



ENERG

енергия · ενεργεια

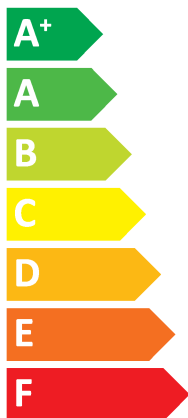


Indoor unit
Outdoor unit

ERST20F-VM6E
PUZ-SHWM80VAA



A⁺⁺



A⁺

Two icons showing sound power levels. The top icon shows a speaker inside a house with the value **41 dB**. The bottom icon shows a speaker outside a house with the value **54 dB**.



Legend for power consumption levels, shown as three colored squares: dark blue for **08 kW**, medium blue for **08 kW**, and light blue for **08 kW**.

1. SPACE HEATER

	1	Outdoor unit		PUZ-SHWM80VAA
	2	Indoor unit		ERST20F-VM6E
For medium-temperature application	3	Medium-temperature application		✓
	6	Seasonal space heating energy efficiency class		A++
	8	Rated heat output under average climate conditions	kW	8
	11	Seasonal space heating energy efficiency under average climate conditions	%	134
	9	For space heating, annual energy consumption under average climate conditions	kWh	4837
	13	Sound power level L _{WA} indoor	dB	41
	15	Rated heat output under colder climate conditions	kW	8
	16	Rated heat output under warmer climate conditions	kW	8
	21	Seasonal space heating energy efficiency under colder climate conditions	%	116
	22	Seasonal space heating energy efficiency under warmer climate conditions	%	172
	17	For space heating, annual energy consumption under colder climate conditions	kWh	6643
	18	For space heating, annual energy consumption under warmer climate conditions	kWh	2446
	25	Sound power level L _{WA} outdoor	dB	54
	For low-temperature application	4	Low-temperature application	
6		Seasonal space heating energy efficiency class		A+++
8		Rated heat output under average climate conditions	kW	8
11		Seasonal space heating energy efficiency under average climate conditions	%	188
9		For space heating, annual energy consumption under average climate conditions	kWh	3462
13		Sound power level L _{WA} indoor	dB	41
15		Rated heat output under colder climate conditions	kW	8
16		Rated heat output under warmer climate conditions	kW	8
21		Seasonal space heating energy efficiency under colder climate conditions	%	147
22		Seasonal space heating energy efficiency under warmer climate conditions	%	234
17		For space heating, annual energy consumption under colder climate conditions	kWh	5249
18	For space heating, annual energy consumption under warmer climate conditions	kWh	1802	
25	Sound power level L _{WA} outdoor	dB	54	

2. COMBINATION HEATER

	1	Outdoor unit		PUZ-SHWM80VAA
	2	Indoor unit		ERST20F-VM6E
For medium-temperature application	3	Medium-temperature application		✓
	5	Declared load profile		L
	6	Seasonal space heating energy efficiency class		A++
	7	Water heating energy efficiency class		A+
	8	Rated heat output under average climate conditions	kW	8
	9	For space heating, annual energy consumption under average climate conditions	kWh	4837
	10	For water heating, annual electricity consumption under average climate conditions	kWh	796
	11	Seasonal space heating energy efficiency under average climate conditions	%	134
	12	Water heating energy efficiency under average climate conditions	%	137
	13	Sound power level L _{WA} indoor	dB	41
	14	Work only during off-peak hours		-
	15	Rated heat output under colder climate conditions	kW	8
	16	Rated heat output under warmer climate conditions	kW	8
	17	For space heating, annual energy consumption under colder climate conditions	kWh	6643
18	For space heating, annual energy consumption under warmer climate conditions	kWh	2446	
19	For water heating, annual energy consumption under colder climate conditions	kWh	945	
20	For water heating, annual energy consumption under warmer climate conditions	kWh	696	
21	Seasonal space heating energy efficiency under colder climate conditions	%	116	
22	Seasonal space heating energy efficiency under warmer climate conditions	%	172	
23	Water heating energy efficiency under colder climate conditions	%	115	
24	Water heating energy efficiency under warmer climate conditions	%	158	
25	Sound power level L _{WA} outdoor	dB	54	
For low-temperature application	4	Low-temperature application		✓
	5	Declared load profile		L
	6	Seasonal space heating energy efficiency class		A+++
	7	Water heating energy efficiency class		A+
	8	Rated heat output under average climate conditions	kW	8
	9	For space heating, annual energy consumption under average climate conditions	kWh	3462
	10	For water heating, annual electricity consumption under average climate conditions	kWh	796
	11	Seasonal space heating energy efficiency under average climate conditions	%	188
	12	Water heating energy efficiency under average climate conditions	%	137
	13	Sound power level L _{WA} indoor	dB	41
	14	Work only during off-peak hours		-
	15	Rated heat output under colder climate conditions	kW	8
	16	Rated heat output under warmer climate conditions	kW	8
	17	For space heating, annual energy consumption under colder climate conditions	kWh	5249
	18	For space heating, annual energy consumption under warmer climate conditions	kWh	1802
	19	For water heating, annual energy consumption under colder climate conditions	kWh	945
20	For water heating, annual energy consumption under warmer climate conditions	kWh	696	
21	Seasonal space heating energy efficiency under colder climate conditions	%	147	
22	Seasonal space heating energy efficiency under warmer climate conditions	%	234	
23	Water heating energy efficiency under colder climate conditions	%	115	
24	Water heating energy efficiency under warmer climate conditions	%	158	
25	Sound power level L _{WA} outdoor	dB	54	

