

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

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Summary of	NIMBUS/ARIANEXT/AEROTOP/ENERGION 80 S - Plus		Reg. No.	ICIM-PDC-000120
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 80 S - Plus			
Heat Pump Type	Outdoor Air/Water			
Refrigerant	R32			
Mass of Refrigerant	1.8 kg			
Certification Date	05.07.2022			
Testing basis	Heat Pump KEYMARK rev9			

Model: NIMBUS PLUS 80 S NET R32

Configure model	
Model name	NIMBUS PLUS 80 S NET R32
Application	Heating (medium temp)
Units	Indoor + Outdoor
Climate Zone	Colder Climate + Warmer Climate
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	8.00 kW	5.80 kW
El input	1.67 kW	1.97 kW
COP	4.80	2.95

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

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

EN 14825

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

	+7°C/+12°C
P _{designc}	7 kW
SEER	4.64
P _{dc} T _j = 35°C	7 kW
EER T _j = 35°C	3.1
P _{dc} T _j = 30°C	5.17 kW
EER T _j = 30°C	4.13
C _{dc} T _j = 30 °C	0.99
P _{dc} T _j = 25°C	3.32 kW
EER T _j = 25°C	4.89
C _{dc} T _j = 25 °C	0.98
P _{dc} T _j = 20°C	3.19 kW
EER T _j = 20°C	6.85
C _{dc} T _j = 20 °C	0.97
P _{off}	14 W
PTO	14 W
PSB	14 W
PCK	0 W
Annual energy consumption Q _{ce}	1381 kWh

Warmer 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	56 dB(A)	56 dB(A)

EN 14825

	Low temperature	Medium temperature
P _{designh}	4.93 kW	4.48 kW
η_s	242 %	151 %
P _{rated}	4.93 kW	4.48 kW
SCOP	6.14	3.84
T _{biv}	2 °C	2 °C
TOL	-20 °C	-20 °C
P _{dh} T _j = +2°C	4.93 kW	4.48 kW
COP T _j = +2°C	4.05	2.53
C _{dh} T _j = +2 °C	0.989	0.992
P _{dh} T _j = +7°C	3.10 kW	2.81 kW
COP T _j = +7°C	5.70	3.08
C _{dh} T _j = +7 °C	0.975	0.985
P _{dh} T _j = 12°C	3.28 kW	3.16 kW
COP T _j = 12°C	7.86	5.45

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Cdh Tj = +12 °C	0.967	0.977
Pdh Tj = Tbiv	4.93 kW	4.48 kW
COP Tj = Tbiv	4.05	2.53
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	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Backup Heater	4.00 kW	4.00 kW
Annual energy consumption Qhe	1073 kWh	1557 kWh

Colder Climate

EN 12102-1		
	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

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	Low temperature	Medium temperature
P _{designh}	11.78 kW	11.53 kW
η_s	154 %	120 %
P _{rated}	11.78 kW	11.53 kW
SCOP	3.93	3.08
T _{biv}	-7 °C	-7 °C
TOL	-20 °C	-20 °C
P _{dh} T _j = -7°C	7.13 kW	6.98 kW
COP T _j = -7°C	3.47	2.73
C _{dh} T _j = -7 °C	0.993	0.995
P _{dh} T _j = +2°C	4.51 kW	4.20 kW
COP T _j = +2°C	5.32	4.07
C _{dh} T _j = +2 °C	0.984	0.987
P _{dh} T _j = +7°C	3.06 kW	2.84 kW
COP T _j = +7°C	7.24	5.15
C _{dh} T _j = +7 °C	0.968	0.975
P _{dh} T _j = 12°C	3.18 kW	3.24 kW
COP T _j = 12°C	8.02	6.47
C _{dh} T _j = +12 °C	0.966	0.973
P _{dh} T _j = T _{biv}	7.13 kW	6.98 kW

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COP $T_j = T_{biv}$	3.47	2.70
P _{dh} $T_j = TOL$ or P _{dh} $T_j = T_{designh}$ if $TOL < T_{designh}$	5.51 kW	4.90 kW
COP $T_j = TOL$ or COP $T_j = T_{designh}$ if $TOL < T_{designh}$	2.22	1.51
C _{dh} $T_j = TOL$ or P _{dh} $T_j = T_{designh}$ if $TOL < T_{designh}$	0.993	0.995
WTOL	60 °C	60 °C
P _{off}	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 Q _{he}	7398 kWh	9226 kWh

