

Subtype F1355-28

Certificate Holder	Nibe AB
Address	Box 14
ZIP	S-28521
City	Markaryd
Country	SE
Certification Body	RISE CERT
Subtype title	F1355-28
Registration number	012-SC1196-17
Heat Pump Type	Brine/Water and Water/Water
Refrigerant	R407c
Mass of Refrigerant	4.4 kg
Certification Date	06.10.2017
Testing laboratory	RISE Research Institutes of Sweden

Model F1355-28		
Model name	F1355-28	
Application	Heating (medium temp)	
Units	Indoor	
Climate zone (for heating)	Colder Climate	
Cooling mode application (optional)	n/a	
Any additional heat sources	n/a	
General data		
Power supply	3x400V 50Hz	
Off-peak product	No	
Brine/Water		
EN 14511-4 Heating		
Shutting off the heat transfer medium flow	passed	
Complete power supply failure	passed	
EN 14511-2 Heating		
	Low temperature	Medium temperature
Heat output	20.77 kW	19.87 kW
El input	4.56 kW	6.48 kW
COP	4.55	3.07
EN 12102-1 Average Climate		
	Low temperature	Medium temperature
Sound power level indoor	47 dB(A)	47 dB(A)
EN 14825 Average Climate		
	Low temperature	Medium temperature
ηs	198 %	155 %
Prated	28.00 kW	28.00 kW
SCOP	5.07	4.07
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	24.80 kW	25.00 kW
COP Tj = -7°C	4.40	3.10
Pdh Tj = +2°C	15.60 kW	15.30 kW
COP Tj = +2°C	4.90	3.90
Pdh Tj = +7°C	9.70 kW	9.70 kW
COP Tj = +7°C	5.60	4.60
Pdh Tj = 12°C	4.30 kW	4.30 kW
COP Tj = 12°C	6.10	5.30
Pdh Tj = Tbiv	28.00 kW	28.00 kW
COP Tj = Tbiv	4.10	2.80

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	28.00 kW	28.00 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.10	2.80
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.98	0.99
WTOL	65 °C	65 °C
Poff	7 W	7 W
PTO	50 W	35 W
PSB	19 W	19 W
PCK	25 W	25 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	11528 kWh	14621 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	47 dB(A)	47 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
η_s	211 %	165 %
Prated	28.00 kW	28.00 kW
SCOP	5.47	4.32
Tbiv	-22 °C	-22 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	17.00 kW	17.00 kW
COP Tj = -7°C	5.10	3.90
Pdh Tj = +2°C	10.30 kW	10.30 kW
COP Tj = +2°C	5.50	4.50
Pdh Tj = +7°C	6.60 kW	6.60 kW
COP Tj = +7°C	6.30	5.40
Pdh Tj = 12°C	3.80 kW	3.70 kW
COP Tj = 12°C	5.90	5.40
Pdh Tj = Tbiv	28.00 kW	28.00 kW
COP Tj = Tbiv	4.10	2.80
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	28.00 kW	28.00 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.10	2.80
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.97	0.98
WTOL	65 °C	65 °C
Poff	7 W	7 W
PTO	50 W	35 W
PSB	19 W	19 W

PCK	25 W	25 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Q _{he}	12907 kWh	16450 kWh

Water/Water

EN 14511-4 | Heating

Shutting off the heat transfer medium flow passed

Complete power supply failure passed

EN 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	26.68 kW	25.23 kW
El input	4.76 kW	6.37 kW
COP	4.63	3.96

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	47 dB(A)	47 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	243 %	188 %
Prated	35.00 kW	35.00 kW
SCOP	6.15	4.79
T _{biv}	-10 °C	-10 °C
TOL	-10 °C	-10 °C
P _{d,h} T _j = -7°C	31.00 kW	31.00 kW
COP T _j = -7°C	5.40	3.80
P _{d,h} T _j = +2°C	21.60 kW	18.80 kW
COP T _j = +2°C	6.10	4.70
P _{d,h} T _j = +7°C	12.10 kW	12.10 kW
COP T _j = +7°C	6.60	5.50
P _{d,h} T _j = 12°C	7.00 kW	6.80 kW
COP T _j = 12°C	7.70	6.60
P _{d,h} T _j = T _{biv}	35.00 kW	35.00 kW
COP T _j = T _{biv}	4.90	3.50
P _{d,h} T _j = TOL or P _{d,h} T _j = T _{design,h} if TOL < T _{design,h}	35.00 kW	35.00 kW
COP T _j = TOL or COP T _j = T _{design,h} if TOL < T _{design,h}	4.90	3.50
C _{d,h} T _j = TOL or P _{d,h} T _j = T _{design,h} if TOL < T _{design,h}	0.97	0.99
WTOL	65 °C	65 °C

Poff	7 W	7 W
PTO	65 W	45 W
PSB	19 W	19 W
PCK	25 W	25 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	11765 kWh	15111 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	47 dB(A)	47 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
η_s	252 %	197 %
Prated	35.00 kW	35.00 kW
SCOP	6.37	4.99
Tbiv	-22 °C	-22 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	21.20 kW	21.20 kW
COP Tj = -7°C	6.20	4.60
Pdh Tj = +2°C	12.90 kW	12.90 kW
COP Tj = +2°C	6.50	5.30
Pdh Tj = +7°C	8.30 kW	8.30 kW
COP Tj = +7°C	7.50	6.40
Pdh Tj = 12°C	6.90 kW	6.80 kW
COP Tj = 12°C	7.40	6.60
Pdh Tj = Tbiv	35.00 kW	35.00 kW
COP Tj = Tbiv	4.90	3.50
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	35.00 kW	35.00 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.90	3.50
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.97	0.98
WTOL	65 °C	65 °C
Poff	7 W	7 W
PTO	65 W	45 W
PSB	19 W	19 W
PCK	25 W	25 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	13541 kWh	17279 kWh