

Subtype RAS-3.5WH(V)RP2E

Certificate Holder	Johnson Controls-Hitachi AirConditioning Spain
Address	Ronda Shimizu, 1. Pol. Ind. Can Torrella
ZIP	08233
City	Vacarisses, Barcelona
Country	ES
Certification Body	BRE Global Limited
Subtype title	RAS-3.5WH(V)RP2E
Registration number	041-K002-72
Heat Pump Type	Outdoor Air/Water
Refrigerant	R32
Mass of Refrigerant	1.8 kg
Certification Date	05.09.2025
Testing basis	Heat Pump Keymark Scheme Rules Rev 15
Testing laboratory	Centro de Ensayos, Innovación y Servicios (CEIS), ES

Model 01. RAS-3.5WHVRP2E + RWM-3.5R3E - Heating Only

Model name	01. RAS-3.5WHVRP2E + RWM-3.5R3E - Heating Only
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	n/a
Cooling mode application (optional)	n/a
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	8.50 kW	8.00 kW
El input	1.82 kW	3.43 kW
COP	4.67	2.40

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	53 dB(A)	53 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	177 %	129 %
Prated	12.10 kW	12.10 kW
SCOP	4.49	3.29
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	10.70 kW	10.70 kW
COP Tj = -7°C	2.96	2.15
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	6.51 kW	6.51 kW
COP Tj = +2°C	4.20	3.06
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	4.19 kW	4.19 kW

COP Tj = +7°C	6.13	4.56
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	3.99 kW	3.65 kW
COP Tj = 12°C	8.62	6.26
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	10.70 kW	10.70 kW
COP Tj = Tbiv	2.96	2.15
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.10 kW	10.59 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.89	2.02
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	55 °C	55 °C
Poff	14 W	14 W
PTO	15 W	15 W
PSB	14 W	14 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	1.50 kW
Annual energy consumption Qhe	5561 kWh	7600 kWh

Model 02. RAS-3.5WHVRP2E + RWM-3.5R3E - With Cooling Kit

Model name	02. RAS-3.5WHVRP2E + RWM-3.5R3E - With Cooling Kit
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	n/a
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	8.50 kW	8.00 kW
El input	1.82 kW	3.43 kW
COP	4.67	2.40

EN 14511-2 | Cooling

	+7°C/+12°C	+18°C/+23°C
El input	2.31 kW	2.06 kW
Cooling capacity	7.50	8.50
EER	3.24	4.13

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	53 dB(A)	53 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	178 %	129 %
Prated	12.10 kW	12.10 kW
SCOP	4.54	3.31
Tbiv	-7 °C	-7 °C

TOL	-10 °C	-10 °C
Pdh Tj = -7°C	10.70 kW	10.70 kW
COP Tj = -7°C	2.96	2.15
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	6.51 kW	6.51 kW
COP Tj = +2°C	4.20	3.06
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	4.19 kW	4.19 kW
COP Tj = +7°C	6.13	4.56
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	3.99 kW	3.65 kW
COP Tj = 12°C	8.62	6.26
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	10.70 kW	10.70 kW
COP Tj = Tbiv	2.96	2.15
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.10 kW	10.59 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.89	2.02
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	55 °C	55 °C
Poff	14 W	14 W
PTO	15 W	15 W
PSB	14 W	14 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	1.50 kW
Annual energy consumption Qhe	5508 kWh	7548 kWh

EN 14825 | Cooling

	+7°C/+12°C	+18°C/+23°C
Pdesignc	7.50 kW	8.50 kW
SEER	4.77	7.56
Pdc Tj = 35°C	7.50 kW	8.50 kW
EER Tj = 35°C	3.24	4.13
Cdc Tj = 35 °C	0.900	0.900
Pdc Tj = 30°C	5.50 kW	6.56 kW
EER Tj = 30°C	4.37	7.34
Cdc Tj = 30 °C	0.900	0.900
Pdc Tj = 25°C	3.55 kW	6.00 kW
EER Tj = 25°C	5.70	8.49
Cdc Tj = 25 °C	0.900	0.900
Pdc Tj = 20°C	3.60 kW	4.90 kW
EER Tj = 20°C	5.74	12.38
Cdc Tj = 20 °C	0.900	0.900