PRODUCT INFORMATION / TECHNICAL DOCUMENTATION

Model(s):	Outdoor unit:	PUZ-SHWM80VAA
	Indoor unit:	ERST20F-VM6E
Air-to-water heat pump:		yes
Water-to-water heat pump:		no
Brine-to-water heat pump:		no
Low-temperature heat pump:		no
Equipped with a supplementary heater:		yes
Heat pump combination heater:		yes
Parameters for		medium-temperature application.
Parameters for		average climate conditions.

Item	Symbol	Value	Unit
Rated heat output (*)	Prated	8.0	kW
Declared capacity for heating for part load at indoor temperature 20°C and outdoor temperature T _j			
T _j = -7°C	P _{dh}	7.1	kW
Degradation co-efficient(**)	C _{dh}	1.00	
T _j = +2°C	P _{dh}	4.4	kW
Degradation co-efficient(**)	C _{dh}	0.99	
T _j = +7°C	P _{dh}	4.4	kW
Degradation co-efficient(**)	C _{dh}	0.98	
T _j = +12°C	P _{dh}	2.8	kW
Degradation co-efficient(**)	C _{dh}	0.97	
T _j = bivalent temperature	P _{dh}	8.0	kW
T _j = operation limit temperature(***)	P _{dh}	8.0	kW
Bivalent temperature	T _{biv}	-10	°C
Reference design conditions for space heating	T _{designh}	-10	°C
Power consumption in modes other than active mode			
Off mode	P _{OFF}	0.015	kW
Thermostat-off mode	P _{TO}	0.015	kW
Standby mode	P _{SB}	0.015	kW
Crankcase heater mode	P _{CK}	0.000	kW

Item	Symbol	Value	Unit
Seasonal space heating energy efficiency	η _s	134	%
Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20°C and outdoor temperature T _j			
T _j = -7°C	COP _d	2.32	
T _j = +2°C	COP _d	3.22	
T _j = +7°C	COP _d	4.40	
T _j = +12°C	COP _d	6.09	
T _j = bivalent temperature	COP _d	1.84	
T _j = operation limit temperature(***)	COP _d	1.84	
Operation limit temperature	TOL	-30	°C
Heating water operating limit temperature	WTOL	70	°C
Supplementary heater			
Rated heat output(*)	P _{sup}	0.0	kW
Type of energy input		Electrical	

Other items			
Capacity control		variable	
Sound power level, indoors/outdoors	L _{WA}	41 / 54	dB
Annual energy consumption	Q _{HE}	4837	kWh

Rated air flow rate, outdoors		2220	m ³ /h
-------------------------------	--	------	-------------------

For heat pump combination heater:			
Declared load profile		L	
Daily electricity consumption	Q _{elec}	3.620	kWh
Annual electricity consumption	AEC	796	kWh

Water heating energy efficiency	η _{wh}	137	%
---------------------------------	-----------------	-----	---

Contact details

MITSUBISHI ELECTRIC AIR CONDITIONING SYSTEMS MANUFACTURING TURKEY INC. SÖĞÜTÖKÜYÜ, YOSB Mah. Ahmet Nazif Zorlu Bulvarı No:19 Yunusre - Manis

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



Kenichi SAITO
 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:	ERST20F-VM6E
Air-to-water heat pump:		yes
Water-to-water heat pump:		no
Brine-to-water heat pump:		no
Low-temperature heat pump:		no
Equipped with a supplementary heater:		yes
Heat pump combination heater:		yes
Parameters for		low-temperature application.
Parameters for		average climate conditions.

