

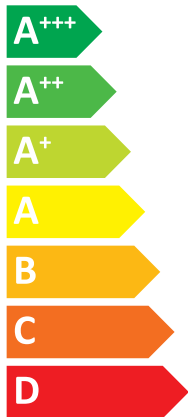
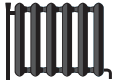


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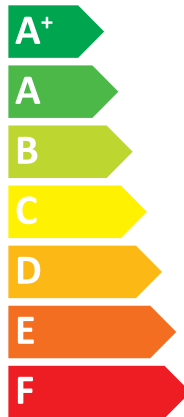
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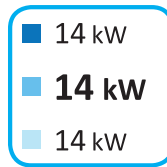
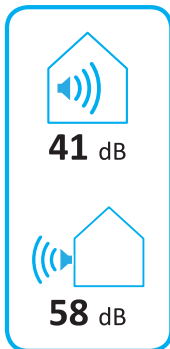
Indoor unit E*ST20D-****D
Outdoor unit PUZ-SHWM140VAA



A++



A+



2019

811/2013

DG79V341H17



PRODUCT FICHE

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

DG79A02MH01

Table with 25 columns for model variants and 2 rows for outdoor and indoor units. Columns are grouped into 'For medium-temperature application' and 'For low-temperature application'. Rows include efficiency classes (A+, A, B, C, D, E, F, G), seasonal space heating energy efficiency class, and various energy consumption metrics (kWh, kWh/m², kWh/m²K).

Table with 25 columns for model variants and 2 rows for outdoor and indoor units. Columns are grouped into 'For medium-temperature application' and 'For low-temperature application'. Rows include efficiency classes (L, A+, A, B, C, D, E, F, G), declared load profile, seasonal space heating energy efficiency class, and various energy consumption metrics (kW, kWh, kWh/m², kWh/m²K).

PRODUCT INFORMATION / TECHNICAL DOCUMENTATION

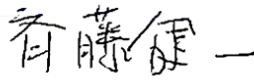
Model(s):	Outdoor unit:	PUZ-SHWM140VAA
	Indoor unit:	EHST20D-****D
Air-to-water heat pump:		yes
Water-to-water heat pump:		no
Brine-to-water heat pump:		no
Low-temperature heat pump:		no
Equipped with a supplementary heater:		yes
Heat pump combination heater:		yes
Parameters for		medium-temperature application.
Parameters for		average climate conditions.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	14.0	kW	Seasonal space heating energy efficiency	η_s	141	%
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	12.4	kW	Tj = - 7 ° C	COPd	2.18	-
Degradation co-efficient (**)	Cdh	1.00	-	Tj = + 2 ° C	COPd	3.49	-
Tj = + 2 ° C	Pdh	7.5	kW	Tj = + 7 ° C	COPd	4.85	-
Degradation co-efficient (**)	Cdh	0.99	-	Tj = +12 ° C	COPd	6.61	-
Tj = + 7 ° C	Pdh	6.3	kW	Tj = bivalent temperature	COPd	1.92	-
Degradation co-efficient (**)	Cdh	0.99	-	Tj = operation limit temperature (***)	COPd	1.92	-
Tj = +12 ° C	Pdh	3.9	kW	Operation limit temperature	TOL	-30	° C
Degradation co-efficient (**)	Cdh	0.98	-	Heating water operating limit temperature	WTOL	60	° C
Tj = bivalent temperature	Pdh	14.0	kW	Supplementary heater			
Tj = operation limit temperature (***)	Pdh	14.0	kW	Rated heat output (*)	Psup	0.0	kW
Bivalent temperature	Tbiv	-10	° C	Type of energy input	Electrical		
Reference design conditions for space heating	Tdesignh	-10	° C				
Power consumption in modes other than active mode							
Off mode	P _{OFF}	0.015	kW				
Thermostat-off mode	P _{TO}	0.015	kW				
Standby mode	P _{SB}	0.015	kW				
Crankcase heater mode	P _{CK}	0.000	kW				

Other items				Rated air flow rate, outdoors			
Capacity control	variable			-	2640	m ³ /h	
Sound power level, indoors/outdoors	L _{WA}	41 / 58	dBA				
Annual energy consumption	Q _{HE}	8021	kWh				

For heat pump combination heater:				Water heating energy efficiency			
Declared load profile	L			η_{wh}	123	%	
Daily electricity consumption	Q _{elec}	4.380	kWh				
Annual electricity consumption	AEC	965	kWh				

Contact details
 MITSUBISHI ELECTRIC AIR CONDITIONING SYSTEMS MANUFACTURING TURKEY JOINT STOCK COMPANY
 Manisa OSB 4.Kisim Kecilikoyosb Mah. Ahmet Nazif Zorlu Bulvarı No:19 Yunusemre - Manisa, Turkey

