-							
Tj = bivalent temperature	Pdh	8.0	kW	Tj = bivalent temperature	COPd	3.75	-			
Tj = operation limit temperature (***)	Pdh	8.0	kW	Tj = operation limit temperature (***)	COPd	3.75	-			
Bivalent temperature	Tbiv	2	° C	Operation limit temperature	TOL	-30	° C			
Reference design conditions for space heating	Tdesignh	2	° C	Heating water operating limit temperature	WTOL	60	° C			
Power consumption in modes other than active mode				Supplementary heater						
Off mode	P <sub>OFF</sub>	0.015	kW	Rated heat output (*)	Psup	0.0	kW			
Thermostat-off mode	P <sub>TO</sub>	0.015	kW							
Standby mode	P <sub>SB</sub>	0.015	kW							
Crankcase heater mode	P <sub>CK</sub>	0.000	kW							
Other items				Type of energy input						
Capacity control	variable			Electrical						
Sound power level, indoors/outdoors	L <sub>WA</sub>	41 / 54	dBA	Rated air flow rate, outdoors						
Annual energy consumption	Q <sub>HE</sub>	1808	kWh	-						
				2220						
				m³/h						

For heat pump combination heater:

Declared load profile	L			Water heating energy efficiency	$\eta_{wh}$	135	%
Daily electricity consumption	Qelec	3.850	kWh				
Annual electricity consumption	AEC	846	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:	PUZ-SHWM80VAA
	Indoor unit:	ERST20D-****D
Air-to-water heat pump:		yes
Water-to-water heat pump:		no
Brine-to-water heat pump:		no
Low-temperature heat pump:		no
Equipped with a supplementary heater:		yes
Heat pump combination heater:		yes
Parameters for		medium-temperature application.
Parameters for		average climate conditions.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	8.0	kW	Seasonal space heating energy efficiency	$\eta_s$	133	%
Declared capacity for heating for part load at indoor temperature 20 ° C and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 ° C and outdoor temperature Tj			
Tj = - 7 ° C	Pdh	7.1	kW	Tj = - 7 ° C	COPd	2.31	-
Degradation co-efficient (**)	Cdh	1.00	-				
Tj = + 2 ° C	Pdh	4.4	kW	Tj = + 2 ° C	COPd	3.21	-
Degradation co-efficient (**)	Cdh	0.99	-				
Tj = + 7 ° C	Pdh	4.4	kW	Tj = + 7 ° C	COPd	4.40	-
Degradation co-efficient (**)	Cdh	0.99	-				
Tj = +12 ° C	Pdh	2.8	kW	Tj = +12 ° C	COPd	6.09	-
Degradation co-efficient (**)	Cdh	0.97	-				
Tj = bivalent temperature	Pdh	8.0	kW	Tj = bivalent temperature	COPd	1.83	-
Tj = operation limit temperature (***)	Pdh	8.0	kW	Tj = operation limit temperature (***)	COPd	1.83	-
Bivalent temperature	Tbiv	-10	° C	Operation limit temperature	TOL	-30	° C
Reference design conditions for space heating	Tdesignh	-10	° C	Heating water operating limit temperature	WTOL	60	° C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P <sub>OFF</sub>	0.015	kW	Rated heat output (*)	Psup	0.0	kW
Thermostat-off mode	P <sub>TO</sub>	0.015	kW				
Standby mode	P <sub>SB</sub>	0.015	kW	Type of energy input	Electrical		
Crankcase heater mode	P <sub>CK</sub>	0.000	kW				
Other items							
Capacity control	variable			Rated air flow rate, outdoors	-	2220	m³/h
Sound power level, indoors/outdoors	L <sub>WA</sub>	41 / 54	dBA				
Annual energy consumption	Q <sub>HE</sub>	4849	kWh				

For heat pump combination heater:

Declared load profile	L			Water heating energy efficiency	$\eta_{wh}$	134	%
Daily electricity consumption	Qelec	4.080	kWh				
Annual electricity consumption	AEC	898	kWh				

**Contact details**

MITSUBISHI ELECTRIC AIR CONDITIONING SYSTEMS MANUFACTURING TURKEY JOINT STOCK COMPANY

Manisa OSB 4.Kisim Kecilikoyosb Mah. Ahmet Nazif Zorlu Bulvari No:19 Yunusemre - Manisa, Turkey

