

Subtype RASM-5(V)TW2E

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	RASM-5(V)TW2E
Registration number	041-K002-80
Heat Pump Type	Outdoor Air/Water
Refrigerant	R290
Mass of Refrigerant	1.2 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 RASM-5VTW2E & ATW-CBX-01 - Heating Only**

Model name	RASM-5VTW2E & ATW-CBX-01 - Heating Only
Application	Heating (medium temp)
Units	Outdoor
Climate zone (for heating)	n/a
Reversibility	Yes
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	12.00 kW	12.00 kW
El input	2.85 kW	3.64 kW
COP	4.21	3.30

**EN 12102-1 | Average Climate**

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

**EN 14825 | Average Climate**

	Low temperature	Medium temperature
$\eta_s$	178 %	139 %
Prated	12.00 kW	12.00 kW
SCOP	4.53	3.55
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	10.60 kW	10.60 kW
COP Tj = -7°C	2.85	2.17
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	6.50 kW	6.50 kW
COP Tj = +2°C	4.25	3.30
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	5.00 kW	5.00 kW

COP Tj = +7°C	6.73	5.37
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	5.40 kW	5.20 kW
COP Tj = 12°C	9.21	7.69
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	10.60 kW	10.60 kW
COP Tj = Tbiv	2.85	2.17
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.20 kW	10.90 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.57	1.75
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	75 °C	75 °C
Poff	13 W	13 W
PTO	13 W	13 W
PSB	13 W	13 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	n/a	n/a
Supplementary Heater: PSUP	1.80 kW	1.10 kW
Annual energy consumption Qhe	5472 kWh	6979 kWh

**Model RASM-5TW2E & ATW-CBX-01 - Heating Only**

Model name	RASM-5TW2E & ATW-CBX-01 - Heating Only
Application	Heating (medium temp)
Units	Outdoor
Climate zone (for heating)	n/a
Reversibility	Yes
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	12.00 kW	12.00 kW
El input	2.85 kW	3.64 kW
COP	4.21	3.30

**EN 12102-1 | Average Climate**

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

**EN 14825 | Average Climate**

	Low temperature	Medium temperature
$\eta_s$	178 %	139 %
Prated	12.00 kW	12.00 kW
SCOP	4.53	3.55
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	10.60 kW	10.60 kW
COP Tj = -7°C	2.85	2.17
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	6.50 kW	6.50 kW
COP Tj = +2°C	4.25	3.30
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	5.00 kW	4.90 kW

COP Tj = +7°C	6.73	5.37
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	5.40 kW	5.00 kW
COP Tj = 12°C	9.21	7.69
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	10.60 kW	10.60 kW
COP Tj = Tbiv	2.85	2.17
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.20 kW	10.90 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.57	1.75
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	75 °C	75 °C
Poff	13 W	13 W
PTO	13 W	13 W
PSB	13 W	13 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	n/a	n/a
Supplementary Heater: PSUP	1.80 kW	1.10 kW
Annual energy consumption Qhe	5472 kWh	6979 kWh

**Model RASM-5VTW2E & HWM-W2E - Heating Only**

Model name	RASM-5VTW2E & HWM-W2E - Heating Only
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	n/a
Reversibility	Yes
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	12.00 kW	12.00 kW
El input	2.85 kW	3.64 kW
COP	4.21	3.30

**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
$\eta_s$	178 %	139 %
Prated	12.00 kW	12.00 kW
SCOP	4.53	3.55
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	10.60 kW	10.60 kW
COP Tj = -7°C	2.85	2.17
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	6.50 kW	6.50 kW
COP Tj = +2°C	4.25	3.30
Cdh Tj = +2 °C	0.900	0.900

Pdh Tj = +7°C	5.00 kW	5.00 kW
COP Tj = +7°C	6.73	5.37
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	5.40 kW	5.20 kW
COP Tj = 12°C	9.21	7.69
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	10.60 kW	10.60 kW
COP Tj = Tbiv	2.85	2.17
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.20 kW	10.90 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.57	1.75
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	75 °C	75 °C
Poff	13 W	13 W
PTO	13 W	13 W
PSB	13 W	13 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.80 kW	1.10 kW
Annual energy consumption Qhe	5472 kWh	6979 kWh

