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Summary of		NIMBUS/ARIANEXT/AEROTOP/ENERGION 35/50 S - FLEX		Reg. No.	ICIM-PDC-000113
Certificate Holder					
Name	Ariston Thermo Group				
Address	Viale Aristide Merloni 45			Zip	I-60044
City	Fabriano (AN)			Country	Italy
Certification Body	ICIM S.p.A.				
Subtype title	NIMBUS/ARIANEXT/AEROTOP/ENERGION 35/50 S - FLEX				
Heat Pump Type	Outdoor Air/Water				
Refrigerant	R32				
Mass of Refrigerant	1.4 kg				
Certification Date	05.07.2022				

## Model: NIMBUS FLEX 35 S NET R32

Configure model	
Model name	NIMBUS FLEX 35 S NET R32
Application	Heating + DHW + low temp
Units	Indoor + Outdoor
Climate Zone	n/a
Reversibility	Yes
Cooling mode application (optional)	+7°C/12°C

General Data	
Power supply	1x230V 50Hz

### Heating

EN 14511-2		
	Low temperature	Medium temperature
Heat output	3.50 kW	2.95 kW
El input	0.69 kW	1.09 kW
COP	5.10	2.70

EN 14511-4	
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

### Cooling

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**EN 14511-2**

	<b>+7°C/+12°C</b>
El input	1.03 kW
Cooling capacity	3.5

**EN 14825**

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	<b>+7°C/+12°C</b>
P <sub>designc</sub>	3.5 kW
SEER	4.87
P <sub>dc</sub> T <sub>j</sub> = 35°C	3.5 kW
EER T <sub>j</sub> = 35°C	3
P <sub>dc</sub> T <sub>j</sub> = 30°C	2.58 kW
EER T <sub>j</sub> = 30°C	4.33
C <sub>dc</sub> T <sub>j</sub> = 30 °C	0.98
P <sub>dc</sub> T <sub>j</sub> = 25°C	1.72 kW
EER T <sub>j</sub> = 25°C	5.86
C <sub>dc</sub> T <sub>j</sub> = 25 °C	0.95
P <sub>dc</sub> T <sub>j</sub> = 20°C	1.79 kW
EER T <sub>j</sub> = 20°C	7.24
C <sub>dc</sub> T <sub>j</sub> = 20 °C	0.94
P <sub>off</sub>	14 W
PTO	14 W
PSB	14 W
PCK	0 W
Annual energy consumption Q <sub>ce</sub>	628 kWh

## Average Climate

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### EN 12102-1

	Low temperature	Medium temperature
Sound power level indoor	37 dB(A)	37 dB(A)
Sound power level outdoor	52 dB(A)	52 dB(A)

### EN 14825

	Low temperature	Medium temperature
P <sub>designh</sub>	5.20 kW	4.63 kW
$\eta_s$	192 %	134 %
P <sub>rated</sub>	5.20 kW	4.63 kW
SCOP	4.89	3.43
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-20 °C	-20 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	4.60 kW	4.10 kW
COP T <sub>j</sub> = -7°C	3.21	2.28
C <sub>dh</sub> T <sub>j</sub> = -7 °C	0.991	0.993
P <sub>dh</sub> T <sub>j</sub> = +2°C	2.88 kW	2.63 kW
COP T <sub>j</sub> = +2°C	4.66	3.35
C <sub>dh</sub> T <sub>j</sub> = +2 °C	0.979	0.983
P <sub>dh</sub> T <sub>j</sub> = +7°C	1.85 kW	1.76 kW
COP T <sub>j</sub> = +7°C	6.56	4.22

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Cdh Tj = +7 °C	0.954	0.969
Pdh Tj = 12°C	1.92 kW	1.88 kW
COP Tj = 12°C	8.49	6.30
Cdh Tj = +12 °C	0.942	0.956
Pdh Tj = Tbiv	4.60 kW	4.10 kW
COP Tj = Tbiv	3.21	2.28
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	3.03 kW	2.46 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.25	1.52
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.991	0.993
WTOL	60 °C	60 °C
Poff	13 W	13 W
PTO	13 W	13 W
PSB	13 W	13 W
PCK	13 W	13 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	2.17 kW	2.17 kW
Backup Heater	4.00 kW	4.00 kW
Annual energy consumption Qhe	2198 kWh	2790 kWh

