Subtype ATHENA 14 400V HC

Certificate Holder	Thermia
Address	Snickaregatan 1
ZIP	
City	Arvika
Country	SE
Certification Body	DIN CERTCO Gesellschaft für Konformitätsbewertung mbH
Subtype title	ATHENA 14 400V HC
Registration number	011-1W0811
Heat Pump Type	Outdoor Air/Water
Refrigerant	R410A
Mass of Refrigerant	5.5 kg
Certification Date	15.02.2017
Testing basis	HP KEYMARK certification scheme rules V14

Model ATHENA 14 400V HC	
Model name	ATHENA 14 400V HC
Application	Heating (medium temp)
Units	Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
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	7.84 kW	7.36 kW
El input	1.54 kW	2.33 kW
COP	5.09	3.16

EN 12102-1 | Average Climate		
	Low temperature	Medium temperature
Sound power level outdoor	55 dB(A)	55 dB(A)

EN 14825 | Average Climate		
	Low temperature	Medium temperature
ηs	192 %	147 %
Prated	11.00 kW	12.00 kW
SCOP	4.87	3.74
Tbiv	-5 °C	-5 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	9.50 kW	10.60 kW
COP Tj = -7°C	3.30	2.69
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	8.30 kW	8.40 kW
COP Tj = +2°C	4.72	3.51
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	8.00 kW	7.80 kW

COP Tj = +7°C	6.16	4.61
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	9.10 kW	9.00 kW
COP Tj = 12°C	8.11	6.66
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	8.80 kW	9.90 kW
COP Tj = Tbiv	3.46	2.81
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.53 kW	9.48 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.15	2.29
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh		
WTOL	65 °C	65 °C
Poff	10 W	10 W
PTO	10 W	10 W
PSB	10 W	10 W
PCK	38 W	38 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.50 kW	2.50 kW
Annual energy consumption Qhe	4663 kWh	6625 kWh

EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	167 %	133 %
Prated	15.00 kW	17.00 kW
SCOP	4.25	3.41
Tbiv	-7 °C	-7 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	9.20 kW	10.10 kW
COP Tj = -7°C	3.50	2.91
Cdh Tj = -7 °C	0.90	0.90
Pdh Tj = +2°C	8.30 kW	8.30 kW
COP Tj = +2°C	5.15	3.92
Cdh Tj = +2 °C	0.90	0.90
Pdh Tj = +7°C	8.00 kW	7.90 kW
COP Tj = +7°C	6.57	5.12
Cdh Tj = +7 °C	0.90	0.90
Pdh Tj = 12°C	9.10 kW	9.00 kW
COP Tj = 12°C	8.11	6.95
Cdh Tj = +12 °C	0.90	0.90
Pdh Tj = Tbiv	9.20 kW	10.10 kW
COP Tj = Tbiv	3.50	2.41
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.80 kW	12.60 kW

COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.06	2.56
WTOL	65 °C	65 °C
Poff	10 W	10 W
PTO	10 W	10 W
PSB	10 W	10 W
PCK	38 W	38 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	15.27 kW	16.65 kW
Annual energy consumption Qhe	8698 kWh	12299 kWh
Pdh Tj = -15°C (if TOL	11.80	12.60
COP Tj = -15°C (if TOL	3.06	2.56
Cdh Tj = -15 °C	0.90	0.90

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	245 %	177 %
Prated	7.00 kW	8.00 kW
SCOP	6.20	4.51
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	8.30 kW	8.40 kW
COP Tj = +2°C	4.14	2.74
Cdh Tj = +2 °C	0.90	0.90
Pdh Tj = +7°C	7.90 kW	7.50 kW
COP Tj = +7°C	5.47	3.64
Cdh Tj = +7 °C	0.90	0.90
Pdh Tj = 12°C	9.10 kW	9.00 kW
COP Tj = 12°C	7.72	6.11
Cdh Tj = +12 °C	0.90	0.90
Pdh Tj = Tbiv	8.30 kW	8.40 kW
COP Tj = Tbiv	4.14	2.74
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.90 kW	12.90 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.98	2.45
WTOL	65 °C	65 °C
Poff	10 W	10 W
PTO	10 W	10 W
PSB	10 W	10 W
PCK	38 W	38 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	1508 kWh	2369 kWh