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#### **Login**

| Summary of          | Alféa Hybrid Duo Fioul/Oil A.I. three phases | Reg. No. | 012-SC0259-19 |  |  |
|---------------------|--|----------|---------------|--|--|
| Certificate Holder  | Certificate Holder                           |          |               |  |  |
| Name                | Name Groupe Atlantic                         |          |               |  |  |
| Address             | 44 boulevard des Etats-Unis                  | Zip      | 85000         |  |  |
| City                | La Roche Sur Yon                             | Country  | France        |  |  |
| Certification Body  | RISE CERT                                    |          |               |  |  |
| 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

| Configure model  |                          |  |
|--|--------------------------|--|
| Model name Alféa Hybrid Duo Fioul/Oil A.I. Tri 11 - 23kW |                          |  |
| Application  | Heating + DHW + low temp |  |
| Units  | Indoor + Outdoor         |  |
| Climate Zone   | n/a                      |  |
| Reversibility No   |                          |  |
| Cooling mode application (optional)                      | n/a                      |  |

| General Data |             |  |
|--------------|-------------|--|
| Power supply | 3x400V 50Hz |  |

### Heating

| 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 |

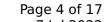
| EN 14511-2  |                 |                    |
|-------------|-----------------|--------------------|
|             | Low temperature | Medium temperature |
| Heat output | 10.80 kW        | 9.29 kW            |
| El input    | 2.51 kW         | 3.52 kW            |
| СОР         | 4.30            | 2.64               |



### 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 |
| $\eta_{s}$              | 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 = $-7^{\circ}$ C | 10.00 kW        | 8.20 kW            |
| COP Tj = $-7^{\circ}$ C | 2.70            | 1.90               |
| Pdh Tj = $+2$ °C        | 6.10 kW         | 5.00 kW            |
| $COPTj = +2^{\circ}C$   | 3.70            | 2.70               |
| Pdh Tj = $+7^{\circ}$ 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               |





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|---|------------------------|----------------------------|
| 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 | 0.90                   | 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                    | o 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                   |

#### Domestic Hot Water (DHW)



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| EN 16147                        |             |
|---------------------------------|-------------|
|                                 |             |
| Declared load profile           | L           |
| Efficiency ηDHW                 | 88 %        |
| СОР                             | 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 I       |



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

| Configure model  |                          |  |
|--|--------------------------|--|
| Model name Alféa Hybrid Duo Fioul/Oil A.I. Tri 11 - 29kW |                          |  |
| Application  | Heating + DHW + low temp |  |
| Units  | Indoor + Outdoor         |  |
| Climate Zone   | n/a                      |  |
| Reversibility No   |                          |  |
| Cooling mode application (optional) n/a                  |                          |  |

| General Data |             |  |
|--------------|-------------|--|
| Power supply | 3x400V 50Hz |  |

### Heating

| 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 |  |

| EN 14511-2                         |          |         |  |
|------------------------------------|----------|---------|--|
| Low temperature Medium temperature |          |         |  |
| Heat output                        | 10.80 kW | 9.29 kW |  |
| El input                           | 2.51 kW  | 3.52 kW |  |
| СОР                                | 4.30     | 2.64    |  |



### 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   |  |
| 154 %           | 112 %  |  |
| 11.00 kW        | 9.00 kW  |  |
| 3.92            | 2.87   |  |
| -7 °C           | -7 °C  |  |
| -10 °C          | -10 °C   |  |
| 10.00 kW        | 8.20 kW  |  |
| 2.70            | 1.90   |  |
| 6.10 kW         | 5.00 kW  |  |
| 3.70            | 2.70   |  |
| 6.20 kW         | 5.90 kW  |  |
| 5.50            | 3.90   |  |
| 7.40 kW         | 7.00 kW  |  |
| 7.10            | 5.20   |  |
|                 | Low temperature  154 %  11.00 kW  3.92  -7 °C  -10 °C  10.00 kW  2.70  6.10 kW  3.70  6.20 kW  5.50  7.40 kW |  |





| 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 | 0.90        | 0.98        |
| WTOL  | 60 °C       | 60 °C       |
| Poff  | 14 W        | 14 W        |
| РТО   | 44 W        | 32 W        |
| PSB   | 17 W        | 17 W        |
| PCK   | o w         | o 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    |
|   |             |             |

