Login

Summary of	YKF C 12 14 16kW	Reg. No.	041-K017-11
Certificate Holder			
Name	Johnson Controls Industries		
Address	14 Rue de Bel Air	Zip	44470
City	Carquefou	Country	France
Certification Body	BRE Global Limited		
Subtype title	YKF C 12 14 16kW		
Heat Pump Type	Outdoor Air/Water		
Refrigerant	R32		
Mass of Refrigerant	1.8 kg		
Certification Date	04.08.2022		
Testing basis	Heat Pump Keymark Scheme Rules Rev 09		

Model: YKF12CNC

Configure model	
Model name	YKF12CNC
Application	Heating (medium temp)
Units	Outdoor
Climate Zone	Colder Climate + Warmer Climate
Reversibility	Yes
Cooling mode application (optional)	n/a

General Data	
Power supply	1x230V 50Hz

Heating

EN 14511-2		
	Low temperature	**Medium temperature**
Heat output	12.2 kW	12 kW
El input	2.49 kW	4 kW
COP	4.9	3

EN 14511-4	
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

Warmer Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level outdoor	70 dB(A)	70 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	262.3 %	179 %
Prated	12.1 kW	12 kW
SCOP	6.63	4.55
Tbiv	7 °C	7 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	12.1 kW	12 kW
COP Tj = +2°C	3.53	2.39
Cdh Tj = +2 °C	0.9	0.9
Pdh Tj = +7°C	7.78 kW	7.73 kW
COP Tj = +7°C	5.82	3.86
Cdh Tj = +7 °C	0.9	0.9
Pdh Tj = 12°C	3.64 kW	3.59 kW
COP Tj = 12°C	8.31	5.88
Cdh Tj = +12 °C	0.9	0.9
Pdh Tj = Tbiv	7.78 kW	7.73 kW

COP Tj = Tbiv	5.82	3.86
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.1 kW	12 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.53	2.39
WTOL	65 °C	65 °C
Poff	13 W	13 W
PTO	20 W	20 W
PSB	13 W	13 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0 kW	0 kW
Annual energy consumption Qhe	2437 kWh	3524 kWh

Colder Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level outdoor	70 dB(A)	70 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	168.8 %	126 %
Prated	12.5 kW	11.3 kW

SCOP	4.3	3.23
Tbiv	-15 °C	-15 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	8.08 kW	7.09 kW
COP Tj = -7°C	3.64	2.75
Cdh Tj = -7 °C	0.9	0.9
Pdh Tj = +2°C	4.93 kW	4.44 kW
COP Tj = +2°C	5.34	3.88
Cdh Tj = +2 °C	0.9	0.9
Pdh Tj = +7°C	3.17 kW	3 kW
COP Tj = +7°C	5.28	4.88
Cdh Tj = +7 °C	0.9	0.9
Pdh Tj = 12°C	3.69 kW	3.6 kW
COP Tj = 12°C	9.34	6.61
Cdh Tj = +12 °C	0.9	0.9
Pdh Tj = Tbiv	10.17 kW	9.21 kW
COP Tj = Tbiv	2.66	1.92
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.72 kW	7 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.08	1.38
WTOL	65 °C	65 °C
Poff	13 W	13 W

PTO	20 W	20 W
PSB	13 W	13 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	3.78 kW	4.3 kW
Annual energy consumption Qhe	7153 kWh	8628 kWh
Pdh Tj = -15°C (if TOL<-20°C)	10.17	9.21
COP Tj = -15°C (if TOL<-20°C)	2.66	1.92
Cdh Tj = -15 °C	0.9	0.9

Average Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level outdoor	70 dB(A)	70 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	200.1 %	141.6 %
Prated	12.3 kW	12.5 kW
SCOP	5.08	3.62
Tbiv	-7 °C	-7 °C

