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No. (	041-K017-11
	J41-KU1/-II
Johnson Controls Industries	
4	44470
ntry F	France
BRE Global Limited	
YKF C 12 14 16kW	
Outdoor Air/Water	
R32	
1.8 kg	
04.08.2022	
Heat Pump Keymark Scheme Rules Rev 09	
	ntry I



# 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	
СОР	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 <sub>s</sub>	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



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5.82	3.86		
12.1 kW	12 kW		
3.53	2.39		
65 °C	65 °C		
13 W	13 W		
20 W	20 W		
13 W	13 W		
0 W	0 W		
Electricity	Electricity		
0 kW	0 kW		
2437 kWh	3524 kWh		
-	12.1 kW     3.53     65 °C     13 W     20 W     13 W     0 W     Electricity     0 kW		

# **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 <sub>s</sub>	168.8 %	126 %
Prated	12.5 kW	11.3 kW

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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	



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РТО	20 W	20 W
PSB	13 W	13 W
РСК	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
$COP Tj = -15^{\circ}C (if TOL < -20^{\circ}C)$	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
$\eta_s$	200.1 %	141.6 %
Prated	12.3 kW	12.5 kW
SCOP	5.08	3.62
Tbiv	-7 °C	-7 °C

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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	
РТО	20 W	20 W	
PSB	13 W	13 W	



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РСК	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
СОР	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 <sub>s</sub>	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



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5.72	3.95		
12.94 kW	13.01 kW		
3.51	2.37		
65.00 °C	65.00 °C		
13.00 W	13.00 W		
20.00 W	20.00 W		
13.00 W	13.00 W		
0.00 W	0.00 W		
Electricity	Electricity		
0.26 kW	1.18 kW		
2684 kWh	4040 kWh		
	12.94 kW 3.51 65.00 °C 13.00 W 20.00 W 13.00 W 0.00 W Electricity 0.26 kW		

# **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 <sub>s</sub>	171.3 %	126.6 %
Prated	14.31 kW	12.49 kW

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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		
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РТО	20.00 W	20.00 W
PSB	13.00 W	13.00 W
РСК	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
$COP Tj = -15^{\circ}C (if TOL < -20^{\circ}C)$	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 <sub>s</sub>	192.5 %	141.8 %
Prated	14.15 kW	14.15 kW
SCOP	4.89	3.62
Tbiv	-7 °C	-7 °C

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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
РТО	20.00 W	20.00 W
PSB	13.00 W	13.00 W



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РСК	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
СОР	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 <sub>s</sub>	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



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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			
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	COP Tj = Tbiv	5.41	3.94
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	Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	14.20 kW	13.62 kW
Poff   13.00 W   13.00 W     PTO   20.00 W   20.00 W     PSB   13.00 W   13.00 W	COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.22	2.35
PTO     20.00 W     20.00 W       PSB     13.00 W     13.00 W	WTOL	65.00 °C	65.00 °C
PSB     13.00 W     13.00 W	Poff	13.00 W	13.00 W
	РТО	20.00 W	20.00 W
	PSB	13.00 W	13.00 W
	РСК	0.00 W	0.00 W
Supplementary Heater: Type of energy input Electricity Electricity	Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP 0.00 kW 0.91 kW	Supplementary Heater: PSUP	0.00 kW	0.91 kW
Annual energy consumption Qhe2937 kWh4154 kWh	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 <sub>s</sub>	170.9 %	124.3 %	
Prated	15.10 kW	13.52 kW	

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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



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РТО	20.00 W	20.00 W
PSB	13.00 W	13.00 W
РСК	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
$COP Tj = -15^{\circ}C (if TOL < -20^{\circ}C)$	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
$\eta_s$	190.5 %	140.6 %
Prated	15.23 kW	14.70 kW
SCOP	4.84	3.59
Tbiv	-7 °C	-7 °C

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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
РТО	20.00 W	20.00 W
PSB	13.00 W	13.00 W



