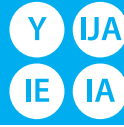




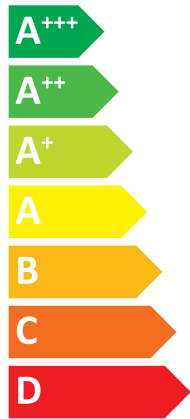
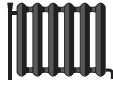
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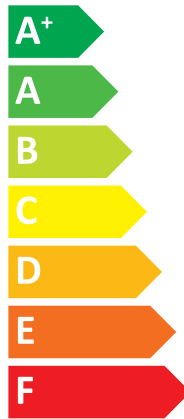


Indoor unit
Outdoor unit

E*ST20D-****D
PUZ-SWM120YAA



A++



A+

Two sound power level icons:

- Indoor unit: 41 dB
- Outdoor unit: 58 dB



Legend for power capacity:

- Dark blue square: 12 kW
- Medium blue square: 12 kW
- Light blue square: 12 kW

2019

811/2013

DG79V341H07



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 1: SPACE HEATER. Columns: Outdoor unit, Indoor unit, Medium-temperature application (3-25), For low-temperature application (4-25). Rows: PUZ-SWM60VAA, PUZ-SWM80VAA, PUZ-SWM80YAA, PUZ-SWM100VAA, PUZ-SWM100YAA, PUZ-SWM120VAA, PUZ-SWM120YAA, PUZ-SWM140VAA, PUZ-SWM140YAA, PUZ-SWM80VAA, PUZ-SWM80YAA, PUZ-SWM100VAA, PUZ-SWM100YAA, PUZ-SWM120VAA, PUZ-SWM120YAA, PUZ-SWM140VAA, PUZ-SWM140YAA.

Table 2: COMBINATION HEATER. Columns: Outdoor unit, Indoor unit, Medium-temperature application (3-25), For low-temperature application (4-25). Rows: PUZ-SWM60VAA, PUZ-SWM80VAA, PUZ-SWM80YAA, PUZ-SWM100VAA, PUZ-SWM100YAA, PUZ-SWM120VAA, PUZ-SWM120YAA, PUZ-SWM140VAA, PUZ-SWM140YAA, PUZ-SWM80VAA, PUZ-SWM80YAA, PUZ-SWM100VAA, PUZ-SWM100YAA, PUZ-SWM120VAA, PUZ-SWM120YAA, PUZ-SWM140VAA, PUZ-SWM140YAA.

PRODUCT INFORMATION / TECHNICAL DOCUMENTATION

Model(s):	Outdoor unit:	PUZ-SWM120YAA
	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	12.1	kW	Seasonal space heating energy efficiency	η_s	131	%
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	10.7	kW	Tj = - 7 ° C	COPd	1.87	-
Degradation co-efficient (**)	Cdh	1.00	-	Tj = + 2 ° C	COPd	3.33	-
Tj = + 2 ° C	Pdh	6.5	kW	Tj = + 7 ° C	COPd	4.65	-
Degradation co-efficient (**)	Cdh	0.99	-	Tj = +12 ° C	COPd	6.20	-
Tj = + 7 ° C	Pdh	5.0	kW	Tj = bivalent temperature	COPd	1.87	-
Degradation co-efficient (**)	Cdh	0.98	-	Tj = operation limit temperature (***)	COPd	1.55	-
Tj = +12 ° C	Pdh	3.8	kW	Operation limit temperature	TOL	-25	° C
Degradation co-efficient (**)	Cdh	0.96	-	Heating water operating limit temperature	WTOL	60	° C
Tj = bivalent temperature	Pdh	10.7	kW	Supplementary heater			
Tj = operation limit temperature (***)	Pdh	10.7	kW	Rated heat output (*)	Psup	1.4	kW
Bivalent temperature	Tbiv	-7	° 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}	0.022	kW				
Thermostat-off mode	P _{TO}	0.022	kW				
Standby mode	P _{SB}	0.022	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}	7485	kWh				

