PRODUCT INFORMATION / TECHNICAL DOCUMENTATION

Model(s):	Outdoor unit:	PUHZ-SHW140YHA(-BS)
	Indoor unit:	EHST30C-****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
Rated heat output (*)	Prated	15.8	kW
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T j			
Tj = - 7 °C	Pdh	14.0	kW
Degradation co-efficient (**)	Cdh	1.00	-
Tj = + 2 °C	Pdh	8.5	kW
Degradation co-efficient (**)	Cdh	0.99	-
Tj = + 7 °C	Pdh	5.5	kW
Degradation co-efficient (**)	Cdh	0.98	-
Tj = +12 °C	Pdh	7.0	kW
Degradation co-efficient (**)	Cdh	0.98	-
Tj = bivalent temperature	Pdh	14.0	kW
Tj = operation limit temperature (***)	Pdh	13.9	kW
Bivalent temperature	Tbiv	-7	°C
Reference design conditions for space heating	Tdesignh	-10	°C
Power consumption in modes other than active mode			
Off mode	P_{OFF}	0.022	kW
Thermostat-off mode	P_{TO}	0.022	kW
Standby mode	P_{SB}	0.022	kW
Crankcase heater mode	P_{CK}	0.000	kW
Other items			
Capacity control		variable	
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		XL	
Daily electricity consumption	Qelec	6.710	kWh
Annual electricity consumption	AEC	1476	kWh

Item	Symbol	Value	Unit
Seasonal space heating energy efficiency	ηs	127	%
Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = - 7 °C	COPd	1.84	-
Tj = + 2 °C	COPd	3.10	-
Tj = + 7 °C	COPd	4.67	-
Tj = +12 °C	COPd	6.62	-
Tj = bivalent temperature	COPd	1.84	-
Tj = operation limit temperature (***)	COPd	1.83	-
Operation limit temperature	TOL	-28	°C
Heating water operating limit temperature	WTOL	60	°C
Supplementary heater			
Rated heat output (*)	Psup	1.9	kW
Type of energy input		Electrical	
Rated air flow rate, outdoors	-	6000	m^3/h
Water heating energy efficiency	ηwh	118	%

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 Assuarance 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.

This information is based on EU regulation No 811/2013 and No 813/2013.

PRODUCT INFORMATION / TECHNICAL DOCUMENTATION

Model(s):	Outdoor unit:	PUHZ-SHW140YHA(-BS)
	Indoor unit:	EHST30C-****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
Rated heat output (*)	Prated	17.0	kW
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T j			
Tj = - 7 °C	Pdh	15.0	kW
Degradation co-efficient (**)	Cdh	1.00	-
Tj = + 2 °C	Pdh	9.1	kW
Degradation co-efficient (**)	Cdh	0.99	-
Tj = + 7 °C	Pdh	5.9	kW
Degradation co-efficient (**)	Cdh	0.98	-
Tj = +12 °C	Pdh	7.3	kW
Degradation co-efficient (**)	Cdh	0.98	-
Tj = bivalent temperature	Pdh	15.0	kW
Tj = operation limit temperature (***)	Pdh	14.1	kW
Bivalent temperature	Tbiv	-7	°C
Reference design conditions for space heating	Tdesignh	-10	°C
Power consumption in modes other than active mode			
Off mode	P_{OFF}	0.022	kW
Thermostat-off mode	P_{TO}	0.022	kW
Standby mode	P_{SB}	0.022	kW
Crankcase heater mode	P_{CK}	0.000	kW
Other items			
Capacity control		variable	
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		XL	
Daily electricity consumption	Qelec	6.710	kWh
Annual electricity consumption	AEC	1476	kWh

Item	Symbol	Value	Unit
Seasonal space heating energy efficiency	ηs	163	%
Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = - 7 °C	COPd	2.59	-
Tj = + 2 °C	COPd	4.01	-
Tj = + 7 °C	COPd	5.71	-
Tj = +12 °C	COPd	7.47	-
Tj = bivalent temperature	COPd	2.59	-
Tj = operation limit temperature (***)	COPd	2.42	-
Operation limit temperature	TOL	-28	°C
Heating water operating limit temperature	WTOL	60	°C
Supplementary heater			
Rated heat output (*)	Psup	2.9	kW
Type of energy input		Electrical	
Rated air flow rate, outdoors	-	6000	m^3/h
Water heating energy efficiency	ηwh	118	%

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;

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

Atsushi EDAYOSHI
Manager, Quality Assuarance 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.

This information is based on EU regulation No 811/2013 and No 813/2013.

