

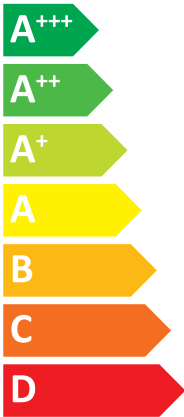
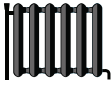


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Indoor unit E\*ST30D-\*\*\*\*D  
Outdoor unit PUD-SHWM80YAA(-BS)



A++



A



41 dB

56 dB



- 08 kW
- 08 kW
- 08 kW

2019

811/2013

BH79V003K33







Model(s):	Outdoor unit:	PUD-SHWM80YAA(-BS)
	Indoor unit:	EHST30D-****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	8.0	kW	Seasonal space heating energy efficiency	$\eta_s$	134	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T <sub>j</sub>				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature T <sub>j</sub>			
T <sub>j</sub> = - 7 °C	P <sub>dh</sub>	7.1	kW	T <sub>j</sub> = - 7 °C	COP <sub>d</sub>	2.14	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.99	-				
T <sub>j</sub> = + 2 °C	P <sub>dh</sub>	4.3	kW	T <sub>j</sub> = + 2 °C	COP <sub>d</sub>	3.26	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.98	-				
T <sub>j</sub> = + 7 °C	P <sub>dh</sub>	5.3	kW	T <sub>j</sub> = + 7 °C	COP <sub>d</sub>	4.91	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.98	-				
T <sub>j</sub> = +12 °C	P <sub>dh</sub>	3.1	kW	T <sub>j</sub> = +12 °C	COP <sub>d</sub>	7.05	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.95	-				
T <sub>j</sub> = bivalent temperature	P <sub>dh</sub>	8.0	kW	T <sub>j</sub> = bivalent temperature	COP <sub>d</sub>	1.97	-
T <sub>j</sub> = operation limit temperature	P <sub>dh</sub>	5.3	kW	T <sub>j</sub> = operation limit temperature	COP <sub>d</sub>	1.41	-
T <sub>j</sub> = - 15 °C (if TOL < - 20 °C)	P <sub>dh</sub>	-	kW	T <sub>j</sub> = - 15 °C (if TOL < - 20 °C)	COP <sub>d</sub>	-	-
Bivalent temperature	T <sub>biv</sub>	-10	°C	Operation limit temperature	TOL	-28	°C
Reference design conditions for space heating	T <sub>designh</sub>	-10	°C	Heating water operating limit temperature	WTOL	60	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P <sub>OFF</sub>	0.022	kW	Rated heat output (*)	P <sub>sup</sub>	0.0	kW
Thermostat-off mode	P <sub>TO</sub>	0.022	kW				
Standby mode	P <sub>SB</sub>	0.022	kW				
Crankcase heater mode	P <sub>CK</sub>	0.000	kW				
				Type of energy input	Electrical		

Other items				Rated air flow rate, outdoors			
Capacity control	variable			-	2220	m <sup>3</sup> /h	
Sound power level, indoors/outdoors	L <sub>WA</sub>	41 / 56	dB(A)				
Annual energy consumption	Q <sub>HE</sub>	4695	kWh				

For heat pump combination heater:				Water heating energy efficiency			
Declared load profile	XL			$\eta_{wh}$	121	%	
Daily electricity consumption	Q <sub>elec</sub>	6.500	kWh				
Annual electricity consumption	AEC	1431	kWh				

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

(\*) For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating sup(Tj).

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

Model(s):	Outdoor unit:	PUD-SHWM80YAA(-BS)
	Indoor unit:	EHST30D-****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	8.0	kW	Seasonal space heating energy efficiency	$\eta_s$	179	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = - 7 °C	Pdh	7.1	kW	Tj = - 7 °C	COPd	3.11	-
Degradation co-efficient (**)	Cdh	0.99	-				
Tj = + 2 °C	Pdh	4.7	kW	Tj = + 2 °C	COPd	4.52	-
Degradation co-efficient (**)	Cdh	0.98	-				
Tj = + 7 °C	Pdh	5.1	kW	Tj = + 7 °C	COPd	6.00	-
Degradation co-efficient (**)	Cdh	0.97	-				
Tj = +12 °C	Pdh	3.2	kW	Tj = +12 °C	COPd	8.21	-
Degradation co-efficient (**)	Cdh	0.94	-				
Tj = bivalent temperature	Pdh	8.0	kW	Tj = bivalent temperature	COPd	3.09	-
Tj = operation limit temperature	Pdh	5.3	kW	Tj = operation limit temperature	COPd	1.41	-
Tj = - 15 °C (if TOL < - 20 °C)	Pdh	-	kW	Tj = - 15 °C (if TOL < - 20 °C)	COPd	-	-
Bivalent temperature	Tbiv	-10	°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 <sub>OFF</sub>	0.022	kW	Rated heat output (*)	P <sub>sup</sub>	0.0	kW
Thermostat-off mode	P <sub>TO</sub>	0.022	kW				
Standby mode	P <sub>SB</sub>	0.022	kW				
Crankcase heater mode	P <sub>CK</sub>	0.000	kW				
				Type of energy input	Electrical		

Other items			
Capacity control		variable	
Sound power level, indoors/outdoors	L <sub>WA</sub>	41 / 56	dB(A)
Annual energy consumption	Q <sub>HE</sub>	3500	kWh
Rated air flow rate, outdoors			
-			
2220			
m <sup>3</sup> /h			

For heat pump combination heater:			
Declared load profile		XL	
Daily electricity consumption	Q <sub>elec</sub>	6.500	kWh
Annual electricity consumption	AEC	1431	kWh
Water heating energy efficiency			
$\eta_{wh}$			
121			
%			