Average Climate

EN 12102-1		
	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

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	Low temperature	Medium temperature
P _{designh}	8.37 kW	7.62 kW
η_s	195 %	140 %
P _{rated}	8.37 kW	7.62 kW
SCOP	4.95	3.57
T _{biv}	-7 °C	-7 °C
TOL	-20 °C	-20 °C
P _{dh} T _j = -7°C	7.40 kW	6.74 kW
COP T _j = -7°C	3.10	2.29
C _{dh} T _j = -7 °C	0.994	0.995
P _{dh} T _j = +2°C	4.54 kW	4.22 kW
COP T _j = +2°C	4.80	3.51
C _{dh} T _j = +2 °C	0.986	0.989
P _{dh} T _j = +7°C	2.94 kW	2.74 kW
COP T _j = +7°C	6.61	4.36
C _{dh} T _j = +7 °C	0.969	0.978
P _{dh} T _j = 12°C	3.16 kW	3.28 kW
COP T _j = 12°C	8.15	6.50
C _{dh} T _j = +12 °C	0.965	0.973
P _{dh} T _j = T _{biv}	7.40 kW	6.74 kW
COP T _j = T _{biv}	3.10	2.29

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$P_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	5.51 kW	4.90 kW
$COP T_j = TOL$ or $COP T_j = T_{designh}$ if $TOL < T_{designh}$	2.22	1.51
$C_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	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 Q_{he}	3490 kWh	4405 kWh

Model: NIMBUS PLUS 80 S-T NET R32

Configure model	
Model name	NIMBUS PLUS 80 S-T NET R32
Application	Heating (medium temp)
Units	Indoor + Outdoor
Climate Zone	Colder Climate + Warmer Climate
Reversibility	Yes
Cooling mode application (optional)	+7°C/12°C

General Data	
Power supply	3x400V 50Hz

Heating

EN 14511-2		
	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 14511-4	
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

	+7°C/+12°C	+18°C/+23°C
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EER T _j = 35°C	3.1
P _{dc} T _j = 30°C	5.17 kW
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P _{dc} T _j = 25°C	3.32 kW
EER T _j = 25°C	4.89
C _{dc} T _j = 25 °C	0.98
P _{dc} T _j = 20°C	3.19 kW
EER T _j = 20°C	6.85
C _{dc} T _j = 20 °C	0.97
P _{off}	14 W
PTO	14 W
PSB	14 W
PCK	0 W
Annual energy consumption Q _{ce}	1381 kWh

Warmer 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	56 dB(A)	56 dB(A)

EN 14825

	Low temperature	Medium temperature
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P _{rated}	4.93 kW	4.48 kW
SCOP	6.14	3.84
T _{biv}	2 °C	2 °C
TOL	-20 °C	-20 °C
P _{dh} T _j = +2°C	4.93 kW	4.48 kW
COP T _j = +2°C	4.05	2.53
C _{dh} T _j = +2 °C	0.989	0.992
P _{dh} T _j = +7°C	3.10 kW	2.81 kW
COP T _j = +7°C	5.70	3.08
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Pdh Tj = Tbiv	4.93 kW	4.48 kW
COP Tj = Tbiv	4.05	2.53
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	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Backup Heater	4.00 kW	4.00 kW
Annual energy consumption Qhe	1073 kWh	1557 kWh

Colder Climate

EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	37 dB(A)	37 dB(A)
Sound power level outdoor	56 dB(A)	56 dB(A)

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COP $T_j = T_{biv}$	3.47	2.70
$P_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	5.51 kW	4.90 kW
COP $T_j = TOL$ or COP $T_j = T_{designh}$ if $TOL < T_{designh}$	2.22	1.51
$C_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	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 Q_{he}	7398 kWh	9226 kWh

Average Climate

EN 12102-1		
	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

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	Low temperature	Medium temperature
P _{designh}	8.37 kW	7.62 kW
η_s	195 %	140 %
P _{rated}	8.37 kW	7.62 kW
SCOP	4.95	3.57
T _{biv}	-7 °C	-7 °C
TOL	-20 °C	-20 °C
P _{dh} T _j = -7°C	7.40 kW	6.74 kW
COP T _j = -7°C	3.10	2.29
C _{dh} T _j = -7 °C	0.994	0.995
P _{dh} T _j = +2°C	4.54 kW	4.22 kW
COP T _j = +2°C	4.80	3.51
C _{dh} T _j = +2 °C	0.986	0.989
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$C_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	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 Q_{he}	3490 kWh	4405 kWh