Poff	14 W	14 W
PTO	15 W	15 W
PSB	14 W	14 W
PCK	0 W	0 W
Annual energy consumption Qce	943 kWh	675 kWh

Model 05. RAS-3.5WHRP2E + RWM-3.5R3E - Heating Only

Model name	05. RAS-3.5WHRP2E + RWM-3.5R3E - Heating Only
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	n/a
Cooling mode application (optional)	n/a
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	8.50 kW	8.00 kW
El input	1.82 kW	3.43 kW
COP	4.67	2.40

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	53 dB(A)	53 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	177 %	129 %
Prated	12.10 kW	12.10 kW
SCOP	4.49	3.29
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	10.70 kW	10.70 kW
COP Tj = -7°C	2.96	2.15
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	6.51 kW	6.51 kW
COP Tj = +2°C	4.20	3.06
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	4.19 kW	4.19 kW

COP Tj = +7°C	6.13	4.56
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	3.99 kW	3.65 kW
COP Tj = 12°C	8.62	6.26
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	10.70 kW	10.70 kW
COP Tj = Tbiv	2.96	2.15
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.10 kW	10.59 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.89	2.02
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	55 °C	55 °C
Poff	14 W	14 W
PTO	15 W	15 W
PSB	14 W	14 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	1.50 kW
Annual energy consumption Qhe	5561 kWh	7600 kWh

Model 06. RAS-3.5WHRP2E + RWM-3.5R3E - With Cooling Kit

Model name	06. RAS-3.5WHRP2E + RWM-3.5R3E - With Cooling Kit
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	n/a
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	8.50 kW	8.00 kW
El input	1.82 kW	3.43 kW
COP	4.67	2.40

EN 14511-2 | Cooling

	+7°C/+12°C	+18°C/+23°C
El input	2.31 kW	2.06 kW
Cooling capacity	7.50	8.50
EER	3.24	4.13

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	53 dB(A)	53 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	178 %	129 %
Prated	12.10 kW	12.10 kW
SCOP	4.54	3.31
Tbiv	-7 °C	-7 °C

TOL	-10 °C	-10 °C
Pdh Tj = -7°C	10.70 kW	10.70 kW
COP Tj = -7°C	2.96	2.15
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	6.51 kW	6.51 kW
COP Tj = +2°C	4.20	3.06
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	4.19 kW	4.19 kW
COP Tj = +7°C	6.13	4.56
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	3.99 kW	3.65 kW
COP Tj = 12°C	8.62	6.26
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	10.70 kW	10.70 kW
COP Tj = Tbiv	2.96	2.15
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.10 kW	10.59 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.89	2.02
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	55 °C	55 °C
Poff	14 W	14 W
PTO	15 W	15 W
PSB	14 W	14 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	1.50 kW
Annual energy consumption Qhe	5508 kWh	7548 kWh

EN 14825 | Cooling

	+7°C/+12°C	+18°C/+23°C
Pdesignc	7.50 kW	8.50 kW
SEER	4.77	7.56
Pdc Tj = 35°C	7.50 kW	8.50 kW
EER Tj = 35°C	3.24	4.13
Cdc Tj = 35 °C	0.900	0.900
Pdc Tj = 30°C	5.50 kW	6.56 kW
EER Tj = 30°C	4.37	7.34
Cdc Tj = 30 °C	0.900	0.900
Pdc Tj = 25°C	3.55 kW	6.00 kW
EER Tj = 25°C	5.70	8.49
Cdc Tj = 25 °C	0.900	0.900
Pdc Tj = 20°C	3.60 kW	4.90 kW
EER Tj = 20°C	5.74	12.38
Cdc Tj = 20 °C	0.900	0.900

Poff	14 W	14 W
PTO	15 W	15 W
PSB	14 W	14 W
PCK	0 W	0 W
Annual energy consumption Qce	943 kWh	675 kWh