PRODUCT INFORMATION / TECHNICAL DOCUMENTATION

Model(s):	Outdoor unit:	PUHZ-SHW140YHA(-BS)
	Indoor unit:	EHST30C-****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
Rated heat output (*)	Prated	15.8	kW
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T j			
Tj = - 7 °C	Pdh	9.6	kW
Degradation co-efficient (**)	Cdh	0.99	-
Tj = + 2 °C	Pdh	5.8	kW
Degradation co-efficient (**)	Cdh	0.99	-
Tj = + 7 °C	Pdh	4.2	kW
Degradation co-efficient (**)	Cdh	0.97	-
Tj = +12 °C	Pdh	7.1	kW
Degradation co-efficient (**)	Cdh	0.98	-
Tj = bivalent temperature	Pdh	13.3	kW
Tj = operation limit temperature (***)	Pdh	11.2	kW
Tj = – 15 °C (if TOL < – 20 °C)	Pdh	12.9	kW
Bivalent temperature	Tbiv	-16	°C
Reference design conditions for space heating	Tdesignh	-22	°C
Power consumption in modes other than active mode			
Off mode	P_{OFF}	0.022	kW
Thermostat-off mode	P_{TO}	0.022	kW
Standby mode	P_{SB}	0.022	kW
Crankcase heater mode	P_{CK}	0.000	kW
Other items			
Capacity control		variable	
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		XL	
Daily electricity consumption	Qelec	8.640	kWh
Annual electricity consumption	AEC	1901	kWh

Item	Symbol	Value	Unit
Seasonal space heating energy efficiency	ηs	121	%
Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = - 7 °C	COPd	2.74	-
Tj = + 2 °C	COPd	3.75	-
Tj = + 7 °C	COPd	5.00	-
Tj = +12 °C	COPd	6.66	-
Tj = bivalent temperature	COPd	1.43	-
Tj = operation limit temperature (***)	COPd	1.43	-
Tj = – 15 °C (if TOL < – 20 °C)	COPd	1.56	-
Operation limit temperature	TOL	-28	°C
Heating water operating limit temperature	WTOL	60	°C
Supplementary heater			
Rated heat output (*)	Psup	4.6	kW
Type of energy input		Electrical	
Rated air flow rate, outdoors	-	6000	m^3/h
Water heating energy efficiency	ηwh	91	%

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;

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

Atsushi EDAYOSHI
Manager, Quality Assuarance 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.

This information is based on EU regulation No 811/2013 and No 813/2013.

PRODUCT INFORMATION / TECHNICAL DOCUMENTATION

Model(s):	Outdoor unit:	PUHZ-SHW140YHA(-BS)
	Indoor unit:	EHST30C-****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
Rated heat output (*)	Prated	17.0	kW
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T j			
Tj = - 7 °C	Pdh	10.3	kW
Degradation co-efficient (**)	Cdh	0.99	-
Tj = + 2 °C	Pdh	6.3	kW
Degradation co-efficient (**)	Cdh	0.98	-
Tj = + 7 °C	Pdh	4.4	kW
Degradation co-efficient (**)	Cdh	0.97	-
Tj = +12 °C	Pdh	7.3	kW
Degradation co-efficient (**)	Cdh	0.98	-
Tj = bivalent temperature	Pdh	14.3	kW
Tj = operation limit temperature (***)	Pdh	11.7	kW
Tj = – 15 °C (if TOL < – 20 °C)	Pdh	13.9	kW
Bivalent temperature	Tbiv	-16	°C
Reference design conditions for space heating	Tdesignh	-22	°C
Power consumption in modes other than active mode			
Off mode	P_{OFF}	0.022	kW
Thermostat-off mode	P_{TO}	0.022	kW
Standby mode	P_{SB}	0.022	kW
Crankcase heater mode	P_{CK}	0.000	kW
Other items			
Capacity control		variable	
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		XL	
Daily electricity consumption	Qelec	8.640	kWh
Annual electricity consumption	AEC	1901	kWh

Item	Symbol	Value	Unit
Seasonal space heating energy efficiency	ηs	149	%
Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = - 7 °C	COPd	3.14	-
Tj = + 2 °C	COPd	4.75	-
Tj = + 7 °C	COPd	6.01	-
Tj = +12 °C	COPd	7.47	-
Tj = bivalent temperature	COPd	2.00	-
Tj = operation limit temperature (***)	COPd	1.72	-
Tj = – 15 °C (if TOL < – 20 °C)	COPd	2.12	-
Operation limit temperature	TOL	-28	°C
Heating water operating limit temperature	WTOL	60	°C
Supplementary heater			
Rated heat output (*)	Psup	5.3	kW
Type of energy input		Electrical	
Rated air flow rate, outdoors	-	6000	m^3/h
Water heating energy efficiency	ηwh	91	%

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;

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

Atsushi EDAYOSHI
Manager, Quality Assuarance 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.

This information is based on EU regulation No 811/2013 and No 813/2013.

PRODUCT INFORMATION / TECHNICAL DOCUMENTATION

Model(s):	Outdoor unit:	PUHZ-SHW140YHA(-BS)
	Indoor unit:	EHST30C-****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
Rated heat output (*)	Prated	14.0	kW
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T j			
Tj = - 7 °C	Pdh	-	kW
Degradation co-efficient (**)	Cdh	-	-
Tj = + 2 °C	Pdh	14.0	kW
Degradation co-efficient (**)	Cdh	1.00	-
Tj = + 7 °C	Pdh	9.0	kW
Degradation co-efficient (**)	Cdh	0.99	-
Tj = +12 °C	Pdh	6.8	kW
Degradation co-efficient (**)	Cdh	0.98	-
Tj = bivalent temperature	Pdh	14.0	kW
Tj = operation limit temperature (***)	Pdh	14.0	kW
Bivalent temperature	Tbiv	2	°C
Reference design conditions for space heating	Tdesignh	2	°C
Power consumption in modes other than active mode			
Off mode	P_{OFF}	0.022	kW
Thermostat-off mode	P_{TO}	0.022	kW
Standby mode	P_{SB}	0.022	kW
Crankcase heater mode	P_{CK}	0.000	kW
Other items			
Capacity control		variable	
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		XL	
Daily electricity consumption	Qelec	6.270	kWh
Annual electricity consumption	AEC	1379	kWh