Model: ARIANEXT PLUS 80 S LINK R32

Configure model	
Model name	ARIANEXT PLUS 80 S LINK R32
Application	Heating (medium temp)
Units	Indoor + Outdoor
Climate Zone	Colder Climate + Warmer Climate
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	8.00 kW	5.80 kW
El input	1.67 kW	1.97 kW
COP	4.80	2.95

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

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

EN 14825

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EER T _j = 25°C	4.89
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EER T _j = 20°C	6.85
C _{dc} T _j = 20 °C	0.97
P _{off}	14 W
PTO	14 W
PSB	14 W
PCK	0 W
Annual energy consumption Q _{ce}	1381 kWh

Warmer Climate

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EN 12102-1

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EN 14825

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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	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Backup Heater	4.00 kW	4.00 kW
Annual energy consumption Qhe	1073 kWh	1557 kWh

Colder Climate

EN 12102-1		
	Low temperature	Medium temperature
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P _{dh} T _j = T _{biv}	7.13 kW	6.98 kW

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

COP $T_j = T_{biv}$	3.47	2.70
$P_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	5.51 kW	4.90 kW
COP $T_j = TOL$ or COP $T_j = T_{designh}$ if $TOL < T_{designh}$	2.22	1.51
$C_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	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
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Average Climate

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P _{dh} T _j = 12°C	3.16 kW	3.28 kW
COP T _j = 12°C	8.15	6.50
C _{dh} T _j = +12 °C	0.965	0.973
P _{dh} T _j = T _{biv}	7.40 kW	6.74 kW
COP T _j = T _{biv}	3.10	2.29

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

$P_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	5.51 kW	4.90 kW
$COP T_j = TOL$ or $COP T_j = T_{designh}$ if $TOL < T_{designh}$	2.22	1.51
$C_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	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 Q_{he}	3490 kWh	4405 kWh

Model: ARIANEXT PLUS 80 S-T LINK R32

Configure model	
Model name	ARIANEXT PLUS 80 S-T LINK R32
Application	Heating (medium temp)
Units	Indoor + Outdoor
Climate Zone	Colder Climate + Warmer Climate
Reversibility	Yes
Cooling mode application (optional)	+7°C/12°C

General Data	
Power supply	3x400V 50Hz

Heating

EN 14511-2		
	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 14511-4	
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	2.26 kW	1.49 kW
Cooling capacity	7	7.00
EER	3.10	4.70

EN 14825

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

	+7°C/+12°C
P _{designc}	7 kW
SEER	4.64
P _{dc} T _j = 35°C	7 kW
EER T _j = 35°C	3.1
P _{dc} T _j = 30°C	5.17 kW
EER T _j = 30°C	4.13
C _{dc} T _j = 30 °C	0.99
P _{dc} T _j = 25°C	3.32 kW
EER T _j = 25°C	4.89
C _{dc} T _j = 25 °C	0.98
P _{dc} T _j = 20°C	3.19 kW
EER T _j = 20°C	6.85
C _{dc} T _j = 20 °C	0.97
P _{off}	14 W
PTO	14 W
PSB	14 W
PCK	0 W
Annual energy consumption Q _{ce}	1381 kWh

Warmer 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	56 dB(A)	56 dB(A)

EN 14825

	Low temperature	Medium temperature
P _{designh}	4.93 kW	4.48 kW
η_s	242 %	151 %
P _{rated}	4.93 kW	4.48 kW
SCOP	6.14	3.84
T _{biv}	2 °C	2 °C
TOL	-20 °C	-20 °C
P _{dh} T _j = +2°C	4.93 kW	4.48 kW
COP T _j = +2°C	4.05	2.53
C _{dh} T _j = +2 °C	0.989	0.992
P _{dh} T _j = +7°C	3.10 kW	2.81 kW
COP T _j = +7°C	5.70	3.08
C _{dh} T _j = +7 °C	0.975	0.985
P _{dh} T _j = 12°C	3.28 kW	3.16 kW
COP T _j = 12°C	7.86	5.45

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

Cdh Tj = +12 °C	0.967	0.977
Pdh Tj = Tbiv	4.93 kW	4.48 kW
COP Tj = Tbiv	4.05	2.53
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	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Backup Heater	4.00 kW	4.00 kW
Annual energy consumption Qhe	1073 kWh	1557 kWh

