

PRODUCT INFORMATION / TECHNICAL DOCUMENTATION

Model(s):	Outdoor unit:	PUHZ-SHW140YHA(-BS)
	Indoor unit:	EHST20C-****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	15.8	kW	Seasonal space heating energy efficiency	η_s	127	%
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	14.0	kW	Tj = - 7 °C	COPd	1.84	-
Degradation co-efficient (**)	Cdh	1.00	-				
Tj = + 2 °C	Pdh	8.5	kW	Tj = + 2 °C	COPd	3.10	-
Degradation co-efficient (**)	Cdh	0.99	-				
Tj = + 7 °C	Pdh	5.5	kW	Tj = + 7 °C	COPd	4.67	-
Degradation co-efficient (**)	Cdh	0.98	-				
Tj = +12 °C	Pdh	7.0	kW	Tj = +12 °C	COPd	6.62	-
Degradation co-efficient (**)	Cdh	0.98	-				
Tj = bivalent temperature	Pdh	14.0	kW	Tj = bivalent temperature	COPd	1.84	-
Tj = operation limit temperature (***)	Pdh	13.9	kW	Tj = operation limit temperature (***)	COPd	1.83	-
Bivalent temperature	Tbiv	-7	°C	Operation limit temperature	TOL	-28	°C
Reference design conditions for space heating	Tdesignh	-10	°C	Heating water operating limit temperature	WTOL	60	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P _{OFF}	0.022	kW	Rated heat output (*)	Psup	1.9	kW
Thermostat-off mode	P _{TO}	0.022	kW	Type of energy input	Electrical		
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	-	6000	m³/h
Sound power level, indoors/outdoors	L _{WA}	40 / 70	dBA			
Annual energy consumption	Q _{HE}	10054	kWh			

For heat pump combination heater:

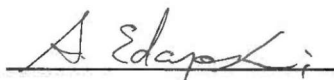
Declared load profile	L		Water heating energy efficiency	η_{wh}	138	%
Daily electricity consumption	Qelec	3.580	kWh			
Annual electricity consumption	AEC	788	kWh			

Contact details

MITSUBISHI ELECTRIC AIR CODITIONING 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.

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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.

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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	17.0	kW	Seasonal space heating energy efficiency	ηs	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	15.0	kW	Tj = - 7 °C	COPd	2.59	-
Degradation co-efficient (**)	Cdh	1.00	-				
Tj = + 2 °C	Pdh	9.1	kW	Tj = + 2 °C	COPd	4.01	-
Degradation co-efficient (**)	Cdh	0.99	-				
Tj = + 7 °C	Pdh	5.9	kW	Tj = + 7 °C	COPd	5.71	-
Degradation co-efficient (**)	Cdh	0.98	-				
Tj = +12 °C	Pdh	7.3	kW	Tj = +12 °C	COPd	7.47	-
Degradation co-efficient (**)	Cdh	0.98	-				
Tj = bivalent temperature	Pdh	15.0	kW	Tj = bivalent temperature	COPd	2.59	-
Tj = operation limit temperature (***)	Pdh	14.1	kW	Tj = operation limit temperature (***)	COPd	2.42	-
Bivalent temperature	Tbiv	-7	°C	Operation limit temperature	TOL	-28	°C
Reference design conditions for space heating	Tdesignh	-10	°C	Heating water operating limit temperature	WTOL	60	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P _{OFF}	0.022	kW	Rated heat output (*)	Psup	2.9	kW
Thermostat-off mode	P _{TO}	0.022	kW	Type of energy input	Electrical		
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	-	6000	m³/h
Sound power level, indoors/outdoors	L _{WA}	40 / 70	dBA				
Annual energy consumption	Q _{HE}	8446	kWh				

For heat pump combination heater:

