

## Subtype VERSI 0209

Certificate Holder	KRONOTERM d.o.o.
Address	Trnava 5e
ZIP	3303
City	Gomilsko
Country	SI
Certification Body	DIN CERTCO Gesellschaft für Konformitätsbewertung mbH
Subtype title	VERSI 0209
Registration number	011-1W0519
Heat Pump Type	Outdoor Air/Water
Refrigerant	R452B
Mass of Refrigerant	1.5 kg
Certification Date	18.01.2022
Testing basis	HP KEYMARK certification scheme rules rev. 9

## Model VERSI-I 0209-K1 HT / HK UF E

Model name	VERSI-I 0209-K1 HT / HK UF E
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Colder, Warmer
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 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	36 dB(A)	42 dB(A)
Sound power level outdoor	45 dB(A)	45 dB(A)

### EN 14825 | Average Climate

	Low temperature	Medium temperature
$\eta_s$	186 %	141 %
Prated	6.50 kW	6.10 kW
SCOP	4.84	3.66
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	5.76 kW	5.46 kW
COP Tj = -7°C	3.05	2.32
Cdh Tj = -7 °C	1.000	1.000
Pdh Tj = +2°C	3.57 kW	3.30 kW
COP Tj = +2°C	5.01	3.71
Cdh Tj = +2 °C	0.990	0.990
Pdh Tj = +7°C	2.45 kW	2.20 kW
COP Tj = +7°C	5.79	4.30
Cdh Tj = +7 °C	0.980	0.990
Pdh Tj = 12°C	2.72 kW	2.53 kW
COP Tj = 12°C	6.62	5.82
Cdh Tj = +12 °C	0.980	0.980
Pdh Tj = Tbiv	6.20 kW	6.07 kW

COP Tj = Tbiv	2.78	2.16
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.20 kW	6.07 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.78	2.16
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	67 °C	67 °C
Poff	8 W	8 W
PTO	8 W	8 W
PSB	8 W	8 W
PCK	8 W	8 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.30 kW	0.03 kW
Annual energy consumption Qhe	2773 kWh	3441 kWh

#### EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	36 dB(A)	42 dB(A)
Sound power level outdoor	45 dB(A)	45 dB(A)

#### EN 14825 | Colder Climate

	Low temperature	Medium temperature
$\eta_s$	169 %	119 %
Prated	7.00 kW	6.40 kW
SCOP	4.31	3.17
Tbiv	-17 °C	-17 °C
TOL	-22 °C	-17 °C
Pdh Tj = -7°C	4.38 kW	3.98 kW
COP Tj = -7°C	3.66	2.82
Cdh Tj = -7 °C	0.990	1.000
Pdh Tj = +2°C	2.67 kW	2.35 kW
COP Tj = +2°C	5.22	3.63
Cdh Tj = +2 °C	0.990	0.990
Pdh Tj = +7°C	2.48 kW	2.30 kW
COP Tj = +7°C	6.38	4.92
Cdh Tj = +7 °C	0.980	0.980
Pdh Tj = 12°C	2.72 kW	2.70 kW
COP Tj = 12°C	6.62	6.80
Cdh Tj = +12 °C	0.980	0.980
Pdh Tj = Tbiv	6.15 kW	5.59 kW
COP Tj = Tbiv	2.47	1.94
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	5.51 kW	5.59 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.20	1.94

Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	67 °C	67 °C
Poff	8 W	8 W
PTO	8 W	8 W
PSB	8 W	8 W
PCK	8 W	8 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.49 kW	6.40 kW
Annual energy consumption Qhe	4003 kWh	4984 kWh
Pdh Tj = -15°C (if TOL	5.55	5.22
COP Tj = -15°C (if TOL	2.48	1.90
Cdh Tj = -15 °C	1.000	1.000

#### EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	36 dB(A)	42 dB(A)
Sound power level outdoor	45 dB(A)	45 dB(A)