Item	Symbol	Value	Unit
Seasonal space heating energy efficiency	ηs	153	%
Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = - 7 °C	COPd	-	-
Tj = + 2 °C	COPd	1.92	-
Tj = + 7 °C	COPd	3.12	-
Tj = +12 °C	COPd	5.70	-
Tj = bivalent temperature	COPd	1.92	-
Tj = operation limit temperature (***)	COPd	1.92	-
Operation limit temperature	TOL	-28	°C
Heating water operating limit temperature	WTOL	60	°C
Supplementary heater			
Rated heat output (*)	Psup	0.0	kW
Type of energy input		Electrical	
Rated air flow rate, outdoors	-	6000	m^3/h
Water heating energy efficiency	ηwh	126	%

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;

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

Atsushi EDAYOSHI
Manager, Quality Assuarance 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.

This information is based on EU regulation No 811/2013 and No 813/2013.

PRODUCT INFORMATION / TECHNICAL DOCUMENTATION

Model(s):	Outdoor unit:	PUHZ-SHW140YHA(-BS)
	Indoor unit:	EHST30C-****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
Rated heat output (*)	Prated	15.5	kW
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T j			
Tj = - 7 °C	Pdh	-	kW
Degradation co-efficient (**)	Cdh	-	-
Tj = + 2 °C	Pdh	15.5	kW
Degradation co-efficient (**)	Cdh	1.00	-
Tj = + 7 °C	Pdh	10.0	kW
Degradation co-efficient (**)	Cdh	0.99	-
Tj = +12 °C	Pdh	7.2	kW
Degradation co-efficient (**)	Cdh	0.98	-
Tj = bivalent temperature	Pdh	15.5	kW
Tj = operation limit temperature (***)	Pdh	15.5	kW
Bivalent temperature	Tbiv	2	°C
Reference design conditions for space heating	Tdesignh	2	°C
Power consumption in modes other than active mode			
Off mode	P_{OFF}	0.022	kW
Thermostat-off mode	P_{TO}	0.022	kW
Standby mode	P_{SB}	0.022	kW
Crankcase heater mode	P_{CK}	0.000	kW
Other items			
Capacity control		variable	
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		XL	
Daily electricity consumption	Qelec	6.270	kWh
Annual electricity consumption	AEC	1379	kWh

Item	Symbol	Value	Unit
Seasonal space heating energy efficiency	ηs	209	%
Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = - 7 °C	COPd	-	-
Tj = + 2 °C	COPd	2.74	-
Tj = + 7 °C	COPd	4.56	-
Tj = +12 °C	COPd	7.23	-
Tj = bivalent temperature	COPd	2.74	-
Tj = operation limit temperature (***)	COPd	2.74	-
Operation limit temperature	TOL	-28	°C
Heating water operating limit temperature	WTOL	60	°C
Supplementary heater			
Rated heat output (*)	Psup	0.0	kW
Type of energy input		Electrical	
Rated air flow rate, outdoors	-	6000	m^3/h
Water heating energy efficiency	ηwh	126	%

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;

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

Atsushi EDAYOSHI
Manager, Quality Assuarance 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.

This information is based on EU regulation No 811/2013 and No 813/2013.

PRODUCT INFORMATION / TECHNICAL DOCUMENTATION

Model(s):	Outdoor unit:	PUHZ-SHW140YHA(-BS)
	Indoor unit:	EHST30C-MED
Air-to-water heat pump:		yes
Water-to-water heat pump:		no
Brine-to-water heat pump:		no
Low-temperature heat pump:		no
Equipped with a supplementary heater:		no
Heat pump combination heater:		yes
Parameters for		medium-temperature application.
Parameters for		average climate conditions.

Item	Symbol	Value	Unit
Rated heat output (*)	Prated	15.8	kW
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T j			
Tj = - 7 °C	Pdh	14.0	kW
Degradation co-efficient (**)	Cdh	1.00	-
Tj = + 2 °C	Pdh	8.5	kW
Degradation co-efficient (**)	Cdh	0.99	-
Tj = + 7 °C	Pdh	5.5	kW
Degradation co-efficient (**)	Cdh	0.98	-
Tj = +12 °C	Pdh	7.0	kW
Degradation co-efficient (**)	Cdh	0.98	-
Tj = bivalent temperature	Pdh	14.0	kW
Tj = operation limit temperature (***)	Pdh	13.9	kW
Bivalent temperature	Tbiv	-7	°C
Reference design conditions for space heating	Tdesignh	-10	°C
Power consumption in modes other than active mode			
Off mode	P_{OFF}	0.022	kW
Thermostat-off mode	P_{TO}	0.022	kW
Standby mode	P_{SB}	0.022	kW
Crankcase heater mode	P_{CK}	0.000	kW
Other items			
Capacity control		variable	
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		XL	
Daily electricity consumption	Qelec	6.710	kWh
Annual electricity consumption	AEC	1476	kWh

Item	Symbol	Value	Unit
Seasonal space heating energy efficiency	ηs	127	%
Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = - 7 °C	COPd	1.84	-
Tj = + 2 °C	COPd	3.10	-
Tj = + 7 °C	COPd	4.67	-
Tj = +12 °C	COPd	6.62	-
Tj = bivalent temperature	COPd	1.84	-
Tj = operation limit temperature (***)	COPd	1.83	-
Operation limit temperature	TOL	-28	°C
Heating water operating limit temperature	WTOL	60	°C
Supplementary heater			
Rated heat output (*)	Psup	1.9	kW
Type of energy input		Electrical	
Rated air flow rate, outdoors	-	6000	m^3/h
Water heating energy efficiency	ηwh	118	%

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 Assuarance 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.

