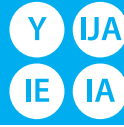


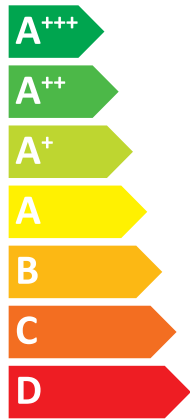
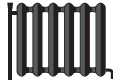


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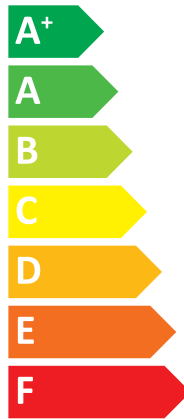
енергия · ενεργεια



Indoor unit E*ST20D-****D
Outdoor unit PUZ-SHWM120YAA



A++



A+

Two sound power level icons showing a speaker inside a house and a speaker outside a house.

41 dB (Indoor)

58 dB (Outdoor)



Legend for power consumption:

- 12 kW
- 12 kW
- 12 kW

2019

811/2013

DG79V341H16



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 include Outdoor unit, Indoor unit, and performance metrics for medium-temperature and low-temperature applications. Rows list various models like PUZ-SWM60VAA, PUZ-SWM80VAA, etc.

Table 2: COMBINATION HEATER. Columns include Outdoor unit, Indoor unit, and performance metrics for medium-temperature and low-temperature applications. Rows list various models like PUZ-SWM60VAA, PUZ-SWM80VAA, etc.