For heat pump combination heater:				Water heating energy efficiency			
Declared load profile	L			η_{wh}	134	%	
Daily electricity consumption	Q _{elec}	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 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-SWM120YAA
	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	12.1	kW	Seasonal space heating energy efficiency	η_s	176	%
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	10.7	kW	Tj = - 7 ° C	COPd	2.75	-
Degradation co-efficient (**)	Cdh	0.99	-	Tj = + 2 ° C	COPd	4.50	-
Tj = + 2 ° C	Pdh	6.5	kW	Tj = + 7 ° C	COPd	6.00	-
Degradation co-efficient (**)	Cdh	0.99	-	Tj = +12 ° C	COPd	7.00	-
Tj = + 7 ° C	Pdh	5.2	kW	Tj = bivalent temperature	COPd	2.75	-
Degradation co-efficient (**)	Cdh	0.98	-	Tj = operation limit temperature (***)	COPd	2.40	-
Tj = +12 ° C	Pdh	4.0	kW	Operation limit temperature	TOL	-25	° C
Degradation co-efficient (**)	Cdh	0.96	-	Heating water operating limit temperature	WTOL	60	° C
Tj = bivalent temperature	Pdh	10.7	kW	Supplementary heater			
Tj = operation limit temperature (***)	Pdh	10.7	kW	Rated heat output (*)	Psup	1.4	kW
Bivalent temperature	Tbiv	-7	° 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}	0.022	kW				
Thermostat-off mode	P _{TO}	0.022	kW				
Standby mode	P _{SB}	0.022	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}	5600	kWh
Rated air flow rate, outdoors			
-			
2640			
m ³ /h			

For heat pump combination heater:			
Declared load profile	L		
Daily electricity consumption	Q _{elec}	4.080	kWh
Annual electricity consumption	AEC	898	kWh
Water heating energy efficiency			
η_{wh}			
134			
%			

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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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-SWM120YAA
	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	12.1	kW	Seasonal space heating energy efficiency	η_s	109	%
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	7.3	kW	Tj = - 7 ° C	COPd	2.50	-
Degradation co-efficient (**)	Cdh	0.99	-	Tj = + 2 ° C	COPd	3.40	-
Tj = + 2 ° C	Pdh	4.4	kW	Tj = + 7 ° C	COPd	4.60	-
Degradation co-efficient (**)	Cdh	0.98	-	Tj = +12 ° C	COPd	6.80	-
Tj = + 7 ° C	Pdh	3.8	kW	Tj = bivalent temperature	COPd	1.45	-
Degradation co-efficient (**)	Cdh	0.97	-	Tj = operation limit temperature (***)	COPd	1.30	-
Tj = +12 ° C	Pdh	4.4	kW	Tj = - 15 ° C (if TOL < - 20 ° C)	COPd	1.40	-
Degradation co-efficient (**)	Cdh	0.97	-	Operation limit temperature	TOL	-25	° C
Tj = bivalent temperature	Pdh	9.2	kW	Heating water operating limit temperature	WTOL	60	° C
Tj = operation limit temperature (***)	Pdh	7.8	kW	Supplementary heater			
Tj = - 15 ° C (if TOL < - 20 ° C)	Pdh	8.9	kW	Rated heat output (*)	Psup	4.3	kW
Bivalent temperature	Tbiv	-13	° 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}	0.022	kW				
Thermostat-off mode	P _{TO}	0.022	kW				
Standby mode	P _{SB}	0.022	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}	10698	kWh				