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-SHWM140VAA
	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	14.0	kW	Seasonal space heating energy efficiency	η_s	183	%
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	12.4	kW	Tj = - 7 ° C	COPd	3.00	-
Degradation co-efficient (**)	Cdh	1.00	-	Tj = + 2 ° C	COPd	4.59	-
Tj = + 2 ° C	Pdh	7.5	kW	Tj = + 7 ° C	COPd	6.00	-
Degradation co-efficient (**)	Cdh	0.99	-	Tj = +12 ° C	COPd	7.19	-
Tj = + 7 ° C	Pdh	6.4	kW	Tj = bivalent temperature	COPd	2.55	-
Degradation co-efficient (**)	Cdh	0.99	-	Tj = operation limit temperature (***)	COPd	2.55	-
Tj = +12 ° C	Pdh	4.1	kW	Operation limit temperature	TOL	-30	° C
Degradation co-efficient (**)	Cdh	0.97	-	Heating water operating limit temperature	WTOL	60	° C
Tj = bivalent temperature	Pdh	14.0	kW	Supplementary heater			
Tj = operation limit temperature (***)	Pdh	14.0	kW	Rated heat output (*)	Psup	0.0	kW
Bivalent temperature	Tbiv	-10	° C	Type of energy input	Electrical		
Reference design conditions for space heating	Tdesignh	-10	° C	Power consumption in modes other than active mode			
Off mode				P _{OFF}			
Thermostat-off mode				P _{TO}			
Standby mode				P _{SB}			
Crankcase heater mode				P _{CK}			

Other items	Capacity control	variable	Rated air flow rate, outdoors	-	2640	m ³ /h
	Sound power level, indoors/outdoors	L _{WA}	41 / 58			dBA
	Annual energy consumption	Q _{HE}	6227			kWh

For heat pump combination heater:				Water heating energy efficiency			
Declared load profile	L			η_{wh}	123	%	
Daily electricity consumption	Q _{elec}	4.380	kWh				
Annual electricity consumption	AEC	965	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-SHWM140VAA
	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	14.0	kW	Seasonal space heating energy efficiency	η_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	8.5	kW	Tj = - 7 ° C	COPd	2.63	-
Degradation co-efficient (**)	Cdh	1.00	-	Tj = + 2 ° C	COPd	3.49	-
Tj = + 2 ° C	Pdh	5.2	kW	Tj = + 7 ° C	COPd	4.40	-
Degradation co-efficient (**)	Cdh	0.99	-	Tj = +12 ° C	COPd	6.92	-
Tj = + 7 ° C	Pdh	4.2	kW	Tj = bivalent temperature	COPd	1.53	-
Degradation co-efficient (**)	Cdh	0.98	-	Tj = operation limit temperature (***)	COPd	1.55	-
Tj = +12 ° C	Pdh	4.2	kW	Tj = - 15 ° C (if TOL < - 20 ° C)	COPd	1.52	-
Degradation co-efficient (**)	Cdh	0.98	-	Operation limit temperature	TOL	-30	° C
Tj = bivalent temperature	Pdh	11.8	kW	Heating water operating limit temperature	WTOL	60	° C
Tj = operation limit temperature (***)	Pdh	10.7	kW	Supplementary heater			
Tj = - 15 ° C (if TOL < - 20 ° C)	Pdh	11.4	kW	Rated heat output (*)	Psup	3.3	kW
Bivalent temperature	Tbiv	-16	° C	Type of energy input	Electrical		
Reference design conditions for space heating	Tdesignh	-22	° C				
Power consumption in modes other than active mode							
Off mode	P _{OFF}	0.015	kW				
Thermostat-off mode	P _{TO}	0.015	kW				
Standby mode	P _{SB}	0.015	kW				
Crankcase heater mode	P _{CK}	0.000	kW				

Other items				Rated air flow rate, outdoors			
Capacity control	variable			-	2640	m ³ /h	
Sound power level, indoors/outdoors	L _{WA}	41 / 58	dBA				
Annual energy consumption	Q _{HE}	11650	kWh				

For heat pump combination heater:				Water heating energy efficiency			
Declared load profile	L			η_{wh}	105	%	
Daily electricity consumption	Q _{elec}	4.860	kWh				
Annual electricity consumption	AEC	1070	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-SHWM140VAA
	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	14.0	kW	Seasonal space heating energy efficiency	η_s	153	%
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	8.3	kW	Tj = - 7 ° C	COPd	3.65	-
Degradation co-efficient (**)	Cdh	0.99	-	Tj = + 2 ° C	COPd	4.59	-
Tj = + 2 ° C	Pdh	5.2	kW	Tj = + 7 ° C	COPd	5.15	-
Degradation co-efficient (**)	Cdh	0.99	-	Tj = +12 ° C	COPd	8.80	-
Tj = + 7 ° C	Pdh	4.6	kW	Tj = bivalent temperature	COPd	2.03	-
Degradation co-efficient (**)	Cdh	0.98	-	Tj = operation limit temperature (***)	COPd	1.79	-
Tj = +12 ° C	Pdh	4.3	kW	Tj = - 15 ° C (if TOL < - 20 ° C)	COPd	2.05	-
Degradation co-efficient (**)	Cdh	0.97	-	Operation limit temperature	TOL	-30	° C
Tj = bivalent temperature	Pdh	11.8	kW	Heating water operating limit temperature	WTOL	60	° C
Tj = operation limit temperature (***)	Pdh	10.7	kW	Supplementary heater			
Tj = - 15 ° C (if TOL < - 20 ° C)	Pdh	11.4	kW	Rated heat output (*)	Psup	3.3	kW
Bivalent temperature	Tbiv	-16	° C	Type of energy input	Electrical		
Reference design conditions for space heating	Tdesignh	-22	° C				
Power consumption in modes other than active mode							
Off mode	P _{OFF}	0.015	kW				
Thermostat-off mode	P _{TO}	0.015	kW				
Standby mode	P _{SB}	0.015	kW				
Crankcase heater mode	P _{CK}	0.000	kW				