### Domestic Hot Water (DHW)



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| EN 16147                        |             |  |
|---------------------------------|-------------|--|
| Declared load profile           | L           |  |
| Efficiency ηDHW                 | 88 %        |  |
| СОР                             | 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 I       |  |



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

| Configure model   |     |  |
|---|-----|--|
| Model name Alféa Hybrid Duo Fioul/Oil A.I. Tri 14 - 23 kw |     |  |
| Application Heating + DHW + low temp                      |     |  |
| Units Indoor + Outdoor                                    |     |  |
| Climate Zone n/a  |     |  |
| Reversibility No  |     |  |
| Cooling mode application (optional)                       | n/a |  |

| General Data             |  |  |
|--------------------------|--|--|
| Power supply 3x400V 50Hz |  |  |

### Heating

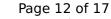
| EN 14511-4   |        |  |
|--|--------|--|
| Operating range outdoor exchanger/indoor exchanger lower limit/lower limit | passed |  |
| Operating range outdoor exchanger/indoor exchanger upper limit/upper limit | passed |  |
| Shutting off the heat transfer medium flow                            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

| EN 14511-2  |                 |                    |
|-------------|-----------------|--------------------|
|             | Low temperature | Medium temperature |
| Heat output | 13.00 kW        | 10.60 kW           |
| El input    | 3.11 kW         | 4.40 kW            |
| СОР         | 4.18            | 2.41               |

### 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 |
| $\eta_{s}$              | 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 = $-7^{\circ}$ 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            |
| $COPTj = +2^{\circ}C$   | 3.70            | 2.90               |
| Pdh Tj = $+7$ °C        | 6.20 kW         | 5.90 kW            |
| $COPTj = +7^{\circ}C$   | 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 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 | 0.90        | 0.90        |
| WTOL  | 60 °C       | 60 °C       |
| Poff  | 14 W        | 14 W        |
| РТО   | 66 W        | 43 W        |
| PSB   | 17 W        | 17 W        |
| PCK   | o w         | o 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)



| EN 16147                        |             |  |
|---------------------------------|-------------|--|
| Declared load profile           | L           |  |
| Efficiency ηDHW                 | 88 %        |  |
| СОР                             | 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 I       |  |



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

| Configure model                     |  |  |
|-------------------------------------|--|--|
| Model name                          | Alféa Hybrid Duo Fioul/Oil A.I. Tri 14 - 29 kW |  |
| Application                         | Heating + DHW + low temp                       |  |
| Units                               | Indoor + Outdoor                               |  |
| Climate Zone                        | n/a  |  |
| Reversibility                       | No   |  |
| Cooling mode application (optional) | n/a  |  |

| General Data |             |  |
|--------------|-------------|--|
| Power supply | 3x400V 50Hz |  |

### Heating

| 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 |  |

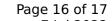
| EN 14511-2  |                 |                    |
|-------------|-----------------|--------------------|
|             | Low temperature | Medium temperature |
| Heat output | 13.00 kW        | 10.60 kW           |
| El input    | 3.11 kW         | 4.40 kW            |
| СОР         | 4.18            | 2.41               |

### Average Climate

This information was generated by the HP KEYMARK database on 7 Jul 2022

| 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 |
| $\eta_{s}$              | 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           |
| $COP Tj = -7^{\circ}C$  | 2.50            | 2.00               |
| Pdh Tj = $+2$ °C        | 6.70 kW         | 6.10 kW            |
| $COP Tj = +2^{\circ}C$  | 3.70            | 2.90               |
| Pdh Tj = $+7^{\circ}$ C | 6.20 kW         | 5.90 kW            |
| $COPTj = +7^{\circ}C$   | 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 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 | 0.90        | 0.90        |
| WTOL  | 60 °C       | 60 °C       |
| Poff  | 14 W        | 14 W        |
| РТО   | 66 W        | 43 W        |
| PSB   | 17 W        | 17 W        |
| PCK   | o w         | o 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)



| EN 16147                        |             |  |
|---------------------------------|-------------|--|
| Declared load profile           | L           |  |
| Efficiency ηDHW                 | 88 %        |  |
| СОР                             | 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 I       |  |