**Model RASM-5TW2E & HWM-W2E - Heating Only**

Model name	RASM-5TW2E & HWM-W2E - Heating Only
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	n/a
Reversibility	Yes
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	12.00 kW	12.00 kW
El input	2.85 kW	3.64 kW
COP	4.21	3.30

**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
$\eta_s$	178 %	139 %
Prated	12.00 kW	12.00 kW
SCOP	4.53	3.55
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	10.60 kW	10.60 kW
COP Tj = -7°C	2.85	2.17
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	6.50 kW	6.50 kW
COP Tj = +2°C	4.25	3.30
Cdh Tj = +2 °C	0.900	0.900

Pdh Tj = +7°C	5.00 kW	5.00 kW
COP Tj = +7°C	6.73	5.37
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	5.40 kW	5.20 kW
COP Tj = 12°C	9.21	7.69
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	10.60 kW	10.60 kW
COP Tj = Tbiv	2.85	2.17
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.20 kW	10.90 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.57	1.75
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	75 °C	75 °C
Poff	13 W	13 W
PTO	13 W	13 W
PSB	13 W	13 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.80 kW	1.10 kW
Annual energy consumption Qhe	5472 kWh	6979 kWh

**Model RASM-5VTW2E - HWM-W2E-B - Heating Only**

Model name	RASM-5VTW2E - HWM-W2E-B - Heating Only
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	n/a
Reversibility	Yes
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	12.00 kW	12.00 kW
El input	2.85 kW	3.64 kW
COP	4.21	3.30

**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
$\eta_s$	178 %	139 %
Prated	12.00 kW	12.00 kW
SCOP	4.53	3.55
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	10.60 kW	10.60 kW
COP Tj = -7°C	2.85	2.17
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	6.50 kW	6.50 kW
COP Tj = +2°C	4.25	3.30
Cdh Tj = +2 °C	0.900	0.900

Pdh Tj = +7°C	5.00 kW	5.00 kW
COP Tj = +7°C	6.73	5.37
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	5.40 kW	5.20 kW
COP Tj = 12°C	9.21	7.69
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	10.60 kW	10.60 kW
COP Tj = Tbiv	2.85	2.17
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.20 kW	10.90 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.57	1.75
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	75 °C	75 °C
Poff	13 W	13 W
PTO	13 W	13 W
PSB	13 W	13 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	n/a	n/a
Supplementary Heater: PSUP	1.80 kW	1.10 kW
Annual energy consumption Qhe	5472 kWh	6979 kWh

**Model RASM-5TW2E - HWM-W2E-B - Heating Only**

Model name	RASM-5TW2E - HWM-W2E-B - Heating Only
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	n/a
Reversibility	Yes
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	12.00 kW	12.00 kW
El input	2.85 kW	3.64 kW
COP	4.21	3.30

**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
$\eta_s$	178 %	139 %
Prated	12.00 kW	12.00 kW
SCOP	4.53	3.55
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	10.60 kW	10.60 kW
COP Tj = -7°C	2.85	2.17
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	6.50 kW	6.50 kW
COP Tj = +2°C	4.25	3.30
Cdh Tj = +2 °C	0.900	0.900

Pdh Tj = +7°C	5.00 kW	5.20 kW
COP Tj = +7°C	6.73	5.37
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	5.40 kW	5.00 kW
COP Tj = 12°C	9.21	7.69
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	10.60 kW	10.60 kW
COP Tj = Tbiv	2.85	2.17
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.20 kW	10.90 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.57	1.75
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	75 °C	75 °C
Poff	13 W	13 W
PTO	13 W	13 W
PSB	13 W	13 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	n/a	n/a
Supplementary Heater: PSUP	1.80 kW	1.10 kW
Annual energy consumption Qhe	5472 kWh	6979 kWh

**Model RASM-5VTW2E & HWD-W2E-220S(-K) - Heating Only**

Model name	RASM-5VTW2E & HWD-W2E-220S(-K) - Heating Only
Application	Heating + DHW
Units	Indoor, Outdoor
Climate zone (for heating)	n/a
Reversibility	Yes
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 $\eta_{DHW}$	118 %
COP	2.88
Heating up time	1:30 h:min
Standby power input	41.0 W
Reference hot water temperature	52.0 °C
Mixed water at 40°C	288 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	14.00 kW	12.00 kW
El input	3.41 kW	3.64 kW
COP	4.10	3.30