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

Model(s):	Outdoor unit:	PUD-SHWM80YAA(-BS)
	Indoor unit:	EHST30D-****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	8.0	kW	Seasonal space heating energy efficiency	$\eta_s$	113	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T <sub>j</sub>				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature T <sub>j</sub>			
T <sub>j</sub> = - 7 °C	P <sub>dh</sub>	4.9	kW	T <sub>j</sub> = - 7 °C	COP <sub>d</sub>	2.59	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.99	-				
T <sub>j</sub> = + 2 °C	P <sub>dh</sub>	3.5	kW	T <sub>j</sub> = + 2 °C	COP <sub>d</sub>	3.18	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.98	-				
T <sub>j</sub> = + 7 °C	P <sub>dh</sub>	4.3	kW	T <sub>j</sub> = + 7 °C	COP <sub>d</sub>	4.78	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.98	-				
T <sub>j</sub> = +12 °C	P <sub>dh</sub>	3.1	kW	T <sub>j</sub> = +12 °C	COP <sub>d</sub>	6.74	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.95	-				
T <sub>j</sub> = bivalent temperature	P <sub>dh</sub>	6.7	kW	T <sub>j</sub> = bivalent temperature	COP <sub>d</sub>	1.51	-
T <sub>j</sub> = operation limit temperature	P <sub>dh</sub>	5.3	kW	T <sub>j</sub> = operation limit temperature	COP <sub>d</sub>	1.41	-
T <sub>j</sub> = - 15 °C (if TOL < - 20 °C)	P <sub>dh</sub>	6.8	kW	T <sub>j</sub> = - 15 °C (if TOL < - 20 °C)	COP <sub>d</sub>	1.52	-
Bivalent temperature	T <sub>biv</sub>	-16	°C	Operation limit temperature	TOL	-28	°C
Reference design conditions for space heating	T <sub>designh</sub>	-22	°C	Heating water operating limit temperature	WTOL	60	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P <sub>OFF</sub>	0.022	kW	Rated heat output (*)	P <sub>sup</sub>	2.0	kW
Thermostat-off mode	P <sub>TO</sub>	0.022	kW				
Standby mode	P <sub>SB</sub>	0.022	kW				
Crankcase heater mode	P <sub>CK</sub>	0.000	kW				
				Type of energy input	Electrical		

Other items				Rated air flow rate, outdoors			
Capacity control		variable		-	2220	m <sup>3</sup> /h	
Sound power level, indoors/outdoors	L <sub>WA</sub>	41 / 56	dB(A)				
Annual energy consumption	Q <sub>HE</sub>	6335	kWh				

For heat pump combination heater:				Water heating energy efficiency			
Declared load profile		XL		$\eta_{wh}$	102	%	
Daily electricity consumption	Q <sub>elec</sub>	7.730	kWh				
Annual electricity consumption	AEC	1700	kWh				

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(\*) For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating sup(Tj).

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

Model(s):	Outdoor unit:	PUD-SHWM80YAA(-BS)
	Indoor unit:	EHST30D-****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	8.0	kW	Seasonal space heating energy efficiency	$\eta_s$	143	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T <sub>j</sub>				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature T <sub>j</sub>			
T <sub>j</sub> = - 7 °C	P <sub>dh</sub>	4.8	kW	T <sub>j</sub> = - 7 °C	COP <sub>d</sub>	3.53	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.98	-				
T <sub>j</sub> = + 2 °C	P <sub>dh</sub>	3.8	kW	T <sub>j</sub> = + 2 °C	COP <sub>d</sub>	4.04	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.98	-				
T <sub>j</sub> = + 7 °C	P <sub>dh</sub>	4.5	kW	T <sub>j</sub> = + 7 °C	COP <sub>d</sub>	5.56	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.97	-				
T <sub>j</sub> = +12 °C	P <sub>dh</sub>	3.1	kW	T <sub>j</sub> = +12 °C	COP <sub>d</sub>	7.56	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.95	-				
T <sub>j</sub> = bivalent temperature	P <sub>dh</sub>	6.7	kW	T <sub>j</sub> = bivalent temperature	COP <sub>d</sub>	2.23	-
T <sub>j</sub> = operation limit temperature	P <sub>dh</sub>	5.3	kW	T <sub>j</sub> = operation limit temperature	COP <sub>d</sub>	1.41	-
T <sub>j</sub> = - 15 °C (if TOL < - 20 °C)	P <sub>dh</sub>	6.8	kW	T <sub>j</sub> = - 15 °C (if TOL < - 20 °C)	COP <sub>d</sub>	2.30	-
Bivalent temperature	T <sub>biv</sub>	-16	°C	Operation limit temperature	TOL	-28	°C
Reference design conditions for space heating	T <sub>designh</sub>	-22	°C	Heating water operating limit temperature	WTOL	60	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P <sub>OFF</sub>	0.022	kW	Rated heat output (*)	P <sub>sup</sub>	2.0	kW
Thermostat-off mode	P <sub>TO</sub>	0.022	kW				
Standby mode	P <sub>SB</sub>	0.022	kW				
Crankcase heater mode	P <sub>CK</sub>	0.000	kW				
				Type of energy input	Electrical		

Other items				Rated air flow rate, outdoors	-	2220	m <sup>3</sup> /h
Capacity control	variable						
Sound power level, indoors/outdoors	L <sub>WA</sub>	41 / 56	dB(A)				
Annual energy consumption	Q <sub>HE</sub>	4934	kWh				

For heat pump combination heater:				Water heating energy efficiency	$\eta_{wh}$	102	%
Declared load profile	XL						
Daily electricity consumption	Q <sub>elec</sub>	7.730	kWh				
Annual electricity consumption	AEC	1700	kWh				

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(\*) For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating sup(Tj).