TOL	-10 °C	-10 °C
Pdh Tj = -7°C	10.85 kW	11.06 kW
COP Tj = -7°C	3.11	2.15
Cdh Tj = -7 °C	0.9	0.9
Pdh Tj = +2°C	6.79 kW	6.91 kW
COP Tj = +2°C	4.86	3.59
Cdh Tj = +2 °C	0.9	0.9
Pdh Tj = +7°C	4.79 kW	4.64 kW
COP Tj = +7°C	6.98	5.07
Cdh Tj = +7 °C	0.9	0.9
Pdh Tj = 12°C	3.73 kW	2.15 kW
COP Tj = 12°C	9.02	4.52
Cdh Tj = +12 °C	0.9	0.9
Pdh Tj = Tbiv	10.85 kW	11.06 kW
COP Tj = Tbiv	3.11	2.15
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.3 kW	10.97 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.8	1.98
WTOL	65 °C	65 °C
Poff	13 W	13 W
PTO	20 W	20 W
PSB	13 W	13 W

PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0 kW	1.53 kW
Annual energy consumption Qhe	5004 kWh	7148 kWh

Model: YKF14CNC

Configure model	
Model name	YKF14CNC
Application	Heating (medium temp)
Units	Outdoor
Climate Zone	Colder Climate + Warmer Climate
Reversibility	Yes
Cooling mode application (optional)	n/a

General Data	
Power supply	1x230V 50Hz

Heating

EN 14511-2		
	Low temperature	**Medium temperature**
Heat output	14.10 kW	14.00 kW
El input	3.00 kW	4.75 kW
COP	4.70	2.95

EN 14511-4	
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

Warmer Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level outdoor	72 dB(A)	72 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	260.5 %	184.6 %
Prated	13.20 kW	14.20 kW
SCOP	6.59	4.69
Tbiv	7 °C	7 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	12.94 kW	13.01 kW
COP Tj = +2°C	3.51	2.37
Cdh Tj = +2 °C	0.90	0.90
Pdh Tj = +7°C	8.51 kW	9.12 kW
COP Tj = +7°C	5.72	3.95
Cdh Tj = +7 °C	0.90	0.90
Pdh Tj = 12°C	3.96 kW	4.26 kW
COP Tj = 12°C	8.51	6.37
Cdh Tj = +12 °C	0.90	0.90
Pdh Tj = Tbiv	8.51 kW	9.12 kW

COP Tj = Tbiv	5.72	3.95
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.94 kW	13.01 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.51	2.37
WTOL	65.00 °C	65.00 °C
Poff	13.00 W	13.00 W
PTO	20.00 W	20.00 W
PSB	13.00 W	13.00 W
PCK	0.00 W	0.00 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.26 kW	1.18 kW
Annual energy consumption Qhe	2684 kWh	4040 kWh

Colder Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level outdoor	72 dB(A)	72 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	171.3 %	126.6 %
Prated	14.31 kW	12.49 kW

SCOP	4.36	3.24
Tbiv	-15.00 °C	-15.00 °C
TOL	-22.00 °C	-22.00 °C
Pdh Tj = -7°C	8.74 kW	7.80 kW
COP Tj = -7°C	3.59	2.77
Cdh Tj = -7 °C	0.90	0.90
Pdh Tj = +2°C	5.52 kW	4.64 kW
COP Tj = +2°C	5.35	3.91
Cdh Tj = +2 °C	0.90	0.90
Pdh Tj = +7°C	3.70 kW	3.00 kW
COP Tj = +7°C	7.06	4.88
Cdh Tj = +7 °C	0.90	0.90
Pdh Tj = 12°C	3.69 kW	3.61 kW
COP Tj = 12°C	9.34	6.61
Cdh Tj = +12 °C	0.90	0.90
Pdh Tj = Tbiv	11.67 kW	10.19 kW
COP Tj = Tbiv	2.58	1.91
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.14 kW	7.28 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.02	1.35
WTOL	65.00 °C	65.00 °C
Poff	13.00 W	13.00 W

PTO	20.00 W	20.00 W
PSB	13.00 W	13.00 W
PCK	0.00 W	0.00 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	5.17 kW	5.21 kW
Annual energy consumption Qhe	8095 kWh	9496 kWh
Pdh Tj = -15°C (if TOL<-20°C)	11.67	10.19
COP Tj = -15°C (if TOL<-20°C)	2.58	1.91
Cdh Tj = -15 °C	0.90	0.90