**EN 12102-1 | Average Climate**

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	62 dB(A)	53 dB(A)

**EN 14825 | Average Climate**

	Low temperature	Medium temperature
$\eta_S$	177 %	139 %

Prated	12.00 kW	12.00 kW
SCOP	4.51	3.55
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	10.60 kW	10.60 kW
COP Tj = -7°C	2.72	2.17
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	6.50 kW	6.50 kW
COP Tj = +2°C	4.24	3.30
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	5.00 kW	5.20 kW
COP Tj = +7°C	6.80	5.37
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	5.00 kW	5.00 kW
COP Tj = 12°C	8.92	7.69
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	10.60 kW	10.60 kW
COP Tj = Tbiv	2.72	2.17
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.60 kW	10.90 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.72	1.75
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	75 °C	75 °C
Poff	13 W	13 W
PTO	13 W	13 W
PSB	13 W	13 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	n/a	Electricity
Supplementary Heater: PSUP	1.38 kW	1.10 kW
Annual energy consumption Qhe	5502 kWh	6979 kWh

**Model RASM-5TW2E & HWD-W2E-220S(-K) - Heating Only**

Model name	RASM-5TW2E & HWD-W2E-220S(-K) - Heating Only
Application	Heating + DHW
Units	Indoor, Outdoor
Climate zone (for heating)	n/a
Reversibility	Yes
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 $\eta_{DHW}$	118 %
COP	2.88
Heating up time	1:30 h:min
Standby power input	41.0 W
Reference hot water temperature	52.0 °C
Mixed water at 40°C	288 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	14.00 kW	12.00 kW
El input	3.41 kW	3.64 kW
COP	4.10	3.30

**EN 12102-1 | Average Climate**

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)
Sound power level outdoor	62 dB(A)	53 dB(A)

**EN 14825 | Average Climate**

	Low temperature	Medium temperature
$\eta_S$	177 %	139 %

Prated	12.00 kW	12.00 kW
SCOP	4.51	3.55
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	10.60 kW	10.60 kW
COP Tj = -7°C	2.72	2.17
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	6.50 kW	6.50 kW
COP Tj = +2°C	4.24	3.30
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	5.00 kW	5.20 kW
COP Tj = +7°C	6.80	5.37
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	5.00 kW	5.00 kW
COP Tj = 12°C	8.92	7.69
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	10.60 kW	10.60 kW
COP Tj = Tbiv	2.72	2.17
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.60 kW	10.90 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.72	1.75
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	75 °C	75 °C
Poff	13 W	13 W
PTO	13 W	13 W
PSB	13 W	13 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	n/a	Electricity
Supplementary Heater: PSUP	1.38 kW	1.10 kW
Annual energy consumption Qhe	5502 kWh	6979 kWh

**Model RASM-5VTW2E & ATW-CBX-01 - With Cooling Kit**

Model name	RASM-5VTW2E & ATW-CBX-01 - With Cooling Kit
Application	Heating (medium temp)
Units	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	12.00 kW	12.00 kW
El input	2.85 kW	3.64 kW
COP	4.21	3.30

**EN 14511-2 | Cooling**

	+7°C/+12°C	+18°C/+23°C
El input	3.72 kW	3.59 kW
Cooling capacity	11.00	12.00
EER	2.96	3.34

**EN 12102-1 | Average Climate**

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

**EN 14825 | Average Climate**

	Low temperature	Medium temperature
ηs	180 %	140 %
Prated	12.00 kW	12.00 kW
SCOP	4.57	3.58
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C

Pdh Tj = -7°C	10.60 kW	10.60 kW
COP Tj = -7°C	2.85	2.17
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	6.50 kW	6.50 kW
COP Tj = +2°C	4.25	3.30
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	5.00 kW	5.20 kW
COP Tj = +7°C	6.73	5.37
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	5.40 kW	5.00 kW
COP Tj = 12°C	9.21	7.69
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	10.60 kW	10.60 kW
COP Tj = Tbiv	2.85	2.17
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.20 kW	10.90 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.57	1.75
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	75 °C	75 °C
Poff	13 W	13 W
PTO	13 W	13 W
PSB	13 W	13 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	n/a	n/a
Supplementary Heater: PSUP	1.80 kW	1.10 kW
Annual energy consumption Qhe	5424 kWh	6932 kWh

