Technical Data Sheet
WSLHP7 & WSLHP12

This Technical Data Sheet is made in accordance with Ecodesign Requirements outlined in Regulation (EU) No 811/2013 and Regulation (EU) No 813/2013.

1 Low temperature Heating WSLHP7

Model(s):	WSLHP7
Air-to-water heat pump	yes
Water-to-water heat pump	no
Brine-to-water heat pump	no
Low-temperature heat pump	no
Equipped with a supplementary heater	yes
Heat pump combination heater	no (yes(***))
Parameters are declared for low temperature application	yes
Parameters are declared for average climate condition	yes
Parameters are declared at variable outlet water temperature	yes

Item	Symbol	Value	Unit
Rated heat output (*)	Prated	7	kW
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperatur Tj			
Tj = -7°C	Pdh	5,4	kW
Tj = +2°C	Pdh	5,7	kW
Tj = +7°C	Pdh	4,1	kW
Tj = +12°C	Pdh	4,0	kW
Tj = bivalent temperature	Pdh	6,7	kW
Tj = operation limit temperature	Pdh	6,7	kW
For air-to-water heat pumps: Tj= -15°C (if TOL < -20°C)	Pdh	/	kW
Bivalent temperature	Tbiv	-10	°C
Cycling interval capacity for heating	Pcych	0	kW
Degradation co-efficient (**)	Cdh	1,00	-

Item	Symbol	Value	Unit
Seasonal space heating energy efficiency	η_s	163	%
Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperatur Tj			
Tj = -7°C	COPd	3,06	-
Tj = +2°C	COPd	4,28	-
Tj = +7°C	COPd	5,27	-
Tj = +12°C	COPd	7,54	-
Tj = bivalent temperature	COPd	2,79	-
Tj = operation limit temperature	COPd	2,79	-
For air-to-water heat pumps: Tj= -15°C (if TOL < -20°C)	COPd	/	-
For air-to-water heat pumps: Operation limit temperature	TOL	-10	°C
Cycling interval efficiency	COPcyc	0	-
Heating water operating limit temperature	WTOL	63	°C

Power consumption in modes other than active mode			
Off mode	POFF	0,005	kW
Thermostat-off mode	PTO	0,011	kW
Standby mode	PSB	0,010	kW
Crankcase heater mode	PCK	0,031	kW

Supplementary heater			
Rated heat output (**)	Psup	3 x 2	kW
Type of energy input	electical heater		

Other items			
Capacity control	variable		
Sound power level, indoors/ outdoors	LWA	63 / 35	dB
Annual energy consumption	QHE	3346	kWh

For air-to-water heat pumps: Rated air flow rate, outdoors	-	1900	m³/h
For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	-	m³/h

(*) 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.

(***) In combination with indoor unit HM-142-S1

2 High temperature Heating WSLHP7

Model(s):	WSLHP7
Air-to-water heat pump	yes
Water-to-water heat pump	no
Brine-to-water heat pump	no
Low-temperature heat pump	no
Equipped with a supplementary heater	yes
Heat pump combination heater	no (yes(***))
Parameters are declared for middle temperature application	yes
Parameters are declared for average climate condition	yes
Parameters are declared at variable outlet water temperature	yes

Item	Symbol	Value	Unit
Rated heat output (*)	Prated	6	kW
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperatur Tj			
Tj = -7°C	Pdh	4,6	kW
Tj = +2°C	Pdh	3,3	kW
Tj = +7°C	Pdh	3,5	kW
Tj = +12°C	Pdh	4,4	kW
Tj = bivalent temperature	Pdh	5,4	kW
Tj = operation limit temperature	Pdh	5,4	kW
For air-to-water heat pumps: Tj= -15°C (if TOL < -20°C)	Pdh	/	kW
Bivalent temperature	Tbiv	-10	°C
Cycling interval capacity for heating	Pcych	0	kW
Degradation co-efficient (**)	Cdh	1,00	-

Item	Symbol	Value	Unit
Seasonal space heating energy efficiency	η_s	112	%
Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperatur Tj			
Tj = -7°C	COPd	1,9	-
Tj = +2°C	COPd	3,06	-
Tj = +7°C	COPd	3,55	-
Tj = +12°C	COPd	5,35	-
Tj = bivalent temperature	COPd	1,23	-
Tj = operation limit temperature	COPd	1,23	-
For air-to-water heat pumps: Tj= -15°C (if TOL < -20°C)	COPd	/	-
For air-to-water heat pumps: Operation limit temperature	TOL	-10	°C
Cycling interval efficiency	COPcyc	0	-
Heating water operating limit temperature	WTOL	63	°C

Power consumption in modes other than active mode			
Off mode	POFF	0,005	kW
Thermostat-off mode	PTO	0,011	kW
Standby mode	PSB	0,010	kW
Crankcase heater mode	PCK	0,031	kW

Supplementary heater			
Rated heat output (**)	Psup	3 x 2	kW
Type of energy input	electrical heater		

Other items			
Capacity control	variable		
Sound power level, indoors/ outdoors	LWA	64 / 35	dB
Annual energy consumption	QHE	3897	kWh

For air-to-water heat pumps: Rated air flow rate, outdoors	-	1900	m³/h
For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	-	m³/h

For heat pump combination heater(***)			
Declared load profile	XL		
Daily electricity consumption	Qelec	8,1	kWh
Annual electricity consumption	AEC	1710	kWh

Water heating energy efficiency	η_{wh}	98	%
Daily fuel consumption	Qfuel	-	kWh
Annual fuel consumption	AFC	-	GJ

(*) 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.

