Summary of	Alféa Hybrid Duo Fioul/Oil A.I. three phases	Reg. No.	012-SC0259-19
Certificate Holder			
Name	Groupe Atlantic		
Address	44 boulevard des Etats-Unis	Zip	85000
City	La Roche Sur Yon	Country	France
Certification Body	RISE CERT		
Name of testing laboratory	RISE		
Subtype title	Alféa Hybrid Duo Fioul/Oil A.I. three phases		
Heat Pump Type	Outdoor Air/Water		
Refrigerant	R410a		
Mass Of Refrigerant	2.5 kg		
Certification Date	27.06.2019		

Model: Alféa Hybrid Duo Fioul/Oil A.I. Tri 11 - 23kW

General Data	
Power supply	3x400V 50Hz

Heating

EN 14511-2		
	Low temperature	**Medium temperature**
Heat output	10.80 kW	9.29 kW
El input	2.51 kW	3.52 kW
COP	4.30	2.64
Indoor water flow rate	1.85 m³/h	1.00 m³/h

EN 14511-4	
Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed

Average Climate

EN 14825

	Low temperature	**Medium temperature**
η_s	154 %	112 %
Prated	11.00 kW	9.00 kW
SCOP	3.92	2.87
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	10.00 kW	8.20 kW
COP Tj = -7°C	2.70	1.90
Pdh Tj = +2°C	6.10 kW	5.00 kW
COP Tj = +2°C	3.70	2.70
Pdh Tj = +7°C	6.20 kW	5.90 kW
COP Tj = +7°C	5.50	3.90
Pdh Tj = 12°C	7.40 kW	7.00 kW
COP Tj = 12°C	7.10	5.20
Pdh Tj = Tbiv	10.00 kW	8.20 kW
COP Tj = Tbiv	2.70	1.90
Pdh Tj = TOL	9.90 kW	8.10 kW
COP Tj = TOL	2.30	1.60
Cdh	0.90	0.98
WTOL	60 °C	60 °C
Poff	14 W	14 W

PTO	44 W	32 W
PSB	17 W	17 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	electricity	electricity
Supplementary Heater: PSUP	1.40 kW	1.20 kW
Annual energy consumption Qhe	5930 kWh	6669 kWh

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	48 dB(A)	48 dB(A)
Sound power level outdoor	69 dB(A)	69 dB(A)

Domestic Hot Water (DHW)

Average Climate

EN 16147	
Standby power input	40.0 W
Reference hot water temperature	54.0 °C
Declared load profile	L
Efficiency ηDHW	88 %
COP	2.25
Heating up time	00:55 h:min
Mixed water at 40°C	250 l

Model: Alféa Hybrid Duo Fioul/Oil A.I. Tri 11 - 29kW

General Data	
Power supply	3x400V 50Hz

Heating

EN 14511-2		
	Low temperature	**Medium temperature**
Heat output	10.80 kW	9.29 kW
El input	2.51 kW	3.52 kW
COP	4.30	2.64
Indoor water flow rate	1.85 m³/h	1.00 m³/h

EN 14511-4	
Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed

Average Climate

EN 14825

	Low temperature	**Medium temperature**
η_s	154 %	112 %
Prated	11.00 kW	9.00 kW
SCOP	3.92	2.87
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	10.00 kW	8.20 kW
COP Tj = -7°C	2.70	1.90
Pdh Tj = +2°C	6.10 kW	5.00 kW
COP Tj = +2°C	3.70	2.70
Pdh Tj = +7°C	6.20 kW	5.90 kW
COP Tj = +7°C	5.50	3.90
Pdh Tj = 12°C	7.40 kW	7.00 kW
COP Tj = 12°C	7.10	5.20
Pdh Tj = Tbiv	10.00 kW	8.20 kW
COP Tj = Tbiv	2.70	1.90
Pdh Tj = TOL	9.90 kW	8.10 kW
COP Tj = TOL	2.30	1.60
Cdh	0.90	0.98
WTOL	60 °C	60 °C
Poff	14 W	14 W

PTO	44 W	32 W
PSB	17 W	17 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	electricity	electricity
Supplementary Heater: PSUP	1.40 kW	1.20 kW
Annual energy consumption Qhe	5930 kWh	6669 kWh

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Sound power level indoor	48 dB(A)	48 dB(A)
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Domestic Hot Water (DHW)

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Heating up time	00:55 h:min
Mixed water at 40°C	250 l

Model: Alféa Hybrid Duo Fioul/Oil A.I. Tri 14 - 23 kw

General Data	
Power supply	3x400V 50Hz

Heating

EN 14511-2		
	Low temperature	**Medium temperature**
Heat output	13.00 kW	10.60 kW
El input	3.11 kW	4.40 kW
COP	4.18	2.41
Indoor water flow rate	2.30 m³/h	1.25 m³/h

EN 14511-4	
Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed

Average Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	48 dB(A)	48 dB(A)
Sound power level outdoor	69 dB(A)	69 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	150 %	117 %
Prated	13.00 kW	11.00 kW
SCOP	3.82	3.00
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	11.10 kW	10.00 kW
COP Tj = -7°C	2.50	2.00
Pdh Tj = +2°C	6.70 kW	6.10 kW
COP Tj = +2°C	3.70	2.90
Pdh Tj = +7°C	6.20 kW	5.90 kW
COP Tj = +7°C	5.40	4.10
Pdh Tj = 12°C	7.30 kW	7.10 kW
COP Tj = 12°C	7.00	5.40
Pdh Tj = Tbiv	11.10 kW	10.00 kW

COP Tj = Tbiv	2.50	2.00
Pdh Tj = TOL	10.80 kW	9.30 kW
COP Tj = TOL	2.40	1.60
Cdh	0.90	0.90
WTOL	60 °C	60 °C
Poff	14 W	14 W
PTO	66 W	43 W
PSB	17 W	17 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	electricity	electricity
Supplementary Heater: PSUP	1.70 kW	2.00 kW
Annual energy consumption Qhe	6738 kWh	7803 kWh

Domestic Hot Water (DHW)

Average Climate

EN 16147

Declared load profile	L
Efficiency ηDHW	88 %
COP	2.25
Heating up time	00:55 h:min
Standby power input	40.0 W
Reference hot water temperature	54.0 °C
Mixed water at 40°C	250 l

Model: Alféa Hybrid Duo Fioul/Oil A.I. Tri 14 - 29 kW

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Pdh Tj = +2°C	6.70 kW	6.10 kW
COP Tj = +2°C	3.70	2.90
Pdh Tj = +7°C	6.20 kW	5.90 kW
COP Tj = +7°C	5.40	4.10
Pdh Tj = 12°C	7.30 kW	7.10 kW
COP Tj = 12°C	7.00	5.40
Pdh Tj = Tbiv	11.10 kW	10.00 kW

COP Tj = Tbiv	2.50	2.00
Pdh Tj = TOL	10.80 kW	9.30 kW
COP Tj = TOL	2.40	1.60
Cdh	0.90	0.90
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Poff	14 W	14 W
PTO	66 W	43 W
PSB	17 W	17 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	electricity	electricity
Supplementary Heater: PSUP	1.70 kW	2.00 kW
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