Average Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level outdoor	72 dB(A)	72 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	192.5 %	141.8 %
Prated	14.15 kW	14.15 kW
SCOP	4.89	3.62
Tbiv	-7 °C	-7 °C

TOL	-10 °C	-10 °C
Pdh Tj = -7°C	12.52 kW	12.52 kW
COP Tj = -7°C	2.97	2.20
Cdh Tj = -7 °C	0.90	0.90
Pdh Tj = +2°C	7.98 kW	7.71 kW
COP Tj = +2°C	4.56	3.58
Cdh Tj = +2 °C	0.90	0.90
Pdh Tj = +7°C	5.04 kW	5.07 kW
COP Tj = +7°C	7.01	5.06
Cdh Tj = +7 °C	0.90	0.90
Pdh Tj = 12°C	3.73 kW	2.15 kW
COP Tj = 12°C	9.02	4.52
Cdh Tj = +12 °C	0.90	0.90
Pdh Tj = Tbiv	12.52 kW	12.52 kW
COP Tj = Tbiv	2.97	2.20
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	13.41 kW	11.51 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.66	1.96
WTOL	65.00 °C	65.00 °C
Poff	13.00 W	13.00 W
PTO	20.00 W	20.00 W
PSB	13.00 W	13.00 W

PCK	0.00 W	0.00 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.75 kW	2.65 kW
Annual energy consumption Qhe	5984 kWh	8079 kWh

Model: YKF16CNC

Configure model	
Model name	YKF16CNC
Application	Heating (medium temp)
Units	Outdoor
Climate Zone	Colder Climate + Warmer Climate
Reversibility	Yes
Cooling mode application (optional)	n/a

General Data	
Power supply	1x230V 50Hz

Heating

EN 14511-2		
	Low temperature	**Medium temperature**
Heat output	16.00 kW	16.00 kW
El input	3.56 kW	5.61 kW
COP	4.50	2.85

EN 14511-4	
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

Warmer Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level outdoor	72 dB(A)	72 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	255.4 %	184 %
Prated	14.20 kW	14.50 kW
SCOP	6.46	4.68
Tbiv	7 °C	7 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	14.20 kW	13.62 kW
COP Tj = +2°C	3.22	2.35
Cdh Tj = +2 °C	0.90	0.90
Pdh Tj = +7°C	9.15 kW	9.35 kW
COP Tj = +7°C	5.41	3.94
Cdh Tj = +7 °C	0.90	0.90
Pdh Tj = 12°C	4.24 kW	4.26 kW
COP Tj = 12°C	8.56	6.37
Cdh Tj = +12 °C	0.90	0.90
Pdh Tj = Tbiv	9.15 kW	9.35 kW

COP Tj = Tbiv	5.41	3.94
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	14.20 kW	13.62 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.22	2.35
WTOL	65.00 °C	65.00 °C
Poff	13.00 W	13.00 W
PTO	20.00 W	20.00 W
PSB	13.00 W	13.00 W
PCK	0.00 W	0.00 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.91 kW
Annual energy consumption Qhe	2937 kWh	4154 kWh

Colder Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level outdoor	72 dB(A)	72 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	170.9 %	124.3 %
Prated	15.10 kW	13.52 kW

SCOP	4.35	3.18
Tbiv	-15.00 °C	-15.00 °C
TOL	-22.00 °C	-22.00 °C
Pdh Tj = -7°C	9.26 kW	8.43 kW
COP Tj = -7°C	3.59	2.77
Cdh Tj = -7 °C	0.90	0.90
Pdh Tj = +2°C	5.76 kW	5.20 kW
COP Tj = +2°C	5.35	3.74
Cdh Tj = +2 °C	0.90	0.90
Pdh Tj = +7°C	3.76 kW	3.53 kW
COP Tj = +7°C	7.04	5.19
Cdh Tj = +7 °C	0.90	0.90
Pdh Tj = 12°C	3.72 kW	3.61 kW
COP Tj = 12°C	8.78	6.61
Cdh Tj = +12 °C	0.90	0.90
Pdh Tj = Tbiv	12.30 kW	11.03 kW
COP Tj = Tbiv	2.58	1.85
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.43 kW	7.52 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.00	1.30
WTOL	65.00 °C	65.00 °C
Poff	13.00 W	13.00 W