#### EN 14825 | Cooling

	+7°C/+12°C	+18°C/+23°C
Pdesignc	11.00 kW	12.00 kW
SEER	3.88	5.72
Pdc Tj = 35°C	11.00 kW	12.00 kW
EER Tj = 35°C	2.96	3.34
Cdc Tj = 35 °C	0.900	0.900
Pdc Tj = 30°C	8.10 kW	8.90 kW
EER Tj = 30°C	3.81	5.39
Cdc Tj = 30 °C	0.900	0.900
Pdc Tj = 25°C	5.20 kW	5.60 kW
EER Tj = 25°C	4.22	6.74
Cdc Tj = 25 °C	0.900	0.900
Pdc Tj = 20°C	4.20 kW	4.70 kW
EER Tj = 20°C	4.34	6.76
Cdc Tj = 20 °C	0.900	0.900
Poff	13 W	13 W

PTO	0 W	0 W
PSB	13 W	13 W
PCK	0 W	0 W
Annual energy consumption Qce	1703 kWh	1258 kWh

**Model RASM-5TW2E & ATW-CBX-01 - With Cooling Kit**

Model name	RASM-5TW2E & ATW-CBX-01 - With Cooling Kit
Application	Heating (medium temp)
Units	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	12.00 kW	12.00 kW
El input	2.85 kW	3.64 kW
COP	4.21	3.30

**EN 14511-2 | Cooling**

	+7°C/+12°C	+18°C/+23°C
El input	3.72 kW	3.59 kW
Cooling capacity	11.00	12.00
EER	2.96	3.34

**EN 12102-1 | Average Climate**

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

**EN 14825 | Average Climate**

	Low temperature	Medium temperature
ηs	180 %	140 %
Prated	12.00 kW	12.00 kW
SCOP	4.57	3.58
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C

Pdh Tj = -7°C	10.60 kW	10.60 kW
COP Tj = -7°C	2.85	2.17
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	6.50 kW	6.50 kW
COP Tj = +2°C	4.25	3.30
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	5.00 kW	5.00 kW
COP Tj = +7°C	6.73	5.37
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	5.40 kW	5.20 kW
COP Tj = 12°C	9.21	7.69
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	10.60 kW	10.60 kW
COP Tj = Tbiv	2.85	2.17
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.20 kW	10.90 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.57	1.75
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	75 °C	75 °C
Poff	13 W	13 W
PTO	13 W	13 W
PSB	13 W	13 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	n/a	n/a
Supplementary Heater: PSUP	1.80 kW	1.10 kW
Annual energy consumption Qhe	5424 kWh	6932 kWh

### EN 14825 | Cooling

	+7°C/+12°C	+18°C/+23°C
Pdesignc	11.00 kW	12.00 kW
SEER	3.88	5.72
Pdc Tj = 35°C	11.00 kW	12.00 kW
EER Tj = 35°C	2.96	3.34
Cdc Tj = 35 °C	0.900	0.900
Pdc Tj = 30°C	8.10 kW	8.90 kW
EER Tj = 30°C	3.81	5.39
Cdc Tj = 30 °C	0.900	0.900
Pdc Tj = 25°C	5.20 kW	5.60 kW
EER Tj = 25°C	4.22	6.74
Cdc Tj = 25 °C	0.900	0.900
Pdc Tj = 20°C	4.20 kW	4.70 kW
EER Tj = 20°C	4.34	6.76
Cdc Tj = 20 °C	0.900	0.900
Poff	13 W	13 W

PTO	0 W	0 W
PSB	13 W	13 W
PCK	0 W	0 W
Annual energy consumption Qce	1703 kWh	1258 kWh

**Model RASM-5VTW2E & HWM-W2E - With Cooling Kit**

Model name	RASM-5VTW2E & HWM-W2E - 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	12.00 kW	12.00 kW
El input	2.85 kW	3.64 kW
COP	4.21	3.30

