Subtype NIMBUS/ARIANEXT/AEROTOP/ENERGION 35/50 S - FLEX

Certificate Holder	Ariston Thermo Group
Address	Viale Aristide Merloni 45
ZIP	I-60044
City	Fabriano (AN)
Country	IT
Certification Body	ICIM S.p.A.
Subtype title	NIMBUS/ARIANEXT/AEROTOP/ENERGION 35/50 S - FLEX
Registration number	ICIM-PDC-000113
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

Model name	NIMBUS FLEX 35 S NET R32
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	Colder, Warmer
Reversibility	Yes
Cooling mode application (optional)	+7°C/12°C
Any additional heat sources	n/a

General data

Power supply	1x230V 50Hz
Off-peak product	n/a

Outdoor Air/Water

EN 16147 | Average Climate

Declared load profile	L
Efficiency ηDHW	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

EN 14511-4 | Heating

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

EN 14511-2 | Heating

	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 14511-2 | Cooling

	+7°C/+12°C	+18°C/+23°C
El input	1.03 kW	
Cooling capacity	3.5	

EN 12102-1 | Average Climate

	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 | Average Climate

	Low temperature	Medium temperature
Pdesignh	5.20 kW	4.63 kW
ηs	192 %	134 %
Prated	5.20 kW	4.63 kW
SCOP	4.89	3.43
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	4.60 kW	4.10 kW
COP Tj = -7°C	3.21	2.28
Cdh Tj = -7 °C	0.991	0.993
Pdh Tj = +2°C	2.88 kW	2.63 kW
COP Tj = +2°C	4.66	3.35
Cdh Tj = +2 °C	0.979	0.983
Pdh Tj = +7°C	1.85 kW	1.76 kW
COP Tj = +7°C	6.56	4.22
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

EN 12102-1 | Colder Climate

	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 | Colder Climate

	Low temperature	Medium temperature
Pdesignh	7.75 kW	7.43 kW
ηs	151 %	120 %
Prated	7.34 kW	7.04 kW
SCOP	3.85	3.07
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	4.69 kW	4.50 kW
COP Tj = -7°C	3.54	2.76
Cdh Tj = -7 °C	0.990	0.992
Pdh Tj = +2°C	2.95 kW	2.94 kW
COP Tj = +2°C	5.16	3.99
Cdh Tj = +2 °C	0.977	0.982
Pdh Tj = +7°C	1.89 kW	1.92 kW
COP Tj = +7°C	7.19	5.35
Cdh Tj = +7 °C	0.950	0.964
Pdh Tj = 12°C	1.92 kW	1.93 kW
COP Tj = 12°C	8.55	6.96
Cdh Tj = +12 °C	0.942	0.953
Pdh Tj = Tbiv	4.69 kW	4.50 kW
COP Tj = Tbiv	3.54	2.76
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	0.990	0.992
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	7.34 kW	7.04 kW
Backup Heater	4.00 kW	4.00 kW
Annual energy consumption Qhe	4964 kWh	5968 kWh

EN 12102-1 | Warmer Climate

	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 | Warmer Climate

	Low temperature	Medium temperature
Pdesignh	2.84 kW	2.35 kW
ηs	239 %	137 %

Prated	2.84 kW	2.35 kW
SCOP	6.06	3.49
Tbiv	2 °C	2 °C
TOL	-20 °C	-20 °C
Pdh Tj = +2°C	2.84 kW	2.35 kW
COP Tj = +2°C	4.00	2.19
Cdh Tj = +2 °C	0.982	0.988
Pdh Tj = +7°C	1.88 kW	1.60 kW
COP Tj = +7°C	5.57	2.80
Cdh Tj = +7 °C	0.961	0.977
Pdh Tj = 12°C	1.91 kW	1.81 kW
COP Tj = 12°C	7.94	5.10
Cdh Tj = +12 °C	0.946	0.963
Pdh Tj = Tbiv	2.84 kW	2.35 kW
COP Tj = Tbiv	4.02	2.19
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	0.982	0.988
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	0.00 kW	0.00 kW
Backup Heater	4.00 kW	4.00 kW
Annual energy consumption Qhe	626 kWh	899 kWh

EN 14825 | Cooling		
	+7°C/+12°C	+18°C/+23°C
Pdesignc	3.5 kW	
SEER	4.87	
Pdc Tj = 35°C	3.5 kW	
EER Tj = 35°C	3	
Pdc Tj = 30°C	2.58 kW	
EER Tj = 30°C	4.33	
Cdc Tj = 30 °C	0.98	
Pdc Tj = 25°C	1.72 kW	
EER Tj = 25°C	5.86	
Cdc Tj = 25 °C	0.95	
Pdc Tj = 20°C	1.79 kW	
EER Tj = 20°C	7.24	
Cdc Tj = 20 °C	0.94	

