

Model	Enviroair ASH010FHP
Type of heat source	Air-to-water
Low-temperature heat pump	No
Equipped with supplementary heater	No
Heat pump combination heater	Yes
Climate condition	Average
Temperature application	Low temperature (35°C)
Applied standards EN14511, EN14825 (Space Heating), EN16147 (DHW), EN12102	

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated Heat Output ⁽¹⁾	P_{rated}	9.2	kW	Seasonal space heating energy efficiency	η_s	205	%
Declared capacity for heating for part load at indoor temperature 20°C and outdoor temperature T _j				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20°C and outdoor temperature T _j			
T _j = -7°C (A Condition)	P _{dH}	8.10	kW	T _j = -7°C (A Condition)	COP _d	3.23	-
T _j = +2°C (B Condition)	P _{dH}	5.18	kW	T _j = +2°C (B Condition)	COP _d	5.01	-
T _j = +7°C (C Condition)	P _{dH}	3.32	kW	T _j = +7°C (C Condition)	COP _d	7.08	-
T _j = +12°C (D Condition)	P _{dH}	1.65	kW	T _j = +12°C (D Condition)	COP _d	8.58	-
T _j = bivalent temperature	P _{dH}	8.10	kW	T _j = bivalent temperature	COP _d	2.96	-
T _j = TOL (E Condition)	P _{dH}	7.40	kW	T _j = TOL (E Condition)	COP _d	3.23	-
T _j = -15°C (if TOL < -20°C)	P _{dH}	-	kW	T _j = -15°C (if TOL < -20°C)	COP _d	-	-
Bivalent temperature				Operation limit temperature			
	T _{biv}	-7	°C		TOL	-10	°C
Cycling interval capacity for heating				Cycling interval efficiency			
	P _{cycH}	-	kW		COP _{cyc}		-
Degradation co-efficient ⁽²⁾				Heating water operating limit			
	C _{dH}	0.90	-		WTOL	65	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P _{OFF}	0.014	kW	Rated heat output	P _{sup}	-	kW
Thermostat-off mode	P _{TO}	0.024	kW				
Standby mode	P _{SB}	0.014	kW	Type of energy input	Electric		
Crankcase heater mode	P _{CK}	0.000	kW				
Other items							
Capacity control	Variable			Rated air flow rate, outdoors		4030	m ³ /h
Sound power level, indoors/outdoors	L _{WA}	60	dB	Rated water flow rate, indoor heat exchanger		-	m ³ /h
Annual energy consumption	Q _{HE}	3644	kWh	Rated brine or water flow rate, outdoor heat exchanger		-	m ³ /h
For heat pump combination heater							
Declared load profile	-			Water heating energy efficiency	η _{wh}	-	%
Capacity of heat pump	P _{rated}	-	kW	Reference hot water temperature	Θ _{WH}	-	°C
Daily electricity consumption	Q _{elec}	-	kWh	Vol. of DHW accounted for in test		-	Litres
Annual electricity consumption	AEC	-	kWh	Standby heat loss / day		-	kWh
Contact Details:	Firebird Heating Solutions Ltd., Údarás Industrial Estate, Baile Mhic Íre, Co. Cork, P12 HK51						

(1) For heat pumps space heaters and heat pump combination heaters, the rated heat output P_{rated} is equal to the design load for heating P_{designH}, and the rated heat output of a supplementary heater P_{sup} is equal to the supplementary capacity for heating sup(T_j).

(2) If C_{dH} is not determined by measurement then the default degradation coefficient is C_{dH} = 0.9.

Model	Enviroair ASH010FHP
Type of heat source	Air-to-water
Low-temperature heat pump	No
Equipped with supplementary heater	No
Heat pump combination heater	Yes
Climate condition	Average
Temperature application	Medium Temperature (55°C)
Applied standards EN14511, EN14825 (Space Heating), EN16147 (DHW), EN12102	

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated Heat Output ⁽¹⁾	P_{rated}	7.7	kW	Seasonal space heating energy efficiency	η_s	137	%
Declared capacity for heating for part load at indoor temperature 20°C and outdoor temperature T _j				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20°C and outdoor temperature T _j			
T _j = -7°C (A Condition)	P _{dH}	6.78	kW	T _j = -7°C (A Condition)	COP _d	2.24	-
T _j = +2°C (B Condition)	P _{dH}	4.28	kW	T _j = +2°C (B Condition)	COP _d	3.42	-
T _j = +7°C (C Condition)	P _{dH}	2.77	kW	T _j = +7°C (C Condition)	COP _d	4.52	-
T _j = +12°C (D Condition)	P _{dH}	1.58	kW	T _j = +12°C (D Condition)	COP _d	5.68	-
T _j = bivalent temperature	P _{dH}	6.78	kW	T _j = bivalent temperature	COP _d	2.24	-
T _j = TOL (E Condition)	P _{dH}	5.38	kW	T _j = TOL (E Condition)	COP _d	1.83	-
T _j = -15°C (if TOL < -20°C)	P _{dH}	-	kW	T _j = -15°C (if TOL < -20°C)	COP _d	-	-
Bivalent temperature				Operation limit temperature			
	T _{biv}	-7	°C		TOL	-10	°C
Cycling interval capacity for heating				Cycling interval efficiency			
	P _{cych}	-	kW		COP _{cyc}		-
Degradation co-efficient ⁽²⁾				Heating water operating limit			
	C _{dH}	0.90	-		WTOL	65	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P _{OFF}	0.014	kW	Rated heat output	P _{sup}	-	kW
Thermostat-off mode	P _{TO}	0.024	kW				
Standby mode	P _{SB}	0.014	kW	Type of energy input	Electric		
Crankcase heater mode	P _{CK}	0.000	kW				
Other items				Rated air flow rate, outdoors			
Capacity control	Variable					4030	m ³ /h
Sound power level, indoors/outdoors	L _{WA}	60	dB	Rated water flow rate, indoor heat exchanger			
Annual energy consumption	Q _{HE}	4539	kWh	Rated brine or water flow rate, outdoor heat exchanger			
						-	m ³ /h
For heat pump combination heater							
Declared load profile	L			Water heating energy efficiency	η _{wh}	139	%
Capacity of heat pump	P _{rated}	-	kW	Reference hot water temperature	Θ _{WH}	46.07	°C
Daily electricity consumption	Q _{elec}	53622	kWh	Vol. of DHW accounted for in test		275	Litres
Annual electricity consumption	AEC	1206	kWh	Standby heat loss / day		1.76	kWh
Contact Details:	Firebird Heating Solutions Ltd., Údarás Industrial Estate, Baile Mhic Íre, Co. Cork, P12 HK51						

(1) For heat pumps space heaters and heat pump combination heaters, the rated heat output P_{rated} is equal to the design load for heating P_{designh}, and the rated heat output of a supplementary heater P_{sup} is equal to the supplementary capacity for heating sup(T_j).

(2) If C_{dH} is not determined by measurement then the default degradation coefficient is C_{dH} = 0.9.