For heat pump combination heater:				Water heating energy efficiency			
Declared load profile	L			η_{wh}	109	%	
Daily electricity consumption	Q _{elec}	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-SWM120YAA
	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	12.1	kW	Seasonal space heating energy efficiency	η_s	140	%
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	7.3	kW	Tj = - 7 ° C	COPd	3.50	-
Degradation co-efficient (**)	Cdh	0.99	-	Tj = + 2 ° C	COPd	4.00	-
Tj = + 2 ° C	Pdh	4.5	kW	Tj = + 7 ° C	COPd	5.20	-
Degradation co-efficient (**)	Cdh	0.98	-	Tj = +12 ° C	COPd	7.50	-
Tj = + 7 ° C	Pdh	3.9	kW	Tj = bivalent temperature	COPd	1.95	-
Degradation co-efficient (**)	Cdh	0.97	-	Tj = operation limit temperature (***)	COPd	1.50	-
Tj = +12 ° C	Pdh	5.5	kW	Tj = - 15 ° C (if TOL < - 20 ° C)	COPd	2.00	-
Degradation co-efficient (**)	Cdh	0.97	-	Operation limit temperature	TOL	-25	° C
Tj = bivalent temperature	Pdh	10.2	kW	Heating water operating limit temperature	WTOL	60	° C
Tj = operation limit temperature (***)	Pdh	8.0	kW	Supplementary heater			
Tj = - 15 ° C (if TOL < - 20 ° C)	Pdh	9.9	kW	Rated heat output (*)	Psup	4.1	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}	0.022	kW				
Thermostat-off mode	P _{TO}	0.022	kW				
Standby mode	P _{SB}	0.022	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}	8316	kWh				

For heat pump combination heater:				Water heating energy efficiency			
Declared load profile	L			η_{wh}	109	%	
Daily electricity consumption	Q _{elec}	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-SWM120YAA
	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	12.1	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	-	kW	Tj = - 7 ° C	COPd	-	-
Degradation co-efficient (**)	Cdh	-	-	Tj = + 2 ° C	COPd	1.95	-
Tj = + 2 ° C	Pdh	12.1	kW	Tj = + 7 ° C	COPd	3.30	-
Degradation co-efficient (**)	Cdh	1.00	-	Tj = +12 ° C	COPd	5.40	-
Tj = + 7 ° C	Pdh	7.7	kW	Tj = bivalent temperature	COPd	1.95	-
Degradation co-efficient (**)	Cdh	0.99	-	Tj = operation limit temperature (***)	COPd	1.95	-
Tj = +12 ° C	Pdh	5.2	kW	Operation limit temperature	TOL	-25	° C
Degradation co-efficient (**)	Cdh	0.98	-	Heating water operating limit temperature	WTOL	60	° C
Tj = bivalent temperature	Pdh	12.1	kW	Supplementary heater			
Tj = operation limit temperature (***)	Pdh	12.1	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}	0.022	kW				
Thermostat-off mode	P _{TO}	0.022	kW				
Standby mode	P _{SB}	0.022	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}	4157	kWh				

For heat pump combination heater:				Water heating energy efficiency			
Declared load profile	L			η_{wh}	139	%	
Daily electricity consumption	Q _{elec}	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-SWM120YAA
	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	12.1	kW	Seasonal space heating energy efficiency	η_s	218	%
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	3.10	-
Tj = + 2 ° C	Pdh	12.1	kW	Tj = + 7 ° C	COPd	5.10	-
Degradation co-efficient (**)	Cdh	0.99	-	Tj = +12 ° C	COPd	7.10	-
Tj = + 7 ° C	Pdh	7.7	kW	Tj = bivalent temperature	COPd	3.10	-
Degradation co-efficient (**)	Cdh	0.99	-	Tj = operation limit temperature (***)	COPd	3.10	-
Tj = +12 ° C	Pdh	4.4	kW	Operation limit temperature	TOL	-25	° C
Degradation co-efficient (**)	Cdh	0.97	-	Heating water operating limit temperature	WTOL	60	° C
Tj = bivalent temperature	Pdh	12.1	kW	Supplementary heater			
Tj = operation limit temperature (***)	Pdh	12.1	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}	0.022	kW				
Thermostat-off mode	P _{TO}	0.022	kW				
Standby mode	P _{SB}	0.022	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}	2922	kWh				