This information is based on EU regulation No 811/2013 and No 813/2013.

PRODUCT INFORMATION / TECHNICAL DOCUMENTATION

Model(s):	Outdoor unit:	PUHZ-SHW140YHA(-BS)
	Indoor unit:	EHST30C-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
Rated heat output (*)	Prated	17.0	kW
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T j			
Tj = - 7 °C	Pdh	15.0	kW
Degradation co-efficient (**)	Cdh	1.00	-
Tj = + 2 °C	Pdh	9.1	kW
Degradation co-efficient (**)	Cdh	0.99	-
Tj = + 7 °C	Pdh	5.9	kW
Degradation co-efficient (**)	Cdh	0.98	-
Tj = +12 °C	Pdh	7.3	kW
Degradation co-efficient (**)	Cdh	0.98	-
Tj = bivalent temperature	Pdh	15.0	kW
Tj = operation limit temperature (***)	Pdh	14.1	kW
Bivalent temperature	Tbiv	-7	°C
Reference design conditions for space heating	Tdesignh	-10	°C
Power consumption in modes other than active mode			
Off mode	P_{OFF}	0.022	kW
Thermostat-off mode	P_{TO}	0.022	kW
Standby mode	P_{SB}	0.022	kW
Crankcase heater mode	P_{CK}	0.000	kW
Other items			
Capacity control		variable	
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		XL	
Daily electricity consumption	Qelec	6.710	kWh
Annual electricity consumption	AEC	1476	kWh

Item	Symbol	Value	Unit
Seasonal space heating energy efficiency	ηs	163	%
Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = - 7 °C	COPd	2.59	-
Tj = + 2 °C	COPd	4.01	-
Tj = + 7 °C	COPd	5.71	-
Tj = +12 °C	COPd	7.47	-
Tj = bivalent temperature	COPd	2.59	-
Tj = operation limit temperature (***)	COPd	2.42	-
Operation limit temperature	TOL	-28	°C
Heating water operating limit temperature	WTOL	60	°C
Supplementary heater			
Rated heat output (*)	Psup	2.9	kW
Type of energy input		Electrical	
Rated air flow rate, outdoors	-	6000	m^3/h
Water heating energy efficiency	ηwh	118	%

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;

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

Atsushi EDAYOSHI
Manager, Quality Assuarance 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.

This information is based on EU regulation No 811/2013 and No 813/2013.

PRODUCT INFORMATION / TECHNICAL DOCUMENTATION

Model(s):	Outdoor unit:	PUHZ-SHW140YHA(-BS)
	Indoor unit:	EHST30C-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
Rated heat output (*)	Prated	15.8	kW
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T j			
Tj = - 7 °C	Pdh	9.6	kW
Degradation co-efficient (**)	Cdh	0.99	-
Tj = + 2 °C	Pdh	5.8	kW
Degradation co-efficient (**)	Cdh	0.99	-
Tj = + 7 °C	Pdh	4.2	kW
Degradation co-efficient (**)	Cdh	0.97	-
Tj = +12 °C	Pdh	7.1	kW
Degradation co-efficient (**)	Cdh	0.98	-
Tj = bivalent temperature	Pdh	13.3	kW
Tj = operation limit temperature (***)	Pdh	11.2	kW
Tj = – 15 °C (if TOL < – 20 °C)	Pdh	12.9	kW
Bivalent temperature	Tbiv	-16	°C
Reference design conditions for space heating	Tdesignh	-22	°C
Power consumption in modes other than active mode			
Off mode	P_{OFF}	0.022	kW
Thermostat-off mode	P_{TO}	0.022	kW
Standby mode	P_{SB}	0.022	kW
Crankcase heater mode	P_{CK}	0.000	kW
Other items			
Capacity control		variable	
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		XL	
Daily electricity consumption	Qelec	8.640	kWh
Annual electricity consumption	AEC	1901	kWh

Item	Symbol	Value	Unit
Seasonal space heating energy efficiency	ηs	121	%
Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = - 7 °C	COPd	2.74	-
Tj = + 2 °C	COPd	3.75	-
Tj = + 7 °C	COPd	5.00	-
Tj = +12 °C	COPd	6.66	-
Tj = bivalent temperature	COPd	1.43	-
Tj = operation limit temperature (***)	COPd	1.43	-
Tj = – 15 °C (if TOL < – 20 °C)	COPd	1.56	-
Operation limit temperature	TOL	-28	°C
Heating water operating limit temperature	WTOL	60	°C
Supplementary heater			
Rated heat output (*)	Psup	4.6	kW
Type of energy input		Electrical	
Rated air flow rate, outdoors	-	6000	m^3/h
Water heating energy efficiency	ηwh	91	%

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;

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

Atsushi EDAYOSHI
Manager, Quality Assuarance 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.