Declared load profile	L			Water heating energy efficiency	η_{wh}	138	%
Daily electricity consumption	Qelec	3.580	kWh				
Annual electricity consumption	AEC	788	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:	PUHZ-SHW140YHA(-BS)
	Indoor unit:	EHST20C-****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	15.8	kW	Seasonal space heating energy efficiency	η_s	121	%
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	9.6	kW	Tj = - 7 °C	COPd	2.74	-
Degradation co-efficient (**)	Cdh	0.99	-				
Tj = + 2 °C	Pdh	5.8	kW	Tj = + 2 °C	COPd	3.75	-
Degradation co-efficient (**)	Cdh	0.99	-				
Tj = + 7 °C	Pdh	4.2	kW	Tj = + 7 °C	COPd	5.00	-
Degradation co-efficient (**)	Cdh	0.97	-				
Tj = +12 °C	Pdh	7.1	kW	Tj = +12 °C	COPd	6.66	-
Degradation co-efficient (**)	Cdh	0.98	-				
Tj = bivalent temperature	Pdh	13.3	kW	Tj = bivalent temperature	COPd	1.43	-
Tj = operation limit temperature (***)	Pdh	11.2	kW	Tj = operation limit temperature (***)	COPd	1.43	-
Tj = − 15 °C (if TOL < − 20 °C)	Pdh	12.9	kW	Tj = − 15 °C (if TOL < − 20 °C)	COPd	1.56	-
Bivalent temperature	Tbiv	-16	°C	Operation limit temperature	TOL	-28	°C
Reference design conditions for space heating	Tdesignh	-22	°C	Heating water operating limit temperature	WTOL	60	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P _{OFF}	0.022	kW	Rated heat output (*)	Psup	4.6	kW
Thermostat-off mode	P _{TO}	0.022	kW	Type of energy input	Electrical		
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	-	6000	m³/h
Sound power level, indoors/outdoors	L _{WA}	40 / 70	dBA				
Annual energy consumption	Q _{HE}	12569	kWh				

For heat pump combination heater:

Declared load profile	L			Water heating energy efficiency	η_{wh}	121	%
Daily electricity consumption	Q _{elec}	4.070	kWh				
Annual electricity consumption	AEC	895	kWh				

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Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating sup(Tj).

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

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	Indoor unit:	EHST20C-****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	17.0	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	10.3	kW	Tj = - 7 °C	COPd	3.14	-
Degradation co-efficient (**)	Cdh	0.99	-				
Tj = + 2 °C	Pdh	6.3	kW	Tj = + 2 °C	COPd	4.75	-
Degradation co-efficient (**)	Cdh	0.98	-				
Tj = + 7 °C	Pdh	4.4	kW	Tj = + 7 °C	COPd	6.01	-
Degradation co-efficient (**)	Cdh	0.97	-				
Tj = +12 °C	Pdh	7.3	kW	Tj = +12 °C	COPd	7.47	-
Degradation co-efficient (**)	Cdh	0.98	-				
Tj = bivalent temperature	Pdh	14.3	kW	Tj = bivalent temperature	COPd	2.00	-
Tj = operation limit temperature (***)	Pdh	11.7	kW	Tj = operation limit temperature (***)	COPd	1.72	-
Tj = – 15 °C (if TOL < – 20 °C)	Pdh	13.9	kW	Tj = – 15 °C (if TOL < – 20 °C)	COPd	2.12	-
Bivalent temperature	Tbiv	-16	°C	Operation limit temperature	TOL	-28	°C
Reference design conditions for space heating	Tdesignh	-22	°C	Heating water operating limit temperature	WTOL	60	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P _{OFF}	0.022	kW	Rated heat output (*)	Psup	5.3	kW
Thermostat-off mode	P _{TO}	0.022	kW	Type of energy input	Electrical		
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	-	6000	m³/h
Sound power level, indoors/outdoors	L _{WA}	40 / 70	dBA				
Annual energy consumption	Q _{HE}	11031	kWh				

For heat pump combination heater:

Declared load profile	L			Water heating energy efficiency	η_{wh}	121	%
Daily electricity consumption	Q _{elec}	4.070	kWh				
Annual electricity consumption	AEC	895	kWh				