Poff	14 W
PTO	14 W
PSB	14 W
PCK	0 W
Annual energy consumption Qce	628 kWh

Model NIMBUS FLEX 50 S NET R32	
Model name	NIMBUS FLEX 50 S NET R32
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	Colder, Warmer
Reversibility	Yes
Cooling mode application (optional)	+7°C/12°C
Any additional heat sources	n/a

General data	
Power supply	1x230V 50Hz
Off-peak product	n/a

Outdoor Air/Water EN 16147 | Average Climate	
Declared load profile	L
Efficiency ηDHW	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

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

EN 14511-2 | Heating		
	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 14511-2 | Cooling		
	+7°C/+12°C	+18°C/+23°C
El input	1.75 kW	
Cooling capacity	5	
EER	2.85	4.56

EN 12102-1 | Average Climate		
	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 | Average Climate

	Low temperature	Medium temperature
Pdesignh	5.65 kW	5.65 kW
ηs	183 %	136 %
Prated	5.65 kW	5.65 kW
SCOP	4.66	3.48
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	5.00 kW	5.00 kW
COP Tj = -7°C	3.10	2.28
Cdh Tj = -7 °C	0.992	0.994
Pdh Tj = +2°C	3.11 kW	3.11 kW
COP Tj = +2°C	4.32	3.30
Cdh Tj = +2 °C	0.981	0.986
Pdh Tj = +7°C	1.96 kW	2.19 kW
COP Tj = +7°C	6.48	4.58
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

EN 12102-1 | Colder Climate

	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 | Colder Climate

	Low temperature	Medium temperature
Pdesignh	8.26 kW	8.26 kW
ηs	150 %	118 %
Prated	7.83 kW	7.83 kW
SCOP	3.85	3.84
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	5.00 kW	5.00 kW
COP Tj = -7°C	3.50	2.71
Cdh Tj = -7 °C	0.991	0.993
Pdh Tj = +2°C	3.00 kW	3.11 kW
COP Tj = +2°C	5.15	3.81
Cdh Tj = +2 °C	0.978	0.983
Pdh Tj = +7°C	1.99 kW	2.28 kW
COP Tj = +7°C	7.20	5.29
Cdh Tj = +7 °C	0.953	0.968
Pdh Tj = 12°C	1.87 kW	1.87 kW
COP Tj = 12°C	8.70	6.88
Cdh Tj = +12 °C	0.949	0.950
Pdh Tj = Tbiv	5.00 kW	5.00 kW
COP Tj = Tbiv	3.50	2.70
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	3.69 kW	4.90 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.30	1.51
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	7.83 kW	7.83 kW
Backup Heater	4.00 kW	4.00 kW
Annual energy consumption Qhe	5317 kWh	6739 kWh

EN 12102-1 | Warmer Climate

	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 | Warmer Climate

	Low temperature	Medium temperature
Pdesignh	3.44 kW	2.97 kW
ηs	245 %	151 %

Prated	3.44 kW	2.97 kW
SCOP	6.20	3.84
Tbiv	2 °C	2 °C
TOL	-20 °C	-20 °C
Pdh Tj = +2°C	3.44 kW	2.97 kW
COP Tj = +2°C	3.88	2.33
Cdh Tj = +2 °C	0.985	0.989
Pdh Tj = +7°C	2.22 kW	2.02 kW
COP Tj = +7°C	5.66	3.16
Cdh Tj = +7 °C	0.965	0.979
Pdh Tj = 12°C	1.86 kW	1.76 kW
COP Tj = 12°C	8.01	5.40
Cdh Tj = +12 °C	0.941	0.958
Pdh Tj = Tbiv	3.44 kW	2.97 kW
COP Tj = Tbiv	3.88	2.33
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	0.985	0.989
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	0.00 kW	0.00 kW
Backup Heater	4.00 kW	4.00 kW
Annual energy consumption Qhe	742 kWh	1033 kWh

EN 14825 | Cooling		
	+7°C/+12°C	+18°C/+23°C
Pdesignc	5 kW	
SEER	4.85	
Pdc Tj = 35°C	5 kW	
EER Tj = 35°C	2.85	
Pdc Tj = 30°C	3.77 kW	
EER Tj = 30°C	4.25	
Cdc Tj = 30 °C	0.98	
Pdc Tj = 25°C	2.32 kW	
EER Tj = 25°C	5.38	
Cdc Tj = 25 °C	0.97	
Pdc Tj = 20°C	1.87 kW	
EER Tj = 20°C	7.85	
Cdc Tj = 20 °C	0.94	

Poff	14 W
PTO	14 W
PSB	14 W
PCK	0 W
Annual energy consumption Qce	925 kWh