Information requirements
(heat pump space heaters and heat pump combination heaters)

Model(s): AOWD-MB LOGIK-14K2

Air-to-water heat pump	Y			Low-temperature heat pump	N		
Water-to-water heat pump	N			Equipped with a supplementary heater	N		
Brine-to-water heat pump	N			Heat pump combination heater	Y		
Parameters declared for	Medium-temperature application						
Parameters declared for	Average climate condition						
Item	symbol	value	unit	Item	symbol	value	unit
Rated heat output (*)	Prated	5	kW	Seasonal space heating energy efficiency	ηs	137	%
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 ℃	Pdh	4.3	kW	Tj = – 7 ℃	COPd	2.47	–
Degradation co-efficient (**)	Cdh	0.99	–				
Tj = 2 ℃	Pdh	2.7	kW	Tj = 2 ℃	COPd	3.19	–
Degradation co-efficient (**)	Cdh	0.98	–				
Tj = 7 ℃	Pdh	1.7	kW	Tj = 7 ℃	COPd	4.89	–
Degradation co-efficient (**)	Cdh	0.95	–				
Tj = 12℃	Pdh	1.6	kW	Tj = 12℃	COPd	6.61	–
Degradation co-efficient (**)	Cdh	0.94	–				
Tj = bivalent temperature	Pdh	4.3	kW	Tj = bivalent temperature	COPd	2.47	–
Tj = operation limit temperature	Pdh	3.6	kW	Tj = operation limit temperature	COPd	1.56	–
For air-to-water heat pumps: Tj = – 15℃ (if TOL < – 20℃)	Pdh	NA	kW	For air-to-water heat pumps: Tj = – 15℃ (if TOL < – 20℃)	COPd	NA	–
Bivalent temperature	Tbiv	-7	℃	For air-to-water heat pumps: Operation limit temperature	TOL	-10	℃
Cycling interval capacity for heating	Pcych	NA	kW	Cycling interval efficiency	COPcyc	NA	–
				Heating water operating limit temperature	WTOL	65	℃
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P_{OFF}	0.025	kW	Rated heat output (*)	Psup	1.4	kW
Thermostat-off mode	P_{TO}	0.025	kW	Type of energy input	Electric		
Standby mode	P_{SB}	0.025	kW				
Crankcase heater mode	P_{CK}	0.025	kW				
Other items							
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	–	3200	m 3 /h
Sound power level, outdoors	L_{WA}	58	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	–	NA	m 3 /h
Annual energy consumption	Q_{HE}	2882	kWh				
For heat pump combination heater:							
Declared load profile	XL			Water heating energy efficiency	ηwh	128	%
Daily electricity consumption	Qelec	6.237	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity consumption	AEC	1372	kWh	Annual fuel consumption	AFC	NA	GJ
Contact details: sat.eurofredgroup.com.				Name and address of the supplier: Eurofred S.A. C/Marqu® de Sentmenat,97, 08029 Barcelona.Spain			

(*) 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.

Information requirements
(heat pump space heaters and heat pump combination heaters)

Model(s):AOWD-MB LOGIK-14K2

Air-to-water heat pump	Y			Low-temperature heat pump	N		
Water-to-water heat pump	N			Equipped with a supplementary heater	N		
Brine-to-water heat pump	N			Heat pump combination heater	Y		
Parameters declared for	Medium-temperature application						
Parameters declared for	Colder climate condition						
Item	symbol	value	unit	Item	symbol	value	unit
Rated heat output (*)	Prated	4	kW	Seasonal space heating energy efficiency	ηs	112	%
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 ℃	Pdh	2.6	kW	Tj = – 7 ℃	COPd	2.05	–
Degradation co-efficient (**)	Cdh	0.99	–				
Tj = 2 ℃	Pdh	1.6	kW	Tj = 2 ℃	COPd	3.77	–
Degradation co-efficient (**)	Cdh	0.97	–				
Tj = 7 ℃	Pdh	1.3	kW	Tj = 7 ℃	COPd	5.15	–
Degradation co-efficient (**)	Cdh	0.95	–				
Tj = 12℃	Pdh	1.5	kW	Tj = 12℃	COPd	7.21	–
Degradation co-efficient (**)	Cdh	0.95	–				
Tj = bivalent temperature	Pdh	3.5	kW	Tj = bivalent temperature	COPd	1.76	–
Tj = operation limit temperature	Pdh	2.5	kW	Tj = operation limit temperature	COPd	1.20	–
For air-to-water heat pumps: Tj = – 15℃ (if TOL < – 20℃)	Pdh	3.5	kW	For air-to-water heat pumps: Tj = – 15℃ (if TOL < – 20℃)	COPd	1.76	–
Bivalent temperature	Tbiv	-15	℃	For air-to-water heat pumps: Operation limit temperature	TOL	-22	℃
Cycling interval capacity for heating	Pcych	NA	kW	Cycling interval efficiency	COPcyc	NA	–
				Heating water operating limit temperature	WTOL	65	℃
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P_{OFF}	0.025	kW	Rated heat output (*)	Psup	1.5	kW
Thermostat-off mode	P_{TO}	0.025	kW	Type of energy input	Electric		
Standby mode	P_{SB}	0.025	kW				
Crankcase heater mode	P_{CK}	0.025	kW				
Other items							
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	–	3200	m 3 /h
Sound power level, outdoors	L_{WA}	58	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	–	NA	m 3 /h
Annual energy consumption	Q_{HE}	3721	kWh				
For heat pump combination heater:							
Declared load profile	XL			Water heating energy efficiency	ηwh	90	%
Daily electricity consumption	Qelec	8.826	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity consumption	AEC	1942	kWh	Annual fuel consumption	AFC	NA	GJ
Contact details: sat.eurofredgroup.com.				Name and address of the supplier: Eurofred S.A. C/Marqu® de Sentmenat,97, 08029 Barcelona.Spain			

(*) 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.

Information requirements
(heat pump space heaters and heat pump combination heaters)

Model(s): AOWD-MB LOGIK-14K2

Air-to-water heat pump	Y			Low-temperature heat pump	N		
Water-to-water heat pump	N			Equipped with a supplementary heater	N		
Brine-to-water heat pump	N			Heat pump combination heater	Y		
Parameters declared for	Medium-temperature application						
Parameters declared for	Warmer climate condition						
Item	symbol	value	unit	Item	symbol	value	unit
Rated heat output (*)	Prated	5	kW	Seasonal space heating energy efficiency	ηs	170	%
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 ℃	Pdh	NA	kW	Tj = – 7 ℃	COPd	NA	–
Degradation co-efficient (**)	Cdh	NA	–				
Tj = 2 ℃	Pdh	5.2	kW	Tj = 2 ℃	COPd	2.44	–
Degradation co-efficient (**)	Cdh	0.99	–				
Tj = 7 ℃	Pdh	3.2	kW	Tj = 7 ℃	COPd	3.67	–
Degradation co-efficient (**)	Cdh	0.98	–				
Tj = 12℃	Pdh	1.5	kW	Tj = 12℃	COPd	5.79	–
Degradation co-efficient (**)	Cdh	0.95	–				
Tj = bivalent temperature	Pdh	5.2	kW	Tj = bivalent temperature	COPd	2.44	–
Tj = operation limit temperature	Pdh	5.2	kW	Tj = operation limit temperature	COPd	2.44	–
For air-to-water heat pumps: Tj = – 15℃ (if TOL < – 20℃)	Pdh	NA	kW	For air-to-water heat pumps: Tj = – 15℃ (if TOL < – 20℃)	COPd	NA	–
Bivalent temperature	Tbiv	2	℃	For air-to-water heat pumps: Operation limit temperature	TOL	2	℃
Cycling interval capacity for heating	Pcych	NA	kW	Cycling interval efficiency	COPcyc	NA	–
				Heating water operating limit temperature	WTOL	65	℃
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P_{OFF}	0.025	kW	Rated heat output (*)	Psup	0	kW
Thermostat-off mode	P_{TO}	0.025	kW	Type of energy input	Electric		
Standby mode	P_{SB}	0.025	kW				
Crankcase heater mode	P_{CK}	0.025	kW				
Other items							
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	–	3200	m 3 /h
Sound power level, outdoors	L_{WA}	58	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	–	NA	m 3 /h
Annual energy consumption	Q_{HE}	1604	kWh				
For heat pump combination heater:							
Declared load profile	XL			Water heating energy efficiency	ηwh	120	%
Daily electricity consumption	Qelec	6.665	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity consumption	AEC	1466	kWh	Annual fuel consumption	AFC	NA	GJ
Contact details: sat.eurofredgroup.com.				Name and address of the supplier: Eurofred S.A. C/Marqu® de Sentmenat,97, 08029 Barcelona.Spain			

(*) 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.

Information requirements
(heat pump space heaters and heat pump combination heaters)

Model(s): AOWD-MB LOGIK-14K2

Air-to-water heat pump	Y			Low-temperature heat pump	N		
Water-to-water heat pump	N			Equipped with a supplementary heater	N		
Brine-to-water heat pump	N			Heat pump combination heater	Y		
Parameters declared for	Low-temperature application						
Parameters declared for	Average climate condition						
Item	symbol	value	unit	Item	symbol	value	unit
Rated heat output (*)	Prated	5	kW	Seasonal space heating energy efficiency	ηs	192	%
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 ℃	Pdh	4.8	kW	Tj = – 7 ℃	COPd	3.43	–
Degradation co-efficient (**)	Cdh	0.99	–				
Tj = 2 ℃	Pdh	3.1	kW	Tj = 2 ℃	COPd	4.83	–
Degradation co-efficient (**)	Cdh	0.98	–				
Tj = 7 ℃	Pdh	1.9	kW	Tj = 7 ℃	COPd	5.95	–
Degradation co-efficient (**)	Cdh	0.95	–				
Tj = 12℃	Pdh	1.7	kW	Tj = 12℃	COPd	8.49	–
Degradation co-efficient (**)	Cdh	0.94	–				
Tj = bivalent temperature	Pdh	4.8	kW	Tj = bivalent temperature	COPd	3.43	–
Tj = operation limit temperature	Pdh	4.4	kW	Tj = operation limit temperature	COPd	2.46	–
For air-to-water heat pumps: Tj = – 15℃ (if TOL < – 20℃)	Pdh	NA	kW	For air-to-water heat pumps: Tj = – 15℃ (if TOL < – 20℃)	COPd	NA	–
Bivalent temperature	Tbiv	-7	℃	For air-to-water heat pumps: Operation limit temperature	TOL	-10	℃
Cycling interval capacity for heating	Pcych	NA	kW	Cycling interval efficiency	COPcyc	NA	–
				Heating water operating limit temperature	WTOL	65	℃
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P_{OFF}	0.025	kW	Rated heat output (*)	Psup	0.6	kW
Thermostat-off mode	P_{TO}	0.025	kW	Type of energy input	Electric		
Standby mode	P_{SB}	0.025	kW				
Crankcase heater mode	P_{CK}	0.025	kW				
Other items							
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	–	3200	m 3 /h
Sound power level, outdoors	L_{WA}	58	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	–	NA	m 3 /h
Annual energy consumption	Q_{HE}	2306	kWh				
For heat pump combination heater:							
Declared load profile	XL			Water heating energy efficiency	ηwh	128	%
Daily electricity consumption	Qelec	6.237	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity consumption	AEC	1372	kWh	Annual fuel consumption	AFC	NA	GJ
Contact details: sat.eurofredgroup.com.				Name and address of the supplier: Eurofred S.A. C/Marqu® de Sentmenat,97, 08029 Barcelona.Spain			

(*) 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.

Information requirements
(heat pump space heaters and heat pump combination heaters)

Model(s): AOWD-MB LOGIK-14K2

Air-to-water heat pump	Y			Low-temperature heat pump	N		
Water-to-water heat pump	N			Equipped with a supplementary heater	N		
Brine-to-water heat pump	N			Heat pump combination heater	Y		
Parameters declared for	Low-temperature application						
Parameters declared for	Colder climate condition						
Item	symbol	value	unit	Item	symbol	value	unit
Rated heat output (*)	Prated	5	kW	Seasonal space heating energy efficiency	ηs	168	%
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 ℃	Pdh	2.9	kW	Tj = – 7 ℃	COPd	3.43	–
Degradation co-efficient (**)	Cdh	0.99	–				
Tj = 2 ℃	Pdh	1.8	kW	Tj = 2 ℃	COPd	5.41	–
Degradation co-efficient (**)	Cdh	0.97	–				
Tj = 7 ℃	Pdh	1.3	kW	Tj = 7 ℃	COPd	6.24	–
Degradation co-efficient (**)	Cdh	0.95	–				
Tj = 12℃	Pdh	1.5	kW	Tj = 12℃	COPd	8.38	–
Degradation co-efficient (**)	Cdh	0.95	–				
Tj = bivalent temperature	Pdh	3.7	kW	Tj = bivalent temperature	COPd	2.85	–
Tj = operation limit temperature	Pdh	3.2	kW	Tj = operation limit temperature	COPd	1.65	–
For air-to-water heat pumps: Tj = – 15℃ (if TOL < – 20℃)	Pdh	3.7	kW	For air-to-water heat pumps: Tj = – 15℃ (if TOL < – 20℃)	COPd	2.85	–
Bivalent temperature	Tbiv	-15	℃	For air-to-water heat pumps: Operation limit temperature	TOL	-22	℃
Cycling interval capacity for heating	Pcych	NA	kW	Cycling interval efficiency	COPcyc	NA	–
				Heating water operating limit temperature	WTOL	65	℃
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P_{OFF}	0.025	kW	Rated heat output (*)	Psup	1.8	kW
Thermostat-off mode	P_{TO}	0.025	kW	Type of energy input	Electric		
Standby mode	P_{SB}	0.025	kW				
Crankcase heater mode	P_{CK}	0.025	kW				
Other items							
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	–	3200	m 3 /h
Sound power level, outdoors	L_{WA}	58	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	–	NA	m 3 /h
Annual energy consumption	Q_{HE}	2630	kWh				
For heat pump combination heater:							
Declared load profile	XL			Water heating energy efficiency	ηwh	90	%
Daily electricity consumption	Qelec	8.826	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity consumption	AEC	1942	kWh	Annual fuel consumption	AFC	NA	GJ
Contact details: sat.eurofredgroup.com.				Name and address of the supplier: Eurofred S.A. C/Marqu® de Sentmenat,97, 08029 Barcelona.Spain			

(*) 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.

Information requirements
(heat pump space heaters and heat pump combination heaters)

Model(s): AOWD-MB LOGIK-14K2

Air-to-water heat pump	Y			Low-temperature heat pump	N		
Water-to-water heat pump	N			Equipped with a supplementary heater	N		
Brine-to-water heat pump	N			Heat pump combination heater	Y		
Parameters declared for	Low-temperature application						
Parameters declared for	Warmer climate condition						
Item	symbol	value	unit	Item	symbol	value	unit
Rated heat output (*)	Prated	5	kW	Seasonal space heating energy efficiency	ηs	239	%
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 ℃	Pdh	NA	kW	Tj = – 7 ℃	COPd	NA	–
Degradation co-efficient (**)	Cdh	NA	–				
Tj = 2 ℃	Pdh	5.1	kW	Tj = 2 ℃	COPd	3.85	–
Degradation co-efficient (**)	Cdh	0.99	–				
Tj = 7 ℃	Pdh	3.4	kW	Tj = 7 ℃	COPd	5.80	–
Degradation co-efficient (**)	Cdh	0.98	–				
Tj = 12℃	Pdh	1.5	kW	Tj = 12℃	COPd	7.20	–
Degradation co-efficient (**)	Cdh	0.95	–				
Tj = bivalent temperature	Pdh	5.1	kW	Tj = bivalent temperature	COPd	3.85	–
Tj = operation limit temperature	Pdh	5.1	kW	Tj = operation limit temperature	COPd	3.85	–
For air-to-water heat pumps: Tj = – 15℃ (if TOL < – 20℃)	Pdh	NA	kW	For air-to-water heat pumps: Tj = – 15℃ (if TOL < – 20℃)	COPd	NA	–
Bivalent temperature	Tbiv	2	℃	For air-to-water heat pumps: Operation limit temperature	TOL	2	℃
Cycling interval capacity for heating	Pcych	NA	kW	Cycling interval efficiency	COPcyc	NA	–
				Heating water operating limit temperature	WTOL	65	℃
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P_{OFF}	0.025	kW	Rated heat output (*)	Psup	0	kW
Thermostat-off mode	P_{TO}	0.025	kW	Type of energy input	Electric		
Standby mode	P_{SB}	0.025	kW				
Crankcase heater mode	P_{CK}	0.025	kW				
Other items							
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	–	3200	m 3 /h
Sound power level, outdoors	L_{WA}	58	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	–	NA	m 3 /h
Annual energy consumption	Q_{HE}	1124	kWh				
For heat pump combination heater:							
Declared load profile	XL			Water heating energy efficiency	ηwh	120	%
Daily electricity consumption	Qelec	6.665	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity consumption	AEC	1466	kWh	Annual fuel consumption	AFC	NA	GJ
Contact details: sat.eurofredgroup.com.				Name and address of the supplier: Eurofred S.A. C/Marqu® de Sentmenat,97, 08029 Barcelona.Spain			

(*) 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.

Information requirements
(heat pump space heaters and heat pump combination heaters)

Model(s): AOWD-MB LOGIK-18K2

Air-to-water heat pump	Y			Low-temperature heat pump	N		
Water-to-water heat pump	N			Equipped with a supplementary heater	N		
Brine-to-water heat pump	N			Heat pump combination heater	Y		
Parameters declared for	Medium-temperature application						
Parameters declared for	Average climate condition						
Item	symbol	value	unit	Item	symbol	value	unit
Rated heat output (*)	Prated	5	kW	Seasonal space heating energy efficiency	ηs	137	%
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 ℃	Pdh	4.3	kW	Tj = – 7 ℃	COPd	2.47	–
Degradation co-efficient (**)	Cdh	0.99	–				
Tj = 2 ℃	Pdh	2.7	kW	Tj = 2 ℃	COPd	3.19	–
Degradation co-efficient (**)	Cdh	0.98	–				
Tj = 7 ℃	Pdh	1.7	kW	Tj = 7 ℃	COPd	4.89	–
Degradation co-efficient (**)	Cdh	0.95	–				
Tj = 12℃	Pdh	1.6	kW	Tj = 12℃	COPd	6.61	–
Degradation co-efficient (**)	Cdh	0.94	–				
Tj = bivalent temperature	Pdh	4.3	kW	Tj = bivalent temperature	COPd	2.47	–
Tj = operation limit temperature	Pdh	3.6	kW	Tj = operation limit temperature	COPd	1.56	–
For air-to-water heat pumps: Tj = – 15℃ (if TOL < – 20℃)	Pdh	NA	kW	For air-to-water heat pumps: Tj = – 15℃ (if TOL < – 20℃)	COPd	NA	–
Bivalent temperature	Tbiv	-7	℃	For air-to-water heat pumps: Operation limit temperature	TOL	-10	℃
Cycling interval capacity for heating	Pcych	NA	kW	Cycling interval efficiency	COPcyc	NA	–
				Heating water operating limit temperature	WTOL	65	℃
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P_{OFF}	0.025	kW	Rated heat output (*)	Psup	1.4	kW
Thermostat-off mode	P_{TO}	0.025	kW	Type of energy input	Electric		
Standby mode	P_{SB}	0.025	kW				
Crankcase heater mode	P_{CK}	0.025	kW				
Other items							
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	–	3200	m 3 /h
Sound power level, outdoors	L_{WA}	58	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	–	NA	m 3 /h
Annual energy consumption	Q_{HE}	2882	kWh				
For heat pump combination heater:							
Declared load profile	XL			Water heating energy efficiency	ηwh	128	%
Daily electricity consumption	Qelec	6.237	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity consumption	AEC	1372	kWh	Annual fuel consumption	AFC	NA	GJ
Contact details: sat.eurofredgroup.com.				Name and address of the supplier: Eurofred S.A. C/Marqu® de Sentmenat,97, 08029 Barcelona.Spain			

(*) 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.

Information requirements
(heat pump space heaters and heat pump combination heaters)

Model(s): AOWD-MB LOGIK-18K2

Air-to-water heat pump	Y			Low-temperature heat pump	N		
Water-to-water heat pump	N			Equipped with a supplementary heater	N		
Brine-to-water heat pump	N			Heat pump combination heater	Y		
Parameters declared for	Medium-temperature application						
Parameters declared for	Colder climate condition						
Item	symbol	value	unit	Item	symbol	value	unit
Rated heat output (*)	Prated	5	kW	Seasonal space heating energy efficiency	ηs	120	%
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 ℃	Pdh	3.3	kW	Tj = – 7 ℃	COPd	2.55	–
Degradation co-efficient (**)	Cdh	0.99	–				
Tj = 2 ℃	Pdh	1.8	kW	Tj = 2 ℃	COPd	3.67	–
Degradation co-efficient (**)	Cdh	0.97	–				
Tj = 7 ℃	Pdh	1.3	kW	Tj = 7 ℃	COPd	5.15	–
Degradation co-efficient (**)	Cdh	0.95	–				
Tj = 12℃	Pdh	1.5	kW	Tj = 12℃	COPd	7.21	–
Degradation co-efficient (**)	Cdh	0.95	–				
Tj = bivalent temperature	Pdh	4.0	kW	Tj = bivalent temperature	COPd	1.91	–
Tj = operation limit temperature	Pdh	2.5	kW	Tj = operation limit temperature	COPd	1.20	–
For air-to-water heat pumps: Tj = – 15℃ (if TOL < – 20℃)	Pdh	4.0	kW	For air-to-water heat pumps: Tj = – 15℃ (if TOL < – 20℃)	COPd	1.91	–
Bivalent temperature	Tbiv	-15	℃	For air-to-water heat pumps: Operation limit temperature	TOL	-22	℃
Cycling interval capacity for heating	Pcych	NA	kW	Cycling interval efficiency	COPcyc	NA	–
				Heating water operating limit temperature	WTOL	65	℃
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P_{OFF}	0.025	kW	Rated heat output (*)	Psup	2.5	kW
Thermostat-off mode	P_{TO}	0.025	kW	Type of energy input	Electric		
Standby mode	P_{SB}	0.025	kW				
Crankcase heater mode	P_{CK}	0.025	kW				
Other items							
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	–	3200	m 3 /h
Sound power level, outdoors	L_{WA}	58	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	–	NA	m 3 /h
Annual energy consumption	Q_{HE}	3976	kWh				
For heat pump combination heater:							
Declared load profile	XL			Water heating energy efficiency	ηwh	90	%
Daily electricity consumption	Qelec	8.826	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity consumption	AEC	1942	kWh	Annual fuel consumption	AFC	NA	GJ
Contact details: sat.eurofredgroup.com.				Name and address of the supplier: Eurofred S.A. C/Marqu® de Sentmenat,97, 08029 Barcelona.Spain			

(*) 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.

Information requirements
(heat pump space heaters and heat pump combination heaters)

Model(s): AOWD-MB LOGIK-18K2

Air-to-water heat pump	Y			Low-temperature heat pump	N		
Water-to-water heat pump	N			Equipped with a supplementary heater	N		
Brine-to-water heat pump	N			Heat pump combination heater	Y		
Parameters declared for	Medium-temperature application						
Parameters declared for	Warmer climate condition						
Item	symbol	value	unit	Item	symbol	value	unit
Rated heat output (*)	Prated	6	kW	Seasonal space heating energy efficiency	ηs	183	%
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 ℃	Pdh	NA	kW	Tj = – 7 ℃	COPd	NA	–
Degradation co-efficient (**)	Cdh	NA	–				
Tj = 2 ℃	Pdh	6.0	kW	Tj = 2 ℃	COPd	2.50	–
Degradation co-efficient (**)	Cdh	0.99	–				
Tj = 7 ℃	Pdh	3.9	kW	Tj = 7 ℃	COPd	4.00	–
Degradation co-efficient (**)	Cdh	0.98	–				
Tj = 12℃	Pdh	1.7	kW	Tj = 12℃	COPd	6.13	–
Degradation co-efficient (**)	Cdh	0.95	–				
Tj = bivalent temperature	Pdh	6.0	kW	Tj = bivalent temperature	COPd	2.50	–
Tj = operation limit temperature	Pdh	6.0	kW	Tj = operation limit temperature	COPd	2.50	–
For air-to-water heat pumps: Tj = – 15℃ (if TOL < – 20℃)	Pdh	NA	kW	For air-to-water heat pumps: Tj = – 15℃ (if TOL < – 20℃)	COPd	NA	–
Bivalent temperature	Tbiv	2	℃	For air-to-water heat pumps: Operation limit temperature	TOL	2	℃
Cycling interval capacity for heating	Pcych	NA	kW	Cycling interval efficiency	COPcyc	NA	–
				Heating water operating limit temperature	WTOL	65	℃
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P_{OFF}	0.025	kW	Rated heat output (*)	Psup	0	kW
Thermostat-off mode	P_{TO}	0.025	kW	Type of energy input	Electric		
Standby mode	P_{SB}	0.025	kW				
Crankcase heater mode	P_{CK}	0.025	kW				
Other items							
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	–	3200	m 3 /h
Sound power level, outdoors	L_{WA}	58	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	–	NA	m 3 /h
Annual energy consumption	Q_{HE}	1722	kWh				
For heat pump combination heater:							
Declared load profile	XL			Water heating energy efficiency	ηwh	120	%
Daily electricity consumption	Qelec	6.665	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity consumption	AEC	1466	kWh	Annual fuel consumption	AFC	NA	GJ
Contact details: sat.eurofredgroup.com.				Name and address of the supplier: Eurofred S.A. C/Marqu® de Sentmenat,97, 08029 Barcelona.Spain			

(*) 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.