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

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

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Model(s):	Outdoor unit:	PUHZ-SHW140YHA(-BS)
	Indoor unit:	EHST20C-****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	14.0	kW	Seasonal space heating energy efficiency	η_s	153	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = - 7 °C	Pdh	-	kW	Tj = - 7 °C	COPd	-	-
Degradation co-efficient (**)	Cdh	-	-				
Tj = + 2 °C	Pdh	14.0	kW	Tj = + 2 °C	COPd	1.92	-
Degradation co-efficient (**)	Cdh	1.00	-				
Tj = + 7 °C	Pdh	9.0	kW	Tj = + 7 °C	COPd	3.12	-
Degradation co-efficient (**)	Cdh	0.99	-				
Tj = +12 °C	Pdh	6.8	kW	Tj = +12 °C	COPd	5.70	-
Degradation co-efficient (**)	Cdh	0.98	-				
Tj = bivalent temperature	Pdh	14.0	kW	Tj = bivalent temperature	COPd	1.92	-
Tj = operation limit temperature (***)	Pdh	14.0	kW	Tj = operation limit temperature (***)	COPd	1.92	-
Bivalent temperature	Tbiv	2	°C	Operation limit temperature	TOL	-28	°C
Reference design conditions for space heating	Tdesignh	2	°C	Heating water operating limit temperature	WTOL	60	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P _{OFF}	0.022	kW	Rated heat output (*)	Psup	0.0	kW
Thermostat-off mode	P _{TO}	0.022	kW	Type of energy input	Electrical		
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	-	6000	m³/h
Sound power level, indoors/outdoors	L _{WA}	40 / 70	dBA				
Annual energy consumption	Q _{HE}	4811	kWh				

For heat pump combination heater:

Declared load profile	L			Water heating energy efficiency	η_{wh}	160	%
Daily electricity consumption	Qelec	3.090	kWh				
Annual electricity consumption	AEC	680	kWh				

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Model(s):	Outdoor unit:	PUHZ-SHW140YHA(-BS)
	Indoor unit:	EHST20C-****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	15.5	kW	Seasonal space heating energy efficiency	η_s	209	%
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	15.5	kW	Tj = + 2 °C	COPd	2.74	-
Degradation co-efficient (**)	Cdh	1.00	-				
Tj = + 7 °C	Pdh	10.0	kW	Tj = + 7 °C	COPd	4.56	-
Degradation co-efficient (**)	Cdh	0.99	-				
Tj = +12 °C	Pdh	7.2	kW	Tj = +12 °C	COPd	7.23	-
Degradation co-efficient (**)	Cdh	0.98	-				
Tj = bivalent temperature	Pdh	15.5	kW	Tj = bivalent temperature	COPd	2.74	-
Tj = operation limit temperature (***)	Pdh	15.5	kW	Tj = operation limit temperature (***)	COPd	2.74	-
Bivalent temperature	Tbiv	2	°C	Operation limit temperature	TOL	-28	°C
Reference design conditions for space heating	Tdesignh	2	°C	Heating water operating limit temperature	WTOL	60	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P _{OFF}	0.022	kW	Rated heat output (*)	Psup	0.0	kW
Thermostat-off mode	P _{TO}	0.022	kW	Type of energy input	Electrical		
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	-	6000	m³/h
Sound power level, indoors/outdoors	L _{WA}	40 / 70	dBA				
Annual energy consumption	Q _{HE}	3914	kWh				

For heat pump combination heater:

Declared load profile	L			Water heating energy efficiency	η_{wh}	160	%
Daily electricity consumption	Qelec	3.090	kWh				
Annual electricity consumption	AEC	680	kWh				

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PRODUCT INFORMATION / TECHNICAL DOCUMENTATION

Model(s):	Outdoor unit:	PUHZ-SHW140YHA(-BS)
	Indoor unit:	EHST20C-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.

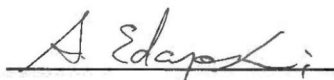
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Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = - 7 °C	Pdh	14.0	kW	Tj = - 7 °C	COPd	1.84	-
Degradation co-efficient (**)	Cdh	1.00	-				
Tj = + 2 °C	Pdh	8.5	kW	Tj = + 2 °C	COPd	3.10	-
Degradation co-efficient (**)	Cdh	0.99	-				
Tj = + 7 °C	Pdh	5.5	kW	Tj = + 7 °C	COPd	4.67	-
Degradation co-efficient (**)	Cdh	0.98	-				
Tj = +12 °C	Pdh	7.0	kW	Tj = +12 °C	COPd	6.62	-
Degradation co-efficient (**)	Cdh	0.98	-				
Tj = bivalent temperature	Pdh	14.0	kW	Tj = bivalent temperature	COPd	1.84	-
Tj = operation limit temperature (***)	Pdh	13.9	kW	Tj = operation limit temperature (***)	COPd	1.83	-
Bivalent temperature	Tbiv	-7	°C	Operation limit temperature	TOL	-28	°C
Reference design conditions for space heating	Tdesignh	-10	°C	Heating water operating limit temperature	WTOL	60	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P _{OFF}	0.022	kW	Rated heat output (*)	Psup	1.9	kW
Thermostat-off mode	P _{TO}	0.022	kW		Electrical		
Standby mode	P _{SB}	0.022	kW				
Crankcase heater mode	P _{CK}	0.000	kW	Type of energy input			
Other items							
Capacity control	variable			Rated air flow rate, outdoors	-	6000	m³/h
Sound power level, indoors/outdoors	L _{WA}	40 / 70	dBA				
Annual energy consumption	Q _{HE}	10054	kWh				
For heat pump combination heater:							
Declared load profile	L			Water heating energy efficiency	ηwh	138	%
Daily electricity consumption	Qelec	3.580	kWh				
Annual electricity consumption	AEC	788	kWh				