English	German	French	Italian	Spanish
Nederlands	Svenska	Dansk	Portuguesa	Espanol
suomi	Castina	Български	Polski	Ελληνικά
Outdoor unit	Außengerät	unité extérieure	unità esterna	unidad exterior
1	Utlomsenhet	Utenlands enhed	unidad exterior	Εξωτερική μονάδα
Ulkoyksykko	Vonkomsenhet	Внешний тепло	jednostka zewnętrzna	Εξωτερική μονάδα
2	Indoor unit	unité intérieure	unità interna	unidad interior
Sisäyksykko	Innenset	Внутренний тепло	interna interior	Εσωτερική μονάδα
3	Medium-temperature application	Mitteltemperaturanwendung	le applicazioni a media temperatura	le aplicaciones de media temperatura
keskilämpötilan sovellus	mittelmitteltemperaturanwendung	middletemperature application	a applicazio a media temperatura	η εφαρμογή σε μέση θερμοκρασία
4	Low-temperature application	Niedertemperaturanwendung	le applicazioni a bassa temperatura	la aplicación de baja temperatura
alagatemperatuurilto-sovellus	Niedertemperaturanwendung	Application à basse température	a applicazio a bassa temperatura	η εφαρμογή σε χαμηλή θερμοκρασία
5	Deviated load profile	Abgeworfenes Lastprofil	Profil de carico deviato	Perfil de carga desviado
Sprækket belastningsprofil	Abgeworfenes Lastprofil	Profil de charge dévié	Profil di carico deviato	Δυσχερές προφίλ φόρτου
6	Seasonal space heating energy efficiency class	la classe de efficacité énergétique saisonnière	la classe de efficienza energetica stagionale	la clase de eficiencia energética estacional
de seizoenruimteverwarming energie-efficiëntieklasse	la classe de efficacité énergétique saisonnière	la classe de efficacité énergétique saisonnière	la classe de efficienza energetica stagionale	la clase de eficiencia energética estacional
7	Water heating energy efficiency class	la classe de efficacité énergétique	la classe de eficiencia energética	la clase de eficiencia energética
de energie-efficiëntieklasse voor waterverwarming	la classe de efficacité énergétique	la classe de efficacité énergétique	la classe de eficiencia energética	la clase de eficiencia energética
8	Rated heat output under average climate conditions	la puissance thermique nominale dans les conditions climatiques moyennes	la potencia térmica nominal (en condiciones climáticas medias)	la potencia calorífica nominal (en condiciones climáticas medias)
de nominale warmteafgifte (onder gemiddelde klimaatomstandigheden)	la puissance thermique nominale dans les conditions climatiques moyennes	la puissance thermique nominale dans les conditions climatiques moyennes	la potencia térmica nominal (en condiciones climáticas medias)	la potencia calorífica nominal (en condiciones climáticas medias)
9	For space heating, annual energy consumption under average climate conditions	pour le chauffage de l'eau, la consommation annuelle d'électricité (dans les conditions climatiques moyennes)	para el calentamiento de agua, el consumo anual de electricidad (en condiciones climáticas medias)	para calentar espacios, el consumo anual de electricidad (en condiciones climáticas medias)
de energie-efficiëntie voor waterverwarming (onder gemiddelde klimaatomstandigheden)	pour le chauffage de l'eau, la consommation annuelle d'électricité (dans les conditions climatiques moyennes)	pour le chauffage de l'eau, la consommation annuelle d'électricité (dans les conditions climatiques moyennes)	para el calentamiento de agua, el consumo anual de electricidad (en condiciones climáticas medias)	para calentar espacios, el consumo anual de electricidad (en condiciones climáticas medias)
10	voor waterverwarming, het jaarlijkse elektriciteitsverbruik (onder gemiddelde klimaatomstandigheden)	pour le chauffage de l'eau, la consommation annuelle d'électricité (dans les conditions climatiques moyennes)	para el calentamiento de agua, el consumo anual de electricidad (en condiciones climáticas medias)	para calentar espacios, el consumo anual de electricidad (en condiciones climáticas medias)
11	de seizoenruimteverwarming energie-efficiëntie voor ruimteverwarming (onder gemiddelde klimaatomstandigheden)	l'efficacité énergétique saisonnière pour le chauffage de l'eau (dans les conditions climatiques moyennes)	l'eficiencia energética de calefacción de agua en interiores	η ενεργειακή απόδοση θερμότητας βερδωματος, υερδωτου (υπο μέσης κλιματικής συνθήκης)
12	de energie-efficiëntie voor waterverwarming (onder gemiddelde klimaatomstandigheden)	l'efficacité énergétique pour le chauffage de l'eau (dans les conditions climatiques moyennes)	l'eficiencia energética de calefacción de agua en interiores	η ενεργειακή απόδοση θερμότητας βερδωματος, υερδωτου (υπο μέσης κλιματικής συνθήκης)