Colder Climate

EN 12102-1		
	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

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

	Low temperature	Medium temperature
P _{designh}	11.78 kW	11.53 kW
η_s	154 %	120 %
P _{rated}	11.78 kW	11.53 kW
SCOP	3.93	3.08
T _{biv}	-7 °C	-7 °C
TOL	-20 °C	-20 °C
P _{dh} T _j = -7°C	7.13 kW	6.98 kW
COP T _j = -7°C	3.47	2.73
C _{dh} T _j = -7 °C	0.993	0.995
P _{dh} T _j = +2°C	4.51 kW	4.20 kW
COP T _j = +2°C	5.32	4.07
C _{dh} T _j = +2 °C	0.984	0.987
P _{dh} T _j = +7°C	3.06 kW	2.84 kW
COP T _j = +7°C	7.24	5.15
C _{dh} T _j = +7 °C	0.968	0.975
P _{dh} T _j = 12°C	3.18 kW	3.24 kW
COP T _j = 12°C	8.02	6.47
C _{dh} T _j = +12 °C	0.966	0.973
P _{dh} T _j = T _{biv}	7.13 kW	6.98 kW

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

COP Tj = Tbiv	3.47	2.70
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	7398 kWh	9226 kWh

Average Climate

EN 12102-1		
	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

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

	Low temperature	Medium temperature
P _{designh}	8.37 kW	7.62 kW
η_s	195 %	140 %
P _{rated}	8.37 kW	7.62 kW
SCOP	4.95	3.57
T _{biv}	-7 °C	-7 °C
TOL	-20 °C	-20 °C
P _{dh} T _j = -7°C	7.40 kW	6.74 kW
COP T _j = -7°C	3.10	2.29
C _{dh} T _j = -7 °C	0.994	0.995
P _{dh} T _j = +2°C	4.54 kW	4.22 kW
COP T _j = +2°C	4.80	3.51
C _{dh} T _j = +2 °C	0.986	0.989
P _{dh} T _j = +7°C	2.94 kW	2.74 kW
COP T _j = +7°C	6.61	4.36
C _{dh} T _j = +7 °C	0.969	0.978
P _{dh} T _j = 12°C	3.16 kW	3.28 kW
COP T _j = 12°C	8.15	6.50
C _{dh} T _j = +12 °C	0.965	0.973
P _{dh} T _j = T _{biv}	7.40 kW	6.74 kW
COP T _j = T _{biv}	3.10	2.29

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

$P_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	5.51 kW	4.90 kW
$COP T_j = TOL$ or $COP T_j = T_{designh}$ if $TOL < T_{designh}$	2.22	1.51
$C_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	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 Q_{he}	3490 kWh	4405 kWh

Model: AEROTOP SPLIT 08.2 M-RX

Configure model	
Model name	AEROTOP SPLIT 08.2 M-RX
Application	Heating (medium temp)
Units	Indoor + Outdoor
Climate Zone	Colder Climate + Warmer Climate
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	8.00 kW	5.80 kW
El input	1.67 kW	1.97 kW
COP	4.80	2.95

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	2.26 kW	1.49 kW
Cooling capacity	7	7.00
EER	3.10	4.70

EN 14825

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

	+7°C/+12°C
P _{designc}	7 kW
SEER	4.64
P _{dc} T _j = 35°C	7 kW
EER T _j = 35°C	3.1
P _{dc} T _j = 30°C	5.17 kW
EER T _j = 30°C	4.13
C _{dc} T _j = 30 °C	0.99
P _{dc} T _j = 25°C	3.32 kW
EER T _j = 25°C	4.89
C _{dc} T _j = 25 °C	0.98
P _{dc} T _j = 20°C	3.19 kW
EER T _j = 20°C	6.85
C _{dc} T _j = 20 °C	0.97
P _{off}	14 W
PTO	14 W
PSB	14 W
PCK	0 W
Annual energy consumption Q _{ce}	1381 kWh

Warmer 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	56 dB(A)	56 dB(A)

