



ENERG

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Indoor unit
Outdoor unit

E*SD-**C
SUHZ-SW45VA



55 °C

35 °C



40 dB



61 dB

■ 03
■ **05**
■ 05
kW

■ 04
■ **05**
■ 05
kW



2015

811/2013

RG79Y743H01

Model(s):	Outdoor unit:	PUHZ-SW45VA
	Indoor unit:	EHSD-****
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	4.6	kW	Seasonal space heating energy efficiency	η_s	126	%
Declared capacity for heating for part load at indoor <input type="checkbox"/> 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}	4.1	kW	T _j = - 7 °C	COP _d	1.78	-
Degradation co-efficient (**)	C _{dh}	0.99	-				
T _j = + 2 °C	P _{dh}	2.5	kW	T _j = + 2 °C	COP _d	3.29	-
Degradation co-efficient (**)	C _{dh}	0.98	-				
T _j = + 7 °C	P _{dh}	3.1	kW	T _j = + 7 °C	COP _d	4.40	-
Degradation co-efficient (**)	C _{dh}	0.98	-				
T _j = +12 °C	P _{dh}	2.8	kW	T _j = +12 °C	COP _d	6.71	-
Degradation co-efficient (**)	C _{dh}	0.97	-				
T _j = bivalent temperature	P _{dh}	4.1	kW	T _j = bivalent temperature	COP _d	1.78	-
T _j = operation limit temperature	P _{dh}	2.7	kW	T _j = operation limit temperature	COP _d	1.27	-
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}	-7	°C	Operation limit temperature	TOL	-15	°C
				Heating water operating limit temperature	WTOL	55	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P _{OFF}	0.010	kW	Rated heat output (*)	P _{sup}	1.0	kW
Thermostat-off mode	P _{TO}	0.010	kW				
Standby mode	P _{SB}	0.010	kW	Type of energy input			
Crankcase heater mode	P _{CK}	0.000	kW				

Other items				Rated air flow rate, outdoors			
Capacity control		variable		-	2670	m ³ /h	
Sound power level, indoors/outdoors	L _{WA}	40/61	dB(A)				
Annual energy consumption	Q _{HE}	2886	kWh				

For heat pump combination heater:				Water heating energy efficiency			
Declared load profile		-		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:	PUHZ-SW45VA
	Indoor unit:	EHSD-****
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	5.0	kW	Seasonal space heating energy efficiency	η_s	170	%
Declared capacity for heating for part load at indoor <input type="checkbox"/> 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}	4.4	kW	T _j = - 7 °C	COP _d	2.82	-
Degradation co-efficient (**)	C _{dh}	0.99	-				
T _j = + 2 °C	P _{dh}	2.7	kW	T _j = + 2 °C	COP _d	4.41	-
Degradation co-efficient (**)	C _{dh}	0.98	-				
T _j = + 7 °C	P _{dh}	3.3	kW	T _j = + 7 °C	COP _d	5.48	-
Degradation co-efficient (**)	C _{dh}	0.98	-				
T _j = +12 °C	P _{dh}	2.5	kW	T _j = +12 °C	COP _d	8.60	-
Degradation co-efficient (**)	C _{dh}	0.97	-				
T _j = bivalent temperature	P _{dh}	4.4	kW	T _j = bivalent temperature	COP _d	2.82	-
T _j = operation limit temperature	P _{dh}	2.7	kW	T _j = operation limit temperature	COP _d	1.21	-
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}	-7	°C	Operation limit temperature	TOL	-15	°C
				Heating water operating limit temperature	WTOL	55	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P _{OFF}	0.010	kW	Rated heat output (*)	P _{sup}	1.2	kW
Thermostat-off mode	P _{TO}	0.010	kW				
Standby mode	P _{SB}	0.010	kW	Type of energy input			
Crankcase heater mode	P _{CK}	0.000	kW				

Other items				Rated air flow rate, outdoors	-	2670	m ³ /h
Capacity control		variable					
Sound power level, indoors/outdoors	L _{WA}	40/61	dB(A)				
Annual energy consumption	Q _{HE}	2284	kWh				

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

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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.