13	Sound power level L _{WA} indoor	le niveau de puissance acoustique L _{WA} à l'intérieur	el nivel de potencia acústica L _{WA} en interiores	η απόδοση ηχητικής ισχύος, L _{WA} εσωτερικού χώρου
14	Werkten uitstekend in de dalen	fonctionnent bien en heures creuses	funcionan saliente durante las horas de baja demanda	η απόδοση ηχητικής ισχύος, L _{WA} εσωτερικού χώρου
15	Normale luchtvochtigheid onder koude klimaatomstandigheden	la puissance thermique nominale dans les conditions climatiques moyennes	la potencia calorífica nominal en condiciones climáticas medias	η απόδοση ηχητικής ισχύος, L _{WA} εσωτερικού χώρου
16	Normal luchtvochtigheid onder warme klimaatomstandigheden	la puissance thermique nominale dans les conditions climatiques plus chaudes	la potencia calorífica nominal en condiciones climáticas más calidas	η απόδοση ηχητικής ισχύος, L _{WA} εσωτερικού χώρου
17	voor ruimteverwarming, het jaarlijkse elektriciteitsverbruik onder koudere klimaatomstandigheden	pour l'appoint de chauffage de l'eau, la consommation annuelle d'électricité (dans les conditions climatiques plus froides)	para el apoyo de calefacción de agua, el consumo anual de electricidad (en condiciones climáticas más frías)	η ενεργειακή απόδοση θερμότητας βερδωματος, υερδωτου (υπο κλιματικής συνθήκης)
18	voor ruimteverwarming, het jaarlijkse elektriciteitsverbruik onder warmere klimaatomstandigheden	pour l'appoint de chauffage de l'eau, la consommation annuelle d'électricité (dans les conditions climatiques plus chaudes)	para el apoyo de calefacción de agua, el consumo anual de electricidad (en condiciones climáticas más calidas)	η ενεργειακή απόδοση θερμότητας βερδωματος, υερδωτου (υπο κλιματικής συνθήκης)
19	voor waterverwarming, het jaarlijkse elektriciteitsverbruik onder koudere klimaatomstandigheden	pour le chauffage de l'eau, la consommation annuelle d'électricité (dans les conditions climatiques plus froides)	para el calentamiento de agua, el consumo anual de electricidad (en condiciones climáticas más frías)	η ενεργειακή απόδοση θερμότητας βερδωματος, υερδωτου (υπο κλιματικής συνθήκης)
20	voor waterverwarming, het jaarlijkse elektriciteitsverbruik onder warmere klimaatomstandigheden	pour le chauffage de l'eau, la consommation annuelle d'électricité (dans les conditions climatiques plus chaudes)	para el calentamiento de agua, el consumo anual de electricidad (en condiciones climáticas más calidas)	η ενεργειακή απόδοση θερμότητας βερδωματος, υερδωτου (υπο κλιματικής συνθήκης)
21	de seizoenruimteverwarming energie-efficiëntie voor ruimteverwarming (onder koudere klimaatomstandigheden)	l'efficacité énergétique saisonnière pour le chauffage de l'eau (dans les conditions climatiques plus froides)	l'eficiencia energética de calefacción de agua en exteriores	η ενεργειακή απόδοση θερμότητας βερδωματος, υερδωτου (υπο κλιματικής συνθήκης)
22	de seizoenruimteverwarming energie-efficiëntie voor ruimteverwarming (onder warmere klimaatomstandigheden)	l'efficacité énergétique saisonnière pour le chauffage de l'eau (dans les conditions climatiques plus chaudes)	l'eficiencia energética de calefacción de agua en exteriores	η ενεργειακή απόδοση θερμότητας βερδωματος, υερδωτου (υπο κλιματικής συνθήκης)
23	de energie-efficiëntie voor waterverwarming (onder koudere klimaatomstandigheden)	l'efficacité énergétique pour le chauffage de l'eau (dans les conditions climatiques plus froides)	l'eficiencia energética de calefacción de agua en exteriores	η ενεργειακή απόδοση θερμότητας βερδωματος, υερδωτου (υπο κλιματικής συνθήκης)
24	de energie-efficiëntie voor waterverwarming (onder warmere klimaatomstandigheden)	l'efficacité énergétique pour le chauffage de l'eau (dans les conditions climatiques plus chaudes)	l'eficiencia energética de calefacción de agua en exteriores	η ενεργειακή απόδοση θερμότητας βερδωματος, υερδωτου (υπο κλιματικής συνθήκης)
25	Sound power level L _{WA} outdoor	le niveau de puissance acoustique L _{WA} à l'extérieur	el nivel de potencia acústica L _{WA} en exteriores	η απόδοση ηχητικής ισχύος, L _{WA} εξωτερικού χώρου
het geluidswaarnemeniveau L _{WA} buiten	le niveau de puissance acoustique L _{WA} à l'extérieur	el nivel de potencia acústica L _{WA} en exteriores	el nivel de potencia acústica L _{WA} en exteriores	η απόδοση ηχητικής ισχύος, L _{WA} εξωτερικού χώρου
Baanhoorbaar L _{WA} uitkoma	le niveau de puissance acoustique L _{WA} en extérieur	el nivel de potencia acústica L _{WA} en exterior	el nivel de potencia acústica L _{WA} en exterior	η απόδοση ηχητικής ισχύος, L _{WA} εξωτερικού χώρου