This information is based on EU regulation No 811/2013 and No 813/2013.

PRODUCT INFORMATION / TECHNICAL DOCUMENTATION

Model(s):	Outdoor unit:	PUHZ-SHW140YHA(-BS)
	Indoor unit:	EHST30C-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
Rated heat output (*)	Prated	17.0	kW
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T j			
Tj = - 7 °C	Pdh	10.3	kW
Degradation co-efficient (**)	Cdh	0.99	-
Tj = + 2 °C	Pdh	6.3	kW
Degradation co-efficient (**)	Cdh	0.98	-
Tj = + 7 °C	Pdh	4.4	kW
Degradation co-efficient (**)	Cdh	0.97	-
Tj = +12 °C	Pdh	7.3	kW
Degradation co-efficient (**)	Cdh	0.98	-
Tj = bivalent temperature	Pdh	14.3	kW
Tj = operation limit temperature (***)	Pdh	11.7	kW
Tj = – 15 °C (if TOL < – 20 °C)	Pdh	13.9	kW
Bivalent temperature	Tbiv	-16	°C
Reference design conditions for space heating	Tdesignh	-22	°C
Power consumption in modes other than active mode			
Off mode	P_{OFF}	0.022	kW
Thermostat-off mode	P_{TO}	0.022	kW
Standby mode	P_{SB}	0.022	kW
Crankcase heater mode	P_{CK}	0.000	kW
Other items			
Capacity control		variable	
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		XL	
Daily electricity consumption	Qelec	8.640	kWh
Annual electricity consumption	AEC	1901	kWh

Item	Symbol	Value	Unit
Seasonal space heating energy efficiency	ηs	149	%
Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = - 7 °C	COPd	3.14	-
Tj = + 2 °C	COPd	4.75	-
Tj = + 7 °C	COPd	6.01	-
Tj = +12 °C	COPd	7.47	-
Tj = bivalent temperature	COPd	2.00	-
Tj = operation limit temperature (***)	COPd	1.72	-
Tj = – 15 °C (if TOL < – 20 °C)	COPd	2.12	-
Operation limit temperature	TOL	-28	°C
Heating water operating limit temperature	WTOL	60	°C
Supplementary heater			
Rated heat output (*)	Psup	5.3	kW
Type of energy input		Electrical	
Rated air flow rate, outdoors	-	6000	m^3/h
Water heating energy efficiency	ηwh	91	%

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;

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

Atsushi EDAYOSHI
Manager, Quality Assuarance 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.

This information is based on EU regulation No 811/2013 and No 813/2013.

PRODUCT INFORMATION / TECHNICAL DOCUMENTATION

Model(s):	Outdoor unit:	PUHZ-SHW140YHA(-BS)
	Indoor unit:	EHST30C-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
Rated heat output (*)	Prated	14.0	kW
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T j			
Tj = - 7 °C	Pdh	-	kW
Degradation co-efficient (**)	Cdh	-	-
Tj = + 2 °C	Pdh	14.0	kW
Degradation co-efficient (**)	Cdh	1.00	-
Tj = + 7 °C	Pdh	9.0	kW
Degradation co-efficient (**)	Cdh	0.99	-
Tj = +12 °C	Pdh	6.8	kW
Degradation co-efficient (**)	Cdh	0.98	-
Tj = bivalent temperature	Pdh	14.0	kW
Tj = operation limit temperature (***)	Pdh	14.0	kW
Bivalent temperature	Tbiv	2	°C
Reference design conditions for space heating	Tdesignh	2	°C
Power consumption in modes other than active mode			
Off mode	P_{OFF}	0.022	kW
Thermostat-off mode	P_{TO}	0.022	kW
Standby mode	P_{SB}	0.022	kW
Crankcase heater mode	P_{CK}	0.000	kW
Other items			
Capacity control		variable	
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		XL	
Daily electricity consumption	Qelec	6.270	kWh
Annual electricity consumption	AEC	1379	kWh

Item	Symbol	Value	Unit
Seasonal space heating energy efficiency	ηs	153	%
Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = - 7 °C	COPd	-	-
Tj = + 2 °C	COPd	1.92	-
Tj = + 7 °C	COPd	3.12	-
Tj = +12 °C	COPd	5.70	-
Tj = bivalent temperature	COPd	1.92	-
Tj = operation limit temperature (***)	COPd	1.92	-
Operation limit temperature	TOL	-28	°C
Heating water operating limit temperature	WTOL	60	°C
Supplementary heater			
Rated heat output (*)	Psup	0.0	kW
Type of energy input		Electrical	
Rated air flow rate, outdoors	-	6000	m^3/h
Water heating energy efficiency	ηwh	126	%

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;

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

Atsushi EDAYOSHI
Manager, Quality Assuarance 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.

This information is based on EU regulation No 811/2013 and No 813/2013.