Information requirements
(heat pump space heaters and heat pump combination heaters)

Model(s): AOWD-MB LOGIK-18K2

Air-to-water heat pump	Y			Low-temperature heat pump	N		
Water-to-water heat pump	N			Equipped with a supplementary heater	N		
Brine-to-water heat pump	N			Heat pump combination heater	Y		
Parameters declared for	Low-temperature application						
Parameters declared for	Average climate condition						
Item	symbol	value	unit	Item	symbol	value	unit
Rated heat output (*)	Prated	6	kW	Seasonal space heating energy efficiency	ηs	199	%
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 ℃	Pdh	5.1	kW	Tj = – 7 ℃	COPd	3.22	–
Degradation co-efficient (**)	Cdh	0.99	–				
Tj = 2 ℃	Pdh	3.4	kW	Tj = 2 ℃	COPd	4.86	–
Degradation co-efficient (**)	Cdh	0.98	–				
Tj = 7 ℃	Pdh	2.0	kW	Tj = 7 ℃	COPd	7.09	–
Degradation co-efficient (**)	Cdh	0.95	–				
Tj = 12℃	Pdh	1.7	kW	Tj = 12℃	COPd	8.49	–
Degradation co-efficient (**)	Cdh	0.94	–				
Tj = bivalent temperature	Pdh	5.1	kW	Tj = bivalent temperature	COPd	3.22	–
Tj = operation limit temperature	Pdh	4.4	kW	Tj = operation limit temperature	COPd	2.46	–
For air-to-water heat pumps: Tj = – 15℃ (if TOL < – 20℃)	Pdh	NA	kW	For air-to-water heat pumps: Tj = – 15℃ (if TOL < – 20℃)	COPd	NA	–
Bivalent temperature	Tbiv	-7	℃	For air-to-water heat pumps: Operation limit temperature	TOL	-10	℃
Cycling interval capacity for heating	Pcych	NA	kW	Cycling interval efficiency	COPcyc	NA	–
				Heating water operating limit temperature	WTOL	65	℃
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P_{OFF}	0.025	kW	Rated heat output (*)	Psup	1.6	kW
Thermostat-off mode	P_{TO}	0.025	kW	Type of energy input	Electric		
Standby mode	P_{SB}	0.025	kW				
Crankcase heater mode	P_{CK}	0.025	kW				
Other items							
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	–	3200	m 3 /h
Sound power level, outdoors	L_{WA}	58	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	–	NA	m 3 /h
Annual energy consumption	Q_{HE}	2386	kWh				
For heat pump combination heater:							
Declared load profile	XL			Water heating energy efficiency	ηwh	128	%
Daily electricity consumption	Qelec	6.237	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity consumption	AEC	1372	kWh	Annual fuel consumption	AFC	NA	GJ
Contact details: sat.eurofredgroup.com.				Name and address of the supplier: Eurofred S.A. C/Marqu® de Sentmenat,97, 08029 Barcelona.Spain			

(*) 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.

Information requirements
(heat pump space heaters and heat pump combination heaters)

Model(s): AOWD-MB LOGIK-18K2

Air-to-water heat pump	Y			Low-temperature heat pump	N		
Water-to-water heat pump	N			Equipped with a supplementary heater	N		
Brine-to-water heat pump	N			Heat pump combination heater	Y		
Parameters declared for	Low-temperature application						
Parameters declared for	Colder climate condition						
Item	symbol	value	unit	Item	symbol	value	unit
Rated heat output (*)	Prated	5	kW	Seasonal space heating energy efficiency	ηs	164	%
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 ℃	Pdh	3.2	kW	Tj = – 7 ℃	COPd	3.47	–
Degradation co-efficient (**)	Cdh	0.99	–				
Tj = 2 ℃	Pdh	1.9	kW	Tj = 2 ℃	COPd	5.18	–
Degradation co-efficient (**)	Cdh	0.97	–				
Tj = 7 ℃	Pdh	1.3	kW	Tj = 7 ℃	COPd	6.24	–
Degradation co-efficient (**)	Cdh	0.95	–				
Tj = 12℃	Pdh	1.5	kW	Tj = 12℃	COPd	8.38	–
Degradation co-efficient (**)	Cdh	0.95	–				
Tj = bivalent temperature	Pdh	3.9	kW	Tj = bivalent temperature	COPd	2.77	–
Tj = operation limit temperature	Pdh	3.2	kW	Tj = operation limit temperature	COPd	1.65	–
For air-to-water heat pumps: Tj = – 15℃ (if TOL < – 20℃)	Pdh	3.9	kW	For air-to-water heat pumps: Tj = – 15℃ (if TOL < – 20℃)	COPd	2.77	–
Bivalent temperature	Tbiv	-15	℃	For air-to-water heat pumps: Operation limit temperature	TOL	-22	℃
Cycling interval capacity for heating	Pcych	NA	kW	Cycling interval efficiency	COPcyc	NA	–
				Heating water operating limit temperature	WTOL	65	℃
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P_{OFF}	0.025	kW	Rated heat output (*)	Psup	1.8	kW
Thermostat-off mode	P_{TO}	0.025	kW	Type of energy input	Electric		
Standby mode	P_{SB}	0.025	kW				
Crankcase heater mode	P_{CK}	0.025	kW				
Other items							
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	–	3200	m 3 /h
Sound power level, outdoors	L_{WA}	58	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	–	NA	m 3 /h
Annual energy consumption	Q_{HE}	2825	kWh				
For heat pump combination heater:							
Declared load profile	XL			Water heating energy efficiency	ηwh	90	%
Daily electricity consumption	Qelec	8.826	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity consumption	AEC	1942	kWh	Annual fuel consumption	AFC	NA	GJ
Contact details: sat.eurofredgroup.com.				Name and address of the supplier: Eurofred S.A. C/Marqu® de Sentmenat,97, 08029 Barcelona.Spain			

(*) 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.

Information requirements (heat pump space heaters and heat pump combination heaters)							
Model(s): AOWD-MB LOGIK-18K2							
Air-to-water heat pump	Y			Low-temperature heat pump	N		
Water-to-water heat pump	N			Equipped with a supplementary heater	N		
Brine-to-water heat pump	N			Heat pump combination heater	Y		
Parameters declared for	Low-temperature application						
Parameters declared for	Warmer climate condition						
Item	symbol	value	unit	Item	symbol	value	unit
Rated heat output (*)	Prated	5	kW	Seasonal space heating energy efficiency	ηs	239	%
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 ℃	Pdh	NA	kW	Tj = – 7 ℃	COPd	NA	–
Degradation co-efficient (**)	Cdh	NA	–				
Tj = 2 ℃	Pdh	5.1	kW	Tj = 2 ℃	COPd	3.85	–
Degradation co-efficient (**)	Cdh	0.99	–				
Tj = 7 ℃	Pdh	3.4	kW	Tj = 7 ℃	COPd	5.80	–
Degradation co-efficient (**)	Cdh	0.98	–				
Tj = 12℃	Pdh	1.5	kW	Tj = 12℃	COPd	7.20	–
Degradation co-efficient (**)	Cdh	0.95	–				
Tj = bivalent temperature	Pdh	5.1	kW	Tj = bivalent temperature	COPd	3.85	–
Tj = operation limit temperature	Pdh	5.1	kW	Tj = operation limit temperature	COPd	3.85	–
For air-to-water heat pumps: Tj = – 15℃ (if TOL < – 20℃)	Pdh	NA	kW	For air-to-water heat pumps: Tj = – 15℃ (if TOL < – 20℃)	COPd	NA	–
Bivalent temperature	Tbiv	2	℃	For air-to-water heat pumps: Operation limit temperature	TOL	2	℃
Cycling interval capacity for heating	Pcych	NA	kW	Cycling interval efficiency	COPcyc	NA	–
				Heating water operating limit temperature	WTOL	65	℃
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P_{OFF}	0.025	kW	Rated heat output (*)	Psup	0	kW
Thermostat-off mode	P_{TO}	0.025	kW	Type of energy input	Electric		
Standby mode	P_{SB}	0.025	kW				
Crankcase heater mode	P_{CK}	0.025	kW				
Other items							
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	–	3200	m 3 /h
Sound power level, outdoors	L_{WA}	58	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	–	NA	m 3 /h
Annual energy consumption	Q_{HE}	1124	kWh				
For heat pump combination heater:							
Declared load profile	XL			Water heating energy efficiency	ηwh	120	%
Daily electricity consumption	Qelec	6.665	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity consumption	AEC	1466	kWh	Annual fuel consumption	AFC	NA	GJ
Contact details: sat.eurofredgroup.com.				Name and address of the supplier: Eurofred S.A. C/Marqu® de Sentmenat,97, 08029 Barcelona.Spain			
(*) 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.							

Information requirements
(heat pump space heaters and heat pump combination heaters)

Model(s): AOWD-MB LOGIK-28K2

Air-to-water heat pump	Y			Low-temperature heat pump	N		
Water-to-water heat pump	N			Equipped with a supplementary heater	Y		
Brine-to-water heat pump	N			Heat pump combination heater	Y		
Parameters declared for	Medium-temperature application						
Parameters declared for	Average climate condition						
Item	symbol	value	unit	Item	symbol	value	unit
Rated heat output (*)	Prated	9	kW	Seasonal space heating energy efficiency	ηs	145	%
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 ℃	Pdh	8.3	kW	Tj = – 7 ℃	COPd	2.33	–
Degradation co-efficient (**)	Cdh	0.99	–				
Tj = 2 ℃	Pdh	5.2	kW	Tj = 2 ℃	COPd	3.57	–
Degradation co-efficient (**)	Cdh	0.98	–				
Tj = 7 ℃	Pdh	3.3	kW	Tj = 7 ℃	COPd	4.96	–
Degradation co-efficient (**)	Cdh	0.97	–				
Tj = 12℃	Pdh	3.0	kW	Tj = 12℃	COPd	6.56	–
Degradation co-efficient (**)	Cdh	0.96	–				
Tj = bivalent temperature	Pdh	8.3	kW	Tj = bivalent temperature	COPd	2.33	–
Tj = operation limit temperature	Pdh	8.7	kW	Tj = operation limit temperature	COPd	1.81	–
For air-to-water heat pumps: Tj = – 15℃ (if TOL < – 20℃)	Pdh	NA	kW	For air-to-water heat pumps: Tj = – 15℃ (if TOL < – 20℃)	COPd	NA	–
Bivalent temperature	Tbiv	-7	℃	For air-to-water heat pumps: Operation limit temperature	TOL	-10	℃
Cycling interval capacity for heating	Pcych	NA	kW	Cycling interval efficiency	COPcyc	NA	–
				Heating water operating limit temperature	WTOL	65	℃
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P_{OFF}	0.025	kW	Rated heat output (*)	Psup	0.3	kW
Thermostat-off mode	P_{TO}	0.025	kW	Type of energy input	Electric		
Standby mode	P_{SB}	0.025	kW				
Crankcase heater mode	P_{CK}	0.025	kW				
Other items							
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	–	5800	m 3 /h
Sound power level, outdoors	L_{WA}	68	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	–	NA	m 3 /h
Annual energy consumption	Q_{HE}	5060	kWh				
For heat pump combination heater:							
Declared load profile	XL			Water heating energy efficiency	ηwh	123	%
Daily electricity consumption	Qelec	6.506	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity consumption	AEC	1431	kWh	Annual fuel consumption	AFC	NA	GJ
Contact details: sat.eurofredgroup.com.				Name and address of the supplier: Eurofred S.A. C/Marqu® de Sentmenat,97, 08029 Barcelona.Spain			

(*) 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.

Information requirements
(heat pump space heaters and heat pump combination heaters)

Model(s): AOWD-MB LOGIK-28K2

Air-to-water heat pump	Y			Low-temperature heat pump	N		
Water-to-water heat pump	N			Equipped with a supplementary heater	Y		
Brine-to-water heat pump	N			Heat pump combination heater	Y		
Parameters declared for	Medium-temperature application						
Parameters declared for	Colder climate condition						
Item	symbol	value	unit	Item	symbol	value	unit
Rated heat output (*)	Prated	8	kW	Seasonal space heating energy efficiency	ηs	125	%
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 ℃	Pdh	5.2	kW	Tj = – 7 ℃	COPd	2.83	–
Degradation co-efficient (**)	Cdh	0.99	–				
Tj = 2 ℃	Pdh	2.9	kW	Tj = 2 ℃	COPd	3.73	–
Degradation co-efficient (**)	Cdh	0.98	–				
Tj = 7 ℃	Pdh	2.4	kW	Tj = 7 ℃	COPd	4.44	–
Degradation co-efficient (**)	Cdh	0.96	–				
Tj = 12℃	Pdh	3.0	kW	Tj = 12℃	COPd	7.10	–
Degradation co-efficient (**)	Cdh	0.96	–				
Tj = bivalent temperature	Pdh	6.7	kW	Tj = bivalent temperature	COPd	2.09	–
Tj = operation limit temperature	Pdh	4.1	kW	Tj = operation limit temperature	COPd	1.06	–
For air-to-water heat pumps: Tj = – 15℃ (if TOL < – 20℃)	Pdh	6.7	kW	For air-to-water heat pumps: Tj = – 15℃ (if TOL < – 20℃)	COPd	2.09	–
Bivalent temperature	Tbiv	-15	℃	For air-to-water heat pumps: Operation limit temperature	TOL	-22	℃
Cycling interval capacity for heating	Pcych	NA	kW	Cycling interval efficiency	COPcyc	NA	–
				Heating water operating limit temperature	WTOL	65	℃
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P_{OFF}	0.025	kW	Rated heat output (*)	Psup	3.9	kW
Thermostat-off mode	P_{TO}	0.025	kW	Type of energy input	Electric		
Standby mode	P_{SB}	0.025	kW				
Crankcase heater mode	P_{CK}	0.025	kW				
Other items							
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	–	5800	m 3 /h
Sound power level, outdoors	L_{WA}	68	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	–	NA	m 3 /h
Annual energy consumption	Q_{HE}	6322	kWh				
For heat pump combination heater:							
Declared load profile	XL			Water heating energy efficiency	ηwh	101	%
Daily electricity consumption	Qelec	7.905	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity consumption	AEC	1739	kWh	Annual fuel consumption	AFC	NA	GJ
Contact details: sat.eurofredgroup.com.				Name and address of the supplier: Eurofred S.A. C/Marqu® de Sentmenat,97, 08029 Barcelona.Spain			

(*) 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.

Information requirements
(heat pump space heaters and heat pump combination heaters)

Model(s): AOWD-MB LOGIK-28K2

Air-to-water heat pump	Y			Low-temperature heat pump	N		
Water-to-water heat pump	N			Equipped with a supplementary heater	Y		
Brine-to-water heat pump	N			Heat pump combination heater	Y		
Parameters declared for	Medium-temperature application						
Parameters declared for	Warmer climate condition						
Item	symbol	value	unit	Item	symbol	value	unit
Rated heat output (*)	Prated	9	kW	Seasonal space heating energy efficiency	ηs	190	%
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 ℃	Pdh	NA	kW	Tj = – 7 ℃	COPd	NA	–
Degradation co-efficient (**)	Cdh	NA	–				
Tj = 2 ℃	Pdh	8.6	kW	Tj = 2 ℃	COPd	2.59	–
Degradation co-efficient (**)	Cdh	0.99	–				
Tj = 7 ℃	Pdh	6.3	kW	Tj = 7 ℃	COPd	4.21	–
Degradation co-efficient (**)	Cdh	0.99	–				
Tj = 12℃	Pdh	3.0	kW	Tj = 12℃	COPd	6.32	–
Degradation co-efficient (**)	Cdh	0.96	–				
Tj = bivalent temperature	Pdh	8.6	kW	Tj = bivalent temperature	COPd	2.59	–
Tj = operation limit temperature	Pdh	8.6	kW	Tj = operation limit temperature	COPd	2.59	–
For air-to-water heat pumps: Tj = – 15℃ (if TOL < – 20℃)	Pdh	NA	kW	For air-to-water heat pumps: Tj = – 15℃ (if TOL < – 20℃)	COPd	NA	–
Bivalent temperature	Tbiv	2	℃	For air-to-water heat pumps: Operation limit temperature	TOL	2	℃
Cycling interval capacity for heating	Pcych	NA	kW	Cycling interval efficiency	COPcyc	NA	–
				Heating water operating limit temperature	WTOL	65	℃
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P_{OFF}	0.025	kW	Rated heat output (*)	Psup	0.4	kW
Thermostat-off mode	P_{TO}	0.025	kW	Type of energy input	Electric		
Standby mode	P_{SB}	0.025	kW				
Crankcase heater mode	P_{CK}	0.025	kW				
Other items							
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	–	5800	m 3 /h
Sound power level, outdoors	L_{WA}	68	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	–	NA	m 3 /h
Annual energy consumption	Q_{HE}	2372	kWh				
For heat pump combination heater:							
Declared load profile	XL			Water heating energy efficiency	ηwh	123	%
Daily electricity consumption	Qelec	6.505	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity consumption	AEC	1431	kWh	Annual fuel consumption	AFC	NA	GJ
Contact details: sat.eurofredgroup.com.				Name and address of the supplier: Eurofred S.A. C/Marqu® de Sentmenat,97, 08029 Barcelona.Spain			

(*) 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.

Information requirements
(heat pump space heaters and heat pump combination heaters)

Model(s): AOWD-MB LOGIK-28K2

Air-to-water heat pump	Y			Low-temperature heat pump	N		
Water-to-water heat pump	N			Equipped with a supplementary heater	Y		
Brine-to-water heat pump	N			Heat pump combination heater	Y		
Parameters declared for	Low-temperature application						
Parameters declared for	Average climate condition						
Item	symbol	value	unit	Item	symbol	value	unit
Rated heat output (*)	Prated	8	kW	Seasonal space heating energy efficiency	ηs	177	%
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 ℃	Pdh	7.4	kW	Tj = – 7 ℃	COPd	3.12	–
Degradation co-efficient (**)	Cdh	0.99	–				
Tj = 2 ℃	Pdh	4.4	kW	Tj = 2 ℃	COPd	4.44	–
Degradation co-efficient (**)	Cdh	0.98	–				
Tj = 7 ℃	Pdh	3.0	kW	Tj = 7 ℃	COPd	5.31	–
Degradation co-efficient (**)	Cdh	0.95	–				
Tj = 12℃	Pdh	3.2	kW	Tj = 12℃	COPd	7.69	–
Degradation co-efficient (**)	Cdh	0.94	–				
Tj = bivalent temperature	Pdh	7.4	kW	Tj = bivalent temperature	COPd	3.12	–
Tj = operation limit temperature	Pdh	7.8	kW	Tj = operation limit temperature	COPd	2.77	–
For air-to-water heat pumps: Tj = – 15℃ (if TOL < – 20℃)	Pdh	NA	kW	For air-to-water heat pumps: Tj = – 15℃ (if TOL < – 20℃)	COPd	NA	–
Bivalent temperature	Tbiv	-7	℃	For air-to-water heat pumps: Operation limit temperature	TOL	-10	℃
Cycling interval capacity for heating	Pcych	NA	kW	Cycling interval efficiency	COPcyc	NA	–
				Heating water operating limit temperature	WTOL	65	℃
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P_{OFF}	0.025	kW	Rated heat output (*)	Psup	0.2	kW
Thermostat-off mode	P_{TO}	0.025	kW	Type of energy input	Electric		
Standby mode	P_{SB}	0.025	kW				
Crankcase heater mode	P_{CK}	0.025	kW				
Other items							
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	–	5800	m 3 /h
Sound power level, outdoors	L_{WA}	68	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	–	NA	m 3 /h
Annual energy consumption	Q_{HE}	3827	kWh				
For heat pump combination heater:							
Declared load profile	XL			Water heating energy efficiency	ηwh	123	%
Daily electricity consumption	Qelec	6.506	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity consumption	AEC	1431	kWh	Annual fuel consumption	AFC	NA	GJ
Contact details: sat.eurofredgroup.com.				Name and address of the supplier: Eurofred S.A. C/Marqu® de Sentmenat,97, 08029 Barcelona.Spain			

(*) 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.

Information requirements
(heat pump space heaters and heat pump combination heaters)

Model(s): AOWD-MB LOGIK-28K2

Air-to-water heat pump	Y			Low-temperature heat pump	N		
Water-to-water heat pump	N			Equipped with a supplementary heater	Y		
Brine-to-water heat pump	N			Heat pump combination heater	Y		
Parameters declared for	Low-temperature application						
Parameters declared for	Colder climate condition						
Item	symbol	value	unit	Item	symbol	value	unit
Rated heat output (*)	Prated	9	kW	Seasonal space heating energy efficiency	ηs	165	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = – 7 ℃	Pdh	5.7	kW	Tj = – 7 ℃	COPd	3.45	–
Degradation co-efficient (**)	Cdh	0.99	–				
Tj = 2 ℃	Pdh	3.5	kW	Tj = 2 ℃	COPd	5.16	–
Degradation co-efficient (**)	Cdh	0.97	–				
Tj = 7 ℃	Pdh	2.6	kW	Tj = 7 ℃	COPd	6.69	–
Degradation co-efficient (**)	Cdh	0.95	–				
Tj = 12℃	Pdh	3.0	kW	Tj = 12℃	COPd	7.53	–
Degradation co-efficient (**)	Cdh	0.95	–				
Tj = bivalent temperature	Pdh	7.4	kW	Tj = bivalent temperature	COPd	2.70	–
Tj = operation limit temperature	Pdh	6.1	kW	Tj = operation limit temperature	COPd	1.87	–
For air-to-water heat pumps: Tj = – 15℃ (if TOL < – 20℃)	Pdh	7.4	kW	For air-to-water heat pumps: Tj = – 15℃ (if TOL < – 20℃)	COPd	2.70	–
Bivalent temperature	Tbiv	-15	℃	For air-to-water heat pumps: Operation limit temperature	TOL	-22	℃
Cycling interval capacity for heating	Pcych	NA	kW	Cycling interval efficiency	COPcyc	NA	–
				Heating water operating limit temperature	WTOL	65	℃
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P_{OFF}	0.025	kW	Rated heat output (*)	Psup	2.9	kW
Thermostat-off mode	P_{TO}	0.025	kW	Type of energy input	Electric		
Standby mode	P_{SB}	0.025	kW				
Crankcase heater mode	P_{CK}	0.025	kW				
Other items							
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	–	5800	m 3 /h
Sound power level, outdoors	L_{WA}	68	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	–	NA	m 3 /h
Annual energy consumption	Q_{HE}	5303	kWh				
For heat pump combination heater:							
Declared load profile	XL			Water heating energy efficiency	ηwh	101	%
Daily electricity consumption	Qelec	7.905	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity consumption	AEC	1739	kWh	Annual fuel consumption	AFC	NA	GJ
Contact details: sat.eurofredgroup.com.				Name and address of the supplier: Eurofred S.A. C/Marqu® de Sentmenat,97, 08029 Barcelona.Spain			

(*) 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.

Information requirements
(heat pump space heaters and heat pump combination heaters)

Model(s): AOWD-MB LOGIK-28K2

Air-to-water heat pump	Y			Low-temperature heat pump	N		
Water-to-water heat pump	N			Equipped with a supplementary heater	Y		
Brine-to-water heat pump	N			Heat pump combination heater	Y		
Parameters declared for	Low-temperature application						
Parameters declared for	Warmer climate condition						
Item	symbol	value	unit	Item	symbol	value	unit
Rated heat output (*)	Prated	9	kW	Seasonal space heating energy efficiency	ηs	257	%
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 ℃	Pdh	NA	kW	Tj = – 7 ℃	COPd	NA	–
Degradation co-efficient (**)	Cdh	NA	–				
Tj = 2 ℃	Pdh	9.4	kW	Tj = 2 ℃	COPd	3.85	–
Degradation co-efficient (**)	Cdh	0.99	–				
Tj = 7 ℃	Pdh	6.1	kW	Tj = 7 ℃	COPd	6.07	–
Degradation co-efficient (**)	Cdh	0.98	–				
Tj = 12℃	Pdh	3.2	kW	Tj = 12℃	COPd	7.83	–
Degradation co-efficient (**)	Cdh	0.95	–				
Tj = bivalent temperature	Pdh	9.4	kW	Tj = bivalent temperature	COPd	3.85	–
Tj = operation limit temperature	Pdh	9.4	kW	Tj = operation limit temperature	COPd	3.85	–
For air-to-water heat pumps: Tj = – 15℃ (if TOL < – 20℃)	Pdh	NA	kW	For air-to-water heat pumps: Tj = – 15℃ (if TOL < – 20℃)	COPd	NA	–
Bivalent temperature	Tbiv	2	℃	For air-to-water heat pumps: Operation limit temperature	TOL	2	℃
Cycling interval capacity for heating	Pcych	NA	kW	Cycling interval efficiency	COPcyc	NA	–
				Heating water operating limit temperature	WTOL	65	℃
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P_{OFF}	0.025	kW	Rated heat output (*)	Psup	0	kW
Thermostat-off mode	P_{TO}	0.025	kW	Type of energy input	Electric		
Standby mode	P_{SB}	0.025	kW				
Crankcase heater mode	P_{CK}	0.025	kW				
Other items							
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	–	5800	m 3 /h
Sound power level, outdoors	L_{WA}	68	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	–	NA	m 3 /h
Annual energy consumption	Q_{HE}	1942	kWh				
For heat pump combination heater:							
Declared load profile	XL			Water heating energy efficiency	ηwh	123	%
Daily electricity consumption	Qelec	6.505	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity consumption	AEC	1431	kWh	Annual fuel consumption	AFC	NA	GJ
Contact details: sat.eurofredgroup.com.				Name and address of the supplier: Eurofred S.A. C/Marqu® de Sentmenat,97, 08029 Barcelona.Spain			

(*) 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.