PRODUCT INFORMATION / TECHNICAL DOCUMENTATION

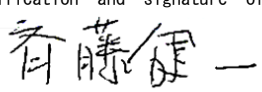
Model(s):	Outdoor unit:	PUZ-SHWM120YAA
	Indoor unit:	EHST20D-****D
Air-to-water heat pump:		yes
Water-to-water heat pump:		no
Brine-to-water heat pump:		no
Low-temperature heat pump:		no
Equipped with a supplementary heater:		yes
Heat pump combination heater:		yes
Parameters for		medium-temperature application.
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	136	%
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	2.13	-
Degradation co-efficient (**)	Cdh	1.00	-	Tj = + 2 ° C	COPd	3.36	-
Tj = + 2 ° C	Pdh	6.5	kW	Tj = + 7 ° C	COPd	4.75	-
Degradation co-efficient (**)	Cdh	0.99	-	Tj = +12 ° C	COPd	6.32	-
Tj = + 7 ° C	Pdh	5.0	kW	Tj = bivalent temperature	COPd	1.78	-
Degradation co-efficient (**)	Cdh	0.98	-	Tj = operation limit temperature (***)	COPd	1.78	-
Tj = +12 ° C	Pdh	3.8	kW	Operation limit temperature	TOL	-30	° C
Degradation co-efficient (**)	Cdh	0.96	-	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	-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}	0.022	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}	7204	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-SHWM120YAA
	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	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	2.85	-
Degradation co-efficient (**)	Cdh	0.99	-	Tj = + 2 ° C	COPd	4.53	-
Tj = + 2 ° C	Pdh	6.5	kW	Tj = + 7 ° C	COPd	6.04	-
Degradation co-efficient (**)	Cdh	0.99	-	Tj = +12 ° C	COPd	7.02	-
Tj = + 7 ° C	Pdh	5.2	kW	Tj = bivalent temperature	COPd	2.43	-
Degradation co-efficient (**)	Cdh	0.97	-	Tj = operation limit temperature (***)	COPd	2.43	-
Tj = +12 ° C	Pdh	4.0	kW	Operation limit temperature	TOL	-30	° C
Degradation co-efficient (**)	Cdh	0.96	-	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	-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				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}	5516		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 Bulvari No:19 Yunusemre - Manisa, Turkey

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

Kenichi SAITO

The signature is signed in the average climate / medium-temperature section. Manager, Quality Assurance Department

TURKEY

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 - Details and precautions on recycling and/or disposal at end-of-life can be found in the installation and or operation manuals.
- (*) For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating sup(Tj).
- (**) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.
- (***) If the declared TOL is lower than the T designh of the considered climate then the outdoor dry bulb temperature Tj is equal to T designh.

PRODUCT INFORMATION / TECHNICAL DOCUMENTATION

Model(s):	Outdoor unit:	PUZ-SHWM120YAA
	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	117	%
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	2.70	-
Degradation co-efficient (**)	Cdh	0.99	-	Tj = + 2 ° C	COPd	3.50	-
Tj = + 2 ° C	Pdh	4.4	kW	Tj = + 7 ° C	COPd	4.78	-
Degradation co-efficient (**)	Cdh	0.98	-	Tj = +12 ° C	COPd	7.00	-
Tj = + 7 ° C	Pdh	3.8	kW	Tj = bivalent temperature	COPd	1.55	-
Degradation co-efficient (**)	Cdh	0.97	-	Tj = operation limit temperature (***)	COPd	1.54	-
Tj = +12 ° C	Pdh	4.4	kW	Tj = - 15 ° C (if TOL < - 20 ° C)	COPd	1.55	-
Degradation co-efficient (**)	Cdh	0.97	-	Operation limit temperature	TOL	-30	° C
Tj = bivalent temperature	Pdh	10.2	kW	Heating water operating limit temperature	WTOL	60	° C
Tj = operation limit temperature (***)	Pdh	8.2	kW	Supplementary heater			
Tj = - 15 ° C (if TOL < - 20 ° C)	Pdh	9.9	kW	Rated heat output (*)	Psup	3.9	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}	9927	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

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

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(*) For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating sup(Tj).

(**) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0.9.

