

Page 1 of 17

This information was generated by the HP KEYMARK database on 22 Jun 2022

Login

Summary of	MAB 4-6 v10 190	Reg. No.	041-K012-02		
Certificate Holder	Certificate Holder				
Name	Salvador Escoda S.A.	Salvador Escoda S.A.			
Address	Carrer Nàpols 249 Pl.1	Zip	08013		
City	Barcelona	Country	Spain		
Certification Body	BRE Global Limited	BRE Global Limited			
Subtype title	MAB 4-6 v10 190	MAB 4-6 v10 190			
Heat Pump Type	Outdoor Air/Water				
Refrigerant	R32				
Mass of Refrigerant	1.5 kg				
Certification Date	21.05.2021				
Testing basis	Heat Pump Keymark Scheme Rules Rev 09				



Model: MAB-4-V10M + HR-4-6-190L-V10M

Configure model		
Model name	MAB-4-V10M + HR-4-6-190L-V10M	
Application	Heating + DHW + low temp	
Units	Indoor + 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	4.25 kW	4.40 kW	
El input	0.82 kW	1.49 kW	
СОР	5.20	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 indoor	42 dB(A)	42 dB(A)	
Sound power level outdoor	56 dB(A)	56 dB(A)	

EN 14825			
	Low temperature	Medium temperature	
η_{s}	254 %	162 %	
Prated	5.54 kW	5.02 kW	
SCOP	6.52	4.14	
Tbiv	7 °C	7 °C	
TOL	2 °C	2 °C	
Pdh Tj = +2°C	5.35 kW	4.84 kW	
COP Tj = +2°C	3.94	2.51	
Cdh Tj = +2 °C	0.90	0.90	
Pdh Tj = +7°C	3.56 kW	3.23 kW	
$COP Tj = +7^{\circ}C$	5.92	3.68	
Cdh Tj = +7 °C	0.90	0.90	
Pdh Tj = 12°C	1.64 kW	1.47 kW	
COP Tj = 12°C	7.91	5.15	
Cdh Tj = +12 °C	0.90	0.90	





Pdh Tj = Tbiv	3.56 kW	3.23 kW
COP Tj = Tbiv	5.92	3.68
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	5.35 kW	4.84 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.94	2.51
WTOL	65 °C	65 °C
Poff	14 W	14 W
РТО	24 W	24 W
PSB	14 W	14 W
PCK	o w	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.19 kW	0.18 kW
Annual energy consumption Qhe	1152 kWh	1621 kWh

Colder Climate

EN 12102-1			
	Low temperature	Medium temperature	
Sound power level indoor	42 dB(A)	42 dB(A)	
Sound power level outdoor	56 dB(A)	56 dB(A)	

EN 14825		
	Low temperature	Medium temperature





inis information was gener	rated by the HP KEYMA	ARK database on 22 Jun 2022
η_{S}	159 %	102 %
Prated	4.57 kW	3.37 kW
SCOP	4.06	2.63
Tbiv	-15 °C	-15 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7° C	2.76 kW	2.14 kW
$COP Tj = -7^{\circ}C$	3.49	2.32
Cdh Tj = -7 °C	0.90	0.90
Pdh Tj = $+2$ °C	1.77 kW	1.28 kW
COP Tj = +2°C	4.95	2.99
Cdh Tj = +2 °C	0.90	0.90
Pdh Tj = $+7^{\circ}$ C	1.17 kW	1.01 kW
$COPTj = +7^{\circ}C$	5.53	3.86
Cdh Tj = +7 °C	0.90	0.90
Pdh Tj = 12°C	1.43 kW	1.36 kW
COP Tj = 12°C	7.67	6.28
Cdh Tj = +12 °C	0.90	0.90
Pdh Tj = Tbiv	3.72 kW	2.75 kW
COP Tj = Tbiv	2.57	1.74
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	2.80 kW	1.64 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.97	1.02
		1





WTOL	65 °C	65 °C
Poff	14 W	14 W
РТО	24 W	24 W
PSB	14 W	14 W
PCK	o w	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.76 kW	1.73 kW
Annual energy consumption Qhe	2770 kWh	3159 kWh
Pdh Tj = -15°C (if TOL<-20°C)	3.72	2.75
COP Tj = -15°C (if TOL $<$ -20°C)	2.57	1.74
Cdh Tj = -15 °C	0.90	0.90

EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	42 dB(A)	42 dB(A)
Sound power level outdoor	56 dB(A)	56 dB(A)

EN 14825		
	Low temperature	Medium temperature
η_{S}	191 %	130 %





This information was generated by the HF KLTMAKK database on 22 juli 2022				
Prated	5.52 kW	4.40 kW		
SCOP	4.85	3.31		
Tbiv	-7 °C	-7 °C		
TOL	-10 °C	-10 °C		
Pdh Tj = -7° C	4.88 kW	3.89 kW		
$COPTj = -7^{\circ}C$	3.19	2.17		
Cdh Tj = -7 °C	0.90	0.90		
Pdh Tj = $+2$ °C	3.06 kW	2.38 kW		
COP Tj = +2°C	4.78	3.30		
Cdh Tj = +2 °C	0.90	0.90		
Pdh Tj = $+7^{\circ}$ C	1.93 kW	2.95 kW		
$COPTj = +7^{\circ}C$	6.13	4.41		
Cdh Tj = +7 °C	0.90	0.90		
Pdh Tj = 12°C	1.48 kW	1.32 kW		
COP Tj = 12°C	8.05	5.66		
Cdh Tj = +12 °C	0.90	0.90		
Pdh Tj = Tbiv	4.88 kW	3.89 kW		
COP Tj = Tbiv	3.19	2.17		
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.42 kW	3.42 kW		
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.86	1.91		
WTOL	65 °C	65 °C		
		·		



This information was generated	d by the HP KEYMARK	database on 22 Jun 2022

Poff	14 W	14 W
PTO	24 W	24 W
PSB	14 W	14 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.11 kW	0.98 kW
Annual energy consumption Qhe	2351 kWh	2744 kWh

Domestic Hot Water (DHW)

Warmer Climate

EN 16147		
Declared load profile	L	
Efficiency ηDHW	157 %	
СОР	3.80	
Heating up time	1:31 h:min	
Standby power input	21.0 W	
Reference hot water temperature	47.0 °C	
Mixed water at 40°C	200	

Colder Climate



EN 16147		
Declared load profile	L	
Efficiency ηDHW	102 %	
СОР	2.50	
Heating up time	1:54 h:min	
Standby power input	24.0 W	
Reference hot water temperature	47.0 °C	
Mixed water at 40°C	200 l	

EN 16147		
Declared load profile	L	
Efficiency ηDHW	127 %	
СОР	3.10	
Heating up time	1:47 h:min	
Standby power input	22.0 W	
Reference hot water temperature	47.0 °C	
Mixed water at 40°C	200	



Model: MAB-6-V10M + HR-4-6-190L-V10M

Configure model		
Model name	MAB-6-V10M + HR-4-6-190L-V10M	
Application	Heating + DHW + low temp	
Units	Indoor + 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	6.20 kW	6.00 kW	
El input	1.24 kW	2.00 kW	
СОР	5.00	3.00	

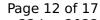
EN 14511-4	
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

Warmer Climate



EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	42 dB(A)	42 dB(A)
Sound power level outdoor	58 dB(A)	58 dB(A)

EN 14825		
	Low temperature	Medium temperature
η_{s}	258 %	165 %
Prated	6.12 kW	5.15 kW
SCOP	6.63	4.19
Tbiv	7 °C	7 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	5.94 kW	5.03 kW
COP Tj = +2°C	3.91	2.48
Cdh Tj = +2 °C	0.90	0.90
Pdh Tj = $+7^{\circ}$ C	3.93 kW	3.31 kW
$COP Tj = +7^{\circ}C$	5.89	3.67
Cdh Tj = +7 °C	0.90	0.90
Pdh Tj = 12°C	1.80 kW	1.60 kW
COP Tj = 12°C	8.20	5.29
Cdh Tj = +12 °C	0.90	0.90





3.93 kW	3.31 kW
5.89	3.67
5.94 kW	5.03 kW
3.91	2.48
65 °C	65 °C
14 W	14 W
24 W	24 W
14 W	14 W
o w	0 W
Electricity	Electricity
0.18 kW	0.12 kW
1251 kWh	1640 kWh
	5.89 5.94 kW 3.91 65 °C 14 W 24 W 14 W 0 W Electricity 0.18 kW

