

## Subtype NIMBUS 80 S - Plus-H

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 80 S - Plus-H
Registration number	ICIM-PDC-000243
Heat Pump Type	Outdoor Air/Water
Refrigerant	R32
Mass of Refrigerant	1.8 kg
Certification Date	12.02.2024

## Model NIMBUS PLUS-H 80 S NET R32

Model name	NIMBUS PLUS-H 80 S NET R32
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Colder, Warmer, Warmer Climate, Colder Climate
Reversibility	Yes
Cooling mode application (optional)	+7°C/12°C, +18°C/+23°C
Any additional heat sources	n/a

## General data

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

## Outdoor Air/Water

### 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	8.00 kW	5.80 kW
El input	1.67 kW	1.97 kW
COP	4.80	2.95

### EN 14511-2 | Cooling

	+7°C/+12°C	+18°C/+23°C
El input	2.26 kW	1.49 kW
Cooling capacity	7.00	7.00
EER	3.10	4.70

### EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	37 dB(A)	37 dB(A)
Sound power level outdoor	56 dB(A)	56 dB(A)

### EN 14825 | Average Climate

	Low temperature	Medium temperature
P <sub>designh</sub>	8.37 kW	7.62 kW
η <sub>s</sub>	195 %	140 %
Prated	8.37 kW	7.62 kW
SCOP	4.95	3.57

Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	7.40 kW	6.74 kW
COP Tj = -7°C	3.10	2.29
Cdh Tj = -7 °C	0.994	0.995
Pdh Tj = +2°C	4.54 kW	4.22 kW
COP Tj = +2°C	4.80	3.51
Cdh Tj = +2 °C	0.985	0.988
Pdh Tj = +7°C	2.94 kW	2.74 kW
COP Tj = +7°C	6.61	4.36
Cdh Tj = +7 °C	0.969	0.978
Pdh Tj = 12°C	3.16 kW	3.28 kW
COP Tj = 12°C	8.15	6.50
Cdh Tj = +12 °C	0.964	0.972
Pdh Tj = Tbiv	7.40 kW	6.74 kW
COP Tj = Tbiv	3.10	2.29
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	5.51 kW	4.90 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.22	1.51
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.994	0.995
WTOL	60 °C	60 °C
Poff	14 W	14 W
PTO	14 W	14 W
PSB	14 W	14 W
PCK	14 W	14 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	2.86 kW	2.72 kW
Backup Heater	4.00 kW	4.00 kW
Annual energy consumption Qhe	3491 kWh	4409 kWh

#### EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	37 dB(A)	37 dB(A)
Sound power level outdoor	56 dB(A)	56 dB(A)

#### EN 14825 | Colder Climate

	Low temperature	Medium temperature
Pdesignh	11.78 kW	11.53 kW
$\eta_s$	154 %	121 %
Prated	11.78 kW	11.53 kW
SCOP	3.92	3.11
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	7.13 kW	6.98 kW

COP Tj = -7°C	3.47	2.73
Cdh Tj = -7 °C	0.993	0.995
Pdh Tj = +2°C	4.51 kW	4.20 kW
COP Tj = +2°C	5.32	4.07
Cdh Tj = +2 °C	0.983	0.986
Pdh Tj = +7°C	3.06 kW	2.84 kW
COP Tj = +7°C	7.24	5.15
Cdh Tj = +7 °C	0.967	0.975
Pdh Tj = 12°C	3.18 kW	3.24 kW
COP Tj = 12°C	8.02	6.47
Cdh Tj = +12 °C	0.965	0.972
Pdh Tj = Tbiv	7.13 kW	6.98 kW
COP Tj = Tbiv	3.47	2.73
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	5.51 kW	4.90 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.22	1.51
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.993	0.995
WTOL	60 °C	60 °C
Poff	14 W	14 W
PTO	14 W	14 W
PSB	14 W	14 W
PCK	14 W	14 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	11.16 kW	10.93 kW
Backup Heater	4.00 kW	4.00 kW
Annual energy consumption Qhe	7400 kWh	9141 kWh

#### EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	37 dB(A)	37 dB(A)
Sound power level outdoor	56 dB(A)	56 dB(A)