For heat pump combination heater:				Water heating energy efficiency			
Declared load profile	L			η_{wh}	139	%	
Daily electricity consumption	Q _{elec}	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-SWM120YAA
	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	12.1	kW	Seasonal space heating energy efficiency	η_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	10.7	kW	Tj = - 7 ° C	COPd	1.87	-
Degradation co-efficient (**)	Cdh	1.00	-	Tj = + 2 ° C	COPd	3.33	-
Tj = + 2 ° C	Pdh	6.5	kW	Tj = + 7 ° C	COPd	4.65	-
Degradation co-efficient (**)	Cdh	0.99	-	Tj = +12 ° C	COPd	6.20	-
Tj = + 7 ° C	Pdh	5.0	kW	Tj = bivalent temperature	COPd	1.87	-
Degradation co-efficient (**)	Cdh	0.98	-	Tj = operation limit temperature (***)	COPd	1.55	-
Tj = +12 ° C	Pdh	3.8	kW	Operation limit temperature	TOL	-25	° C
Degradation co-efficient (**)	Cdh	0.96	-	Heating water operating limit temperature	WTOL	60	° C
Tj = bivalent temperature	Pdh	10.7	kW	Supplementary heater			
Tj = operation limit temperature (***)	Pdh	10.7	kW	Rated heat output (*)	Psup	1.4	kW
Bivalent temperature	Tbiv	-7	° 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}	0.022	kW				
Thermostat-off mode	P _{TO}	0.022	kW				
Standby mode	P _{SB}	0.022	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}	7404	kWh				

For heat pump combination heater:				Water heating energy efficiency			
Declared load profile	L			η_{wh}	134	%	
Daily electricity consumption	Q _{elec}	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 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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 (**) 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-SWM120YAA
	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	12.1	kW	Seasonal space heating energy efficiency	η_s	178	%
Declared capacity for heating for part load at indoor temperature 20 ° C and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 ° C and outdoor temperature Tj			
Tj = - 7 ° C	Pdh	10.7	kW	Tj = - 7 ° C	COPd	2.75	-
Degradation co-efficient (**)	Cdh	0.99	-	Tj = + 2 ° C	COPd	4.50	-
Tj = + 2 ° C	Pdh	6.5	kW	Tj = + 7 ° C	COPd	6.00	-
Degradation co-efficient (**)	Cdh	0.99	-	Tj = +12 ° C	COPd	7.00	-
Tj = + 7 ° C	Pdh	5.2	kW	Tj = bivalent temperature	COPd	2.75	-
Degradation co-efficient (**)	Cdh	0.98	-	Tj = operation limit temperature (***)	COPd	2.40	-
Tj = +12 ° C	Pdh	4.0	kW	Operation limit temperature	TOL	-25	° C
Degradation co-efficient (**)	Cdh	0.96	-	Heating water operating limit temperature	WTOL	60	° C
Tj = bivalent temperature	Pdh	10.7	kW	Supplementary heater			
Tj = operation limit temperature (***)	Pdh	10.7	kW	Rated heat output (*)	Psup	1.4	kW
Bivalent temperature	Tbiv	-7	° 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}	0.022	kW	
Thermostat-off mode				P _{TO}	0.022	kW	
Standby mode				P _{SB}	0.022	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}	5520	kWh				

For heat pump combination heater:							
Declared load profile	L			Water heating energy efficiency	η_{wh}	134	%
Daily electricity consumption	Q _{elec}	4.080	kWh				
Annual electricity consumption	AEC	898	kWh				

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Manager, Quality Assurance Department