Model(s):	Outdoor unit:	PUHZ-SW45VA
	Indoor unit:	EHSD-****
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	2.8	kW	Seasonal space heating energy efficiency	η_s	97	%
Declared capacity for heating for part load at indoor <input type="checkbox"/> 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}	2.9	kW	T _j = - 7 °C	COP _d	2.67	-
Degradation co-efficient (**)	C _{dh}	0.99	-				
T _j = + 2 °C	P _{dh}	2.6	kW	T _j = + 2 °C	COP _d	3.53	-
Degradation co-efficient (**)	C _{dh}	0.98	-				
T _j = + 7 °C	P _{dh}	3.2	kW	T _j = + 7 °C	COP _d	4.75	-
Degradation co-efficient (**)	C _{dh}	0.98	-				
T _j = +12 °C	P _{dh}	2.6	kW	T _j = +12 °C	COP _d	6.24	-
Degradation co-efficient (**)	C _{dh}	0.97	-				
T _j = bivalent temperature	P _{dh}	2.7	kW	T _j = bivalent temperature	COP _d	1.21	-
T _j = operation limit temperature	P _{dh}	2.7	kW	T _j = operation limit temperature	COP _d	1.21	-
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	-15	°C
				Heating water operating limit temperature	WTOL	55	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P _{OFF}	0.010	kW	Rated heat output (*)	P _{sup}	2.8	kW
Thermostat-off mode	P _{TO}	0.010	kW				
Standby mode	P _{SB}	0.010	kW	Type of energy input			
Crankcase heater mode	P _{CK}	0.000	kW				

Other items				Rated air flow rate, outdoors	-	2670	m ³ /h
Capacity control		variable					
Sound power level, indoors/outdoors	L _{WA}	40/61	dB(A)				
Annual energy consumption	Q _{HE}	2760	kWh				

For heat pump combination heater:				Water heating energy efficiency	η_{wh}	-	%
Declared load profile		-					
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:	PUHZ-SW45VA
	Indoor unit:	EHSD-****
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	3.7	kW	Seasonal space heating energy efficiency	η_s	145	%
Declared capacity for heating for part load at indoor <input type="checkbox"/> 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}	2.9	kW	T _j = - 7 °C	COP _d	3.22	-
Degradation co-efficient (**)	C _{dh}	0.99	-				
T _j = + 2 °C	P _{dh}	2.8	kW	T _j = + 2 °C	COP _d	4.58	-
Degradation co-efficient (**)	C _{dh}	0.98	-				
T _j = + 7 °C	P _{dh}	3.3	kW	T _j = + 7 °C	COP _d	5.78	-
Degradation co-efficient (**)	C _{dh}	0.98	-				
T _j = +12 °C	P _{dh}	2.6	kW	T _j = +12 °C	COP _d	7.30	-
Degradation co-efficient (**)	C _{dh}	0.97	-				
T _j = bivalent temperature	P _{dh}	3.0	kW	T _j = bivalent temperature	COP _d	2.43	-
T _j = operation limit temperature	P _{dh}	3.0	kW	T _j = operation limit temperature	COP _d	2.43	-
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	-15	°C
				Heating water operating limit temperature	WTOL	55	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P _{OFF}	0.010	kW	Rated heat output (*)	P _{sup}	3.7	kW
Thermostat-off mode	P _{TO}	0.010	kW				
Standby mode	P _{SB}	0.010	kW	Type of energy input			
Crankcase heater mode	P _{CK}	0.000	kW				

Other items			
Capacity control		variable	
Sound power level, indoors/outdoors	L _{WA}	40/61	dB(A)
Annual energy consumption	Q _{HE}	2344	kWh
Rated air flow rate, outdoors		2670	m ³ /h

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

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

Model(s):	Outdoor unit:	PUHZ-SW45VA
	Indoor unit:	EHSD-****
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	4.6	kW	Seasonal space heating energy efficiency	η_s	150	%
Declared capacity for heating for part load at indoor <input type="checkbox"/> 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}	4.6	kW	T _j = + 2 °C	COP _d	2.13	-
Degradation co-efficient (**)	C _{dh}	0.98	-				
T _j = + 7 °C	P _{dh}	2.9	kW	T _j = + 7 °C	COP _d	3.24	-
Degradation co-efficient (**)	C _{dh}	0.98	-				
T _j = +12 °C	P _{dh}	2.5	kW	T _j = +12 °C	COP _d	5.18	-
Degradation co-efficient (**)	C _{dh}	0.97	-				
T _j = bivalent temperature	P _{dh}	4.1	kW	T _j = bivalent temperature	COP _d	1.69	-
T _j = operation limit temperature	P _{dh}	2.7	kW	T _j = operation limit temperature	COP _d	1.21	-
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}	-7	°C	Operation limit temperature	TOL	-15	°C
				Heating water operating limit temperature	WTOL	55	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P _{OFF}	0.010	kW	Rated heat output (*)	P _{sup}	0.0	kW
Thermostat-off mode	P _{TO}	0.010	kW				
Standby mode	P _{SB}	0.010	kW	Type of energy input			
Crankcase heater mode	P _{CK}	0.000	kW				