(***) In combination with indoor unit HM-142-S1

3 Low temperature Heating WSLHP12

Model(s):	WSLHP12
Air-to-water heat pump	yes
Water-to-water heat pump	no
Brine-to-water heat pump	no
Low-temperature heat pump	no
Equipped with a supplementary heater	yes
Heat pump combination heater	no (yes(***))
Parameters are declared for low temperature application	yes
Parameters are declared for average climate condition	yes
Parameters are declared at variable outlet water temperature	yes

Item	Symbol	Value	Unit
Rated heat output (*)	Prated	12	kW
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperatur Tj			
Tj = -7°C	Pdh	10.5	kW
Tj = +2°C	Pdh	6.7	kW
Tj = +7°C	Pdh	7.9	kW
Tj = +12°C	Pdh	9.3	kW
Tj = bivalent temperature	Pdh	11.8	kW
Tj = operation limit temperature	Pdh	11.8	kW
For air-to-water heat pumps: Tj= -15°C (if TOL < -20°C)	Pdh	/	kW
Bivalent temperature	Tbiv	-10	°C
Cycling interval capacity for heating	Pcych	0	kW
Degradation co-efficient (**)	Cdh	1.00	-

Item	Symbol	Value	Unit
Seasonal space heating energy efficiency	η_s	182	%
Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperatur Tj			
Tj = -7°C	COPd	3.24	-
Tj = +2°C	COPd	4.73	-
Tj = +7°C	COPd	5.79	-
Tj = +12°C	COPd	8.42	-
Tj = bivalent temperature	COPd	2.71	-
Tj = operation limit temperature	COPd	2.71	-
For air-to-water heat pumps: Tj= -15°C (if TOL < -20°C)	COPd	/	-
For air-to-water heat pumps: Operation limit temperature	TOL	-10	°C
Cycling interval efficiency	COPcyc	0	-
Heating water operating limit temperature	W_{TOL}	63	°C

Power consumption in modes other than active mode			
Off mode	P_{OFF}	0.010	kW
Thermostat-off mode	P_{TO}	0.019	kW
Standby mode	P_{SB}	0.019	kW
Crankcase heater mode	P_{CK}	0.041	kW

Supplementary heater			
Rated heat output (**)	Psup	3 x 2	kW
Type of energy input	electical heater		

Other items			
Capacity control	variable		
Sound power level, indoors/ outdoors	L_{WA}	67 / 35	dB
Annual energy consumption	Q_{HE}	5154	kWh

For air-to-water heat pumps: Rated air flow rate, outdoors	-	3800	m³/h
For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	-	m³/h

(*) 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.

(***) In combination with indoor unit WSL142

4 High temperature Heating WSLHP12

Model(s):	WSLHP12
Air-to-water heat pump	yes
Water-to-water heat pump	no
Brine-to-water heat pump	no
Low-temperature heat pump	no
Equipped with a supplementary heater	yes
Heat pump combination heater	no (yes(***))
Parameters are declared for middle temperature application	yes
Parameters are declared for average climate condition	yes
Parameters are declared at variable outlet water temperature	yes

Item	Symbol	Value	Unit
Rated heat output (*)	Prated	11	kW
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperatur Tj			
Tj = -7°C	Pdh	9,7	kW
Tj = +2°C	Pdh	6,2	kW
Tj = +7°C	Pdh	7	kW
Tj = +12°C	Pdh	8,5	kW
Tj = bivalent temperature	Pdh	11,3	kW
Tj = operation limit temperature	Pdh	11,3	kW
For air-to-water heat pumps: Tj= -15°C (if TOL < -20°C)	Pdh	/	kW
Bivalent temperature	Tbiv	-10	°C
Cycling interval capacity for heating	Pcych	0	kW
Degradation co-efficient (**)	Cdh	1,00	-

Item	Symbol	Value	Unit
Seasonal space heating energy efficiency	η_s	125	%
Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperatur Tj			
Tj = -7°C	COPd	2,07	-
Tj = +2°C	COPd	3,41	-
Tj = +7°C	COPd	3,94	-
Tj = +12°C	COPd	5,70	-
Tj = bivalent temperature	COPd	1,14	-
Tj = operation limit temperature	COPd	1,14	-
For air-to-water heat pumps: Tj= -15°C (if TOL < -20°C)	COPd	/	-
For air-to-water heat pumps: Operation limit temperature	TOL	-10	°C
Cycling interval efficiency	COPcyc	0	-
Heating water operating limit temperature	WTOL	63	°C

Power consumption in modes other than active mode			
Off mode	POFF	0,010	kW
Thermostat-off mode	PTO	0,019	kW
Standby mode	PSB	0,019	kW
Crankcase heater mode	PCK	0,041	kW

Supplementary heater			
Rated heat output (**)	Psup	3 x 2	kW
Type of energy input	electrical heater		

Other items			
Capacity control	variable		
Sound power level, indoors/ outdoors	LWA	67 / 35	dB
Annual energy consumption	QHE	7074	kWh

For air-to-water heat pumps: Rated air flow rate, outdoors	-	3800	m³/h
For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	-	m³/h

For heat pump combination heater(***)			
Declared load profile	XL		
Daily electricity consumption	Qelec	9,0	kWh
Annual electricity consumption	AEC	1881	kWh

Water heating energy efficiency	η_{wh}	89	%
Daily fuel consumption	Qfuel	-	kWh
Annual fuel consumption	AFC	-	GJ

(*) 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.

(***) In combination with indoor unit HM-142-S1