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

Kenichi SAITO  
Manager, Quality Assurance Department  
TURKEY

斉藤 健一

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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:	PUZ-SHWM80VAA
	Indoor unit:	ERST20D-****D
Air-to-water heat pump:		yes
Water-to-water heat pump:		no
Brine-to-water heat pump:		no
Low-temperature heat pump:		no
Equipped with a supplementary heater:		yes
Heat pump combination heater:		yes
Parameters for		low-temperature application.
Parameters for		average climate conditions.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit			
Rated heat output (*)	Prated	8.0	kW	Seasonal space heating energy efficiency	$\eta_s$	187	%			
Declared capacity for heating for part load at indoor temperature 20 ° C and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 ° C and outdoor temperature Tj						
Tj = - 7 ° C	Pdh	7.1	kW	Tj = - 7 ° C	COPd	3.22	-			
Degradation co-efficient (**)	Cdh	0.99	-							
Tj = + 2 ° C	Pdh	4.4	kW	Tj = + 2 ° C	COPd	4.75	-			
Degradation co-efficient (**)	Cdh	0.98	-							
Tj = + 7 ° C	Pdh	5.0	kW	Tj = + 7 ° C	COPd	5.90	-			
Degradation co-efficient (**)	Cdh	0.98	-							
Tj = +12 ° C	Pdh	3.0	kW	Tj = +12 ° C	COPd	6.52	-			
Degradation co-efficient (**)	Cdh	0.97	-							
Tj = bivalent temperature	Pdh	8.0	kW	Tj = bivalent temperature	COPd	2.65	-			
Tj = operation limit temperature (***)	Pdh	8.0	kW	Tj = operation limit temperature (***)	COPd	2.65	-			
Bivalent temperature	Tbiv	-10	° C	Operation limit temperature	TOL	-30	° C			
Reference design conditions for space heating	Tdesignh	-10	° C	Heating water operating limit temperature	WTOL	60	° C			
Power consumption in modes other than active mode				Supplementary heater						
Off mode	P <sub>OFF</sub>	0.015	kW	Rated heat output (*)	Psup	0.0	kW			
Thermostat-off mode	P <sub>TO</sub>	0.015	kW							
Standby mode	P <sub>SB</sub>	0.015	kW							
Crankcase heater mode	P <sub>CK</sub>	0.000	kW							
Other items				Type of energy input						
Capacity control	variable			Electrical						
Sound power level, indoors/outdoors	L <sub>WA</sub>	41 / 54	dBA	Rated air flow rate, outdoors						
Annual energy consumption	Q <sub>HE</sub>	3475	kWh	-		2220	m <sup>3</sup> /h			

For heat pump combination heater:

Declared load profile	L			Water heating energy efficiency	$\eta_{wh}$	134	%
Daily electricity consumption	Qelec	4.080	kWh				
Annual electricity consumption	AEC	898	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:	PUZ-SHWM80VAA
	Indoor unit:	ERST20D-****D
Air-to-water heat pump:		yes
Water-to-water heat pump:		no
Brine-to-water heat pump:		no
Low-temperature heat pump:		no
Equipped with a supplementary heater:		yes
Heat pump combination heater:		yes
Parameters for		medium-temperature application.
Parameters for		colder climate conditions.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	8.0	kW	Seasonal space heating energy efficiency	$\eta_s$	115	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = - 7 °C	Pdh	4.9	kW	Tj = - 7 °C	COPd	2.65	-
Degradation co-efficient (**)	Cdh	0.99	-	Tj = + 2 °C	COPd	3.45	-
Tj = + 2 °C	Pdh	4.0	kW	Tj = + 7 °C	COPd	4.78	-
Degradation co-efficient (**)	Cdh	0.99	-	Tj = +12 °C	COPd	6.74	-
Tj = + 7 °C	Pdh	4.3	kW	Tj = bivalent temperature	COPd	1.51	-
Degradation co-efficient (**)	Cdh	0.98	-	Tj = operation limit temperature (***)	COPd	1.41	-
Tj = +12 °C	Pdh	3.1	kW	Tj = - 15 °C (if TOL < - 20 °C)	COPd	1.51	-
Degradation co-efficient (**)	Cdh	0.97	-	Operation limit temperature	TOL	-30	°C
Tj = bivalent temperature	Pdh	6.7	kW	Heating water operating limit temperature	WTOL	60	°C
Tj = operation limit temperature (***)	Pdh	5.3	kW				
Tj = - 15 °C (if TOL < - 20 °C)	Pdh	6.5	kW				
Bivalent temperature	Tbiv	-16	°C				
Reference design conditions for space heating	Tdesignh	-22	°C				
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P <sub>OFF</sub>	0.015	kW	Rated heat output (*)	Psup	2.7	kW
Thermostat-off mode	P <sub>TO</sub>	0.015	kW	Type of energy input	Electrical		
Standby mode	P <sub>SB</sub>	0.015	kW				
Crankcase heater mode	P <sub>CK</sub>	0.000	kW				

