

## Subtype Alféa Hybrid Duo Fioul/Oil A.I. three phases

Certificate Holder	Groupe Atlantic
Address	Rue des Fondateurs BP 64
ZIP	59660
City	Merville
Country	FR
Certification Body	RISE CERT
Subtype title	Alféa Hybrid Duo Fioul/Oil A.I. three phases
Registration number	012-SC0259-19
Heat Pump Type	Outdoor Air/Water
Refrigerant	R410A
Mass of Refrigerant	2.5 kg
Certification Date	27.06.2019
Testing laboratory	RISE Research Institutes of Sweden

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

Model name	Alféa Hybrid Duo Fioul/Oil A.I. Tri 11 - 23kW
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	n/a
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

### General data

Power supply	3x400V 50Hz
Off-peak product	No

### Outdoor Air/Water

#### EN 16147 | Average Climate

Declared load profile	L
Efficiency $\eta_{DHW}$	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

#### EN 14511-4 | Heating

Shutting off the heat transfer medium flow passed

Complete power supply failure	passed
Defrost test	passed

#### EN 14511-2 | Heating

	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

#### EN 12102-1 | Average Climate

	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 | Average Climate

	Low temperature	Medium temperature
$\eta_s$	154 %	112 %
Prated	11.30 kW	9.30 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
Cdh Tj = -7 �C	0.900	0.900
Pdh Tj = +2�C	6.10 kW	5.00 kW
COP Tj = +2�C	3.70	2.70
Cdh Tj = +2 �C	0.900	0.900
Pdh Tj = +7�C	6.20 kW	5.90 kW
COP Tj = +7�C	5.50	3.90
Cdh Tj = +7 �C	0.900	0.900
Pdh Tj = 12�C	7.40 kW	7.00 kW
COP Tj = 12�C	7.10	5.20
Cdh Tj = +12 �C	0.900	0.900
Pdh Tj = Tbiv	10.00 kW	8.20 kW
COP Tj = Tbiv	2.70	1.90
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.90 kW	8.10 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.30	1.60
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.980
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

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

Model name	Alféa Hybrid Duo Fioul/Oil A.I. Tri 11 - 29kW
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	n/a
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

### General data

Power supply	3x400V 50Hz
Off-peak product	No

### Outdoor Air/Water

#### EN 16147 | Average Climate

Declared load profile	L
Efficiency $\eta_{DHW}$	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

#### EN 14511-4 | Heating

Shutting off the heat transfer medium flow passed

Complete power supply failure	passed
Defrost test	passed

#### EN 14511-2 | Heating

	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

#### EN 12102-1 | Average Climate

	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 | Average Climate

	Low temperature	Medium temperature
$\eta_s$	154 %	112 %
Prated	11.30 kW	9.30 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
Cdh Tj = -7 �C	0.900	0.900
Pdh Tj = +2�C	6.10 kW	5.00 kW
COP Tj = +2�C	3.70	2.70
Cdh Tj = +2 �C	0.900	0.900
Pdh Tj = +7�C	6.20 kW	5.90 kW
COP Tj = +7�C	5.50	3.90
Cdh Tj = +7 �C	0.900	0.900
Pdh Tj = 12�C	7.40 kW	7.00 kW
COP Tj = 12�C	7.10	5.20
Cdh Tj = +12 �C	0.900	0.900
Pdh Tj = Tbiv	10.00 kW	8.20 kW
COP Tj = Tbiv	2.70	1.90
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.90 kW	8.10 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.30	1.60
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.980
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

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

Model name	Alféa Hybrid Duo Fioul/Oil A.I. Tri 14 - 23 kw
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	n/a
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

### General data

Power supply	3x400V 50Hz
Off-peak product	No

### Outdoor Air/Water

#### EN 16147 | Average Climate

Declared load profile	L
Efficiency $\eta_{DHW}$	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

#### EN 14511-4 | Heating

Shutting off the heat transfer medium flow passed

Complete power supply failure	passed
Defrost test	passed

#### EN 14511-2 | Heating

	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

#### EN 12102-1 | Average Climate

	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 | Average Climate

	Low temperature	Medium temperature
$\eta_s$	150 %	117 %
Prated	12.50 kW	11.30 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
Cdh Tj = -7 �C	0.900	0.900
Pdh Tj = +2�C	6.70 kW	6.10 kW
COP Tj = +2�C	3.70	2.90
Cdh Tj = +2 �C	0.900	0.900
Pdh Tj = +7�C	6.20 kW	5.90 kW
COP Tj = +7�C	5.40	4.10
Cdh Tj = +7 �C	0.900	0.900
Pdh Tj = 12�C	7.30 kW	7.10 kW
COP Tj = 12�C	7.00	5.40
Cdh Tj = +12 �C	0.900	0.900
Pdh Tj = Tbiv	11.10 kW	10.00 kW
COP Tj = Tbiv	2.50	2.00
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.80 kW	9.30 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.40	1.60
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
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

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

Model name	Alféa Hybrid Duo Fioul/Oil A.I. Tri 14 - 29 kW
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	n/a
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

## General data

Power supply	3x400V 50Hz
Off-peak product	No

## Outdoor Air/Water

### EN 16147 | Average Climate

Declared load profile	L
Efficiency $\eta_{DHW}$	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

### EN 14511-4 | Heating

Shutting off the heat transfer medium flow passed

Complete power supply failure	passed
Defrost test	passed

### EN 14511-2 | Heating

	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

### EN 12102-1 | Average Climate

	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 | Average Climate

	Low temperature	Medium temperature
$\eta_s$	150 %	117 %
Prated	12.50 kW	11.30 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
Cdh Tj = -7 �C	0.900	0.900
Pdh Tj = +2�C	6.70 kW	6.10 kW
COP Tj = +2�C	3.70	2.90
Cdh Tj = +2 �C	0.900	0.900
Pdh Tj = +7�C	6.20 kW	5.90 kW
COP Tj = +7�C	5.40	4.10
Cdh Tj = +7 �C	0.900	0.900
Pdh Tj = 12�C	7.30 kW	7.10 kW
COP Tj = 12�C	7.00	5.40
Cdh Tj = +12 �C	0.900	0.900
Pdh Tj = Tbiv	11.10 kW	10.00 kW
COP Tj = Tbiv	2.50	2.00
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.80 kW	9.30 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.40	1.60
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
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