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

PRODUCT INFORMATION / TECHNICAL DOCUMENTATION

Model(s):	Outdoor unit:	PUZ-SHWM120YAA
	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	149	%
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	3.67	-
Degradation co-efficient (**)	Cdh	0.99	-	Tj = + 2 ° C	COPd	4.30	-
Tj = + 2 ° C	Pdh	4.5	kW	Tj = + 7 ° C	COPd	5.38	-
Degradation co-efficient (**)	Cdh	0.98	-	Tj = +12 ° C	COPd	8.02	-
Tj = + 7 ° C	Pdh	3.9	kW	Tj = bivalent temperature	COPd	2.08	-
Degradation co-efficient (**)	Cdh	0.97	-	Tj = operation limit temperature (***)	COPd	1.56	-
Tj = +12 ° C	Pdh	4.6	kW	Tj = - 15 ° C (if TOL < - 20 ° C)	COPd	2.04	-
Degradation co-efficient (**)	Cdh	0.96	-	Operation limit temperature	TOL	-30	° C
Tj = bivalent temperature	Pdh	10.2	kW	Heating water operating limit temperature	WTOL	60	° C
Tj = operation limit temperature (***)	Pdh	8.7	kW	Supplementary heater			
Tj = - 15 ° C (if TOL < - 20 ° C)	Pdh	9.9	kW	Rated heat output (*)	Psup	3.4	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

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}	7868	kWh			

For heat pump combination heater:

Declared load profile	L		Water heating energy efficiency	η_{wh}	109	%
Daily electricity consumption	Q _{elec}	4.750	kWh			
Annual electricity consumption	AEC	1044	kWh			

Contact details

MITSUBISHI ELECTRIC AIR CONDITIONING SYSTEMS MANUFACTURING TURKEY JOINT STOCK COMPANY Manisa OSB 4.Kisim Kecilikoyosb Mah. Ahmet Nazif Zorlu Bulvarı 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.

(***) 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-SHWM120YAA
	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	159	%
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	2.05	-
Tj = + 2 ° C	Pdh	12.1	kW	Tj = + 7 ° C	COPd	3.42	-
Degradation co-efficient (**)	Cdh	1.00	-	Tj = +12 ° C	COPd	5.65	-
Tj = + 7 ° C	Pdh	7.7	kW	Tj = bivalent temperature	COPd	2.05	-
Degradation co-efficient (**)	Cdh	0.99	-	Tj = operation limit temperature (***)	COPd	2.05	-
Tj = +12 ° C	Pdh	5.2	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	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}	3995	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.

PRODUCT INFORMATION / TECHNICAL DOCUMENTATION

Model(s):	Outdoor unit:	PUZ-SHWM120YAA
	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	228	%
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	3.30	-
Tj = + 2 ° C	Pdh	12.1	kW	Tj = + 7 ° C	COPd	5.32	-
Degradation co-efficient (**)	Cdh	0.99	-	Tj = +12 ° C	COPd	7.46	-
Tj = + 7 ° C	Pdh	7.7	kW	Tj = bivalent temperature	COPd	3.30	-
Degradation co-efficient (**)	Cdh	0.99	-	Tj = operation limit temperature (***)	COPd	3.30	-
Tj = +12 ° C	Pdh	4.4	kW	Operation limit temperature	TOL	-30	° C
Degradation co-efficient (**)	Cdh	0.96	-	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}	2793	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-SHWM120YAA
	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	137	%
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	2.13	-
Degradation co-efficient (**)	Cdh	1.00	-	Tj = + 2 ° C	COPd	3.36	-
Tj = + 2 ° C	Pdh	6.5	kW	Tj = + 7 ° C	COPd	4.75	-
Degradation co-efficient (**)	Cdh	0.99	-	Tj = +12 ° C	COPd	6.32	-
Tj = + 7 ° C	Pdh	5.0	kW	Tj = bivalent temperature	COPd	1.78	-
Degradation co-efficient (**)	Cdh	0.98	-	Tj = operation limit temperature (***)	COPd	1.78	-
Tj = +12 ° C	Pdh	3.8	kW	Operation limit temperature	TOL	-30	° C
Degradation co-efficient (**)	Cdh	0.96	-	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	-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}	0.022	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}	7123	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
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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-SHWM120YAA
	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	181	%
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	2.85	-
Degradation co-efficient (**)	Cdh	0.99	-	Tj = + 2 ° C	COPd	4.53	-
Tj = + 2 ° C	Pdh	6.5	kW	Tj = + 7 ° C	COPd	6.04	-
Degradation co-efficient (**)	Cdh	0.99	-	Tj = +12 ° C	COPd	7.02	-
Tj = + 7 ° C	Pdh	5.2	kW	Tj = bivalent temperature	COPd	2.43	-
Degradation co-efficient (**)	Cdh	0.97	-	Tj = operation limit temperature (***)	COPd	2.43	-
Tj = +12 ° C	Pdh	4.0	kW	Operation limit temperature	TOL	-30	° C
Degradation co-efficient (**)	Cdh	0.96	-	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	-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				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}	5435		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