**Other items**

Capacity control	variable			Rated air flow rate, outdoors	-	2220	m³/h
Sound power level, indoors/outdoors	L <sub>WA</sub>	41 / 54	dBA				
Annual energy consumption	Q <sub>HE</sub>	6672	kWh				

**For heat pump combination heater:**

Declared load profile	L			Water heating energy efficiency	$\eta_{wh}$	109	%
Daily electricity consumption	Qelec	4.750	kWh				
Annual electricity consumption	AEC	1044	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:	PUZ-SHWM80VAA
	Indoor unit:	ERST20D-****D
Air-to-water heat pump:		yes
Water-to-water heat pump:		no
Brine-to-water heat pump:		no
Low-temperature heat pump:		no
Equipped with a supplementary heater:		yes
Heat pump combination heater:		yes
Parameters for		low-temperature application.
Parameters for		colder climate conditions.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	8.0	kW	Seasonal space heating energy efficiency	$\eta_s$	147	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T <sub>j</sub>				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature T <sub>j</sub>			
T <sub>j</sub> = - 7 °C	P <sub>dh</sub>	4.8	kW	T <sub>j</sub> = - 7 °C	COP <sub>d</sub>	3.53	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.99	-	T <sub>j</sub> = + 2 °C	COP <sub>d</sub>	4.30	-
T <sub>j</sub> = + 2 °C	P <sub>dh</sub>	4.0	kW	T <sub>j</sub> = + 7 °C	COP <sub>d</sub>	5.56	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.98	-	T <sub>j</sub> = +12 °C	COP <sub>d</sub>	7.56	-
T <sub>j</sub> = + 7 °C	P <sub>dh</sub>	4.5	kW	T <sub>j</sub> = bivalent temperature	COP <sub>d</sub>	2.05	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.98	-	T <sub>j</sub> = operation limit temperature (***)	COP <sub>d</sub>	1.41	-
T <sub>j</sub> = +12 °C	P <sub>dh</sub>	3.1	kW	T <sub>j</sub> = - 15 °C (if TOL < - 20 °C)	COP <sub>d</sub>	2.05	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.96	-	Operation limit temperature	TOL	-30	°C
T <sub>j</sub> = bivalent temperature	P <sub>dh</sub>	6.7	kW	Heating water operating limit temperature	WTOL	60	°C
T <sub>j</sub> = operation limit temperature (***)	P <sub>dh</sub>	5.4	kW				
T <sub>j</sub> = - 15 °C (if TOL < - 20 °C)	P <sub>dh</sub>	6.5	kW				
Bivalent temperature	T <sub>biv</sub>	-16	°C				
Reference design conditions for space heating	T <sub>designh</sub>	-22	°C				
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P <sub>OFF</sub>	0.015	kW	Rated heat output (*)	P <sub>sup</sub>	2.6	kW
Thermostat-off mode	P <sub>TO</sub>	0.015	kW	Type of energy input	Electrical		
Standby mode	P <sub>SB</sub>	0.015	kW				
Crankcase heater mode	P <sub>CK</sub>	0.000	kW				

**Other items**

Capacity control	variable			Rated air flow rate, outdoors	-	2220	m³/h
Sound power level, indoors/outdoors	L <sub>WA</sub>	41 / 54	dBA				
Annual energy consumption	Q <sub>HE</sub>	5266	kWh				

