





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.

1. SPACE HEATER

1	2	For medium-temperature application															For low-temperature application										
		3	6	8	11	9	13	15	16	21	22	17	18	25	4	6	8	11	9	13	15	16	21	22	17	18	25
																Seasonal space heating energy efficiency class	Rated heat output under average climate conditions	kW	%	kWh	dB	Seasonal space heating energy efficiency class	Rated heat output under average climate conditions	kW	%	Seasonal space heating energy efficiency class	Rated heat output under average climate conditions
PUZ-WM50VHA(-BS)	-	✓	A++	5	133	3038	-	3	5	111	162	2682	1616	61	✓	A+++	5	190	2139	-	4	5	146	237	2785	1112	61
PUZ-WM60VAA(-BS)	-	✓	A++	6	145	3344	-	5	6	130	158	3697	1994	58	✓	A+++	6	197	2484	-	4	6	173	226	2469	1400	58
PUZ-WM85VAA(-BS)	-	✓	A++	9	141	4881	-	6	9	132	159	4448	2802	58	✓	A+++	9	197	3515	-	5	9	175	234	2718	1920	58
PUZ-WM85YAA(-BS)	-	✓	A++	9	141	4884	-	6	9	132	159	4451	2805	58	✓	A+++	9	197	3514	-	5	9	175	234	2720	1920	58
PUZ-WM112VAA(-BS)	-	✓	A++	10	136	5932	-	9	10	124	154	7161	3396	60	✓	A+++	10	195	4173	-	10	10	169	220	5667	2396	60
PUZ-WM112YAA(-BS)	-	✓	A++	10	136	5936	-	9	10	124	154	7147	3401	60	✓	A+++	10	195	4171	-	10	10	169	220	5666	2392	60