Information requirements
(heat pump space heaters and heat pump combination heaters)

Model(s): AOWD-MB LOGIK-28TK2

Air-to-water heat pump	Y			Low-temperature heat pump	N		
Water-to-water heat pump	N			Equipped with a supplementary heater	N		
Brine-to-water heat pump	N			Heat pump combination heater	Y		
Parameters declared for	Medium-temperature application						
Parameters declared for	Average climate condition						
Item	symbol	value	unit	Item	symbol	value	unit
Rated heat output (*)	Prated	9	kW	Seasonal space heating energy efficiency	ηs	135	%
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 ℃	Pdh	7.8	kW	Tj = – 7 ℃	COPd	2.14	–
Degradation co-efficient (**)	Cdh	0.99	–				
Tj = 2 ℃	Pdh	5.0	kW	Tj = 2 ℃	COPd	3.37	–
Degradation co-efficient (**)	Cdh	0.98	–				
Tj = 7 ℃	Pdh	3.3	kW	Tj = 7 ℃	COPd	4.53	–
Degradation co-efficient (**)	Cdh	0.97	–				
Tj = 12℃	Pdh	3.0	kW	Tj = 12℃	COPd	5.44	–
Degradation co-efficient (**)	Cdh	0.95	–				
Tj = bivalent temperature	Pdh	7.8	kW	Tj = bivalent temperature	COPd	2.14	–
Tj = operation limit temperature	Pdh	8.6	kW	Tj = operation limit temperature	COPd	2.07	–
For air-to-water heat pumps: Tj = – 15℃ (if TOL < – 20℃)	Pdh	NA	kW	For air-to-water heat pumps: Tj = – 15℃ (if TOL < – 20℃)	COPd	NA	–
Bivalent temperature	Tbiv	-7	℃	For air-to-water heat pumps: Operation limit temperature	TOL	-10	℃
Cycling interval capacity for heating	Pcych	NA	kW	Cycling interval efficiency	COPcyc	NA	–
				Heating water operating limit temperature	WTOL	65	℃
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P_{OFF}	0.025	kW	Rated heat output (*)	Psup	0.4	kW
Thermostat-off mode	P_{TO}	0.025	kW	Type of energy input	Electric		
Standby mode	P_{SB}	0.025	kW				
Crankcase heater mode	P_{CK}	0.025	kW				
Other items							
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	–	5800	m 3 /h
Sound power level, outdoors	L_{WA}	68	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	–	NA	m 3 /h
Annual energy consumption	Q_{HE}	5261	kWh				
For heat pump combination heater:							
Declared load profile	XL			Water heating energy efficiency	ηwh	123	%
Daily electricity consumption	Qelec	6.507	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity consumption	AEC	1431	kWh	Annual fuel consumption	AFC	NA	GJ
Contact details: sat.eurofredgroup.com.				Name and address of the supplier: Eurofred S.A. C/Marqu® de Sentmenat,97, 08029 Barcelona.Spain			

(*) 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.

Information requirements
(heat pump space heaters and heat pump combination heaters)

Model(s): AOWD-MB LOGIK-28TK2

Air-to-water heat pump	Y			Low-temperature heat pump	N		
Water-to-water heat pump	N			Equipped with a supplementary heater	N		
Brine-to-water heat pump	N			Heat pump combination heater	Y		
Parameters declared for	Medium-temperature application						
Parameters declared for	Colder climate condition						
Item	symbol	value	unit	Item	symbol	value	unit
Rated heat output (*)	Prated	8	kW	Seasonal space heating energy efficiency	ηs	120	%
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 ℃	Pdh	5.1	kW	Tj = – 7 ℃	COPd	2.75	–
Degradation co-efficient (**)	Cdh	0.99	–				
Tj = 2 ℃	Pdh	3.0	kW	Tj = 2 ℃	COPd	3.4	–
Degradation co-efficient (**)	Cdh	0.97	–				
Tj = 7 ℃	Pdh	3.2	kW	Tj = 7 ℃	COPd	4.61	–
Degradation co-efficient (**)	Cdh	0.96	–				
Tj = 12℃	Pdh	3.0	kW	Tj = 12℃	COPd	5.79	–
Degradation co-efficient (**)	Cdh	0.95	–				
Tj = bivalent temperature	Pdh	6.8	kW	Tj = bivalent temperature	COPd	2.20	–
Tj = operation limit temperature	Pdh	4.4	kW	Tj = operation limit temperature	COPd	1.22	–
For air-to-water heat pumps: Tj = – 15℃ (if TOL < – 20℃)	Pdh	6.8	kW	For air-to-water heat pumps: Tj = – 15℃ (if TOL < – 20℃)	COPd	2.20	–
Bivalent temperature	Tbiv	-15	℃	For air-to-water heat pumps: Operation limit temperature	TOL	-22	℃
Cycling interval capacity for heating	Pcych	NA	kW	Cycling interval efficiency	COPcyc	NA	–
				Heating water operating limit temperature	WTOL	65	℃
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P_{OFF}	0.025	kW	Rated heat output (*)	Psup	3.6	kW
Thermostat-off mode	P_{TO}	0.025	kW	Type of energy input	Electric		
Standby mode	P_{SB}	0.025	kW				
Crankcase heater mode	P_{CK}	0.025	kW				
Other items							
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	–	5800	m 3 /h
Sound power level, outdoors	L_{WA}	68	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	–	NA	m 3 /h
Annual energy consumption	Q_{HE}	6706	kWh				
For heat pump combination heater:							
Declared load profile	XL			Water heating energy efficiency	ηwh	101	%
Daily electricity consumption	Qelec	7.906	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity consumption	AEC	1739	kWh	Annual fuel consumption	AFC	NA	GJ
Contact details: sat.eurofredgroup.com.				Name and address of the supplier: Eurofred S.A. C/Marqu® de Sentmenat,97, 08029 Barcelona.Spain			

(*) 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.

Information requirements
(heat pump space heaters and heat pump combination heaters)

Model(s): AOWD-MB LOGIK-28TK2

Air-to-water heat pump	Y			Low-temperature heat pump	N		
Water-to-water heat pump	N			Equipped with a supplementary heater	N		
Brine-to-water heat pump	N			Heat pump combination heater	Y		
Parameters declared for	Medium-temperature application						
Parameters declared for	Warmer climate condition						
Item	symbol	value	unit	Item	symbol	value	unit
Rated heat output (*)	Prated	9	kW	Seasonal space heating energy efficiency	ηs	168	%
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 ℃	Pdh	NA	kW	Tj = – 7 ℃	COPd	NA	–
Degradation co-efficient (**)	Cdh	NA	–				
Tj = 2 ℃	Pdh	8.9	kW	Tj = 2 ℃	COPd	2.12	–
Degradation co-efficient (**)	Cdh	0.99	–				
Tj = 7 ℃	Pdh	6.3	kW	Tj = 7 ℃	COPd	3.99	–
Degradation co-efficient (**)	Cdh	0.98	–				
Tj = 12℃	Pdh	3.0	kW	Tj = 12℃	COPd	5.29	–
Degradation co-efficient (**)	Cdh	0.96	–				
Tj = bivalent temperature	Pdh	8.9	kW	Tj = bivalent temperature	COPd	2.12	–
Tj = operation limit temperature	Pdh	8.9	kW	Tj = operation limit temperature	COPd	2.12	–
For air-to-water heat pumps: Tj = – 15℃ (if TOL < – 20℃)	Pdh	NA	kW	For air-to-water heat pumps: Tj = – 15℃ (if TOL < – 20℃)	COPd	NA	–
Bivalent temperature	Tbiv	2	℃	For air-to-water heat pumps: Operation limit temperature	TOL	2	℃
Cycling interval capacity for heating	Pcych	NA	kW	Cycling interval efficiency	COPcyc	NA	–
				Heating water operating limit temperature	WTOL	65	℃
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P_{OFF}	0.025	kW	Rated heat output (*)	Psup	0.1	kW
Thermostat-off mode	P_{TO}	0.025	kW	Type of energy input	Electric		
Standby mode	P_{SB}	0.025	kW				
Crankcase heater mode	P_{CK}	0.025	kW				
Other items							
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	–	5800	m 3 /h
Sound power level, outdoors	L_{WA}	68	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	–	NA	m 3 /h
Annual energy consumption	Q_{HE}	2751	kWh				
For heat pump combination heater:							
Declared load profile	XL			Water heating energy efficiency	ηwh	123	%
Daily electricity consumption	Qelec	6.506	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity consumption	AEC	1431	kWh	Annual fuel consumption	AFC	NA	GJ
Contact details: sat.eurofredgroup.com.				Name and address of the supplier: Eurofred S.A. C/Marqu® de Sentmenat,97, 08029 Barcelona.Spain			

(*) 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.

Information requirements
(heat pump space heaters and heat pump combination heaters)

Model(s): AOWD-MB LOGIK-28TK2

Air-to-water heat pump	Y			Low-temperature heat pump	N		
Water-to-water heat pump	N			Equipped with a supplementary heater	N		
Brine-to-water heat pump	N			Heat pump combination heater	Y		
Parameters declared for	Low-temperature application						
Parameters declared for	Average climate condition						
Item	symbol	value	unit	Item	symbol	value	unit
Rated heat output (*)	Prated	8	kW	Seasonal space heating energy efficiency	ηs	176	%
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 ℃	Pdh	7.4	kW	Tj = – 7 ℃	COPd	3.12	–
Degradation co-efficient (**)	Cdh	0.99	–				
Tj = 2 ℃	Pdh	4.2	kW	Tj = 2 ℃	COPd	4.17	–
Degradation co-efficient (**)	Cdh	0.98	–				
Tj = 7 ℃	Pdh	2.84	kW	Tj = 7 ℃	COPd	5.92	–
Degradation co-efficient (**)	Cdh	0.95	–				
Tj = 12℃	Pdh	3.2	kW	Tj = 12℃	COPd	7.18	–
Degradation co-efficient (**)	Cdh	0.94	–				
Tj = bivalent temperature	Pdh	7.4	kW	Tj = bivalent temperature	COPd	3.12	–
Tj = operation limit temperature	Pdh	8.0	kW	Tj = operation limit temperature	COPd	2.84	–
For air-to-water heat pumps: Tj = – 15℃ (if TOL < – 20℃)	Pdh	NA	kW	For air-to-water heat pumps: Tj = – 15℃ (if TOL < – 20℃)	COPd	NA	–
Bivalent temperature	Tbiv	-7	℃	For air-to-water heat pumps: Operation limit temperature	TOL	-10	℃
Cycling interval capacity for heating	Pcych	NA	kW	Cycling interval efficiency	COPcyc	NA	–
				Heating water operating limit temperature	WTOL	65	℃
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P_{OFF}	0.025	kW	Rated heat output (*)	Psup	0	kW
Thermostat-off mode	P_{TO}	0.025	kW	Type of energy input	Electric		
Standby mode	P_{SB}	0.025	kW				
Crankcase heater mode	P_{CK}	0.025	kW				
Other items							
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	–	5800	m 3 /h
Sound power level, outdoors	L_{WA}	68	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	–	NA	m 3 /h
Annual energy consumption	Q_{HE}	3882	kWh				
For heat pump combination heater:							
Declared load profile	XL			Water heating energy efficiency	ηwh	123	%
Daily electricity consumption	Qelec	6.507	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity consumption	AEC	1431	kWh	Annual fuel consumption	AFC	NA	GJ
Contact details: sat.eurofredgroup.com.				Name and address of the supplier: Eurofred S.A. C/Marqu® de Sentmenat,97, 08029 Barcelona.Spain			

(*) 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.

Information requirements
(heat pump space heaters and heat pump combination heaters)

Model(s): AOWD-MB LOGIK-28TK2

Air-to-water heat pump	Y			Low-temperature heat pump	N		
Water-to-water heat pump	N			Equipped with a supplementary heater	N		
Brine-to-water heat pump	N			Heat pump combination heater	Y		
Parameters declared for	Low-temperature application						
Parameters declared for	Colder climate condition						
Item	symbol	value	unit	Item	symbol	value	unit
Rated heat output (*)	Prated	9	kW	Seasonal space heating energy efficiency	ηs	142	%
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 ℃	Pdh	5.4	kW	Tj = – 7 ℃	COPd	2.75	–
Degradation co-efficient (**)	Cdh	0.99	–				
Tj = 2 ℃	Pdh	3.2	kW	Tj = 2 ℃	COPd	4.52	–
Degradation co-efficient (**)	Cdh	0.98	–				
Tj = 7 ℃	Pdh	2.6	kW	Tj = 7 ℃	COPd	5.63	–
Degradation co-efficient (**)	Cdh	0.94	–				
Tj = 12℃	Pdh	3.2	kW	Tj = 12℃	COPd	7.01	–
Degradation co-efficient (**)	Cdh	0.95	–				
Tj = bivalent temperature	Pdh	6.0	kW	Tj = bivalent temperature	COPd	1.71	–
Tj = operation limit temperature	Pdh	6.1	kW	Tj = operation limit temperature	COPd	1.87	–
For air-to-water heat pumps: Tj = – 15℃ (if TOL < – 20℃)	Pdh	6.0	kW	For air-to-water heat pumps: Tj = – 15℃ (if TOL < – 20℃)	COPd	1.71	–
Bivalent temperature	Tbiv	-15	℃	For air-to-water heat pumps: Operation limit temperature	TOL	-22	℃
Cycling interval capacity for heating	Pcych	NA	kW	Cycling interval efficiency	COPcyc	NA	–
				Heating water operating limit temperature	WTOL	65	℃
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P_{OFF}	0.025	kW	Rated heat output (*)	Psup	2.9	kW
Thermostat-off mode	P_{TO}	0.025	kW	Type of energy input	Electric		
Standby mode	P_{SB}	0.025	kW				
Crankcase heater mode	P_{CK}	0.025	kW				
Other items							
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	–	5800	m 3 /h
Sound power level, outdoors	L_{WA}	68	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	–	NA	m 3 /h
Annual energy consumption	Q_{HE}	5935	kWh				
For heat pump combination heater:							
Declared load profile	XL			Water heating energy efficiency	ηwh	101	%
Daily electricity consumption	Qelec	7.906	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity consumption	AEC	1739	kWh	Annual fuel consumption	AFC	NA	GJ
Contact details: sat.eurofredgroup.com.				Name and address of the supplier: Eurofred S.A. C/Marqu® de Sentmenat,97, 08029 Barcelona.Spain			

(*) 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.

Information requirements
(heat pump space heaters and heat pump combination heaters)

Model(s): AOWD-MB LOGIK-28TK2

Air-to-water heat pump	Y			Low-temperature heat pump	N		
Water-to-water heat pump	N			Equipped with a supplementary heater	N		
Brine-to-water heat pump	N			Heat pump combination heater	Y		
Parameters declared for	Low-temperature application						
Parameters declared for	Warmer climate condition						
Item	symbol	value	unit	Item	symbol	value	unit
Rated heat output (*)	Prated	9	kW	Seasonal space heating energy efficiency	ηs	226	%
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 ℃	Pdh	NA	kW	Tj = – 7 ℃	COPd	NA	–
Degradation co-efficient (**)	Cdh	NA	–				
Tj = 2 ℃	Pdh	8.6	kW	Tj = 2 ℃	COPd	2.93	–
Degradation co-efficient (**)	Cdh	0.99	–				
Tj = 7 ℃	Pdh	5.4	kW	Tj = 7 ℃	COPd	5.4	–
Degradation co-efficient (**)	Cdh	0.97	–				
Tj = 12℃	Pdh	3.0	kW	Tj = 12℃	COPd	7.04	–
Degradation co-efficient (**)	Cdh	0.95	–				
Tj = bivalent temperature	Pdh	8.6	kW	Tj = bivalent temperature	COPd	2.93	–
Tj = operation limit temperature	Pdh	8.6	kW	Tj = operation limit temperature	COPd	2.93	–
For air-to-water heat pumps: Tj = – 15℃ (if TOL < – 20℃)	Pdh	NA	kW	For air-to-water heat pumps: Tj = – 15℃ (if TOL < – 20℃)	COPd	NA	–
Bivalent temperature	Tbiv	2	℃	For air-to-water heat pumps: Operation limit temperature	TOL	2	℃
Cycling interval capacity for heating	Pcych	NA	kW	Cycling interval efficiency	COPcyc	NA	–
				Heating water operating limit temperature	WTOL	65	℃
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P_{OFF}	0.025	kW	Rated heat output (*)	Psup	0.4	kW
Thermostat-off mode	P_{TO}	0.025	kW	Type of energy input	Electric		
Standby mode	P_{SB}	0.025	kW				
Crankcase heater mode	P_{CK}	0.025	kW				
Other items							
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	–	5800	m 3 /h
Sound power level, outdoors	L_{WA}	68	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	–	NA	m 3 /h
Annual energy consumption	Q_{HE}	2001	kWh				
For heat pump combination heater:							
Declared load profile	XL			Water heating energy efficiency	ηwh	123	%
Daily electricity consumption	Qelec	6.506	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity consumption	AEC	1431	kWh	Annual fuel consumption	AFC	NA	GJ
Contact details: sat.eurofredgroup.com.				Name and address of the supplier: Eurofred S.A. C/Marqu® de Sentmenat,97, 08029 Barcelona.Spain			

(*) 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.

Information requirements
(heat pump space heaters and heat pump combination heaters)

Model(s): AOWD-MB LOGIK-36K2

Air-to-water heat pump	Y			Low-temperature heat pump	N		
Water-to-water heat pump	N			Equipped with a supplementary heater	N		
Brine-to-water heat pump	N			Heat pump combination heater	Y		
Parameters declared for	Medium-temperature application						
Parameters declared for	Average climate condition						
Item	symbol	value	unit	Item	symbol	value	unit
Rated heat output (*)	Prated	10	kW	Seasonal space heating energy efficiency	ηs	152	%
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 ℃	Pdh	9.1	kW	Tj = – 7 ℃	COPd	2.42	–
Degradation co-efficient (**)	Cdh	0.99	–				
Tj = 2 ℃	Pdh	5.3	kW	Tj = 2 ℃	COPd	3.62	–
Degradation co-efficient (**)	Cdh	0.98	–				
Tj = 7 ℃	Pdh	3.4	kW	Tj = 7 ℃	COPd	5.47	–
Degradation co-efficient (**)	Cdh	0.97	–				
Tj = 12℃	Pdh	3.4	kW	Tj = 12℃	COPd	7.20	–
Degradation co-efficient (**)	Cdh	0.96	–				
Tj = bivalent temperature	Pdh	9.1	kW	Tj = bivalent temperature	COPd	2.42	–
Tj = operation limit temperature	Pdh	9.5	kW	Tj = operation limit temperature	COPd	2.05	–
For air-to-water heat pumps: Tj = – 15℃ (if TOL < – 20℃)	Pdh	NA	kW	For air-to-water heat pumps: Tj = – 15℃ (if TOL < – 20℃)	COPd	NA	–
Bivalent temperature	Tbiv	-7	℃	For air-to-water heat pumps: Operation limit temperature	TOL	-10	℃
Cycling interval capacity for heating	Pcych	NA	kW	Cycling interval efficiency	COPcyc	NA	–
				Heating water operating limit temperature	WTOL	65	℃
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P_{OFF}	0.025	kW	Rated heat output (*)	Psup	0.5	kW
Thermostat-off mode	P_{TO}	0.025	kW	Type of energy input	Electric		
Standby mode	P_{SB}	0.025	kW				
Crankcase heater mode	P_{CK}	0.025	kW				
Other items							
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	–	5800	m 3 /h
Sound power level, outdoors	L_{WA}	68	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	–	NA	m 3 /h
Annual energy consumption	Q_{HE}	5486	kWh				
For heat pump combination heater:							
Declared load profile	XL			Water heating energy efficiency	ηwh	123	%
Daily electricity consumption	Qelec	6.507	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity consumption	AEC	1431	kWh	Annual fuel consumption	AFC	NA	GJ
Contact details: sat.eurofredgroup.com.				Name and address of the supplier: Eurofred S.A. C/Marqu® de Sentmenat,97, 08029 Barcelona.Spain			

(*) 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.

Information requirements
(heat pump space heaters and heat pump combination heaters)

Model(s): AOWD-MB LOGIK-36K2

Air-to-water heat pump	Y			Low-temperature heat pump	N		
Water-to-water heat pump	N			Equipped with a supplementary heater	N		
Brine-to-water heat pump	N			Heat pump combination heater	Y		
Parameters declared for	Medium-temperature application						
Parameters declared for	Colder climate condition						
Item	symbol	value	unit	Item	symbol	value	unit
Rated heat output (*)	Prated	9	kW	Seasonal space heating energy efficiency	ηs	119	%
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 ℃	Pdh	5.5	kW	Tj = – 7 ℃	COPd	2.77	–
Degradation co-efficient (**)	Cdh	0.99	–				
Tj = 2 ℃	Pdh	3.1	kW	Tj = 2 ℃	COPd	3.48	–
Degradation co-efficient (**)	Cdh	0.98	–				
Tj = 7 ℃	Pdh	3.0	kW	Tj = 7 ℃	COPd	4.17	–
Degradation co-efficient (**)	Cdh	0.96	–				
Tj = 12℃	Pdh	3.1	kW	Tj = 12℃	COPd	5.42	–
Degradation co-efficient (**)	Cdh	0.99	–				
Tj = bivalent temperature	Pdh	7.5	kW	Tj = bivalent temperature	COPd	2.10	–
Tj = operation limit temperature	Pdh	5.2	kW	Tj = operation limit temperature	COPd	1.22	–
For air-to-water heat pumps: Tj = – 15℃ (if TOL < – 20℃)	Pdh	7.5	kW	For air-to-water heat pumps: Tj = – 15℃ (if TOL < – 20℃)	COPd	2.10	–
Bivalent temperature	Tbiv	-15	℃	For air-to-water heat pumps: Operation limit temperature	TOL	-22	℃
Cycling interval capacity for heating	Pcych	NA	kW	Cycling interval efficiency	COPcyc	NA	–
				Heating water operating limit temperature	WTOL	65	℃
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P_{OFF}	0.025	kW	Rated heat output (*)	Psup	3.8	kW
Thermostat-off mode	P_{TO}	0.025	kW	Type of energy input	Electric		
Standby mode	P_{SB}	0.025	kW				
Crankcase heater mode	P_{CK}	0.025	kW				
Other items							
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	–	5800	m 3 /h
Sound power level, outdoors	L_{WA}	68	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	–	NA	m 3 /h
Annual energy consumption	Q_{HE}	7415	kWh				
For heat pump combination heater:							
Declared load profile	XL			Water heating energy efficiency	ηwh	101	%
Daily electricity consumption	Qelec	7.906	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity consumption	AEC	1739	kWh	Annual fuel consumption	AFC	NA	GJ
Contact details: sat.eurofredgroup.com.				Name and address of the supplier: Eurofred S.A. C/Marqu® de Sentmenat,97, 08029 Barcelona.Spain			

(*) 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.

Information requirements
(heat pump space heaters and heat pump combination heaters)

Model(s): AOWD-MB LOGIK-36K2

Air-to-water heat pump	Y			Low-temperature heat pump	N		
Water-to-water heat pump	N			Equipped with a supplementary heater	N		
Brine-to-water heat pump	N			Heat pump combination heater	Y		
Parameters declared for	Medium-temperature application						
Parameters declared for	Warmer climate condition						
Item	symbol	value	unit	Item	symbol	value	unit
Rated heat output (*)	Prated	10	kW	Seasonal space heating energy efficiency	ηs	169	%
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 ℃	Pdh	NA	kW	Tj = – 7 ℃	COPd	NA	–
Degradation co-efficient (**)	Cdh	NA	–				
Tj = 2 ℃	Pdh	10.1	kW	Tj = 2 ℃	COPd	2.55	–
Degradation co-efficient (**)	Cdh	0.99	–				
Tj = 7 ℃	Pdh	6.5	kW	Tj = 7 ℃	COPd	3.90	–
Degradation co-efficient (**)	Cdh	0.99	–				
Tj = 12℃	Pdh	2.9	kW	Tj = 12℃	COPd	5.19	–
Degradation co-efficient (**)	Cdh	0.96	–				
Tj = bivalent temperature	Pdh	10.1	kW	Tj = bivalent temperature	COPd	2.55	–
Tj = operation limit temperature	Pdh	10.1	kW	Tj = operation limit temperature	COPd	2.55	–
For air-to-water heat pumps: Tj = – 15℃ (if TOL < – 20℃)	Pdh	NA	kW	For air-to-water heat pumps: Tj = – 15℃ (if TOL < – 20℃)	COPd	NA	–
Bivalent temperature	Tbiv	2	℃	For air-to-water heat pumps: Operation limit temperature	TOL	2	℃
Cycling interval capacity for heating	Pcych	NA	kW	Cycling interval efficiency	COPcyc	NA	–
				Heating water operating limit temperature	WTOL	65	℃
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P_{OFF}	0.025	kW	Rated heat output (*)	Psup	0	kW
Thermostat-off mode	P_{TO}	0.025	kW	Type of energy input	Electric		
Standby mode	P_{SB}	0.025	kW				
Crankcase heater mode	P_{CK}	0.025	kW				
Other items							
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	–	5800	m 3 /h
Sound power level, outdoors	L_{WA}	68	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	–	NA	m 3 /h
Annual energy consumption	Q_{HE}	3157	kWh				
For heat pump combination heater:							
Declared load profile	XL			Water heating energy efficiency	ηwh	123	%
Daily electricity consumption	Qelec	6.506	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity consumption	AEC	1431	kWh	Annual fuel consumption	AFC	NA	GJ
Contact details: sat.eurofredgroup.com.				Name and address of the supplier: Eurofred S.A. C/Marqu® de Sentmenat,97, 08029 Barcelona.Spain			

(*) 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.