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PRODUCT INFORMATION / TECHNICAL DOCUMENTATION

Model(s):	Outdoor unit:	PUZ-SWM120YAA
	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	12.1	kW	Seasonal space heating energy efficiency	η_s	109	%
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	7.3	kW	Tj = - 7 ° C	COPd	2.50	-
Degradation co-efficient (**)	Cdh	0.99	-	Tj = + 2 ° C	COPd	3.40	-
Tj = + 2 ° C	Pdh	4.4	kW	Tj = + 7 ° C	COPd	4.60	-
Degradation co-efficient (**)	Cdh	0.98	-	Tj = +12 ° C	COPd	6.80	-
Tj = + 7 ° C	Pdh	3.8	kW	Tj = bivalent temperature	COPd	1.45	-
Degradation co-efficient (**)	Cdh	0.97	-	Tj = operation limit temperature (***)	COPd	1.30	-
Tj = +12 ° C	Pdh	4.4	kW	Tj = - 15 ° C (if TOL < - 20 ° C)	COPd	1.40	-
Degradation co-efficient (**)	Cdh	0.97	-	Operation limit temperature	TOL	-25	° C
Tj = bivalent temperature	Pdh	9.2	kW	Heating water operating limit temperature	WTOL	60	° C
Tj = operation limit temperature (***)	Pdh	7.8	kW	Supplementary heater			
Tj = - 15 ° C (if TOL < - 20 ° C)	Pdh	8.9	kW	Rated heat output (*)	Psup	4.3	kW
Bivalent temperature	Tbiv	-13	° 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}	0.022	kW				
Thermostat-off mode	P _{TO}	0.022	kW				
Standby mode	P _{SB}	0.022	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}	10649	kWh				

For heat pump combination heater:				Water heating energy efficiency			
Declared load profile	L			η_{wh}	109	%	
Daily electricity consumption	Q _{elec}	4.750	kWh				
Annual electricity consumption	AEC	1044	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-SWM120YAA
	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	12.1	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	7.3	kW	Tj = - 7 ° C	COPd	3.50	-
Degradation co-efficient (**)	Cdh	0.99	-	Tj = + 2 ° C	COPd	4.00	-
Tj = + 2 ° C	Pdh	4.5	kW	Tj = + 7 ° C	COPd	5.20	-
Degradation co-efficient (**)	Cdh	0.98	-	Tj = +12 ° C	COPd	7.50	-
Tj = + 7 ° C	Pdh	3.9	kW	Tj = bivalent temperature	COPd	1.95	-
Degradation co-efficient (**)	Cdh	0.97	-	Tj = operation limit temperature (***)	COPd	1.50	-
Tj = +12 ° C	Pdh	5.5	kW	Tj = - 15 ° C (if TOL < - 20 ° C)	COPd	2.00	-
Degradation co-efficient (**)	Cdh	0.97	-	Operation limit temperature	TOL	-25	° C
Tj = bivalent temperature	Pdh	10.2	kW	Heating water operating limit temperature	WTOL	60	° C
Tj = operation limit temperature (***)	Pdh	8.0	kW	Supplementary heater			
Tj = - 15 ° C (if TOL < - 20 ° C)	Pdh	9.9	kW	Rated heat output (*)	Psup	4.1	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}	0.022	kW				
Thermostat-off mode	P _{TO}	0.022	kW				
Standby mode	P _{SB}	0.022	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}	8267	kWh				

For heat pump combination heater:				Water heating energy efficiency			
Declared load profile	L			η_{wh}	109	%	
Daily electricity consumption	Q _{elec}	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-SWM120YAA
	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	12.1	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	1.95	-
Tj = + 2 ° C	Pdh	12.1	kW	Tj = + 7 ° C	COPd	3.30	-
Degradation co-efficient (**)	Cdh	1.00	-	Tj = +12 ° C	COPd	5.40	-
Tj = + 7 ° C	Pdh	7.7	kW	Tj = bivalent temperature	COPd	1.95	-
Degradation co-efficient (**)	Cdh	0.99	-	Tj = operation limit temperature (***)	COPd	1.95	-
Tj = +12 ° C	Pdh	5.2	kW	Operation limit temperature	TOL	-25	° C
Degradation co-efficient (**)	Cdh	0.98	-	Heating water operating limit temperature	WTOL	60	° C
Tj = bivalent temperature	Pdh	12.1	kW	Supplementary heater			
Tj = operation limit temperature (***)	Pdh	12.1	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}	0.022	kW				
Thermostat-off mode	P _{TO}	0.022	kW				
Standby mode	P _{SB}	0.022	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}	4060	kWh				