Other items				Rated air flow rate, outdoors			
Capacity control	variable			-	2640	m ³ /h	
Sound power level, indoors/outdoors	L _{WA}	41 / 58	dBA				
Annual energy consumption	Q _{HE}	8841	kWh				

For heat pump combination heater:				Water heating energy efficiency			
Declared load profile	L			η_{wh}	105	%	
Daily electricity consumption	Q _{elec}	4.860	kWh				
Annual electricity consumption	AEC	1070	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-SHWM140VAA
	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	14.0	kW	Seasonal space heating energy efficiency	η_s	156	%
Declared capacity for heating for part load at indoor temperature 20 ° C and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 ° C and outdoor temperature Tj			
Tj = - 7 ° C	Pdh	-	kW	Tj = - 7 ° C	COPd	-	-
Degradation co-efficient (**)	Cdh	-	-	Tj = + 2 ° C	COPd	2.00	-
Tj = + 2 ° C	Pdh	14.0	kW	Tj = + 7 ° C	COPd	3.27	-
Degradation co-efficient (**)	Cdh	1.00	-	Tj = +12 ° C	COPd	5.50	-
Tj = + 7 ° C	Pdh	8.8	kW	Tj = bivalent temperature	COPd	2.00	-
Degradation co-efficient (**)	Cdh	0.99	-	Tj = operation limit temperature (***)	COPd	2.00	-
Tj = +12 ° C	Pdh	5.5	kW	Operation limit temperature	TOL	-30	° C
Degradation co-efficient (**)	Cdh	0.99	-	Heating water operating limit temperature	WTOL	60	° C
Tj = bivalent temperature	Pdh	14.0	kW	Supplementary heater			
Tj = operation limit temperature (***)	Pdh	14.0	kW	Rated heat output (*)	Psup	0.0	kW
Bivalent temperature	Tbiv	2	° C	Type of energy input	Electrical		
Reference design conditions for space heating	Tdesignh	2	° C				
Power consumption in modes other than active mode							
Off mode	P _{OFF}	0.015	kW				
Thermostat-off mode	P _{TO}	0.015	kW				
Standby mode	P _{SB}	0.015	kW				
Crankcase heater mode	P _{CK}	0.000	kW				

Other items				Rated air flow rate, outdoors			
Capacity control	variable			-	2640	m ³ /h	
Sound power level, indoors/outdoors	L _{WA}	41 / 58	dBA				
Annual energy consumption	Q _{HE}	4715	kWh				

For heat pump combination heater:				Water heating energy efficiency			
Declared load profile	L			η_{wh}	130	%	
Daily electricity consumption	Q _{elec}	4.030	kWh				
Annual electricity consumption	AEC	888	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-SHWM140VAA
	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	14.0	kW	Seasonal space heating energy efficiency	η_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	COPd	3.24	-
Tj = + 2 ° C	Pdh	14.0	kW	Tj = + 7 ° C	COPd	5.15	-
Degradation co-efficient (**)	Cdh	1.00	-	Tj = +12 ° C	COPd	7.18	-
Tj = + 7 ° C	Pdh	9.0	kW	Tj = bivalent temperature	COPd	3.24	-
Degradation co-efficient (**)	Cdh	0.99	-	Tj = operation limit temperature (***)	COPd	3.24	-
Tj = +12 ° C	Pdh	5.1	kW	Operation limit temperature	TOL	-30	° C
Degradation co-efficient (**)	Cdh	0.98	-	Heating water operating limit temperature	WTOL	60	° C
Tj = bivalent temperature	Pdh	14.0	kW	Supplementary heater			
Tj = operation limit temperature (***)	Pdh	14.0	kW	Rated heat output (*)	Psup	0.0	kW
Bivalent temperature	Tbiv	2	° C	Type of energy input	Electrical		
Reference design conditions for space heating	Tdesignh	2	° C				
Power consumption in modes other than active mode							
Off mode	P _{OFF}	0.015	kW				
Thermostat-off mode	P _{TO}	0.015	kW				
Standby mode	P _{SB}	0.015	kW				
Crankcase heater mode	P _{CK}	0.000	kW				

Other items

Capacity control	variable			Rated air flow rate, outdoors	-	2640	m ³ /h
Sound power level, indoors/outdoors	L _{WA}	41 / 58	dBA				
Annual energy consumption	Q _{HE}	3279	kWh				

For heat pump combination heater:

Declared load profile	L			Water heating energy efficiency	η_{wh}	130	%
Daily electricity consumption	Q _{elec}	4.030	kWh				
Annual electricity consumption	AEC	888	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-SHWM140VAA
	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	14.0	kW	Seasonal space heating energy efficiency	η_s	142	%
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	12.4	kW	Tj = - 7 ° C	COPd	2.18	-
Degradation co-efficient (**)	Cdh	1.00	-				
Tj = + 2 ° C	Pdh	7.5	kW	Tj = + 2 ° C	COPd	3.49	-
Degradation co-efficient (**)	Cdh	0.99	-				
Tj = + 7 ° C	Pdh	6.3	kW	Tj = + 7 ° C	COPd	4.85	-
Degradation co-efficient (**)	Cdh	0.99	-				
Tj = +12 ° C	Pdh	3.9	kW	Tj = +12 ° C	COPd	6.61	-
Degradation co-efficient (**)	Cdh	0.98	-				
Tj = bivalent temperature	Pdh	14.0	kW	Tj = bivalent temperature	COPd	1.92	-
Tj = operation limit temperature (***)	Pdh	14.0	kW	Tj = operation limit temperature (***)	COPd	1.92	-
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 _{OFF}	0.015	kW	Rated heat output (*)	P _{sup}	0.0	kW
Thermostat-off mode	P _{TO}	0.015	kW	Type of energy input	Electrical		
Standby mode	P _{SB}	0.015	kW				
Crankcase heater mode	P _{CK}	0.000	kW				
Other items							
Capacity control	variable			Rated air flow rate, outdoors	-	2640	m ³ /h
Sound power level, indoors/outdoors	L _{WA}	41 / 58	dBA				
Annual energy consumption	Q _{HE}	7965	kWh				
For heat pump combination heater:				Water heating energy efficiency			
Declared load profile	L			η_{wh}	123	%	
Daily electricity consumption	Q _{elec}	4.380	kWh				
Annual electricity consumption	AEC	965	kWh				