Other items			
Capacity control		variable	
Sound power level, indoors/outdoors	L _{WA}	40/61	dB(A)
Annual energy consumption	Q _{HE}	1587	kWh
Rated air flow rate, outdoors		2670	m ³ /h

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

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

Model(s):	Outdoor unit:	PUHZ-SW45VA
	Indoor unit:	EHSD-****
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	5.0	kW	Seasonal space heating energy efficiency	η_s	212	%
Declared capacity for heating for part load at indoor <input type="checkbox"/> 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}	5.1	kW	T _j = + 2 °C	COP _d	3.31	-
Degradation co-efficient (**)	C _{dh}	0.98	-				
T _j = + 7 °C	P _{dh}	3.2	kW	T _j = + 7 °C	COP _d	4.88	-
Degradation co-efficient (**)	C _{dh}	0.98	-				
T _j = +12 °C	P _{dh}	2.6	kW	T _j = +12 °C	COP _d	6.81	-
Degradation co-efficient (**)	C _{dh}	0.97	-				
T _j = bivalent temperature	P _{dh}	4.4	kW	T _j = bivalent temperature	COP _d	2.82	-
T _j = operation limit temperature	P _{dh}	2.7	kW	T _j = operation limit temperature	COP _d	1.21	-
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}	-7	°C	Operation limit temperature	TOL	-15	°C
				Heating water operating limit temperature	WTOL	55	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P _{OFF}	0.010	kW	Rated heat output (*)	P _{sup}	0.0	kW
Thermostat-off mode	P _{TO}	0.010	kW				
Standby mode	P _{SB}	0.010	kW	Type of energy input			
Crankcase heater mode	P _{CK}	0.000	kW				

Other items				Rated air flow rate, outdoors			
Capacity control		variable		-	2670	m ³ /h	
Sound power level, indoors/outdoors	L _{WA}	40/61	dB(A)				
Annual energy consumption	Q _{HE}	1200	kWh				

For heat pump combination heater:				Water heating energy efficiency			
Declared load profile		-		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:	PUHZ-SW45VA
	Indoor unit:	ERSD-****
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	4.6	kW	Seasonal space heating energy efficiency	η_s	128	%
Declared capacity for heating for part load at indoor <input type="checkbox"/> 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}	4.1	kW	T _j = - 7 °C	COP _d	1.78	-
Degradation co-efficient (**)	C _{dh}	0.99	-				
T _j = + 2 °C	P _{dh}	2.5	kW	T _j = + 2 °C	COP _d	3.29	-
Degradation co-efficient (**)	C _{dh}	0.98	-				
T _j = + 7 °C	P _{dh}	3.1	kW	T _j = + 7 °C	COP _d	4.40	-
Degradation co-efficient (**)	C _{dh}	0.98	-				
T _j = +12 °C	P _{dh}	2.8	kW	T _j = +12 °C	COP _d	6.71	-
Degradation co-efficient (**)	C _{dh}	0.97	-				
T _j = bivalent temperature	P _{dh}	4.1	kW	T _j = bivalent temperature	COP _d	1.78	-
T _j = operation limit temperature	P _{dh}	2.7	kW	T _j = operation limit temperature	COP _d	1.27	-
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}	-7	°C	Operation limit temperature	TOL	-15	°C
				Heating water operating limit temperature	WTOL	55	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P _{OFF}	0.010	kW	Rated heat output (*)	P _{sup}	1.0	kW
Thermostat-off mode	P _{TO}	0.010	kW				
Standby mode	P _{SB}	0.010	kW	Type of energy input			
Crankcase heater mode	P _{CK}	0.000	kW				

Other items				Rated air flow rate, outdoors	-	2670	m ³ /h
Capacity control		variable					
Sound power level, indoors/outdoors	L _{WA}	40/61	dB(A)				
Annual energy consumption	Q _{HE}	2886	kWh				

