

Subtype RAS-4WH(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-4WH(V)RP2E
Registration number	041-K002-73
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-4WHVRP2E + RWM-4R3E - Heating Only**

Model name	01. RAS-4WHVRP2E + RWM-4R3E - 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	10.00 kW	10.00 kW
EI input	2.17 kW	4.35 kW
COP	4.60	2.30

**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
$\eta_s$	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-4WHVRP2E + RWM-4R3E - With Cooling Kit**

Model name	02. RAS-4WHVRP2E + RWM-4R3E - 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	10.00 kW	10.00 kW
El input	2.17 kW	4.35 kW
COP	4.60	2.30

**EN 14511-2 | Cooling**

	+7°C/+12°C	+18°C/+23°C
El input	9.00 kW	10.00 kW
Cooling capacity	2.95	2.40
EER	3.05	4.16

**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
ηs	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	9.00 kW	10.00 kW
SEER	4.76	7.61
Pdc Tj = 35°C	9.00 kW	10.00 kW
EER Tj = 35°C	3.05	4.16
Cdc Tj = 35 °C	0.900	0.900
Pdc Tj = 30°C	6.63 kW	7.40 kW
EER Tj = 30°C	4.22	6.91
Cdc Tj = 30 °C	0.900	0.900
Pdc Tj = 25°C	4.26 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	1134 kWh	789 kWh

**Model 05. RAS-4WHRP2E + RWM-4R3E - Heating Only**

Model name	05. RAS-4WHRP2E + RWM-4R3E - 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	10.00 kW	10.00 kW
EI input	2.17 kW	4.35 kW
COP	4.60	2.30

**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
$\eta_s$	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-4WHRP2E + RWM-4R3E - With Cooling Kit**

Model name	06. RAS-4WHRP2E + RWM-4R3E - 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	10.00 kW	10.00 kW
El input	2.17 kW	4.35 kW
COP	4.60	2.30

**EN 14511-2 | Cooling**

	+7°C/+12°C	+18°C/+23°C
El input	9.00 kW	10.00 kW
Cooling capacity	2.95	2.40
EER	3.05	4.16

**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
ηs	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	9.00 kW	10.00 kW
SEER	4.76	7.61
Pdc Tj = 35°C	9.00 kW	10.00 kW
EER Tj = 35°C	3.05	4.16
Cdc Tj = 35 °C	0.900	0.900
Pdc Tj = 30°C	6.63 kW	7.40 kW
EER Tj = 30°C	4.22	6.91
Cdc Tj = 30 °C	0.900	0.900
Pdc Tj = 25°C	4.26 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	1134 kWh	789 kWh

**Model 03. RAS-4WHVRP2E + RWD-4RW3E-220S(-K) - Heating Only**

Model name	03. RAS-4WHVRP2E + RWD-4RW3E-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 $\eta_{DHW}$	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	10.00 kW	10.00 kW
El input	2.17 kW	4.35 kW
COP	4.60	2.30

**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
$\eta_s$	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-4WHVRP2E + RWD-4RW3E-220S(-K) - With Cooling Kit**

Model name	04. RAS-4WHVRP2E + RWD-4RW3E-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 ηDHW	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	10.00 kW	10.00 kW
El input	2.17 kW	4.35 kW
COP	4.60	2.30

**EN 14511-2 | Cooling**

	+7°C/+12°C	+18°C/+23°C
El input	9.00 kW	10.00 kW
Cooling capacity	2.95	2.40
EER	3.05	4.16

**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
$\eta_s$	178 %	129 %
P <sub>rated</sub>	12.10 kW	12.10 kW
SCOP	4.54	3.31
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh Tj = -7°C</sub>	10.70 kW	10.70 kW
COP T <sub>j</sub> = -7°C	2.96	2.15
C <sub>dh Tj = -7 °C</sub>	0.900	0.900
P <sub>dh Tj = +2°C</sub>	6.51 kW	6.51 kW
COP T <sub>j</sub> = +2°C	4.20	3.06
C <sub>dh Tj = +2 °C</sub>	0.900	0.900
P <sub>dh Tj = +7°C</sub>	4.19 kW	4.19 kW
COP T <sub>j</sub> = +7°C	6.13	4.56
C <sub>dh Tj = +7 °C</sub>	0.900	0.900
P <sub>dh Tj = 12°C</sub>	3.99 kW	3.65 kW
COP T <sub>j</sub> = 12°C	8.62	6.26
C <sub>dh Tj = +12 °C</sub>	0.900	0.900
P <sub>dh Tj = T<sub>biv</sub></sub>	10.70 kW	10.70 kW
COP T <sub>j</sub> = T <sub>biv</sub>	2.96	2.15
P <sub>dh Tj = TOL or P<sub>dh Tj = T<sub>designh</sub></sub> if TOL &lt; T<sub>designh</sub></sub>	12.10 kW	10.59 kW
COP T <sub>j</sub> = TOL or COP T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	2.89	2.02
C <sub>dh Tj = TOL or P<sub>dh Tj = T<sub>designh</sub></sub> if TOL &lt; T<sub>designh</sub></sub>	0.900	0.900
WTOL	55 °C	55 °C
P <sub>off</sub>	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 Q <sub>he</sub>	5508 kWh	7548 kWh