PRODUCT INFORMATION / TECHNICAL DOCUMENTATION

Model(s):	Outdoor unit:	PUHZ-SHW140YHA(-BS)
	Indoor unit:	EHST30C-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
Rated heat output (*)	Prated	15.5	kW
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T j			
Tj = - 7 °C	Pdh	-	kW
Degradation co-efficient (**)	Cdh	-	-
Tj = + 2 °C	Pdh	15.5	kW
Degradation co-efficient (**)	Cdh	1.00	-
Tj = + 7 °C	Pdh	10.0	kW
Degradation co-efficient (**)	Cdh	0.99	-
Tj = +12 °C	Pdh	7.2	kW
Degradation co-efficient (**)	Cdh	0.98	-
Tj = bivalent temperature	Pdh	15.5	kW
Tj = operation limit temperature (***)	Pdh	15.5	kW
Bivalent temperature	Tbiv	2	°C
Reference design conditions for space heating	Tdesignh	2	°C
Power consumption in modes other than active mode			
Off mode	P_{OFF}	0.022	kW
Thermostat-off mode	P_{TO}	0.022	kW
Standby mode	P_{SB}	0.022	kW
Crankcase heater mode	P_{CK}	0.000	kW
Other items			
Capacity control		variable	
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		XL	
Daily electricity consumption	Qelec	6.270	kWh
Annual electricity consumption	AEC	1379	kWh

Item	Symbol	Value	Unit
Seasonal space heating energy efficiency	ηs	209	%
Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = - 7 °C	COPd	-	-
Tj = + 2 °C	COPd	2.74	-
Tj = + 7 °C	COPd	4.56	-
Tj = +12 °C	COPd	7.23	-
Tj = bivalent temperature	COPd	2.74	-
Tj = operation limit temperature (***)	COPd	2.74	-
Operation limit temperature	TOL	-28	°C
Heating water operating limit temperature	WTOL	60	°C
Supplementary heater			
Rated heat output (*)	Psup	0.0	kW
Type of energy input		Electrical	
Rated air flow rate, outdoors	-	6000	m^3/h
Water heating energy efficiency	ηwh	126	%

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;

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

Atsushi EDAYOSHI
Manager, Quality Assuarance 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.

This information is based on EU regulation No 811/2013 and No 813/2013.

PRODUCT INFORMATION / TECHNICAL DOCUMENTATION

Model(s):	Outdoor unit:	PUHZ-SHW140YHA(-BS)
	Indoor unit:	ERST30C-****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
Rated heat output (*)	Prated	15.8	kW
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T j			
Tj = - 7 °C	Pdh	14.0	kW
Degradation co-efficient (**)	Cdh	1.00	-
Tj = + 2 °C	Pdh	8.5	kW
Degradation co-efficient (**)	Cdh	0.99	-
Tj = + 7 °C	Pdh	5.5	kW
Degradation co-efficient (**)	Cdh	0.98	-
Tj = +12 °C	Pdh	7.0	kW
Degradation co-efficient (**)	Cdh	0.98	-
Tj = bivalent temperature	Pdh	14.0	kW
Tj = operation limit temperature (***)	Pdh	13.9	kW
Bivalent temperature	Tbiv	-7	°C
Reference design conditions for space heating	Tdesignh	-10	°C
Power consumption in modes other than active mode			
Off mode	P_{OFF}	0.022	kW
Thermostat-off mode	P_{TO}	0.022	kW
Standby mode	P_{SB}	0.022	kW
Crankcase heater mode	P_{CK}	0.000	kW
Other items			
Capacity control		variable	
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		XL	
Daily electricity consumption	Qelec	6.710	kWh
Annual electricity consumption	AEC	1476	kWh

Item	Symbol	Value	Unit
Seasonal space heating energy efficiency	ηs	128	%
Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = - 7 °C	COPd	1.84	-
Tj = + 2 °C	COPd	3.10	-
Tj = + 7 °C	COPd	4.67	-
Tj = +12 °C	COPd	6.62	-
Tj = bivalent temperature	COPd	1.84	-
Tj = operation limit temperature (***)	COPd	1.83	-
Operation limit temperature	TOL	-28	°C
Heating water operating limit temperature	WTOL	60	°C
Supplementary heater			
Rated heat output (*)	Psup	1.9	kW
Type of energy input		Electrical	
Rated air flow rate, outdoors	-	6000	m^3/h
Water heating energy efficiency	ηwh	118	%

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 Assuarance 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.

This information is based on EU regulation No 811/2013 and No 813/2013.

PRODUCT INFORMATION / TECHNICAL DOCUMENTATION

Model(s):	Outdoor unit:	PUHZ-SHW140YHA(-BS)
	Indoor unit:	ERST30C-****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
Rated heat output (*)	Prated	17.0	kW
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T j			
Tj = - 7 °C	Pdh	15.0	kW
Degradation co-efficient (**)	Cdh	1.00	-
Tj = + 2 °C	Pdh	9.1	kW
Degradation co-efficient (**)	Cdh	0.99	-
Tj = + 7 °C	Pdh	5.9	kW
Degradation co-efficient (**)	Cdh	0.98	-
Tj = +12 °C	Pdh	7.3	kW
Degradation co-efficient (**)	Cdh	0.98	-
Tj = bivalent temperature	Pdh	15.0	kW
Tj = operation limit temperature (***)	Pdh	14.1	kW
Bivalent temperature	Tbiv	-7	°C
Reference design conditions for space heating	Tdesignh	-10	°C
Power consumption in modes other than active mode			
Off mode	P_{OFF}	0.022	kW
Thermostat-off mode	P_{TO}	0.022	kW
Standby mode	P_{SB}	0.022	kW
Crankcase heater mode	P_{CK}	0.000	kW
Other items			
Capacity control		variable	
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		XL	
Daily electricity consumption	Qelec	6.710	kWh
Annual electricity consumption	AEC	1476	kWh