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РСК	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

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# 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
СОР	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 <sub>s</sub>	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



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5.82	3.86		
12.1 kW	12 kW		
3.53	2.39		
65 °C	65 °C		
6 W	6 W		
18 W	18 W		
6 W	6 W		
0 W	0 W		
Electricity	Electricity		
0 kW	0 kW		
2435 kWh	3523 kWh		
	12.1 kW 3.53 65 °C 6 W 18 W 6 W 0 W Electricity 0 kW		

# **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 <sub>s</sub>	168.8 %	126 %
Prated	12.5 kW	11.3 kW

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SCOP	4.3	3.23
	4.5	5.25
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 = $+2^{\circ}C$	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
	-!	-



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РТО	18 W	18 W
PSB	6 W	6 W
РСК	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
$COP Tj = -15^{\circ}C (if TOL < -20^{\circ}C)$	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
$\eta_s$	200.2 %	141.6 %
Prated	12.3 kW	12.5 kW
SCOP	5.08	3.62
Tbiv	-7 °C	-7 °C

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		KK Ualabase oli 4 Aug 2022
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
РТО	18 W	18 W
PSB	6 W	6 W



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РСК	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	
СОР	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 <sub>s</sub>	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



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5.72	3.95
12.94 kW	13.01 kW
3.51	2.37
65.00 °C	65.00 °C
6.00 W	6.00 W
18.00 W	18.00 W
6.00 W	6.00 W
0.00 W	0.00 W
Electricity	Electricity
0.26 kW	1.18 kW
2683 kWh	4039 kWh
-	12.94 kW     3.51     65.00 °C     6.00 W     18.00 W     6.00 W     0.00 W     Electricity     0.26 kW

# **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 <sub>s</sub>	171.3 %	126.6 %
Prated	14.30 kW	12.50 kW

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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 = $+2^{\circ}C$	5.52 kW	4.64 kW	
COP Tj = +2°C	5.35	3.91	
Cdh Tj = +2 °C	0.90	0.90	
Pdh Tj = $+7^{\circ}$ 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	



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5		. <u> </u>
РТО	18.00 W	18.00 W
PSB	6.00 W	6.00 W
РСК	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
$COP Tj = -15^{\circ}C (if TOL < -20^{\circ}C)$	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
$\eta_s$	192.5 %	141.8 %
Prated	14.20 kW	14.20 kW
SCOP	4.89	3.62
Tbiv	-7 °C	-7 °C



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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
РТО	18.00 W	18.00 W
PSB	6.00 W	6.00 W



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РСК	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
СОР	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 <sub>s</sub>	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



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5.41	3.94		
14.20 kW	13.62 kW		
3.22	2.35		
65.00 °C	65.00 °C		
6.00 W	13.00 W		
18.00 W	20.00 W		
6.00 W	13.00 W		
0.00 W	0.00 W		
Electricity	Electricity		
0.00 kW	0.91 kW		
2935 kWh	4153 kWh		
	14.20 kW     3.22     65.00 °C     6.00 W     18.00 W     6.00 W     0.00 W     Electricity     0.00 kW		

# **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 <sub>s</sub>	170.9 %	124.3 %
Prated	15.10 kW	13.50 kW

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500D	4.25	
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
$COP Tj = +2^{\circ}C$	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



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18.00 W	18.00 W
6.00 W	6.00 W
0.00 W	0.00 W
Electricity	Electricity
5.67 kW	5.98 kW
8546 kWh	10473 kWh
12.30	11.03
2.58	1.85
0.90	0.90
	6.00 W 0.00 W Electricity 5.67 kW 8546 kWh 12.30 2.58

# 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
$\eta_s$	190.5 %	140.7 %
Prated	15.20 kW	14.70 kW
SCOP	4.84	3.59
Tbiv	-7 °C	-7 °C

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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	
РТО	18.00 W	18.00 W	
PSB	6.00 W	6.00 W	

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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