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Model(s):	Outdoor unit:	PUHZ-SHW140YHA(-BS)
	Indoor unit:	EHST20C-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	17.0	kW	Seasonal space heating energy efficiency	ηs	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	15.0	kW	Tj = - 7 °C	COPd	2.59	-
Degradation co-efficient (**)	Cdh	1.00	-				
Tj = + 2 °C	Pdh	9.1	kW	Tj = + 2 °C	COPd	4.01	-
Degradation co-efficient (**)	Cdh	0.99	-				
Tj = + 7 °C	Pdh	5.9	kW	Tj = + 7 °C	COPd	5.71	-
Degradation co-efficient (**)	Cdh	0.98	-				
Tj = +12 °C	Pdh	7.3	kW	Tj = +12 °C	COPd	7.47	-
Degradation co-efficient (**)	Cdh	0.98	-				
Tj = bivalent temperature	Pdh	15.0	kW	Tj = bivalent temperature	COPd	2.59	-
Tj = operation limit temperature (***)	Pdh	14.1	kW	Tj = operation limit temperature (***)	COPd	2.42	-
Bivalent temperature	Tbiv	-7	°C	Operation limit temperature	TOL	-28	°C
Reference design conditions for space heating	Tdesignh	-10	°C	Heating water operating limit temperature	WTOL	60	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P _{OFF}	0.022	kW	Rated heat output (*)	Psup	2.9	kW
Thermostat-off mode	P _{TO}	0.022	kW	Type of energy input	Electrical		
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	-	6000	m³/h
Sound power level, indoors/outdoors	L _{WA}	40 / 70	dBA				
Annual energy consumption	Q _{HE}	8446	kWh				

For heat pump combination heater:

Declared load profile	L			Water heating energy efficiency	η_{wh}	138	%
Daily electricity consumption	Qelec	3.580	kWh				
Annual electricity consumption	AEC	788	kWh				

Contact details

MITSUBISHI ELECTRIC AIR CODITIONING 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

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

Manager, Quality Assurance Department

UNITED KINGDOM

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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:	PUHZ-SHW140YHA(-BS)
	Indoor unit:	EHST20C-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	15.8	kW	Seasonal space heating energy efficiency	η_s	121	%
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	9.6	kW	Tj = - 7 °C	COPd	2.74	-
Degradation co-efficient (**)	Cdh	0.99	-				
Tj = + 2 °C	Pdh	5.8	kW	Tj = + 2 °C	COPd	3.75	-
Degradation co-efficient (**)	Cdh	0.99	-				
Tj = + 7 °C	Pdh	4.2	kW	Tj = + 7 °C	COPd	5.00	-
Degradation co-efficient (**)	Cdh	0.97	-				
Tj = +12 °C	Pdh	7.1	kW	Tj = +12 °C	COPd	6.66	-
Degradation co-efficient (**)	Cdh	0.98	-				
Tj = bivalent temperature	Pdh	13.3	kW	Tj = bivalent temperature	COPd	1.43	-
Tj = operation limit temperature (***)	Pdh	11.2	kW	Tj = operation limit temperature (***)	COPd	1.43	-
Tj = − 15 °C (if TOL < − 20 °C)	Pdh	12.9	kW	Tj = − 15 °C (if TOL < − 20 °C)	COPd	1.56	-
Bivalent temperature	Tbiv	-16	°C	Operation limit temperature	TOL	-28	°C
Reference design conditions for space heating	Tdesignh	-22	°C	Heating water operating limit temperature	WTOL	60	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P _{OFF}	0.022	kW	Rated heat output (*)	Psup	4.6	kW
Thermostat-off mode	P _{TO}	0.022	kW	Type of energy input	Electrical		
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	-	6000	m³/h
Sound power level, indoors/outdoors	L _{WA}	40 / 70	dBA			
Annual energy consumption	Q _{HE}	12569	kWh			