**EN 14511-2 | Cooling**

	+7°C/+12°C	+18°C/+23°C
El input	3.72 kW	3.59 kW
Cooling capacity	11.00	12.00
EER	2.96	3.34

**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	180 %	140 %
Prated	12.00 kW	12.00 kW
SCOP	4.57	3.58
Tbiv	-7 °C	-7 °C

TOL	-10 °C	-10 °C
Pdh Tj = -7°C	10.60 kW	10.60 kW
COP Tj = -7°C	2.85	2.17
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	6.50 kW	6.50 kW
COP Tj = +2°C	4.25	3.30
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	5.00 kW	5.20 kW
COP Tj = +7°C	6.73	5.37
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	5.40 kW	5.00 kW
COP Tj = 12°C	9.21	7.69
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	10.60 kW	10.60 kW
COP Tj = Tbiv	2.85	2.17
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.20 kW	10.90 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.57	1.75
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	75 °C	75 °C
Poff	13 W	13 W
PTO	13 W	13 W
PSB	13 W	13 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.80 kW	1.10 kW
Annual energy consumption Qhe	5424 kWh	6932 kWh

**EN 14825 | Cooling**

	+7°C/+12°C	+18°C/+23°C
Pdesignc	11.00 kW	12.00 kW
SEER	3.88	5.72
Pdc Tj = 35°C	11.00 kW	12.00 kW
EER Tj = 35°C	2.96	3.34
Cdc Tj = 35 °C	0.900	0.900
Pdc Tj = 30°C	8.10 kW	8.90 kW
EER Tj = 30°C	3.81	5.39
Cdc Tj = 30 °C	0.900	0.900
Pdc Tj = 25°C	5.20 kW	5.60 kW
EER Tj = 25°C	4.22	6.74
Cdc Tj = 25 °C	0.900	0.900
Pdc Tj = 20°C	4.20 kW	4.70 kW
EER Tj = 20°C	4.34	6.76
Cdc Tj = 20 °C	0.900	0.900

Poff	13 W	13 W
PTO	0 W	0 W
PSB	13 W	13 W
PCK	0 W	0 W
Annual energy consumption Qce	1703 kWh	1258 kWh

**Model RASM-5TW2E & HWM-W2E - With Cooling Kit**

Model name	RASM-5TW2E & HWM-W2E - 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	12.00 kW	12.00 kW
El input	2.85 kW	3.64 kW
COP	4.21	3.30

**EN 14511-2 | Cooling**

	+7°C/+12°C	+18°C/+23°C
El input	3.72 kW	3.59 kW
Cooling capacity	11.00	12.00
EER	2.96	3.34

**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	180 %	140 %
Prated	12.00 kW	12.00 kW
SCOP	4.57	3.58
Tbiv	-7 °C	-7 °C

TOL	-10 °C	-10 °C
Pdh Tj = -7°C	10.60 kW	10.60 kW
COP Tj = -7°C	2.85	2.17
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	6.50 kW	6.50 kW
COP Tj = +2°C	4.25	3.30
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	5.00 kW	5.20 kW
COP Tj = +7°C	6.73	5.37
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	5.40 kW	5.00 kW
COP Tj = 12°C	9.21	7.69
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	10.60 kW	10.60 kW
COP Tj = Tbiv	2.85	2.17
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.20 kW	10.90 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.57	1.75
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	75 °C	75 °C
Poff	13 W	13 W
PTO	13 W	13 W
PSB	13 W	13 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.80 kW	1.10 kW
Annual energy consumption Qhe	5424 kWh	6932 kWh

**EN 14825 | Cooling**

	+7°C/+12°C	+18°C/+23°C
Pdesignc	11.00 kW	12.00 kW
SEER	3.88	5.72
Pdc Tj = 35°C	11.00 kW	12.00 kW
EER Tj = 35°C	2.96	3.34
Cdc Tj = 35 °C	0.900	0.900
Pdc Tj = 30°C	8.10 kW	8.90 kW
EER Tj = 30°C	3.81	5.39
Cdc Tj = 30 °C	0.900	0.900
Pdc Tj = 25°C	5.20 kW	5.60 kW
EER Tj = 25°C	4.22	6.74
Cdc Tj = 25 °C	0.900	0.900
Pdc Tj = 20°C	4.20 kW	4.70 kW
EER Tj = 20°C	4.34	6.76
Cdc Tj = 20 °C	0.900	0.900