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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-SHWM120YAA
	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	118	%
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	2.70	-
Degradation co-efficient (**)	Cdh	0.99	-	Tj = + 2 ° C	COPd	3.50	-
Tj = + 2 ° C	Pdh	4.4	kW	Tj = + 7 ° C	COPd	4.78	-
Degradation co-efficient (**)	Cdh	0.98	-	Tj = +12 ° C	COPd	7.00	-
Tj = + 7 ° C	Pdh	3.8	kW	Tj = bivalent temperature	COPd	1.55	-
Degradation co-efficient (**)	Cdh	0.97	-	Tj = operation limit temperature (***)	COPd	1.54	-
Tj = +12 ° C	Pdh	4.4	kW	Tj = - 15 ° C (if TOL < - 20 ° C)	COPd	1.55	-
Degradation co-efficient (**)	Cdh	0.97	-	Operation limit temperature	TOL	-30	° C
Tj = bivalent temperature	Pdh	10.2	kW	Heating water operating limit temperature	WTOL	60	° C
Tj = operation limit temperature (***)	Pdh	8.2	kW	Supplementary heater			
Tj = - 15 ° C (if TOL < - 20 ° C)	Pdh	9.9	kW	Rated heat output (*)	Psup	3.9	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}	9878	kWh				

For heat pump combination heater:							
Declared load profile	L			Water heating energy efficiency	η_{wh}	109	%
Daily electricity consumption	Q _{elec}	4.750	kWh				
Annual electricity consumption	AEC	1044	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.

PRODUCT INFORMATION / TECHNICAL DOCUMENTATION

Model(s):	Outdoor unit:	PUZ-SHWM120YAA
	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	150	%
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	3.67	-
Degradation co-efficient (**)	Cdh	0.99	-	Tj = + 2 ° C	COPd	4.30	-
Tj = + 2 ° C	Pdh	4.5	kW	Tj = + 7 ° C	COPd	5.38	-
Degradation co-efficient (**)	Cdh	0.98	-	Tj = +12 ° C	COPd	8.02	-
Tj = + 7 ° C	Pdh	3.9	kW	Tj = bivalent temperature	COPd	2.08	-
Degradation co-efficient (**)	Cdh	0.97	-	Tj = operation limit temperature (***)	COPd	1.56	-
Tj = +12 ° C	Pdh	4.6	kW	Tj = - 15 ° C (if TOL < - 20 ° C)	COPd	2.04	-
Degradation co-efficient (**)	Cdh	0.96	-	Operation limit temperature	TOL	-30	° C
Tj = bivalent temperature	Pdh	10.2	kW	Heating water operating limit temperature	WTOL	60	° C
Tj = operation limit temperature (***)	Pdh	8.7	kW	Supplementary heater			
Tj = - 15 ° C (if TOL < - 20 ° C)	Pdh	9.9	kW	Rated heat output (*)	Psup	3.4	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}	7819	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 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-SHWM120YAA
	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	163	%
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	2.05	-
Tj = + 2 ° C	Pdh	12.1	kW	Tj = + 7 ° C	COPd	3.42	-
Degradation co-efficient (**)	Cdh	1.00	-	Tj = +12 ° C	COPd	5.65	-
Tj = + 7 ° C	Pdh	7.7	kW	Tj = bivalent temperature	COPd	2.05	-
Degradation co-efficient (**)	Cdh	0.99	-	Tj = operation limit temperature (***)	COPd	2.05	-
Tj = +12 ° C	Pdh	5.2	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	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}	3898	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