Information requirements
(heat pump space heaters and heat pump combination heaters)

Model(s): AOWD-MB LOGIK-36K2

Air-to-water heat pump	Y			Low-temperature heat pump	N		
Water-to-water heat pump	N			Equipped with a supplementary heater	N		
Brine-to-water heat pump	N			Heat pump combination heater	Y		
Parameters declared for	Low-temperature application						
Parameters declared for	Average climate condition						
Item	symbol	value	unit	Item	symbol	value	unit
Rated heat output (*)	Prated	9	kW	Seasonal space heating energy efficiency	ηs	176	%
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 ℃	Pdh	8.0	kW	Tj = – 7 ℃	COPd	2.90	–
Degradation co-efficient (**)	Cdh	0.99	–				
Tj = 2 ℃	Pdh	4.6	kW	Tj = 2 ℃	COPd	4.41	–
Degradation co-efficient (**)	Cdh	0.98	–				
Tj = 7 ℃	Pdh	4.8	kW	Tj = 7 ℃	COPd	5.89	–
Degradation co-efficient (**)	Cdh	0.95	–				
Tj = 12℃	Pdh	3.2	kW	Tj = 12℃	COPd	6.97	–
Degradation co-efficient (**)	Cdh	0.94	–				
Tj = bivalent temperature	Pdh	8.0	kW	Tj = bivalent temperature	COPd	2.90	–
Tj = operation limit temperature	Pdh	8.5	kW	Tj = operation limit temperature	COPd	2.59	–
For air-to-water heat pumps: Tj = – 15℃ (if TOL < – 20℃)	Pdh	NA	kW	For air-to-water heat pumps: Tj = – 15℃ (if TOL < – 20℃)	COPd	NA	–
Bivalent temperature	Tbiv	-7	℃	For air-to-water heat pumps: Operation limit temperature	TOL	-10	℃
Cycling interval capacity for heating	Pcych	NA	kW	Cycling interval efficiency	COPcyc	NA	–
				Heating water operating limit temperature	WTOL	65	℃
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P_{OFF}	0.025	kW	Rated heat output (*)	Psup	0.5	kW
Thermostat-off mode	P_{TO}	0.025	kW	Type of energy input	Electric		
Standby mode	P_{SB}	0.025	kW				
Crankcase heater mode	P_{CK}	0.025	kW				
Other items							
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	–	5800	m 3 /h
Sound power level, outdoors	L_{WA}	68	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	–	NA	m 3 /h
Annual energy consumption	Q_{HE}	4163	kWh				
For heat pump combination heater:							
Declared load profile	XL			Water heating energy efficiency	ηwh	123	%
Daily electricity consumption	Qelec	6.507	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity consumption	AEC	1431	kWh	Annual fuel consumption	AFC	NA	GJ
Contact details: sat.eurofredgroup.com.				Name and address of the supplier: Eurofred S.A. C/Marqu® de Sentmenat,97, 08029 Barcelona.Spain			

(*) 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.

Information requirements
(heat pump space heaters and heat pump combination heaters)

Model(s): AOWD-MB LOGIK-36K2

Air-to-water heat pump	Y			Low-temperature heat pump	N		
Water-to-water heat pump	N			Equipped with a supplementary heater	N		
Brine-to-water heat pump	N			Heat pump combination heater	Y		
Parameters declared for	Low-temperature application						
Parameters declared for	Colder climate condition						
Item	symbol	value	unit	Item	symbol	value	unit
Rated heat output (*)	Prated	10	kW	Seasonal space heating energy efficiency	ηs	152	%
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 ℃	Pdh	6.1	kW	Tj = – 7 ℃	COPd	3.23	–
Degradation co-efficient (**)	Cdh	0.99	–				
Tj = 2 ℃	Pdh	3.3	kW	Tj = 2 ℃	COPd	4.72	–
Degradation co-efficient (**)	Cdh	0.97	–				
Tj = 7 ℃	Pdh	2.7	kW	Tj = 7 ℃	COPd	5.59	–
Degradation co-efficient (**)	Cdh	0.95	–				
Tj = 12℃	Pdh	3.2	kW	Tj = 12℃	COPd	6.85	–
Degradation co-efficient (**)	Cdh	0.95	–				
Tj = bivalent temperature	Pdh	8.0	kW	Tj = bivalent temperature	COPd	2.50	–
Tj = operation limit temperature	Pdh	6.0	kW	Tj = operation limit temperature	COPd	1.86	–
For air-to-water heat pumps: Tj = – 15℃ (if TOL < – 20℃)	Pdh	8.0	kW	For air-to-water heat pumps: Tj = – 15℃ (if TOL < – 20℃)	COPd	2.50	–
Bivalent temperature	Tbiv	-15	℃	For air-to-water heat pumps: Operation limit temperature	TOL	-22	℃
Cycling interval capacity for heating	Pcych	NA	kW	Cycling interval efficiency	COPcyc	NA	–
				Heating water operating limit temperature	WTOL	65	℃
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P_{OFF}	0.025	kW	Rated heat output (*)	Psup	4	kW
Thermostat-off mode	P_{TO}	0.025	kW	Type of energy input	Electric		
Standby mode	P_{SB}	0.025	kW				
Crankcase heater mode	P_{CK}	0.025	kW				
Other items							
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	–	5800	m 3 /h
Sound power level, outdoors	L_{WA}	68	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	–	NA	m 3 /h
Annual energy consumption	Q_{HE}	6262	kWh				
For heat pump combination heater:							
Declared load profile	XL			Water heating energy efficiency	ηwh	101	%
Daily electricity consumption	Qelec	7.906	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity consumption	AEC	1739	kWh	Annual fuel consumption	AFC	NA	GJ
Contact details: sat.eurofredgroup.com.				Name and address of the supplier: Eurofred S.A. C/Marqu® de Sentmenat,97, 08029 Barcelona.Spain			

(*) 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.

Information requirements
(heat pump space heaters and heat pump combination heaters)

Model(s): AOWD-MB LOGIK-36K2

Air-to-water heat pump	Y			Low-temperature heat pump	N		
Water-to-water heat pump	N			Equipped with a supplementary heater	N		
Brine-to-water heat pump	N			Heat pump combination heater	Y		
Parameters declared for	Low-temperature application						
Parameters declared for	Warmer climate condition						
Item	symbol	value	unit	Item	symbol	value	unit
Rated heat output (*)	Prated	10	kW	Seasonal space heating energy efficiency	ηs	223	%
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 ℃	Pdh	NA	kW	Tj = – 7 ℃	COPd	NA	–
Degradation co-efficient (**)	Cdh	NA	–				
Tj = 2 ℃	Pdh	9.6	kW	Tj = 2 ℃	COPd	3.47	–
Degradation co-efficient (**)	Cdh	0.99	–				
Tj = 7 ℃	Pdh	5.9	kW	Tj = 7 ℃	COPd	5.45	–
Degradation co-efficient (**)	Cdh	0.98	–				
Tj = 12℃	Pdh	3.0	kW	Tj = 12℃	COPd	6.55	–
Degradation co-efficient (**)	Cdh	0.95	–				
Tj = bivalent temperature	Pdh	9.6	kW	Tj = bivalent temperature	COPd	3.47	–
Tj = operation limit temperature	Pdh	9.6	kW	Tj = operation limit temperature	COPd	3.47	–
For air-to-water heat pumps: Tj = – 15℃ (if TOL < – 20℃)	Pdh	NA	kW	For air-to-water heat pumps: Tj = – 15℃ (if TOL < – 20℃)	COPd	NA	–
Bivalent temperature	Tbiv	2	℃	For air-to-water heat pumps: Operation limit temperature	TOL	2	℃
Cycling interval capacity for heating	Pcych	NA	kW	Cycling interval efficiency	COPcyc	NA	–
				Heating water operating limit temperature	WTOL	65	℃
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P_{OFF}	0.025	kW	Rated heat output (*)	Psup	0.4	kW
Thermostat-off mode	P_{TO}	0.025	kW	Type of energy input	Electric		
Standby mode	P_{SB}	0.025	kW				
Crankcase heater mode	P_{CK}	0.025	kW				
Other items							
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	–	5800	m 3 /h
Sound power level, outdoors	L_{WA}	68	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	–	NA	m 3 /h
Annual energy consumption	Q_{HE}	2266	kWh				
For heat pump combination heater:							
Declared load profile	XL			Water heating energy efficiency	ηwh	123	%
Daily electricity consumption	Qelec	6.506	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity consumption	AEC	1431	kWh	Annual fuel consumption	AFC	NA	GJ
Contact details: sat.eurofredgroup.com.				Name and address of the supplier: Eurofred S.A. C/Marqu® de Sentmenat,97, 08029 Barcelona.Spain			

(*) 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.

Information requirements
(heat pump space heaters and heat pump combination heaters)

Model(s): AOWD-MB LOGIK-36TK2

Air-to-water heat pump	Y			Low-temperature heat pump	N		
Water-to-water heat pump	N			Equipped with a supplementary heater	N		
Brine-to-water heat pump	N			Heat pump combination heater	Y		
Parameters declared for	Medium-temperature application						
Parameters declared for	Average climate condition						
Item	symbol	value	unit	Item	symbol	value	unit
Rated heat output (*)	Prated	10	kW	Seasonal space heating energy efficiency	ηs	140	%
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 ℃	Pdh	9.0	kW	Tj = – 7 ℃	COPd	2.45	–
Degradation co-efficient (**)	Cdh	0.99	–				
Tj = 2 ℃	Pdh	5.2	kW	Tj = 2 ℃	COPd	3.44	–
Degradation co-efficient (**)	Cdh	0.98	–				
Tj = 7 ℃	Pdh	3.5	kW	Tj = 7 ℃	COPd	4.63	–
Degradation co-efficient (**)	Cdh	0.97	–				
Tj = 12℃	Pdh	2.9	kW	Tj = 12℃	COPd	5.21	–
Degradation co-efficient (**)	Cdh	0.96	–				
Tj = bivalent temperature	Pdh	9.0	kW	Tj = bivalent temperature	COPd	2.45	–
Tj = operation limit temperature	Pdh	9.6	kW	Tj = operation limit temperature	COPd	2.15	–
For air-to-water heat pumps: Tj = – 15℃ (if TOL < – 20℃)	Pdh	NA	kW	For air-to-water heat pumps: Tj = – 15℃ (if TOL < – 20℃)	COPd	NA	–
Bivalent temperature	Tbiv	-7	℃	For air-to-water heat pumps: Operation limit temperature	TOL	-10	℃
Cycling interval capacity for heating	Pcych	NA	kW	Cycling interval efficiency	COPcyc	NA	–
				Heating water operating limit temperature	WTOL	65	℃
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P_{OFF}	0.025	kW	Rated heat output (*)	Psup	0.4	kW
Thermostat-off mode	P_{TO}	0.025	kW	Type of energy input	Electric		
Standby mode	P_{SB}	0.025	kW				
Crankcase heater mode	P_{CK}	0.025	kW				
Other items							
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	–	5800	m 3 /h
Sound power level, outdoors	L_{WA}	68	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	–	NA	m 3 /h
Annual energy consumption	Q_{HE}	5907	kWh				
For heat pump combination heater:							
Declared load profile	XL			Water heating energy efficiency	ηwh	123	%
Daily electricity consumption	Qelec	6.507	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity consumption	AEC	1431	kWh	Annual fuel consumption	AFC	NA	GJ
Contact details: sat.eurofredgroup.com.				Name and address of the supplier: Eurofred S.A. C/Marqu® de Sentmenat,97, 08029 Barcelona.Spain			

(*) 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.

Information requirements
(heat pump space heaters and heat pump combination heaters)

Model(s): AOWD-MB LOGIK-36TK2

Air-to-water heat pump	Y			Low-temperature heat pump	N		
Water-to-water heat pump	N			Equipped with a supplementary heater	N		
Brine-to-water heat pump	N			Heat pump combination heater	Y		
Parameters declared for	Medium-temperature application						
Parameters declared for	Colder climate condition						
Item	symbol	value	unit	Item	symbol	value	unit
Rated heat output (*)	Prated	9	kW	Seasonal space heating energy efficiency	ηs	124	%
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 ℃	Pdh	5.8	kW	Tj = – 7 ℃	COPd	2.95	–
Degradation co-efficient (**)	Cdh	0.99	–				
Tj = 2 ℃	Pdh	3.5	kW	Tj = 2 ℃	COPd	3.50	–
Degradation co-efficient (**)	Cdh	0.98	–				
Tj = 7 ℃	Pdh	2.7	kW	Tj = 7 ℃	COPd	4.83	–
Degradation co-efficient (**)	Cdh	0.96	–				
Tj = 12℃	Pdh	3.4	kW	Tj = 12℃	COPd	6.08	–
Degradation co-efficient (**)	Cdh	0.96	–				
Tj = bivalent temperature	Pdh	7.6	kW	Tj = bivalent temperature	COPd	2.20	–
Tj = operation limit temperature	Pdh	4.1	kW	Tj = operation limit temperature	COPd	1.06	–
For air-to-water heat pumps: Tj = – 15℃ (if TOL < – 20℃)	Pdh	7.6	kW	For air-to-water heat pumps: Tj = – 15℃ (if TOL < – 20℃)	COPd	2.20	–
Bivalent temperature	Tbiv	-15	℃	For air-to-water heat pumps: Operation limit temperature	TOL	-22	℃
Cycling interval capacity for heating	Pcych	NA	kW	Cycling interval efficiency	COPcyc	NA	–
				Heating water operating limit temperature	WTOL	65	℃
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P_{OFF}	0.025	kW	Rated heat output (*)	Psup	4.9	kW
Thermostat-off mode	P_{TO}	0.025	kW	Type of energy input	Electric		
Standby mode	P_{SB}	0.025	kW				
Crankcase heater mode	P_{CK}	0.025	kW				
Other items							
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	–	5800	m 3 /h
Sound power level, outdoors	L_{WA}	68	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	–	NA	m 3 /h
Annual energy consumption	Q_{HE}	7206	kWh				
For heat pump combination heater:							
Declared load profile	XL			Water heating energy efficiency	ηwh	101	%
Daily electricity consumption	Qelec	7.906	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity consumption	AEC	1739	kWh	Annual fuel consumption	AFC	NA	GJ
Contact details: sat.eurofredgroup.com.				Name and address of the supplier: Eurofred S.A. C/Marqu® de Sentmenat,97, 08029 Barcelona.Spain			

(*) 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.

Information requirements
(heat pump space heaters and heat pump combination heaters)

Model(s): AOWD-MB LOGIK-36TK2

Air-to-water heat pump	Y			Low-temperature heat pump	N		
Water-to-water heat pump	N			Equipped with a supplementary heater	N		
Brine-to-water heat pump	N			Heat pump combination heater	Y		
Parameters declared for	Medium-temperature application						
Parameters declared for	Warmer climate condition						
Item	symbol	value	unit	Item	symbol	value	unit
Rated heat output (*)	Prated	10	kW	Seasonal space heating energy efficiency	ηs	165	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = – 7 ℃	Pdh	NA	kW	Tj = – 7 ℃	COPd	NA	–
Degradation co-efficient (**)	Cdh	NA	–				
Tj = 2 ℃	Pdh	10.1	kW	Tj = 2 ℃	COPd	2.55	–
Degradation co-efficient (**)	Cdh	0.99	–				
Tj = 7 ℃	Pdh	6.0	kW	Tj = 7 ℃	COPd	3.63	–
Degradation co-efficient (**)	Cdh	0.99	–				
Tj = 12℃	Pdh	3.3	kW	Tj = 12℃	COPd	5.30	–
Degradation co-efficient (**)	Cdh	0.96	–				
Tj = bivalent temperature	Pdh	10.1	kW	Tj = bivalent temperature	COPd	2.55	–
Tj = operation limit temperature	Pdh	10.1	kW	Tj = operation limit temperature	COPd	2.55	–
For air-to-water heat pumps: Tj = – 15℃ (if TOL < – 20℃)	Pdh	NA	kW	For air-to-water heat pumps: Tj = – 15℃ (if TOL < – 20℃)	COPd	NA	–
Bivalent temperature	Tbiv	2	℃	For air-to-water heat pumps: Operation limit temperature	TOL	2	℃
Cycling interval capacity for heating	Pcych	NA	kW	Cycling interval efficiency	COPcyc	NA	–
				Heating water operating limit temperature	WTOL	65	℃
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P_{OFF}	0.025	kW	Rated heat output (*)	Psup	0	kW
Thermostat-off mode	P_{TO}	0.025	kW	Type of energy input	Electric		
Standby mode	P_{SB}	0.025	kW				
Crankcase heater mode	P_{CK}	0.025	kW				
Other items							
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	–	5800	m 3 /h
Sound power level, outdoors	L_{WA}	68	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	–	NA	m 3 /h
Annual energy consumption	Q_{HE}	3236	kWh				
For heat pump combination heater:							
Declared load profile	XL			Water heating energy efficiency	ηwh	123	%
Daily electricity consumption	Qelec	6.506	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity consumption	AEC	1431	kWh	Annual fuel consumption	AFC	NA	GJ
Contact details: sat.eurofredgroup.com.				Name and address of the supplier: Eurofred S.A. C/Marqu® de Sentmenat,97, 08029 Barcelona.Spain			

(*) 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.

Information requirements
(heat pump space heaters and heat pump combination heaters)

Model(s): AOWD-MB LOGIK-36TK2

Air-to-water heat pump	Y			Low-temperature heat pump	N		
Water-to-water heat pump	N			Equipped with a supplementary heater	N		
Brine-to-water heat pump	N			Heat pump combination heater	Y		
Parameters declared for	Low-temperature application						
Parameters declared for	Average climate condition						
Item	symbol	value	unit	Item	symbol	value	unit
Rated heat output (*)	Prated	9	kW	Seasonal space heating energy efficiency	ηs	189	%
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 ℃	Pdh	8.3	kW	Tj = – 7 ℃	COPd	3.15	–
Degradation co-efficient (**)	Cdh	0.99	–				
Tj = 2 ℃	Pdh	4.6	kW	Tj = 2 ℃	COPd	4.32	–
Degradation co-efficient (**)	Cdh	0.98	–				
Tj = 7 ℃	Pdh	3.3	kW	Tj = 7 ℃	COPd	7.46	–
Degradation co-efficient (**)	Cdh	0.95	–				
Tj = 12℃	Pdh	3.2	kW	Tj = 12℃	COPd	7.44	–
Degradation co-efficient (**)	Cdh	0.94	–				
Tj = bivalent temperature	Pdh	8.3	kW	Tj = bivalent temperature	COPd	3.15	–
Tj = operation limit temperature	Pdh	8.3	kW	Tj = operation limit temperature	COPd	2.74	–
For air-to-water heat pumps: Tj = – 15℃ (if TOL < – 20℃)	Pdh	NA	kW	For air-to-water heat pumps: Tj = – 15℃ (if TOL < – 20℃)	COPd	NA	–
Bivalent temperature	Tbiv	-7	℃	For air-to-water heat pumps: Operation limit temperature	TOL	-10	℃
Cycling interval capacity for heating	Pcych	NA	kW	Cycling interval efficiency	COPcyc	NA	–
				Heating water operating limit temperature	WTOL	65	℃
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P_{OFF}	0.025	kW	Rated heat output (*)	Psup	0.7	kW
Thermostat-off mode	P_{TO}	0.025	kW	Type of energy input	Electric		
Standby mode	P_{SB}	0.025	kW				
Crankcase heater mode	P_{CK}	0.025	kW				
Other items							
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	–	5800	m 3 /h
Sound power level, outdoors	L_{WA}	68	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	–	NA	m 3 /h
Annual energy consumption	Q_{HE}	4069	kWh				
For heat pump combination heater:							
Declared load profile	XL			Water heating energy efficiency	ηwh	123	%
Daily electricity consumption	Qelec	6.507	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity consumption	AEC	1431	kWh	Annual fuel consumption	AFC	NA	GJ
Contact details: sat.eurofredgroup.com.				Name and address of the supplier: Eurofred S.A. C/Marqu® de Sentmenat,97, 08029 Barcelona.Spain			

(*) 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.

Information requirements
(heat pump space heaters and heat pump combination heaters)

Model(s): AOWD-MB LOGIK-36TK2

Air-to-water heat pump	Y			Low-temperature heat pump	N		
Water-to-water heat pump	N			Equipped with a supplementary heater	N		
Brine-to-water heat pump	N			Heat pump combination heater	Y		
Parameters declared for	Low-temperature application						
Parameters declared for	Colder climate condition						
Item	symbol	value	unit	Item	symbol	value	unit
Rated heat output (*)	Prated	10	kW	Seasonal space heating energy efficiency	ηs	150	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = – 7 ℃	Pdh	5.7	kW	Tj = – 7 ℃	COPd	2.95	–
Degradation co-efficient (**)	Cdh	0.99	–				
Tj = 2 ℃	Pdh	3.4	kW	Tj = 2 ℃	COPd	4.71	–
Degradation co-efficient (**)	Cdh	0.97	–				
Tj = 7 ℃	Pdh	2.8	kW	Tj = 7 ℃	COPd	6.23	–
Degradation co-efficient (**)	Cdh	0.95	–				
Tj = 12℃	Pdh	3.2	kW	Tj = 12℃	COPd	6.85	–
Degradation co-efficient (**)	Cdh	0.95	–				
Tj = bivalent temperature	Pdh	7.8	kW	Tj = bivalent temperature	COPd	2.73	–
Tj = operation limit temperature	Pdh	6.0	kW	Tj = operation limit temperature	COPd	1.86	–
For air-to-water heat pumps: Tj = – 15℃ (if TOL < – 20℃)	Pdh	7.8	kW	For air-to-water heat pumps: Tj = – 15℃ (if TOL < – 20℃)	COPd	2.73	–
Bivalent temperature	Tbiv	-15	℃	For air-to-water heat pumps: Operation limit temperature	TOL	-22	℃
Cycling interval capacity for heating	Pcych	NA	kW	Cycling interval efficiency	COPcyc	NA	–
				Heating water operating limit temperature	WTOL	65	℃
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P_{OFF}	0.025	kW	Rated heat output (*)	Psup	4	kW
Thermostat-off mode	P_{TO}	0.025	kW	Type of energy input	Electric		
Standby mode	P_{SB}	0.025	kW				
Crankcase heater mode	P_{CK}	0.025	kW				
Other items							
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	–	5800	m 3 /h
Sound power level, outdoors	L_{WA}	68	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	–	NA	m 3 /h
Annual energy consumption	Q_{HE}	6194	kWh				
For heat pump combination heater:							
Declared load profile	XL			Water heating energy efficiency	ηwh	101	%
Daily electricity consumption	Qelec	7.906	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity consumption	AEC	1739	kWh	Annual fuel consumption	AFC	NA	GJ
Contact details: sat.eurofredgroup.com.				Name and address of the supplier: Eurofred S.A. C/Marqu® de Sentmenat,97, 08029 Barcelona.Spain			

(*) 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.

Information requirements
(heat pump space heaters and heat pump combination heaters)

Model(s): AOWD-MB LOGIK-36TK2

Air-to-water heat pump	Y			Low-temperature heat pump	N		
Water-to-water heat pump	N			Equipped with a supplementary heater	N		
Brine-to-water heat pump	N			Heat pump combination heater	Y		
Parameters declared for	Low-temperature application						
Parameters declared for	Warmer climate condition						
Item	symbol	value	unit	Item	symbol	value	unit
Rated heat output (*)	Prated	10	kW	Seasonal space heating energy efficiency	ηs	223	%
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 ℃	Pdh	NA	kW	Tj = – 7 ℃	COPd	NA	–
Degradation co-efficient (**)	Cdh	NA	–				
Tj = 2 ℃	Pdh	10.1	kW	Tj = 2 ℃	COPd	3.70	–
Degradation co-efficient (**)	Cdh	0.99	–				
Tj = 7 ℃	Pdh	6.0	kW	Tj = 7 ℃	COPd	5.63	–
Degradation co-efficient (**)	Cdh	0.98	–				
Tj = 12℃	Pdh	3.0	kW	Tj = 12℃	COPd	6.22	–
Degradation co-efficient (**)	Cdh	0.95	–				
Tj = bivalent temperature	Pdh	10.1	kW	Tj = bivalent temperature	COPd	3.70	–
Tj = operation limit temperature	Pdh	10.1	kW	Tj = operation limit temperature	COPd	3.70	–
For air-to-water heat pumps: Tj = – 15℃ (if TOL < – 20℃)	Pdh	NA	kW	For air-to-water heat pumps: Tj = – 15℃ (if TOL < – 20℃)	COPd	NA	–
Bivalent temperature	Tbiv	2	℃	For air-to-water heat pumps: Operation limit temperature	TOL	2	℃
Cycling interval capacity for heating	Pcych	NA	kW	Cycling interval efficiency	COPcyc	NA	–
				Heating water operating limit temperature	WTOL	65	℃
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P_{OFF}	0.025	kW	Rated heat output (*)	Psup	0	kW
Thermostat-off mode	P_{TO}	0.025	kW	Type of energy input	Electric		
Standby mode	P_{SB}	0.025	kW				
Crankcase heater mode	P_{CK}	0.025	kW				
Other items							
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	–	5800	m 3 /h
Sound power level, outdoors	L_{WA}	68	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	–	NA	m 3 /h
Annual energy consumption	Q_{HE}	2399	kWh				
For heat pump combination heater:							
Declared load profile	XL			Water heating energy efficiency	ηwh	123	%
Daily electricity consumption	Qelec	6.506	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity consumption	AEC	1431	kWh	Annual fuel consumption	AFC	NA	GJ
Contact details: sat.eurofredgroup.com.				Name and address of the supplier: Eurofred S.A. C/Marqu® de Sentmenat,97, 08029 Barcelona.Spain			

(*) 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.