For heat pump combination heater:

Declared load profile	L		Water heating energy efficiency	η_{wh}	121	%
Daily electricity consumption	Qelec	4.070	kWh			
Annual electricity consumption	AEC	895	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:	PUHZ-SHW140YHA(-BS)
	Indoor unit:	EHST20C-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	17.0	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	10.3	kW	Tj = - 7 °C	COPd	3.14	-
Degradation co-efficient (**)	Cdh	0.99	-				
Tj = + 2 °C	Pdh	6.3	kW	Tj = + 2 °C	COPd	4.75	-
Degradation co-efficient (**)	Cdh	0.98	-				
Tj = + 7 °C	Pdh	4.4	kW	Tj = + 7 °C	COPd	6.01	-
Degradation co-efficient (**)	Cdh	0.97	-				
Tj = +12 °C	Pdh	7.3	kW	Tj = +12 °C	COPd	7.47	-
Degradation co-efficient (**)	Cdh	0.98	-				
Tj = bivalent temperature	Pdh	14.3	kW	Tj = bivalent temperature	COPd	2.00	-
Tj = operation limit temperature (***)	Pdh	11.7	kW	Tj = operation limit temperature (***)	COPd	1.72	-
Tj = – 15 °C (if TOL < – 20 °C)	Pdh	13.9	kW	Tj = – 15 °C (if TOL < – 20 °C)	COPd	2.12	-
Bivalent temperature	Tbiv	-16	°C	Operation limit temperature	TOL	-28	°C
Reference design conditions for space heating	Tdesignh	-22	°C	Heating water operating limit temperature	WTOL	60	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P _{OFF}	0.022	kW	Rated heat output (*)	Psup	5.3	kW
Thermostat-off mode	P _{TO}	0.022	kW	Type of energy input	Electrical		
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	-	6000	m³/h
Sound power level, indoors/outdoors	L _{WA}	40 / 70	dBA			
Annual energy consumption	Q _{HE}	11031	kWh			

For heat pump combination heater:

Declared load profile	L		Water heating energy efficiency	η_{wh}	121	%
Daily electricity consumption	Q _{elec}	4.070	kWh			
Annual electricity consumption	AEC	895	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:	PUHZ-SHW140YHA(-BS)
	Indoor unit:	EHST20C-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	14.0	kW	Seasonal space heating energy efficiency	η_s	153	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = - 7 °C	Pdh	-	kW	Tj = - 7 °C	COPd	-	-
Degradation co-efficient (**)	Cdh	-	-				
Tj = + 2 °C	Pdh	14.0	kW	Tj = + 2 °C	COPd	1.92	-
Degradation co-efficient (**)	Cdh	1.00	-				
Tj = + 7 °C	Pdh	9.0	kW	Tj = + 7 °C	COPd	3.12	-
Degradation co-efficient (**)	Cdh	0.99	-				
Tj = +12 °C	Pdh	6.8	kW	Tj = +12 °C	COPd	5.70	-
Degradation co-efficient (**)	Cdh	0.98	-				
Tj = bivalent temperature	Pdh	14.0	kW	Tj = bivalent temperature	COPd	1.92	-
Tj = operation limit temperature (***)	Pdh	14.0	kW	Tj = operation limit temperature (***)	COPd	1.92	-
Bivalent temperature	Tbiv	2	°C	Operation limit temperature	TOL	-28	°C
Reference design conditions for space heating	Tdesignh	2	°C	Heating water operating limit temperature	WTOL	60	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P _{OFF}	0.022	kW	Rated heat output (*)	Psup	0.0	kW
Thermostat-off mode	P _{TO}	0.022	kW	Type of energy input	Electrical		
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			-	6000	m ³ /h	
Sound power level, indoors/outdoors	L _{WA}	40 / 70	dBA				
Annual energy consumption	Q _{HE}	4811	kWh				
For heat pump combination heater:				Water heating energy efficiency			
Declared load profile	L			η_{wh}	160	%	
Daily electricity consumption	Qelec	3.090	kWh				
Annual electricity consumption	AEC	680	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:	PUHZ-SHW140YHA(-BS)
	Indoor unit:	EHST20C-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	15.5	kW	Seasonal space heating energy efficiency	η_s	209	%
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	15.5	kW	Tj = + 2 °C	COPd	2.74	-
Degradation co-efficient (**)	Cdh	1.00	-				
Tj = + 7 °C	Pdh	10.0	kW	Tj = + 7 °C	COPd	4.56	-
Degradation co-efficient (**)	Cdh	0.99	-				
Tj = +12 °C	Pdh	7.2	kW	Tj = +12 °C	COPd	7.23	-
Degradation co-efficient (**)	Cdh	0.98	-				
Tj = bivalent temperature	Pdh	15.5	kW	Tj = bivalent temperature	COPd	2.74	-
Tj = operation limit temperature (***)	Pdh	15.5	kW	Tj = operation limit temperature (***)	COPd	2.74	-
Bivalent temperature	Tbiv	2	°C	Operation limit temperature	TOL	-28	°C
Reference design conditions for space heating	Tdesignh	2	°C	Heating water operating limit temperature	WTOL	60	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P _{OFF}	0.022	kW	Rated heat output (*)	Psup	0.0	kW
Thermostat-off mode	P _{TO}	0.022	kW	Type of energy input	Electrical		
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	-	6000	m³/h
Sound power level, indoors/outdoors	L _{WA}	40 / 70	dBA				
Annual energy consumption	Q _{HE}	3914	kWh				