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

Model(s):	Outdoor unit:	PUD-SHWM80YAA(-BS)
	Indoor unit:	EHST30D-****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	8.0	kW	Seasonal space heating energy efficiency	$\eta_s$	164	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T <sub>j</sub>				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature T <sub>j</sub>			
T <sub>j</sub> = - 7 °C	P <sub>dh</sub>	-	kW	T <sub>j</sub> = - 7 °C	COP <sub>d</sub>	-	-
Degradation co-efficient (**)	C <sub>dh</sub>	-	-				
T <sub>j</sub> = + 2 °C	P <sub>dh</sub>	8.0	kW	T <sub>j</sub> = + 2 °C	COP <sub>d</sub>	1.88	-
Degradation co-efficient (**)	C <sub>dh</sub>	1.00	-				
T <sub>j</sub> = + 7 °C	P <sub>dh</sub>	5.2	kW	T <sub>j</sub> = + 7 °C	COP <sub>d</sub>	3.51	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.99	-				
T <sub>j</sub> = +12 °C	P <sub>dh</sub>	4.5	kW	T <sub>j</sub> = +12 °C	COP <sub>d</sub>	6.08	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.97	-				
T <sub>j</sub> = bivalent temperature	P <sub>dh</sub>	8.0	kW	T <sub>j</sub> = bivalent temperature	COP <sub>d</sub>	1.88	-
T <sub>j</sub> = operation limit temperature	P <sub>dh</sub>	5.3	kW	T <sub>j</sub> = operation limit temperature	COP <sub>d</sub>	1.41	-
T <sub>j</sub> = - 15 °C (if TOL < - 20 °C)	P <sub>dh</sub>	-	kW	T <sub>j</sub> = - 15 °C (if TOL < - 20 °C)	COP <sub>d</sub>	-	-
Bivalent temperature	T <sub>biv</sub>	2	°C	Operation limit temperature	TOL	-28	°C
Reference design conditions for space heating	T <sub>designh</sub>	2	°C	Heating water operating limit temperature	WTOL	60	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P <sub>OFF</sub>	0.022	kW	Rated heat output (*)	P <sub>sup</sub>	0.0	kW
Thermostat-off mode	P <sub>TO</sub>	0.022	kW				
Standby mode	P <sub>SB</sub>	0.022	kW				
Crankcase heater mode	P <sub>CK</sub>	0.000	kW				
				Type of energy input	Electrical		

Other items							
Capacity control		variable		Rated air flow rate, outdoors	-	2220	m <sup>3</sup> /h
Sound power level, indoors/outdoors	L <sub>WA</sub>	41 / 56					
Annual energy consumption	Q <sub>HE</sub>	2479					

For heat pump combination heater:							
Declared load profile		XL		Water heating energy efficiency	$\eta_{wh}$	145	%
Daily electricity consumption	Q <sub>elec</sub>	5.470	kWh				
Annual electricity consumption	AEC	1203	kWh				

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(\*\*) If C<sub>dh</sub> is not determined by measurement then the default degradation coefficient is C<sub>dh</sub> = 0,9.



Model(s):	Outdoor unit:	PUD-SHWM80YAA(-BS)
	Indoor unit:	EHST30D-****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	8.0	kW	Seasonal space heating energy efficiency	$\eta_s$	222	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = - 7 °C	Pdh	-	kW	Tj = - 7 °C	COPd	-	-
Degradation co-efficient (**)	Cdh	-	-				
Tj = + 2 °C	Pdh	8.0	kW	Tj = + 2 °C	COPd	3.74	-
Degradation co-efficient (**)	Cdh	0.99	-				
Tj = + 7 °C	Pdh	5.1	kW	Tj = + 7 °C	COPd	5.05	-
Degradation co-efficient (**)	Cdh	0.98	-				
Tj = +12 °C	Pdh	4.7	kW	Tj = +12 °C	COPd	7.34	-
Degradation co-efficient (**)	Cdh	0.97	-				
Tj = bivalent temperature	Pdh	8.0	kW	Tj = bivalent temperature	COPd	3.74	-
Tj = operation limit temperature	Pdh	5.3	kW	Tj = operation limit temperature	COPd	1.41	-
Tj = - 15 °C (if TOL < - 20 °C)	Pdh	-	kW	Tj = - 15 °C (if TOL < - 20 °C)	COPd	-	-
Bivalent temperature	Tbiv	2	°C	Operation limit temperature	TOL	-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 <sub>OFF</sub>	0.022	kW	Rated heat output (*)	P <sub>sup</sub>	0.0	kW
Thermostat-off mode	P <sub>TO</sub>	0.022	kW				
Standby mode	P <sub>SB</sub>	0.022	kW				
Crankcase heater mode	P <sub>CK</sub>	0.000	kW				
				Type of energy input	Electrical		

Other items			
Capacity control		variable	
Sound power level, indoors/outdoors	L <sub>WA</sub>	41 / 56	dB(A)
Annual energy consumption	Q <sub>HE</sub>	1820	kWh
Rated air flow rate, outdoors			
-			
2220			
m <sup>3</sup> /h			

For heat pump combination heater:			
Declared load profile		XL	
Daily electricity consumption	Q <sub>elec</sub>	5.470	kWh
Annual electricity consumption	AEC	1203	kWh
Water heating energy efficiency			
$\eta_{wh}$			
145			
%			