For heat pump combination heater:				Water heating energy efficiency			
Declared load profile	L			η_{wh}	139	%	
Daily electricity consumption	Q _{elec}	3.820	kWh				
Annual electricity consumption	AEC	841	kWh				

Contact details

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

PRODUCT INFORMATION / TECHNICAL DOCUMENTATION

Model(s):	Outdoor unit:	PUZ-SWM120YAA
	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	12.1	kW	Seasonal space heating energy efficiency	η_s	226	%
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	3.10	-
Tj = + 2 ° C	Pdh	12.1	kW	Tj = + 7 ° C	COPd	5.10	-
Degradation co-efficient (**)	Cdh	0.99	-	Tj = +12 ° C	COPd	7.10	-
Tj = + 7 ° C	Pdh	7.7	kW	Tj = bivalent temperature	COPd	3.10	-
Degradation co-efficient (**)	Cdh	0.99	-	Tj = operation limit temperature (***)	COPd	3.10	-
Tj = +12 ° C	Pdh	4.4	kW	Operation limit temperature	TOL	-25	° C
Degradation co-efficient (**)	Cdh	0.97	-	Heating water operating limit temperature	WTOL	60	° C
Tj = bivalent temperature	Pdh	12.1	kW	Supplementary heater			
Tj = operation limit temperature (***)	Pdh	12.1	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}	0.022	kW				
Thermostat-off mode	P _{TO}	0.022	kW				
Standby mode	P _{SB}	0.022	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}	2825	kWh				

For heat pump combination heater:				Water heating energy efficiency			
Declared load profile	L			η_{wh}	139	%	
Daily electricity consumption	Q _{elec}	3.820	kWh				
Annual electricity consumption	AEC	841	kWh				

Contact details

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

PRODUCT INFORMATION / TECHNICAL DOCUMENTATION

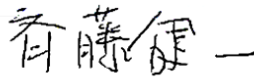
Model(s):	Outdoor unit:	PUZ-SWM120YAA
	Indoor unit:	EHST20D-MED
Air-to-water heat pump:		yes
Water-to-water heat pump:		no
Brine-to-water heat pump:		no
Low-temperature heat pump:		no
Equipped with a supplementary heater:		no
Heat pump combination heater:		yes
Parameters for		medium-temperature application.
Parameters for		average climate conditions.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	12.1	kW	Seasonal space heating energy efficiency	η_s	131	%
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	10.7	kW	Tj = - 7 ° C	COPd	1.87	-
Degradation co-efficient (**)	Cdh	1.00	-	Tj = + 2 ° C	COPd	3.33	-
Tj = + 2 ° C	Pdh	6.5	kW	Tj = + 7 ° C	COPd	4.65	-
Degradation co-efficient (**)	Cdh	0.99	-	Tj = +12 ° C	COPd	6.20	-
Tj = + 7 ° C	Pdh	5.0	kW	Tj = bivalent temperature	COPd	1.87	-
Degradation co-efficient (**)	Cdh	0.98	-	Tj = operation limit temperature (***)	COPd	1.55	-
Tj = +12 ° C	Pdh	3.8	kW	Operation limit temperature	TOL	-25	° C
Degradation co-efficient (**)	Cdh	0.96	-	Heating water operating limit temperature	WTOL	60	° C
Tj = bivalent temperature	Pdh	10.7	kW	Supplementary heater			
Tj = operation limit temperature (***)	Pdh	10.7	kW	Rated heat output (*)	Psup	1.4	kW
Bivalent temperature	Tbiv	-7	° 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}	0.022	kW				
Thermostat-off mode	P _{TO}	0.022	kW				
Standby mode	P _{SB}	0.022	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}	7485	kWh				

For heat pump combination heater:				Water heating energy efficiency			
Declared load profile	L			η_{wh}	134	%	
Daily electricity consumption	Q _{elec}	4.080	kWh				
Annual electricity consumption	AEC	898	kWh				