Information requirements
(heat pump space heaters and heat pump combination heaters)

Model(s): AOWD-MB LOGIK-40K2

Air-to-water heat pump	Y			Low-temperature heat pump	N		
Water-to-water heat pump	N			Equipped with a supplementary heater	N		
Brine-to-water heat pump	N			Heat pump combination heater	Y		
Parameters declared for	Medium-temperature application						
Parameters declared for	Average climate condition						
Item	symbol	value	unit	Item	symbol	value	unit
Rated heat output (*)	Prated	12	kW	Seasonal space heating energy efficiency	ηs	149	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = – 7 ℃	Pdh	10.3	kW	Tj = – 7 ℃	COPd	2.11	–
Degradation co-efficient (**)	Cdh	0.99	–				
Tj = 2 ℃	Pdh	6.8	kW	Tj = 2 ℃	COPd	3.81	–
Degradation co-efficient (**)	Cdh	0.99	–				
Tj = 7 ℃	Pdh	4.3	kW	Tj = 7 ℃	COPd	5.01	–
Degradation co-efficient (**)	Cdh	0.97	–				
Tj = 12℃	Pdh	3.6	kW	Tj = 12℃	COPd	7.32	–
Degradation co-efficient (**)	Cdh	0.94	–				
Tj = bivalent temperature	Pdh	10.3	kW	Tj = bivalent temperature	COPd	2.11	–
Tj = operation limit temperature	Pdh	9.7	kW	Tj = operation limit temperature	COPd	1.77	–
For air-to-water heat pumps: Tj = – 15℃ (if TOL < – 20℃)	Pdh	NA	kW	For air-to-water heat pumps: Tj = – 15℃ (if TOL < – 20℃)	COPd	NA	–
Bivalent temperature	Tbiv	-7	℃	For air-to-water heat pumps: Operation limit temperature	TOL	-10	℃
Cycling interval capacity for heating	Pcych	NA	kW	Cycling interval efficiency	COPcyc	NA	–
				Heating water operating limit temperature	WTOL	65	℃
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P_{OFF}	0.025	kW	Rated heat output (*)	Psup	2.2	kW
Thermostat-off mode	P_{TO}	0.025	kW	Type of energy input	Electric		
Standby mode	P_{SB}	0.025	kW				
Crankcase heater mode	P_{CK}	0.025	kW				
Other items							
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	–	5015	m 3 /h
Sound power level, outdoors	L_{WA}	68	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	–	NA	m 3 /h
Annual energy consumption	Q_{HE}	6388	kWh				
For heat pump combination heater:							
Declared load profile	XL			Water heating energy efficiency	ηwh	110	%
Daily electricity consumption	Qelec	7.243	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity consumption	AEC	1594	kWh	Annual fuel consumption	AFC	NA	GJ
Contact details: sat.eurofredgroup.com.				Name and address of the supplier: Eurofred S.A. C/Marqu® de Sentmenat,97, 08029 Barcelona.Spain			

(*) 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.

Information requirements
(heat pump space heaters and heat pump combination heaters)

Model(s): AOWD-MB LOGIK-40K2

Air-to-water heat pump	Y			Low-temperature heat pump	N		
Water-to-water heat pump	N			Equipped with a supplementary heater	N		
Brine-to-water heat pump	N			Heat pump combination heater	Y		
Parameters declared for	Medium-temperature application						
Parameters declared for	Colder climate condition						
Item	symbol	value	unit	Item	symbol	value	unit
Rated heat output (*)	Prated	12	kW	Seasonal space heating energy efficiency	ηs	129	%
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 ℃	Pdh	7.8	kW	Tj = – 7 ℃	COPd	2.77	–
Degradation co-efficient (**)	Cdh	0.99	–				
Tj = 2 ℃	Pdh	4.4	kW	Tj = 2 ℃	COPd	3.95	–
Degradation co-efficient (**)	Cdh	0.98	–				
Tj = 7 ℃	Pdh	2.8	kW	Tj = 7 ℃	COPd	5.55	–
Degradation co-efficient (**)	Cdh	0.95	–				
Tj = 12℃	Pdh	3.3	kW	Tj = 12℃	COPd	7.45	–
Degradation co-efficient (**)	Cdh	0.94	–				
Tj = bivalent temperature	Pdh	9.9	kW	Tj = bivalent temperature	COPd	1.96	–
Tj = operation limit temperature	Pdh	7.0	kW	Tj = operation limit temperature	COPd	1.18	–
For air-to-water heat pumps: Tj = – 15℃ (if TOL < – 20℃)	Pdh	9.9	kW	For air-to-water heat pumps: Tj = – 15℃ (if TOL < – 20℃)	COPd	1.96	–
Bivalent temperature	Tbiv	-15	℃	For air-to-water heat pumps: Operation limit temperature	TOL	-22	℃
Cycling interval capacity for heating	Pcych	NA	kW	Cycling interval efficiency	COPcyc	NA	–
				Heating water operating limit temperature	WTOL	65	℃
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P_{OFF}	0.025	kW	Rated heat output (*)	Psup	5.0	kW
Thermostat-off mode	P_{TO}	0.025	kW	Type of energy input	Electric		
Standby mode	P_{SB}	0.025	kW				
Crankcase heater mode	P_{CK}	0.025	kW				
Other items							
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	–	5015	m 3 /h
Sound power level, outdoors	L_{WA}	68	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	–	NA	m 3 /h
Annual energy consumption	Q_{HE}	9034	kWh				
For heat pump combination heater:							
Declared load profile	XL			Water heating energy efficiency	ηwh	87	%
Daily electricity consumption	Qelec	9.164	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity consumption	AEC	2016	kWh	Annual fuel consumption	AFC	NA	GJ
Contact details: sat.eurofredgroup.com.				Name and address of the supplier: Eurofred S.A. C/Marqu® de Sentmenat,97, 08029 Barcelona.Spain			

(*) 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.

Information requirements
(heat pump space heaters and heat pump combination heaters)

Model(s): AOWD-MB LOGIK-40K2

Air-to-water heat pump	Y			Low-temperature heat pump	N		
Water-to-water heat pump	N			Equipped with a supplementary heater	N		
Brine-to-water heat pump	N			Heat pump combination heater	Y		
Parameters declared for	Medium-temperature application						
Parameters declared for	Warmer climate condition						
Item	symbol	value	unit	Item	symbol	value	unit
Rated heat output (*)	Prated	12	kW	Seasonal space heating energy efficiency	ηs	180	%
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 ℃	Pdh	NA	kW	Tj = – 7 ℃	COPd	NA	–
Degradation co-efficient (**)	Cdh	NA	–				
Tj = 2 ℃	Pdh	12.2	kW	Tj = 2 ℃	COPd	2.27	–
Degradation co-efficient (**)	Cdh	1.00	–				
Tj = 7 ℃	Pdh	8.1	kW	Tj = 7 ℃	COPd	3.74	–
Degradation co-efficient (**)	Cdh	0.99	–				
Tj = 12℃	Pdh	3.5	kW	Tj = 12℃	COPd	6.29	–
Degradation co-efficient (**)	Cdh	0.95	–				
Tj = bivalent temperature	Pdh	12.2	kW	Tj = bivalent temperature	COPd	2.27	–
Tj = operation limit temperature	Pdh	12.2	kW	Tj = operation limit temperature	COPd	2.27	–
For air-to-water heat pumps: Tj = – 15℃ (if TOL < – 20℃)	Pdh	NA	kW	For air-to-water heat pumps: Tj = – 15℃ (if TOL < – 20℃)	COPd	NA	–
Bivalent temperature	Tbiv	2	℃	For air-to-water heat pumps: Operation limit temperature	TOL	2	℃
Cycling interval capacity for heating	Pcych	NA	kW	Cycling interval efficiency	COPcyc	NA	–
				Heating water operating limit temperature	WTOL	65	℃
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P_{OFF}	0.025	kW	Rated heat output (*)	Psup	0	kW
Thermostat-off mode	P_{TO}	0.025	kW	Type of energy input	Electric		
Standby mode	P_{SB}	0.025	kW				
Crankcase heater mode	P_{CK}	0.025	kW				
Other items							
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	–	5015	m 3 /h
Sound power level, outdoors	L_{WA}	68	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	–	NA	m 3 /h
Annual energy consumption	Q_{HE}	3558	kWh				
For heat pump combination heater:							
Declared load profile	XL			Water heating energy efficiency	ηwh	113	%
Daily electricity consumption	Qelec	7.036	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity consumption	AEC	1548	kWh	Annual fuel consumption	AFC	NA	GJ
Contact details: sat.eurofredgroup.com.				Name and address of the supplier: Eurofred S.A. C/Marqu® de Sentmenat,97, 08029 Barcelona.Spain			

(*) 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.

Information requirements
(heat pump space heaters and heat pump combination heaters)

Model(s): AOWD-MB LOGIK-40K2

Air-to-water heat pump	Y			Low-temperature heat pump	N		
Water-to-water heat pump	N			Equipped with a supplementary heater	N		
Brine-to-water heat pump	N			Heat pump combination heater	Y		
Parameters declared for	Low-temperature application						
Parameters declared for	Average climate condition						
Item	symbol	value	unit	Item	symbol	value	unit
Rated heat output (*)	Prated	12	kW	Seasonal space heating energy efficiency	ηs	188	%
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 ℃	Pdh	10.7	kW	Tj = – 7 ℃	COPd	2.98	–
Degradation co-efficient (**)	Cdh	0.99	–				
Tj = 2 ℃	Pdh	6.1	kW	Tj = 2 ℃	COPd	4.38	–
Degradation co-efficient (**)	Cdh	0.98	–				
Tj = 7 ℃	Pdh	4.1	kW	Tj = 7 ℃	COPd	7.03	–
Degradation co-efficient (**)	Cdh	0.96	–				
Tj = 12℃	Pdh	3.4	kW	Tj = 12℃	COPd	9.49	–
Degradation co-efficient (**)	Cdh	0.93	–				
Tj = bivalent temperature	Pdh	10.7	kW	Tj = bivalent temperature	COPd	2.98	–
Tj = operation limit temperature	Pdh	10.2	kW	Tj = operation limit temperature	COPd	2.62	–
For air-to-water heat pumps: Tj = – 15℃ (if TOL < – 20℃)	Pdh	NA	kW	For air-to-water heat pumps: Tj = – 15℃ (if TOL < – 20℃)	COPd	NA	–
Bivalent temperature	Tbiv	-7	℃	For air-to-water heat pumps: Operation limit temperature	TOL	-10	℃
Cycling interval capacity for heating	Pcych	NA	kW	Cycling interval efficiency	COPcyc	NA	–
				Heating water operating limit temperature	WTOL	65	℃
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P_{OFF}	0.025	kW	Rated heat output (*)	Psup	1.8	kW
Thermostat-off mode	P_{TO}	0.025	kW	Type of energy input	Electric		
Standby mode	P_{SB}	0.025	kW				
Crankcase heater mode	P_{CK}	0.025	kW				
Other items							
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	–	5015	m 3 /h
Sound power level, outdoors	L_{WA}	68	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	–	NA	m 3 /h
Annual energy consumption	Q_{HE}	5194	kWh				
For heat pump combination heater:							
Declared load profile	XL			Water heating energy efficiency	ηwh	110	%
Daily electricity consumption	Qelec	7.243	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity consumption	AEC	1594	kWh	Annual fuel consumption	AFC	NA	GJ
Contact details: sat.eurofredgroup.com.				Name and address of the supplier: Eurofred S.A. C/Marqu® de Sentmenat,97, 08029 Barcelona.Spain			

(*) 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.

Information requirements
(heat pump space heaters and heat pump combination heaters)

Model(s): AOWD-MB LOGIK-40K2

Air-to-water heat pump	Y			Low-temperature heat pump	N		
Water-to-water heat pump	N			Equipped with a supplementary heater	N		
Brine-to-water heat pump	N			Heat pump combination heater	Y		
Parameters declared for	Low-temperature application						
Parameters declared for	Colder climate condition						
Item	symbol	value	unit	Item	symbol	value	unit
Rated heat output (*)	Prated	11	kW	Seasonal space heating energy efficiency	ηs	181	%
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 ℃	Pdh	6.9	kW	Tj = – 7 ℃	COPd	3.88	–
Degradation co-efficient (**)	Cdh	0.99	–				
Tj = 2 ℃	Pdh	4.1	kW	Tj = 2 ℃	COPd	5.71	–
Degradation co-efficient (**)	Cdh	0.97	–				
Tj = 7 ℃	Pdh	2.7	kW	Tj = 7 ℃	COPd	7.20	–
Degradation co-efficient (**)	Cdh	0.93	–				
Tj = 12℃	Pdh	3.2	kW	Tj = 12℃	COPd	8.77	–
Degradation co-efficient (**)	Cdh	0.93	–				
Tj = bivalent temperature	Pdh	9.2	kW	Tj = bivalent temperature	COPd	2.74	–
Tj = operation limit temperature	Pdh	7.9	kW	Tj = operation limit temperature	COPd	1.89	–
For air-to-water heat pumps: Tj = – 15℃ (if TOL < – 20℃)	Pdh	9.2	kW	For air-to-water heat pumps: Tj = – 15℃ (if TOL < – 20℃)	COPd	2.74	–
Bivalent temperature	Tbiv	-15	℃	For air-to-water heat pumps: Operation limit temperature	TOL	-22	℃
Cycling interval capacity for heating	Pcych	NA	kW	Cycling interval efficiency	COPcyc	NA	–
				Heating water operating limit temperature	WTOL	65	℃
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P_{OFF}	0.025	kW	Rated heat output (*)	Psup	3.1	kW
Thermostat-off mode	P_{TO}	0.025	kW	Type of energy input	Electric		
Standby mode	P_{SB}	0.025	kW				
Crankcase heater mode	P_{CK}	0.025	kW				
Other items							
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	–	5015	m 3 /h
Sound power level, outdoors	L_{WA}	68	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	–	NA	m 3 /h
Annual energy consumption	Q_{HE}	6044	kWh				
For heat pump combination heater:							
Declared load profile	XL			Water heating energy efficiency	ηwh	87	%
Daily electricity consumption	Qelec	9.164	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity consumption	AEC	2016	kWh	Annual fuel consumption	AFC	NA	GJ
Contact details: sat.eurofredgroup.com.				Name and address of the supplier: Eurofred S.A. C/Marqu® de Sentmenat,97, 08029 Barcelona.Spain			

(*) 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.

Information requirements
(heat pump space heaters and heat pump combination heaters)

Model(s): AOWD-MB LOGIK-40K2

Air-to-water heat pump	Y			Low-temperature heat pump	N		
Water-to-water heat pump	N			Equipped with a supplementary heater	N		
Brine-to-water heat pump	N			Heat pump combination heater	Y		
Parameters declared for	Low-temperature application						
Parameters declared for	Warmer climate condition						
Item	symbol	value	unit	Item	symbol	value	unit
Rated heat output (*)	Prated	12	kW	Seasonal space heating energy efficiency	ηs	273	%
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 ℃	Pdh	NA	kW	Tj = – 7 ℃	COPd	NA	–
Degradation co-efficient (**)	Cdh	NA	–				
Tj = 2 ℃	Pdh	11.6	kW	Tj = 2 ℃	COPd	3.65	–
Degradation co-efficient (**)	Cdh	0.99	–				
Tj = 7 ℃	Pdh	7.3	kW	Tj = 7 ℃	COPd	5.74	–
Degradation co-efficient (**)	Cdh	0.98	–				
Tj = 12℃	Pdh	3.3	kW	Tj = 12℃	COPd	9.38	–
Degradation co-efficient (**)	Cdh	0.93	–				
Tj = bivalent temperature	Pdh	11.6	kW	Tj = bivalent temperature	COPd	3.65	–
Tj = operation limit temperature	Pdh	11.6	kW	Tj = operation limit temperature	COPd	3.65	–
For air-to-water heat pumps: Tj = – 15℃ (if TOL < – 20℃)	Pdh	NA	kW	For air-to-water heat pumps: Tj = – 15℃ (if TOL < – 20℃)	COPd	NA	–
Bivalent temperature	Tbiv	2	℃	For air-to-water heat pumps: Operation limit temperature	TOL	2	℃
Cycling interval capacity for heating	Pcych	NA	kW	Cycling interval efficiency	COPcyc	NA	–
				Heating water operating limit temperature	WTOL	65	℃
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P_{OFF}	0.025	kW	Rated heat output (*)	Psup	0	kW
Thermostat-off mode	P_{TO}	0.025	kW	Type of energy input	Electric		
Standby mode	P_{SB}	0.025	kW				
Crankcase heater mode	P_{CK}	0.025	kW				
Other items							
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	–	5015	m 3 /h
Sound power level, outdoors	L_{WA}	68	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	–	NA	m 3 /h
Annual energy consumption	Q_{HE}	2236	kWh				
For heat pump combination heater:							
Declared load profile	XL			Water heating energy efficiency	ηwh	113	%
Daily electricity consumption	Qelec	7.036	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity consumption	AEC	1548	kWh	Annual fuel consumption	AFC	NA	GJ
Contact details: sat.eurofredgroup.com.				Name and address of the supplier: Eurofred S.A. C/Marqu® de Sentmenat,97, 08029 Barcelona.Spain			

(*) 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.

Information requirements
(heat pump space heaters and heat pump combination heaters)

Model(s): AOWD-MB LOGIK-40TK2

Air-to-water heat pump	Y			Low-temperature heat pump	N		
Water-to-water heat pump	N			Equipped with a supplementary heater	N		
Brine-to-water heat pump	N			Heat pump combination heater	Y		
Parameters declared for	Medium-temperature application						
Parameters declared for	Average climate condition						
Item	symbol	value	unit	Item	symbol	value	unit
Rated heat output (*)	Prated	12	kW	Seasonal space heating energy efficiency	ηs	150	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = – 7 ℃	Pdh	10.5	kW	Tj = – 7 ℃	COPd	2.02	–
Degradation co-efficient (**)	Cdh	1.00	–				
Tj = 2 ℃	Pdh	6.6	kW	Tj = 2 ℃	COPd	3.76	–
Degradation co-efficient (**)	Cdh	0.99	–				
Tj = 7 ℃	Pdh	4.5	kW	Tj = 7 ℃	COPd	5.51	–
Degradation co-efficient (**)	Cdh	0.98	–				
Tj = 12℃	Pdh	3.5	kW	Tj = 12℃	COPd	7.06	–
Degradation co-efficient (**)	Cdh	0.96	–				
Tj = bivalent temperature	Pdh	10.5	kW	Tj = bivalent temperature	COPd	2.02	–
Tj = operation limit temperature	Pdh	11.5	kW	Tj = operation limit temperature	COPd	2.02	–
For air-to-water heat pumps: Tj = – 15℃ (if TOL < – 20℃)	Pdh	NA	kW	For air-to-water heat pumps: Tj = – 15℃ (if TOL < – 20℃)	COPd	NA	–
Bivalent temperature	Tbiv	-7	℃	For air-to-water heat pumps: Operation limit temperature	TOL	-10	℃
Cycling interval capacity for heating	Pcych	NA	kW	Cycling interval efficiency	COPcyc	NA	–
				Heating water operating limit temperature	WTOL	65	℃
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P_{OFF}	0.025	kW	Rated heat output (*)	Psup	0.4	kW
Thermostat-off mode	P_{TO}	0.025	kW	Type of energy input	Electric		
Standby mode	P_{SB}	0.025	kW				
Crankcase heater mode	P_{CK}	0.025	kW				
Other items							
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	–	5015	m 3 /h
Sound power level, outdoors	L_{WA}	68	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	–	NA	m 3 /h
Annual energy consumption	Q_{HE}	6391	kWh				
For heat pump combination heater:							
Declared load profile	XL			Water heating energy efficiency	ηwh	110	%
Daily electricity consumption	Qelec	7.243	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity consumption	AEC	1594	kWh	Annual fuel consumption	AFC	NA	GJ
Contact details: sat.eurofredgroup.com.				Name and address of the supplier: Eurofred S.A. C/Marqu® de Sentmenat,97, 08029 Barcelona.Spain			

(*) 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.

Information requirements
(heat pump space heaters and heat pump combination heaters)

Model(s): AOWD-MB LOGIK-40TK2

Air-to-water heat pump	Y			Low-temperature heat pump	N		
Water-to-water heat pump	N			Equipped with a supplementary heater	N		
Brine-to-water heat pump	N			Heat pump combination heater	Y		
Parameters declared for	Medium-temperature application						
Parameters declared for	Colder climate condition						
Item	symbol	value	unit	Item	symbol	value	unit
Rated heat output (*)	Prated	12	kW	Seasonal space heating energy efficiency	ηs	117	%
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 ℃	Pdh	7.8	kW	Tj = – 7 ℃	COPd	2.55	–
Degradation co-efficient (**)	Cdh	0.99	–				
Tj = 2 ℃	Pdh	4.4	kW	Tj = 2 ℃	COPd	3.71	–
Degradation co-efficient (**)	Cdh	0.98	–				
Tj = 7 ℃	Pdh	2.9	kW	Tj = 7 ℃	COPd	4.61	–
Degradation co-efficient (**)	Cdh	0.96	–				
Tj = 12℃	Pdh	3.3	kW	Tj = 12℃	COPd	5.24	–
Degradation co-efficient (**)	Cdh	0.96	–				
Tj = bivalent temperature	Pdh	9.6	kW	Tj = bivalent temperature	COPd	1.79	–
Tj = operation limit temperature	Pdh	6.7	kW	Tj = operation limit temperature	COPd	1.06	–
For air-to-water heat pumps: Tj = – 15℃ (if TOL < – 20℃)	Pdh	9.6	kW	For air-to-water heat pumps: Tj = – 15℃ (if TOL < – 20℃)	COPd	1.79	–
Bivalent temperature	Tbiv	-15	℃	For air-to-water heat pumps: Operation limit temperature	TOL	-22	℃
Cycling interval capacity for heating	Pcych	NA	kW	Cycling interval efficiency	COPcyc	NA	–
				Heating water operating limit temperature	WTOL	65	℃
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P_{OFF}	0.025	kW	Rated heat output (*)	Psup	5.3	kW
Thermostat-off mode	P_{TO}	0.025	kW	Type of energy input	Electric		
Standby mode	P_{SB}	0.025	kW				
Crankcase heater mode	P_{CK}	0.025	kW				
Other items							
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	–	5015	m 3 /h
Sound power level, outdoors	L_{WA}	68	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	–	NA	m 3 /h
Annual energy consumption	Q_{HE}	9548	kWh				
For heat pump combination heater:							
Declared load profile	XL			Water heating energy efficiency	ηwh	87	%
Daily electricity consumption	Qelec	9.164	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity consumption	AEC	2016	kWh	Annual fuel consumption	AFC	NA	GJ
Contact details: sat.eurofredgroup.com.				Name and address of the supplier: Eurofred S.A. C/Marqu® de Sentmenat,97, 08029 Barcelona.Spain			

(*) 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.

Information requirements
(heat pump space heaters and heat pump combination heaters)

Model(s): AOWD-MB LOGIK-40TK2

Air-to-water heat pump	Y			Low-temperature heat pump	N		
Water-to-water heat pump	N			Equipped with a supplementary heater	N		
Brine-to-water heat pump	N			Heat pump combination heater	Y		
Parameters declared for	Medium-temperature application						
Parameters declared for	Warmer climate condition						
Item	symbol	value	unit	Item	symbol	value	unit
Rated heat output (*)	Prated	12	kW	Seasonal space heating energy efficiency	ηs	169	%
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 ℃	Pdh	NA	kW	Tj = – 7 ℃	COPd	NA	–
Degradation co-efficient (**)	Cdh	NA	–				
Tj = 2 ℃	Pdh	12.3	kW	Tj = 2 ℃	COPd	2.51	–
Degradation co-efficient (**)	Cdh	0.99	–				
Tj = 7 ℃	Pdh	7.9	kW	Tj = 7 ℃	COPd	3.50	–
Degradation co-efficient (**)	Cdh	0.99	–				
Tj = 12℃	Pdh	3.6	kW	Tj = 12℃	COPd	5.80	–
Degradation co-efficient (**)	Cdh	0.96	–				
Tj = bivalent temperature	Pdh	12.3	kW	Tj = bivalent temperature	COPd	2.51	–
Tj = operation limit temperature	Pdh	12.3	kW	Tj = operation limit temperature	COPd	2.51	–
For air-to-water heat pumps: Tj = – 15℃ (if TOL < – 20℃)	Pdh	NA	kW	For air-to-water heat pumps: Tj = – 15℃ (if TOL < – 20℃)	COPd	NA	–
Bivalent temperature	Tbiv	2	℃	For air-to-water heat pumps: Operation limit temperature	TOL	2	℃
Cycling interval capacity for heating	Pcych	NA	kW	Cycling interval efficiency	COPcyc	NA	–
				Heating water operating limit temperature	WTOL	65	℃
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P_{OFF}	0.025	kW	Rated heat output (*)	Psup	0	kW
Thermostat-off mode	P_{TO}	0.025	kW	Type of energy input	Electric		
Standby mode	P_{SB}	0.025	kW				
Crankcase heater mode	P_{CK}	0.025	kW				
Other items							
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	–	5015	m 3 /h
Sound power level, outdoors	L_{WA}	68	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	–	NA	m 3 /h
Annual energy consumption	Q_{HE}	3822	kWh				
For heat pump combination heater:							
Declared load profile	XL			Water heating energy efficiency	ηwh	113	%
Daily electricity consumption	Qelec	7.036	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity consumption	AEC	1548	kWh	Annual fuel consumption	AFC	NA	GJ
Contact details: sat.eurofredgroup.com.				Name and address of the supplier: Eurofred S.A. C/Marqu® de Sentmenat,97, 08029 Barcelona.Spain			

(*) 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.