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

Model(s):	Outdoor unit:	PUD-SHWM80YAA(-BS)
	Indoor unit:	EHST30D-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	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	8.0	kW	Seasonal space heating energy efficiency	$\eta_s$	134	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = - 7 °C	Pdh	7.1	kW	Tj = - 7 °C	COPd	2.14	-
Degradation co-efficient (**)	Cdh	0.99	-				
Tj = + 2 °C	Pdh	4.3	kW	Tj = + 2 °C	COPd	3.26	-
Degradation co-efficient (**)	Cdh	0.98	-				
Tj = + 7 °C	Pdh	5.3	kW	Tj = + 7 °C	COPd	4.91	-
Degradation co-efficient (**)	Cdh	0.98	-				
Tj = +12 °C	Pdh	3.1	kW	Tj = +12 °C	COPd	7.05	-
Degradation co-efficient (**)	Cdh	0.95	-				
Tj = bivalent temperature	Pdh	8.0	kW	Tj = bivalent temperature	COPd	1.97	-
Tj = operation limit temperature	Pdh	5.3	kW	Tj = operation limit temperature	COPd	1.41	-
Tj = - 15 °C (if TOL < - 20 °C)	Pdh	-	kW	Tj = - 15 °C (if TOL < - 20 °C)	COPd	-	-
Bivalent temperature	Tbiv	-10	°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 <sub>OFF</sub>	0.022	kW	Rated heat output (*)	P <sub>sup</sub>	0.0	kW
Thermostat-off mode	P <sub>TO</sub>	0.022	kW				
Standby mode	P <sub>SB</sub>	0.022	kW				
Crankcase heater mode	P <sub>CK</sub>	0.000	kW				
				Type of energy input	Electrical		

Other items			
Capacity control		variable	
Sound power level, indoors/outdoors	L <sub>WA</sub>	41 / 56	dB(A)
Annual energy consumption	Q <sub>HE</sub>	4695	kWh
Rated air flow rate, outdoors			
-			
2220			
m <sup>3</sup> /h			

For heat pump combination heater:			
Declared load profile		XL	
Daily electricity consumption	Q <sub>elec</sub>	6.500	kWh
Annual electricity consumption	AEC	1431	kWh
Water heating energy efficiency			
$\eta_{wh}$			
121			
%			

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

(\*) For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating sup(Tj).

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

Model(s):	Outdoor unit:	PUD-SHWM80YAA(-BS)
	Indoor unit:	EHST30D-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	8.0	kW	Seasonal space heating energy efficiency	$\eta_s$	179	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = - 7 °C	Pdh	7.1	kW	Tj = - 7 °C	COPd	3.11	-
Degradation co-efficient (**)	Cdh	0.99	-				
Tj = + 2 °C	Pdh	4.7	kW	Tj = + 2 °C	COPd	4.52	-
Degradation co-efficient (**)	Cdh	0.98	-				
Tj = + 7 °C	Pdh	5.1	kW	Tj = + 7 °C	COPd	6.00	-
Degradation co-efficient (**)	Cdh	0.97	-				
Tj = +12 °C	Pdh	3.2	kW	Tj = +12 °C	COPd	8.21	-
Degradation co-efficient (**)	Cdh	0.94	-				
Tj = bivalent temperature	Pdh	8.0	kW	Tj = bivalent temperature	COPd	3.09	-
Tj = operation limit temperature	Pdh	5.3	kW	Tj = operation limit temperature	COPd	1.41	-
Tj = - 15 °C (if TOL < - 20 °C)	Pdh	-	kW	Tj = - 15 °C (if TOL < - 20 °C)	COPd	-	-
Bivalent temperature	Tbiv	-10	°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 <sub>OFF</sub>	0.022	kW	Rated heat output (*)	P <sub>sup</sub>	0.0	kW
Thermostat-off mode	P <sub>TO</sub>	0.022	kW				
Standby mode	P <sub>SB</sub>	0.022	kW				
Crankcase heater mode	P <sub>CK</sub>	0.000	kW				
				Type of energy input	Electrical		

Other items			
Capacity control		variable	
Sound power level, indoors/outdoors	L <sub>WA</sub>	41 / 56	dB(A)
Annual energy consumption	Q <sub>HE</sub>	3500	kWh
Rated air flow rate, outdoors			
-			
2220			
m <sup>3</sup> /h			

For heat pump combination heater:			
Declared load profile		XL	
Daily electricity consumption	Q <sub>elec</sub>	6.500	kWh
Annual electricity consumption	AEC	1431	kWh
Water heating energy efficiency			
$\eta_{wh}$			
121			
%			

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(\*) For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating sup(Tj).

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

Model(s):	Outdoor unit:	PUD-SHWM80YAA(-BS)
	Indoor unit:	EHST30D-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	8.0	kW	Seasonal space heating energy efficiency	$\eta_s$	113	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = - 7 °C	Pdh	4.9	kW	Tj = - 7 °C	COPd	2.59	-
Degradation co-efficient (**)	Cdh	0.99	-				
Tj = + 2 °C	Pdh	3.5	kW	Tj = + 2 °C	COPd	3.18	-
Degradation co-efficient (**)	Cdh	0.98	-				
Tj = + 7 °C	Pdh	4.3	kW	Tj = + 7 °C	COPd	4.78	-
Degradation co-efficient (**)	Cdh	0.98	-				
Tj = +12 °C	Pdh	3.1	kW	Tj = +12 °C	COPd	6.74	-
Degradation co-efficient (**)	Cdh	0.95	-				
Tj = bivalent temperature	Pdh	6.7	kW	Tj = bivalent temperature	COPd	1.51	-
Tj = operation limit temperature	Pdh	5.3	kW	Tj = operation limit temperature	COPd	1.41	-
Tj = - 15 °C (if TOL < - 20 °C)	Pdh	6.8	kW	Tj = - 15 °C (if TOL < - 20 °C)	COPd	1.52	-
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 <sub>OFF</sub>	0.022	kW	Rated heat output (*)	P <sub>sup</sub>	2.0	kW
Thermostat-off mode	P <sub>TO</sub>	0.022	kW				
Standby mode	P <sub>SB</sub>	0.022	kW				
Crankcase heater mode	P <sub>CK</sub>	0.000	kW				
				Type of energy input	Electrical		

Other items			
Capacity control		variable	
Sound power level, indoors/outdoors	L <sub>WA</sub>	41 / 56	dB(A)
Annual energy consumption	Q <sub>HE</sub>	6335	kWh
Rated air flow rate, outdoors			
-			
2220			
m <sup>3</sup> /h			

For heat pump combination heater:			
Declared load profile		XL	
Daily electricity consumption	Q <sub>elec</sub>	7.730	kWh
Annual electricity consumption	AEC	1700	kWh
Water heating energy efficiency			
$\eta_{wh}$			
102			
%			

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(\*) For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating sup(Tj).