Colder Climate

Sound power level outdoor

Low temperature Medium temperature Sound power level indoor 42 dB(A) 42 dB(A)

58 dB(A)

58 dB(A)

EN 14825		
	Low temperature	Medium temperature





This information was gener	accuby the Hi KETMA	TRE database on 22 Juli 2022
η_{s}	165 %	111 %
Prated	5.63 kW	4.26 kW
SCOP	4.21	2.85
Tbiv	-15 °C	-15 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	3.42 kW	2.70 kW
COP Tj = -7° C	3.59	2.46
Cdh Tj = -7 °C	0.90	0.90
Pdh Tj = $+2$ °C	2.06 kW	1.61 kW
$COPTj = +2^{\circ}C$	5.21	3.36
Cdh Tj = +2 °C	0.90	0.90
Pdh Tj = $+7^{\circ}$ C	1.47 kW	1.02 kW
$COPTj = +7^{\circ}C$	6.24	3.94
Cdh Tj = +7 °C	0.90	0.90
Pdh Tj = 12°C	1.44 kW	1.37 kW
COP Tj = 12°C	7.66	6.35
Cdh Tj = +12 °C	0.90	0.90
Pdh Tj = Tbiv	4.60 kW	3.48 kW
COP Tj = Tbiv	2.53	1.86
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	3.48 kW	2.10 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.96	1.13
	+	•

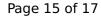




WTOL	65 °C	65 °C
Poff	20 W	20 W
РТО	24 W	24 W
PSB	14 W	14 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	2.15 kW	2.16 kW
Annual energy consumption Qhe	3301 kWh	3681 kWh
Pdh Tj = -15 °C (if TOL< -20 °C)	4.60	3.48
COP Tj = -15 °C (if TOL< -20 °C)	2.53	1.86
Cdh Tj = -15 °C	0.90	0.90

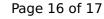
EN 12102-1			
	Low temperature	Medium temperature	
Sound power level indoor	42 dB(A)	42 dB(A)	
Sound power level outdoor	58 dB(A)	58 dB(A)	

EN 14825		
	Low temperature	Medium temperature
η_{S}	195 %	138 %
	·	





Prated	6.82 kW	5.70 kW
SCOP	4.95	3.52
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	6.03 kW	5.05 kW
COP Tj = -7°C	3.09	2.17
Cdh Tj = -7 °C	0.90	0.90
Pdh Tj = +2°C	3.88 kW	3.12 kW
COP Tj = +2°C	4.85	3.51
Cdh Tj = +2 °C	0.90	0.90
Pdh Tj = +7°C	2.40 kW	2.09 kW
$COP Tj = +7^{\circ}C$	6.63	4.54
Cdh Tj = +7 °C	0.90	0.90
Pdh Tj = 12°C	1.39 kW	1.28 kW
COP Tj = 12°C	7.83	5.59
Cdh Tj = +12 °C	0.90	0.90
Pdh Tj = Tbiv	6.03 kW	5.05 kW
COP Tj = Tbiv	3.09	2.17
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	5.36 kW	4.52 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.76	1.91
WTOL	65 °C	65 °C





Poff	14 W	14 W
PTO	24 W	24 W
PSB	14 W	14 W
PCK	o w	o w
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.45 kW	1.18 kW
Annual energy consumption Qhe	2846 kWh	3345 kWh

Domestic Hot Water (DHW)

Warmer Climate

EN 16147		
Declared load profile	L	
Efficiency ηDHW	157 %	
СОР	3.80	
Heating up time	1:31 h:min	
Standby power input	21.0 W	
Reference hot water temperature	47.0 °C	
Mixed water at 40°C	200	

Colder Climate



EN 16147	
Declared load profile	L
Efficiency ηDHW	102 %
СОР	2.50
Heating up time	1:54 h:min
Standby power input	24.0 W
Reference hot water temperature	47.0 °C
Mixed water at 40°C	200

EN 16147	
Deale and lead out file	
Declared load profile	L
Efficiency ηDHW	127 %
СОР	3.10
Heating up time	1:47 h:min
Standby power input	22.0 W
Reference hot water temperature	47.0 °C
Mixed water at 40°C	200 I