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

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Model(s):	Outdoor unit:	PUZ-SWM120YAA
	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	12.1	kW	Seasonal space heating energy efficiency	η_s	176	%
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	10.7	kW	Tj = - 7 ° C	COPd	2.75	-
Degradation co-efficient (**)	Cdh	0.99	-	Tj = + 2 ° C	COPd	4.50	-
Tj = + 2 ° C	Pdh	6.5	kW	Tj = + 7 ° C	COPd	6.00	-
Degradation co-efficient (**)	Cdh	0.99	-	Tj = +12 ° C	COPd	7.00	-
Tj = + 7 ° C	Pdh	5.2	kW	Tj = bivalent temperature	COPd	2.75	-
Degradation co-efficient (**)	Cdh	0.98	-	Tj = operation limit temperature (***)	COPd	2.40	-
Tj = +12 ° C	Pdh	4.0	kW	Operation limit temperature	TOL	-25	° C
Degradation co-efficient (**)	Cdh	0.96	-	Heating water operating limit temperature	WTOL	60	° C
Tj = bivalent temperature	Pdh	10.7	kW	Supplementary heater			
Tj = operation limit temperature (***)	Pdh	10.7	kW	Rated heat output (*)	Psup	1.4	kW
Bivalent temperature	Tbiv	-7	° 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}	0.022	kW				
Thermostat-off mode	P _{TO}	0.022	kW				
Standby mode	P _{SB}	0.022	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}	5600	kWh
Rated air flow rate, outdoors			
-			
2640			
m ³ /h			

For heat pump combination heater:			
Declared load profile	L		
Daily electricity consumption	Q _{elec}	4.080	kWh
Annual electricity consumption	AEC	898	kWh
Water heating energy efficiency			
η_{wh}			
134			
%			

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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 - 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-SWM120YAA
	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	12.1	kW	Seasonal space heating energy efficiency	η_s	109	%
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	7.3	kW	Tj = - 7 ° C	COPd	2.50	-
Degradation co-efficient (**)	Cdh	0.99	-	Tj = + 2 ° C	COPd	3.40	-
Tj = + 2 ° C	Pdh	4.4	kW	Tj = + 7 ° C	COPd	4.60	-
Degradation co-efficient (**)	Cdh	0.98	-	Tj = +12 ° C	COPd	6.80	-
Tj = + 7 ° C	Pdh	3.8	kW	Tj = bivalent temperature	COPd	1.45	-
Degradation co-efficient (**)	Cdh	0.97	-	Tj = operation limit temperature (***)	COPd	1.30	-
Tj = +12 ° C	Pdh	4.4	kW	Tj = - 15 ° C (if TOL < - 20 ° C)	COPd	1.40	-
Degradation co-efficient (**)	Cdh	0.97	-	Operation limit temperature	TOL	-25	° C
Tj = bivalent temperature	Pdh	9.2	kW	Heating water operating limit temperature	WTOL	60	° C
Tj = operation limit temperature (***)	Pdh	7.8	kW	Supplementary heater			
Tj = - 15 ° C (if TOL < - 20 ° C)	Pdh	8.9	kW	Rated heat output (*)	Psup	4.3	kW
Bivalent temperature	Tbiv	-13	° 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}	0.022	kW				
Thermostat-off mode	P _{TO}	0.022	kW				
Standby mode	P _{SB}	0.022	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}	10698	kWh				