For heat pump combination heater:

Declared load profile	L			Water heating energy efficiency	η_{wh}	160	%
Daily electricity consumption	Qelec	3.090	kWh				
Annual electricity consumption	AEC	680	kWh				

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Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating sup(Tj).

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

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

PRODUCT INFORMATION / TECHNICAL DOCUMENTATION

Model(s):	Outdoor unit:	PUHZ-SHW140YHA(-BS)
	Indoor unit:	ERST20C-****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	15.8	kW	Seasonal space heating energy efficiency	η_s	128	%
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	14.0	kW	Tj = - 7 °C	COPd	1.84	-
Degradation co-efficient (**)	Cdh	1.00	-				
Tj = + 2 °C	Pdh	8.5	kW	Tj = + 2 °C	COPd	3.10	-
Degradation co-efficient (**)	Cdh	0.99	-				
Tj = + 7 °C	Pdh	5.5	kW	Tj = + 7 °C	COPd	4.67	-
Degradation co-efficient (**)	Cdh	0.98	-				
Tj = +12 °C	Pdh	7.0	kW	Tj = +12 °C	COPd	6.62	-
Degradation co-efficient (**)	Cdh	0.98	-				
Tj = bivalent temperature	Pdh	14.0	kW	Tj = bivalent temperature	COPd	1.84	-
Tj = operation limit temperature (***)	Pdh	13.9	kW	Tj = operation limit temperature (***)	COPd	1.83	-
Bivalent temperature	Tbiv	-7	°C	Operation limit temperature	TOL	-28	°C
Reference design conditions for space heating	Tdesignh	-10	°C	Heating water operating limit temperature	WTOL	60	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P _{OFF}	0.022	kW	Rated heat output (*)	Psup	1.9	kW
Thermostat-off mode	P _{TO}	0.022	kW	Type of energy input	Electrical		
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	-	6000	m ³ /h
Sound power level, indoors/outdoors	L _{WA}	40 / 70	dBA			
Annual energy consumption	Q _{HE}	9973	kWh			

For heat pump combination heater:

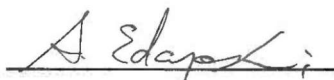
Declared load profile	L		Water heating energy efficiency	η_{wh}	138	%
Daily electricity consumption	Qelec	3.580	kWh			
Annual electricity consumption	AEC	788	kWh			