Information requirements
(heat pump space heaters and heat pump combination heaters)

Model(s): AOWD-MB LOGIK-40TK2

Air-to-water heat pump	Y			Low-temperature heat pump	N		
Water-to-water heat pump	N			Equipped with a supplementary heater	N		
Brine-to-water heat pump	N			Heat pump combination heater	Y		
Parameters declared for	Low-temperature application						
Parameters declared for	Average climate condition						
Item	symbol	value	unit	Item	symbol	value	unit
Rated heat output (*)	Prated	12	kW	Seasonal space heating energy efficiency	ηs	180	%
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 ℃	Pdh	10.8	kW	Tj = – 7 ℃	COPd	3.01	–
Degradation co-efficient (**)	Cdh	0.99	–				
Tj = 2 ℃	Pdh	6.7	kW	Tj = 2 ℃	COPd	4.50	–
Degradation co-efficient (**)	Cdh	0.98	–				
Tj = 7 ℃	Pdh	4.5	kW	Tj = 7 ℃	COPd	5.82	–
Degradation co-efficient (**)	Cdh	0.97	–				
Tj = 12℃	Pdh	3.3	kW	Tj = 12℃	COPd	7.45	–
Degradation co-efficient (**)	Cdh	0.94	–				
Tj = bivalent temperature	Pdh	10.8	kW	Tj = bivalent temperature	COPd	3.01	–
Tj = operation limit temperature	Pdh	9.9	kW	Tj = operation limit temperature	COPd	2.51	–
For air-to-water heat pumps: Tj = – 15℃ (if TOL < – 20℃)	Pdh	NA	kW	For air-to-water heat pumps: Tj = – 15℃ (if TOL < – 20℃)	COPd	NA	–
Bivalent temperature	Tbiv	-7	℃	For air-to-water heat pumps: Operation limit temperature	TOL	-10	℃
Cycling interval capacity for heating	Pcych	NA	kW	Cycling interval efficiency	COPcyc	NA	–
				Heating water operating limit temperature	WTOL	65	℃
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P_{OFF}	0.025	kW	Rated heat output (*)	Psup	2.1	kW
Thermostat-off mode	P_{TO}	0.025	kW	Type of energy input	Electric		
Standby mode	P_{SB}	0.025	kW				
Crankcase heater mode	P_{CK}	0.025	kW				
Other items							
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	–	5015	m 3 /h
Sound power level, outdoors	L_{WA}	68	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	–	NA	m 3 /h
Annual energy consumption	Q_{HE}	5517	kWh				
For heat pump combination heater:							
Declared load profile	XL			Water heating energy efficiency	ηwh	110	%
Daily electricity consumption	Qelec	7.243	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity consumption	AEC	1594	kWh	Annual fuel consumption	AFC	NA	GJ
Contact details: sat.eurofredgroup.com.				Name and address of the supplier: Eurofred S.A. C/Marqu® de Sentmenat,97, 08029 Barcelona.Spain			

(*) 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.

Information requirements
(heat pump space heaters and heat pump combination heaters)

Model(s): AOWD-MB LOGIK-40TK2

Air-to-water heat pump	Y			Low-temperature heat pump	N		
Water-to-water heat pump	N			Equipped with a supplementary heater	N		
Brine-to-water heat pump	N			Heat pump combination heater	Y		
Parameters declared for	Low-temperature application						
Parameters declared for	Colder climate condition						
Item	symbol	value	unit	Item	symbol	value	unit
Rated heat output (*)	Prated	11	kW	Seasonal space heating energy efficiency	ηs	159	%
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 ℃	Pdh	7.0	kW	Tj = – 7 ℃	COPd	3.40	–
Degradation co-efficient (**)	Cdh	0.99	–				
Tj = 2 ℃	Pdh	4.2	kW	Tj = 2 ℃	COPd	5.04	–
Degradation co-efficient (**)	Cdh	0.97	–				
Tj = 7 ℃	Pdh	3.0	kW	Tj = 7 ℃	COPd	6.04	–
Degradation co-efficient (**)	Cdh	0.95	–				
Tj = 12℃	Pdh	3.3	kW	Tj = 12℃	COPd	7.23	–
Degradation co-efficient (**)	Cdh	0.95	–				
Tj = bivalent temperature	Pdh	9.0	kW	Tj = bivalent temperature	COPd	2.42	–
Tj = operation limit temperature	Pdh	7.6	kW	Tj = operation limit temperature	COPd	1.79	–
For air-to-water heat pumps: Tj = – 15℃ (if TOL < – 20℃)	Pdh	9.0	kW	For air-to-water heat pumps: Tj = – 15℃ (if TOL < – 20℃)	COPd	2.42	–
Bivalent temperature	Tbiv	-15	℃	For air-to-water heat pumps: Operation limit temperature	TOL	-22	℃
Cycling interval capacity for heating	Pcych	NA	kW	Cycling interval efficiency	COPcyc	NA	–
				Heating water operating limit temperature	WTOL	65	℃
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P_{OFF}	0.025	kW	Rated heat output (*)	Psup	3.4	kW
Thermostat-off mode	P_{TO}	0.025	kW	Type of energy input	Electric		
Standby mode	P_{SB}	0.025	kW				
Crankcase heater mode	P_{CK}	0.025	kW				
Other items							
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	–	5015	m 3 /h
Sound power level, outdoors	L_{WA}	68	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	–	NA	m 3 /h
Annual energy consumption	Q_{HE}	6685	kWh				
For heat pump combination heater:							
Declared load profile	XL			Water heating energy efficiency	ηwh	87	%
Daily electricity consumption	Qelec	9.164	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity consumption	AEC	2016	kWh	Annual fuel consumption	AFC	NA	GJ
Contact details: sat.eurofredgroup.com.				Name and address of the supplier: Eurofred S.A. C/Marqu® de Sentmenat,97, 08029 Barcelona.Spain			

(*) 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.

Information requirements
(heat pump space heaters and heat pump combination heaters)

Model(s): AOWD-MB LOGIK-40TK2

Air-to-water heat pump	Y			Low-temperature heat pump	N		
Water-to-water heat pump	N			Equipped with a supplementary heater	N		
Brine-to-water heat pump	N			Heat pump combination heater	Y		
Parameters declared for	Low-temperature application						
Parameters declared for	Warmer climate condition						
Item	symbol	value	unit	Item	symbol	value	unit
Rated heat output (*)	Prated	12	kW	Seasonal space heating energy efficiency	ηs	244	%
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 ℃	Pdh	NA	kW	Tj = – 7 ℃	COPd	NA	–
Degradation co-efficient (**)	Cdh	NA	–				
Tj = 2 ℃	Pdh	11.7	kW	Tj = 2 ℃	COPd	3.43	–
Degradation co-efficient (**)	Cdh	0.99	–				
Tj = 7 ℃	Pdh	7.5	kW	Tj = 7 ℃	COPd	5.41	–
Degradation co-efficient (**)	Cdh	0.98	–				
Tj = 12℃	Pdh	3.5	kW	Tj = 12℃	COPd	7.85	–
Degradation co-efficient (**)	Cdh	0.94	–				
Tj = bivalent temperature	Pdh	11.7	kW	Tj = bivalent temperature	COPd	3.43	–
Tj = operation limit temperature	Pdh	11.7	kW	Tj = operation limit temperature	COPd	3.43	–
For air-to-water heat pumps: Tj = – 15℃ (if TOL < – 20℃)	Pdh	NA	kW	For air-to-water heat pumps: Tj = – 15℃ (if TOL < – 20℃)	COPd	NA	–
Bivalent temperature	Tbiv	2	℃	For air-to-water heat pumps: Operation limit temperature	TOL	2	℃
Cycling interval capacity for heating	Pcych	NA	kW	Cycling interval efficiency	COPcyc	NA	–
				Heating water operating limit temperature	WTOL	65	℃
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P_{OFF}	0.025	kW	Rated heat output (*)	Psup	0.3	kW
Thermostat-off mode	P_{TO}	0.025	kW	Type of energy input	Electric		
Standby mode	P_{SB}	0.025	kW				
Crankcase heater mode	P_{CK}	0.025	kW				
Other items							
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	–	5015	m 3 /h
Sound power level, outdoors	L_{WA}	68	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	–	NA	m 3 /h
Annual energy consumption	Q_{HE}	2531	kWh				
For heat pump combination heater:							
Declared load profile	XL			Water heating energy efficiency	ηwh	113	%
Daily electricity consumption	Qelec	7.036	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity consumption	AEC	1594	kWh	Annual fuel consumption	AFC	NA	GJ
Contact details: sat.eurofredgroup.com.				Name and address of the supplier: Eurofred S.A. C/Marqu® de Sentmenat,97, 08029 Barcelona.Spain			

(*) 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.

Information requirements
(heat pump space heaters and heat pump combination heaters)

Model(s): AOWD-MB LOGIK-45K2

Air-to-water heat pump	Y			Low-temperature heat pump	N		
Water-to-water heat pump	N			Equipped with a supplementary heater	N		
Brine-to-water heat pump	N			Heat pump combination heater	Y		
Parameters declared for	Medium-temperature application						
Parameters declared for	Average climate condition						
Item	symbol	value	unit	Item	symbol	value	unit
Rated heat output (*)	Prated	13	kW	Seasonal space heating energy efficiency	ηs	147	%
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 ℃	Pdh	11.8	kW	Tj = – 7 ℃	COPd	2.10	–
Degradation co-efficient (**)	Cdh	1.00	–				
Tj = 2 ℃	Pdh	6.8	kW	Tj = 2 ℃	COPd	3.81	–
Degradation co-efficient (**)	Cdh	0.99	–				
Tj = 7 ℃	Pdh	4.8	kW	Tj = 7 ℃	COPd	4.77	–
Degradation co-efficient (**)	Cdh	0.98	–				
Tj = 12℃	Pdh	3.6	kW	Tj = 12℃	COPd	7.36	–
Degradation co-efficient (**)	Cdh	0.94	–				
Tj = bivalent temperature	Pdh	11.8	kW	Tj = bivalent temperature	COPd	2.10	–
Tj = operation limit temperature	Pdh	9.6	kW	Tj = operation limit temperature	COPd	1.74	–
For air-to-water heat pumps: Tj = – 15℃ (if TOL < – 20℃)	Pdh	NA	kW	For air-to-water heat pumps: Tj = – 15℃ (if TOL < – 20℃)	COPd	NA	–
Bivalent temperature	Tbiv	-7	℃	For air-to-water heat pumps: Operation limit temperature	TOL	-10	℃
Cycling interval capacity for heating	Pcych	NA	kW	Cycling interval efficiency	COPcyc	NA	–
				Heating water operating limit temperature	WTOL	65	℃
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P_{OFF}	0.025	kW	Rated heat output (*)	Psup	3.4	kW
Thermostat-off mode	P_{TO}	0.025	kW	Type of energy input	Electric		
Standby mode	P_{SB}	0.025	kW				
Crankcase heater mode	P_{CK}	0.025	kW				
Other items							
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	–	5015	m 3 /h
Sound power level, outdoors	L_{WA}	68	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	–	NA	m 3 /h
Annual energy consumption	Q_{HE}	7352	kWh				
For heat pump combination heater:							
Declared load profile	XL			Water heating energy efficiency	ηwh	110	%
Daily electricity consumption	Qelec	7.243	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity consumption	AEC	1594	kWh	Annual fuel consumption	AFC	NA	GJ
Contact details: sat.eurofredgroup.com.				Name and address of the supplier: Eurofred S.A. C/Marqu® de Sentmenat,97, 08029 Barcelona.Spain			

(*) 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.

Information requirements
(heat pump space heaters and heat pump combination heaters)

Model(s): AOWD-MB LOGIK-45K2

Air-to-water heat pump	Y			Low-temperature heat pump	N		
Water-to-water heat pump	N			Equipped with a supplementary heater	N		
Brine-to-water heat pump	N			Heat pump combination heater	Y		
Parameters declared for	Medium-temperature application						
Parameters declared for	Colder climate condition						
Item	symbol	value	unit	Item	symbol	value	unit
Rated heat output (*)	Prated	13	kW	Seasonal space heating energy efficiency	ηs	132	%
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 ℃	Pdh	7.8	kW	Tj = – 7 ℃	COPd	2.77	–
Degradation co-efficient (**)	Cdh	0.99	–				
Tj = 2 ℃	Pdh	5.2	kW	Tj = 2 ℃	COPd	4.23	–
Degradation co-efficient (**)	Cdh	0.98	–				
Tj = 7 ℃	Pdh	2.9	kW	Tj = 7 ℃	COPd	5.24	–
Degradation co-efficient (**)	Cdh	0.95	–				
Tj = 12℃	Pdh	3.3	kW	Tj = 12℃	COPd	7.55	–
Degradation co-efficient (**)	Cdh	0.94	–				
Tj = bivalent temperature	Pdh	10.7	kW	Tj = bivalent temperature	COPd	1.99	–
Tj = operation limit temperature	Pdh	7.0	kW	Tj = operation limit temperature	COPd	1.18	–
For air-to-water heat pumps: Tj = – 15℃ (if TOL < – 20℃)	Pdh	10.7	kW	For air-to-water heat pumps: Tj = – 15℃ (if TOL < – 20℃)	COPd	1.99	–
Bivalent temperature	Tbiv	-15	℃	For air-to-water heat pumps: Operation limit temperature	TOL	-22	℃
Cycling interval capacity for heating	Pcych	NA	kW	Cycling interval efficiency	COPcyc	NA	–
				Heating water operating limit temperature	WTOL	65	℃
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P_{OFF}	0.025	kW	Rated heat output (*)	Psup	6.0	kW
Thermostat-off mode	P_{TO}	0.025	kW	Type of energy input	Electric		
Standby mode	P_{SB}	0.025	kW				
Crankcase heater mode	P_{CK}	0.025	kW				
Other items							
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	–	5015	m 3 /h
Sound power level, outdoors	L_{WA}	68	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	–	NA	m 3 /h
Annual energy consumption	Q_{HE}	9572	kWh				
For heat pump combination heater:							
Declared load profile	XL			Water heating energy efficiency	ηwh	87	%
Daily electricity consumption	Qelec	9.164	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity consumption	AEC	2016	kWh	Annual fuel consumption	AFC	NA	GJ
Contact details: sat.eurofredgroup.com.				Name and address of the supplier: Eurofred S.A. C/Marqu® de Sentmenat,97, 08029 Barcelona.Spain			

(*) 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.

Information requirements
(heat pump space heaters and heat pump combination heaters)

Model(s): AOWD-MB LOGIK-45K2

Air-to-water heat pump	Y			Low-temperature heat pump	N		
Water-to-water heat pump	N			Equipped with a supplementary heater	N		
Brine-to-water heat pump	N			Heat pump combination heater	Y		
Parameters declared for	Medium-temperature application						
Parameters declared for	Warmer climate condition						
Item	symbol	value	unit	Item	symbol	value	unit
Rated heat output (*)	Prated	14	kW	Seasonal space heating energy efficiency	ηs	186	%
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 ℃	Pdh	NA	kW	Tj = – 7 ℃	COPd	NA	–
Degradation co-efficient (**)	Cdh	NA	–				
Tj = 2 ℃	Pdh	14.2	kW	Tj = 2 ℃	COPd	2.30	–
Degradation co-efficient (**)	Cdh	1.00	–				
Tj = 7 ℃	Pdh	8.4	kW	Tj = 7 ℃	COPd	3.73	–
Degradation co-efficient (**)	Cdh	0.99	–				
Tj = 12℃	Pdh	4.2	kW	Tj = 12℃	COPd	6.75	–
Degradation co-efficient (**)	Cdh	0.96	–				
Tj = bivalent temperature	Pdh	14.2	kW	Tj = bivalent temperature	COPd	2.30	–
Tj = operation limit temperature	Pdh	14.2	kW	Tj = operation limit temperature	COPd	2.30	–
For air-to-water heat pumps: Tj = – 15℃ (if TOL < – 20℃)	Pdh	NA	kW	For air-to-water heat pumps: Tj = – 15℃ (if TOL < – 20℃)	COPd	NA	–
Bivalent temperature	Tbiv	2	℃	For air-to-water heat pumps: Operation limit temperature	TOL	2	℃
Cycling interval capacity for heating	Pcych	NA	kW	Cycling interval efficiency	COPcyc	NA	–
				Heating water operating limit temperature	WTOL	65	℃
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P_{OFF}	0.025	kW	Rated heat output (*)	Psup	0	kW
Thermostat-off mode	P_{TO}	0.025	kW	Type of energy input	Electric		
Standby mode	P_{SB}	0.025	kW				
Crankcase heater mode	P_{CK}	0.025	kW				
Other items							
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	–	5015	m 3 /h
Sound power level, outdoors	L_{WA}	68	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	–	NA	m 3 /h
Annual energy consumption	Q_{HE}	4008	kWh				
For heat pump combination heater:							
Declared load profile	XL			Water heating energy efficiency	ηwh	113	%
Daily electricity consumption	Qelec	7.036	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity consumption	AEC	1548	kWh	Annual fuel consumption	AFC	NA	GJ
Contact details: sat.eurofredgroup.com.				Name and address of the supplier: Eurofred S.A. C/Marqu® de Sentmenat,97, 08029 Barcelona.Spain			

(*) 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.

Information requirements
(heat pump space heaters and heat pump combination heaters)

Model(s): AOWD-MB LOGIK-45K2

Air-to-water heat pump	Y			Low-temperature heat pump	N		
Water-to-water heat pump	N			Equipped with a supplementary heater	N		
Brine-to-water heat pump	N			Heat pump combination heater	Y		
Parameters declared for	Low-temperature application						
Parameters declared for	Average climate condition						
Item	symbol	value	unit	Item	symbol	value	unit
Rated heat output (*)	Prated	13	kW	Seasonal space heating energy efficiency	ηs	185	%
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 ℃	Pdh	11.5	kW	Tj = – 7 ℃	COPd	2.71	–
Degradation co-efficient (**)	Cdh	0.99	–				
Tj = 2 ℃	Pdh	7.1	kW	Tj = 2 ℃	COPd	4.39	–
Degradation co-efficient (**)	Cdh	0.98	–				
Tj = 7 ℃	Pdh	4.4	kW	Tj = 7 ℃	COPd	6.89	–
Degradation co-efficient (**)	Cdh	0.96	–				
Tj = 12℃	Pdh	3.5	kW	Tj = 12℃	COPd	10.30	–
Degradation co-efficient (**)	Cdh	0.93	–				
Tj = bivalent temperature	Pdh	11.5	kW	Tj = bivalent temperature	COPd	2.71	–
Tj = operation limit temperature	Pdh	11.5	kW	Tj = operation limit temperature	COPd	2.38	–
For air-to-water heat pumps: Tj = – 15℃ (if TOL < – 20℃)	Pdh	NA	kW	For air-to-water heat pumps: Tj = – 15℃ (if TOL < – 20℃)	COPd	NA	–
Bivalent temperature	Tbiv	-7	℃	For air-to-water heat pumps: Operation limit temperature	TOL	-10	℃
Cycling interval capacity for heating	Pcych	NA	kW	Cycling interval efficiency	COPcyc	NA	–
				Heating water operating limit temperature	WTOL	65	℃
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P_{OFF}	0.025	kW	Rated heat output (*)	Psup	1.5	kW
Thermostat-off mode	P_{TO}	0.025	kW	Type of energy input	Electric		
Standby mode	P_{SB}	0.025	kW				
Crankcase heater mode	P_{CK}	0.025	kW				
Other items							
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	–	5015	m 3 /h
Sound power level, outdoors	L_{WA}	68	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	–	NA	m 3 /h
Annual energy consumption	Q_{HE}	5682	kWh				
For heat pump combination heater:							
Declared load profile	XL			Water heating energy efficiency	ηwh	110	%
Daily electricity consumption	Qelec	7.243	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity consumption	AEC	1594	kWh	Annual fuel consumption	AFC	NA	GJ
Contact details: sat.eurofredgroup.com.				Name and address of the supplier: Eurofred S.A. C/Marqu® de Sentmenat,97, 08029 Barcelona.Spain			

(*) 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.

Information requirements
(heat pump space heaters and heat pump combination heaters)

Model(s): AOWD-MB LOGIK-45K2

Air-to-water heat pump	Y			Low-temperature heat pump	N		
Water-to-water heat pump	N			Equipped with a supplementary heater	N		
Brine-to-water heat pump	N			Heat pump combination heater	Y		
Parameters declared for	Low-temperature application						
Parameters declared for	Colder climate condition						
Item	symbol	value	unit	Item	symbol	value	unit
Rated heat output (*)	Prated	12	kW	Seasonal space heating energy efficiency	ηs	184	%
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 ℃	Pdh	6.9	kW	Tj = – 7 ℃	COPd	3.88	–
Degradation co-efficient (**)	Cdh	0.99	–				
Tj = 2 ℃	Pdh	4.5	kW	Tj = 2 ℃	COPd	5.93	–
Degradation co-efficient (**)	Cdh	0.97	–				
Tj = 7 ℃	Pdh	2.7	kW	Tj = 7 ℃	COPd	7.20	–
Degradation co-efficient (**)	Cdh	0.93	–				
Tj = 12℃	Pdh	3.2	kW	Tj = 12℃	COPd	8.98	–
Degradation co-efficient (**)	Cdh	0.93	–				
Tj = bivalent temperature	Pdh	9.7	kW	Tj = bivalent temperature	COPd	2.72	–
Tj = operation limit temperature	Pdh	7.9	kW	Tj = operation limit temperature	COPd	1.89	–
For air-to-water heat pumps: Tj = – 15℃ (if TOL < – 20℃)	Pdh	9.7	kW	For air-to-water heat pumps: Tj = – 15℃ (if TOL < – 20℃)	COPd	2.72	–
Bivalent temperature	Tbiv	-15	℃	For air-to-water heat pumps: Operation limit temperature	TOL	-22	℃
Cycling interval capacity for heating	Pcych	NA	kW	Cycling interval efficiency	COPcyc	NA	–
				Heating water operating limit temperature	WTOL	65	℃
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P_{OFF}	0.025	kW	Rated heat output (*)	Psup	4.1	kW
Thermostat-off mode	P_{TO}	0.025	kW	Type of energy input	Electric		
Standby mode	P_{SB}	0.025	kW				
Crankcase heater mode	P_{CK}	0.025	kW				
Other items							
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	–	5015	m 3 /h
Sound power level, outdoors	L_{WA}	68	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	–	NA	m 3 /h
Annual energy consumption	Q_{HE}	6257	kWh				
For heat pump combination heater:							
Declared load profile	XL			Water heating energy efficiency	ηwh	87	%
Daily electricity consumption	Qelec	9.164	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity consumption	AEC	2016	kWh	Annual fuel consumption	AFC	NA	GJ
Contact details: sat.eurofredgroup.com.				Name and address of the supplier: Eurofred S.A. C/Marqu® de Sentmenat,97, 08029 Barcelona.Spain			

(*) 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.

Information requirements
(heat pump space heaters and heat pump combination heaters)

Model(s): AOWD-MB LOGIK-45K2

Air-to-water heat pump	Y			Low-temperature heat pump	N		
Water-to-water heat pump	N			Equipped with a supplementary heater	N		
Brine-to-water heat pump	N			Heat pump combination heater	Y		
Parameters declared for	Low-temperature application						
Parameters declared for	Warmer climate condition						
Item	symbol	value	unit	Item	symbol	value	unit
Rated heat output (*)	Prated	14	kW	Seasonal space heating energy efficiency	ηs	268	%
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 ℃	Pdh	NA	kW	Tj = – 7 ℃	COPd	NA	–
Degradation co-efficient (**)	Cdh	NA	–				
Tj = 2 ℃	Pdh	14.0	kW	Tj = 2 ℃	COPd	3.38	–
Degradation co-efficient (**)	Cdh	0.99	–				
Tj = 7 ℃	Pdh	8.4	kW	Tj = 7 ℃	COPd	5.57	–
Degradation co-efficient (**)	Cdh	0.98	–				
Tj = 12℃	Pdh	3.8	kW	Tj = 12℃	COPd	9.32	–
Degradation co-efficient (**)	Cdh	0.94	–				
Tj = bivalent temperature	Pdh	14.0	kW	Tj = bivalent temperature	COPd	3.38	–
Tj = operation limit temperature	Pdh	14.0	kW	Tj = operation limit temperature	COPd	3.38	–
For air-to-water heat pumps: Tj = – 15℃ (if TOL < – 20℃)	Pdh	NA	kW	For air-to-water heat pumps: Tj = – 15℃ (if TOL < – 20℃)	COPd	NA	–
Bivalent temperature	Tbiv	2	℃	For air-to-water heat pumps: Operation limit temperature	TOL	2	℃
Cycling interval capacity for heating	Pcych	NA	kW	Cycling interval efficiency	COPcyc	NA	–
				Heating water operating limit temperature	WTOL	65	℃
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P_{OFF}	0.025	kW	Rated heat output (*)	Psup	0	kW
Thermostat-off mode	P_{TO}	0.025	kW	Type of energy input	Electric		
Standby mode	P_{SB}	0.025	kW				
Crankcase heater mode	P_{CK}	0.025	kW				
Other items							
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	–	5015	m 3 /h
Sound power level, outdoors	L_{WA}	68	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	–	NA	m 3 /h
Annual energy consumption	Q_{HE}	2755	kWh				
For heat pump combination heater:							
Declared load profile	XL			Water heating energy efficiency	ηwh	113	%
Daily electricity consumption	Qelec	7.036	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity consumption	AEC	1548	kWh	Annual fuel consumption	AFC	NA	GJ
Contact details: sat.eurofredgroup.com.				Name and address of the supplier: Eurofred S.A. C/Marqu® de Sentmenat,97, 08029 Barcelona.Spain			

(*) 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.