PTO	20.00 W	20.00 W
PSB	13.00 W	13.00 W
PCK	0.00 W	0.00 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	5.67 kW	6.00 kW
Annual energy consumption Qhe	8546 kWh	10473 kWh
Pdh Tj = -15°C (if TOL<-20°C)	12.30	11.03
COP Tj = -15°C (if TOL<-20°C)	2.58	1.85
Cdh Tj = -15 °C	0.90	0.90

Average Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level outdoor	72 dB(A)	72 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	190.5 %	140.6 %
Prated	15.23 kW	14.70 kW
SCOP	4.84	3.59
Tbiv	-7 °C	-7 °C

TOL	-10 °C	-10 °C
Pdh Tj = -7°C	13.49 kW	13.03 kW
COP Tj = -7°C	2.87	2.16
Cdh Tj = -7 °C	0.90	0.90
Pdh Tj = +2°C	8.59 kW	8.50 kW
COP Tj = +2°C	4.53	3.55
Cdh Tj = +2 °C	0.90	0.90
Pdh Tj = +7°C	5.55 kW	5.27 kW
COP Tj = +7°C	7.01	5.05
Cdh Tj = +7 °C	0.90	0.90
Pdh Tj = 12°C	3.73 kW	2.15 kW
COP Tj = 12°C	9.02	4.52
Cdh Tj = +12 °C	0.90	0.90
Pdh Tj = Tbiv	13.49 kW	13.03 kW
COP Tj = Tbiv	2.87	2.16
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	14.05 kW	12.07 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.65	1.94
WTOL	65.00 °C	65.00 °C
Poff	13.00 W	13.00 W
PTO	20.00 W	20.00 W
PSB	13.00 W	13.00 W

PCK	0.00 W	0.00 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.18 kW	2.63 kW
Annual energy consumption Qhe	6510 kWh	8471 kWh

Model: YKF12CRC

Configure model	
Model name	YKF12CRC
Application	Heating (medium temp)
Units	Outdoor
Climate Zone	Colder Climate + Warmer Climate
Reversibility	Yes
Cooling mode application (optional)	n/a

General Data	
Power supply	1x230V 50Hz

Heating

EN 14511-2		
	Low temperature	**Medium temperature**
Heat output	12.2 kW	12 kW
El input	2.49 kW	4 kW
COP	4.9	3

EN 14511-4	
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

Warmer Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level outdoor	70 dB(A)	70 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	262.5 %	179 %
Prated	12.1 kW	12 kW
SCOP	6.64	4.55
Tbiv	7 °C	7 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	12.1 kW	12 kW
COP Tj = +2°C	3.53	2.39
Cdh Tj = +2 °C	0.9	0.9
Pdh Tj = +7°C	7.78 kW	7.73 kW
COP Tj = +7°C	5.82	3.86
Cdh Tj = +7 °C	0.9	0.9
Pdh Tj = 12°C	3.64 kW	3.59 kW
COP Tj = 12°C	8.31	5.88
Cdh Tj = +12 °C	0.9	0.9
Pdh Tj = Tbiv	7.78 kW	7.73 kW

COP Tj = Tbiv	5.82	3.86
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.1 kW	12 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.53	2.39
WTOL	65 °C	65 °C
Poff	6 W	6 W
PTO	18 W	18 W
PSB	6 W	6 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0 kW	0 kW
Annual energy consumption Qhe	2435 kWh	3523 kWh

Colder Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level outdoor	70 dB(A)	70 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	168.8 %	126 %
Prated	12.5 kW	11.3 kW