#### EN 14825 | Warmer Climate

	Low temperature	Medium temperature
$\eta_s$	239 %	179 %
Prated	6.00 kW	5.90 kW
SCOP	6.10	4.57
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	5.68 kW	5.58 kW
COP Tj = +2°C	3.52	2.57
Cdh Tj = +2 °C	1.000	1.000
Pdh Tj = +7°C	4.19 kW	3.93 kW
COP Tj = +7°C	5.85	4.03
Cdh Tj = +7 °C	0.990	0.990
Pdh Tj = 12°C	2.69 kW	2.59 kW
COP Tj = 12°C	6.91	5.61
Cdh Tj = +12 °C	0.980	0.980
Pdh Tj = Tbiv	5.68 kW	5.58 kW
COP Tj = Tbiv	3.52	2.57
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	5.68 kW	5.58 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.52	2.57
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	67 °C	67 °C
Poff	8 W	8 W
PTO	8 W	8 W

PSB	8 W	8 W
PCK	8 W	8 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.32 kW	0.32 kW
Annual energy consumption Q <sub>he</sub>	1326 kWh	1737 kWh

## Model VERSI-X 0209-K1 HT / HK 1F

Model name	VERSI-X 0209-K1 HT / HK 1F
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Colder, Warmer
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 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	36 dB(A)	42 dB(A)
Sound power level outdoor	45 dB(A)	45 dB(A)

### EN 14825 | Average Climate

	Low temperature	Medium temperature
$\eta_s$	186 %	141 %
Prated	6.50 kW	6.10 kW
SCOP	4.84	3.66
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	5.76 kW	5.46 kW
COP Tj = -7°C	3.05	2.32
Cdh Tj = -7 °C	1.000	1.000
Pdh Tj = +2°C	3.57 kW	3.30 kW
COP Tj = +2°C	5.01	3.71
Cdh Tj = +2 °C	0.990	0.990
Pdh Tj = +7°C	2.45 kW	2.20 kW
COP Tj = +7°C	5.79	4.30
Cdh Tj = +7 °C	0.980	0.980
Pdh Tj = 12°C	2.72 kW	2.53 kW
COP Tj = 12°C	6.62	5.82
Cdh Tj = +12 °C	0.980	0.980
Pdh Tj = Tbiv	6.20 kW	6.07 kW

COP $T_j = T_{biv}$	2.78	2.16
$P_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	6.20 kW	6.07 kW
COP $T_j = TOL$ or COP $T_j = T_{designh}$ if $TOL < T_{designh}$	2.78	2.16
$C_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	1.000	1.000
WTOL	67 °C	67 °C
P <sub>off</sub>	8 W	8 W
PTO	8 W	8 W
PSB	8 W	8 W
PCK	8 W	8 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.30 kW	0.03 kW
Annual energy consumption Q <sub>he</sub>	2773 kWh	3441 kWh

#### EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	36 dB(A)	42 dB(A)
Sound power level outdoor	45 dB(A)	45 dB(A)

#### EN 14825 | Colder Climate

	Low temperature	Medium temperature
$\eta_s$	169 %	119 %
Prated	7.00 kW	6.40 kW
SCOP	4.31	3.17
$T_{biv}$	-17 °C	-17 °C
TOL	-22 °C	-17 °C
$P_{dh} T_j = -7^\circ\text{C}$	4.38 kW	3.98 kW
COP $T_j = -7^\circ\text{C}$	3.66	2.82
$C_{dh} T_j = -7^\circ\text{C}$	0.990	1.000
$P_{dh} T_j = +2^\circ\text{C}$	2.67 kW	2.35 kW
COP $T_j = +2^\circ\text{C}$	5.22	3.63
$C_{dh} T_j = +2^\circ\text{C}$	0.990	0.990
$P_{dh} T_j = +7^\circ\text{C}$	2.48 kW	2.30 kW
COP $T_j = +7^\circ\text{C}$	6.38	4.92
$C_{dh} T_j = +7^\circ\text{C}$	0.980	0.980
$P_{dh} T_j = 12^\circ\text{C}$	2.72 kW	2.70 kW
COP $T_j = 12^\circ\text{C}$	6.62	6.80
$C_{dh} T_j = +12^\circ\text{C}$	0.980	0.980
$P_{dh} T_j = T_{biv}$	6.15 kW	5.59 kW
COP $T_j = T_{biv}$	2.47	1.94
$P_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	5.51 kW	5.59 kW
COP $T_j = TOL$ or COP $T_j = T_{designh}$ if $TOL < T_{designh}$	2.20	1.94

Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	67 °C	67 °C
Poff	8 W	8 W
PTO	8 W	8 W
PSB	8 W	8 W
PCK	8 W	8 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.49 kW	6.40 kW
Annual energy consumption Qhe	4003 kWh	4984 kWh
Pdh Tj = -15°C (if TOL	5.55	5.22
COP Tj = -15°C (if TOL	2.48	1.90
Cdh Tj = -15 °C	1.000	1.000

#### EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	36 dB(A)	42 dB(A)
Sound power level outdoor	45 dB(A)	45 dB(A)

#### EN 14825 | Warmer Climate

	Low temperature	Medium temperature
$\eta_s$	239 %	179 %
Prated	6.00 kW	5.90 kW
SCOP	6.10	4.57
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	5.68 kW	5.58 kW
COP Tj = +2°C	3.52	2.57
Cdh Tj = +2 °C	1.000	1.000
Pdh Tj = +7°C	4.19 kW	3.93 kW
COP Tj = +7°C	5.85	4.03
Cdh Tj = +7 °C	0.990	0.990
Pdh Tj = 12°C	2.69 kW	2.59 kW
COP Tj = 12°C	6.91	5.61
Cdh Tj = +12 °C	0.980	0.980
Pdh Tj = Tbiv	5.68 kW	5.58 kW
COP Tj = Tbiv	3.52	2.57
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	5.68 kW	5.58 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.52	2.57
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	67 °C	67 °C
Poff	8 W	8 W
PTO	8 W	8 W



PSB	8 W	8 W
PCK	8 W	8 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.32 kW	0.32 kW
Annual energy consumption Q <sub>he</sub>	1326 kWh	1737 kWh

## Model VERSI-O 0209-K1 HT / HK 1F

Model name	VERSI-O 0209-K1 HT / HK 1F
Application	Heating (medium temp)
Units	Outdoor
Climate zone (for heating)	Colder, Warmer
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 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level outdoor	43 dB(A)	44 dB(A)

### EN 14825 | Average Climate

	Low temperature	Medium temperature
$\eta_s$	191 %	138 %
Prated	6.40 kW	6.00 kW
SCOP	4.97	3.60
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	5.71 kW	5.38 kW
COP Tj = -7°C	3.26	2.21
Cdh Tj = -7 °C	1.000	1.000
Pdh Tj = +2°C	3.74 kW	3.51 kW
COP Tj = +2°C	5.25	3.56
Cdh Tj = +2 °C	0.990	0.990
Pdh Tj = +7°C	2.27 kW	2.20 kW
COP Tj = +7°C	5.55	4.54
Cdh Tj = +7 °C	0.980	0.980
Pdh Tj = 12°C	2.36 kW	2.40 kW
COP Tj = 12°C	6.65	5.85
Cdh Tj = +12 °C	0.980	0.980
Pdh Tj = Tbiv	6.11 kW	5.88 kW
COP Tj = Tbiv	2.76	2.04

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.11 kW	5.88 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.76	2.04
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	67 °C	67 °C
Poff	8 W	8 W
PTO	8 W	8 W
PSB	8 W	8 W
PCK	8 W	8 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.29 kW	0.12 kW
Annual energy consumption Qhe	2659 kWh	3446 kWh

#### EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level outdoor	43 dB(A)	44 dB(A)

#### EN 14825 | Colder Climate

	Low temperature	Medium temperature
$\eta_s$	166 %	117 %
Prated	7.00 kW	5.80 kW
SCOP	4.22	3.01
Tbiv	-17 °C	-17 °C
TOL	-22 °C	-17 °C
Pdh Tj = -7°C	4.41 kW	3.58 kW
COP Tj = -7°C	3.53	2.68
Cdh Tj = -7 °C	0.990	0.990
Pdh Tj = +2°C	2.72 kW	2.08 kW
COP Tj = +2°C	5.09	3.34
Cdh Tj = +2 °C	0.990	0.990
Pdh Tj = +7°C	2.12 kW	2.02 kW
COP Tj = +7°C	5.98	4.88
Cdh Tj = +7 °C	0.980	0.980
Pdh Tj = 12°C	2.38 kW	2.49 kW
COP Tj = 12°C	7.18	6.76
Cdh Tj = +12 °C	0.980	0.980
Pdh Tj = Tbiv	6.16 kW	4.99 kW
COP Tj = Tbiv	2.52	1.93
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	5.06 kW	4.99 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.20	1.93
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000