Item	Symbol	Value	Unit
Seasonal space heating energy efficiency	ηs	165	%
Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = - 7 °C	COPd	2.59	-
Tj = + 2 °C	COPd	4.03	-
Tj = + 7 °C	COPd	5.71	-
Tj = +12 °C	COPd	7.47	-
Tj = bivalent temperature	COPd	2.59	-
Tj = operation limit temperature (***)	COPd	2.42	-
Operation limit temperature	TOL	-28	°C
Heating water operating limit temperature	WTOL	60	°C
Supplementary heater			
Rated heat output (*)	Psup	2.9	kW
Type of energy input		Electrical	
Rated air flow rate, outdoors	-	6000	m^3/h
Water heating energy efficiency	ηwh	118	%

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;

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

Atsushi EDAYOSHI
Manager, Quality Assuarance 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.

This information is based on EU regulation No 811/2013 and No 813/2013.

PRODUCT INFORMATION / TECHNICAL DOCUMENTATION

Model(s):	Outdoor unit:	PUHZ-SHW140YHA(-BS)
	Indoor unit:	ERST30C-****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
Rated heat output (*)	Prated	15.8	kW
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T j			
Tj = - 7 °C	Pdh	9.6	kW
Degradation co-efficient (**)	Cdh	0.99	-
Tj = + 2 °C	Pdh	5.8	kW
Degradation co-efficient (**)	Cdh	0.99	-
Tj = + 7 °C	Pdh	4.2	kW
Degradation co-efficient (**)	Cdh	0.97	-
Tj = +12 °C	Pdh	7.1	kW
Degradation co-efficient (**)	Cdh	0.98	-
Tj = bivalent temperature	Pdh	13.3	kW
Tj = operation limit temperature (***)	Pdh	11.2	kW
Tj = – 15 °C (if TOL < – 20 °C)	Pdh	12.9	kW
Bivalent temperature	Tbiv	-16	°C
Reference design conditions for space heating	Tdesignh	-22	°C
Power consumption in modes other than active mode			
Off mode	P_{OFF}	0.022	kW
Thermostat-off mode	P_{TO}	0.022	kW
Standby mode	P_{SB}	0.022	kW
Crankcase heater mode	P_{CK}	0.000	kW
Other items			
Capacity control		variable	
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		XL	
Daily electricity consumption	Qelec	8.640	kWh
Annual electricity consumption	AEC	1901	kWh

Item	Symbol	Value	Unit
Seasonal space heating energy efficiency	ηs	122	%
Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = - 7 °C	COPd	2.76	-
Tj = + 2 °C	COPd	3.75	-
Tj = + 7 °C	COPd	5.00	-
Tj = +12 °C	COPd	6.66	-
Tj = bivalent temperature	COPd	1.43	-
Tj = operation limit temperature (***)	COPd	1.43	-
Tj = – 15 °C (if TOL < – 20 °C)	COPd	1.56	-
Operation limit temperature	TOL	-28	°C
Heating water operating limit temperature	WTOL	60	°C
Supplementary heater			
Rated heat output (*)	Psup	4.6	kW
Type of energy input		Electrical	
Rated air flow rate, outdoors	-	6000	m^3/h
Water heating energy efficiency	ηwh	91	%

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;

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

Atsushi EDAYOSHI
Manager, Quality Assuarance 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.

This information is based on EU regulation No 811/2013 and No 813/2013.

PRODUCT INFORMATION / TECHNICAL DOCUMENTATION

Model(s):	Outdoor unit:	PUHZ-SHW140YHA(-BS)
	Indoor unit:	ERST30C-****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
Rated heat output (*)	Prated	17.0	kW
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T j			
Tj = - 7 °C	Pdh	10.3	kW
Degradation co-efficient (**)	Cdh	0.99	-
Tj = + 2 °C	Pdh	6.3	kW
Degradation co-efficient (**)	Cdh	0.98	-
Tj = + 7 °C	Pdh	4.4	kW
Degradation co-efficient (**)	Cdh	0.97	-
Tj = +12 °C	Pdh	7.3	kW
Degradation co-efficient (**)	Cdh	0.98	-
Tj = bivalent temperature	Pdh	14.3	kW
Tj = operation limit temperature (***)	Pdh	11.7	kW
Tj = – 15 °C (if TOL < – 20 °C)	Pdh	13.9	kW
Bivalent temperature	Tbiv	-16	°C
Reference design conditions for space heating	Tdesignh	-22	°C
Power consumption in modes other than active mode			
Off mode	P_{OFF}	0.022	kW
Thermostat-off mode	P_{TO}	0.022	kW
Standby mode	P_{SB}	0.022	kW
Crankcase heater mode	P_{CK}	0.000	kW
Other items			
Capacity control		variable	
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		XL	
Daily electricity consumption	Qelec	8.640	kWh
Annual electricity consumption	AEC	1901	kWh

Item	Symbol	Value	Unit
Seasonal space heating energy efficiency	ηs	150	%
Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = - 7 °C	COPd	3.18	-
Tj = + 2 °C	COPd	4.75	-
Tj = + 7 °C	COPd	6.01	-
Tj = +12 °C	COPd	7.47	-
Tj = bivalent temperature	COPd	2.00	-
Tj = operation limit temperature (***)	COPd	1.72	-
Tj = – 15 °C (if TOL < – 20 °C)	COPd	2.12	-
Operation limit temperature	TOL	-28	°C
Heating water operating limit temperature	WTOL	60	°C
Supplementary heater			
Rated heat output (*)	Psup	5.3	kW
Type of energy input		Electrical	
Rated air flow rate, outdoors	-	6000	m^3/h
Water heating energy efficiency	ηwh	91	%

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;

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

Atsushi EDAYOSHI
Manager, Quality Assuarance 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.