Poff	13 W	13 W
PTO	0 W	0 W
PSB	13 W	13 W
PCK	0 W	0 W
Annual energy consumption Qce	1703 kWh	1258 kWh

**Model RASM-5VTW2E & HWM-W2E-B - With Cooling Kit**

Model name	RASM-5VTW2E & HWM-W2E-B - 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	12.00 kW	12.00 kW
El input	2.85 kW	3.64 kW
COP	4.21	3.30

**EN 14511-2 | Cooling**

	+7°C/+12°C	+18°C/+23°C
El input	3.72 kW	3.59 kW
Cooling capacity	11.00	12.00
EER	2.96	3.34

**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	180 %	140 %
Prated	12.00 kW	12.00 kW
SCOP	4.57	3.58
Tbiv	-7 °C	-7 °C

TOL	-10 °C	-10 °C
Pdh Tj = -7°C	10.60 kW	10.60 kW
COP Tj = -7°C	2.85	2.17
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	6.50 kW	6.50 kW
COP Tj = +2°C	4.25	3.30
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	5.00 kW	5.20 kW
COP Tj = +7°C	6.73	5.37
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	5.40 kW	5.00 kW
COP Tj = 12°C	9.21	7.69
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	10.60 kW	10.60 kW
COP Tj = Tbiv	2.85	2.17
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.20 kW	10.90 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.57	1.75
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	75 °C	75 °C
Poff	13 W	13 W
PTO	13 W	13 W
PSB	13 W	13 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	n/a	n/a
Supplementary Heater: PSUP	1.80 kW	1.10 kW
Annual energy consumption Qhe	5424 kWh	6932 kWh

**EN 14825 | Cooling**

	+7°C/+12°C	+18°C/+23°C
Pdesignc	11.00 kW	12.00 kW
SEER	3.88	5.72
Pdc Tj = 35°C	11.00 kW	12.00 kW
EER Tj = 35°C	2.96	3.34
Cdc Tj = 35 °C	0.900	0.900
Pdc Tj = 30°C	8.10 kW	8.90 kW
EER Tj = 30°C	3.81	5.39
Cdc Tj = 30 °C	0.900	0.900
Pdc Tj = 25°C	5.20 kW	5.60 kW
EER Tj = 25°C	4.22	6.74
Cdc Tj = 25 °C	0.900	0.900
Pdc Tj = 20°C	4.20 kW	4.70 kW
EER Tj = 20°C	4.34	6.76
Cdc Tj = 20 °C	0.900	0.900

Poff	13 W	13 W
PTO	0 W	0 W
PSB	13 W	13 W
PCK	0 W	0 W
Annual energy consumption Qce	1703 kWh	1258 kWh

**Model RASM-5TW2E & HWM-W2E-B - With Cooling Kit**

Model name	RASM-5TW2E & HWM-W2E-B - 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	12.00 kW	12.00 kW
El input	2.85 kW	3.64 kW
COP	4.21	3.30

**EN 14511-2 | Cooling**

	+7°C/+12°C	+18°C/+23°C
El input	3.72 kW	3.59 kW
Cooling capacity	11.00	12.00
EER	2.96	3.34

**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	180 %	140 %
Prated	12.00 kW	12.00 kW
SCOP	4.57	3.58
Tbiv	-7 °C	-7 °C

TOL	-10 °C	-10 °C
Pdh Tj = -7°C	10.60 kW	10.60 kW
COP Tj = -7°C	2.85	2.17
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	6.50 kW	6.50 kW
COP Tj = +2°C	4.25	3.30
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	5.00 kW	5.20 kW
COP Tj = +7°C	6.73	5.37
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	5.40 kW	5.00 kW
COP Tj = 12°C	9.21	7.69
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	10.60 kW	10.60 kW
COP Tj = Tbiv	2.85	2.17
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.20 kW	10.90 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.57	1.75
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	75 °C	75 °C
Poff	13 W	13 W
PTO	13 W	13 W
PSB	13 W	13 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	n/a	n/a
Supplementary Heater: PSUP	1.80 kW	1.10 kW
Annual energy consumption Qhe	5424 kWh	6932 kWh