#### EN 14825 | Warmer Climate

	Low temperature	Medium temperature
Pdesignh	4.93 kW	4.48 kW
ηs	247 %	152 %
Prated	4.91 kW	4.30 kW
SCOP	6.25	3.87
Tbiv	2 °C	2 °C
TOL	-20 °C	-20 °C
Pdh Tj = +2°C	4.91 kW	4.30 kW
COP Tj = +2°C	4.05	2.50
Cdh Tj = +2 °C	0.988	0.992
Pdh Tj = +7°C	3.10 kW	2.81 kW

COP Tj = +7°C	5.70	3.08
Cdh Tj = +7 °C	0.974	0.985
Pdh Tj = 12°C	3.28 kW	3.16 kW
COP Tj = 12°C	7.86	5.45
Cdh Tj = +12 °C	0.966	0.976
Pdh Tj = Tbiv	4.91 kW	4.30 kW
COP Tj = Tbiv	4.05	2.50
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	5.51 kW	4.90 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.22	1.51
WTOL	60 °C	60 °C
Poff	14 W	14 W
PTO	14 W	14 W
PSB	14 W	14 W
PCK	14 W	14 W
Supplementary Heater: Type of energy input	n/a	n/a
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Backup Heater	4.00 kW	4.00 kW
Annual energy consumption Qhe	1049 kWh	1483 kWh

#### EN 14825 | Cooling

	+7°C/+12°C	+18°C/+23°C
Pdesignc	7 kW	
SEER	4.64	
Pdc Tj = 35°C	7 kW	
EER Tj = 35°C	3.1	
Pdc Tj = 30°C	5.17 kW	
EER Tj = 30°C	4.13	
Cdc Tj = 30 °C	0.99	
Pdc Tj = 25°C	3.32 kW	
EER Tj = 25°C	4.89	
Cdc Tj = 25 °C	0.98	
Pdc Tj = 20°C	3.19 kW	
EER Tj = 20°C	6.85	
Cdc Tj = 20 °C	0.97	
Poff	14 W	
PTO	14 W	
PSB	14 W	
PCK	0 W	
Annual energy consumption Qce	1381 kWh	

## Model NIMBUS PLUS-H 80 S-T NET R32

Model name	NIMBUS PLUS-H 80 S-T NET R32
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Colder, Warmer, Warmer Climate, Colder Climate
Reversibility	Yes
Cooling mode application (optional)	+7°C/12°C, +18°C/+23°C
Any additional heat sources	n/a

### General data

Power supply	3x400V 50Hz
Off-peak product	n/a

### Outdoor Air/Water

#### 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	8.00 kW	5.80 kW
El input	1.67 kW	1.97 kW
COP	4.80	2.95

#### EN 14511-2 | Cooling

	+7°C/+12°C	+18°C/+23°C
El input	2.26 kW	1.49 kW
Cooling capacity	7.00	7.00
EER	3.10	4.70

#### EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	37 dB(A)	37 dB(A)
Sound power level outdoor	56 dB(A)	56 dB(A)

#### EN 14825 | Average Climate

	Low temperature	Medium temperature
P <sub>designh</sub>	8.37 kW	7.62 kW
η <sub>s</sub>	195 %	140 %
Pr <sub>ated</sub>	8.37 kW	7.62 kW
SCOP	4.95	3.57

Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	7.40 kW	6.74 kW
COP Tj = -7°C	3.10	2.29
Cdh Tj = -7 °C	0.994	0.995
Pdh Tj = +2°C	4.54 kW	4.22 kW
COP Tj = +2°C	4.80	3.51
Cdh Tj = +2 °C	0.985	0.988
Pdh Tj = +7°C	2.94 kW	2.74 kW
COP Tj = +7°C	6.61	4.36
Cdh Tj = +7 °C	0.969	0.978
Pdh Tj = 12°C	3.16 kW	3.28 kW
COP Tj = 12°C	8.15	6.50
Cdh Tj = +12 °C	0.964	0.972
Pdh Tj = Tbiv	7.40 kW	6.74 kW
COP Tj = Tbiv	3.10	2.29
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	5.51 kW	4.90 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.22	1.51
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.994	0.995
WTOL	60 °C	60 °C
Poff	14 W	14 W
PTO	14 W	14 W
PSB	14 W	14 W
PCK	14 W	14 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	2.86 kW	2.72 kW
Backup Heater	4.00 kW	4.00 kW
Annual energy consumption Qhe	3491 kWh	4409 kWh

#### EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	37 dB(A)	37 dB(A)
Sound power level outdoor	56 dB(A)	56 dB(A)

#### EN 14825 | Colder Climate

	Low temperature	Medium temperature
Pdesignh	11.78 kW	11.53 kW
$\eta_s$	154 %	121 %
Prated	11.78 kW	11.53 kW
SCOP	3.92	3.11
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	7.13 kW	6.98 kW

COP Tj = -7°C	3.47	2.73
Cdh Tj = -7 °C	0.993	0.995
Pdh Tj = +2°C	4.51 kW	4.20 kW
COP Tj = +2°C	5.32	4.07
Cdh Tj = +2 °C	0.983	0.986
Pdh Tj = +7°C	3.06 kW	2.84 kW
COP Tj = +7°C	7.24	5.15
Cdh Tj = +7 °C	0.967	0.975
Pdh Tj = 12°C	3.18 kW	3.24 kW
COP Tj = 12°C	8.02	6.47
Cdh Tj = +12 °C	0.965	0.972
Pdh Tj = Tbiv	7.13 kW	6.98 kW
COP Tj = Tbiv	3.47	2.73
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	5.51 kW	4.90 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.22	1.51
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.993	0.995
WTOL	60 °C	60 °C
Poff	14 W	14 W
PTO	14 W	14 W
PSB	14 W	14 W
PCK	14 W	14 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	11.16 kW	10.93 kW
Backup Heater	4.00 kW	4.00 kW
Annual energy consumption Qhe	7400 kWh	9141 kWh

#### EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	37 dB(A)	37 dB(A)
Sound power level outdoor	56 dB(A)	56 dB(A)

#### EN 14825 | Warmer Climate

	Low temperature	Medium temperature
Pdesignh	4.93 kW	4.48 kW
ηs	247 %	152 %
Prated	4.91 kW	4.30 kW
SCOP	6.25	3.87
Tbiv	2 °C	2 °C
TOL	-20 °C	-20 °C
Pdh Tj = +2°C	4.91 kW	4.30 kW
COP Tj = +2°C	4.05	2.50
Cdh Tj = +2 °C	0.988	0.992
Pdh Tj = +7°C	3.10 kW	2.81 kW



COP Tj = +7°C	5.70	3.08
Cdh Tj = +7 °C	0.974	0.985
Pdh Tj = 12°C	3.28 kW	3.16 kW
COP Tj = 12°C	7.86	5.45
Cdh Tj = +12 °C	0.966	0.976
Pdh Tj = Tbiv	4.91 kW	4.30 kW
COP Tj = Tbiv	4.05	2.50
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	5.51 kW	4.90 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.22	1.51
WTOL	60 °C	60 °C
Poff	14 W	14 W
PTO	14 W	14 W
PSB	14 W	14 W
PCK	14 W	14 W
Supplementary Heater: Type of energy input	n/a	n/a
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Backup Heater	4.00 kW	4.00 kW
Annual energy consumption Qhe	1049 kWh	1483 kWh

#### EN 14825 | Cooling

	+7°C/+12°C	+18°C/+23°C
Pdesignc	7 kW	
SEER	4.64	
Pdc Tj = 35°C	7 kW	
EER Tj = 35°C	3.1	
Pdc Tj = 30°C	5.17 kW	
EER Tj = 30°C	4.13	
Cdc Tj = 30 °C	0.99	
Pdc Tj = 25°C	3.32 kW	
EER Tj = 25°C	4.89	
Cdc Tj = 25 °C	0.98	
Pdc Tj = 20°C	3.19 kW	
EER Tj = 20°C	6.85	
Cdc Tj = 20 °C	0.97	
Poff	14 W	
PTO	14 W	
PSB	14 W	
PCK	0 W	
Annual energy consumption Qce	1381 kWh	