Capacity control	variable			Rated air flow rate, outdoors	-	2640	m ³ /h
Sound power level, indoors/outdoors	L _{WA}	41 / 58	dBA				
Annual energy consumption	Q _{HE}	7965	kWh				

For heat pump combination heater:				Water heating energy efficiency			
Declared load profile	L			η_{wh}	123	%	
Daily electricity consumption	Q _{elec}	4.380	kWh				
Annual electricity consumption	AEC	965	kWh				

Contact details
 MITSUBISHI ELECTRIC AIR CONDITIONING SYSTEMS MANUFACTURING TURKEY JOINT STOCK COMPANY Manisa OSB 4.Kisim Kecilikoyosb Mah. Ahmet Nazif Zorlu Bulvarı No:19 Yunusemre - Manisa, Turkey

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

 Kenichi SAITO
 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-SHWM140VAA
	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	14.0	kW	Seasonal space heating energy efficiency	η_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	12.4	kW	Tj = - 7 ° C	COPd	3.00	-
Degradation co-efficient (**)	Cdh	1.00	-	Tj = + 2 ° C	COPd	4.59	-
Tj = + 2 ° C	Pdh	7.5	kW	Tj = + 7 ° C	COPd	6.00	-
Degradation co-efficient (**)	Cdh	0.99	-	Tj = +12 ° C	COPd	7.19	-
Tj = + 7 ° C	Pdh	6.4	kW	Tj = bivalent temperature	COPd	2.55	-
Degradation co-efficient (**)	Cdh	0.99	-	Tj = operation limit temperature (***)	COPd	2.55	-
Tj = +12 ° C	Pdh	4.1	kW	Operation limit temperature	TOL	-30	° C
Degradation co-efficient (**)	Cdh	0.97	-	Heating water operating limit temperature	WTOL	60	° C
Tj = bivalent temperature	Pdh	14.0	kW	Supplementary heater			
Tj = operation limit temperature (***)	Pdh	14.0	kW	Rated heat output (*)	Psup	0.0	kW
Bivalent temperature	Tbiv	-10	° C	Type of energy input	Electrical		
Reference design conditions for space heating	Tdesignh	-10	° C	Power consumption in modes other than active mode			
Power consumption in modes other than active mode				Off mode			
Off mode	P _{OFF}	0.015	kW	Thermostat-off mode	P _{TO}	0.015	kW
Thermostat-off mode	P _{TO}	0.015	kW	Standby mode	P _{SB}	0.015	kW
Standby mode	P _{SB}	0.015	kW	Crankcase heater mode	P _{CK}	0.000	kW
Crankcase heater mode	P _{CK}	0.000	kW	Other items			
Capacity control				Rated air flow rate, outdoors			
variable				-			
Sound power level, indoors/outdoors				2640			
L _{WA}				m ³ /h			
41 / 58							
Annual energy consumption							
Q _{HE}							
6172							
kWh							
For heat pump combination heater:							
Declared load profile				Water heating energy efficiency			
L				η_{wh}			
Daily electricity consumption				123			
Q _{elec}				%			
4.380							
Annual electricity consumption							
AEC							
965							
kWh							

Other items							
Capacity control				Rated air flow rate, outdoors			
variable				-			
Sound power level, indoors/outdoors				2640			
L _{WA}				m ³ /h			
41 / 58							
Annual energy consumption							
Q _{HE}							
6172							
kWh							

For heat pump combination heater:							
Declared load profile				Water heating energy efficiency			
L				η_{wh}			
Daily electricity consumption				123			
Q _{elec}				%			
4.380							
Annual electricity consumption							
AEC							
965							
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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Kenichi SAITO							
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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-SHWM140VAA
	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	14.0	kW	Seasonal space heating energy efficiency	η_s	116	%
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	8.5	kW	Tj = - 7 ° C	COPd	2.63	-
Degradation co-efficient (**)	Cdh	1.00	-	Tj = + 2 ° C	COPd	3.49	-
Tj = + 2 ° C	Pdh	5.2	kW	Tj = + 7 ° C	COPd	4.40	-
Degradation co-efficient (**)	Cdh	0.99	-	Tj = +12 ° C	COPd	6.92	-
Tj = + 7 ° C	Pdh	4.2	kW	Tj = bivalent temperature	COPd	1.53	-
Degradation co-efficient (**)	Cdh	0.98	-	Tj = operation limit temperature (***)	COPd	1.55	-
Tj = +12 ° C	Pdh	4.2	kW	Tj = - 15 ° C (if TOL < - 20 ° C)	COPd	1.52	-
Degradation co-efficient (**)	Cdh	0.98	-	Operation limit temperature	TOL	-30	° C
Tj = bivalent temperature	Pdh	11.8	kW	Heating water operating limit temperature	WTOL	60	° C
Tj = operation limit temperature (***)	Pdh	10.7	kW	Supplementary heater			
Tj = - 15 ° C (if TOL < - 20 ° C)	Pdh	11.4	kW	Rated heat output (*)	Psup	3.3	kW
Bivalent temperature	Tbiv	-16	° C	Type of energy input	Electrical		
Reference design conditions for space heating	Tdesignh	-22	° C				
Power consumption in modes other than active mode							
Off mode	P _{OFF}	0.015	kW				
Thermostat-off mode	P _{TO}	0.015	kW				
Standby mode	P _{SB}	0.015	kW				
Crankcase heater mode	P _{CK}	0.000	kW				