Information requirements
(heat pump space heaters and heat pump combination heaters)

Model(s): AOWD-MB LOGIK-45TK2

Air-to-water heat pump	Y			Low-temperature heat pump	N		
Water-to-water heat pump	N			Equipped with a supplementary heater	N		
Brine-to-water heat pump	N			Heat pump combination heater	Y		
Parameters declared for	Medium-temperature application						
Parameters declared for	Average climate condition						
Item	symbol	value	unit	Item	symbol	value	unit
Rated heat output (*)	Prated	13	kW	Seasonal space heating energy efficiency	ηs	150	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = – 7 ℃	Pdh	11.8	kW	Tj = – 7 ℃	COPd	2.21	–
Degradation co-efficient (**)	Cdh	1.00	–				
Tj = 2 ℃	Pdh	6.9	kW	Tj = 2 ℃	COPd	3.65	–
Degradation co-efficient (**)	Cdh	0.99	–				
Tj = 7 ℃	Pdh	4.5	kW	Tj = 7 ℃	COPd	5.51	–
Degradation co-efficient (**)	Cdh	0.98	–				
Tj = 12℃	Pdh	3.5	kW	Tj = 12℃	COPd	7.06	–
Degradation co-efficient (**)	Cdh	0.96	–				
Tj = bivalent temperature	Pdh	11.8	kW	Tj = bivalent temperature	COPd	2.21	–
Tj = operation limit temperature	Pdh	11.5	kW	Tj = operation limit temperature	COPd	2.02	–
For air-to-water heat pumps: Tj = – 15℃ (if TOL < – 20℃)	Pdh	NA	kW	For air-to-water heat pumps: Tj = – 15℃ (if TOL < – 20℃)	COPd	NA	–
Bivalent temperature	Tbiv	-7	℃	For air-to-water heat pumps: Operation limit temperature	TOL	-10	℃
Cycling interval capacity for heating	Pcych	NA	kW	Cycling interval efficiency	COPcyc	NA	–
				Heating water operating limit temperature	WTOL	65	℃
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P_{OFF}	0.025	kW	Rated heat output (*)	Psup	1.4	kW
Thermostat-off mode	P_{TO}	0.025	kW	Type of energy input	Electric		
Standby mode	P_{SB}	0.025	kW				
Crankcase heater mode	P_{CK}	0.025	kW				
Other items							
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	–	5015	m 3 /h
Sound power level, outdoors	L_{WA}	68	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	–	NA	m 3 /h
Annual energy consumption	Q_{HE}	7176	kWh				
For heat pump combination heater:							
Declared load profile	XL			Water heating energy efficiency	ηwh	110	%
Daily electricity consumption	Qelec	7.243	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity consumption	AEC	1594	kWh	Annual fuel consumption	AFC	NA	GJ
Contact details: sat.eurofredgroup.com.				Name and address of the supplier: Eurofred S.A. C/Marqu® de Sentmenat,97, 08029 Barcelona.Spain			

(*) 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.

Information requirements
(heat pump space heaters and heat pump combination heaters)

Model(s): AOWD-MB LOGIK-45TK2

Air-to-water heat pump	Y			Low-temperature heat pump	N		
Water-to-water heat pump	N			Equipped with a supplementary heater	N		
Brine-to-water heat pump	N			Heat pump combination heater	Y		
Parameters declared for	Medium-temperature application						
Parameters declared for	Colder climate condition						
Item	symbol	value	unit	Item	symbol	value	unit
Rated heat output (*)	Prated	13	kW	Seasonal space heating energy efficiency	ηs	118	%
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 ℃	Pdh	7.8	kW	Tj = – 7 ℃	COPd	2.55	–
Degradation co-efficient (**)	Cdh	0.99	–				
Tj = 2 ℃	Pdh	4.4	kW	Tj = 2 ℃	COPd	3.71	–
Degradation co-efficient (**)	Cdh	0.98	–				
Tj = 7 ℃	Pdh	2.9	kW	Tj = 7 ℃	COPd	4.61	–
Degradation co-efficient (**)	Cdh	0.96	–				
Tj = 12℃	Pdh	3.3	kW	Tj = 12℃	COPd	5.03	–
Degradation co-efficient (**)	Cdh	0.96	–				
Tj = bivalent temperature	Pdh	10.4	kW	Tj = bivalent temperature	COPd	1.82	–
Tj = operation limit temperature	Pdh	6.7	kW	Tj = operation limit temperature	COPd	1.06	–
For air-to-water heat pumps: Tj = – 15℃ (if TOL < – 20℃)	Pdh	10.4	kW	For air-to-water heat pumps: Tj = – 15℃ (if TOL < – 20℃)	COPd	1.82	–
Bivalent temperature	Tbiv	-15	℃	For air-to-water heat pumps: Operation limit temperature	TOL	-22	℃
Cycling interval capacity for heating	Pcych	NA	kW	Cycling interval efficiency	COPcyc	NA	–
				Heating water operating limit temperature	WTOL	65	℃
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P_{OFF}	0.025	kW	Rated heat output (*)	Psup	6.3	kW
Thermostat-off mode	P_{TO}	0.025	kW	Type of energy input	Electric		
Standby mode	P_{SB}	0.025	kW				
Crankcase heater mode	P_{CK}	0.025	kW				
Other items							
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	–	5015	m 3 /h
Sound power level, outdoors	L_{WA}	68	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	–	NA	m 3 /h
Annual energy consumption	Q_{HE}	10373	kWh				
For heat pump combination heater:							
Declared load profile	XL			Water heating energy efficiency	ηwh	87	%
Daily electricity consumption	Qelec	9.164	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity consumption	AEC	2016	kWh	Annual fuel consumption	AFC	NA	GJ
Contact details: sat.eurofredgroup.com.				Name and address of the supplier: Eurofred S.A. C/Marqu® de Sentmenat,97, 08029 Barcelona.Spain			

(*) 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.

Information requirements
(heat pump space heaters and heat pump combination heaters)

Model(s): AOWD-MB LOGIK-45TK2

Air-to-water heat pump	Y			Low-temperature heat pump	N		
Water-to-water heat pump	N			Equipped with a supplementary heater	N		
Brine-to-water heat pump	N			Heat pump combination heater	Y		
Parameters declared for	Medium-temperature application						
Parameters declared for	Warmer climate condition						
Item	symbol	value	unit	Item	symbol	value	unit
Rated heat output (*)	Prated	15	kW	Seasonal space heating energy efficiency	ηs	159	%
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 ℃	Pdh	NA	kW	Tj = – 7 ℃	COPd	NA	–
Degradation co-efficient (**)	Cdh	NA	–				
Tj = 2 ℃	Pdh	14.6	kW	Tj = 2 ℃	COPd	2.31	–
Degradation co-efficient (**)	Cdh	1.00	–				
Tj = 7 ℃	Pdh	8.8	kW	Tj = 7 ℃	COPd	3.29	–
Degradation co-efficient (**)	Cdh	0.99	–				
Tj = 12℃	Pdh	3.9	kW	Tj = 12℃	COPd	5.47	–
Degradation co-efficient (**)	Cdh	0.97	–				
Tj = bivalent temperature	Pdh	14.6	kW	Tj = bivalent temperature	COPd	2.31	–
Tj = operation limit temperature	Pdh	14.6	kW	Tj = operation limit temperature	COPd	2.31	–
For air-to-water heat pumps: Tj = – 15℃ (if TOL < – 20℃)	Pdh	NA	kW	For air-to-water heat pumps: Tj = – 15℃ (if TOL < – 20℃)	COPd	NA	–
Bivalent temperature	Tbiv	2	℃	For air-to-water heat pumps: Operation limit temperature	TOL	2	℃
Cycling interval capacity for heating	Pcych	NA	kW	Cycling interval efficiency	COPcyc	NA	–
				Heating water operating limit temperature	WTOL	65	℃
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P_{OFF}	0.025	kW	Rated heat output (*)	Psup	0	kW
Thermostat-off mode	P_{TO}	0.025	kW	Type of energy input	Electric		
Standby mode	P_{SB}	0.025	kW				
Crankcase heater mode	P_{CK}	0.025	kW				
Other items							
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	–	5015	m 3 /h
Sound power level, outdoors	L_{WA}	68	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	–	NA	m 3 /h
Annual energy consumption	Q_{HE}	4801	kWh				
For heat pump combination heater:							
Declared load profile	XL			Water heating energy efficiency	ηwh	113	%
Daily electricity consumption	Qelec	7.036	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity consumption	AEC	1548	kWh	Annual fuel consumption	AFC	NA	GJ
Contact details: sat.eurofredgroup.com.				Name and address of the supplier: Eurofred S.A. C/Marqu® de Sentmenat,97, 08029 Barcelona.Spain			

(*) 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.

Information requirements
(heat pump space heaters and heat pump combination heaters)

Model(s): AOWD-MB LOGIK-45TK2

Air-to-water heat pump	Y			Low-temperature heat pump	N		
Water-to-water heat pump	N			Equipped with a supplementary heater	N		
Brine-to-water heat pump	N			Heat pump combination heater	Y		
Parameters declared for	Low-temperature application						
Parameters declared for	Average climate condition						
Item	symbol	value	unit	Item	symbol	value	unit
Rated heat output (*)	Prated	13	kW	Seasonal space heating energy efficiency	ηs	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 ℃	Pdh	11.6	kW	Tj = – 7 ℃	COPd	2.89	–
Degradation co-efficient (**)	Cdh	0.99	–				
Tj = 2 ℃	Pdh	6.7	kW	Tj = 2 ℃	COPd	4.50	–
Degradation co-efficient (**)	Cdh	0.98	–				
Tj = 7 ℃	Pdh	4.5	kW	Tj = 7 ℃	COPd	5.82	–
Degradation co-efficient (**)	Cdh	0.97	–				
Tj = 12℃	Pdh	3.4	kW	Tj = 12℃	COPd	7.53	–
Degradation co-efficient (**)	Cdh	0.95	–				
Tj = bivalent temperature	Pdh	11.6	kW	Tj = bivalent temperature	COPd	2.89	–
Tj = operation limit temperature	Pdh	11.1	kW	Tj = operation limit temperature	COPd	2.28	–
For air-to-water heat pumps: Tj = – 15℃ (if TOL < – 20℃)	Pdh	NA	kW	For air-to-water heat pumps: Tj = – 15℃ (if TOL < – 20℃)	COPd	NA	–
Bivalent temperature	Tbiv	-7	℃	For air-to-water heat pumps: Operation limit temperature	TOL	-10	℃
Cycling interval capacity for heating	Pcych	NA	kW	Cycling interval efficiency	COPcyc	NA	–
				Heating water operating limit temperature	WTOL	65	℃
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P_{OFF}	0.025	kW	Rated heat output (*)	Psup	1.9	kW
Thermostat-off mode	P_{TO}	0.025	kW	Type of energy input	Electric		
Standby mode	P_{SB}	0.025	kW				
Crankcase heater mode	P_{CK}	0.025	kW				
Other items							
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	–	5015	m 3 /h
Sound power level, outdoors	L_{WA}	68	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	–	NA	m 3 /h
Annual energy consumption	Q_{HE}	5927	kWh				
For heat pump combination heater:							
Declared load profile	XL			Water heating energy efficiency	ηwh	110	%
Daily electricity consumption	Qelec	7.243	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity consumption	AEC	1594	kWh	Annual fuel consumption	AFC	NA	GJ
Contact details: sat.eurofredgroup.com.				Name and address of the supplier: Eurofred S.A. C/Marqu® de Sentmenat,97, 08029 Barcelona.Spain			

(*) 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.

Information requirements
(heat pump space heaters and heat pump combination heaters)

Model(s): AOWD-MB LOGIK-45TK2

Air-to-water heat pump	Y			Low-temperature heat pump	N		
Water-to-water heat pump	N			Equipped with a supplementary heater	N		
Brine-to-water heat pump	N			Heat pump combination heater	Y		
Parameters declared for	Low-temperature application						
Parameters declared for	Colder climate condition						
Item	symbol	value	unit	Item	symbol	value	unit
Rated heat output (*)	Prated	12	kW	Seasonal space heating energy efficiency	ηs	158	%
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 ℃	Pdh	7.0	kW	Tj = – 7 ℃	COPd	3.40	–
Degradation co-efficient (**)	Cdh	0.99	–				
Tj = 2 ℃	Pdh	4.2	kW	Tj = 2 ℃	COPd	5.04	–
Degradation co-efficient (**)	Cdh	0.97	–				
Tj = 7 ℃	Pdh	3.0	kW	Tj = 7 ℃	COPd	6.06	–
Degradation co-efficient (**)	Cdh	0.95	–				
Tj = 12℃	Pdh	3.2	kW	Tj = 12℃	COPd	6.17	–
Degradation co-efficient (**)	Cdh	0.95	–				
Tj = bivalent temperature	Pdh	9.7	kW	Tj = bivalent temperature	COPd	2.38	–
Tj = operation limit temperature	Pdh	7.6	kW	Tj = operation limit temperature	COPd	1.79	–
For air-to-water heat pumps: Tj = – 15℃ (if TOL < – 20℃)	Pdh	9.7	kW	For air-to-water heat pumps: Tj = – 15℃ (if TOL < – 20℃)	COPd	2.38	–
Bivalent temperature	Tbiv	-15	℃	For air-to-water heat pumps: Operation limit temperature	TOL	-22	℃
Cycling interval capacity for heating	Pcych	NA	kW	Cycling interval efficiency	COPcyc	NA	–
				Heating water operating limit temperature	WTOL	65	℃
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P_{OFF}	0.025	kW	Rated heat output (*)	Psup	4.4	kW
Thermostat-off mode	P_{TO}	0.025	kW	Type of energy input	Electric		
Standby mode	P_{SB}	0.025	kW				
Crankcase heater mode	P_{CK}	0.025	kW				
Other items							
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	–	5015	m 3 /h
Sound power level, outdoors	L_{WA}	68	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	–	NA	m 3 /h
Annual energy consumption	Q_{HE}	7293	kWh				
For heat pump combination heater:							
Declared load profile	XL			Water heating energy efficiency	ηwh	87	%
Daily electricity consumption	Qelec	9.164	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity consumption	AEC	2016	kWh	Annual fuel consumption	AFC	NA	GJ
Contact details: sat.eurofredgroup.com.				Name and address of the supplier: Eurofred S.A. C/Marqu® de Sentmenat,97, 08029 Barcelona.Spain			

(*) 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.

Information requirements
(heat pump space heaters and heat pump combination heaters)

Model(s): AOWD-MB LOGIK-45TK2

Air-to-water heat pump	Y			Low-temperature heat pump	N		
Water-to-water heat pump	N			Equipped with a supplementary heater	N		
Brine-to-water heat pump	N			Heat pump combination heater	Y		
Parameters declared for	Low-temperature application						
Parameters declared for	Warmer climate condition						
Item	symbol	value	unit	Item	symbol	value	unit
Rated heat output (*)	Prated	14	kW	Seasonal space heating energy efficiency	ηs	240	%
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 ℃	Pdh	NA	kW	Tj = – 7 ℃	COPd	NA	–
Degradation co-efficient (**)	Cdh	NA	–				
Tj = 2 ℃	Pdh	13.7	kW	Tj = 2 ℃	COPd	2.90	–
Degradation co-efficient (**)	Cdh	0.99	–				
Tj = 7 ℃	Pdh	8.5	kW	Tj = 7 ℃	COPd	5.36	–
Degradation co-efficient (**)	Cdh	0.98	–				
Tj = 12℃	Pdh	3.7	kW	Tj = 12℃	COPd	7.86	–
Degradation co-efficient (**)	Cdh	0.95	–				
Tj = bivalent temperature	Pdh	13.7	kW	Tj = bivalent temperature	COPd	2.90	–
Tj = operation limit temperature	Pdh	13.7	kW	Tj = operation limit temperature	COPd	2.90	–
For air-to-water heat pumps: Tj = – 15℃ (if TOL < – 20℃)	Pdh	NA	kW	For air-to-water heat pumps: Tj = – 15℃ (if TOL < – 20℃)	COPd	NA	–
Bivalent temperature	Tbiv	2	℃	For air-to-water heat pumps: Operation limit temperature	TOL	2	℃
Cycling interval capacity for heating	Pcych	NA	kW	Cycling interval efficiency	COPcyc	NA	–
				Heating water operating limit temperature	WTOL	65	℃
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P_{OFF}	0.025	kW	Rated heat output (*)	Psup	0.3	kW
Thermostat-off mode	P_{TO}	0.025	kW	Type of energy input	Electric		
Standby mode	P_{SB}	0.025	kW				
Crankcase heater mode	P_{CK}	0.025	kW				
Other items							
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	–	5015	m 3 /h
Sound power level, outdoors	L_{WA}	68	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	–	NA	m 3 /h
Annual energy consumption	Q_{HE}	2995	kWh				
For heat pump combination heater:							
Declared load profile	XL			Water heating energy efficiency	ηwh	113	%
Daily electricity consumption	Qelec	7.036	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity consumption	AEC	1548	kWh	Annual fuel consumption	AFC	NA	GJ
Contact details: sat.eurofredgroup.com.				Name and address of the supplier: Eurofred S.A. C/Marqu® de Sentmenat,97, 08029 Barcelona.Spain			

(*) 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.

Information requirements
(heat pump space heaters and heat pump combination heaters)

Model(s): AOWD-MB LOGIK-54K2

Air-to-water heat pump	Y			Low-temperature heat pump	N		
Water-to-water heat pump	N			Equipped with a supplementary heater	N		
Brine-to-water heat pump	N			Heat pump combination heater	Y		
Parameters declared for	Medium-temperature application						
Parameters declared for	Average climate condition						
Item	symbol	value	unit	Item	symbol	value	unit
Rated heat output (*)	Prated	14	kW	Seasonal space heating energy efficiency	ηs	146	%
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 ℃	Pdh	12.3	kW	Tj = – 7 ℃	COPd	2.18	–
Degradation co-efficient (**)	Cdh	1.00	–				
Tj = 2 ℃	Pdh	6.8	kW	Tj = 2 ℃	COPd	3.81	–
Degradation co-efficient (**)	Cdh	0.99	–				
Tj = 7 ℃	Pdh	4.8	kW	Tj = 7 ℃	COPd	4.77	–
Degradation co-efficient (**)	Cdh	0.97	–				
Tj = 12℃	Pdh	3.6	kW	Tj = 12℃	COPd	7.36	–
Degradation co-efficient (**)	Cdh	0.94	–				
Tj = bivalent temperature	Pdh	12.3	kW	Tj = bivalent temperature	COPd	2.18	–
Tj = operation limit temperature	Pdh	8.5	kW	Tj = operation limit temperature	COPd	1.40	–
For air-to-water heat pumps: Tj = – 15℃ (if TOL < – 20℃)	Pdh	NA	kW	For air-to-water heat pumps: Tj = – 15℃ (if TOL < – 20℃)	COPd	NA	–
Bivalent temperature	Tbiv	-7	℃	For air-to-water heat pumps: Operation limit temperature	TOL	-10	℃
Cycling interval capacity for heating	Pcych	NA	kW	Cycling interval efficiency	COPcyc	NA	–
				Heating water operating limit temperature	WTOL	65	℃
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P_{OFF}	0.025	kW	Rated heat output (*)	Psup	5.5	kW
Thermostat-off mode	P_{TO}	0.025	kW	Type of energy input	Electric		
Standby mode	P_{SB}	0.025	kW				
Crankcase heater mode	P_{CK}	0.025	kW				
Other items							
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	–	5015	m 3 /h
Sound power level, outdoors	L_{WA}	68	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	–	NA	m 3 /h
Annual energy consumption	Q_{HE}	7675	kWh				
For heat pump combination heater:							
Declared load profile	XL			Water heating energy efficiency	ηwh	110	%
Daily electricity consumption	Qelec	7.243	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity consumption	AEC	1594	kWh	Annual fuel consumption	AFC	NA	GJ
Contact details: sat.eurofredgroup.com.				Name and address of the supplier: Eurofred S.A. C/Marqu® de Sentmenat,97, 08029 Barcelona.Spain			

(*) 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.

Information requirements
(heat pump space heaters and heat pump combination heaters)

Model(s): AOWD-MB LOGIK-54K2

Air-to-water heat pump	Y			Low-temperature heat pump	N		
Water-to-water heat pump	N			Equipped with a supplementary heater	N		
Brine-to-water heat pump	N			Heat pump combination heater	Y		
Parameters declared for	Medium-temperature application						
Parameters declared for	Colder climate condition						
Item	symbol	value	unit	Item	symbol	value	unit
Rated heat output (*)	Prated	13	kW	Seasonal space heating energy efficiency	ηs	132	%
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 ℃	Pdh	7.8	kW	Tj = – 7 ℃	COPd	2.77	–
Degradation co-efficient (**)	Cdh	0.99	–				
Tj = 2 ℃	Pdh	5.2	kW	Tj = 2 ℃	COPd	4.23	–
Degradation co-efficient (**)	Cdh	0.98	–				
Tj = 7 ℃	Pdh	2.9	kW	Tj = 7 ℃	COPd	5.24	–
Degradation co-efficient (**)	Cdh	0.95	–				
Tj = 12℃	Pdh	3.3	kW	Tj = 12℃	COPd	7.55	–
Degradation co-efficient (**)	Cdh	0.94	–				
Tj = bivalent temperature	Pdh	10.7	kW	Tj = bivalent temperature	COPd	1.99	–
Tj = operation limit temperature	Pdh	7.0	kW	Tj = operation limit temperature	COPd	1.18	–
For air-to-water heat pumps: Tj = – 15℃ (if TOL < – 20℃)	Pdh	10.7	kW	For air-to-water heat pumps: Tj = – 15℃ (if TOL < – 20℃)	COPd	1.99	–
Bivalent temperature	Tbiv	-15	℃	For air-to-water heat pumps: Operation limit temperature	TOL	-22	℃
Cycling interval capacity for heating	Pcych	NA	kW	Cycling interval efficiency	COPcyc	NA	–
				Heating water operating limit temperature	WTOL	65	℃
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P_{OFF}	0.025	kW	Rated heat output (*)	Psup	6.0	kW
Thermostat-off mode	P_{TO}	0.025	kW	Type of energy input	Electric		
Standby mode	P_{SB}	0.025	kW				
Crankcase heater mode	P_{CK}	0.025	kW				
Other items							
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	–	5015	m 3 /h
Sound power level, outdoors	L_{WA}	68	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	–	NA	m 3 /h
Annual energy consumption	Q_{HE}	9572	kWh				
For heat pump combination heater:							
Declared load profile	XL			Water heating energy efficiency	ηwh	87	%
Daily electricity consumption	Qelec	9.164	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity consumption	AEC	2016	kWh	Annual fuel consumption	AFC	NA	GJ
Contact details: sat.eurofredgroup.com.				Name and address of the supplier: Eurofred S.A. C/Marqu® de Sentmenat,97, 08029 Barcelona.Spain			

(*) 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.

Information requirements
(heat pump space heaters and heat pump combination heaters)

Model(s): AOWD-MB LOGIK-54K2

Air-to-water heat pump	Y			Low-temperature heat pump	N		
Water-to-water heat pump	N			Equipped with a supplementary heater	N		
Brine-to-water heat pump	N			Heat pump combination heater	Y		
Parameters declared for	Medium-temperature application						
Parameters declared for	Warmer climate condition						
Item	symbol	value	unit	Item	symbol	value	unit
Rated heat output (*)	Prated	14	kW	Seasonal space heating energy efficiency	ηs	186	%
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 ℃	Pdh	NA	kW	Tj = – 7 ℃	COPd	NA	–
Degradation co-efficient (**)	Cdh	NA	–				
Tj = 2 ℃	Pdh	14.2	kW	Tj = 2 ℃	COPd	2.30	–
Degradation co-efficient (**)	Cdh	1.00	–				
Tj = 7 ℃	Pdh	8.4	kW	Tj = 7 ℃	COPd	3.73	–
Degradation co-efficient (**)	Cdh	0.99	–				
Tj = 12℃	Pdh	4.2	kW	Tj = 12℃	COPd	6.75	–
Degradation co-efficient (**)	Cdh	0.96	–				
Tj = bivalent temperature	Pdh	14.2	kW	Tj = bivalent temperature	COPd	2.30	–
Tj = operation limit temperature	Pdh	14.2	kW	Tj = operation limit temperature	COPd	2.30	–
For air-to-water heat pumps: Tj = – 15℃ (if TOL < – 20℃)	Pdh	NA	kW	For air-to-water heat pumps: Tj = – 15℃ (if TOL < – 20℃)	COPd	NA	–
Bivalent temperature	Tbiv	2	℃	For air-to-water heat pumps: Operation limit temperature	TOL	2	℃
Cycling interval capacity for heating	Pcych	NA	kW	Cycling interval efficiency	COPcyc	NA	–
				Heating water operating limit temperature	WTOL	65	℃
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P_{OFF}	0.025	kW	Rated heat output (*)	Psup	0	kW
Thermostat-off mode	P_{TO}	0.025	kW	Type of energy input	Electric		
Standby mode	P_{SB}	0.025	kW				
Crankcase heater mode	P_{CK}	0.025	kW				
Other items							
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	–	5015	m 3 /h
Sound power level, outdoors	L_{WA}	68	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	–	NA	m 3 /h
Annual energy consumption	Q_{HE}	4008	kWh				
For heat pump combination heater:							
Declared load profile	XL			Water heating energy efficiency	ηwh	113	%
Daily electricity consumption	Qelec	7.036	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity consumption	AEC	1548	kWh	Annual fuel consumption	AFC	NA	GJ
Contact details: sat.eurofredgroup.com.				Name and address of the supplier: Eurofred S.A. C/Marqu® de Sentmenat,97, 08029 Barcelona.Spain			

(*) 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.