**For heat pump combination heater:**

Declared load profile	L			Water heating energy efficiency	$\eta_{wh}$	109	%
Daily electricity consumption	Q <sub>elec</sub>	4.750	kWh				
Annual electricity consumption	AEC	1044	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:	PUZ-SHWM80VAA
	Indoor unit:	ERST20D-****D
Air-to-water heat pump:		yes
Water-to-water heat pump:		no
Brine-to-water heat pump:		no
Low-temperature heat pump:		no
Equipped with a supplementary heater:		yes
Heat pump combination heater:		yes
Parameters for		medium-temperature application.
Parameters for		warmer climate conditions.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit			
Rated heat output (*)	Prated	8.0	kW	Seasonal space heating energy efficiency	$\eta_s$	171	%			
Declared capacity for heating for part load at indoor temperature 20 ° C and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 ° C and outdoor temperature Tj						
Tj = - 7 ° C	Pdh	-	kW	Tj = - 7 ° C	COPd	-	-			
Degradation co-efficient (**)	Cdh	-	-							
Tj = + 2 ° C	Pdh	8.0	kW	Tj = + 2 ° C	COPd	2.05	-			
Degradation co-efficient (**)	Cdh	1.00	-							
Tj = + 7 ° C	Pdh	5.2	kW	Tj = + 7 ° C	COPd	3.60	-			
Degradation co-efficient (**)	Cdh	0.99	-							
Tj = +12 ° C	Pdh	4.5	kW	Tj = +12 ° C	COPd	6.02	-			
Degradation co-efficient (**)	Cdh	0.98	-							
Tj = bivalent temperature	Pdh	8.0	kW	Tj = bivalent temperature	COPd	2.05	-			
Tj = operation limit temperature (***)	Pdh	8.0	kW	Tj = operation limit temperature (***)	COPd	2.05	-			
Bivalent temperature	Tbiv	2	° C	Operation limit temperature	TOL	-30	° C			
Reference design conditions for space heating	Tdesignh	2	° C	Heating water operating limit temperature	WTOL	60	° C			
Power consumption in modes other than active mode				Supplementary heater						
Off mode	P <sub>OFF</sub>	0.015	kW	Rated heat output (*)	P <sub>sup</sub>	0.0	kW			
Thermostat-off mode	P <sub>TO</sub>	0.015	kW							
Standby mode	P <sub>SB</sub>	0.015	kW							
Crankcase heater mode	P <sub>CK</sub>	0.000	kW							
Other items				Type of energy input						
Capacity control	variable			Electrical						
Sound power level, indoors/outdoors	L <sub>WA</sub>	41 / 54	dBA	Rated air flow rate, outdoors						
Annual energy consumption	Q <sub>HE</sub>	2454	kWh	-						
For heat pump combination heater:				2220						
Declared load profile	L			m <sup>3</sup> /h						
Daily electricity consumption	Q <sub>elec</sub>	3.820	kWh							
Annual electricity consumption	AEC	841	kWh							

For heat pump combination heater:							
Declared load profile	L			Water heating energy efficiency	$\eta_{wh}$	139	%
Daily electricity consumption	Qelec	3.820	kWh				
Annual electricity consumption	AEC	841	kWh				

Contact details							
MITSUBISHI ELECTRIC AIR CONDITIONING SYSTEMS MANUFACTURING TURKEY JOINT STOCK COMPANY				Manisa OSB 4.Kisim Kecilikoyosb Mah. Ahmet Nazif Zorlu Bulvari No:19 Yunusemre - Manisa, Turkey			
The identification and signature of the person empowered to bind the supplier:				Kenichi SAITO			
The signature is signed in the average climate / medium-temperature section.				Manager, Quality Assurance Department			
				TURKEY			

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

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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:	PUZ-SHWM80VAA
	Indoor unit:	ERST20D-****D
Air-to-water heat pump:		yes
Water-to-water heat pump:		no
Brine-to-water heat pump:		no
Low-temperature heat pump:		no
Equipped with a supplementary heater:		yes
Heat pump combination heater:		yes
Parameters for		low-temperature application.
Parameters for		warmer climate conditions.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	8.0	kW	Seasonal space heating energy efficiency	$\eta_s$	233	%
Declared capacity for heating for part load at indoor temperature 20 ° C and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 ° C and outdoor temperature Tj			
Tj = - 7 ° C	Pdh	—	kW	Tj = - 7 ° C	COPd	—	—
Degradation co-efficient (**)	Cdh	—	—				
Tj = + 2 ° C	Pdh	8.0	kW	Tj = + 2 ° C	COPd	3.75	—
Degradation co-efficient (**)	Cdh	0.99	—				
Tj = + 7 ° C	Pdh	5.1	kW	Tj = + 7 ° C	COPd	5.20	—
Degradation co-efficient (**)	Cdh	0.99	—				
Tj = +12 ° C	Pdh	4.7	kW	Tj = +12 ° C	COPd	7.34	—
Degradation co-efficient (**)	Cdh	0.98	—				
Tj = bivalent temperature	Pdh	8.0	kW	Tj = bivalent temperature	COPd	3.75	—
Tj = operation limit temperature (***)	Pdh	8.0	kW	Tj = operation limit temperature (***)	COPd	3.75	—
Bivalent temperature	Tbiv	2	° C	Operation limit temperature	TOL	-30	° C
Reference design conditions for space heating	Tdesignh	2	° C	Heating water operating limit temperature	WTOL	60	° C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P <sub>OFF</sub>	0.015	kW	Rated heat output (*)	Psup	0.0	kW
Thermostat-off mode	P <sub>T0</sub>	0.015	kW				
Standby mode	P <sub>SB</sub>	0.015	kW				
Crankcase heater mode	P <sub>CK</sub>	0.000	kW				
				Type of energy input	Electrical		

