Subtype ADAPT 0416

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	ADAPT 0416
Registration number	011-1W0517
Heat Pump Type	Outdoor Air/Water
Refrigerant	R452B
Mass of Refrigerant	4.2 kg
Certification Date	18.01.2022
Testing basis	HP KEYMARK certification scheme rules rev. 9

Model ADAPT 0416-K3 HT / HK 1F	
Model name	ADAPT 0416-K3 HT / HK 1F
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	8.48 kW	7.78 kW
El input	1.54 kW	2.44 kW
COP	5.60	3.20

EN 12102-1 | Average Climate		
	Low temperature	Medium temperature
Sound power level outdoor	46 dB(A)	46 dB(A)

EN 14825 | Average Climate		
	Low temperature	Medium temperature
ηs	197 %	144 %
Prated	11.10 kW	10.40 kW
SCOP	5.12	3.75
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	10.02 kW	9.23 kW
COP Tj = -7°C	3.30	2.41
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	6.29 kW	6.03 kW
COP Tj = +2°C	5.16	3.83
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	4.11 kW	3.72 kW

COP Tj = +7°C	6.51	4.47
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	3.93 kW	3.94 kW
COP Tj = 12°C	7.43	5.62
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	11.12 kW	10.61 kW
COP Tj = Tbiv	2.99	1.99
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.12 kW	10.61 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.99	1.99
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	67 °C	67 °C
Poff	15 W	15 W
PTO	14 W	14 W
PSB	15 W	15 W
PCK	14 W	14 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	4475 kWh	5734 kWh

Model ADAPT 0416-K3 HT / HK 1F + HYDRO C

Model name	ADAPT 0416-K3 HT / HK 1F + HYDRO C
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	XL
Efficiency ηDHW	127 %
COP	3.02
Heating up time	1:24 h:min
Standby power input	54.4 W
Reference hot water temperature	52.3 °C
Mixed water at 40°C	236 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	7.78 kW	
El input	2.44 kW	
COP	3.20	

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	0 dB(A)	
Sound power level outdoor	46 dB(A)	

EN 14825 | Average Climate

	Low temperature	Medium temperature
ηs	144 %	

Prated	10.40 kW
SCOP	3.75
Tbiv	-10 °C
TOL	-10 °C
Pdh Tj = -7°C	9.23 kW
COP Tj = -7°C	2.41
Cdh Tj = -7 °C	0.900
Pdh Tj = +2°C	6.03 kW
COP Tj = +2°C	3.83
Cdh Tj = +2 °C	0.900
Pdh Tj = +7°C	3.72 kW
COP Tj = +7°C	4.47
Cdh Tj = +7 °C	0.900
Pdh Tj = 12°C	3.94 kW
COP Tj = 12°C	5.62
Cdh Tj = +12 °C	0.900
Pdh Tj = Tbiv	10.61 kW
COP Tj = Tbiv	1.99
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.61 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.99
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900
WTOL	67 °C
Poff	15 W
PTO	14 W
PSB	15 W
PCK	14 W
Supplementary Heater: Type of energy input	Electricity
Supplementary Heater: PSUP	0.00 kW
Annual energy consumption Qhe	5734 kWh

Model ADAPT 0416-K3 HT / HK 3F	
Model name	ADAPT 0416-K3 HT / HK 3F
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	8.50 kW	7.81 kW
El input	1.53 kW	2.40 kW
COP	5.55	3.26

EN 12102-1 | Average Climate	Low temperature	Medium temperature
Sound power level outdoor	46 dB(A)	46 dB(A)

EN 14825 | Average Climate	Low temperature	Medium temperature
ηs	201 %	142 %
Prated	11.00 kW	10.30 kW
SCOP	5.21	3.67
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	9.78 kW	9.07 kW
COP Tj = -7°C	3.39	2.46
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	6.22 kW	5.82 kW
COP Tj = +2°C	5.17	3.71
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	3.90 kW	3.57 kW

COP Tj = +7°C	6.65	4.50
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	3.91 kW	3.73 kW
COP Tj = 12°C	7.71	5.29
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	10.99 kW	10.29 kW
COP Tj = Tbiv	3.11	2.04
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.99 kW	10.29 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.11	2.04
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	67 °C	67 °C
Poff	12 W	12 W
PTO	12 W	12 W
PSB	12 W	12 W
PCK	12 W	12 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.01 kW	0.01 kW
Annual energy consumption Qhe	4365 kWh	5801 kWh

Model ADAPT 0416-K3 HT / HK 3F + HYDRO C	
Model name	ADAPT 0416-K3 HT / HK 3F + HYDRO C
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	XL
Efficiency ηDHW	131 %
COP	3.12
Heating up time	1:24 h:min
Standby power input	51.2 W
Reference hot water temperature	52.2 °C
Mixed water at 40°C	238 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	7.81 kW	
El input	2.40 kW	
COP	3.26	

EN 12102-1 | Average Climate		
	Low temperature	Medium temperature
Sound power level indoor	0 dB(A)	
Sound power level outdoor	46 dB(A)	

EN 14825 | Average Climate		
	Low temperature	Medium temperature
ηs	142 %	

Prated	10.30 kW
SCOP	3.67
Tbiv	-10 °C
TOL	-10 °C
Pdh Tj = -7°C	9.07 kW
COP Tj = -7°C	2.46
Cdh Tj = -7 °C	0.900
Pdh Tj = +2°C	5.82 kW
COP Tj = +2°C	3.71
Cdh Tj = +2 °C	0.900
Pdh Tj = +7°C	3.57 kW
COP Tj = +7°C	4.50
Cdh Tj = +7 °C	0.900
Pdh Tj = 12°C	3.73 kW
COP Tj = 12°C	5.29
Cdh Tj = +12 °C	0.900
Pdh Tj = Tbiv	10.29 kW
COP Tj = Tbiv	2.04
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.29 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.04
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900
WTOL	67 °C
Poff	12 W
PTO	12 W
PSB	12 W
PCK	12 W
Supplementary Heater: Type of energy input	Electricity
Supplementary Heater: PSUP	0.01 kW
Annual energy consumption Qhe	5801 kWh