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

Model(s):	Outdoor unit:	PUD-SHWM80YAA(-BS)
	Indoor unit:	EHST30D-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	8.0	kW	Seasonal space heating energy efficiency	$\eta_s$	143	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = - 7 °C	Pdh	4.8	kW	Tj = - 7 °C	COPd	3.53	-
Degradation co-efficient (**)	Cdh	0.98	-				
Tj = + 2 °C	Pdh	3.8	kW	Tj = + 2 °C	COPd	4.04	-
Degradation co-efficient (**)	Cdh	0.98	-				
Tj = + 7 °C	Pdh	4.5	kW	Tj = + 7 °C	COPd	5.56	-
Degradation co-efficient (**)	Cdh	0.97	-				
Tj = +12 °C	Pdh	3.1	kW	Tj = +12 °C	COPd	7.56	-
Degradation co-efficient (**)	Cdh	0.95	-				
Tj = bivalent temperature	Pdh	6.7	kW	Tj = bivalent temperature	COPd	2.23	-
Tj = operation limit temperature	Pdh	5.3	kW	Tj = operation limit temperature	COPd	1.41	-
Tj = - 15 °C (if TOL < - 20 °C)	Pdh	6.8	kW	Tj = - 15 °C (if TOL < - 20 °C)	COPd	2.30	-
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 <sub>OFF</sub>	0.022	kW	Rated heat output (*)	P <sub>sup</sub>	2.0	kW
Thermostat-off mode	P <sub>TO</sub>	0.022	kW				
Standby mode	P <sub>SB</sub>	0.022	kW				
Crankcase heater mode	P <sub>CK</sub>	0.000	kW				
				Type of energy input	Electrical		

Other items			
Capacity control		variable	
Sound power level, indoors/outdoors	L <sub>WA</sub>	41 / 56	dB(A)
Annual energy consumption	Q <sub>HE</sub>	4934	kWh
Rated air flow rate, outdoors			
-			
2220			
m <sup>3</sup> /h			

For heat pump combination heater:			
Declared load profile		XL	
Daily electricity consumption	Q <sub>elec</sub>	7.730	kWh
Annual electricity consumption	AEC	1700	kWh
Water heating energy efficiency			
$\eta_{wh}$			
102			
%			

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(\*) For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating sup(Tj).

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

Model(s):	Outdoor unit:	PUD-SHWM80YAA(-BS)
	Indoor unit:	EHST30D-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	8.0	kW	Seasonal space heating energy efficiency	$\eta_s$	164	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T <sub>j</sub>				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature T <sub>j</sub>			
T <sub>j</sub> = - 7 °C	P <sub>dh</sub>	-	kW	T <sub>j</sub> = - 7 °C	COP <sub>d</sub>	-	-
Degradation co-efficient (**)	C <sub>dh</sub>	-	-				
T <sub>j</sub> = + 2 °C	P <sub>dh</sub>	8.0	kW	T <sub>j</sub> = + 2 °C	COP <sub>d</sub>	1.88	-
Degradation co-efficient (**)	C <sub>dh</sub>	1.00	-				
T <sub>j</sub> = + 7 °C	P <sub>dh</sub>	5.2	kW	T <sub>j</sub> = + 7 °C	COP <sub>d</sub>	3.51	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.99	-				
T <sub>j</sub> = +12 °C	P <sub>dh</sub>	4.5	kW	T <sub>j</sub> = +12 °C	COP <sub>d</sub>	6.08	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.97	-				
T <sub>j</sub> = bivalent temperature	P <sub>dh</sub>	8.0	kW	T <sub>j</sub> = bivalent temperature	COP <sub>d</sub>	1.88	-
T <sub>j</sub> = operation limit temperature	P <sub>dh</sub>	5.3	kW	T <sub>j</sub> = operation limit temperature	COP <sub>d</sub>	1.41	-
T <sub>j</sub> = - 15 °C (if TOL < - 20 °C)	P <sub>dh</sub>	-	kW	T <sub>j</sub> = - 15 °C (if TOL < - 20 °C)	COP <sub>d</sub>	-	-
Bivalent temperature	T <sub>biv</sub>	2	°C	Operation limit temperature	TOL	-28	°C
Reference design conditions for space heating	T <sub>designh</sub>	2	°C	Heating water operating limit temperature	WTOL	60	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P <sub>OFF</sub>	0.022	kW	Rated heat output (*)	P <sub>sup</sub>	0.0	kW
Thermostat-off mode	P <sub>TO</sub>	0.022	kW				
Standby mode	P <sub>SB</sub>	0.022	kW				
Crankcase heater mode	P <sub>CK</sub>	0.000	kW				
				Type of energy input	Electrical		

Other items							
Capacity control		variable		Rated air flow rate, outdoors	-	2220	m <sup>3</sup> /h
Sound power level, indoors/outdoors	L <sub>WA</sub>	41 / 56					
Annual energy consumption	Q <sub>HE</sub>	2479					

For heat pump combination heater:							
Declared load profile		XL		Water heating energy efficiency	$\eta_{wh}$	145	%
Daily electricity consumption	Q <sub>elec</sub>	5.470	kWh				
Annual electricity consumption	AEC	1203	kWh				

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(\*) For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating sup(Tj).  
(\*\*) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.

