

Subtype KCHP ARCTIC POWER 110, 140

Certificate Holder	Klima-Therm Sp. z o.o
Address	Ostrobramska 101a
ZIP	04-041
City	Warszawa
Country	PL
Certification Body	BRE Global Limited
Subtype title	KCHP ARCTIC POWER 110, 140
Registration number	041-K016-06
Heat Pump Type	Outdoor Air/Water
Refrigerant	R32
Mass of Refrigerant	15.5 kg
Certification Date	13.05.2024
Testing basis	Heat Pump KEYMARK certification Scheme rules v13
Testing laboratory	Intertek Testing Services Shenzhen LTD. Guangzhou Branch, CN

Model KCHP-SU110-RN8L

Model name	KCHP-SU110-RN8L
Application	Heating (medium temp)
Units	Outdoor
Climate zone (for heating)	Colder, Warmer
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	112 kW	110 kW
EI input	27 kW	29.9 kW
COP	4.15	3.68

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level outdoor	80 dB(A)	80 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	167 %	127 %
Prated	95 kW	80 kW
SCOP	4.25	3.25
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	85.48 kW	69.31 kW
COP Tj = -7°C	3.03	2.01
Cdh Tj = -7 °C	0.9	0.9
Pdh Tj = +2°C	50.02 kW	41.99 kW
COP Tj = +2°C	3.73	3.1
Cdh Tj = +2 °C	0.9	0.9
Pdh Tj = +7°C	33.85 kW	28.27 kW
COP Tj = +7°C	6.23	4.52

Cdh Tj = +7 °C	0.9	0.9
Pdh Tj = 12°C	39.27 kW	37.99 kW
COP Tj = 12°C	8.02	6.03
Cdh Tj = +12 °C	0.9	0.9
Pdh Tj = Tbiv	85.48 kW	69.31 kW
COP Tj = Tbiv	3.03	2.01
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	94.45 kW	79.71 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.38	1.76
WTOL	65 °C	65 °C
Poff	140 W	140 W
PTO	700 W	700 W
PSB	140 W	140 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.55 kW	0.29 kW
Annual energy consumption Qhe	46188 kWh	50858 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level outdoor	80 dB(A)	80 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	146 %	108 %
Prated	80 kW	68 kW
SCOP	3.73	2.79
Tbiv	-15 °C	-15 °C
TOL	-22 °C	-18 °C
Pdh Tj = -7°C	47.25 kW	43.15 kW
COP Tj = -7°C	3.07	2.49
Cdh Tj = -7 °C	0.9	0.9
Pdh Tj = +2°C	29.39 kW	25.41 kW
COP Tj = +2°C	4.23	3.07
Cdh Tj = +2 °C	0.9	0.9
Pdh Tj = +7°C	27.48 kW	24.58 kW
COP Tj = +7°C	6.32	4.66
Cdh Tj = +7 °C	0.9	0.9
Pdh Tj = 12°C	32.27 kW	31.53 kW
COP Tj = 12°C	7.77	6.43
Cdh Tj = +12 °C	0.9	0.9
Pdh Tj = Tbiv	67.26 kW	56.15 kW
COP Tj = Tbiv	2.56	1.86
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	75.44 kW	61.03 kW

COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.98	1.8
WTOL	65 °C	65 °C
Poff	140 W	140 W
PTO	700 W	700 W
PSB	140 W	140 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	4.56 kW	68 kW
Annual energy consumption Qhe	52894 kWh	60183 kWh
Pdh Tj = -15°C (if TOL	67.26	56.15
COP Tj = -15°C (if TOL	2.56	1.86
Cdh Tj = -15 °C	0.9	0.9

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level outdoor	80 dB(A)	80 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	235 %	167 %
Prated	95 kW	80 kW
SCOP	5.95	4.26
Tbiv	7 °C	7 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	93.78 kW	79.98 kW
COP Tj = +2°C	2.89	2.04
Cdh Tj = +2 °C	0.9	0.9
Pdh Tj = +7°C	61.13 kW	52.24 kW
COP Tj = +7°C	5.29	3.84
Cdh Tj = +7 °C	0.9	0.9
Pdh Tj = 12°C	32.17 kW	31.12 kW
COP Tj = 12°C	8.03	5.66
Cdh Tj = +12 °C	0.9	0.9
Pdh Tj = Tbiv	61.13 kW	52.24 kW
COP Tj = Tbiv	5.29	3.84
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	93.78 kW	79.98 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.89	2.04
WTOL	65 °C	65 °C
Poff	140 W	140 W
PTO	700 W	700 W
PSB	140 W	140 W
PCK	0 W	0 W

Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.22 kW	0.02 kW
Annual energy consumption Qhe	21332 kWh	25115 kWh

Model KCHP-SU140-RN8L

Model name	KCHP-SU140-RN8L
Application	Heating (medium temp)
Units	Outdoor
Climate zone (for heating)	Colder, Warmer
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	142 kW	140 kW
EI input	38.17 kW	44.73 kW
COP	3.72	3.13

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level outdoor	92 dB(A)	92 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	167 %	127 %
Prated	95 kW	80 kW
SCOP	4.25	3.25
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	85.48 kW	69.31 kW
COP Tj = -7°C	3.03	2.01
Cdh Tj = -7 °C	0.9	0.9
Pdh Tj = +2°C	50.02 kW	41.99 kW
COP Tj = +2°C	3.73	3.1
Cdh Tj = +2 °C	0.9	0.9
Pdh Tj = +7°C	33.85 kW	28.27 kW
COP Tj = +7°C	6.23	4.52

Cdh Tj = +7 °C	0.9	0.9
Pdh Tj = 12°C	39.27 kW	37.99 kW
COP Tj = 12°C	8.02	6.03
Cdh Tj = +12 °C	0.9	0.9
Pdh Tj = Tbiv	85.48 kW	69.31 kW
COP Tj = Tbiv	3.03	2.01
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	94.45 kW	79.71 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.38	1.76
WTOL	65 °C	65 °C
Poff	140 W	140 W
PTO	700 W	700 W
PSB	140 W	140 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.55 kW	0.29 kW
Annual energy consumption Qhe	46188 kWh	50858 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level outdoor	92 dB(A)	92 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	146 %	108 %
Prated	80 kW	68 kW
SCOP	3.73	2.79
Tbiv	-15 °C	-15 °C
TOL	-22 °C	-18 °C
Pdh Tj = -7°C	47.25 kW	43.15 kW
COP Tj = -7°C	3.07	2.49
Cdh Tj = -7 °C	0.9	0.9
Pdh Tj = +2°C	29.39 kW	25.41 kW
COP Tj = +2°C	4.23	3.07
Cdh Tj = +2 °C	0.9	0.9
Pdh Tj = +7°C	27.48 kW	24.58 kW
COP Tj = +7°C	6.32	4.66
Cdh Tj = +7 °C	0.9	0.9
Pdh Tj = 12°C	32.27 kW	31.53 kW
COP Tj = 12°C	7.77	6.43
Cdh Tj = +12 °C	0.9	0.9
Pdh Tj = Tbiv	67.26 kW	56.15 kW
COP Tj = Tbiv	2.56	1.86
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	75.44 kW	61.03 kW

COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.98	1.8
WTOL	65 °C	65 °C
Poff	140 W	140 W
PTO	700 W	700 W
PSB	140 W	140 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	4.56 kW	68 kW
Annual energy consumption Qhe	52894 kWh	60183 kWh
Pdh Tj = -15°C (if TOL	67.26	56.15
COP Tj = -15°C (if TOL	2.56	1.86
Cdh Tj = -15 °C	0.9	0.9

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level outdoor	92 dB(A)	92 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	235 %	167 %
Prated	95 kW	80 kW
SCOP	5.95	4.26
Tbiv	7 °C	7 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	93.78 kW	79.98 kW
COP Tj = +2°C	2.89	2.04
Cdh Tj = +2 °C	0.9	0.9
Pdh Tj = +7°C	61.13 kW	52.24 kW
COP Tj = +7°C	5.29	3.84
Cdh Tj = +7 °C	0.9	0.9
Pdh Tj = 12°C	32.17 kW	31.12 kW
COP Tj = 12°C	8.03	5.66
Cdh Tj = +12 °C	0.9	0.9
Pdh Tj = Tbiv	61.13 kW	52.24 kW
COP Tj = Tbiv	5.29	3.84
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	93.78 kW	79.98 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.89	2.04
WTOL	65 °C	65 °C
Poff	140 W	140 W
PTO	700 W	700 W
PSB	140 W	140 W
PCK	0 W	0 W

Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.22 kW	0.02 kW
Annual energy consumption Qhe	21332 kWh	25115 kWh