Item	Symbol	Value	Unit
Rated heat output (*)	Prated	8.0	kW
Declared capacity for heating for part load at indoor temperature 20°C and outdoor temperature T _j			
T _j = -7°C	P _{dh}	7.1	kW
Degradation co-efficient(**)	C _{dh}	0.99	
T _j = +2°C	P _{dh}	4.4	kW
Degradation co-efficient(**)	C _{dh}	0.98	
T _j = +7°C	P _{dh}	5.0	kW
Degradation co-efficient(**)	C _{dh}	0.98	
T _j = +12°C	P _{dh}	3.0	kW
Degradation co-efficient(**)	C _{dh}	0.97	
T _j = bivalent temperature	P _{dh}	8.0	kW
T _j = operation limit temperature(***)	P _{dh}	8.0	kW
Bivalent temperature	T _{biv}	-10	°C
Reference design conditions for space heating	T _{designh}	-10	°C
Power consumption in modes other than active mode			
Off mode	P _{OFF}	0.015	kW
Thermostat-off mode	P _{TO}	0.015	kW
Standby mode	P _{SB}	0.015	kW
Crankcase heater mode	P _{CK}	0.000	kW

Item	Symbol	Value	Unit
Seasonal space heating energy efficiency	η _s	188	%
Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20°C and outdoor temperature T _j			
T _j = -7°C	COP _d	3.23	
T _j = +2°C	COP _d	4.78	
T _j = +7°C	COP _d	5.90	
T _j = +12°C	COP _d	6.52	
T _j = bivalent temperature	COP _d	2.67	
T _j = operation limit temperature(***)	COP _d	2.67	
Operation limit temperature	TOL	-30	°C
Heating water operating limit temperature	WTOL	70	°C
Supplementary heater			
Rated heat output(*)	P _{sup}	0.0	kW
Type of energy input		Electrical	

Other items			
Capacity control		variable	
Sound power level, indoors/outdoors	L _{WA}	41 / 54	dB
Annual energy consumption	Q _{HE}	3462	kWh

Rated air flow rate, outdoors		2220	m ³ /h
-------------------------------	--	------	-------------------

For heat pump combination heater:			
Declared load profile		L	
Daily electricity consumption	Q _{elec}	3.620	kWh
Annual electricity consumption	AEC	796	kWh

Water heating energy efficiency	η _{wh}	137	%
---------------------------------	-----------------	-----	---

Contact details

MITSUBISHI ELECTRIC AIR CONDITIONING SYSTEMS MANUFACTURING TURKEY INC. SÖĞÜTÖKÜYÜ, YOSB Mah. Ahmet Nazif Zorlu Bulvarı No:19 Yunusre - Manisa

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

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

Kenichi SAITO
 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:	ERST20F-VM6E
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
Rated heat output (*)	Prated	8.0	kW
Declared capacity for heating for part load at indoor temperature 20°C and outdoor temperature T _j			
T _j = -7°C	P _{dh}	4.9	kW
Degradation co-efficient(**)	C _{dh}	0.99	
T _j = +2°C	P _{dh}	4.0	kW
Degradation co-efficient(**)	C _{dh}	0.99	
T _j = +7°C	P _{dh}	4.3	kW
Degradation co-efficient(**)	C _{dh}	0.98	
T _j = +12°C	P _{dh}	3.1	kW
Degradation co-efficient(**)	C _{dh}	0.97	
T _j = bivalent temperature	P _{dh}	6.7	kW
T _j = operation limit temperature(***)	P _{dh}	5.3	kW
T _j = -15°C (if TOL < -20°C)	P _{dh}	6.5	kW
Bivalent temperature	T _{biv}	-16	°C
Reference design conditions for space heating	T _{designh}	-22	°C
Power consumption in modes other than active mode			
Off mode	P _{OFF}	0.015	kW
Thermostat-off mode	P _{TO}	0.015	kW
Standby mode	P _{SB}	0.015	kW
Crankcase heater mode	P _{CK}	0.000	kW

Item	Symbol	Value	Unit
Seasonal space heating energy efficiency	η _s	116	%
Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20°C and outdoor temperature T _j			
T _j = -7°C	COP _d	2.65	
T _j = +2°C	COP _d	3.48	
T _j = +7°C	COP _d	4.78	
T _j = +12°C	COP _d	6.74	
T _j = bivalent temperature	COP _d	1.52	
T _j = operation limit temperature(***)	COP _d	1.41	
T _j = -15°C (if TOL < -20°C)	COP _d	1.52	
Operation limit temperature	TOL	-30	°C
Heating water operating limit temperature	WTOL	70	°C
Supplementary heater			
Rated heat output(*)	P _{sup}	2.7	kW
Type of energy input	Electrical		