Model(s):	Outdoor unit:	PUD-SHWM80YAA(-BS)
	Indoor unit:	EHST30D-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	8.0	kW	Seasonal space heating energy efficiency	$\eta_s$	222	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = - 7 °C	Pdh	-	kW	Tj = - 7 °C	COPd	-	-
Degradation co-efficient (**)	Cdh	-	-				
Tj = + 2 °C	Pdh	8.0	kW	Tj = + 2 °C	COPd	3.74	-
Degradation co-efficient (**)	Cdh	0.99	-				
Tj = + 7 °C	Pdh	5.1	kW	Tj = + 7 °C	COPd	5.05	-
Degradation co-efficient (**)	Cdh	0.98	-				
Tj = +12 °C	Pdh	4.7	kW	Tj = +12 °C	COPd	7.34	-
Degradation co-efficient (**)	Cdh	0.97	-				
Tj = bivalent temperature	Pdh	8.0	kW	Tj = bivalent temperature	COPd	3.74	-
Tj = operation limit temperature	Pdh	5.3	kW	Tj = operation limit temperature	COPd	1.41	-
Tj = - 15 °C (if TOL < - 20 °C)	Pdh	-	kW	Tj = - 15 °C (if TOL < - 20 °C)	COPd	-	-
Bivalent temperature	Tbiv	2	°C	Operation limit temperature	TOL	-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 <sub>OFF</sub>	0.022	kW	Rated heat output (*)	P <sub>sup</sub>	0.0	kW
Thermostat-off mode	P <sub>TO</sub>	0.022	kW	Type of energy input	Electrical		
Standby mode	P <sub>SB</sub>	0.022	kW				
Crankcase heater mode	P <sub>CK</sub>	0.000	kW				

Other items			
Capacity control		variable	
Sound power level, indoors/outdoors	L <sub>WA</sub>	41 / 56	dB(A)
Annual energy consumption	Q <sub>HE</sub>	1820	kWh
Rated air flow rate, outdoors			
		2220	m <sup>3</sup> /h

For heat pump combination heater:			
Declared load profile		XL	
Daily electricity consumption	Q <sub>elec</sub>	5.470	kWh
Annual electricity consumption	AEC	1203	kWh
Water heating energy efficiency			
	$\eta_{wh}$	145	%

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(\*) For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating sup(Tj).

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

Model(s):	Outdoor unit:	PUD-SHWM80YAA(-BS)
	Indoor unit:	ERST30D-****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	8.0	kW	Seasonal space heating energy efficiency	$\eta_s$	134	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = - 7 °C	Pdh	7.1	kW	Tj = - 7 °C	COPd	2.14	-
Degradation co-efficient (**)	Cdh	0.99	-				
Tj = + 2 °C	Pdh	4.3	kW	Tj = + 2 °C	COPd	3.26	-
Degradation co-efficient (**)	Cdh	0.98	-				
Tj = + 7 °C	Pdh	5.3	kW	Tj = + 7 °C	COPd	4.91	-
Degradation co-efficient (**)	Cdh	0.98	-				
Tj = +12 °C	Pdh	3.1	kW	Tj = +12 °C	COPd	7.05	-
Degradation co-efficient (**)	Cdh	0.95	-				
Tj = bivalent temperature	Pdh	8.0	kW	Tj = bivalent temperature	COPd	1.97	-
Tj = operation limit temperature	Pdh	5.3	kW	Tj = operation limit temperature	COPd	1.41	-
Tj = - 15 °C (if TOL < - 20 °C)	Pdh	-	kW	Tj = - 15 °C (if TOL < - 20 °C)	COPd	-	-
Bivalent temperature	Tbiv	-10	°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 <sub>OFF</sub>	0.022	kW	Rated heat output (*)	P <sub>sup</sub>	0.0	kW
Thermostat-off mode	P <sub>TO</sub>	0.022	kW				
Standby mode	P <sub>SB</sub>	0.022	kW				
Crankcase heater mode	P <sub>CK</sub>	0.000	kW				
				Type of energy input	Electrical		

Other items			
Capacity control		variable	
Sound power level, indoors/outdoors	L <sub>WA</sub>	41 / 56	dB(A)
Annual energy consumption	Q <sub>HE</sub>	4695	kWh
Rated air flow rate, outdoors			
-			
2220			
m <sup>3</sup> /h			

For heat pump combination heater:			
Declared load profile		XL	
Daily electricity consumption	Q <sub>elec</sub>	6.500	kWh
Annual electricity consumption	AEC	1431	kWh
Water heating energy efficiency			
$\eta_{wh}$			
121			
%			

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(\*) For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating sup(Tj).

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



Model(s):	Outdoor unit:	PUD-SHWM80YAA(-BS)
	Indoor unit:	ERST30D-****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	8.0	kW	Seasonal space heating energy efficiency	$\eta_s$	179	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = - 7 °C	Pdh	7.1	kW	Tj = - 7 °C	COPd	3.11	-
Degradation co-efficient (**)	Cdh	0.99	-				
Tj = + 2 °C	Pdh	4.7	kW	Tj = + 2 °C	COPd	4.52	-
Degradation co-efficient (**)	Cdh	0.98	-				
Tj = + 7 °C	Pdh	5.1	kW	Tj = + 7 °C	COPd	6.00	-
Degradation co-efficient (**)	Cdh	0.97	-				
Tj = +12 °C	Pdh	3.2	kW	Tj = +12 °C	COPd	8.21	-
Degradation co-efficient (**)	Cdh	0.94	-				
Tj = bivalent temperature	Pdh	8.0	kW	Tj = bivalent temperature	COPd	3.09	-
Tj = operation limit temperature	Pdh	5.3	kW	Tj = operation limit temperature	COPd	1.41	-
Tj = - 15 °C (if TOL < - 20 °C)	Pdh	-	kW	Tj = - 15 °C (if TOL < - 20 °C)	COPd	-	-
Bivalent temperature	Tbiv	-10	°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 <sub>OFF</sub>	0.022	kW	Rated heat output (*)	P <sub>sup</sub>	0.0	kW
Thermostat-off mode	P <sub>TO</sub>	0.022	kW				
Standby mode	P <sub>SB</sub>	0.022	kW				
Crankcase heater mode	P <sub>CK</sub>	0.000	kW				
				Type of energy input	Electrical		

Other items			
Capacity control		variable	
Sound power level, indoors/outdoors	L <sub>WA</sub>	41 / 56	dB(A)
Annual energy consumption	Q <sub>HE</sub>	3500	kWh
Rated air flow rate, outdoors			
-			
2220			
m <sup>3</sup> /h			

For heat pump combination heater:			
Declared load profile		XL	
Daily electricity consumption	Q <sub>elec</sub>	6.500	kWh
Annual electricity consumption	AEC	1431	kWh
Water heating energy efficiency			
$\eta_{wh}$			
121			
%			

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(\*) For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating sup(Tj).