Other items							
Capacity control	variable			Rated air flow rate, outdoors	–	2220	m³/h
Sound power level, indoors/outdoors	L <sub>WA</sub>	41 / 54	dBA				
Annual energy consumption	Q <sub>HE</sub>	1808	kWh				

For heat pump combination heater:							
Declared load profile	L			Water heating energy efficiency	$\eta_{wh}$	139	%
Daily electricity consumption	Qelec	3.820	kWh				
Annual electricity consumption	AEC	841	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:	PUZ-SHWM80VAA
	Indoor unit:	EHST20D-MED
Air-to-water heat pump:		yes
Water-to-water heat pump:		no
Brine-to-water heat pump:		no
Low-temperature heat pump:		no
Equipped with a supplementary heater:		no
Heat pump combination heater:		yes
Parameters for		medium-temperature application.
Parameters for		average climate conditions.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	8.0	kW	Seasonal space heating energy efficiency	$\eta_s$	132	%
Declared capacity for heating for part load at indoor temperature 20 ° C and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 ° C and outdoor temperature Tj			
Tj = - 7 ° C	Pdh	7.1	kW	Tj = - 7 ° C	COPd	2.31	-
Degradation co-efficient (**)	Cdh	1.00	-				
Tj = + 2 ° C	Pdh	4.4	kW	Tj = + 2 ° C	COPd	3.21	-
Degradation co-efficient (**)	Cdh	0.99	-				
Tj = + 7 ° C	Pdh	4.4	kW	Tj = + 7 ° C	COPd	4.40	-
Degradation co-efficient (**)	Cdh	0.99	-				
Tj = +12 ° C	Pdh	2.8	kW	Tj = +12 ° C	COPd	6.09	-
Degradation co-efficient (**)	Cdh	0.97	-				
Tj = bivalent temperature	Pdh	8.0	kW	Tj = bivalent temperature	COPd	1.83	-
Tj = operation limit temperature (***)	Pdh	8.0	kW	Tj = operation limit temperature (***)	COPd	1.83	-
Bivalent temperature	Tbiv	-10	° C	Operation limit temperature	TOL	-30	° C
Reference design conditions for space heating	Tdesignh	-10	° C	Heating water operating limit temperature	WTOL	60	° C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P <sub>OFF</sub>	0.015	kW	Rated heat output (*)	Psup	0.0	kW
Thermostat-off mode	P <sub>T0</sub>	0.015	kW				
Standby mode	P <sub>SB</sub>	0.015	kW	Type of energy input		Electrical	
Crankcase heater mode	P <sub>CK</sub>	0.000	kW				

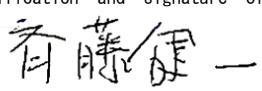
**Other items**

Capacity control	variable			Rated air flow rate, outdoors	-	2220	m³/h
Sound power level, indoors/outdoors	L <sub>WA</sub>	41 / 54	dBA				
Annual energy consumption	Q <sub>HE</sub>	4904	kWh				