For heat pump combination heater:				Water heating energy efficiency	η_{wh}	-	%
Declared load profile		-					
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:	PUHZ-SW45VA
	Indoor unit:	ERSD-****
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	5.0	kW	Seasonal space heating energy efficiency	η_s	174	%
Declared capacity for heating for part load at indoor <input type="checkbox"/> 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}	4.4	kW	T _j = - 7 °C	COP _d	2.82	-
Degradation co-efficient (**)	C _{dh}	0.99	-				
T _j = + 2 °C	P _{dh}	2.7	kW	T _j = + 2 °C	COP _d	4.41	-
Degradation co-efficient (**)	C _{dh}	0.98	-				
T _j = + 7 °C	P _{dh}	3.3	kW	T _j = + 7 °C	COP _d	5.48	-
Degradation co-efficient (**)	C _{dh}	0.98	-				
T _j = +12 °C	P _{dh}	2.5	kW	T _j = +12 °C	COP _d	8.60	-
Degradation co-efficient (**)	C _{dh}	0.97	-				
T _j = bivalent temperature	P _{dh}	4.4	kW	T _j = bivalent temperature	COP _d	2.82	-
T _j = operation limit temperature	P _{dh}	2.7	kW	T _j = operation limit temperature	COP _d	1.21	-
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}	-7	°C	Operation limit temperature	TOL	-15	°C
				Heating water operating limit temperature	WTOL	55	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P _{OFF}	0.010	kW	Rated heat output (*)	P _{sup}	1.2	kW
Thermostat-off mode	P _{TO}	0.010	kW				
Standby mode	P _{SB}	0.010	kW	Type of energy input			
Crankcase heater mode	P _{CK}	0.000	kW				

Other items				Rated air flow rate, outdoors	-	2670	m ³ /h
Capacity control		variable					
Sound power level, indoors/outdoors	L _{WA}	40/61	dB(A)				
Annual energy consumption	Q _{HE}	2284	kWh				

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

Contact details

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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.

Model(s):	Outdoor unit:	PUHZ-SW45VA
	Indoor unit:	ERSD-****
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	2.8	kW	Seasonal space heating energy efficiency	η_s	99	%
Declared capacity for heating for part load at indoor <input type="checkbox"/> 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}	2.9	kW	T _j = - 7 °C	COP _d	2.67	-
Degradation co-efficient (**)	C _{dh}	0.99	-				
T _j = + 2 °C	P _{dh}	2.6	kW	T _j = + 2 °C	COP _d	3.53	-
Degradation co-efficient (**)	C _{dh}	0.98	-				
T _j = + 7 °C	P _{dh}	3.2	kW	T _j = + 7 °C	COP _d	4.75	-
Degradation co-efficient (**)	C _{dh}	0.98	-				
T _j = +12 °C	P _{dh}	2.6	kW	T _j = +12 °C	COP _d	6.24	-
Degradation co-efficient (**)	C _{dh}	0.97	-				
T _j = bivalent temperature	P _{dh}	2.7	kW	T _j = bivalent temperature	COP _d	1.21	-
T _j = operation limit temperature	P _{dh}	2.7	kW	T _j = operation limit temperature	COP _d	1.21	-
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	-15	°C
				Heating water operating limit temperature	WTOL	55	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P _{OFF}	0.010	kW	Rated heat output (*)	P _{sup}	2.8	kW
Thermostat-off mode	P _{TO}	0.010	kW				
Standby mode	P _{SB}	0.010	kW	Type of energy input			
Crankcase heater mode	P _{CK}	0.000	kW				

Other items				Rated air flow rate, outdoors			
Capacity control		variable		-	2670	m ³ /h	
Sound power level, indoors/outdoors	L _{WA}	40/61	dB(A)				
Annual energy consumption	Q _{HE}	2760	kWh				

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

Contact details

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

Model(s):	Outdoor unit:	PUHZ-SW45VA
	Indoor unit:	ERSD-****
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	3.7	kW	Seasonal space heating energy efficiency	η_s	149	%
Declared capacity for heating for part load at indoor <input type="checkbox"/> 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}	2.9	kW	T _j = - 7 °C	COP _d	3.22	-
Degradation co-efficient (**)	C _{dh}	0.99	-				
T _j = + 2 °C	P _{dh}	2.8	kW	T _j = + 2 °C	COP _d	4.58	-
Degradation co-efficient (**)	C _{dh}	0.98	-				
T _j = + 7 °C	P _{dh}	3.3	kW	T _j = + 7 °C	COP _d	5.78	-
Degradation co-efficient (**)	C _{dh}	0.98	-				
T _j = +12 °C	P _{dh}	2.6	kW	T _j = +12 °C	COP _d	7.30	-
Degradation co-efficient (**)	C _{dh}	0.97	-				
T _j = bivalent temperature	P _{dh}	3.0	kW	T _j = bivalent temperature	COP _d	2.43	-
T _j = operation limit temperature	P _{dh}	3.0	kW	T _j = operation limit temperature	COP _d	2.43	-
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	-15	°C
				Heating water operating limit temperature	WTOL	55	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P _{OFF}	0.010	kW	Rated heat output (*)	P _{sup}	3.7	kW
Thermostat-off mode	P _{TO}	0.010	kW				
Standby mode	P _{SB}	0.010	kW	Type of energy input			
Crankcase heater mode	P _{CK}	0.000	kW				