Model 03. RAS-3.5WHVRP2E + RWD-3.5RW3E-220S(-K) - Heating Only

Model name	03. RAS-3.5WHVRP2E + RWD-3.5RW3E-220S(-K) - Heating Only
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	n/a
Cooling mode application (optional)	n/a
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 η_{DHW}	112 %
COP	2.73
Heating up time	1:13 h:min
Standby power input	43.0 W
Reference hot water temperature	52.0 °C
Mixed water at 40°C	273 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	8.50 kW	8.00 kW
El input	1.82 kW	3.43 kW
COP	4.67	2.40

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	53 dB(A)	53 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	177 %	129 %
Prated	12.10 kW	12.10 kW

SCOP	4.49	3.29
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	10.70 kW	10.70 kW
COP Tj = -7°C	2.96	2.15
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	6.51 kW	6.51 kW
COP Tj = +2°C	4.20	3.06
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	4.19 kW	4.19 kW
COP Tj = +7°C	6.13	4.56
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	3.99 kW	3.65 kW
COP Tj = 12°C	8.62	6.26
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	10.70 kW	10.70 kW
COP Tj = Tbiv	2.96	2.15
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.10 kW	10.59 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.89	2.02
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	55 °C	55 °C
Poff	14 W	14 W
PTO	15 W	15 W
PSB	14 W	14 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	1.50 kW
Annual energy consumption Qhe	5561 kWh	7600 kWh

Model 04. RAS-3.5WHVRP2E + RWD-3.5RW3E-220S(-K) - With Cooling Kit

Model name	04. RAS-3.5WHVRP2E + RWD-3.5RW3E-220S(-K) - With Cooling Kit
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	n/a
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 16147 | Average Climate

Declared load profile	L
Efficiency η_{DHW}	112 %
COP	2.73
Heating up time	1:13 h:min
Standby power input	43.0 W
Reference hot water temperature	52.0 °C
Mixed water at 40°C	273 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	8.50 kW	8.00 kW
El input	1.82 kW	3.43 kW
COP	4.67	2.40

EN 14511-2 | Cooling

	+7°C/+12°C	+18°C/+23°C
El input	2.31 kW	2.06 kW
Cooling capacity	7.50	8.50
EER	3.24	4.13

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
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Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	53 dB(A)	53 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	178 %	129 %
Prated	12.10 kW	12.10 kW
SCOP	4.54	3.31
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	10.70 kW	10.70 kW
COP Tj = -7°C	2.96	2.15
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	6.51 kW	6.51 kW
COP Tj = +2°C	4.20	3.06
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	4.19 kW	4.19 kW
COP Tj = +7°C	6.13	4.56
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	3.99 kW	3.65 kW
COP Tj = 12°C	8.62	6.26
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	10.70 kW	10.70 kW
COP Tj = Tbiv	2.96	2.15
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.10 kW	10.59 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.89	2.02
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	55 °C	55 °C
Poff	14 W	14 W
PTO	15 W	15 W
PSB	14 W	14 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	1.50 kW
Annual energy consumption Qhe	5508 kWh	7548 kWh

EN 14825 | Cooling

	+7°C/+12°C	+18°C/+23°C
Pdesignc	7.50 kW	8.50 kW
SEER	4.77	7.56
Pdc Tj = 35°C	7.50 kW	8.50 kW
EER Tj = 35°C	3.24	4.13
Cdc Tj = 35 °C	0.900	0.900

Pdc Tj = 30°C	5.50 kW	6.56 kW
EER Tj = 30°C	4.37	7.34
Cdc Tj = 30 °C	0.900	0.900
Pdc Tj = 25°C	3.55 kW	6.00 kW
EER Tj = 25°C	5.70	8.49
Cdc Tj = 25 °C	0.900	0.900
Pdc Tj = 20°C	3.60 kW	4.90 kW
EER Tj = 20°C	5.74	12.38
Cdc Tj = 20 °C	0.900	0.900
Poff	14 W	14 W
PTO	15 W	15 W
PSB	14 W	14 W
PCK	0 W	0 W
Annual energy consumption Qce	943 kWh	675 kWh

