

This information was generated by the HP KEYMARK database on 4 Aug 2022

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Summary of	YKF C 5 7 9kW	Reg. No.	041-K017-10
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 5 7 9kW		
Heat Pump Type	Outdoor Air/Water		
Refrigerant	R32		
Mass of Refrigerant	1.25 kg		
Certification Date	04.08.2022		
Testing basis	Heat Pump Keymark Scheme Rules Rev 09		

Model: YKF05CNC

Configure model	
Model name	YKF05CNC
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	6.5 kW	6.3 kW
El input	1.23 kW	1.97 kW
COP	5.3	3.2

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

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EN 12102-1

	Low temperature	Medium temperature
Sound power level outdoor	60 dB(A)	60 dB(A)

EN 14825

	Low temperature	Medium temperature
η_s	268.2 %	170.9 %
Prated	6.24 kW	6.17 kW
SCOP	6.78	4.35
Tbiv	7 °C	7 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	5.69 kW	6.17 kW
COP Tj = +2°C	4.31	2.77
Cdh Tj = +2 °C	0.9	0.9
Pdh Tj = +7°C	4.01 kW	3.97 kW
COP Tj = +7°C	6.39	3.9
Cdh Tj = +7 °C	0.9	0.9
Pdh Tj = 12°C	2.07 kW	2.06 kW
COP Tj = 12°C	8.71	5.28
Cdh Tj = +12 °C	0.9	0.9
Pdh Tj = Tbiv	4.01 kW	3.97 kW

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COP $T_j = T_{biv}$	6.39	3.9
$P_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	5.69 kW	6.17 kW
COP $T_j = TOL$ or COP $T_j = T_{designh}$ if $TOL < T_{designh}$	4.31	2.77
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	0.55 kW	0 kW
Annual energy consumption Q_{he}	1229 kWh	1895 kWh

Colder Climate

EN 12102-1		
	Low temperature	Medium temperature
Sound power level outdoor	60 dB(A)	60 dB(A)

EN 14825		
	Low temperature	Medium temperature
η_s	173.4 %	113.12 %
Prated	6.13 kW	5.22 kW

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SCOP	4.41	2.9
Tbiv	-15 °C	-15 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	4.11 kW	3.21 kW
COP Tj = -7°C	3.76	2.6
Cdh Tj = -7 °C	0.9	0.9
Pdh Tj = +2°C	2.38 kW	2.03 kW
COP Tj = +2°C	5.33	3.18
Cdh Tj = +2 °C	0.9	0.9
Pdh Tj = +7°C	1.66 kW	1.56 kW
COP Tj = +7°C	5.78	4.5
Cdh Tj = +7 °C	0.9	0.9
Pdh Tj = 12°C	1.87 kW	1.44 kW
COP Tj = 12°C	9.12	5.83
Cdh Tj = +12 °C	0.9	0.9
Pdh Tj = Tbiv	5 kW	4.25 kW
COP Tj = Tbiv	3.02	2
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.21 kW	3.24 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.12	1.32
WTOL	65 °C	65 °C
Poff	13 W	13 W

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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	1.92 kW	1.98 kW
Annual energy consumption Q _{he}	3425 kWh	4428 kWh
P _{dh} T _j = -15°C (if TOL<-20°C)	5	4.25
COP T _j = -15°C (if TOL<-20°C)	3.02	2
C _{dh} T _j = -15 °C	0.9	0.9

Average Climate

EN 12102-1		
	Low temperature	Medium temperature
Sound power level outdoor	60 dB(A)	60 dB(A)

EN 14825		
	Low temperature	Medium temperature
η_s	201.8 %	140.72 %
Prated	6.52 kW	6.36 kW
SCOP	5.12	3.59
T _{biv}	-7 °C	-7 °C

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TOL	-10 °C	-10 °C
Pdh Tj = -7°C	5.77 kW	5.62 kW
COP Tj = -7°C	3.43	2.36
Cdh Tj = -7 °C	0.9	0.9
Pdh Tj = +2°C	3.74 kW	3.52 kW
COP Tj = +2°C	5.04	3.7
Cdh Tj = +2 °C	0.9	0.9
Pdh Tj = +7°C	2.32 kW	2.2 kW
COP Tj = +7°C	6.06	4.21
Cdh Tj = +7 °C	0.9	0.9
Pdh Tj = 12°C	1.87 kW	1.31 kW
COP Tj = 12°C	9.12	4.96
Cdh Tj = +12 °C	0.9	0.9
Pdh Tj = Tbiv	5.77 kW	5.62 kW
COP Tj = Tbiv	3.43	2.36
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.52 kW	6.04 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3	2.02
WTOL	65 °C	65 °C
Poff	13 W	13 W
PTO	20 W	20 W
PSB	13 W	13 W