Information requirements
(heat pump space heaters and heat pump combination heaters)

Model(s): AOWD-MB LOGIK-54K2

Air-to-water heat pump	Y			Low-temperature heat pump	N		
Water-to-water heat pump	N			Equipped with a supplementary heater	N		
Brine-to-water heat pump	N			Heat pump combination heater	Y		
Parameters declared for	Low-temperature application						
Parameters declared for	Average climate condition						
Item	symbol	value	unit	Item	symbol	value	unit
Rated heat output (*)	Prated	14	kW	Seasonal space heating energy efficiency	ηs	184	%
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 ℃	Pdh	12.2	kW	Tj = – 7 ℃	COPd	2.68	–
Degradation co-efficient (**)	Cdh	0.99	–				
Tj = 2 ℃	Pdh	7.1	kW	Tj = 2 ℃	COPd	4.39	–
Degradation co-efficient (**)	Cdh	0.98	–				
Tj = 7 ℃	Pdh	4.7	kW	Tj = 7 ℃	COPd	6.86	–
Degradation co-efficient (**)	Cdh	0.96	–				
Tj = 12℃	Pdh	3.5	kW	Tj = 12℃	COPd	10.30	–
Degradation co-efficient (**)	Cdh	0.93	–				
Tj = bivalent temperature	Pdh	12.2	kW	Tj = bivalent temperature	COPd	2.68	–
Tj = operation limit temperature	Pdh	11.2	kW	Tj = operation limit temperature	COPd	2.38	–
For air-to-water heat pumps: Tj = – 15℃ (if TOL < – 20℃)	Pdh	NA	kW	For air-to-water heat pumps: Tj = – 15℃ (if TOL < – 20℃)	COPd	NA	–
Bivalent temperature	Tbiv	-7	℃	For air-to-water heat pumps: Operation limit temperature	TOL	-10	℃
Cycling interval capacity for heating	Pcych	NA	kW	Cycling interval efficiency	COPcyc	NA	–
				Heating water operating limit temperature	WTOL	65	℃
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P_{OFF}	0.025	kW	Rated heat output (*)	Psup	2.8	kW
Thermostat-off mode	P_{TO}	0.025	kW	Type of energy input	Electric		
Standby mode	P_{SB}	0.025	kW				
Crankcase heater mode	P_{CK}	0.025	kW				
Other items							
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	–	5015	m 3 /h
Sound power level, outdoors	L_{WA}	68	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	–	NA	m 3 /h
Annual energy consumption	Q_{HE}	6072	kWh				
For heat pump combination heater:							
Declared load profile	XL			Water heating energy efficiency	ηwh	110	%
Daily electricity consumption	Qelec	7.243	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity consumption	AEC	1594	kWh	Annual fuel consumption	AFC	NA	GJ
Contact details: sat.eurofredgroup.com.				Name and address of the supplier: Eurofred S.A. C/Marqu® de Sentmenat,97, 08029 Barcelona.Spain			

(*) 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.

Information requirements (heat pump space heaters and heat pump combination heaters)							
Model(s): AOWD-MB LOGIK-54K2							
Air-to-water heat pump	Y			Low-temperature heat pump	N		
Water-to-water heat pump	N			Equipped with a supplementary heater	N		
Brine-to-water heat pump	N			Heat pump combination heater	Y		
Parameters declared for	Low-temperature application						
Parameters declared for	Colder climate condition						
Item	symbol	value	unit	Item	symbol	value	unit
Rated heat output (*)	Prated	12	kW	Seasonal space heating energy efficiency	ηs	184	%
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 ℃	Pdh	6.9	kW	Tj = – 7 ℃	COPd	3.88	–
Degradation co-efficient (**)	Cdh	0.99	–				
Tj = 2 ℃	Pdh	4.5	kW	Tj = 2 ℃	COPd	5.93	–
Degradation co-efficient (**)	Cdh	0.97	–				
Tj = 7 ℃	Pdh	2.7	kW	Tj = 7 ℃	COPd	7.20	–
Degradation co-efficient (**)	Cdh	0.93	–				
Tj = 12℃	Pdh	3.2	kW	Tj = 12℃	COPd	8.98	–
Degradation co-efficient (**)	Cdh	0.93	–				
Tj = bivalent temperature	Pdh	9.7	kW	Tj = bivalent temperature	COPd	2.71	–
Tj = operation limit temperature	Pdh	7.9	kW	Tj = operation limit temperature	COPd	1.89	–
For air-to-water heat pumps: Tj = – 15℃ (if TOL < – 20℃)	Pdh	9.7	kW	For air-to-water heat pumps: Tj = – 15℃ (if TOL < – 20℃)	COPd	2.71	–
Bivalent temperature	Tbiv	-15	℃	For air-to-water heat pumps: Operation limit temperature	TOL	-22	℃
Cycling interval capacity for heating	Pcych	NA	kW	Cycling interval efficiency	COPcyc	NA	–
				Heating water operating limit temperature	WTOL	65	℃
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P_{OFF}	0.025	kW	Rated heat output (*)	Psup	4.1	kW
Thermostat-off mode	P_{TO}	0.025	kW	Type of energy input	Electric		
Standby mode	P_{SB}	0.025	kW				
Crankcase heater mode	P_{CK}	0.025	kW				
Other items							
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	–	5015	m 3 /h
Sound power level, outdoors	L_{WA}	68	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	–	NA	m 3 /h
Annual energy consumption	Q_{HE}	6257	kWh				
For heat pump combination heater:							
Declared load profile	XL			Water heating energy efficiency	ηwh	87	%
Daily electricity consumption	Qelec	9.164	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity consumption	AEC	2016	kWh	Annual fuel consumption	AFC	NA	GJ
Contact details: sat.eurofredgroup.com.				Name and address of the supplier: Eurofred S.A. C/Marqués de Sentmenat,97, 08029 Barcelona.Spain			
(*) 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.							

Information requirements
(heat pump space heaters and heat pump combination heaters)

Model(s): AOWD-MB LOGIK-54K2

Air-to-water heat pump	Y			Low-temperature heat pump	N		
Water-to-water heat pump	N			Equipped with a supplementary heater	N		
Brine-to-water heat pump	N			Heat pump combination heater	Y		
Parameters declared for	Low-temperature application						
Parameters declared for	Warmer climate condition						
Item	symbol	value	unit	Item	symbol	value	unit
Rated heat output (*)	Prated	14	kW	Seasonal space heating energy efficiency	ηs	267	%
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 ℃	Pdh	NA	kW	Tj = – 7 ℃	COPd	NA	–
Degradation co-efficient (**)	Cdh	NA	–				
Tj = 2 ℃	Pdh	14.2	kW	Tj = 2 ℃	COPd	3.35	–
Degradation co-efficient (**)	Cdh	0.99	–				
Tj = 7 ℃	Pdh	8.4	kW	Tj = 7 ℃	COPd	5.57	–
Degradation co-efficient (**)	Cdh	0.98	–				
Tj = 12℃	Pdh	3.8	kW	Tj = 12℃	COPd	9.32	–
Degradation co-efficient (**)	Cdh	0.94	–				
Tj = bivalent temperature	Pdh	14.2	kW	Tj = bivalent temperature	COPd	3.35	–
Tj = operation limit temperature	Pdh	14.2	kW	Tj = operation limit temperature	COPd	3.35	–
For air-to-water heat pumps: Tj = – 15℃ (if TOL < – 20℃)	Pdh	NA	kW	For air-to-water heat pumps: Tj = – 15℃ (if TOL < – 20℃)	COPd	NA	–
Bivalent temperature	Tbiv	2	℃	For air-to-water heat pumps: Operation limit temperature	TOL	2	℃
Cycling interval capacity for heating	Pcych	NA	kW	Cycling interval efficiency	COPcyc	NA	–
				Heating water operating limit temperature	WTOL	65	℃
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P_{OFF}	0.025	kW	Rated heat output (*)	Psup	0	kW
Thermostat-off mode	P_{TO}	0.025	kW	Type of energy input	Electric		
Standby mode	P_{SB}	0.025	kW				
Crankcase heater mode	P_{CK}	0.025	kW				
Other items							
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	–	5015	m 3 /h
Sound power level, outdoors	L_{WA}	68	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	–	NA	m 3 /h
Annual energy consumption	Q_{HE}	2800	kWh				
For heat pump combination heater:							
Declared load profile	XL			Water heating energy efficiency	ηwh	113	%
Daily electricity consumption	Qelec	7.036	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity consumption	AEC	1548	kWh	Annual fuel consumption	AFC	NA	GJ
Contact details: sat.eurofredgroup.com.				Name and address of the supplier: Eurofred S.A. C/Marqu® de Sentmenat,97, 08029 Barcelona.Spain			

(*) 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.

Information requirements
(heat pump space heaters and heat pump combination heaters)

Model(s): AOWD-MB LOGIK-54TK2

Air-to-water heat pump	Y			Low-temperature heat pump	N		
Water-to-water heat pump	N			Equipped with a supplementary heater	N		
Brine-to-water heat pump	N			Heat pump combination heater	Y		
Parameters declared for	Medium-temperature application						
Parameters declared for	Average climate condition						
Item	symbol	value	unit	Item	symbol	value	unit
Rated heat output (*)	Prated	14	kW	Seasonal space heating energy efficiency	ηs	150	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = – 7 ℃	Pdh	12.1	kW	Tj = – 7 ℃	COPd	2.16	–
Degradation co-efficient (**)	Cdh	1.00	–				
Tj = 2 ℃	Pdh	6.9	kW	Tj = 2 ℃	COPd	3.65	–
Degradation co-efficient (**)	Cdh	0.99	–				
Tj = 7 ℃	Pdh	4.5	kW	Tj = 7 ℃	COPd	5.51	–
Degradation co-efficient (**)	Cdh	0.98	–				
Tj = 12℃	Pdh	3.5	kW	Tj = 12℃	COPd	7.06	–
Degradation co-efficient (**)	Cdh	0.96	–				
Tj = bivalent temperature	Pdh	12.1	kW	Tj = bivalent temperature	COPd	2.16	–
Tj = operation limit temperature	Pdh	11.5	kW	Tj = operation limit temperature	COPd	2.02	–
For air-to-water heat pumps: Tj = – 15℃ (if TOL < – 20℃)	Pdh	NA	kW	For air-to-water heat pumps: Tj = – 15℃ (if TOL < – 20℃)	COPd	NA	–
Bivalent temperature	Tbiv	-7	℃	For air-to-water heat pumps: Operation limit temperature	TOL	-10	℃
Cycling interval capacity for heating	Pcych	NA	kW	Cycling interval efficiency	COPcyc	NA	–
				Heating water operating limit temperature	WTOL	65	℃
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P_{OFF}	0.025	kW	Rated heat output (*)	Psup	2.5	kW
Thermostat-off mode	P_{TO}	0.025	kW	Type of energy input	Electric		
Standby mode	P_{SB}	0.025	kW				
Crankcase heater mode	P_{CK}	0.025	kW				
Other items							
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	–	5015	m 3 /h
Sound power level, outdoors	L_{WA}	68	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	–	NA	m 3 /h
Annual energy consumption	Q_{HE}	7404	kWh				
For heat pump combination heater:							
Declared load profile	XL			Water heating energy efficiency	ηwh	110	%
Daily electricity consumption	Qelec	7.243	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity consumption	AEC	1594	kWh	Annual fuel consumption	AFC	NA	GJ
Contact details: sat.eurofredgroup.com.				Name and address of the supplier: Eurofred S.A. C/Marqu® de Sentmenat,97, 08029 Barcelona.Spain			

(*) 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.

Information requirements
(heat pump space heaters and heat pump combination heaters)

Model(s): AOWD-MB LOGIK-54TK2

Air-to-water heat pump	Y			Low-temperature heat pump	N		
Water-to-water heat pump	N			Equipped with a supplementary heater	N		
Brine-to-water heat pump	N			Heat pump combination heater	Y		
Parameters declared for	Medium-temperature application						
Parameters declared for	Colder climate condition						
Item	symbol	value	unit	Item	symbol	value	unit
Rated heat output (*)	Prated	13	kW	Seasonal space heating energy efficiency	ηs	118	%
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 ℃	Pdh	7.8	kW	Tj = – 7 ℃	COPd	2.55	–
Degradation co-efficient (**)	Cdh	0.99	–				
Tj = 2 ℃	Pdh	4.4	kW	Tj = 2 ℃	COPd	3.71	–
Degradation co-efficient (**)	Cdh	0.98	–				
Tj = 7 ℃	Pdh	2.9	kW	Tj = 7 ℃	COPd	4.61	–
Degradation co-efficient (**)	Cdh	0.96	–				
Tj = 12℃	Pdh	3.3	kW	Tj = 12℃	COPd	5.02	–
Degradation co-efficient (**)	Cdh	0.96	–				
Tj = bivalent temperature	Pdh	10.4	kW	Tj = bivalent temperature	COPd	1.82	–
Tj = operation limit temperature	Pdh	6.7	kW	Tj = operation limit temperature	COPd	1.06	–
For air-to-water heat pumps: Tj = – 15℃ (if TOL < – 20℃)	Pdh	10.4	kW	For air-to-water heat pumps: Tj = – 15℃ (if TOL < – 20℃)	COPd	1.82	–
Bivalent temperature	Tbiv	-15	℃	For air-to-water heat pumps: Operation limit temperature	TOL	-22	℃
Cycling interval capacity for heating	Pcych	NA	kW	Cycling interval efficiency	COPcyc	NA	–
				Heating water operating limit temperature	WTOL	65	℃
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P_{OFF}	0.025	kW	Rated heat output (*)	Psup	6.3	kW
Thermostat-off mode	P_{TO}	0.025	kW	Type of energy input	Electric		
Standby mode	P_{SB}	0.025	kW				
Crankcase heater mode	P_{CK}	0.025	kW				
Other items							
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	–	5015	m 3 /h
Sound power level, outdoors	L_{WA}	68	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	–	NA	m 3 /h
Annual energy consumption	Q_{HE}	10373	kWh				
For heat pump combination heater:							
Declared load profile	XL			Water heating energy efficiency	ηwh	87	%
Daily electricity consumption	Qelec	9.164	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity consumption	AEC	2016	kWh	Annual fuel consumption	AFC	NA	GJ
Contact details: sat.eurofredgroup.com.				Name and address of the supplier: Eurofred S.A. C/Marqu® de Sentmenat,97, 08029 Barcelona.Spain			

(*) 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.

Information requirements
(heat pump space heaters and heat pump combination heaters)

Model(s): AOWD-MB LOGIK-54TK2

Air-to-water heat pump	Y			Low-temperature heat pump	N		
Water-to-water heat pump	N			Equipped with a supplementary heater	N		
Brine-to-water heat pump	N			Heat pump combination heater	Y		
Parameters declared for	Medium-temperature application						
Parameters declared for	Warmer climate condition						
Item	symbol	value	unit	Item	symbol	value	unit
Rated heat output (*)	Prated	15	kW	Seasonal space heating energy efficiency	ηs	159	%
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 ℃	Pdh	NA	kW	Tj = – 7 ℃	COPd	NA	–
Degradation co-efficient (**)	Cdh	NA	–				
Tj = 2 ℃	Pdh	14.6	kW	Tj = 2 ℃	COPd	2.31	–
Degradation co-efficient (**)	Cdh	1.00	–				
Tj = 7 ℃	Pdh	8.8	kW	Tj = 7 ℃	COPd	3.29	–
Degradation co-efficient (**)	Cdh	0.99	–				
Tj = 12℃	Pdh	3.9	kW	Tj = 12℃	COPd	5.47	–
Degradation co-efficient (**)	Cdh	0.97	–				
Tj = bivalent temperature	Pdh	14.6	kW	Tj = bivalent temperature	COPd	2.31	–
Tj = operation limit temperature	Pdh	14.6	kW	Tj = operation limit temperature	COPd	2.31	–
For air-to-water heat pumps: Tj = – 15℃ (if TOL < – 20℃)	Pdh	NA	kW	For air-to-water heat pumps: Tj = – 15℃ (if TOL < – 20℃)	COPd	NA	–
Bivalent temperature	Tbiv	2	℃	For air-to-water heat pumps: Operation limit temperature	TOL	2	℃
Cycling interval capacity for heating	Pcych	NA	kW	Cycling interval efficiency	COPcyc	NA	–
				Heating water operating limit temperature	WTOL	65	℃
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P_{OFF}	0.025	kW	Rated heat output (*)	Psup	0	kW
Thermostat-off mode	P_{TO}	0.025	kW	Type of energy input	Electric		
Standby mode	P_{SB}	0.025	kW				
Crankcase heater mode	P_{CK}	0.025	kW				
Other items							
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	–	5015	m 3 /h
Sound power level, outdoors	L_{WA}	68	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	–	NA	m 3 /h
Annual energy consumption	Q_{HE}	4801	kWh				
For heat pump combination heater:							
Declared load profile	XL			Water heating energy efficiency	ηwh	113	%
Daily electricity consumption	Qelec	7.036	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity consumption	AEC	1548	kWh	Annual fuel consumption	AFC	NA	GJ
Contact details: sat.eurofredgroup.com.				Name and address of the supplier: Eurofred S.A. C/Marqu® de Sentmenat,97, 08029 Barcelona.Spain			

(*) 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.

Information requirements
(heat pump space heaters and heat pump combination heaters)

Model(s): AOWD-MB LOGIK-54TK2

Air-to-water heat pump	Y			Low-temperature heat pump	N		
Water-to-water heat pump	N			Equipped with a supplementary heater	N		
Brine-to-water heat pump	N			Heat pump combination heater	Y		
Parameters declared for	Low-temperature application						
Parameters declared for	Average climate condition						
Item	symbol	value	unit	Item	symbol	value	unit
Rated heat output (*)	Prated	13	kW	Seasonal space heating energy efficiency	ηs	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 ℃	Pdh	11.6	kW	Tj = – 7 ℃	COPd	2.89	–
Degradation co-efficient (**)	Cdh	0.99	–				
Tj = 2 ℃	Pdh	6.7	kW	Tj = 2 ℃	COPd	4.50	–
Degradation co-efficient (**)	Cdh	0.98	–				
Tj = 7 ℃	Pdh	4.5	kW	Tj = 7 ℃	COPd	5.82	–
Degradation co-efficient (**)	Cdh	0.97	–				
Tj = 12℃	Pdh	3.4	kW	Tj = 12℃	COPd	7.53	–
Degradation co-efficient (**)	Cdh	0.95	–				
Tj = bivalent temperature	Pdh	11.6	kW	Tj = bivalent temperature	COPd	2.89	–
Tj = operation limit temperature	Pdh	11.1	kW	Tj = operation limit temperature	COPd	2.29	–
For air-to-water heat pumps: Tj = – 15℃ (if TOL < – 20℃)	Pdh	NA	kW	For air-to-water heat pumps: Tj = – 15℃ (if TOL < – 20℃)	COPd	NA	–
Bivalent temperature	Tbiv	-7	℃	For air-to-water heat pumps: Operation limit temperature	TOL	-10	℃
Cycling interval capacity for heating	Pcych	NA	kW	Cycling interval efficiency	COPcyc	NA	–
				Heating water operating limit temperature	WTOL	65	℃
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P_{OFF}	0.025	kW	Rated heat output (*)	Psup	1.9	kW
Thermostat-off mode	P_{TO}	0.025	kW	Type of energy input	Electric		
Standby mode	P_{SB}	0.025	kW				
Crankcase heater mode	P_{CK}	0.025	kW				
Other items							
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	–	5015	m 3 /h
Sound power level, outdoors	L_{WA}	68	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	–	NA	m 3 /h
Annual energy consumption	Q_{HE}	5927	kWh				
For heat pump combination heater:							
Declared load profile	XL			Water heating energy efficiency	ηwh	110	%
Daily electricity consumption	Qelec	7.243	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity consumption	AEC	1594	kWh	Annual fuel consumption	AFC	NA	GJ
Contact details: sat.eurofredgroup.com.				Name and address of the supplier: Eurofred S.A. C/Marqu® de Sentmenat,97, 08029 Barcelona.Spain			

(*) 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.

Information requirements
(heat pump space heaters and heat pump combination heaters)

Model(s): AOWD-MB LOGIK-54TK2

Air-to-water heat pump	Y			Low-temperature heat pump	N		
Water-to-water heat pump	N			Equipped with a supplementary heater	N		
Brine-to-water heat pump	N			Heat pump combination heater	Y		
Parameters declared for	Low-temperature application						
Parameters declared for	Colder climate condition						
Item	symbol	value	unit	Item	symbol	value	unit
Rated heat output (*)	Prated	12	kW	Seasonal space heating energy efficiency	ηs	158	%
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 ℃	Pdh	7.0	kW	Tj = – 7 ℃	COPd	3.40	–
Degradation co-efficient (**)	Cdh	0.99	–				
Tj = 2 ℃	Pdh	4.2	kW	Tj = 2 ℃	COPd	5.04	–
Degradation co-efficient (**)	Cdh	0.97	–				
Tj = 7 ℃	Pdh	3.0	kW	Tj = 7 ℃	COPd	6.06	–
Degradation co-efficient (**)	Cdh	0.95	–				
Tj = 12℃	Pdh	3.2	kW	Tj = 12℃	COPd	6.17	–
Degradation co-efficient (**)	Cdh	0.95	–				
Tj = bivalent temperature	Pdh	9.7	kW	Tj = bivalent temperature	COPd	2.38	–
Tj = operation limit temperature	Pdh	7.6	kW	Tj = operation limit temperature	COPd	1.79	–
For air-to-water heat pumps: Tj = – 15℃ (if TOL < – 20℃)	Pdh	9.7	kW	For air-to-water heat pumps: Tj = – 15℃ (if TOL < – 20℃)	COPd	2.38	–
Bivalent temperature	Tbiv	-15	℃	For air-to-water heat pumps: Operation limit temperature	TOL	-22	℃
Cycling interval capacity for heating	Pcych	NA	kW	Cycling interval efficiency	COPcyc	NA	–
				Heating water operating limit temperature	WTOL	65	℃
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P_{OFF}	0.025	kW	Rated heat output (*)	Psup	4.4	kW
Thermostat-off mode	P_{TO}	0.025	kW	Type of energy input	Electric		
Standby mode	P_{SB}	0.025	kW				
Crankcase heater mode	P_{CK}	0.025	kW				
Other items							
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	–	5015	m 3 /h
Sound power level, outdoors	L_{WA}	68	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	–	NA	m 3 /h
Annual energy consumption	Q_{HE}	7293	kWh				
For heat pump combination heater:							
Declared load profile	XL			Water heating energy efficiency	ηwh	87	%
Daily electricity consumption	Qelec	9.164	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity consumption	AEC	2016	kWh	Annual fuel consumption	AFC	NA	GJ
Contact details: sat.eurofredgroup.com.				Name and address of the supplier: Eurofred S.A. C/Marqu® de Sentmenat,97, 08029 Barcelona.Spain			

(*) 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.

Information requirements
(heat pump space heaters and heat pump combination heaters)

Model(s): AOWD-MB LOGIK-54TK2

Air-to-water heat pump	Y			Low-temperature heat pump	N		
Water-to-water heat pump	N			Equipped with a supplementary heater	N		
Brine-to-water heat pump	N			Heat pump combination heater	Y		
Parameters declared for	Low-temperature application						
Parameters declared for	Warmer climate condition						
Item	symbol	value	unit	Item	symbol	value	unit
Rated heat output (*)	Prated	14	kW	Seasonal space heating energy efficiency	ηs	241	%
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 ℃	Pdh	NA	kW	Tj = – 7 ℃	COPd	NA	–
Degradation co-efficient (**)	Cdh	NA	–				
Tj = 2 ℃	Pdh	13.7	kW	Tj = 2 ℃	COPd	2.90	–
Degradation co-efficient (**)	Cdh	0.99	–				
Tj = 7 ℃	Pdh	8.5	kW	Tj = 7 ℃	COPd	5.36	–
Degradation co-efficient (**)	Cdh	0.98	–				
Tj = 12℃	Pdh	3.7	kW	Tj = 12℃	COPd	7.86	–
Degradation co-efficient (**)	Cdh	0.95	–				
Tj = bivalent temperature	Pdh	13.7	kW	Tj = bivalent temperature	COPd	2.90	–
Tj = operation limit temperature	Pdh	13.7	kW	Tj = operation limit temperature	COPd	2.90	–
For air-to-water heat pumps: Tj = – 15℃ (if TOL < – 20℃)	Pdh	NA	kW	For air-to-water heat pumps: Tj = – 15℃ (if TOL < – 20℃)	COPd	NA	–
Bivalent temperature	Tbiv	2	℃	For air-to-water heat pumps: Operation limit temperature	TOL	2	℃
Cycling interval capacity for heating	Pcych	NA	kW	Cycling interval efficiency	COPcyc	NA	–
				Heating water operating limit temperature	WTOL	65	℃
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P_{OFF}	0.025	kW	Rated heat output (*)	Psup	0.3	kW
Thermostat-off mode	P_{TO}	0.025	kW	Type of energy input	Electric		
Standby mode	P_{SB}	0.025	kW				
Crankcase heater mode	P_{CK}	0.025	kW				
Other items							
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	–	5015	m 3 /h
Sound power level, outdoors	L_{WA}	68	dB	For water- or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	–	NA	m 3 /h
Annual energy consumption	Q_{HE}	2995	kWh				
For heat pump combination heater:							
Declared load profile	XL			Water heating energy efficiency	ηwh	113	%
Daily electricity consumption	Qelec	7.036	kWh	Daily fuel consumption	Qfuel	NA	kWh
Annual electricity consumption	AEC	1548	kWh	Annual fuel consumption	AFC	NA	GJ
Contact details: sat.eurofredgroup.com.				Name and address of the supplier: Eurofred S.A. C/Marqu® de Sentmenat,97, 08029 Barcelona.Spain			

(*) 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.