English	Deutsch	Français	Italiano	Español
Nederlands	Svenska	Dansk	Português	Ελληνικά
suomi	Čeština	Български	Polski	-
1	Outdoor unit	Außengerät	unité extérieure	unità esterna
buitenumit	Utomhusenhet	Udendørs enhed	unidade exterior	Εξωτερική μονάδα
Ulkoyksikkö	Venkovní jednotka	Външно тяло	jednostka zewnętrzna	-
2	Indoor unit	Innengerät	unité intérieure	unità interna
binnenunit	Inomhusenhet	Indendørs enhed	unidade interior	unidad interior
Sisäyksikkö	Vnitřní jednotka	Вътрешно тяло	jednostka wewnętrzna	Εσωτερική μονάδα
3	Medium-temperature application	Mitteltemperaturanwendung	l'application à moyenne température	la aplicación a media temperatura
middentemperatur-toepassing	mediumtemperaturapplikation	middelettemperaturanvendelsen	a aplicação a média temperatura	η εφαρμογή σε μέση θερμοκρασία
keskilämpötilai sovellus	stfdenetepotn aplikace	среднетемпературного приложение	zastosowania w średnich temperaturach	-
4	Low-temperature application	Niedertemperaturanwendung	l'application à basse température	la aplicación de baja temperatura
lagetemperatur-toepassing	lägtemperaturapplikation	lavtemperaturanvendelsen	a aplicação a baixa temperatura	η εφαρμογή σε χαμηλή θερμοκρασία
matalalämpötilai sovellus	nízkotepelní aplikace	низкотемпературн приложения	zastosowania w niskich temperaturach	-
5	Declared load profile	Angegebenes Lastprofil	Profil de soutrage déclaré	Perfil de carga declarado
Opgegeven capaciteitsprofiel	Deklarerad belastningsprofil	Angivet forbrugsprofil	Perfil de carga declarado	Δηλωμένο προφίλ φορτίου
Ilmoitettu kuormitusprofiili	Deklarovaný záťěžový profil	Обръщен товарен профил	Deklarowany profil obciążeń	-
6	Seasonal space heating energy efficiency class	die Klasse für die Jahreszeitbedingte Raumheizungs-Energieeffizienz	la classe d'efficacité énergétique saisonnière, pour le chauffage des locaux	la clase de eficiencia energética estacional del calefacción d'ambiente
de seizoensgebonden energie-efficiëntieklaasse voor ruimteverwarming	säsongssrelaterade energieeffektivitetsklass vid rumsuppvärmning	klassen för årsvarkningsgrad ved rumopvarming	A classe de eficiencia energética do aquecimento ambiente sazonal	η τάξη ενεργειακής απόδοσης της εποχιακής θέρμανσης χώρου
tilalämmytyksen kausittainen energiatehokkuusluokka	třída sezonní energetické účinnosti vytápění	класът на сезонната отопителна енергийна ефективност	klasa sezonowej efektywności energetycznej ogrzewania pomieszczeń	-
7	Water heating energy efficiency class	die Klasse für die Warmwasserbereitungs-Energieeffizienz	la classe d'efficacité énergétique, pour le chauffage de l'eau	la clase de eficiencia energética del caleo de agua
de energie-efficiëntieklaasse voor waterverwarming	energieeffektivitetsklass vid vattenuppvärming	klassen för årsvarkningsgrad ved vandopvarming	A classe de eficiencia energética do aquecimento de água	η τάξη ενεργειακής απόδοσης νερού
vedenlämmytyksen energiatehokkuusluokka	třída energetické účinnosti ohřevu vody	класът на енергийната ефективност при подгряване на вода	klasa efektywności energetycznej podgrzewania wody	-
8	Rated heat output under average climate conditions	die Wärmeneleistung bei durchschnittlichen Klimaverhältnissen	la puissance thermique nominale dans les conditions climatiques moyennes	la potenza termica nominale (en condiciones climáticas medias)
de nominale warmteafgifte(onder gemiddelde klimaatomstandigheden)	Den nominelle avgiven värmeaffekt(under genomsnittliga klimatförhållanden)	den nominelle nyttoeffekt(under gennemsnittige klimaforhold)	A potência calorífica nominal(em condições climáticas médias)	η ονομαστική θερμική ισχύς(υπό μέσες κλιματικές συνθήκες)
nimellislämpöteho(keskimääriäisissä ilmasto-olosuhteissa)	jmenovity tepelný výkon za průměrných klimatických podmínek	номинальная топливная мощность(при средни климатични условия)	znamionowa moc cieplna(warunkach klimatu umiarkowanego)	-