This information was generated by the HP KEYMARK database on 4 Aug 2022

PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0 kW	0.32 kW
Annual energy consumption Q _{he}	2631 kWh	3655 kWh

Model: YKF07CNC

Configure model	
Model name	YKF07CNC
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	8.40 kW	8.20 kW
El input	1.66 kW	2.60 kW
COP	5.05	3.15

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	63 dB(A)	63 dB(A)

EN 14825

	Low temperature	Medium temperature
η_s	274.74 %	185.3 %
Prated	8.06 kW	8.10 kW
SCOP	6.94	4.71
Tbiv	7 °C	7 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	7.23 kW	7.80 kW
COP Tj = +2°C	4.04	2.68
Cdh Tj = +2 °C	0.90	0.90
Pdh Tj = +7°C	5.18 kW	5.22 kW
COP Tj = +7°C	6.35	4.07
Cdh Tj = +7 °C	0.90	0.90
Pdh Tj = 12°C	2.46 kW	2.36 kW
COP Tj = 12°C	9.30	6.07
Cdh Tj = +12 °C	0.90	0.90
Pdh Tj = Tbiv	5.18 kW	5.22 kW

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COP $T_j = T_{biv}$	6.35	4.07
$P_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	7.23 kW	7.80 kW
COP $T_j = TOL$ or COP $T_j = T_{designh}$ if $TOL < T_{designh}$	4.04	2.68
WTOL	65.00 °C	65.00 °C
P _{off}	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	0.84 kW	0.32 kW
Annual energy consumption Q _{he}	1551 kWh	2303 kWh

Colder Climate

EN 12102-1		
	Low temperature	Medium temperature
Sound power level outdoor	63 dB(A)	63 dB(A)

EN 14825		
	Low temperature	Medium temperature
η_s	174.6 %	117.73 %
Prated	7.51 kW	6.06 kW

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SCOP	4.44	3.02
Tbiv	-15.00 °C	-15.00 °C
TOL	-22.00 °C	-22.00 °C
Pdh Tj = -7°C	4.42 kW	3.95 kW
COP Tj = -7°C	3.67	2.75
Cdh Tj = -7 °C	0.90	0.90
Pdh Tj = +2°C	2.99 kW	2.25 kW
COP Tj = +2°C	5.50	3.30
Cdh Tj = +2 °C	0.90	0.90
Pdh Tj = +7°C	2.03 kW	1.56 kW
COP Tj = +7°C	6.69	4.50
Cdh Tj = +7 °C	0.90	0.90
Pdh Tj = 12°C	1.87 kW	1.44 kW
COP Tj = 12°C	9.12	5.83
Cdh Tj = +12 °C	0.90	0.90
Pdh Tj = Tbiv	6.12 kW	4.94 kW
COP Tj = Tbiv	2.70	2.08
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.78 kW	3.24 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.16	1.32
WTOL	65.00 °C	65.00 °C
Poff	13.00 W	13.00 W

This information was generated by the HP KEYMARK database on 4 Aug 2022

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	2.72 kW	2.82 kW
Annual energy consumption Q _{he}	4166 kWh	4948 kWh
P _{dh} T _j = -15°C (if TOL<-20°C)	6.12	4.94
COP T _j = -15°C (if TOL<-20°C)	2.70	2.08
C _{dh} T _j = -15 °C	0.90	0.90

Average Climate

EN 12102-1		
	Low temperature	Medium temperature
Sound power level outdoor	63 dB(A)	63 dB(A)

EN 14825		
	Low temperature	Medium temperature
η_s	203.99 %	143.64 %
Prated	7.90 kW	7.25 kW
SCOP	5.17	3.67
T _{biv}	-7 °C	-7 °C

This information was generated by the HP KEYMARK database on 4 Aug 2022

TOL	-10 °C	-10 °C
Pdh Tj = -7°C	6.99 kW	6.42 kW
COP Tj = -7°C	3.29	2.31
Cdh Tj = -7 °C	0.90	0.90
Pdh Tj = +2°C	4.51 kW	4.03 kW
COP Tj = +2°C	4.99	3.76
Cdh Tj = +2 °C	0.90	0.90
Pdh Tj = +7°C	2.81 kW	2.56 kW
COP Tj = +7°C	6.72	4.48
Cdh Tj = +7 °C	0.90	0.90
Pdh Tj = 12°C	1.87 kW	1.31 kW
COP Tj = 12°C	9.12	4.96
Cdh Tj = +12 °C	0.90	0.90
Pdh Tj = Tbiv	6.99 kW	6.42 kW
COP Tj = Tbiv	3.29	2.31
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.46 kW	6.85 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.87	1.98
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

This information was generated by the HP KEYMARK database on 4 Aug 2022

PCK	0.00 W	0.00 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.44 kW	0.40 kW
Annual energy consumption Q _{he}	3155 kWh	4088 kWh