Other items			
Capacity control	variable		
Sound power level, indoors/outdoors	L _{WA}	41 / 54	dB
Annual energy consumption	Q _{HE}	6643	kWh

Rated air flow rate, outdoors	2220	m ³ /h
-------------------------------	------	-------------------

For heat pump combination heater:			
Declared load profile	L		
Daily electricity consumption	Q _{elec}	4.290	kWh
Annual electricity consumption	AEC	945	kWh

Water heating energy efficiency	η _{wh}	115	%
---------------------------------	-----------------	-----	---

Contact details

MITSUBISHI ELECTRIC AIR CONDITIONING SYSTEMS MANUFACTURING TURKEY INC. SÖĞÜTÖKÜYÜ, YOSB Mah. Ahmet Nazif Zorlu Bulvarı No:19 Yunusre - Manis

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

Kenichi SAITO
Manager, Quality Assurance Department
TURKEY

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

· 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:	ERST20F-VM6E
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
Rated heat output (*)	Prated	8.0	kW
Declared capacity for heating for part load at indoor temperature 20°C and outdoor temperature T _j			
T _j = -7°C	P _{dh}	4.8	kW
Degradation co-efficient(**)	C _{dh}	0.99	
T _j = +2°C	P _{dh}	4.0	kW
Degradation co-efficient(**)	C _{dh}	0.98	
T _j = +7°C	P _{dh}	4.5	kW
Degradation co-efficient(**)	C _{dh}	0.98	
T _j = +12°C	P _{dh}	3.1	kW
Degradation co-efficient(**)	C _{dh}	0.96	
T _j = bivalent temperature	P _{dh}	6.7	kW
T _j = operation limit temperature(***)	P _{dh}	5.4	kW
T _j = -15°C (if TOL < -20°C)	P _{dh}	6.5	kW
Bivalent temperature	T _{biv}	-16	°C
Reference design conditions for space heating	T _{designh}	-22	°C
Power consumption in modes other than active mode			
Off mode	P _{OFF}	0.015	kW
Thermostat-off mode	P _{TO}	0.015	kW
Standby mode	P _{SB}	0.015	kW
Crankcase heater mode	P _{CK}	0.000	kW

Item	Symbol	Value	Unit
Seasonal space heating energy efficiency	η _s	147	%
Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20°C and outdoor temperature T _j			
T _j = -7°C	COP _d	3.53	
T _j = +2°C	COP _d	4.33	
T _j = +7°C	COP _d	5.56	
T _j = +12°C	COP _d	7.56	
T _j = bivalent temperature	COP _d	2.06	
T _j = operation limit temperature(***)	COP _d	1.41	
T _j = -15°C (if TOL < -20°C)	COP _d	2.06	
Operation limit temperature	TOL	-30	°C
Heating water operating limit temperature	WTOL	70	°C
Supplementary heater			
Rated heat output(*)	P _{sup}	2.6	kW
Type of energy input		Electrical	

Other items			
Capacity control		variable	
Sound power level, indoors/outdoors	L _{WA}	41 / 54	dB
Annual energy consumption	Q _{HE}	5249	kWh

Rated air flow rate, outdoors		2220	m ³ /h
-------------------------------	--	------	-------------------

For heat pump combination heater:			
Declared load profile		L	
Daily electricity consumption	Q _{elec}	4.290	kWh
Annual electricity consumption	AEC	945	kWh

Water heating energy efficiency	η _{wh}	115	%
---------------------------------	-----------------	-----	---

Contact details

MITSUBISHI ELECTRIC AIR CONDITIONING SYSTEMS MANUFACTURING TURKEY INC. SÖĞÜTÖKÜYÜ, YOSB Mah. Ahmet Nazif Zorlu Bulvarı No:19 Yunusre - Manisa / Turkey

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

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

Kenichi SAITO
 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:	ERST20F-VM6E
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
Rated heat output (*)	Prated	8.0	kW
Declared capacity for heating for part load at indoor temperature 20°C and outdoor temperature T _j			
T _j = - 7°C	P _{dh}	-	kW
Degradation co-efficient(**)	C _{dh}	-	
T _j = + 2°C	P _{dh}	8.0	kW
Degradation co-efficient(**)	C _{dh}	1.00	
T _j = + 7°C	P _{dh}	5.2	kW
Degradation co-efficient(**)	C _{dh}	0.99	
T _j = + 12°C	P _{dh}	4.5	kW
Degradation co-efficient(**)	C _{dh}	0.98	
T _j = bivalent temperature	P _{dh}	8.0	kW
T _j = operation limit temperature(***)	P _{dh}	8.0	kW
Bivalent temperature	T _{biv}	2	°C
Reference design conditions for space heating	T _{designh}	2	°C
Power consumption in modes other than active mode			
Off mode	P _{OFF}	0.015	kW
Thermostat-off mode	P _{TO}	0.015	kW
Standby mode	P _{SB}	0.015	kW
Crankcase heater mode	P _{CK}	0.000	kW