9	For space heating, annual energy consumption under average climate conditions	für die Raumheizung, den jährlichen Energieverbrauch bei durchschnittlichen Klimaverhältnissen	pour le chauffage des locaux, la consommation annuelle d'énergie(dans les conditions climatiques moyennes)	per il riscaldamento d'ambiente, il consumo annuo di energia(en condiciones climáticas medias)
voor ruimteverwarming, het jaarlijkse energieverbruik(onder gemiddelde klimaatomstandigheden)	For rumsuppvärmning, årlig energiförbrukning(vid genomsnittliga klimatförhållanden)	for rumopvarming det årlige energiforbrug(under gennemsnittige klimaforhold)	Para o aquecimento ambiente, o consumo anual de energia(em condições climáticas mé dias)	για τη θέρμανση χώρου, η ετήσια κατανάλωση ενέργειας(υπό μέσες κλιματικές συνθήκες)
tilalämmytykseen vuotuinen energiankulutus(keskimääriäisissä ilmasto-olosuhteissa)	pro vytápění – roční spotřeba energie za průměrných klimatických podmínek	за отопление, годишного потребление на енергия(при средни климатични условия)	w odniesieniu do ogrzewania pomieszczeń, roczne zużycie energii(w warunkach klimatu umiarkowanego)	-
10	For water heating, annual electricity consumption under average climate conditions	für die Warmwasserbereitung, den jährlichen Stromverbrauch bei durchschnittlichen Klimaverhältnissen	pour le chauffage de l'eau, la consommation annuelle d'électricité(dans les conditions climatiques moyennes)	per il riscaldamento dell'acqua, il consumo annuo di energia(en condiciones climáticas medias)
voor waterverwarming, het jaarlijkse elektriciteitsverbruik(onder gemiddelde klimaatomstandigheden)	For vattenuppvärming, årlig elförbrukning(vid genomsnittliga klimatförhållanden)	for vandopvarming det årlige elforbrug(under gennemsnittige klimaforhold)	para o aquecimento de água, o consumo anual de electricidad(em condições climáticas medias)	για τη θέρμανση νερού, η ετήσια κατανάλωση ηλεκτρικής ενέργειας(υπό μέσες κλιματικές συνθήκες)
vedenlämmytykseen vuotuinen sähkökulutus(keskimääriäisissä ilmasto-olosuhteissa)	pro ohřev vody – roční spotřeba elektrické energie za průměrných klimatických podmínek	за подгряване на вода, годишного потребление(при средни климатични условия)	w odniesieniu do podgrzewania wody, roczne zużycie energii elektrycznej(w warunkach klimatu umiarkowanego)	-
11	Seasonal space heating energy efficiency under average climate conditions	die Jahreszeitbedingte Raumheizungs-Energieeffizienz bei durchschnittlichen Klimaverhältnissen	l'efficacité énergétique saisonnière pour le chauffage des locaux(dans les conditions climatiques moyennes)	l'efficiencia energética estacional de calefacción(en condiciones climáticas medias)
de seizoensgebonden energie-efficiëntie voor ruimteverwarming(onder gemiddelde klimaatomstandigheden)	Säsongssmedelverkningsgrad för rumsuppvärmning(vid genomsnittliga klimatförhållanden)	årsvarkningsgraden ved rumopvarming(under gennemsnittige klimaforhold)	A eficiencia energética do aquecimento ambiente sazonal(em condições climáticas médias)	η ενεργειακή απόδοση της εποχιακής θέρμανσης χώρου(υπό μέσες κλιματικές συνθήκες)
tilalämmytykseen kausittainen energiatehokkuus(keskimääriäisissä ilmasto-olosuhteissa)	sezonní energetická účinnost vytápění za průměrných klimatických podmínek	sezonnata energeticka ефективност при отопление(при средни климатични условия)	sezowna efektywność energetyczna ogrzewania pomieszczeń(w warunkach klimatu umiarkowanego)	-
12	Water heating energy efficiency under average climate conditions	die Warmwasserbereitungs-Energieeffizienz bei durchschnittlichen Klimaverhältnissen	l'efficacité énergétique pour le chauffage de l'eau(dans les conditions climatiques moyennes)	la eficiencia energética del caldeo de agua(en condiciones climáticas medias)
de energie-efficiëntie voor waterverwarming(onder gemiddelde klimaatomstandigheden)	Energieeffektivitet vid vattenuppvärming(vid genomsnittliga klimatförhållanden)	energieffektiviteten ved vandopvarming(under gennemsnittige klimaforhold)	η ενεργειακή απόδοση θέρμανσης νερού(υπό μέσες κλιματικές συνθήκες)	