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

Model(s):	Outdoor unit:	PUD-SHWM80YAA(-BS)
	Indoor unit:	ERST30D-****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	8.0	kW	Seasonal space heating energy efficiency	$\eta_s$	113	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T <sub>j</sub>				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature T <sub>j</sub>			
T <sub>j</sub> = - 7 °C	P <sub>dh</sub>	4.9	kW	T <sub>j</sub> = - 7 °C	COP <sub>d</sub>	2.59	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.99	-				
T <sub>j</sub> = + 2 °C	P <sub>dh</sub>	3.5	kW	T <sub>j</sub> = + 2 °C	COP <sub>d</sub>	3.18	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.98	-				
T <sub>j</sub> = + 7 °C	P <sub>dh</sub>	4.3	kW	T <sub>j</sub> = + 7 °C	COP <sub>d</sub>	4.78	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.98	-				
T <sub>j</sub> = +12 °C	P <sub>dh</sub>	3.1	kW	T <sub>j</sub> = +12 °C	COP <sub>d</sub>	6.74	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.95	-				
T <sub>j</sub> = bivalent temperature	P <sub>dh</sub>	6.7	kW	T <sub>j</sub> = bivalent temperature	COP <sub>d</sub>	1.51	-
T <sub>j</sub> = operation limit temperature	P <sub>dh</sub>	5.3	kW	T <sub>j</sub> = operation limit temperature	COP <sub>d</sub>	1.41	-
T <sub>j</sub> = - 15 °C (if TOL < - 20 °C)	P <sub>dh</sub>	6.8	kW	T <sub>j</sub> = - 15 °C (if TOL < - 20 °C)	COP <sub>d</sub>	1.52	-
Bivalent temperature	T <sub>biv</sub>	-16	°C	Operation limit temperature	TOL	-28	°C
Reference design conditions for space heating	T <sub>designh</sub>	-22	°C	Heating water operating limit temperature	WTOL	60	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P <sub>OFF</sub>	0.022	kW	Rated heat output (*)	P <sub>sup</sub>	2.0	kW
Thermostat-off mode	P <sub>TO</sub>	0.022	kW				
Standby mode	P <sub>SB</sub>	0.022	kW				
Crankcase heater mode	P <sub>CK</sub>	0.000	kW				
				Type of energy input	Electrical		

Other items				Rated air flow rate, outdoors	-	2220	m <sup>3</sup> /h
Capacity control	variable						
Sound power level, indoors/outdoors	L <sub>WA</sub>	41 / 56	dB(A)				
Annual energy consumption	Q <sub>HE</sub>	6335	kWh				

For heat pump combination heater:				Water heating energy efficiency	$\eta_{wh}$	102	%
Declared load profile	XL						
Daily electricity consumption	Q <sub>elec</sub>	7.730	kWh				
Annual electricity consumption	AEC	1700	kWh				

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(\*) For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating sup(Tj).

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

Model(s):	Outdoor unit:	PUD-SHWM80YAA(-BS)
	Indoor unit:	ERST30D-****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	8.0	kW	Seasonal space heating energy efficiency	$\eta_s$	143	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T <sub>j</sub>				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature T <sub>j</sub>			
T <sub>j</sub> = - 7 °C	P <sub>dh</sub>	4.8	kW	T <sub>j</sub> = - 7 °C	COP <sub>d</sub>	3.53	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.98	-				
T <sub>j</sub> = + 2 °C	P <sub>dh</sub>	3.8	kW	T <sub>j</sub> = + 2 °C	COP <sub>d</sub>	4.04	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.98	-				
T <sub>j</sub> = + 7 °C	P <sub>dh</sub>	4.5	kW	T <sub>j</sub> = + 7 °C	COP <sub>d</sub>	5.56	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.97	-				
T <sub>j</sub> = +12 °C	P <sub>dh</sub>	3.1	kW	T <sub>j</sub> = +12 °C	COP <sub>d</sub>	7.56	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.95	-				
T <sub>j</sub> = bivalent temperature	P <sub>dh</sub>	6.7	kW	T <sub>j</sub> = bivalent temperature	COP <sub>d</sub>	2.23	-
T <sub>j</sub> = operation limit temperature	P <sub>dh</sub>	5.3	kW	T <sub>j</sub> = operation limit temperature	COP <sub>d</sub>	1.41	-
T <sub>j</sub> = - 15 °C (if TOL < - 20 °C)	P <sub>dh</sub>	6.8	kW	T <sub>j</sub> = - 15 °C (if TOL < - 20 °C)	COP <sub>d</sub>	2.30	-
Bivalent temperature	T <sub>biv</sub>	-16	°C	Operation limit temperature	TOL	-28	°C
Reference design conditions for space heating	T <sub>designh</sub>	-22	°C	Heating water operating limit temperature	WTOL	60	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P <sub>OFF</sub>	0.022	kW	Rated heat output (*)	P <sub>sup</sub>	2.0	kW
Thermostat-off mode	P <sub>TO</sub>	0.022	kW				
Standby mode	P <sub>SB</sub>	0.022	kW				
Crankcase heater mode	P <sub>CK</sub>	0.000	kW				
				Type of energy input	Electrical		

