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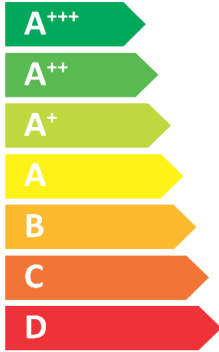
Outdoor unit

PUZ-WM85VAA(-BS)



55 °C

35 °C



A++

A+++

— dB

58 dB

■ 06	■ 05
■ 09	■ 09
■ 09	■ 09
kW	kW

2019

811/2013

For medium-temperature application.																					
1	3	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Outdoor unit	Medium-temperature application	Seasonal space heating energy efficiency class	Water heating energy efficiency class	Rated heat output under average climate conditions	For space heating, annual energy consumption under average climate conditions	For water heating, annual electricity consumption under average climate conditions	Seasonal space heating energy efficiency under average climate conditions	Water heating energy efficiency under average climate conditions	Sound power level L _{WA} indoor	Work only during off-peak hours	Rated heat output under colder climate conditions	Rated heat output under warmer climate conditions	For space heating, annual energy consumption under colder climate conditions	For space heating, annual energy consumption under warmer climate conditions	For water heating, annual energy consumption under colder climate conditions	For water heating, annual energy consumption under warmer climate conditions	Seasonal space heating energy efficiency under colder climate conditions	Seasonal space heating energy efficiency under warmer climate conditions	Water heating energy efficiency under colder climate conditions	Water heating energy efficiency under warmer climate conditions	Sound power level L _{WA} outdoor
				kW	kWh	kWh	%	%	dB		kW	kW	kWh	kWh	kWh	kWh	%	%	%	%	dB
PUZ-WM50VHA(-BS)	✓	A++	-	5.0	3014	-	129	-	-	-	3.1	5.0	2760	1616	-	-	107	157	-	-	61
PUZ-WM60VAA(-BS)	✓	A++	-	6.0	3318	-	142	-	-	-	5.0	6.0	3671	1991	-	-	127	154	-	-	58
PUZ-WM85VAA(-BS)	✓	A++	-	8.5	4837	-	139	-	-	-	6.1	8.5	4376	2799	-	-	129	156	-	-	58
PUZ-WM85YAA(-BS)	✓	A++	-	8.5	4837	-	138	-	-	-	6.1	8.5	4376	2799	-	-	128	155	-	-	58
PUZ-WM112VAA(-BS)	✓	A++	-	10.0	5905	-	134	-	-	-	9.2	10.0	6990	3401	-	-	122	152	-	-	60
PUZ-WM112YAA(-BS)	✓	A++	-	10.0	5905	-	133	-	-	-	9.2	10.0	6990	3401	-	-	121	150	-	-	60

For low-temperature application.																					
1	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Outdoor unit	Low-temperature application	Seasonal space heating energy efficiency class	Water heating energy efficiency class	Rated heat output under average climate conditions	For space heating, annual energy consumption under average climate conditions	For water heating, annual electricity consumption under average climate conditions	Seasonal space heating energy efficiency under average climate conditions	Water heating energy efficiency under average climate conditions	Sound power level L _{WA} indoor	Work only during off-peak hours	Rated heat output under colder climate conditions	Rated heat output under warmer climate conditions	For space heating, annual energy consumption under colder climate conditions	For space heating, annual energy consumption under warmer climate conditions	For water heating, annual energy consumption under colder climate conditions	For water heating, annual energy consumption under warmer climate conditions	Seasonal space heating energy efficiency under colder climate conditions	Seasonal space heating energy efficiency under warmer climate conditions	Water heating energy efficiency under colder climate conditions	Water heating energy efficiency under warmer climate conditions	Sound power level L _{WA} outdoor
				kW	kWh	kWh	%	%	dB		kW	kW	kWh	kWh	kWh	kWh	%	%	%	%	dB
PUZ-WM50VHA(-BS)	✓	A+++	-	5.0	2113	-	183	-	-	-	4.2	5.0	2713	1111	-	-	141	226	-	-	61
PUZ-WM60VAA(-BS)	✓	A+++	-	6.0	2475	-	190	-	-	-	4.4	6.0	2492	1397	-	-	166	218	-	-	58
PUZ-WM85VAA(-BS)	✓	A+++	-	8.5	3473	-	193	-	-	-	4.9	8.5	2733	1916	-	-	169	227	-	-	58
PUZ-WM85YAA(-BS)	✓	A+++	-	8.5	3473	-	190	-	-	-	4.9	8.5	2733	1916	-	-	166	224	-	-	58
PUZ-WM112VAA(-BS)	✓	A+++	-	10.0	4145	-	191	-	-	-	9.9	10.0	5528	2394	-	-	166	215	-	-	60
PUZ-WM112YAA(-BS)	✓	A+++	-	10.0	4145	-	189	-	-	-	9.9	10.0	5528	2394	-	-	165	213	-	-	60

Model(s): Outdoor unit: PUZ-WM85VAA(-BS)

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: no

Parameters for medium-temperature application.