**EN 14825 | Cooling**

	+7°C/+12°C	+18°C/+23°C
Pdesignc	11.00 kW	12.00 kW
SEER	3.88	5.72
Pdc Tj = 35°C	11.00 kW	12.00 kW
EER Tj = 35°C	2.96	3.34
Cdc Tj = 35 °C	0.900	0.900
Pdc Tj = 30°C	8.10 kW	8.90 kW
EER Tj = 30°C	3.81	5.39
Cdc Tj = 30 °C	0.900	0.900
Pdc Tj = 25°C	5.20 kW	5.60 kW
EER Tj = 25°C	4.22	6.74
Cdc Tj = 25 °C	0.900	0.900
Pdc Tj = 20°C	4.20 kW	4.70 kW
EER Tj = 20°C	4.34	6.76
Cdc Tj = 20 °C	0.900	0.900

Poff	13 W	13 W
PTO	0 W	0 W
PSB	13 W	13 W
PCK	0 W	0 W
Annual energy consumption Qce	1703 kWh	1258 kWh

**Model RASM-5VTW2E & HWD-W2E-220S(-K) - With Cooling Kit**

Model name	RASM-5VTW2E & HWD-W2E-220S(-K) - With Cooling Kit
Application	Heating + DHW
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	118 %
COP	2.88
Heating up time	1:30 h:min
Standby power input	41.0 W
Reference hot water temperature	52.0 °C
Mixed water at 40°C	288 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	14.00 kW	12.00 kW
El input	3.41 kW	3.64 kW
COP	4.10	3.30

**EN 14511-2 | Cooling**

	+7°C/+12°C	+18°C/+23°C
El input	3.72 kW	3.59 kW
Cooling capacity	11.00	12.00
EER	2.96	3.34

**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	62 dB(A)	53 dB(A)

**EN 14825 | Average Climate**

	Low temperature	Medium temperature
$\eta_s$	179 %	140 %
P <sub>rated</sub>	12.00 kW	12.00 kW
SCOP	4.55	3.58
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh Tj = -7°C</sub>	10.60 kW	10.60 kW
COP T <sub>j</sub> = -7°C	2.72	2.17
C <sub>dh Tj = -7 °C</sub>	0.900	0.900
P <sub>dh Tj = +2°C</sub>	6.50 kW	6.50 kW
COP T <sub>j</sub> = +2°C	4.24	3.30
C <sub>dh Tj = +2 °C</sub>	0.900	0.900
P <sub>dh Tj = +7°C</sub>	5.00 kW	5.20 kW
COP T <sub>j</sub> = +7°C	6.80	5.37
C <sub>dh Tj = +7 °C</sub>	0.900	0.900
P <sub>dh Tj = 12°C</sub>	5.00 kW	5.00 kW
COP T <sub>j</sub> = 12°C	8.92	7.69
C <sub>dh Tj = +12 °C</sub>	0.900	0.900
P <sub>dh Tj = T<sub>biv</sub></sub>	10.60 kW	10.60 kW
COP T <sub>j</sub> = T <sub>biv</sub>	2.72	2.17
P <sub>dh Tj = TOL or P<sub>dh Tj = T<sub>designh</sub></sub> if TOL &lt; T<sub>designh</sub></sub>	10.60 kW	10.90 kW
COP T <sub>j</sub> = TOL or COP T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	2.72	1.75
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	75 °C	75 °C
P <sub>off</sub>	13 W	13 W
PTO	13 W	13 W
PSB	13 W	13 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	n/a	Electricity
Supplementary Heater: PSUP	1.38 kW	1.10 kW
Annual energy consumption Q <sub>he</sub>	5454 kWh	6932 kWh

**EN 14825 | Cooling**

	+7°C/+12°C	+18°C/+23°C
P <sub>designc</sub>	11.00 kW	12.00 kW
SEER	3.88	5.72
P <sub>dc Tj = 35°C</sub>	11.00 kW	12.00 kW
EER T <sub>j</sub> = 35°C	2.96	3.34
C <sub>dc Tj = 35 °C</sub>	0.900	0.900