Model 07. RAS-3.5WHRP2E + RWD-3.5RW3E-220S(-K) - Heating Only

Model name	07. RAS-3.5WHRP2E + RWD-3.5RW3E-220S(-K) - Heating Only
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	n/a
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

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

Outdoor Air/Water

EN 16147 | Average Climate

Declared load profile	L
Efficiency η_{DHW}	112 %
COP	2.73
Heating up time	1:13 h:min
Standby power input	43.0 W
Reference hot water temperature	52.0 °C
Mixed water at 40°C	273 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	8.50 kW	8.00 kW
El input	1.82 kW	3.43 kW
COP	4.67	2.40

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	53 dB(A)	53 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	177 %	129 %
Prated	12.10 kW	12.10 kW

SCOP	4.49	3.29
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	10.70 kW	10.70 kW
COP Tj = -7°C	2.96	2.15
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	6.51 kW	6.51 kW
COP Tj = +2°C	4.20	3.06
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	4.19 kW	4.19 kW
COP Tj = +7°C	6.13	4.56
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	3.99 kW	3.65 kW
COP Tj = 12°C	8.62	6.26
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	10.70 kW	10.70 kW
COP Tj = Tbiv	2.96	2.15
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.10 kW	10.59 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.89	2.02
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	55 °C	55 °C
Poff	14 W	14 W
PTO	15 W	15 W
PSB	14 W	14 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	1.50 kW
Annual energy consumption Qhe	5561 kWh	7600 kWh

Model 08. RAS-3.5WHRP2E + RWD-3.5RW3E-220S(-K) - With Cooling Kit

Model name	08. RAS-3.5WHRP2E + RWD-3.5RW3E-220S(-K) - With Cooling Kit
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	n/a
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 16147 | Average Climate

Declared load profile	L
Efficiency η_{DHW}	112 %
COP	2.73
Heating up time	1:13 h:min
Standby power input	43.0 W
Reference hot water temperature	52.0 °C
Mixed water at 40°C	273 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	8.50 kW	8.00 kW
El input	1.82 kW	3.43 kW
COP	4.67	2.40

EN 14511-2 | Cooling

	+7°C/+12°C	+18°C/+23°C
El input	2.31 kW	2.06 kW
Cooling capacity	7.50	8.50
EER	3.24	4.13

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
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Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	53 dB(A)	53 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	178 %	129 %
Prated	12.10 kW	12.10 kW
SCOP	4.54	3.31
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	10.70 kW	10.70 kW
COP Tj = -7°C	2.96	2.15
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	6.51 kW	6.51 kW
COP Tj = +2°C	4.20	3.06
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	4.19 kW	4.19 kW
COP Tj = +7°C	6.13	4.56
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	3.99 kW	3.65 kW
COP Tj = 12°C	8.62	6.26
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	10.70 kW	10.70 kW
COP Tj = Tbiv	2.96	2.15
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.10 kW	10.59 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.89	2.02
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	55 °C	55 °C
Poff	14 W	14 W
PTO	15 W	15 W
PSB	14 W	14 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	1.50 kW
Annual energy consumption Qhe	5508 kWh	7548 kWh

EN 14825 | Cooling

	+7°C/+12°C	+18°C/+23°C
Pdesignc	7.50 kW	8.50 kW
SEER	4.77	7.56
Pdc Tj = 35°C	7.50 kW	8.50 kW
EER Tj = 35°C	3.24	4.13
Cdc Tj = 35 °C	0.900	0.900

Pdc Tj = 30°C	5.50 kW	6.56 kW
EER Tj = 30°C	4.37	7.34
Cdc Tj = 30 °C	0.900	0.900
Pdc Tj = 25°C	3.55 kW	6.00 kW
EER Tj = 25°C	5.70	8.49
Cdc Tj = 25 °C	0.900	0.900
Pdc Tj = 20°C	3.60 kW	4.90 kW
EER Tj = 20°C	5.74	12.38
Cdc Tj = 20 °C	0.900	0.900
Poff	14 W	14 W
PTO	15 W	15 W
PSB	14 W	14 W
PCK	0 W	0 W
Annual energy consumption Qce	943 kWh	675 kWh