Parameters for average climate conditions.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	8.5	kW	Seasonal space heating energy efficiency	η_s	139	%
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	7.5	kW	Tj = - 7 °C	COPd	2.07	-
Degradation co-efficient (**)	Cdh	0.99	-				
Tj = + 2 °C	Pdh	4.6	kW	Tj = + 2 °C	COPd	3.46	-
Degradation co-efficient (**)	Cdh	0.98	-				
Tj = + 7 °C	Pdh	3.7	kW	Tj = + 7 °C	COPd	5.00	-
Degradation co-efficient (**)	Cdh	0.98	-				
Tj = +12 °C	Pdh	3.4	kW	Tj = +12 °C	COPd	7.08	-
Degradation co-efficient (**)	Cdh	0.96	-				
Tj = bivalent temperature	Pdh	7.5	kW	Tj = bivalent temperature	COPd	2.07	-
Tj = operation limit temperature	Pdh	6.1	kW	Tj = operation limit temperature	COPd	1.80	-
Tj = - 15 °C (if TOL < - 20 °C)	Pdh	-	kW	Tj = - 15 °C (if TOL < - 20 °C)	COPd	-	-
Bivalent temperature	Tbiv	-7	°C	Operation limit temperature	TOL	-20	°C
				Heating water operating limit temperature	WTOL	60	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P _{OFF}	0.015	kW	Rated heat output (*)	P _{sup}	1.3	kW
Thermostat-off mode	P _{TO}	0.015	kW				
Standby mode	P _{SB}	0.015	kW	Type of energy input	Electrical		
Crankcase heater mode	P _{CK}	0.000	kW				

Other items

Capacity control	variable			Rated air flow rate, outdoors	-	2660	m ³ /h
Sound power level, indoors/outdoors	L _{WA}	-/58	dB(A)				
Annual energy consumption	Q _{HE}	4837	kWh				

For heat pump combination heater:

Declared load profile	-			Water heating energy efficiency	η_{wh}	-	%
Daily electricity consumption	Q _{elec}	-	kW/h				
Annual electricity consumption	AEC	-	kW/h				

Contact details

MITSUBISHI ELECTRIC AIR CODITIONING SYSTEM EUROPE LTD Nettlehill Road, Houston Industrial Estate, Livingston, EH54 5EQ, Scotland, U.K.

(*) 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.

Model(s): Outdoor unit: PUZ-WM85VAA(-BS)

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: no

Parameters for low-temperature application.

Parameters for average climate conditions.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	8.5	kW	Seasonal space heating energy efficiency	η_s	193	%
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	7.5	kW	Tj = - 7 °C	COPd	3.10	-
Degradation co-efficient (**)	Cdh	0.99	-				
Tj = + 2 °C	Pdh	4.6	kW	Tj = + 2 °C	COPd	4.79	-
Degradation co-efficient (**)	Cdh	0.98	-				
Tj = + 7 °C	Pdh	3.2	kW	Tj = + 7 °C	COPd	6.81	-
Degradation co-efficient (**)	Cdh	0.96	-				
Tj = +12 °C	Pdh	3.2	kW	Tj = +12 °C	COPd	9.14	-
Degradation co-efficient (**)	Cdh	0.95	-				
Tj = bivalent temperature	Pdh	7.5	kW	Tj = bivalent temperature	COPd	3.10	-
Tj = operation limit temperature	Pdh	6.1	kW	Tj = operation limit temperature	COPd	1.80	-
Tj = - 15 °C (if TOL < - 20 °C)	Pdh	-	kW	Tj = - 15 °C (if TOL < - 20 °C)	COPd	-	-
Bivalent temperature	Tbiv	-7	°C	Operation limit temperature	TOL	-20	°C
				Heating water operating limit temperature	WTOL	60	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P _{OFF}	0.015	kW	Rated heat output (*)	P _{sup}	1.3	kW
Thermostat-off mode	P _{TO}	0.015	kW				
Standby mode	P _{SB}	0.015	kW	Type of energy input	Electrical		
Crankcase heater mode	P _{CK}	0.000	kW				

Other items

Capacity control	variable			Rated air flow rate, outdoors	-	2660	m ³ /h
Sound power level, indoors/outdoors	L _{WA}	-/58	dB(A)				
Annual energy consumption	Q _{HE}	3473	kWh				

For heat pump combination heater:

Declared load profile	-			Water heating energy efficiency	η_{wh}	-	%
Daily electricity consumption	Q _{elec}	-	kW/h				
Annual electricity consumption	AEC	-	kW/h				

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(**) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.