## Domestic Hot Water (DHW)

### Average Climate

This information was generated by the HP KEYMARK database on 5 Jul 2022

<b>EN 16147</b>	
Declared load profile	L
Efficiency $\eta_{DHW}$	141 %
COP	3.30
Heating up time	01:52 h:min
Standby power input	32.0 W
Reference hot water temperature	53 °C
Mixed water at 40°C	244 l

## Model: NIMBUS FLEX 50 S NET R32

Configure model	
Model name	NIMBUS FLEX 50 S NET R32
Application	Heating + DHW + low temp
Units	Indoor + Outdoor
Climate Zone	n/a
Reversibility	Yes
Cooling mode application (optional)	+7°C/12°C

General Data	
Power supply	1x230V 50Hz

### Heating

EN 14511-2		
	Low temperature	Medium temperature
Heat output	5.00 kW	3.80 kW
El input	1.00 kW	1.36 kW
COP	5.00	2.80

EN 14511-4	
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

### Cooling



This information was generated by the HP KEYMARK database on 5 Jul 2022

### EN 14511-2

	+7°C/+12°C	+18°C/+23°C
El input	1.75 kW	
Cooling capacity	5	
EER	2.85	4.56

### EN 14825

This information was generated by the HP KEYMARK database on 5 Jul 2022

	<b>+7°C/+12°C</b>
P <sub>designc</sub>	5 kW
SEER	4.85
P <sub>dc</sub> T <sub>j</sub> = 35°C	5 kW
EER T <sub>j</sub> = 35°C	2.85
P <sub>dc</sub> T <sub>j</sub> = 30°C	3.77 kW
EER T <sub>j</sub> = 30°C	4.25
C <sub>dc</sub> T <sub>j</sub> = 30 °C	0.98
P <sub>dc</sub> T <sub>j</sub> = 25°C	2.32 kW
EER T <sub>j</sub> = 25°C	5.38
C <sub>dc</sub> T <sub>j</sub> = 25 °C	0.97
P <sub>dc</sub> T <sub>j</sub> = 20°C	1.87 kW
EER T <sub>j</sub> = 20°C	7.85
C <sub>dc</sub> T <sub>j</sub> = 20 °C	0.94
P <sub>off</sub>	14 W
PTO	14 W
PSB	14 W
PCK	0 W
Annual energy consumption Q <sub>ce</sub>	925 kWh

## Average Climate

This information was generated by the HP KEYMARK database on 5 Jul 2022

### EN 12102-1

	Low temperature	Medium temperature
Sound power level indoor	37 dB(A)	37 dB(A)
Sound power level outdoor	54 dB(A)	54 dB(A)

### EN 14825

	Low temperature	Medium temperature
P <sub>designh</sub>	5.65 kW	5.65 kW
$\eta_s$	183 %	136 %
P <sub>rated</sub>	5.65 kW	5.65 kW
SCOP	4.66	3.48
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-20 °C	-20 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	5.00 kW	5.00 kW
COP T <sub>j</sub> = -7°C	3.10	2.28
C <sub>dh</sub> T <sub>j</sub> = -7 °C	0.992	0.994
P <sub>dh</sub> T <sub>j</sub> = +2°C	3.11 kW	3.11 kW
COP T <sub>j</sub> = +2°C	4.32	3.30
C <sub>dh</sub> T <sub>j</sub> = +2 °C	0.981	0.986
P <sub>dh</sub> T <sub>j</sub> = +7°C	1.96 kW	2.19 kW
COP T <sub>j</sub> = +7°C	6.48	4.58

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Cdh Tj = +7 °C	0.955	0.972
Pdh Tj = 12°C	1.86 kW	1.84 kW
COP Tj = 12°C	8.41	6.33
Cdh Tj = +12 °C	0.939	0.953
Pdh Tj = Tbiv	5.00 kW	5.00 kW
COP Tj = Tbiv	3.10	2.28
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	3.69 kW	3.18 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.30	1.54
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.992	0.994
WTOL	60 °C	60 °C
Poff	13 W	13 W
PTO	13 W	13 W
PSB	13 W	13 W
PCK	13 W	13 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.96 kW	2.47 kW
Backup Heater	4.00 kW	4.00 kW
Annual energy consumption Qhe	2505 kWh	3360 kWh

## Domestic Hot Water (DHW)

### Average Climate

This information was generated by the HP KEYMARK database on 5 Jul 2022

<b>EN 16147</b>	
Declared load profile	L
Efficiency $\eta_{DHW}$	141 %
COP	3.30
Heating up time	01:30 h:min
Standby power input	32.0 W
Reference hot water temperature	53 °C
Mixed water at 40°C	244 l