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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:	PUHZ-SHW140YHA(-BS)
	Indoor unit:	ERST20C-****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	17.0	kW	Seasonal space heating energy efficiency	ηs	165	%
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	15.0	kW	Tj = - 7 °C	COPd	2.59	-
Degradation co-efficient (**)	Cdh	1.00	-				
Tj = + 2 °C	Pdh	9.1	kW	Tj = + 2 °C	COPd	4.03	-
Degradation co-efficient (**)	Cdh	0.99	-				
Tj = + 7 °C	Pdh	5.9	kW	Tj = + 7 °C	COPd	5.71	-
Degradation co-efficient (**)	Cdh	0.98	-				
Tj = +12 °C	Pdh	7.3	kW	Tj = +12 °C	COPd	7.47	-
Degradation co-efficient (**)	Cdh	0.98	-				
Tj = bivalent temperature	Pdh	15.0	kW	Tj = bivalent temperature	COPd	2.59	-
Tj = operation limit temperature (***)	Pdh	14.1	kW	Tj = operation limit temperature (***)	COPd	2.42	-
Bivalent temperature	Tbiv	-7	°C	Operation limit temperature	TOL	-28	°C
Reference design conditions for space heating	Tdesignh	-10	°C	Heating water operating limit temperature	WTOL	60	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P _{OFF}	0.022	kW	Rated heat output (*)	Psup	2.9	kW
Thermostat-off mode	P _{TO}	0.022	kW	Type of energy input	Electrical		
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	-	6000	m ³ /h
Sound power level, indoors/outdoors	L _{WA}	40 / 70	dBA				
Annual energy consumption	Q _{HE}	8344	kWh				

For heat pump combination heater:

Declared load profile	L			Water heating energy efficiency	η_{wh}	138	%
Daily electricity consumption	Q _{elec}	3.580	kWh				
Annual electricity consumption	AEC	788	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:	PUHZ-SHW140YHA(-BS)
	Indoor unit:	ERST20C-****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	15.8	kW	Seasonal space heating energy efficiency	η_s	122	%
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	9.6	kW	Tj = - 7 °C	COPd	2.76	-
Degradation co-efficient (**)	Cdh	0.99	-				
Tj = + 2 °C	Pdh	5.8	kW	Tj = + 2 °C	COPd	3.75	-
Degradation co-efficient (**)	Cdh	0.99	-				
Tj = + 7 °C	Pdh	4.2	kW	Tj = + 7 °C	COPd	5.00	-
Degradation co-efficient (**)	Cdh	0.97	-				
Tj = +12 °C	Pdh	7.1	kW	Tj = +12 °C	COPd	6.66	-
Degradation co-efficient (**)	Cdh	0.98	-				
Tj = bivalent temperature	Pdh	13.3	kW	Tj = bivalent temperature	COPd	1.43	-
Tj = operation limit temperature (***)	Pdh	11.2	kW	Tj = operation limit temperature (***)	COPd	1.43	-
Tj = – 15 °C (if TOL < – 20 °C)	Pdh	12.9	kW	Tj = – 15 °C (if TOL < – 20 °C)	COPd	1.56	-
Bivalent temperature	Tbiv	-16	°C	Operation limit temperature	TOL	-28	°C
Reference design conditions for space heating	Tdesignh	-22	°C	Heating water operating limit temperature	WTOL	60	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P _{OFF}	0.022	kW	Rated heat output (*)	Psup	4.6	kW
Thermostat-off mode	P _{TO}	0.022	kW	Type of energy input	Electrical		
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	-	6000	m³/h
Sound power level, indoors/outdoors	L _{WA}	40 / 70	dBA			
Annual energy consumption	Q _{HE}	12491	kWh			

For heat pump combination heater:

Declared load profile	L		Water heating energy efficiency	η_{wh}	121	%
Daily electricity consumption	Q _{elec}	4.070	kWh			
Annual electricity consumption	AEC	895	kWh			

Contact details

MITSUBISHI ELECTRIC AIR CODITIONING 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

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

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:	PUHZ-SHW140YHA(-BS)
	Indoor unit:	ERST20C-****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	17.0	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	10.3	kW	Tj = - 7 °C	COPd	3.18	-
Degradation co-efficient (**)	Cdh	0.99	-				
Tj = + 2 °C	Pdh	6.3	kW	Tj = + 2 °C	COPd	4.75	-
Degradation co-efficient (**)	Cdh	0.98	-				
Tj = + 7 °C	Pdh	4.4	kW	Tj = + 7 °C	COPd	6.01	-
Degradation co-efficient (**)	Cdh	0.97	-				
Tj = +12 °C	Pdh	7.3	kW	Tj = +12 °C	COPd	7.47	-
Degradation co-efficient (**)	Cdh	0.98	-				
Tj = bivalent temperature	Pdh	14.3	kW	Tj = bivalent temperature	COPd	2.00	-
Tj = operation limit temperature (***)	Pdh	11.7	kW	Tj = operation limit temperature (***)	COPd	1.72	-
Tj = − 15 °C (if TOL < − 20 °C)	Pdh	13.9	kW	Tj = − 15 °C (if TOL < − 20 °C)	COPd	2.12	-
Bivalent temperature	Tbiv	-16	°C	Operation limit temperature	TOL	-28	°C
Reference design conditions for space heating	Tdesignh	-22	°C	Heating water operating limit temperature	WTOL	60	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P _{OFF}	0.022	kW	Rated heat output (*)	Psup	5.3	kW
Thermostat-off mode	P _{TO}	0.022	kW	Type of energy input	Electrical		
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	-	6000	m³/h
Sound power level, indoors/outdoors	L _{WA}	40 / 70	dBA			
Annual energy consumption	Q _{HE}	10938	kWh			