Other items				Rated air flow rate, outdoors			
Capacity control	variable			-	2640	m ³ /h	
Sound power level, indoors/outdoors	L _{WA}	41 / 58	dBA				
Annual energy consumption	Q _{HE}	11617	kWh				

For heat pump combination heater:				Water heating energy efficiency			
Declared load profile	L			η_{wh}	105	%	
Daily electricity consumption	Q _{elec}	4.860	kWh				
Annual electricity consumption	AEC	1070	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-SHWM140VAA
	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	14.0	kW	Seasonal space heating energy efficiency	η_s	154	%
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	8.3	kW	Tj = - 7 ° C	COPd	3.65	-
Degradation co-efficient (**)	Cdh	0.99	-	Tj = + 2 ° C	COPd	4.59	-
Tj = + 2 ° C	Pdh	5.2	kW	Tj = + 7 ° C	COPd	5.15	-
Degradation co-efficient (**)	Cdh	0.99	-	Tj = +12 ° C	COPd	8.80	-
Tj = + 7 ° C	Pdh	4.6	kW	Tj = bivalent temperature	COPd	2.03	-
Degradation co-efficient (**)	Cdh	0.98	-	Tj = operation limit temperature (***)	COPd	1.79	-
Tj = +12 ° C	Pdh	4.3	kW	Tj = - 15 ° C (if TOL < - 20 ° C)	COPd	2.05	-
Degradation co-efficient (**)	Cdh	0.97	-	Operation limit temperature	TOL	-30	° C
Tj = bivalent temperature	Pdh	11.8	kW	Heating water operating limit temperature	WTOL	60	° C
Tj = operation limit temperature (***)	Pdh	10.7	kW	Supplementary heater			
Tj = - 15 ° C (if TOL < - 20 ° C)	Pdh	11.4	kW	Rated heat output (*)	Psup	3.3	kW
Bivalent temperature	Tbiv	-16	° C	Type of energy input	Electrical		
Reference design conditions for space heating	Tdesignh	-22	° C				
Power consumption in modes other than active mode							
Off mode	P _{OFF}	0.015	kW				
Thermostat-off mode	P _{TO}	0.015	kW				
Standby mode	P _{SB}	0.015	kW				
Crankcase heater mode	P _{CK}	0.000	kW				

Other items				Rated air flow rate, outdoors			
Capacity control	variable			-	2640	m ³ /h	
Sound power level, indoors/outdoors	L _{WA}	41 / 58	dBA				
Annual energy consumption	Q _{HE}	8807	kWh				

For heat pump combination heater:				Water heating energy efficiency			
Declared load profile	L			η_{wh}	105	%	
Daily electricity consumption	Q _{elec}	4.860	kWh				
Annual electricity consumption	AEC	1070	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-SHWM140VAA
	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	14.0	kW	Seasonal space heating energy efficiency	η_s	158	%
Declared capacity for heating for part load at indoor temperature 20 ° C and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 ° C and outdoor temperature Tj			
Tj = - 7 ° C	Pdh	-	kW	Tj = - 7 ° C	COPd	-	-
Degradation co-efficient (**)	Cdh	-	-	Tj = + 2 ° C	COPd	2.00	-
Tj = + 2 ° C	Pdh	14.0	kW	Tj = + 7 ° C	COPd	3.27	-
Degradation co-efficient (**)	Cdh	1.00	-	Tj = +12 ° C	COPd	5.50	-
Tj = + 7 ° C	Pdh	8.8	kW	Tj = bivalent temperature	COPd	2.00	-
Degradation co-efficient (**)	Cdh	0.99	-	Tj = operation limit temperature (***)	COPd	2.00	-
Tj = +12 ° C	Pdh	5.5	kW	Operation limit temperature	TOL	-30	° C
Degradation co-efficient (**)	Cdh	0.99	-	Heating water operating limit temperature	WTOL	60	° C
Tj = bivalent temperature	Pdh	14.0	kW	Supplementary heater			
Tj = operation limit temperature (***)	Pdh	14.0	kW	Rated heat output (*)	Psup	0.0	kW
Bivalent temperature	Tbiv	2	° C	Type of energy input	Electrical		
Reference design conditions for space heating	Tdesignh	2	° C				
Power consumption in modes other than active mode							
Off mode	P _{OFF}	0.015	kW				
Thermostat-off mode	P _{TO}	0.015	kW				
Standby mode	P _{SB}	0.015	kW				
Crankcase heater mode	P _{CK}	0.000	kW				