SCOP	4.3	3.23
Tbiv	-15 °C	-15 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	8.08 kW	7.09 kW
COP Tj = -7°C	3.64	2.75
Cdh Tj = -7 °C	0.9	0.9
Pdh Tj = +2°C	4.93 kW	4.44 kW
COP Tj = +2°C	5.34	3.88
Cdh Tj = +2 °C	0.9	0.9
Pdh Tj = +7°C	3.17 kW	3 kW
COP Tj = +7°C	5.28	4.88
Cdh Tj = +7 °C	0.9	0.9
Pdh Tj = 12°C	3.69 kW	3.6 kW
COP Tj = 12°C	9.34	6.61
Cdh Tj = +12 °C	0.9	0.9
Pdh Tj = Tbiv	10.17 kW	9.21 kW
COP Tj = Tbiv	2.66	1.92
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.72 kW	7 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.08	1.38
WTOL	65 °C	65 °C
Poff	6 W	6 W

PTO	18 W	18 W
PSB	6 W	6 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	3.78 kW	4.3 kW
Annual energy consumption Qhe	7153 kWh	8628 kWh
Pdh Tj = -15°C (if TOL<-20°C)	10.17	9.21
COP Tj = -15°C (if TOL<-20°C)	2.66	1.92
Cdh Tj = -15 °C	0.9	0.9

Average Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level outdoor	70 dB(A)	70 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	200.2 %	141.6 %
Prated	12.3 kW	12.5 kW
SCOP	5.08	3.62
Tbiv	-7 °C	-7 °C

TOL	-10 °C	-10 °C
Pdh Tj = -7°C	10.85 kW	11.06 kW
COP Tj = -7°C	3.11	2.15
Cdh Tj = -7 °C	0.9	0.9
Pdh Tj = +2°C	6.79 kW	6.91 kW
COP Tj = +2°C	4.86	3.59
Cdh Tj = +2 °C	0.9	0.9
Pdh Tj = +7°C	4.79 kW	4.64 kW
COP Tj = +7°C	6.98	5.07
Cdh Tj = +7 °C	0.9	0.9
Pdh Tj = 12°C	3.73 kW	2.15 kW
COP Tj = 12°C	9.02	4.52
Cdh Tj = +12 °C	0.9	0.9
Pdh Tj = Tbiv	10.85 kW	11.06 kW
COP Tj = Tbiv	3.11	2.15
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.3 kW	10.97 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.8	1.98
WTOL	65 °C	65 °C
Poff	6 W	6 W
PTO	18 W	18 W
PSB	6 W	6 W

PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0 kW	1.53 kW
Annual energy consumption Qhe	5003 kWh	7148 kWh

Model: YKF14CRC

Configure model	
Model name	YKF14CRC
Application	Heating (medium temp)
Units	Outdoor
Climate Zone	Colder Climate + Warmer Climate
Reversibility	Yes
Cooling mode application (optional)	n/a

General Data	
Power supply	1x230V 50Hz

Heating

EN 14511-2		
	Low temperature	**Medium temperature**
Heat output	14.10 kW	14.00 kW
El input	3.00 kW	4.75 kW
COP	4.70	2.95

EN 14511-4	
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

Warmer Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level outdoor	72 dB(A)	72 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	260.6 %	184.6 %
Prated	13.20 kW	14.20 kW
SCOP	6.59	4.69
Tbiv	7 °C	7 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	12.94 kW	13.01 kW
COP Tj = +2°C	3.51	2.37
Cdh Tj = +2 °C	0.90	0.90
Pdh Tj = +7°C	8.51 kW	9.12 kW
COP Tj = +7°C	5.72	3.95
Cdh Tj = +7 °C	0.90	0.90
Pdh Tj = 12°C	3.96 kW	4.26 kW
COP Tj = 12°C	8.51	6.37
Cdh Tj = +12 °C	0.90	0.90
Pdh Tj = Tbiv	8.51 kW	9.12 kW