Model: YKF09CNC

Configure model	
Model name	YKF09CNC
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	10 kW	9.4 kW
El input	2.13 kW	3.03 kW
COP	4.7	3.1

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

This information was generated by the HP KEYMARK database on 4 Aug 2022

EN 12102-1

	Low temperature	Medium temperature
Sound power level outdoor	65 dB(A)	65 dB(A)

EN 14825

	Low temperature	Medium temperature
η_s	279.05 %	193.4 %
Prated	9.04 kW	9.03 kW
SCOP	7.05	4.91
Tbiv	7 °C	7 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	8.29 kW	8.42 kW
COP Tj = +2°C	3.85	2.68
Cdh Tj = +2 °C	0.9	0.9
Pdh Tj = +7°C	5.81 kW	5.81 kW
COP Tj = +7°C	6.24	4.16
Cdh Tj = +7 °C	0.9	0.9
Pdh Tj = 12°C	2.67 kW	2.74 kW
COP Tj = 12°C	9.63	6.64
Cdh Tj = +12 °C	0.9	0.9
Pdh Tj = Tbiv	5.81 kW	5.81 kW

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COP $T_j = T_{biv}$	6.24	4.16
$P_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	8.29 kW	8.42 kW
COP $T_j = TOL$ or COP $T_j = T_{designh}$ if $TOL < T_{designh}$	3.85	2.68
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	0.75 kW	0.61 kW
Annual energy consumption Q_{he}	1714 kWh	2458 kWh

Colder Climate

EN 12102-1		
	Low temperature	Medium temperature
Sound power level outdoor	65 dB(A)	65 dB(A)

EN 14825		
	Low temperature	Medium temperature
η_s	174.6 %	122.4 %
Prated	8.27 kW	7.21 kW

This information was generated by the HP KEYMARK database on 4 Aug 2022

SCOP	4.44	3.14
Tbiv	-15 °C	-15 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	5.42 kW	4.59 kW
COP Tj = -7°C	3.72	2.72
Cdh Tj = -7 °C	0.9	0.9
Pdh Tj = +2°C	3.14 kW	2.82 kW
COP Tj = +2°C	5.56	3.6
Cdh Tj = +2 °C	0.9	0.9
Pdh Tj = +7°C	2.16 kW	1.76 kW
COP Tj = +7°C	6.55	4.84
Cdh Tj = +7 °C	0.9	0.9
Pdh Tj = 12°C	1.87 kW	1.44 kW
COP Tj = 12°C	9.12	5.83
Cdh Tj = +12 °C	0.9	0.9
Pdh Tj = Tbiv	6.75 kW	5.88 kW
COP Tj = Tbiv	2.59	2.1
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	5.08 kW	3.24 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.01	1.32
WTOL	65 °C	65 °C
Poff	13 W	13 W

This information was generated by the HP KEYMARK database on 4 Aug 2022

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	3.19 kW	3.97 kW
Annual energy consumption Q _{he}	4591 kWh	5665 kWh
P _{dh} T _j = -15°C (if TOL<-20°C)	6.75	5.88
COP T _j = -15°C (if TOL<-20°C)	2.59	2.1
C _{dh} T _j = -15 °C	0.9	0.9

Average Climate

EN 12102-1		
	Low temperature	Medium temperature
Sound power level outdoor	65 dB(A)	65 dB(A)

EN 14825		
	Low temperature	Medium temperature
η_s	201.91 %	145.47 %
Prated	9.06 kW	8.16 kW
SCOP	5.12	3.71
T _{biv}	-7 °C	-7 °C

This information was generated by the HP KEYMARK database on 4 Aug 2022

TOL	-10 °C	-10 °C
Pdh Tj = -7°C	8.02 kW	7.21 kW
COP Tj = -7°C	3.09	2.24
Cdh Tj = -7 °C	0.9	0.9
Pdh Tj = +2°C	5.06 kW	4.56 kW
COP Tj = +2°C	4.92	3.86
Cdh Tj = +2 °C	0.9	0.9
Pdh Tj = +7°C	3.22 kW	2.84 kW
COP Tj = +7°C	7.03	4.58
Cdh Tj = +7 °C	0.9	0.9
Pdh Tj = 12°C	1.87 kW	1.31 kW
COP Tj = 12°C	9.12	4.96
Cdh Tj = +12 °C	0.9	0.9
Pdh Tj = Tbiv	8.02 kW	7.21 kW
COP Tj = Tbiv	3.09	2.24
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.88 kW	7.01 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.87	1.97
WTOL	65 °C	65 °C
Poff	13 W	13 W
PTO	20 W	20 W
PSB	13 W	13 W

This information was generated by the HP KEYMARK database on 4 Aug 2022

PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.18 kW	1.14 kW
Annual energy consumption Q _{he}	3654 kWh	4539 kWh