EN 14825

	Low temperature	Medium temperature
P _{designh}	4.93 kW	4.48 kW
η_s	242 %	151 %
P _{rated}	4.93 kW	4.48 kW
SCOP	6.14	3.84
T _{biv}	2 °C	2 °C
TOL	-20 °C	-20 °C
P _{dh} T _j = +2°C	4.93 kW	4.48 kW
COP T _j = +2°C	4.05	2.53
C _{dh} T _j = +2 °C	0.989	0.992
P _{dh} T _j = +7°C	3.10 kW	2.81 kW
COP T _j = +7°C	5.70	3.08
C _{dh} T _j = +7 °C	0.975	0.985
P _{dh} T _j = 12°C	3.28 kW	3.16 kW
COP T _j = 12°C	7.86	5.45

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

Cdh Tj = +12 °C	0.967	0.977
Pdh Tj = Tbiv	4.93 kW	4.48 kW
COP Tj = Tbiv	4.05	2.53
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	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Backup Heater	4.00 kW	4.00 kW
Annual energy consumption Qhe	1073 kWh	1557 kWh

Colder Climate

EN 12102-1		
	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

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

	Low temperature	Medium temperature
P _{designh}	11.78 kW	11.53 kW
η_s	154 %	120 %
P _{rated}	11.78 kW	11.53 kW
SCOP	3.93	3.08
T _{biv}	-7 °C	-7 °C
TOL	-20 °C	-20 °C
P _{dh} T _j = -7°C	7.13 kW	6.98 kW
COP T _j = -7°C	3.47	2.73
C _{dh} T _j = -7 °C	0.993	0.995
P _{dh} T _j = +2°C	4.51 kW	4.20 kW
COP T _j = +2°C	5.32	4.07
C _{dh} T _j = +2 °C	0.984	0.987
P _{dh} T _j = +7°C	3.06 kW	2.84 kW
COP T _j = +7°C	7.24	5.15
C _{dh} T _j = +7 °C	0.968	0.975
P _{dh} T _j = 12°C	3.18 kW	3.24 kW
COP T _j = 12°C	8.02	6.47
C _{dh} T _j = +12 °C	0.966	0.973
P _{dh} T _j = T _{biv}	7.13 kW	6.98 kW

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

COP $T_j = T_{biv}$	3.47	2.70
$P_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	5.51 kW	4.90 kW
COP $T_j = TOL$ or COP $T_j = T_{designh}$ if $TOL < T_{designh}$	2.22	1.51
$C_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	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 Q_{he}	7398 kWh	9226 kWh

Average Climate

EN 12102-1		
	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

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

	Low temperature	Medium temperature
P _{designh}	8.37 kW	7.62 kW
η_s	195 %	140 %
P _{rated}	8.37 kW	7.62 kW
SCOP	4.95	3.57
T _{biv}	-7 °C	-7 °C
TOL	-20 °C	-20 °C
P _{dh} T _j = -7°C	7.40 kW	6.74 kW
COP T _j = -7°C	3.10	2.29
C _{dh} T _j = -7 °C	0.994	0.995
P _{dh} T _j = +2°C	4.54 kW	4.22 kW
COP T _j = +2°C	4.80	3.51
C _{dh} T _j = +2 °C	0.986	0.989
P _{dh} T _j = +7°C	2.94 kW	2.74 kW
COP T _j = +7°C	6.61	4.36
C _{dh} T _j = +7 °C	0.969	0.978
P _{dh} T _j = 12°C	3.16 kW	3.28 kW
COP T _j = 12°C	8.15	6.50
C _{dh} T _j = +12 °C	0.965	0.973
P _{dh} T _j = T _{biv}	7.40 kW	6.74 kW
COP T _j = T _{biv}	3.10	2.29

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

$P_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	5.51 kW	4.90 kW
$COP T_j = TOL$ or $COP T_j = T_{designh}$ if $TOL < T_{designh}$	2.22	1.51
$C_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	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 Q_{he}	3490 kWh	4405 kWh

Model: AEROTOP SPLIT 08.2 M-R

Configure model	
Model name	AEROTOP SPLIT 08.2 M-R
Application	Heating (medium temp)
Units	Indoor + Outdoor
Climate Zone	Colder Climate + Warmer Climate
Reversibility	Yes
Cooling mode application (optional)	+7°C/12°C

General Data	
Power supply	3x400V 50Hz

Heating

EN 14511-2		
	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 14511-4	
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	2.26 kW	1.49 kW
Cooling capacity	7	7.00
EER	3.10	4.70