COP Tj = Tbiv	5.72	3.95
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.94 kW	13.01 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.51	2.37
WTOL	65.00 °C	65.00 °C
Poff	6.00 W	6.00 W
PTO	18.00 W	18.00 W
PSB	6.00 W	6.00 W
PCK	0.00 W	0.00 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.26 kW	1.18 kW
Annual energy consumption Qhe	2683 kWh	4039 kWh

Colder Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level outdoor	72 dB(A)	72 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	171.3 %	126.6 %
Prated	14.30 kW	12.50 kW

SCOP	4.36	3.24
Tbiv	-15.00 °C	-15.00 °C
TOL	-22.00 °C	-22.00 °C
Pdh Tj = -7°C	8.74 kW	7.80 kW
COP Tj = -7°C	3.59	2.77
Cdh Tj = -7 °C	0.90	0.90
Pdh Tj = +2°C	5.52 kW	4.64 kW
COP Tj = +2°C	5.35	3.91
Cdh Tj = +2 °C	0.90	0.90
Pdh Tj = +7°C	3.70 kW	3.00 kW
COP Tj = +7°C	7.06	4.88
Cdh Tj = +7 °C	0.90	0.90
Pdh Tj = 12°C	3.69 kW	3.61 kW
COP Tj = 12°C	9.34	6.61
Cdh Tj = +12 °C	0.90	0.90
Pdh Tj = Tbiv	11.67 kW	10.19 kW
COP Tj = Tbiv	2.58	1.91
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.14 kW	7.28 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.02	1.35
WTOL	65.00 °C	65.00 °C
Poff	6.00 W	6.00 W

PTO	18.00 W	18.00 W
PSB	6.00 W	6.00 W
PCK	0.00 W	0.00 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	5.16 kW	5.22 kW
Annual energy consumption Qhe	8095 kWh	9496 kWh
Pdh Tj = -15°C (if TOL<-20°C)	11.67	10.19
COP Tj = -15°C (if TOL<-20°C)	2.58	1.91
Cdh Tj = -15 °C	0.90	0.90

Average Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level outdoor	72 dB(A)	72 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	192.5 %	141.8 %
Prated	14.20 kW	14.20 kW
SCOP	4.89	3.62
Tbiv	-7 °C	-7 °C

TOL	-10 °C	-10 °C
Pdh Tj = -7°C	12.52 kW	12.52 kW
COP Tj = -7°C	2.97	2.20
Cdh Tj = -7 °C	0.90	0.90
Pdh Tj = +2°C	7.98 kW	7.71 kW
COP Tj = +2°C	4.56	3.58
Cdh Tj = +2 °C	0.90	0.90
Pdh Tj = +7°C	5.04 kW	5.07 kW
COP Tj = +7°C	7.01	5.06
Cdh Tj = +7 °C	0.90	0.90
Pdh Tj = 12°C	3.73 kW	2.15 kW
COP Tj = 12°C	9.02	4.52
Cdh Tj = +12 °C	0.90	0.90
Pdh Tj = Tbiv	12.52 kW	12.52 kW
COP Tj = Tbiv	2.97	2.20
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	13.41 kW	11.51 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.66	1.96
WTOL	65.00 °C	65.00 °C
Poff	6.00 W	6.00 W
PTO	18.00 W	18.00 W
PSB	6.00 W	6.00 W

PCK	0.00 W	0.00 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.80 kW	2.69 kW
Annual energy consumption Qhe	5984 kWh	8079 kWh

Model: YKF16CRC

Configure model	
Model name	YKF16CRC
Application	Heating (medium temp)
Units	Outdoor
Climate Zone	Colder Climate + Warmer Climate
Reversibility	Yes
Cooling mode application (optional)	n/a

General Data	
Power supply	1x230V 50Hz

Heating

EN 14511-2		
	Low temperature	**Medium temperature**
Heat output	16.00 kW	16.00 kW
El input	3.56 kW	5.61 kW
COP	4.50	2.85