Other items			
Capacity control		variable	
Sound power level, indoors/outdoors	L _{WA}	40/61	dB(A)
Annual energy consumption	Q _{HE}	2344	kWh
Rated air flow rate, outdoors		2670	m ³ /h

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

Contact details

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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 P_{designh}, and the rated heat output of a supplementary heater P_{sup} is equal to the supplementary capacity for heating sup(T_j).
(**) If C_{dh} is not determined by measurement then the default degradation coefficient is C_{dh} = 0,9.

Model(s):	Outdoor unit:	PUHZ-SW45VA
	Indoor unit:	ERSD-****
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	4.6	kW	Seasonal space heating energy efficiency	η_s	153	%
Declared capacity for heating for part load at indoor <input type="checkbox"/> 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}	4.6	kW	T _j = + 2 °C	COP _d	2.13	-
Degradation co-efficient (**)	C _{dh}	0.98	-				
T _j = + 7 °C	P _{dh}	2.9	kW	T _j = + 7 °C	COP _d	3.24	-
Degradation co-efficient (**)	C _{dh}	0.98	-				
T _j = +12 °C	P _{dh}	2.5	kW	T _j = +12 °C	COP _d	5.18	-
Degradation co-efficient (**)	C _{dh}	0.97	-				
T _j = bivalent temperature	P _{dh}	4.1	kW	T _j = bivalent temperature	COP _d	1.69	-
T _j = operation limit temperature	P _{dh}	2.7	kW	T _j = operation limit temperature	COP _d	1.21	-
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}	-7	°C	Operation limit temperature	TOL	-15	°C
				Heating water operating limit temperature	WTOL	55	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P _{OFF}	0.010	kW	Rated heat output (*)	P _{sup}	0.0	kW
Thermostat-off mode	P _{TO}	0.010	kW				
Standby mode	P _{SB}	0.010	kW	Type of energy input			
Crankcase heater mode	P _{CK}	0.000	kW				

Other items			
Capacity control		variable	
Sound power level, indoors/outdoors	L _{WA}	40/61	dB(A)
Annual energy consumption	Q _{HE}	1587	kWh
Rated air flow rate, outdoors		2670	m ³ /h

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

Contact details

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

Model(s):	Outdoor unit:	PUHZ-SW45VA
	Indoor unit:	ERSD-****
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	5.0	kW	Seasonal space heating energy efficiency	η_s	218	%
Declared capacity for heating for part load at indoor <input type="checkbox"/> 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}	5.1	kW	T _j = + 2 °C	COP _d	3.31	-
Degradation co-efficient (**)	C _{dh}	0.98	-				
T _j = + 7 °C	P _{dh}	3.2	kW	T _j = + 7 °C	COP _d	4.88	-
Degradation co-efficient (**)	C _{dh}	0.98	-				
T _j = +12 °C	P _{dh}	2.6	kW	T _j = +12 °C	COP _d	6.81	-
Degradation co-efficient (**)	C _{dh}	0.97	-				
T _j = bivalent temperature	P _{dh}	4.4	kW	T _j = bivalent temperature	COP _d	2.82	-
T _j = operation limit temperature	P _{dh}	2.7	kW	T _j = operation limit temperature	COP _d	1.21	-
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}	-7	°C	Operation limit temperature	TOL	-15	°C
				Heating water operating limit temperature	WTOL	55	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P _{OFF}	0.010	kW	Rated heat output (*)	P _{sup}	0.0	kW
Thermostat-off mode	P _{TO}	0.010	kW				
Standby mode	P _{SB}	0.010	kW	Type of energy input			
Crankcase heater mode	P _{CK}	0.000	kW				

Other items				Rated air flow rate, outdoors			
Capacity control	variable			-	2670	m ³ /h	
Sound power level, indoors/outdoors	L _{WA}	40/61	dB(A)				
Annual energy consumption	Q _{HE}	1200	kWh				

For heat pump combination heater:				Water heating energy efficiency			
Declared load profile	-			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.