vedenlämmytykseen energiatehokkuus(keskimääriäisissä ilmasto-olosuhteissa)	energetická účinnost ohřevu vody za průměrných klimatických podmínek	енергийната ефективност при подгряване на вода(при средни климатични условия)	efektywność energetyczna podgrzewania wody(w warunkach klimatu umiarkowanego)	-
13	Sound power level L _{WA} indoor	der Schallleistungspegel L _{WA} in Gebäuden	le niveau de puissance acoustique L _{WA} , à l'intérieur	el nivel de potencia acústica L _{WA} en interiores
het geluidsvormogensniveau L _{WA} binnen	Ljudeffektnivå L _{WA} i inomhus	lydefektniveaet L _{WA} i inde	η στάθμη ηχητικής ισχύος L _{WA} εσωτερικού χώρου	
äänitehotaso L _{WA} sisällä	hiladina akustického výkonu L _{WA} ve vnitřním prostoru	нивото на звуковата мощност L _{WA} за закрито	poziom mocy akustycznej L _{WA} w pomieszczeniu	-
14	Work only during off-peak hours	dass ein ausschließlicher Betrieb des Kombeizgerätes zu Schwachlastzeiten	fonctionner qu'en heures creuses	funcionar solamente durante las horas de cresta
werken uitsluitend in de daluren	drivas utslutande under perioder med låg belastning	fungere uden for spidsbelastningsperioder	de funcionar únicamente para das horas de pico	λειτουργή μόνο εκτός των ωρών αιχμής
toimimaan ainoastaan kuluutuipujen ulkopuolella	provouz pouze mimo špičku	работи само в часовете извън вътрешното натоварване	pracować jedynie w godzinach poza szczytowym obciążeniem	-
15	Rated heat output under colder climate conditions	die Wärmeneleistung bei kälteren Klimaverhältnissen	la puissance thermique nominale, dans les conditions climatiques plus froides	la potenza termica nominale, en condiciones climáticas más frías
de nominale warmteafgifte, onder koudere klimaatomstandigheden	Nominell avgiven värmeeffekt vid kallare klimatförhållanden	den nominelle nyttoeffekt under koldere klimaforhold	A potência calorífica nominal em condições climáticas mais frias	η ονομαστική θερμική ισχύς υπό ψυχρότερες κλιματικές συνθήκες
nimellislämpöteho, kylmissä ilmasto-olosuhteissa	jmenovity tepelný výkon za chladnějších klimatických podmínek	номинальная топливная мощность при по-студени климатични условия	znamionowa moc cieplna(warunkach klimatu chłodnego)	-
16	Rated heat output under warmer climate conditions	die Wärmeneleistung bei wärmeren Klimaverhältnissen	la puissance thermique nominale, dans les conditions climatiques plus chaudes	la potenza termica nominale, en condiciones climáticas más calidas
de nominale warmteafgifte, onder warmere klimaatomstandigheden	Nominell avgiven värmeeffekt vid varmare klimatförhållanden	den nominelle nyttoeffekt under varmare klimaforhold	A potência calorífica nominal em condições climáticas mais quentes	η ονομαστική θερμική ισχύς υπό ψυχρότερες κλιματικές συνθήκες
nimellislämpöteho, lämpimissä ilmasto-olosuhteissa	jmenovity tepelný výkon za teplějších klimatických podmínek	номинальная топливная мощность при по-топли климатични условия	znamionowa moc cieplna(warunkach klimatu cieplego)	-
17	For space heating, annual energy consumption under colder climate conditions	für die Raumheizung, der jährliche Energieverbrauch bei kälteren Klimaverhältnissen	pour le chauffage des locaux, la consommation annuelle d'énergie, dans les conditions climatiques plus froides	per il riscaldamento d'ambiente, il consumo annuo di energia, in condizioni climatiche più fredde
voor ruimteverwarming, het jaarlijkse energieverbruik onder koudere klimaatomstandigheden	For rumsuppvärmning, årlig energiförbrukning under kallare klimatförhållanden	for rumopvarming det årlige energiforbrug under koldere klimaforhold	Para o aquecimento ambiente, o consumo anual de energia em condições climáticas mais frias	για τη θέρμανση χώρου, η ετήσια κατανάλωση ενέργειας υπό θερμότερες κλιματικές συνθήκες
tilalämmytykseen vuotuinen energiankulutus kylmissä ilmasto-olosuhteissa	pro vytápění – roční spotřeba energie za chladnější klimatických podmínek	за отопление, годишного потребление на енергия при по-студени климатични условия	w odniesieniu do ogrzewania pomieszczeń, roczne zużycie energii w warunkach klimatu chłodnego	-