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

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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-SHWM120YAA
	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	237	%
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	3.30	-
Tj = + 2 ° C	Pdh	12.1	kW	Tj = + 7 ° C	COPd	5.32	-
Degradation co-efficient (**)	Cdh	0.99	-	Tj = +12 ° C	COPd	7.46	-
Tj = + 7 ° C	Pdh	7.7	kW	Tj = bivalent temperature	COPd	3.30	-
Degradation co-efficient (**)	Cdh	0.99	-	Tj = operation limit temperature (***)	COPd	3.30	-
Tj = +12 ° C	Pdh	4.4	kW	Operation limit temperature	TOL	-30	° C
Degradation co-efficient (**)	Cdh	0.96	-	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}	2696	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

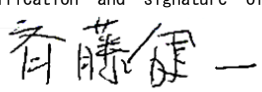
Model(s):	Outdoor unit:	PUZ-SHWM120YAA
	Indoor unit:	EHST20D-MED
Air-to-water heat pump:		yes
Water-to-water heat pump:		no
Brine-to-water heat pump:		no
Low-temperature heat pump:		no
Equipped with a supplementary heater:		no
Heat pump combination heater:		yes
Parameters for		medium-temperature application.
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	136	%
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	2.13	-
Degradation co-efficient (**)	Cdh	1.00	-	Tj = + 2 ° C	COPd	3.36	-
Tj = + 2 ° C	Pdh	6.5	kW	Tj = + 7 ° C	COPd	4.75	-
Degradation co-efficient (**)	Cdh	0.99	-	Tj = +12 ° C	COPd	6.32	-
Tj = + 7 ° C	Pdh	5.0	kW	Tj = bivalent temperature	COPd	1.78	-
Degradation co-efficient (**)	Cdh	0.98	-	Tj = operation limit temperature (***)	COPd	1.78	-
Tj = +12 ° C	Pdh	3.8	kW	Operation limit temperature	TOL	-30	° C
Degradation co-efficient (**)	Cdh	0.96	-	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	-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}	0.022	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}	7204	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
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 Kenichi SAITO
 Manager, Quality Assurance Department
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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-SHWM120YAA
	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	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	2.85	-
Degradation co-efficient (**)	Cdh	0.99	-	Tj = + 2 ° C	COPd	4.53	-
Tj = + 2 ° C	Pdh	6.5	kW	Tj = + 7 ° C	COPd	6.04	-
Degradation co-efficient (**)	Cdh	0.99	-	Tj = +12 ° C	COPd	7.02	-
Tj = + 7 ° C	Pdh	5.2	kW	Tj = bivalent temperature	COPd	2.43	-
Degradation co-efficient (**)	Cdh	0.97	-	Tj = operation limit temperature (***)	COPd	2.43	-
Tj = +12 ° C	Pdh	4.0	kW	Operation limit temperature	TOL	-30	° C
Degradation co-efficient (**)	Cdh	0.96	-	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	-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}	0.022	kW	Thermostat-off mode	P _{TO}	0.022	kW
Thermostat-off mode	P _{TO}	0.022	kW	Standby mode	P _{SB}	0.022	kW
Standby mode	P _{SB}	0.022	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}							
5516							
kWh							
For heat pump combination heater:							
Declared load profile				Water heating energy efficiency			
L				η_{wh}			
Daily electricity consumption				134			
Q _{elec}				%			
4.080							
Annual electricity consumption							
AEC							
898							
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}							
5516							
kWh							