Item	Symbol	Value	Unit
Seasonal space heating energy efficiency	η _s	172	%
Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20°C and outdoor temperature T _j			
T _j = - 7°C	COP _d	-	
T _j = + 2°C	COP _d	2.05	
T _j = + 7°C	COP _d	3.62	
T _j = + 12°C	COP _d	6.03	
T _j = bivalent temperature	COP _d	2.05	
T _j = operation limit temperature(***)	COP _d	2.05	
Operation limit temperature	TOL	-30	°C
Heating water operating limit temperature	WTOL	70	°C
Supplementary heater			
Rated heat output(*)	P _{sup}	0.0	kW
Type of energy input		Electrical	

Other items			
Capacity control		variable	
Sound power level, indoors/outdoors	L _{WA}	41 / 54	dB
Annual energy consumption	Q _{HE}	2446	kWh

Rated air flow rate, outdoors		2220	m³/h
-------------------------------	--	------	------

For heat pump combination heater:			
Declared load profile		L	
Daily electricity consumption	Q _{elec}	3.160	kWh
Annual electricity consumption	AEC	696	kWh

Water heating energy efficiency	η _{wh}	158	%
---------------------------------	-----------------	-----	---

Contact details

MITSUBISHI ELECTRIC AIR CONDITIONING SYSTEMS MANUFACTURING TURKEY ANON İŞTİSM KURUMU
 Yabancı Satış Ofisi, Kocaeli Yolu, Gebze Mah. Ahmet Nazif Zorlu Bulvarı No:19 Yunusre - Manisa

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

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

Kenichi SAITO
 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:	ERST20F-VM6E
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
Rated heat output (*)	Prated	8.0	kW
Declared capacity for heating for part load at indoor temperature 20°C and outdoor temperature T _j			
T _j = -7°C	P _{dh}	-	kW
Degradation co-efficient(**)	C _{dh}	-	
T _j = +2°C	P _{dh}	8.0	kW
Degradation co-efficient(**)	C _{dh}	0.99	
T _j = +7°C	P _{dh}	5.1	kW
Degradation co-efficient(**)	C _{dh}	0.98	
T _j = +12°C	P _{dh}	4.7	kW
Degradation co-efficient(**)	C _{dh}	0.98	
T _j = bivalent temperature	P _{dh}	8.0	kW
T _j = operation limit temperature(***)	P _{dh}	8.0	kW
Bivalent temperature	T _{biv}	2	°C
Reference design conditions for space heating	T _{designh}	2	°C
Power consumption in modes other than active mode			
Off mode	P _{OFF}	0.015	kW
Thermostat-off mode	P _{TO}	0.015	kW
Standby mode	P _{SB}	0.015	kW
Crankcase heater mode	P _{CK}	0.000	kW

Item	Symbol	Value	Unit
Seasonal space heating energy efficiency	η _s	234	%
Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20°C and outdoor temperature T _j			
T _j = -7°C	COP _d	-	
T _j = +2°C	COP _d	3.75	
T _j = +7°C	COP _d	5.22	
T _j = +12°C	COP _d	7.37	
T _j = bivalent temperature	COP _d	3.75	
T _j = operation limit temperature(***)	COP _d	3.75	
Operation limit temperature	TOL	-30	°C
Heating water operating limit temperature	WTOL	70	°C
Supplementary heater			
Rated heat output(*)	P _{sup}	0.0	kW
Type of energy input		Electrical	

Other items			
Capacity control		variable	
Sound power level, indoors/outdoors	L _{WA}	41 / 54	dB
Annual energy consumption	Q _{HE}	1802	kWh

Rated air flow rate, outdoors		2220	m ³ /h
-------------------------------	--	------	-------------------

For heat pump combination heater:			
Declared load profile		L	
Daily electricity consumption	Q _{elec}	3.160	kWh
Annual electricity consumption	AEC	696	kWh

Water heating energy efficiency	η _{wh}	158	%
---------------------------------	-----------------	-----	---

Contact details

MITSUBISHI ELECTRIC AIR CONDITIONING SYSTEMS MANUFACTURING TURKEY INC. SÖĞÜTÖKÜYÜ, YOSB Mah. Ahmet Nazif Zorlu Bulvarı No:19 Yunusre - Manisa / Turkey

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

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

Kenichi SAITO
 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.