Model(s): Outdoor unit: PUZ-WM85VAA(-BS)

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: no

Parameters for medium-temperature application.

Parameters for colder climate conditions.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	6.1	kW	Seasonal space heating energy efficiency	η_s	129	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T _j				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature T _j			
T _j = - 7 °C	P _{dh}	3.9	kW	T _j = - 7 °C	COP _d	2.98	-
Degradation co-efficient (**)	C _{dh}	0.98	-				
T _j = + 2 °C	P _{dh}	3.6	kW	T _j = + 2 °C	COP _d	3.96	-
Degradation co-efficient (**)	C _{dh}	0.98	-				
T _j = + 7 °C	P _{dh}	3.6	kW	T _j = + 7 °C	COP _d	4.80	-
Degradation co-efficient (**)	C _{dh}	0.98	-				
T _j = +12 °C	P _{dh}	3.6	kW	T _j = +12 °C	COP _d	7.06	-
Degradation co-efficient (**)	C _{dh}	0.97	-				
T _j = bivalent temperature	P _{dh}	5.0	kW	T _j = bivalent temperature	COP _d	2.11	-
T _j = operation limit temperature	P _{dh}	5.0	kW	T _j = operation limit temperature	COP _d	1.71	-
T _j = - 15 °C (if TOL < - 20 °C)	P _{dh}	-	kW	T _j = - 15 °C (if TOL < - 20 °C)	COP _d	-	-
Bivalent temperature	T _{biv}	-15	°C	Operation limit temperature	TOL	-20	°C
				Heating water operating limit temperature	WTOL	60	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P _{OFF}	0.015	kW	Rated heat output (*)	P _{sup}	6.1	kW
Thermostat-off mode	P _{TO}	0.015	kW				
Standby mode	P _{SB}	0.015	kW	Type of energy input	Electrical		
Crankcase heater mode	P _{CK}	0.000	kW				

Other items

Capacity control	variable			Rated air flow rate, outdoors	-	2660	m ³ /h
Sound power level, indoors/outdoors	L _{WA}	-/58	dB(A)				
Annual energy consumption	Q _{HE}	4376	kWh				

For heat pump combination heater:

Declared load profile	-			Water heating energy efficiency	η_{wh}	-	%
Daily electricity consumption	Q _{elec}	-	kW/h				
Annual electricity consumption	AEC	-	kW/h				

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(**) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.

Model(s): Outdoor unit: PUZ-WM85VAA(-BS)

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: no

Parameters for low-temperature application.

Parameters for colder climate conditions.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	4.9	kW	Seasonal space heating energy efficiency	η_s	169	%
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	4.4	kW	Tj = - 7 °C	COPd	4.31	-
Degradation co-efficient (**)	Cdh	0.98	-	Tj = + 2 °C	COPd	5.13	-
Tj = + 2 °C	Pdh	3.9	kW	Tj = + 7 °C	COPd	5.76	-
Degradation co-efficient (**)	Cdh	0.98	-	Tj = +12 °C	COPd	8.18	-
Tj = + 7 °C	Pdh	3.8	kW	Tj = bivalent temperature	COPd	2.29	-
Degradation co-efficient (**)	Cdh	0.97	-	Tj = operation limit temperature	COPd	2.29	-
Tj = +12 °C	Pdh	3.6	kW	Tj = - 15 °C (if TOL < - 20 °C)	COPd	-	-
Degradation co-efficient (**)	Cdh	0.96	-	Operation limit temperature	TOL	-20	°C
Tj = bivalent temperature	Pdh	4.6	kW	Heating water operating limit temperature	WTOL	60	°C
Tj = operation limit temperature	Pdh	4.6	kW	Supplementary heater			
Tj = - 15 °C (if TOL < - 20 °C)	Pdh	-	kW	Rated heat output (*)	Psup	4.9	kW
Bivalent temperature	Tbiv	-20	°C	Type of energy input	Electrical		
Power consumption in modes other than active mode				Supplementary heater			
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	-	2660	m ³ /h
Sound power level, indoors/outdoors	L _{WA}	-/58	dB(A)				
Annual energy consumption	Q _{HE}	2733	kWh				

For heat pump combination heater:

Declared load profile	-			Water heating energy efficiency	η_{wh}	-	%
Daily electricity consumption	Q _{elec}	-	kW/h				
Annual electricity consumption	AEC	-	kW/h				

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(**) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.