**For heat pump combination heater:**

Declared load profile	L			Water heating energy efficiency	$\eta_{wh}$	134	%
Daily electricity consumption	Qelec	4.080	kWh				
Annual electricity consumption	AEC	898	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:	PUZ-SHWM80VAA
	Indoor unit:	EHST20D-MED
Air-to-water heat pump:		yes
Water-to-water heat pump:		no
Brine-to-water heat pump:		no
Low-temperature heat pump:		no
Equipped with a supplementary heater:		no
Heat pump combination heater:		yes
Parameters for		low-temperature application.
Parameters for		average climate conditions.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	8.0	kW	Seasonal space heating energy efficiency	$\eta_s$	184	%
Declared capacity for heating for part load at indoor temperature 20 ° C and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 ° C and outdoor temperature Tj			
Tj = - 7 ° C	Pdh	7.1	kW	Tj = - 7 ° C	COPd	3.22	-
Degradation co-efficient (**)	Cdh	0.99	-				
Tj = + 2 ° C	Pdh	4.4	kW	Tj = + 2 ° C	COPd	4.75	-
Degradation co-efficient (**)	Cdh	0.98	-				
Tj = + 7 ° C	Pdh	5.0	kW	Tj = + 7 ° C	COPd	5.90	-
Degradation co-efficient (**)	Cdh	0.98	-				
Tj = +12 ° C	Pdh	3.0	kW	Tj = +12 ° C	COPd	6.52	-
Degradation co-efficient (**)	Cdh	0.97	-				
Tj = bivalent temperature	Pdh	8.0	kW	Tj = bivalent temperature	COPd	2.65	-
Tj = operation limit temperature (***)	Pdh	8.0	kW	Tj = operation limit temperature (***)	COPd	2.65	-
Bivalent temperature	Tbiv	-10	° C	Operation limit temperature	TOL	-30	° C
Reference design conditions for space heating	Tdesignh	-10	° C	Heating water operating limit temperature	WTOL	60	° C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P <sub>OFF</sub>	0.015	kW	Rated heat output (*)	Psup	0.0	kW
Thermostat-off mode	P <sub>TO</sub>	0.015	kW				
Standby mode	P <sub>SB</sub>	0.015	kW	Type of energy input	Electrical		
Crankcase heater mode	P <sub>CK</sub>	0.000	kW				
Other items							
Capacity control	variable			Rated air flow rate, outdoors	-	2220	m <sup>3</sup> /h
Sound power level, indoors/outdoors	L <sub>WA</sub>	41 / 54	dBA				
Annual energy consumption	Q <sub>HE</sub>	3530	kWh				

For heat pump combination heater:							
Declared load profile	L			Water heating energy efficiency	$\eta_{wh}$	134	%
Daily electricity consumption	Q <sub>elec</sub>	4.080	kWh				
Annual electricity consumption	AEC	898	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:	PUZ-SHWM80VAA
	Indoor unit:	EHST20D-MED
Air-to-water heat pump:		yes
Water-to-water heat pump:		no
Brine-to-water heat pump:		no
Low-temperature heat pump:		no
Equipped with a supplementary heater:		no
Heat pump combination heater:		yes
Parameters for		medium-temperature application.
Parameters for		colder climate conditions.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	8.0	kW	Seasonal space heating energy efficiency	$\eta_s$	115	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = - 7 °C	Pdh	4.9	kW	Tj = - 7 °C	COPd	2.65	-
Degradation co-efficient (**)	Cdh	0.99	-	Tj = + 2 °C	COPd	3.45	-
Tj = + 2 °C	Pdh	4.0	kW	Tj = + 7 °C	COPd	4.78	-
Degradation co-efficient (**)	Cdh	0.99	-	Tj = +12 °C	COPd	6.74	-
Tj = + 7 °C	Pdh	4.3	kW	Tj = bivalent temperature	COPd	1.51	-
Degradation co-efficient (**)	Cdh	0.98	-	Tj = operation limit temperature (***)	COPd	1.41	-
Tj = +12 °C	Pdh	3.1	kW	Tj = - 15 °C (if TOL < - 20 °C)	COPd	1.51	-
Degradation co-efficient (**)	Cdh	0.97	-	Operation limit temperature	TOL	-30	°C
Tj = bivalent temperature	Pdh	6.7	kW	Heating water operating limit temperature	WTOL	60	°C
Tj = operation limit temperature (***)	Pdh	5.3	kW				
Tj = - 15 °C (if TOL < - 20 °C)	Pdh	6.5	kW				
Bivalent temperature	Tbiv	-16	°C				
Reference design conditions for space heating	Tdesignh	-22	°C				
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P <sub>OFF</sub>	0.015	kW	Rated heat output (*)	Psup	2.7	kW
Thermostat-off mode	P <sub>TO</sub>	0.015	kW	Type of energy input	Electrical		
Standby mode	P <sub>SB</sub>	0.015	kW				
Crankcase heater mode	P <sub>CK</sub>	0.000	kW				

**Other items**

Capacity control	variable			Rated air flow rate, outdoors	-	2220	m³/h
Sound power level, indoors/outdoors	L <sub>WA</sub>	41 / 54	dBA				
Annual energy consumption	Q <sub>HE</sub>	6705	kWh				