Other items				Rated air flow rate, outdoors			
Capacity control	variable			-	2640	m ³ /h	
Sound power level, indoors/outdoors	L _{WA}	41 / 58	dBA				
Annual energy consumption	Q _{HE}	4649	kWh				

For heat pump combination heater:				Water heating energy efficiency			
Declared load profile	L			η_{wh}	130	%	
Daily electricity consumption	Q _{elec}	4.030	kWh				
Annual electricity consumption	AEC	888	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-SHWM140VAA
	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	14.0	kW	Seasonal space heating energy efficiency	η_s	230	%
Declared capacity for heating for part load at indoor temperature 20 ° C and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 ° C and outdoor temperature Tj			
Tj = - 7 ° C	Pdh	-	kW	Tj = - 7 ° C	COPd	-	-
Degradation co-efficient (**)	Cdh	-	-	Tj = + 2 ° C	COPd	3.24	-
Tj = + 2 ° C	Pdh	14.0	kW	Tj = + 7 ° C	COPd	5.15	-
Degradation co-efficient (**)	Cdh	1.00	-	Tj = +12 ° C	COPd	7.18	-
Tj = + 7 ° C	Pdh	9.0	kW	Tj = bivalent temperature	COPd	3.24	-
Degradation co-efficient (**)	Cdh	0.99	-	Tj = operation limit temperature (***)	COPd	3.24	-
Tj = +12 ° C	Pdh	5.1	kW	Operation limit temperature	TOL	-30	° C
Degradation co-efficient (**)	Cdh	0.98	-	Heating water operating limit temperature	WTOL	60	° C
Tj = bivalent temperature	Pdh	14.0	kW	Supplementary heater			
Tj = operation limit temperature (***)	Pdh	14.0	kW	Rated heat output (*)	Psup	0.0	kW
Bivalent temperature	Tbiv	2	° C	Type of energy input	Electrical		
Reference design conditions for space heating	Tdesignh	2	° C				
Power consumption in modes other than active mode							
Off mode	P _{OFF}	0.015	kW				
Thermostat-off mode	P _{TO}	0.015	kW				
Standby mode	P _{SB}	0.015	kW				
Crankcase heater mode	P _{CK}	0.000	kW				

Other items				Rated air flow rate, outdoors			
Capacity control	variable			-	2640	m ³ /h	
Sound power level, indoors/outdoors	L _{WA}	41 / 58	dBA				
Annual energy consumption	Q _{HE}	3212	kWh				

For heat pump combination heater:				Water heating energy efficiency			
Declared load profile	L			η_{wh}	130	%	
Daily electricity consumption	Q _{elec}	4.030	kWh				
Annual electricity consumption	AEC	888	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

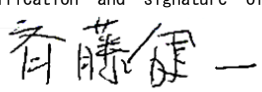
Model(s):	Outdoor unit:	PUZ-SHWM140VAA
	Indoor unit:	EHST20D-MED
Air-to-water heat pump:		yes
Water-to-water heat pump:		no
Brine-to-water heat pump:		no
Low-temperature heat pump:		no
Equipped with a supplementary heater:		no
Heat pump combination heater:		yes
Parameters for		medium-temperature application.
Parameters for		average climate conditions.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	14.0	kW	Seasonal space heating energy efficiency	η_s	141	%
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	12.4	kW	Tj = - 7 ° C	COPd	2.18	-
Degradation co-efficient (**)	Cdh	1.00	-	Tj = + 2 ° C	COPd	3.49	-
Tj = + 2 ° C	Pdh	7.5	kW	Tj = + 7 ° C	COPd	4.85	-
Degradation co-efficient (**)	Cdh	0.99	-	Tj = +12 ° C	COPd	6.61	-
Tj = + 7 ° C	Pdh	6.3	kW	Tj = bivalent temperature	COPd	1.92	-
Degradation co-efficient (**)	Cdh	0.99	-	Tj = operation limit temperature (***)	COPd	1.92	-
Tj = +12 ° C	Pdh	3.9	kW	Operation limit temperature	TOL	-30	° C
Degradation co-efficient (**)	Cdh	0.98	-	Heating water operating limit temperature	WTOL	60	° C
Tj = bivalent temperature	Pdh	14.0	kW	Supplementary heater			
Tj = operation limit temperature (***)	Pdh	14.0	kW	Rated heat output (*)	Psup	0.0	kW
Bivalent temperature	Tbiv	-10	° C	Type of energy input	Electrical		
Reference design conditions for space heating	Tdesignh	-10	° C				
Power consumption in modes other than active mode							
Off mode	P _{OFF}	0.015	kW				
Thermostat-off mode	P _{TO}	0.015	kW				
Standby mode	P _{SB}	0.015	kW				
Crankcase heater mode	P _{CK}	0.000	kW				

Other items				Rated air flow rate, outdoors			
Capacity control	variable			-	2640	m ³ /h	
Sound power level, indoors/outdoors	L _{WA}	41 / 58	dBA				
Annual energy consumption	Q _{HE}	8021	kWh				