EN 14511-4	
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

Warmer Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level outdoor	72 dB(A)	72 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	255.5 %	184 %
Prated	14.20 kW	14.50 kW
SCOP	6.46	4.68
Tbiv	7 °C	7 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	14.20 kW	13.62 kW
COP Tj = +2°C	3.22	2.35
Cdh Tj = +2 °C	0.90	0.90
Pdh Tj = +7°C	9.15 kW	9.35 kW
COP Tj = +7°C	5.41	3.94
Cdh Tj = +7 °C	0.90	0.90
Pdh Tj = 12°C	4.24 kW	4.26 kW
COP Tj = 12°C	8.56	6.37
Cdh Tj = +12 °C	0.90	0.90
Pdh Tj = Tbiv	9.15 kW	9.35 kW

COP Tj = Tbiv	5.41	3.94
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	14.20 kW	13.62 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.22	2.35
WTOL	65.00 °C	65.00 °C
Poff	6.00 W	13.00 W
PTO	18.00 W	20.00 W
PSB	6.00 W	13.00 W
PCK	0.00 W	0.00 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.91 kW
Annual energy consumption Qhe	2935 kWh	4153 kWh

Colder Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level outdoor	72 dB(A)	72 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	170.9 %	124.3 %
Prated	15.10 kW	13.50 kW

SCOP	4.35	3.18
Tbiv	-15.00 °C	-15.00 °C
TOL	-22.00 °C	-22.00 °C
Pdh Tj = -7°C	9.26 kW	8.43 kW
COP Tj = -7°C	3.59	2.77
Cdh Tj = -7 °C	0.90	0.90
Pdh Tj = +2°C	5.76 kW	5.20 kW
COP Tj = +2°C	5.35	3.74
Cdh Tj = +2 °C	0.90	0.90
Pdh Tj = +7°C	3.76 kW	3.53 kW
COP Tj = +7°C	7.04	5.19
Cdh Tj = +7 °C	0.90	0.90
Pdh Tj = 12°C	3.72 kW	3.61 kW
COP Tj = 12°C	8.78	6.61
Cdh Tj = +12 °C	0.90	0.90
Pdh Tj = Tbiv	12.30 kW	11.03 kW
COP Tj = Tbiv	2.58	1.85
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.43 kW	7.52 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.00	1.30
WTOL	65.00 °C	65.00 °C
Poff	6.00 W	6.00 W

PTO	18.00 W	18.00 W
PSB	6.00 W	6.00 W
PCK	0.00 W	0.00 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	5.67 kW	5.98 kW
Annual energy consumption Qhe	8546 kWh	10473 kWh
Pdh Tj = -15°C (if TOL<-20°C)	12.30	11.03
COP Tj = -15°C (if TOL<-20°C)	2.58	1.85
Cdh Tj = -15 °C	0.90	0.90

Average Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level outdoor	72 dB(A)	72 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	190.5 %	140.7 %
Prated	15.20 kW	14.70 kW
SCOP	4.84	3.59
Tbiv	-7 °C	-7 °C

TOL	-10 °C	-10 °C
Pdh Tj = -7°C	13.49 kW	13.03 kW
COP Tj = -7°C	2.87	2.16
Cdh Tj = -7 °C	0.90	0.90
Pdh Tj = +2°C	8.59 kW	8.50 kW
COP Tj = +2°C	4.53	3.55
Cdh Tj = +2 °C	0.90	0.90
Pdh Tj = +7°C	5.55 kW	5.27 kW
COP Tj = +7°C	7.01	5.05
Cdh Tj = +7 °C	0.90	0.90
Pdh Tj = 12°C	3.73 kW	2.15 kW
COP Tj = 12°C	9.02	4.52
Cdh Tj = +12 °C	0.90	0.90
Pdh Tj = Tbiv	13.49 kW	13.03 kW
COP Tj = Tbiv	2.87	2.16
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	14.05 kW	12.07 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.65	1.94
WTOL	65.00 °C	65.00 °C
Poff	6.00 W	6.00 W
PTO	18.00 W	18.00 W
PSB	6.00 W	6.00 W

PCK	0.00 W	0.00 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.15 kW	2.63 kW
Annual energy consumption Qhe	6509 kWh	8460 kWh