Other items				Rated air flow rate, outdoors	-	2220	m <sup>3</sup> /h
Capacity control	variable						
Sound power level, indoors/outdoors	L <sub>WA</sub>	41 / 56	dB(A)				
Annual energy consumption	Q <sub>HE</sub>	4934	kWh				

For heat pump combination heater:				Water heating energy efficiency	$\eta_{wh}$	102	%
Declared load profile	XL						
Daily electricity consumption	Q <sub>elec</sub>	7.730	kWh				
Annual electricity consumption	AEC	1700	kWh				

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

Model(s):	Outdoor unit:	PUD-SHWM80YAA(-BS)
	Indoor unit:	ERST30D-****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	8.0	kW	Seasonal space heating energy efficiency	$\eta_s$	164	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T <sub>j</sub>				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature T <sub>j</sub>			
T <sub>j</sub> = - 7 °C	P <sub>dh</sub>	-	kW	T <sub>j</sub> = - 7 °C	COP <sub>d</sub>	-	-
Degradation co-efficient (**)	C <sub>dh</sub>	-	-				
T <sub>j</sub> = + 2 °C	P <sub>dh</sub>	8.0	kW	T <sub>j</sub> = + 2 °C	COP <sub>d</sub>	1.88	-
Degradation co-efficient (**)	C <sub>dh</sub>	1.00	-				
T <sub>j</sub> = + 7 °C	P <sub>dh</sub>	5.2	kW	T <sub>j</sub> = + 7 °C	COP <sub>d</sub>	3.51	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.99	-				
T <sub>j</sub> = +12 °C	P <sub>dh</sub>	4.5	kW	T <sub>j</sub> = +12 °C	COP <sub>d</sub>	6.08	-
Degradation co-efficient (**)	C <sub>dh</sub>	0.97	-				
T <sub>j</sub> = bivalent temperature	P <sub>dh</sub>	8.0	kW	T <sub>j</sub> = bivalent temperature	COP <sub>d</sub>	1.88	-
T <sub>j</sub> = operation limit temperature	P <sub>dh</sub>	5.3	kW	T <sub>j</sub> = operation limit temperature	COP <sub>d</sub>	1.41	-
T <sub>j</sub> = - 15 °C (if TOL < - 20 °C)	P <sub>dh</sub>	-	kW	T <sub>j</sub> = - 15 °C (if TOL < - 20 °C)	COP <sub>d</sub>	-	-
Bivalent temperature	T <sub>biv</sub>	2	°C	Operation limit temperature	TOL	-28	°C
Reference design conditions for space heating	T <sub>designh</sub>	2	°C	Heating water operating limit temperature	WTOL	60	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P <sub>OFF</sub>	0.022	kW	Rated heat output (*)	P <sub>sup</sub>	0.0	kW
Thermostat-off mode	P <sub>TO</sub>	0.022	kW				
Standby mode	P <sub>SB</sub>	0.022	kW				
Crankcase heater mode	P <sub>CK</sub>	0.000	kW				
				Type of energy input	Electrical		

Other items			
Capacity control		variable	
Sound power level, indoors/outdoors	L <sub>WA</sub>	41 / 56	dB(A)
Annual energy consumption	Q <sub>HE</sub>	2479	kWh
Rated air flow rate, outdoors			
-			
2220			
m <sup>3</sup> /h			

For heat pump combination heater:			
Declared load profile		XL	
Daily electricity consumption	Q <sub>elec</sub>	5.470	kWh
Annual electricity consumption	AEC	1203	kWh
Water heating energy efficiency			
$\eta_{wh}$			
145			
%			

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

Model(s):	Outdoor unit:	PUD-SHWM80YAA(-BS)
	Indoor unit:	ERST30D-****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	8.0	kW	Seasonal space heating energy efficiency	$\eta_s$	222	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = - 7 °C	Pdh	-	kW	Tj = - 7 °C	COPd	-	-
Degradation co-efficient (**)	Cdh	-	-				
Tj = + 2 °C	Pdh	8.0	kW	Tj = + 2 °C	COPd	3.74	-
Degradation co-efficient (**)	Cdh	0.99	-				
Tj = + 7 °C	Pdh	5.1	kW	Tj = + 7 °C	COPd	5.05	-
Degradation co-efficient (**)	Cdh	0.98	-				
Tj = +12 °C	Pdh	4.7	kW	Tj = +12 °C	COPd	7.34	-
Degradation co-efficient (**)	Cdh	0.97	-				
Tj = bivalent temperature	Pdh	8.0	kW	Tj = bivalent temperature	COPd	3.74	-
Tj = operation limit temperature	Pdh	5.3	kW	Tj = operation limit temperature	COPd	1.41	-
Tj = - 15 °C (if TOL < - 20 °C)	Pdh	-	kW	Tj = - 15 °C (if TOL < - 20 °C)	COPd	-	-
Bivalent temperature	Tbiv	2	°C	Operation limit temperature	TOL	-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 <sub>OFF</sub>	0.022	kW	Rated heat output (*)	P <sub>sup</sub>	0.0	kW
Thermostat-off mode	P <sub>TO</sub>	0.022	kW				
Standby mode	P <sub>SB</sub>	0.022	kW				
Crankcase heater mode	P <sub>CK</sub>	0.000	kW				
				Type of energy input	Electrical		

Other items			
Capacity control		variable	
Sound power level, indoors/outdoors	L <sub>WA</sub>	41 / 56	dB(A)
Annual energy consumption	Q <sub>HE</sub>	1820	kWh
Rated air flow rate, outdoors			
-			
2220			
m <sup>3</sup> /h			

For heat pump combination heater:			
Declared load profile		XL	
Daily electricity consumption	Q <sub>elec</sub>	5.470	kWh
Annual electricity consumption	AEC	1203	kWh
Water heating energy efficiency			
$\eta_{wh}$			
145			
%			

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