WTOL	67 °C	67 °C
Poff	8 W	8 W
PTO	8 W	8 W
PSB	8 W	8 W
PCK	8 W	8 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.94 kW	5.80 kW
Annual energy consumption Q <sub>he</sub>	4090 kWh	4759 kWh
P <sub>dh</sub> T <sub>j</sub> = -15°C (if TOL	5.92	4.96
COP T <sub>j</sub> = -15°C (if TOL	2.56	2.14
C <sub>dh</sub> T <sub>j</sub> = -15 °C	1.000	1.000

#### EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level outdoor	43 dB(A)	44 dB(A)

#### EN 14825 | Warmer Climate

	Low temperature	Medium temperature
η <sub>s</sub>	238 %	163 %
Prated	6.00 kW	6.00 kW
SCOP	6.08	4.17
T <sub>biv</sub>	2 °C	2 °C
TOL	2 °C	2 °C
P <sub>dh</sub> T <sub>j</sub> = +2°C	5.54 kW	5.57 kW
COP T <sub>j</sub> = +2°C	3.72	2.54
C <sub>dh</sub> T <sub>j</sub> = +2 °C	1.000	1.000
P <sub>dh</sub> T <sub>j</sub> = +7°C	3.95 kW	3.95 kW
COP T <sub>j</sub> = +7°C	6.27	4.08
C <sub>dh</sub> T <sub>j</sub> = +7 °C	0.990	0.990
P <sub>dh</sub> T <sub>j</sub> = 12°C	2.27 kW	2.31 kW
COP T <sub>j</sub> = 12°C	6.40	4.59
C <sub>dh</sub> T <sub>j</sub> = +12 °C	0.980	0.980
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	5.54 kW	5.57 kW
COP T <sub>j</sub> = T <sub>biv</sub>	3.72	2.54
P <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	5.54 kW	5.57 kW
COP T <sub>j</sub> = TOL or COP T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	3.72	2.54
C <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	1.000	1.000
WTOL	67 °C	67 °C
Poff	8 W	8 W
PTO	8 W	8 W
PSB	8 W	8 W
PCK	8 W	8 W

Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.46 kW	0.43 kW
Annual energy consumption Q <sub>he</sub>	1330 kWh	1934 kWh

### Model VERSI-O 0209-K1 HT / HK 1F + HYDRO C2

Model name	VERSI-O 0209-K1 HT / HK 1F + HYDRO C2
Application	Heating + DHW
Units	Indoor, Outdoor
Climate zone (for heating)	Colder, Warmer
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 $\eta_{DHW}$	97 %
COP	2.30
Heating up time	2:35 h:min
Standby power input	47.4 W
Reference hot water temperature	54.5 °C
Mixed water at 40°C	264 l

### Model VERSI-X 0209-K1 HT / HK 1F + HYDRO C2

Model name	VERSI-X 0209-K1 HT / HK 1F + HYDRO C2
Application	Heating + DHW
Units	Indoor, Outdoor
Climate zone (for heating)	Colder, Warmer
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 $\eta_{DHW}$	96 %
COP	2.30
Heating up time	2:18 h:min
Standby power input	41.0 W
Reference hot water temperature	54.4 °C
Mixed water at 40°C	255 l

Model VERSI-I 0209-K1 HT / HK UF E + HR200

Model name	VERSI-I 0209-K1 HT / HK UF E + HR200
Application	Heating + DHW
Units	Indoor, Outdoor
Climate zone (for heating)	Colder, Warmer
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 $\eta_{DHW}$	100 %
COP	2.38
Heating up time	2:27 h:min
Standby power input	44.9 W
Reference hot water temperature	54.9 °C
Mixed water at 40°C	282 l