

This information was generated by the HP KEYMARK database on 18 Mar 2022

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Summary of	JAMA Star-24	Reg. No.	012-SC0667-18
Certificate Holder			
Name	Kaukora		
Address	Tuotekatu 11	Zip	FI-21200
City	Raisio	Country	Finland
Certification Body	RISE CERT		
Subtype title	JAMA Star-24		
Heat Pump Type	Brine/Water		
Refrigerant	R407c		
Mass of Refrigerant	4 kg		

Model: Star-24

Configure model	
Model name	Star-24
Application	Heating (medium temp)
Units	Indoor
Climate Zone	Colder Climate
Reversibility	No
Cooling mode application (optional)	n/a

General Data	
Power supply	3x400V 50Hz

Heating

EN 14511-2		
	Low temperature	Medium temperature
Heat output	23.00 kW	22.00 kW
El input	4.90 kW	7.12 kW
COP	4.65	3.09

EN 14511-4	
Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed

Average Climate

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EN 12102-1

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

EN 14825

	Low temperature	Medium temperature
η_s	185 %	143 %
Prated	28.00 kW	28.00 kW
SCOP	4.83	3.78
Tbiv	-6 °C	-5 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	23.60 kW	22.20 kW
COP Tj = -7°C	4.70	3.27
Pdh Tj = +2°C	23.80 kW	22.80 kW
COP Tj = +2°C	4.91	3.83
Pdh Tj = +7°C	12.00 kW	11.70 kW
COP Tj = +7°C	5.26	4.31
Pdh Tj = 12°C	12.10 kW	11.80 kW
COP Tj = 12°C	5.26	4.58
Pdh Tj = Tbiv	23.60 kW	22.40 kW
COP Tj = Tbiv	4.73	3.45

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$P_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	23.50 kW	22.00 kW
$COP T_j = TOL$ or $COP T_j = T_{designh}$ if $TOL < T_{designh}$	4.57	3.10
$C_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	0.98	0.99
WTOL	65 °C	65 °C
Poff	2 W	2 W
PTO	30 W	30 W
PSB	7 W	7 W
PCK	70 W	70 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	4.50 kW	6.00 kW
Annual energy consumption Q_{he}	11996 kWh	15287 kWh

Colder Climate

EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	47 dB(A)	47 dB(A)

EN 14825		
	Low temperature	Medium temperature
η_s	193 %	150 %
Prated	28.00 kW	28.00 kW

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SCOP	5.03	3.95
Tbiv	-16 °C	-15 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	23.80 kW	22.70 kW
COP Tj = -7°C	4.98	3.73
Pdh Tj = +2°C	12.00 kW	11.60 kW
COP Tj = +2°C	5.28	4.26
Pdh Tj = +7°C	12.10 kW	11.80 kW
COP Tj = +7°C	5.38	4.57
Pdh Tj = 12°C	12.10 kW	11.90 kW
COP Tj = 12°C	5.08	4.74
Pdh Tj = Tbiv	23.70 kW	22.40 kW
COP Tj = Tbiv	4.78	3.46
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	23.50 kW	22.00 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.57	3.10
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.98	0.99
WTOL	65 °C	65 °C
Poff	2 W	2 W
PTO	60 W	60 W
PSB	7 W	7 W
PCK	70 W	70 W

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Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	4.50 kW	6.00 kW
Annual energy consumption Q _{he}	13740 kWh	17514 kWh