**For heat pump combination heater:**

Declared load profile	L			Water heating energy efficiency	$\eta_{wh}$	109	%
Daily electricity consumption	Qelec	4.750	kWh				
Annual electricity consumption	AEC	1044	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:	PUZ-SHWM80VAA
	Indoor unit:	EHST20D-MED
Air-to-water heat pump:		yes
Water-to-water heat pump:		no
Brine-to-water heat pump:		no
Low-temperature heat pump:		no
Equipped with a supplementary heater:		no
Heat pump combination heater:		yes
Parameters for		low-temperature application.
Parameters for		colder climate conditions.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	8.0	kW	Seasonal space heating energy efficiency	$\eta_s$	146	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T <sub>j</sub>				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature T <sub>j</sub>			
T <sub>j</sub> = - 7 °C	P <sub>dh</sub>	4.8	kW	T <sub>j</sub> = - 7 °C	COP <sub>d</sub>	3.53	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.99	-	T <sub>j</sub> = + 2 °C	COP <sub>d</sub>	4.30	-
T <sub>j</sub> = + 2 °C	P <sub>dh</sub>	4.0	kW	T <sub>j</sub> = + 7 °C	COP <sub>d</sub>	5.56	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.98	-	T <sub>j</sub> = +12 °C	COP <sub>d</sub>	7.56	-
T <sub>j</sub> = + 7 °C	P <sub>dh</sub>	4.5	kW	T <sub>j</sub> = bivalent temperature	COP <sub>d</sub>	2.05	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.98	-	T <sub>j</sub> = operation limit temperature (***)	COP <sub>d</sub>	1.41	-
T <sub>j</sub> = +12 °C	P <sub>dh</sub>	3.1	kW	T <sub>j</sub> = - 15 °C (if TOL < - 20 °C)	COP <sub>d</sub>	2.05	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.96	-	Operation limit temperature	TOL	-30	°C
T <sub>j</sub> = bivalent temperature	P <sub>dh</sub>	6.7	kW	Heating water operating limit temperature	WTOL	60	°C
T <sub>j</sub> = operation limit temperature (***)	P <sub>dh</sub>	5.4	kW				
T <sub>j</sub> = - 15 °C (if TOL < - 20 °C)	P <sub>dh</sub>	6.5	kW				
Bivalent temperature	T <sub>biv</sub>	-16	°C				
Reference design conditions for space heating	T <sub>designh</sub>	-22	°C				
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P <sub>OFF</sub>	0.015	kW	Rated heat output (*)	P <sub>sup</sub>	2.6	kW
Thermostat-off mode	P <sub>TO</sub>	0.015	kW	Type of energy input	Electrical		
Standby mode	P <sub>SB</sub>	0.015	kW				
Crankcase heater mode	P <sub>CK</sub>	0.000	kW				

**Other items**

Capacity control	variable			Rated air flow rate, outdoors	-	2220	m³/h
Sound power level, indoors/outdoors	L <sub>WA</sub>	41 / 54	dBA				
Annual energy consumption	Q <sub>HE</sub>	5299	kWh				

**For heat pump combination heater:**

Declared load profile	L			Water heating energy efficiency	$\eta_{wh}$	109	%
Daily electricity consumption	Q <sub>elec</sub>	4.750	kWh				
Annual electricity consumption	AEC	1044	kWh				

**Contact details**

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(\*\*) If C<sub>dh</sub> is not determined by measurement then the default degradation coefficient is C<sub>dh</sub> = 0.9.

(\*\*\*) If the declared TOL is lower than the T<sub>designh</sub> of the considered climate then the outdoor dry bulb temperature T<sub>j</sub> is equal to T<sub>designh</sub>.

**PRODUCT INFORMATION / TECHNICAL DOCUMENTATION**

Model(s):	Outdoor unit:	PUZ-SHWM80VAA
	Indoor unit:	EHST20D-MED
Air-to-water heat pump:		yes
Water-to-water heat pump:		no
Brine-to-water heat pump:		no
Low-temperature heat pump:		no
Equipped with a supplementary heater:		no
Heat pump combination heater:		yes
Parameters for		medium-temperature application.
Parameters for		warmer climate conditions.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit			
Rated heat output (*)	Prated	8.0	kW	Seasonal space heating energy efficiency	$\eta_s$	167	%			
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj						
Tj = - 7 °C	Pdh	-	kW	Tj = - 7 °C	COPd	-	-			
Degradation co-efficient (**)	Cdh	-	-							
Tj = + 2 °C	Pdh	8.0	kW	Tj = + 2 °C	COPd	2.05	-			
Degradation co-efficient (**)	Cdh	1.00	-							
Tj = + 7 °C	Pdh	5.2	kW	Tj = + 7 °C	COPd	3.60	-			
Degradation co-efficient (**)	Cdh	0.99	-							
Tj = +12 °C	Pdh	4.5	kW	Tj = +12 °C	COPd	6.02	-			
Degradation co-efficient (**)	Cdh	0.98	-							
Tj = bivalent temperature	Pdh	8.0	kW	Tj = bivalent temperature	COPd	2.05	-			
Tj = operation limit temperature (***)	Pdh	8.0	kW	Tj = operation limit temperature (***)	COPd	2.05	-			
Bivalent temperature	Tbiv	2	°C	Operation limit temperature	TOL	-30	°C			
Reference design conditions for space heating	Tdesignh	2	°C	Heating water operating limit temperature	WTOL	60	°C			
Power consumption in modes other than active mode				Supplementary heater						
Off mode	P <sub>OFF</sub>	0.015	kW	Rated heat output (*)	P <sub>sup</sub>	0.0	kW			
Thermostat-off mode	P <sub>TO</sub>	0.015	kW							
Standby mode	P <sub>SB</sub>	0.015	kW							
Crankcase heater mode	P <sub>CK</sub>	0.000	kW							
Other items				Type of energy input						
Capacity control	variable			Electrical						
Sound power level, indoors/outdoors	L <sub>WA</sub>	41 / 54	dBA	Rated air flow rate, outdoors						
Annual energy consumption	Q <sub>HE</sub>	2521	kWh	-						
				2220						
				m <sup>3</sup> /h						