Pdc Tj = 30°C	8.10 kW	8.90 kW
EER Tj = 30°C	3.81	5.39
Cdc Tj = 30 °C	0.900	0.900
Pdc Tj = 25°C	5.20 kW	5.60 kW
EER Tj = 25°C	4.22	6.74
Cdc Tj = 25 °C	0.900	0.900
Pdc Tj = 20°C	4.20 kW	4.70 kW
EER Tj = 20°C	4.34	6.76
Cdc Tj = 20 °C	0.900	0.900
Poff	13 W	13 W
PTO	0 W	0 W
PSB	13 W	13 W
PCK	0 W	0 W
Annual energy consumption Qce	1703 kWh	1258 kWh

**Model RASM-5TW2E & HWD-W2E-220S(-K) - With Cooling Kit**

Model name	RASM-5TW2E & HWD-W2E-220S(-K) - With Cooling Kit
Application	Heating + DHW
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	118 %
COP	2.88
Heating up time	1:30 h:min
Standby power input	41.0 W
Reference hot water temperature	52.0 °C
Mixed water at 40°C	288 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	14.00 kW	12.00 kW
El input	3.41 kW	3.64 kW
COP	4.10	3.30

**EN 14511-2 | Cooling**

	+7°C/+12°C	+18°C/+23°C
El input	3.72 kW	3.59 kW
Cooling capacity	11.00	12.00
EER	2.96	3.34

**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	62 dB(A)	53 dB(A)

**EN 14825 | Average Climate**

	Low temperature	Medium temperature
$\eta_s$	179 %	140 %
P <sub>rated</sub>	12.00 kW	12.00 kW
SCOP	4.55	3.58
T <sub>biv</sub>	-7 °C	-7 °C
TOL	-10 °C	-10 °C
P <sub>dh Tj = -7°C</sub>	10.60 kW	10.60 kW
COP T <sub>j</sub> = -7°C	2.72	2.17
C <sub>dh Tj = -7 °C</sub>	0.900	0.900
P <sub>dh Tj = +2°C</sub>	6.50 kW	6.50 kW
COP T <sub>j</sub> = +2°C	4.24	3.30
C <sub>dh Tj = +2 °C</sub>	0.900	0.900
P <sub>dh Tj = +7°C</sub>	5.00 kW	5.20 kW
COP T <sub>j</sub> = +7°C	6.80	5.37
C <sub>dh Tj = +7 °C</sub>	0.900	0.900
P <sub>dh Tj = 12°C</sub>	5.00 kW	5.00 kW
COP T <sub>j</sub> = 12°C	8.92	7.69
C <sub>dh Tj = +12 °C</sub>	0.900	0.900
P <sub>dh Tj = T<sub>biv</sub></sub>	10.60 kW	10.60 kW
COP T <sub>j</sub> = T <sub>biv</sub>	2.72	2.17
P <sub>dh Tj = TOL or P<sub>dh Tj = T<sub>designh</sub></sub> if TOL &lt; T<sub>designh</sub></sub>	10.60 kW	10.90 kW
COP T <sub>j</sub> = TOL or COP T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	2.72	1.75
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	75 °C	75 °C
P <sub>off</sub>	13 W	13 W
PTO	13 W	13 W
PSB	13 W	13 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	n/a	Electricity
Supplementary Heater: PSUP	1.38 kW	1.10 kW
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**EN 14825 | Cooling**

	+7°C/+12°C	+18°C/+23°C
P <sub>designc</sub>	11.00 kW	12.00 kW
SEER	3.88	5.72
P <sub>dc Tj = 35°C</sub>	11.00 kW	12.00 kW
EER T <sub>j</sub> = 35°C	2.96	3.34
C <sub>dc Tj = 35 °C</sub>	0.900	0.900

Pdc Tj = 30°C	8.10 kW	8.90 kW
EER Tj = 30°C	3.81	5.39
Cdc Tj = 30 °C	0.900	0.900
Pdc Tj = 25°C	5.20 kW	5.60 kW
EER Tj = 25°C	4.22	6.74
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Pdc Tj = 20°C	4.20 kW	4.70 kW
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PTO	0 W	0 W
PSB	13 W	13 W
PCK	0 W	0 W
Annual energy consumption Qce	1703 kWh	1258 kWh