18	For space heating, annual energy consumption under warmer climate conditions	für die Raumheizung, der jährliche Energieverbrauch bei wärmeren Klimaverhältnissen	pour le chauffage des locaux, la consommation annuelle d'énergie, dans les conditions climatiques plus chaudes	per il riscaldamento d'ambiente, il consumo annuo di energia, in condizioni climatiche più calde
voor ruimteverwarming, het jaarlijkse energieverbruik onder warmere klimaatomstandigheden	For rumsuppvärmning, årlig energiförbrukning under varmare klimatförhållanden	for rumopvarming det årlige energiforbrug under varmere klimaforhold	Para o aquecimento ambiente, o consumo anual de energia em condições climáticas mais quentes	για θέρμανση χώρου, η ετήσια κατανάλωση ενέργειας υπό θερμότερες κλιματικές συνθήκες
tilalämmytykseen vuotuinen energiankulutus lämpimissä ilmasto-olosuhteissa	pro vytápění – roční spotřeba energie za teplější klimatických podmínek	за отопление, годишного потребление на енергия при по-топли климатични условия	w odniesieniu do ogrzewania pomieszczeń, roczne zużycie energii w warunkach klimatu cieplego	-
19	For water heating, annual electricity consumption under colder climate conditions	für die Warmwasserbereitung, der jährliche Stromverbrauch bei kälteren Klimaverhältnissen	pour le chauffage de l'eau, la consommation annuelle d'électricité, dans les conditions climatiques plus froides	per il riscaldamento dell'acqua, il consumo annuo di energia, in condizioni climatiche più fredde
voor waterverwarming, het jaarlijkse elektriciteitsverbruik onder koudere klimaatomstandigheden	For vattenuppvärming, årlig elförbrukning under kallare klimatförhållanden	for vandopvarming det årlige elforbrug under koldere klimaforhold	para o aquecimento de água, o consumo anual de electricidad em condições climáticas mais frias	για θέρμανση νερού, η ετήσια κατανάλωση ηλεκτρικής ενέργειας υπό ψυχρότερες κλιματικές συνθήκες
vedenlämmytykseen vuotuinen energiankulutus kylmissä ilmasto-olosuhteissa	pro ohřev vody – roční spotřeba elektrické energie za chladnější klimatických podmínek	за подгряване на вода, годишного потребление на електроенергия при по-студени климатични условия	w odniesieniu do podgrzewania wody, roczne zużycie energii elektrycznej w warunkach klimatu chłodnego	-
20	For water heating, annual energy consumption under warmer climate conditions	für die Warmwasserbereitung, der jährliche Stromverbrauch bei wärmeren Klimaverhältnissen	pour le chauffage de l'eau, la consommation annuelle d'électricité, dans les conditions climatiques plus chaudes	per il riscaldamento dell'acqua, il consumo annuo di energia, in condizioni climatiche più calde
voor waterverwarming, het jaarlijkse elektriciteitsverbruik onder warmere klimaatomstandigheden	För vattenuppvärming, årlig elförbrukning under varmare klimatförhållanden	for vandopvarming det årlige elforbrug under varmere klimaforhold	para o aquecimento de água, o consumo anual de eletricidade em condições climáticas mais quentes	για θέρμανση νερού, η ετήσια κατανάλωση ηλεκτρικής ενέργειας υπό ψυχρότερες κλιματικές συνθήκες
vedenlämmytykseen vuotuinen sähkökulutus lämpimissä ilmasto-olosuhteissa	pro ohřev vody – roční spotřeba elektrické energie za teplější klimatických podmínek	за подгряване на вода, годишного потребление на електроенергия при по-топли климатични условия	w odniesieniu do podgrzewania wody, roczne zużycie energii elektrycznej w warunkach klimatu cieplego	-
21	Seasonal space heating energy efficiency under colder climate conditions	die Jahreszeitbedingte Raumheizungs-Energieeffizienz bei kälteren Klimaverhältnissen	l'efficacité énergétique saisonnière pour le chauffage des locaux, dans les conditions climatiques plus froides	la eficiencia energética estacional de calefacción en condiciones climáticas más frías
de seizoensgebonden energie-efficiëntie voor ruimteverwarming onder koudere klimaatomstandigheden	Säsongssmedelverkningsgrad för rumsuppvärmning under kallare klimatförhållanden	årsvarkningsgraden ved rumopvarming under koldere klimaforhold</		