Model(s): Outdoor unit: PUZ-WM85VAA(-BS)

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: no

Parameters for medium-temperature application.

Parameters for warmer climate conditions.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	8.5	kW	Seasonal space heating energy efficiency	η_s	156	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T _j				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature T _j			
T _j = - 7 °C	P _{dh}	-	kW	T _j = - 7 °C	COP _d	-	-
Degradation co-efficient (**)	C _{dh}	-	-				
T _j = + 2 °C	P _{dh}	8.5	kW	T _j = + 2 °C	COP _d	1.88	-
Degradation co-efficient (**)	C _{dh}	0.99	-				
T _j = + 7 °C	P _{dh}	5.5	kW	T _j = + 7 °C	COP _d	3.22	-
Degradation co-efficient (**)	C _{dh}	0.99	-				
T _j = +12 °C	P _{dh}	3.4	kW	T _j = +12 °C	COP _d	5.76	-
Degradation co-efficient (**)	C _{dh}	0.97	-				
T _j = bivalent temperature	P _{dh}	8.5	kW	T _j = bivalent temperature	COP _d	1.88	-
T _j = operation limit temperature	P _{dh}	6.1	kW	T _j = operation limit temperature	COP _d	1.71	-
T _j = - 15 °C (if TOL < - 20 °C)	P _{dh}	-	kW	T _j = - 15 °C (if TOL < - 20 °C)	COP _d	-	-
Bivalent temperature	T _{biv}	2	°C	Operation limit temperature	TOL	-20	°C
				Heating water operating limit temperature	WTOL	60	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P _{OFF}	0.015	kW	Rated heat output (*)	P _{sup}	0.0	kW
Thermostat-off mode	P _{TO}	0.015	kW				
Standby mode	P _{SB}	0.015	kW	Type of energy input	Electrical		
Crankcase heater mode	P _{CK}	0.000	kW				

Other items

Capacity control	variable			Rated air flow rate, outdoors	-	2660	m ³ /h
Sound power level, indoors/outdoors	L _{WA}	-/58	dB(A)				
Annual energy consumption	Q _{HE}	2799	kWh				

For heat pump combination heater:

Declared load profile	-			Water heating energy efficiency	η_{wh}	-	%
Daily electricity consumption	Q _{elec}	-	kW/h				
Annual electricity consumption	AEC	-	kW/h				

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(**) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.

Model(s): Outdoor unit: PUZ-WM85VAA(-BS)

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: no

Parameters for low-temperature application.

Parameters for warmer climate conditions.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	8.5	kW	Seasonal space heating energy efficiency	η_s	227	%
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	Pdh	8.5	kW	Tj = + 2 °C	COPd	3.66	-
Degradation co-efficient (**)	Cdh	0.99	-				
Tj = + 7 °C	Pdh	5.5	kW	Tj = + 7 °C	COPd	4.91	-
Degradation co-efficient (**)	Cdh	0.98	-				
Tj = +12 °C	Pdh	3.6	kW	Tj = +12 °C	COPd	7.66	-
Degradation co-efficient (**)	Cdh	0.96	-				
Tj = bivalent temperature	Pdh	8.5	kW	Tj = bivalent temperature	COPd	3.66	-
Tj = operation limit temperature	Pdh	6.1	kW	Tj = operation limit temperature	COPd	1.71	-
Tj = - 15 °C (if TOL < - 20 °C)	Pdh	-	kW	Tj = - 15 °C (if TOL < - 20 °C)	COPd	-	-
Bivalent temperature	Tbiv	2	°C	Operation limit temperature	TOL	-20	°C
				Heating water operating limit temperature	WTOL	60	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P _{OFF}	0.015	kW	Rated heat output (*)	P _{sup}	0.0	kW
Thermostat-off mode	P _{TO}	0.015	kW				
Standby mode	P _{SB}	0.015	kW	Type of energy input	Electrical		
Crankcase heater mode	P _{CK}	0.000	kW				

Other items

Capacity control	variable			Rated air flow rate, outdoors	-	2660	m ³ /h
Sound power level, indoors/outdoors	L _{WA}	-/58	dB(A)				
Annual energy consumption	Q _{HE}	1916	kWh				

For heat pump combination heater:

Declared load profile	-			Water heating energy efficiency	η_{wh}	-	%
Daily electricity consumption	Q _{elec}	-	kW/h				
Annual electricity consumption	AEC	-	kW/h				

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(**) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.