EN 14825

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

	+7°C/+12°C
P _{designc}	7 kW
SEER	4.64
P _{dc} T _j = 35°C	7 kW
EER T _j = 35°C	3.1
P _{dc} T _j = 30°C	5.17 kW
EER T _j = 30°C	4.13
C _{dc} T _j = 30 °C	0.99
P _{dc} T _j = 25°C	3.32 kW
EER T _j = 25°C	4.89
C _{dc} T _j = 25 °C	0.98
P _{dc} T _j = 20°C	3.19 kW
EER T _j = 20°C	6.85
C _{dc} T _j = 20 °C	0.97
P _{off}	14 W
PTO	14 W
PSB	14 W
PCK	0 W
Annual energy consumption Q _{ce}	1381 kWh

Warmer 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	56 dB(A)	56 dB(A)

EN 14825

	Low temperature	Medium temperature
P _{designh}	4.93 kW	4.48 kW
η_s	242 %	151 %
P _{rated}	4.93 kW	4.48 kW
SCOP	6.14	3.84
T _{biv}	2 °C	2 °C
TOL	-20 °C	-20 °C
P _{dh} T _j = +2°C	4.93 kW	4.48 kW
COP T _j = +2°C	4.05	2.53
C _{dh} T _j = +2 °C	0.989	0.992
P _{dh} T _j = +7°C	3.10 kW	2.81 kW
COP T _j = +7°C	5.70	3.08
C _{dh} T _j = +7 °C	0.975	0.985
P _{dh} T _j = 12°C	3.28 kW	3.16 kW
COP T _j = 12°C	7.86	5.45

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

Cdh Tj = +12 °C	0.967	0.977
Pdh Tj = Tbiv	4.93 kW	4.48 kW
COP Tj = Tbiv	4.05	2.53
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	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Backup Heater	4.00 kW	4.00 kW
Annual energy consumption Qhe	1073 kWh	1557 kWh

Colder Climate

EN 12102-1		
	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

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

	Low temperature	Medium temperature
P _{designh}	11.78 kW	11.53 kW
η_s	154 %	120 %
P _{rated}	11.78 kW	11.53 kW
SCOP	3.93	3.08
T _{biv}	-7 °C	-7 °C
TOL	-20 °C	-20 °C
P _{dh} T _j = -7°C	7.13 kW	6.98 kW
COP T _j = -7°C	3.47	2.73
C _{dh} T _j = -7 °C	0.993	0.995
P _{dh} T _j = +2°C	4.51 kW	4.20 kW
COP T _j = +2°C	5.32	4.07
C _{dh} T _j = +2 °C	0.984	0.987
P _{dh} T _j = +7°C	3.06 kW	2.84 kW
COP T _j = +7°C	7.24	5.15
C _{dh} T _j = +7 °C	0.968	0.975
P _{dh} T _j = 12°C	3.18 kW	3.24 kW
COP T _j = 12°C	8.02	6.47
C _{dh} T _j = +12 °C	0.966	0.973
P _{dh} T _j = T _{biv}	7.13 kW	6.98 kW

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

COP $T_j = T_{biv}$	3.47	2.70
$P_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	5.51 kW	4.90 kW
COP $T_j = TOL$ or COP $T_j = T_{designh}$ if $TOL < T_{designh}$	2.22	1.51
$C_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	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 Q_{he}	7398 kWh	9226 kWh

Average Climate

EN 12102-1		
	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

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

	Low temperature	Medium temperature
P _{designh}	8.37 kW	7.62 kW
η_s	195 %	140 %
P _{rated}	8.37 kW	7.62 kW
SCOP	4.95	3.57
T _{biv}	-7 °C	-7 °C
TOL	-20 °C	-20 °C
P _{dh} T _j = -7°C	7.40 kW	6.74 kW
COP T _j = -7°C	3.10	2.29
C _{dh} T _j = -7 °C	0.994	0.995
P _{dh} T _j = +2°C	4.54 kW	4.22 kW
COP T _j = +2°C	4.80	3.51
C _{dh} T _j = +2 °C	0.986	0.989
P _{dh} T _j = +7°C	2.94 kW	2.74 kW
COP T _j = +7°C	6.61	4.36
C _{dh} T _j = +7 °C	0.969	0.978
P _{dh} T _j = 12°C	3.16 kW	3.28 kW
COP T _j = 12°C	8.15	6.50
C _{dh} T _j = +12 °C	0.965	0.973
P _{dh} T _j = T _{biv}	7.40 kW	6.74 kW
COP T _j = T _{biv}	3.10	2.29

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

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	3490 kWh	4405 kWh