PRODUCT INFORMATION / TECHNICAL DOCUMENTATION

Model(s):	Outdoor unit:	PUZ-WM112VAA(-BS)
	Indoor unit:	-
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:	no	
Parameters for	medium-temperature application.	
Parameters for	average climate conditions.	

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	10.0	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							
Tj = - 7 °C	Pdh	8.8	kW	Tj = - 7 °C	COPd	2.21	-
Degradation co-efficient (**)	Cdh	1.00	-	Tj = + 2 °C	COPd	3.31	-
Tj = + 2 °C	Pdh	5.4	kW	Tj = + 7 °C	COPd	4.61	-
Degradation co-efficient (**)	Cdh	0.99	-	Tj = +12 °C	COPd	6.35	-
Tj = + 7 °C	Pdh	5.2	kW	Tj = bivalent temperature	COPd	2.21	-
Degradation co-efficient (**)	Cdh	0.99	-	Tj = operation limit temperature (***)	COPd	2.11	-
Tj = +12 °C	Pdh	4.7	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	8.8	kW	Supplementary heater			
Tj = operation limit temperature (***)	Pdh	8.8	kW	Rated heat output (*)	Psup	1.2	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}	0.015	kW				
Thermostat-off mode	P _{TO}	0.015	kW				
Standby mode	P _{SB}	0.015	kW				
Crankcase heater mode	P _{CK}	0.000	kW				

Other items

Capacity control	variable			Rated air flow rate, outdoors	-	3170	m ³ /h
Sound power level, indoors/outdoors	L _{WA}	- / 60	dBA				
Annual energy consumption	Q _{HE}	5932	kWh				

For heat pump combination heater:

Declared load profile	-			Water heating energy efficiency	η_{wh}	-	%
Daily electricity consumption	Qelec	-	kWh				
Annual electricity consumption	AEC	-	kWh				

Contact details

MITSUBISHI ELECTRIC AIR CONDITIONING SYSTEM EUROPE LTD.

Nettlehill Road, Houston Industrial Estate, Livingston, EH54 5EQ, Scotland, U.K.

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

Atsushi EDAYOSHI
Manager, Quality Assurance Department
UNITED KINGDOM

· 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-WM112VAA(-BS)
	Indoor unit:	-
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:	no	
Parameters for	low-temperature application.	
Parameters for	average climate conditions.	

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	10.0	kW	Seasonal space heating energy efficiency	η_s	195	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj							
Tj = - 7 °C	Pdh	8.8	kW	Tj = - 7 °C	COPd	3.31	-
Degradation co-efficient (**)	Cdh	0.99	-	Tj = + 2 °C	COPd	4.61	-
Tj = + 2 °C	Pdh	5.7	kW	Tj = + 7 °C	COPd	6.68	-
Degradation co-efficient (**)	Cdh	0.99	-	Tj = +12 °C	COPd	9.10	-
Tj = + 7 °C	Pdh	4.9	kW	Tj = bivalent temperature	COPd	3.31	-
Degradation co-efficient (**)	Cdh	0.98	-	Tj = operation limit temperature (***)	COPd	3.03	-
Tj = +12 °C	Pdh	4.6	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	8.8	kW	Supplementary heater			
Tj = operation limit temperature (***)	Pdh	8.8	kW	Rated heat output (*)	Psup	1.2	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}	0.015	kW				
Thermostat-off mode	P _{TO}	0.015	kW				
Standby mode	P _{SB}	0.015	kW				
Crankcase heater mode	P _{CK}	0.000	kW				

Other items

Capacity control	variable			Rated air flow rate, outdoors	-	3170	m ³ /h
Sound power level, indoors/outdoors	L _{WA}	- / 60	dBA				
Annual energy consumption	Q _{HE}	4173	kWh				

For heat pump combination heater:

Declared load profile	-			Water heating energy efficiency	η_{wh}	-	%
Daily electricity consumption	Qelec	-	kWh				
Annual electricity consumption	AEC	-	kWh				

Contact details

MITSUBISHI ELECTRIC AIR CONDITIONING SYSTEM EUROPE LTD.	Nettlehill Road, Houston Industrial Estate, Livingston, EH54 5EQ, Scotland, U.K.
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The identification and signature of the person empowered to bind the supplier;

Atsushi EDAYOSHI

Manager, Quality Assurance Department

UNITED KINGDOM

· 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-WM112VAA(-BS)	
	Indoor unit:	-	
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:	no		
Parameters for	medium-temperature application.		
Parameters for	colder climate conditions.		