**EN 14825 | Cooling**

	+7°C/+12°C	+18°C/+23°C
P <sub>designc</sub>	9.00 kW	10.00 kW
SEER	4.76	7.61
P <sub>dc Tj = 35°C</sub>	9.00 kW	10.00 kW
EER T <sub>j</sub> = 35°C	3.05	4.16
C <sub>dc Tj = 35 °C</sub>	0.900	0.900

Pdc Tj = 30°C	6.63 kW	7.40 kW
EER Tj = 30°C	4.22	6.91
Cdc Tj = 30 °C	0.900	0.900
Pdc Tj = 25°C	4.26 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	1134 kWh	789 kWh

**Model 07. RAS-4WHRP2E + RWD-4RW3E-220S(-K) - Heating Only**

Model name	07. RAS-4WHRP2E + RWD-4RW3E-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 $\eta_{DHW}$	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	10.00 kW	10.00 kW
El input	2.17 kW	4.35 kW
COP	4.60	2.30

**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
$\eta_s$	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-4WHRP2E + RWD-4RW3E-220S(-K) - With Cooling Kit**

Model name	08. RAS-4WHRP2E + RWD-4RW3E-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 ηDHW	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	10.00 kW	10.00 kW
El input	2.17 kW	4.35 kW
COP	4.60	2.30

**EN 14511-2 | Cooling**

	Low temperature	Medium temperature
El input	9.00 kW	10.00 kW
Cooling capacity	2.95	2.40
EER	3.05	4.16

**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
$\eta_s$	178 %	129 %
P <sub>rated</sub>	12.10 kW	12.10 kW
SCOP	4.54	3.31
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh Tj = -7°C</sub>	10.70 kW	10.70 kW
COP T <sub>j</sub> = -7°C	2.96	2.15
C <sub>dh Tj = -7 °C</sub>	0.900	0.900
P <sub>dh Tj = +2°C</sub>	6.51 kW	6.51 kW
COP T <sub>j</sub> = +2°C	4.20	3.06
C <sub>dh Tj = +2 °C</sub>	0.900	0.900
P <sub>dh Tj = +7°C</sub>	4.19 kW	4.19 kW
COP T <sub>j</sub> = +7°C	6.13	4.56
C <sub>dh Tj = +7 °C</sub>	0.900	0.900
P <sub>dh Tj = 12°C</sub>	3.99 kW	3.65 kW
COP T <sub>j</sub> = 12°C	8.62	6.26
C <sub>dh Tj = +12 °C</sub>	0.900	0.900
P <sub>dh Tj = T<sub>biv</sub></sub>	10.70 kW	10.70 kW
COP T <sub>j</sub> = T <sub>biv</sub>	2.96	2.15
P <sub>dh Tj = TOL or P<sub>dh Tj = T<sub>designh</sub></sub> if TOL &lt; T<sub>designh</sub></sub>	12.10 kW	10.59 kW
COP T <sub>j</sub> = TOL or COP T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	2.89	2.02
C <sub>dh Tj = TOL or P<sub>dh Tj = T<sub>designh</sub></sub> if TOL &lt; T<sub>designh</sub></sub>	0.900	0.900
WTOL	55 °C	55 °C
P <sub>off</sub>	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 Q <sub>he</sub>	5508 kWh	7548 kWh

**EN 14825 | Cooling**

	+7°C/+12°C	+18°C/+23°C
P <sub>designc</sub>	9.00 kW	10.00 kW
SEER	4.76	7.61
P <sub>dc Tj = 35°C</sub>	9.00 kW	10.00 kW
EER T <sub>j</sub> = 35°C	3.05	4.16
C <sub>dc Tj = 35 °C</sub>	0.900	0.900

Pdc Tj = 30°C	6.63 kW	7.40 kW
EER Tj = 30°C	4.22	6.91
Cdc Tj = 30 °C	0.900	0.900
Pdc Tj = 25°C	4.26 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	1134 kWh	789 kWh