For heat pump combination heater:				Water heating energy efficiency			
Declared load profile	L			η_{wh}	109	%	
Daily electricity consumption	Q _{elec}	4.750	kWh				
Annual electricity consumption	AEC	1044	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-SWM120YAA
	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	12.1	kW	Seasonal space heating energy efficiency	η_s	140	%
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	7.3	kW	Tj = - 7 ° C	COPd	3.50	-
Degradation co-efficient (**)	Cdh	0.99	-	Tj = + 2 ° C	COPd	4.00	-
Tj = + 2 ° C	Pdh	4.5	kW	Tj = + 7 ° C	COPd	5.20	-
Degradation co-efficient (**)	Cdh	0.98	-	Tj = +12 ° C	COPd	7.50	-
Tj = + 7 ° C	Pdh	3.9	kW	Tj = bivalent temperature	COPd	1.95	-
Degradation co-efficient (**)	Cdh	0.97	-	Tj = operation limit temperature (***)	COPd	1.50	-
Tj = +12 ° C	Pdh	5.5	kW	Tj = - 15 ° C (if TOL < - 20 ° C)	COPd	2.00	-
Degradation co-efficient (**)	Cdh	0.97	-	Operation limit temperature	TOL	-25	° C
Tj = bivalent temperature	Pdh	10.2	kW	Heating water operating limit temperature	WTOL	60	° C
Tj = operation limit temperature (***)	Pdh	8.0	kW	Supplementary heater			
Tj = - 15 ° C (if TOL < - 20 ° C)	Pdh	9.9	kW	Rated heat output (*)	Psup	4.1	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}	0.022	kW				
Thermostat-off mode	P _{TO}	0.022	kW				
Standby mode	P _{SB}	0.022	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}	8316	kWh				

For heat pump combination heater:				Water heating energy efficiency			
Declared load profile	L			η_{wh}	109	%	
Daily electricity consumption	Q _{elec}	4.750	kWh				
Annual electricity consumption	AEC	1044	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-SWM120YAA
	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	12.1	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	-	kW	Tj = - 7 ° C	COPd	-	-
Degradation co-efficient (**)	Cdh	-	-	Tj = + 2 ° C	COPd	1.95	-
Tj = + 2 ° C	Pdh	12.1	kW	Tj = + 7 ° C	COPd	3.30	-
Degradation co-efficient (**)	Cdh	1.00	-	Tj = +12 ° C	COPd	5.40	-
Tj = + 7 ° C	Pdh	7.7	kW	Tj = bivalent temperature	COPd	1.95	-
Degradation co-efficient (**)	Cdh	0.99	-	Tj = operation limit temperature (***)	COPd	1.95	-
Tj = +12 ° C	Pdh	5.2	kW	Operation limit temperature	TOL	-25	° C
Degradation co-efficient (**)	Cdh	0.98	-	Heating water operating limit temperature	WTOL	60	° C
Tj = bivalent temperature	Pdh	12.1	kW	Supplementary heater			
Tj = operation limit temperature (***)	Pdh	12.1	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}	0.022	kW				
Thermostat-off mode	P _{TO}	0.022	kW				
Standby mode	P _{SB}	0.022	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}	4157	kWh				

For heat pump combination heater:				Water heating energy efficiency			
Declared load profile	L			η_{wh}	139	%	
Daily electricity consumption	Q _{elec}	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-SWM120YAA
	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	12.1	kW	Seasonal space heating energy efficiency	η_s	218	%
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	3.10	-
Tj = + 2 ° C	Pdh	12.1	kW	Tj = + 7 ° C	COPd	5.10	-
Degradation co-efficient (**)	Cdh	0.99	-	Tj = +12 ° C	COPd	7.10	-
Tj = + 7 ° C	Pdh	7.7	kW	Tj = bivalent temperature	COPd	3.10	-
Degradation co-efficient (**)	Cdh	0.99	-	Tj = operation limit temperature (***)	COPd	3.10	-
Tj = +12 ° C	Pdh	4.4	kW	Operation limit temperature	TOL	-25	° C
Degradation co-efficient (**)	Cdh	0.97	-	Heating water operating limit temperature	WTOL	60	° C
Tj = bivalent temperature	Pdh	12.1	kW	Supplementary heater			
Tj = operation limit temperature (***)	Pdh	12.1	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}	0.022	kW				
Thermostat-off mode	P _{TO}	0.022	kW				
Standby mode	P _{SB}	0.022	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}	2922	kWh				

For heat pump combination heater:				Water heating energy efficiency			
Declared load profile	L			η_{wh}	139	%	
Daily electricity consumption	Q _{elec}	3.820	kWh				
Annual electricity consumption	AEC	841	kWh				

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