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	9.2	kW	Seasonal space heating energy efficiency	ηs	124	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj							
Tj = - 7 °C							
Degradation co-efficient (**)	Cdh	5.8	kW	Tj = - 7 °C	COPd	2.86	-
Tj = + 2 °C	Pdh	0.99	-	Tj = + 2 °C	COPd	3.54	-
Degradation co-efficient (**)	Cdh	5.4	kW	Tj = + 7 °C	COPd	4.69	-
Tj = + 7 °C	Pdh	0.99	-	Tj = +12 °C	COPd	6.67	-
Degradation co-efficient (**)	Cdh	3.8	kW	Tj = bivalent temperature	COPd	1.92	-
Tj = +12 °C	Pdh	0.98	-	Tj = operation limit temperature (***)	COPd	1.65	-
Degradation co-efficient (**)	Cdh	4.6	kW	Tj = - 15 °C (if TOL < - 20 °C)	COPd	1.92	-
Tj = bivalent temperature	Pdh	0.98	-	Operation limit temperature	TOL	-25	°C
Tj = operation limit temperature (***)	Pdh	7.5	kW	Heating water operating limit temperature	WTOL	60	°C
Tj = - 15 °C (if TOL < - 20 °C)	Pdh	7.5	kW				
Bivalent temperature	Tbiv	7.5	°C				
Reference design conditions for space heating	Tdesignh	-15	°C				
		-22	°C				
Power consumption in modes other than active mode							
Off mode	P _{OFF}	0.015	kW	Supplementary heater	Psup	1.7	kW
Thermostat-off mode	P _{TO}	0.015	kW	Type of energy input		Electrical	
Standby mode	P _{SB}	0.015	kW				
Crankcase heater mode	P _{CK}	0.000	kW				

Other items

Capacity control	variable			Rated air flow rate, outdoors	-	3170	m ³ /h
Sound power level, indoors/outdoors	L _{WA}	- / 60	dBA				
Annual energy consumption	Q _{HE}	7161	kWh				

For heat pump combination heater:

Declared load profile	-			Water heating energy efficiency	ηwh	-	%
Daily electricity consumption	Qelec	-	kWh				
Annual electricity consumption	AEC	-	kWh				

Contact details

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

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

Atsushi EDAYOSHI
Manager, Quality Assurance Department

UNITED KINGDOM

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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-WM112VAA(-BS)	
	Indoor unit:	-	
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:	no		
Parameters for	low-temperature application.		
Parameters for	colder climate conditions.		

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	9.9	kW	Seasonal space heating energy efficiency	ηs	169	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj							
Tj = - 7 °C							
Degradation co-efficient (**)	Cdh	6.5	kW	Tj = - 7 °C	COPd	4.15	-
Tj = + 2 °C	Pdh	0.99	-	Tj = + 2 °C	COPd	4.45	-
Degradation co-efficient (**)	Cdh	5.8	kW	Tj = + 7 °C	COPd	5.60	-
Tj = + 7 °C	Pdh	0.99	-	Tj = +12 °C	COPd	7.46	-
Degradation co-efficient (**)	Cdh	4.0	kW	Tj = bivalent temperature	COPd	2.52	-
Tj = +12 °C	Pdh	0.98	-	Tj = operation limit temperature (***)	COPd	2.52	-
Degradation co-efficient (**)	Cdh	4.7	kW	Tj = - 15 °C (if TOL < - 20 °C)	COPd	3.19	-
Tj = bivalent temperature	Pdh	0.98	-	Operation limit temperature	TOL	-25	°C
Tj = operation limit temperature (***)	Pdh	9.4	kW	Heating water operating limit temperature	WTOL	60	°C
Tj = - 15 °C (if TOL < - 20 °C)	Pdh	9.4	kW				
Bivalent temperature	Tbiv	8.3	kW				
Reference design conditions for space heating	Tdesignh	-20	°C				
		-22	°C				
Power consumption in modes other than active mode							
Off mode	P _{OFF}	0.015	kW	Supplementary heater	Psup	0.5	kW
Thermostat-off mode	P _{TO}	0.015	kW	Type of energy input	Electrical		
Standby mode	P _{SB}	0.015	kW				
Crankcase heater mode	P _{CK}	0.000	kW				

Other items

Capacity control	variable			Rated air flow rate, outdoors	-	3170	m ³ /h
Sound power level, indoors/outdoors	L _{WA}	- / 60	dBA				
Annual energy consumption	Q _{HE}	5667	kWh				

For heat pump combination heater:

Declared load profile	-			Water heating energy efficiency	ηwh	-	%
Daily electricity consumption	Qelec	-	kWh				
Annual electricity consumption	AEC	-	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-WM112VAA(-BS)
	Indoor unit:	-
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:	no	
Parameters for	medium-temperature application.	
Parameters for	warmer climate conditions.	