For heat pump combination heater:				Water heating energy efficiency			
Declared load profile	L			η_{wh}	123	%	
Daily electricity consumption	Q _{elec}	4.380	kWh				
Annual electricity consumption	AEC	965	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-SHWM140VAA
	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	14.0	kW	Seasonal space heating energy efficiency	η_s	183	%
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	12.4	kW	Tj = - 7 ° C	COPd	3.00	-
Degradation co-efficient (**)	Cdh	1.00	-	Tj = + 2 ° C	COPd	4.59	-
Tj = + 2 ° C	Pdh	7.5	kW	Tj = + 7 ° C	COPd	6.00	-
Degradation co-efficient (**)	Cdh	0.99	-	Tj = +12 ° C	COPd	7.19	-
Tj = + 7 ° C	Pdh	6.4	kW	Tj = bivalent temperature	COPd	2.55	-
Degradation co-efficient (**)	Cdh	0.99	-	Tj = operation limit temperature (***)	COPd	2.55	-
Tj = +12 ° C	Pdh	4.1	kW	Operation limit temperature	TOL	-30	° C
Degradation co-efficient (**)	Cdh	0.97	-	Heating water operating limit temperature	WTOL	60	° C
Tj = bivalent temperature	Pdh	14.0	kW	Supplementary heater			
Tj = operation limit temperature (***)	Pdh	14.0	kW	Rated heat output (*)	Psup	0.0	kW
Bivalent temperature	Tbiv	-10	° C	Type of energy input	Electrical		
Reference design conditions for space heating	Tdesignh	-10	° C				
Power consumption in modes other than active mode							
Off mode	P _{OFF}	0.015	kW				
Thermostat-off mode	P _{TO}	0.015	kW				
Standby mode	P _{SB}	0.015	kW				
Crankcase heater mode	P _{CK}	0.000	kW				

Other items			
Capacity control	variable		
Sound power level, indoors/outdoors	L _{WA}	41 / 58	dBA
Annual energy consumption	Q _{HE}	6227	kWh
Rated air flow rate, outdoors			
-			
2640			
m ³ /h			

For heat pump combination heater:			
Declared load profile	L		
Daily electricity consumption	Q _{elec}	4.380	kWh
Annual electricity consumption	AEC	965	kWh
Water heating energy efficiency			
η_{wh}			
123			
%			

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
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PRODUCT INFORMATION / TECHNICAL DOCUMENTATION

Model(s):	Outdoor unit:	PUZ-SHWM140VAA
	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	14.0	kW	Seasonal space heating energy efficiency	η_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	8.5	kW	Tj = - 7 ° C	COPd	2.63	-
Degradation co-efficient (**)	Cdh	1.00	-	Tj = + 2 ° C	COPd	3.49	-
Tj = + 2 ° C	Pdh	5.2	kW	Tj = + 7 ° C	COPd	4.40	-
Degradation co-efficient (**)	Cdh	0.99	-	Tj = +12 ° C	COPd	6.92	-
Tj = + 7 ° C	Pdh	4.2	kW	Tj = bivalent temperature	COPd	1.53	-
Degradation co-efficient (**)	Cdh	0.98	-	Tj = operation limit temperature (***)	COPd	1.55	-
Tj = +12 ° C	Pdh	4.2	kW	Tj = - 15 ° C (if TOL < - 20 ° C)	COPd	1.52	-
Degradation co-efficient (**)	Cdh	0.98	-	Operation limit temperature	TOL	-30	° C
Tj = bivalent temperature	Pdh	11.8	kW	Heating water operating limit temperature	WTOL	60	° C
Tj = operation limit temperature (***)	Pdh	10.7	kW	Supplementary heater			
Tj = - 15 ° C (if TOL < - 20 ° C)	Pdh	11.4	kW	Rated heat output (*)	Psup	3.3	kW
Bivalent temperature	Tbiv	-16	° C	Type of energy input	Electrical		
Reference design conditions for space heating	Tdesignh	-22	° C				
Power consumption in modes other than active mode							
Off mode	P _{OFF}	0.015	kW				
Thermostat-off mode	P _{TO}	0.015	kW				
Standby mode	P _{SB}	0.015	kW				
Crankcase heater mode	P _{CK}	0.000	kW				

Other items				Rated air flow rate, outdoors			
Capacity control	variable			-	2640	m ³ /h	
Sound power level, indoors/outdoors	L _{WA}	41 / 58	dBA				
Annual energy consumption	Q _{HE}	11650	kWh				

For heat pump combination heater:				Water heating energy efficiency			
Declared load profile	L			η_{wh}	105	%	
Daily electricity consumption	Q _{elec}	4.860	kWh				
Annual electricity consumption	AEC	1070	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-SHWM140VAA
	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	14.0	kW	Seasonal space heating energy efficiency	η_s	153	%
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	8.3	kW	Tj = - 7 ° C	COPd	3.65	-
Degradation co-efficient (**)	Cdh	0.99	-	Tj = + 2 ° C	COPd	4.59	-
Tj = + 2 ° C	Pdh	5.2	kW	Tj = + 7 ° C	COPd	5.15	-
Degradation co-efficient (**)	Cdh	0.99	-	Tj = +12 ° C	COPd	8.80	-
Tj = + 7 ° C	Pdh	4.6	kW	Tj = bivalent temperature	COPd	2.03	-
Degradation co-efficient (**)	Cdh	0.98	-	Tj = operation limit temperature (***)	COPd	1.79	-
Tj = +12 ° C	Pdh	4.3	kW	Tj = - 15 ° C (if TOL < - 20 ° C)	COPd	2.05	-
Degradation co-efficient (**)	Cdh	0.97	-	Operation limit temperature	TOL	-30	° C
Tj = bivalent temperature	Pdh	11.8	kW	Heating water operating limit temperature	WTOL	60	° C
Tj = operation limit temperature (***)	Pdh	10.7	kW	Supplementary heater			
Tj = - 15 ° C (if TOL < - 20 ° C)	Pdh	11.4	kW	Rated heat output (*)	Psup	3.3	kW
Bivalent temperature	Tbiv	-16	° C	Type of energy input	Electrical		
Reference design conditions for space heating	Tdesignh	-22	° C				
Power consumption in modes other than active mode							
Off mode	P _{OFF}	0.015	kW				
Thermostat-off mode	P _{TO}	0.015	kW				
Standby mode	P _{SB}	0.015	kW				
Crankcase heater mode	P _{CK}	0.000	kW				