For heat pump combination heater:

Declared load profile	L		Water heating energy efficiency	η_{wh}	121	%
Daily electricity consumption	Q _{elec}	4.070	kWh			
Annual electricity consumption	AEC	895	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:	PUHZ-SHW140YHA(-BS)
	Indoor unit:	ERST20C-****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	14.0	kW	Seasonal space heating energy efficiency	η_s	154	%
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	14.0	kW	Tj = + 2 °C	COPd	1.92	-
Degradation co-efficient (**)	Cdh	1.00	-				
Tj = + 7 °C	Pdh	9.0	kW	Tj = + 7 °C	COPd	3.12	-
Degradation co-efficient (**)	Cdh	0.99	-				
Tj = +12 °C	Pdh	6.8	kW	Tj = +12 °C	COPd	5.60	-
Degradation co-efficient (**)	Cdh	0.98	-				
Tj = bivalent temperature	Pdh	14.0	kW	Tj = bivalent temperature	COPd	1.92	-
Tj = operation limit temperature (***)	Pdh	14.0	kW	Tj = operation limit temperature (***)	COPd	1.92	-
Bivalent temperature	Tbiv	2	°C	Operation limit temperature	TOL	-28	°C
Reference design conditions for space heating	Tdesignh	2	°C	Heating water operating limit temperature	WTOL	60	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P _{OFF}	0.022	kW	Rated heat output (*)	Psup	0.0	kW
Thermostat-off mode	P _{TO}	0.022	kW	Type of energy input	Electrical		
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	-	6000	m³/h
Sound power level, indoors/outdoors	L _{WA}	40 / 70	dBA				
Annual energy consumption	Q _{HE}	4750	kWh				

For heat pump combination heater:

Declared load profile	L			Water heating energy efficiency	η_{wh}	160	%
Daily electricity consumption	Qelec	3.090	kWh				
Annual electricity consumption	AEC	680	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:	PUHZ-SHW140YHA(-BS)
	Indoor unit:	ERST20C-****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	15.5	kW	Seasonal space heating energy efficiency	η_s	211	%
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	15.5	kW	Tj = + 2 °C	COPd	2.74	-
Degradation co-efficient (**)	Cdh	1.00	-				
Tj = + 7 °C	Pdh	10.0	kW	Tj = + 7 °C	COPd	4.56	-
Degradation co-efficient (**)	Cdh	0.99	-				
Tj = +12 °C	Pdh	7.2	kW	Tj = +12 °C	COPd	7.04	-
Degradation co-efficient (**)	Cdh	0.98	-				
Tj = bivalent temperature	Pdh	15.5	kW	Tj = bivalent temperature	COPd	2.74	-
Tj = operation limit temperature (***)	Pdh	15.5	kW	Tj = operation limit temperature (***)	COPd	2.74	-
Bivalent temperature	Tbiv	2	°C	Operation limit temperature	TOL	-28	°C
Reference design conditions for space heating	Tdesignh	2	°C	Heating water operating limit temperature	WTOL	60	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P _{OFF}	0.022	kW	Rated heat output (*)	Psup	0.0	kW
Thermostat-off mode	P _{TO}	0.022	kW				
Standby mode	P _{SB}	0.022	kW	Type of energy input		Electrical	
Crankcase heater mode	P _{CK}	0.000	kW				

Other items

Capacity control	variable			Rated air flow rate, outdoors	-	6000	m³/h
Sound power level, indoors/outdoors	L _{WA}	40 / 70	dBA				
Annual energy consumption	Q _{HE}	3864	kWh				

For heat pump combination heater:

Declared load profile	L			Water heating energy efficiency	η_{wh}	160	%
Daily electricity consumption	Qelec	3.090	kWh				
Annual electricity consumption	AEC	680	kWh				

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