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit			
Rated heat output (*)	Prated	10.0	kW	Seasonal space heating energy efficiency	ηs	154	%			
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj										
Tj = - 7 °C										
Degradation co-efficient (**)	Cdh	-	kW	Tj = - 7 °C	COPd	-	-			
Tj = + 2 °C	Pdh	10.0	kW	Tj = + 2 °C	COPd	1.81	-			
Degradation co-efficient (**)	Cdh	1.00	-	Tj = + 7 °C	COPd	3.11	-			
Tj = + 7 °C	Pdh	6.4	kW	Tj = +12 °C	COPd	5.66	-			
Degradation co-efficient (**)	Cdh	0.99	-	Tj = bivalent temperature	COPd	1.81	-			
Tj = +12 °C	Pdh	4.4	kW	Tj = operation limit temperature (***)	COPd	1.81	-			
Degradation co-efficient (**)	Cdh	0.98	-	Operation limit temperature	TOL	-25	°C			
Tj = bivalent temperature	Pdh	10.0	kW	Heating water operating limit temperature	WTOL	60	°C			
Tj = operation limit temperature (***)	Pdh	10.0	kW	Supplementary heater						
Bivalent temperature	Tbiv	2	°C	Rated heat output (*)	Psup	0.0	kW			
Reference design conditions for space heating	Tdesignh	2	°C	Type of energy input	Electrical					
Power consumption in modes other than active mode										
Off mode	P _{OFF}	0.015	kW							
Thermostat-off mode	P _{TO}	0.015	kW							
Standby mode	P _{SB}	0.015	kW							
Crankcase heater mode	P _{CK}	0.000	kW							

Other items

Capacity control	variable			Rated air flow rate, outdoors	-	3170	m ³ /h
Sound power level, indoors/outdoors	L _{WA}	- / 60	dBA				
Annual energy consumption	Q _{HE}	3396	kWh				

For heat pump combination heater:

Declared load profile	-			Water heating energy efficiency	ηwh	-	%
Daily electricity consumption	Qelec	-	kWh				
Annual electricity consumption	AEC	-	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-WM112VAA(-BS)
	Indoor unit:	-
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:	no	
Parameters for	low-temperature application.	
Parameters for	warmer climate conditions.	

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit	
Rated heat output (*)	Prated	10.0	kW	Seasonal space heating energy efficiency	ηs	220	%	
Declared capacity for heating 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	10.0	kW	Tj = + 7 °C	COPd	4.76	-	
Degradation co-efficient (**)	Cdh	1.00	-	Tj = +12 °C	COPd	7.12	-	
Tj = + 7 °C	Pdh	6.4	kW	Tj = bivalent temperature	COPd	3.30	-	
Degradation co-efficient (**)	Cdh	0.99	-	Tj = operation limit temperature (***)	COPd	3.30	-	
Tj = +12 °C	Pdh	4.7	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	10.0	kW	Supplementary heater				
Tj = operation limit temperature (***)	Pdh	10.0	kW	Rated heat output (*)	Psup	0.0	kW	
Bivalent temperature	Tbiv	2	°C	Type of energy input		Electrical		
Reference design conditions for space heating	Tdesignh	2	°C					
Power consumption in modes other than active mode								
Off mode	P _{OFF}	0.015	kW					
Thermostat-off mode	P _{TO}	0.015	kW					
Standby mode	P _{SB}	0.015	kW					
Crankcase heater mode	P _{CK}	0.000	kW					

Other items

Capacity control	variable			Rated air flow rate, outdoors	-	3170	m ³ /h
Sound power level, indoors/outdoors	L _{WA}	- / 60	dBA				
Annual energy consumption	Q _{HE}	2396	kWh				

For heat pump combination heater:

Declared load profile	-			Water heating energy efficiency	ηwh	-	%
Daily electricity consumption	Qelec	-	kWh				
Annual electricity consumption	AEC	-	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.