This information is based on EU regulation No 811/2013 and No 813/2013.

PRODUCT INFORMATION / TECHNICAL DOCUMENTATION

Model(s):	Outdoor unit:	PUHZ-SHW140YHA(-BS)
	Indoor unit:	ERST30C-****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
Rated heat output (*)	Prated	14.0	kW
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T j			
Tj = - 7 °C	Pdh	-	kW
Degradation co-efficient (**)	Cdh	-	-
Tj = + 2 °C	Pdh	14.0	kW
Degradation co-efficient (**)	Cdh	1.00	-
Tj = + 7 °C	Pdh	9.0	kW
Degradation co-efficient (**)	Cdh	0.99	-
Tj = +12 °C	Pdh	6.8	kW
Degradation co-efficient (**)	Cdh	0.98	-
Tj = bivalent temperature	Pdh	14.0	kW
Tj = operation limit temperature (***)	Pdh	14.0	kW
Bivalent temperature	Tbiv	2	°C
Reference design conditions for space heating	Tdesignh	2	°C
Power consumption in modes other than active mode			
Off mode	P_{OFF}	0.022	kW
Thermostat-off mode	P_{TO}	0.022	kW
Standby mode	P_{SB}	0.022	kW
Crankcase heater mode	P_{CK}	0.000	kW
Other items			
Capacity control		variable	
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		XL	
Daily electricity consumption	Qelec	6.270	kWh
Annual electricity consumption	AEC	1379	kWh

Item	Symbol	Value	Unit
Seasonal space heating energy efficiency	ηs	154	%
Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = - 7 °C	COPd	-	-
Tj = + 2 °C	COPd	1.92	-
Tj = + 7 °C	COPd	3.12	-
Tj = +12 °C	COPd	5.60	-
Tj = bivalent temperature	COPd	1.92	-
Tj = operation limit temperature (***)	COPd	1.92	-
Operation limit temperature	TOL	-28	°C
Heating water operating limit temperature	WTOL	60	°C
Supplementary heater			
Rated heat output (*)	Psup	0.0	kW
Type of energy input		Electrical	
Rated air flow rate, outdoors	-	6000	m^3/h
Water heating energy efficiency	ηwh	126	%

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;

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

Atsushi EDAYOSHI
Manager, Quality Assuarance 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.

This information is based on EU regulation No 811/2013 and No 813/2013.

PRODUCT INFORMATION / TECHNICAL DOCUMENTATION

Model(s):	Outdoor unit:	PUHZ-SHW140YHA(-BS)
	Indoor unit:	ERST30C-****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
Rated heat output (*)	Prated	15.5	kW
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T j			
Tj = - 7 °C	Pdh	-	kW
Degradation co-efficient (**)	Cdh	-	-
Tj = + 2 °C	Pdh	15.5	kW
Degradation co-efficient (**)	Cdh	1.00	-
Tj = + 7 °C	Pdh	10.0	kW
Degradation co-efficient (**)	Cdh	0.99	-
Tj = +12 °C	Pdh	7.2	kW
Degradation co-efficient (**)	Cdh	0.98	-
Tj = bivalent temperature	Pdh	15.5	kW
Tj = operation limit temperature (***)	Pdh	15.5	kW
Bivalent temperature	Tbiv	2	°C
Reference design conditions for space heating	Tdesignh	2	°C
Power consumption in modes other than active mode			
Off mode	P_{OFF}	0.022	kW
Thermostat-off mode	P_{TO}	0.022	kW
Standby mode	P_{SB}	0.022	kW
Crankcase heater mode	P_{CK}	0.000	kW
Other items			
Capacity control		variable	
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		XL	
Daily electricity consumption	Qelec	6.270	kWh
Annual electricity consumption	AEC	1379	kWh

Item	Symbol	Value	Unit
Seasonal space heating energy efficiency	ηs	211	%
Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = - 7 °C	COPd	-	-
Tj = + 2 °C	COPd	2.74	-
Tj = + 7 °C	COPd	4.56	-
Tj = +12 °C	COPd	7.04	-
Tj = bivalent temperature	COPd	2.74	-
Tj = operation limit temperature (***)	COPd	2.74	-
Operation limit temperature	TOL	-28	°C
Heating water operating limit temperature	WTOL	60	°C
Supplementary heater			
Rated heat output (*)	Psup	0.0	kW
Type of energy input		Electrical	
Rated air flow rate, outdoors	-	6000	m^3/h
Water heating energy efficiency	ηwh	126	%

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;

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

Atsushi EDAYOSHI
Manager, Quality Assuarance 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.

This information is based on EU regulation No 811/2013 and No 813/2013.