Other items				Rated air flow rate, outdoors			
Capacity control	variable			-	2640	m ³ /h	
Sound power level, indoors/outdoors	L _{WA}	41 / 58	dBA				
Annual energy consumption	Q _{HE}	8841	kWh				

For heat pump combination heater:				Water heating energy efficiency			
Declared load profile	L			η_{wh}	105	%	
Daily electricity consumption	Q _{elec}	4.860	kWh				
Annual electricity consumption	AEC	1070	kWh				

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PRODUCT INFORMATION / TECHNICAL DOCUMENTATION

Model(s):	Outdoor unit:	PUZ-SHWM140VAA
	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	14.0	kW	Seasonal space heating energy efficiency	η_s	156	%
Declared capacity for heating for part load at indoor temperature 20 ° C and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 ° C and outdoor temperature Tj			
Tj = - 7 ° C	Pdh	-	kW	Tj = - 7 ° C	COPd	-	-
Degradation co-efficient (**)	Cdh	-	-	Tj = + 2 ° C	COPd	2.00	-
Tj = + 2 ° C	Pdh	14.0	kW	Tj = + 7 ° C	COPd	3.27	-
Degradation co-efficient (**)	Cdh	1.00	-	Tj = +12 ° C	COPd	5.50	-
Tj = + 7 ° C	Pdh	8.8	kW	Tj = bivalent temperature	COPd	2.00	-
Degradation co-efficient (**)	Cdh	0.99	-	Tj = operation limit temperature (***)	COPd	2.00	-
Tj = +12 ° C	Pdh	5.5	kW	Operation limit temperature	TOL	-30	° C
Degradation co-efficient (**)	Cdh	0.99	-	Heating water operating limit temperature	WTOL	60	° C
Tj = bivalent temperature	Pdh	14.0	kW	Supplementary heater			
Tj = operation limit temperature (***)	Pdh	14.0	kW	Rated heat output (*)	Psup	0.0	kW
Bivalent temperature	Tbiv	2	° C	Type of energy input	Electrical		
Reference design conditions for space heating	Tdesignh	2	° C				
Power consumption in modes other than active mode							
Off mode	P _{OFF}	0.015	kW				
Thermostat-off mode	P _{TO}	0.015	kW				
Standby mode	P _{SB}	0.015	kW				
Crankcase heater mode	P _{CK}	0.000	kW				

Other items				Rated air flow rate, outdoors			
Capacity control	variable			-	2640	m ³ /h	
Sound power level, indoors/outdoors	L _{WA}	41 / 58	dBA				
Annual energy consumption	Q _{HE}	4715	kWh				

For heat pump combination heater:				Water heating energy efficiency			
Declared load profile	L			η_{wh}	130	%	
Daily electricity consumption	Q _{elec}	4.030	kWh				
Annual electricity consumption	AEC	888	kWh				

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	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	14.0	kW	Seasonal space heating energy efficiency	η_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	COPd	3.24	-
Tj = + 2 ° C	Pdh	14.0	kW	Tj = + 7 ° C	COPd	5.15	-
Degradation co-efficient (**)	Cdh	1.00	-	Tj = +12 ° C	COPd	7.18	-
Tj = + 7 ° C	Pdh	9.0	kW	Tj = bivalent temperature	COPd	3.24	-
Degradation co-efficient (**)	Cdh	0.99	-	Tj = operation limit temperature (***)	COPd	3.24	-
Tj = +12 ° C	Pdh	5.1	kW	Operation limit temperature	TOL	-30	° C
Degradation co-efficient (**)	Cdh	0.98	-	Heating water operating limit temperature	WTOL	60	° C
Tj = bivalent temperature	Pdh	14.0	kW	Supplementary heater			
Tj = operation limit temperature (***)	Pdh	14.0	kW	Rated heat output (*)	Psup	0.0	kW
Bivalent temperature	Tbiv	2	° C	Type of energy input	Electrical		
Reference design conditions for space heating	Tdesignh	2	° C				
Power consumption in modes other than active mode							
Off mode	P _{OFF}	0.015	kW				
Thermostat-off mode	P _{TO}	0.015	kW				
Standby mode	P _{SB}	0.015	kW				
Crankcase heater mode	P _{CK}	0.000	kW				

Other items				Rated air flow rate, outdoors			
Capacity control	variable			-	2640	m ³ /h	
Sound power level, indoors/outdoors	L _{WA}	41 / 58	dBA				
Annual energy consumption	Q _{HE}	3279	kWh				

For heat pump combination heater:				Water heating energy efficiency			
Declared load profile	L			η_{wh}	130	%	
Daily electricity consumption	Q _{elec}	4.030	kWh				
Annual electricity consumption	AEC	888	kWh				

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