For heat pump combination heater:

Declared load profile	L			Water heating energy efficiency	$\eta_{wh}$	139	%
Daily electricity consumption	Q <sub>elec</sub>	3.820	kWh				
Annual electricity consumption	AEC	841	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:	PUZ-SHWM80VAA
	Indoor unit:	EHST20D-MED
Air-to-water heat pump:		yes
Water-to-water heat pump:		no
Brine-to-water heat pump:		no
Low-temperature heat pump:		no
Equipped with a supplementary heater:		no
Heat pump combination heater:		yes
Parameters for		low-temperature application.
Parameters for		warmer climate conditions.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	8.0	kW	Seasonal space heating energy efficiency	$\eta_s$	225	%
Declared capacity for heating for part load at indoor temperature 20 ° C and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 ° C and outdoor temperature Tj			
Tj = - 7 ° C	Pdh	—	kW	Tj = - 7 ° C	COPd	—	—
Degradation co-efficient (**)	Cdh	—	—				
Tj = + 2 ° C	Pdh	8.0	kW	Tj = + 2 ° C	COPd	3.75	—
Degradation co-efficient (**)	Cdh	0.99	—				
Tj = + 7 ° C	Pdh	5.1	kW	Tj = + 7 ° C	COPd	5.20	—
Degradation co-efficient (**)	Cdh	0.99	—				
Tj = +12 ° C	Pdh	4.7	kW	Tj = +12 ° C	COPd	7.34	—
Degradation co-efficient (**)	Cdh	0.98	—				
Tj = bivalent temperature	Pdh	8.0	kW	Tj = bivalent temperature	COPd	3.75	—
Tj = operation limit temperature (***)	Pdh	8.0	kW	Tj = operation limit temperature (***)	COPd	3.75	—
Bivalent temperature	Tbiv	2	° C	Operation limit temperature	TOL	−30	° C
Reference design conditions for space heating	Tdesignh	2	° C	Heating water operating limit temperature	WTOL	60	° C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P <sub>OFF</sub>	0.015	kW	Rated heat output (*)	Psup	0.0	kW
Thermostat-off mode	P <sub>T0</sub>	0.015	kW				
Standby mode	P <sub>SB</sub>	0.015	kW				
Crankcase heater mode	P <sub>CK</sub>	0.000	kW				
				Type of energy input	Electrical		

**Other items**

Capacity control	variable			Rated air flow rate, outdoors	-	2220	m³/h
Sound power level, indoors/outdoors	L <sub>WA</sub>	41 / 54	dBA				
Annual energy consumption	Q <sub>HE</sub>	1874	kWh				

**For heat pump combination heater:**

Declared load profile	L			Water heating energy efficiency	$\eta_{wh}$	139	%
Daily electricity consumption	Qelec	3.820	kWh				
Annual electricity consumption	AEC	841	kWh				

**Contact details**

MITSUBISHI ELECTRIC AIR CONDITIONING SYSTEMS MANUFACTURING TURKEY JOINT STOCK COMPANY				Manisa OSB 4.Kisim Kecilikoyosb Mah. Ahmet Nazif Zorlu Bulvari No:19 Yunusemre - Manisa, Turkey			
The identification and signature of the person empowered to bind the supplier:				Kenichi SAITO			
The signature is signed in the average climate / medium-temperature section.				Manager, Quality Assurance Department			
				TURKEY			

• 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.