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

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

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

PRODUCT INFORMATION / TECHNICAL DOCUMENTATION

Model(s):	Outdoor unit:	PUZ-SHWM120YAA
	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	117	%
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	2.70	-
Degradation co-efficient (**)	Cdh	0.99	-	Tj = + 2 ° C	COPd	3.50	-
Tj = + 2 ° C	Pdh	4.4	kW	Tj = + 7 ° C	COPd	4.78	-
Degradation co-efficient (**)	Cdh	0.98	-	Tj = +12 ° C	COPd	7.00	-
Tj = + 7 ° C	Pdh	3.8	kW	Tj = bivalent temperature	COPd	1.55	-
Degradation co-efficient (**)	Cdh	0.97	-	Tj = operation limit temperature (***)	COPd	1.54	-
Tj = +12 ° C	Pdh	4.4	kW	Tj = - 15 ° C (if TOL < - 20 ° C)	COPd	1.55	-
Degradation co-efficient (**)	Cdh	0.97	-	Operation limit temperature	TOL	-30	° C
Tj = bivalent temperature	Pdh	10.2	kW	Heating water operating limit temperature	WTOL	60	° C
Tj = operation limit temperature (***)	Pdh	8.2	kW	Supplementary heater			
Tj = - 15 ° C (if TOL < - 20 ° C)	Pdh	9.9	kW	Rated heat output (*)	Psup	3.9	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}	9927	kWh				

For heat pump combination heater:							
Declared load profile	L			Water heating energy efficiency	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-SHWM120YAA
	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	149	%
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	3.67	-
Degradation co-efficient (**)	Cdh	0.99	-	Tj = + 2 ° C	COPd	4.30	-
Tj = + 2 ° C	Pdh	4.5	kW	Tj = + 7 ° C	COPd	5.38	-
Degradation co-efficient (**)	Cdh	0.98	-	Tj = +12 ° C	COPd	8.02	-
Tj = + 7 ° C	Pdh	3.9	kW	Tj = bivalent temperature	COPd	2.08	-
Degradation co-efficient (**)	Cdh	0.97	-	Tj = operation limit temperature (***)	COPd	1.56	-
Tj = +12 ° C	Pdh	4.6	kW	Tj = - 15 ° C (if TOL < - 20 ° C)	COPd	2.04	-
Degradation co-efficient (**)	Cdh	0.96	-	Operation limit temperature	TOL	-30	° C
Tj = bivalent temperature	Pdh	10.2	kW	Heating water operating limit temperature	WTOL	60	° C
Tj = operation limit temperature (***)	Pdh	8.7	kW	Supplementary heater			
Tj = - 15 ° C (if TOL < - 20 ° C)	Pdh	9.9	kW	Rated heat output (*)	Psup	3.4	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

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}	7868	kWh				

For heat pump combination heater:

Declared load profile	L			Water heating energy efficiency	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-SHWM120YAA
	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	159	%
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	2.05	-
Tj = + 2 ° C	Pdh	12.1	kW	Tj = + 7 ° C	COPd	3.42	-
Degradation co-efficient (**)	Cdh	1.00	-	Tj = +12 ° C	COPd	5.65	-
Tj = + 7 ° C	Pdh	7.7	kW	Tj = bivalent temperature	COPd	2.05	-
Degradation co-efficient (**)	Cdh	0.99	-	Tj = operation limit temperature (***)	COPd	2.05	-
Tj = +12 ° C	Pdh	5.2	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	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}	3995	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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(*) 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-SHWM120YAA
	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	228	%
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	3.30	-
Tj = + 2 ° C	Pdh	12.1	kW	Tj = + 7 ° C	COPd	5.32	-
Degradation co-efficient (**)	Cdh	0.99	-	Tj = +12 ° C	COPd	7.46	-
Tj = + 7 ° C	Pdh	7.7	kW	Tj = bivalent temperature	COPd	3.30	-
Degradation co-efficient (**)	Cdh	0.99	-	Tj = operation limit temperature (***)	COPd	3.30	-
Tj = +12 ° C	Pdh	4.4	kW	Operation limit temperature	TOL	-30	° C
Degradation co-efficient (**)	Cdh	0.96	-	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}	2793	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

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

The signature is signed in the average climate / medium-temperature section. Manager, Quality Assurance Department

TURKEY

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