

Heat pump model	Master Therm	AQ26I-1
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Heat pump type	Brine/Water
Supplementary heater	Yes
Heat pump combination heater	No

Reference heating season			Average	
Reference water temperature			LOW, 35°C	
Full load heating	Prated [kW]		8.94	
Seasonal efficiency	η_s [%]		190	A+++
Annual electricity consumption	Q_{HE} [kWh]		3735	
Average 35°C	Outdoor heat exchanger	Declared capacity	COP at part load	Degradation Coefficient
	Outdoor air			
	T_j [°C]	P_{dh} [kW]	COP_d (-)	C_{dh} (-)
A	-7	8.06	4.34	0.900
B	2	4.99	4.91	0.900
C	7	3.16	5.51	0.900
D	12	1.90	5.65	0.965
TOL (E)	-10	8.94	4.13	0.900
Tbivalent (F)	-10	8.94	4.13	0.900

Reference heating season			Average	
Reference water temperature			High, 55°C	
Full load heating	Prated [kW]		7.99	
Seasonal efficiency	η_s [%]		144	A++
Annual electricity consumption	Q_{HE} [kWh]		4333	
Average 55°C	Outdoor heat exchanger	Declared capacity	COP at part load	Degradation Coefficient
	Outdoor air			
	T_j [°C]	P_{dh} [kW]	COP_d (-)	C_{dh} (-)
A	-7	7.17	3.04	0.900
B	2	4.35	3.77	0.900
C	7	2.77	4.42	0.900
D	12	1.83	4.64	0.970
TOL (E)	-10	7.99	2.86	0.900
Tbivalent (F)	-10	7.99	2.86	0.900

Reference heating season			Warmer	
Reference water temperature			Low, 35°C	
Full load heating	Prated [kW]		8.94	
Seasonal efficiency	η_s [%]		191	
Annual electricity consumption	Q_{HE} [kWh]		2400	
Warmer 35°C	Outdoor heat exchanger	Declared capacity	COP at part load	Degradation Coefficient
	Outdoor air			
	T_j [°C]	P_{dh} [kW]	COP_d (-)	C_{dh} (-)
B	2	8.94	4.13	0.900
C	7	6.21	4.69	0.900
D	12	2.54	5.65	0.900
TOL (E)	2	8.94	4.13	0.900
Tbivalent (F)	2	8.94	4.13	0.900

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Reference heating season			Warmer		
Reference water temperature			High, 55°C		
Full load heating		Prated [kW]	7.99		
Seasonal efficiency		ηs [%]	141		
Annual electricity consumption		QHE [kWh]	2400		
Warmer 55°C	Outdoor heat exchanger	Declared capacity	COP at part load	Degradation Coefficient	
	Outdoor air				
	Tj [°C]	Pdh [kW]	COPd (-)	Cdh (-)	
B	2	7.99	2.86	0.900	
C	7	5.18	3.35	0.900	
D	12	2.41	4.42	0.900	
TOL (E)	2	7.99	2.86	0.900	
Tbivalent (F)	2	7.99	2.86	0.900	

Reference heating season			Colder		
Reference water temperature			Low, 35°C		
Full load heating		Prated [kW]	8.94		
Seasonal efficiency		ηs [%]	198		
Annual electricity consumption		QHE [kWh]	4287		
Colder 35°C	Outdoor heat exchanger	Declared capacity	COP at part load	Degradation Coefficient	
	Outdoor air				
	Tj [°C]	Pdh [kW]	COPd (-)	Cdh (-)	
A	-7	5.61	4.84	0.900	
B	2	3.41	5.51	0.900	
C	7	2.29	5.65	0.900	
D	12	1.89	5.51	0.965	
TOL (E)	-22	8.94	4.13	0.900	
Tbivalent (F)	-22	8.94	4.13	0.900	
G	-15	7.44	4.53	0.900	

Reference heating season			Colder		
Reference water temperature			High, 55°C		
Full load heating		Prated [kW]	7.99		
Seasonal efficiency		ηs [%]	151		
Annual electricity consumption		QHE [kWh]	4966		
Colder 55°C	Outdoor heat exchanger	Declared capacity	COP at part load	Degradation Coefficient	
	Outdoor air				
	Tj [°C]	Pdh [kW]	COPd (-)	Cdh (-)	
A	-7	4.90	3.58	0.900	
B	2	3.00	4.32	0.900	
C	7	1.85	4.87	0.900	
D	12	1.84	4.82	0.969	
TOL (E)	-22	7.99	2.86	0.900	
Tbivalent (F)	-22	7.99	2.86	0.900	
G	-15	7.58	3.19	0.995	

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Power consumption in modes other than "active mode"			
Off mode	P_{OFF} [kW]	0.012	
Thermostat off mode	P_{TO} [kW]	0.012	
Standby mode	P_{SB} [kW]	0.012	
Crankcaseheater mode	P_{CK} [kW]	-	
Supplementary heater capacity			P_{sup} [kW]
Supplementary heater type			[-]
Capacity control			Variable
Sound power level Indoor	L_{WA} [dBA]	48	
Sound power level Outdoor	L_{WA} [dBA]	-	
Rated brine flow	[m ³ /h]	1.73	
Temperature controller			
Type	Carel pCO5/pCO5+/uPC, Master Therm custom SW		
Class	II		
Contribution	%	2.0	
Temperature controller + Room Terminal			
Type	Carel pCO5/pCO5+/uPC + pAD, Master Therm custom SW		
Class	VI		
Contribution	%	4.0	

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Information sheet			
Temperature application		Low, 35°C	High, 55°C
Space heating energy efficiency class, Average climate	-	A+++	A++
Nominal heating capacity Pdesign, Average climate	kW	9	8
Space heating seasonal efficiency, Average climate	%	190	144
Space heating annual electricity consumption, Average cl.	kWh	3735	4333
Nominal heating capacity Pdesign, Colder climate	kW	9	8
Space heating seasonal efficiency, Colder climate	%	198	151
Space heating annual electricity consumption, Colder cl.	kWh	4287	4966
Nominal heating capacity Pdesign, Warmer climate	kW	9	8
Space heating seasonal efficiency, Warmer climate	%	191	141
Space heating annual electricity consumption, Warmer cl.	kWh	2400	2400
Sound power level Lwa	dB(A)	48	

Information sheet for energy efficiency Set with Temperature controller			
Temperature application		Low, 35°C	High, 55°C
Controller Carel pCO5/pCO5+/uPC, Class	-	II	II
Controller Carel pCO5/pCO5+/uPC, Contribution	%	2.0	2.0
Set Space heating seasonal efficiency, Average climate	%	192	146
Set Space heating energy efficiency class, Average climate	-	A+++	A++
Set Space heating seasonal efficiency, Colder climate	%	200	153
Set Space heating seasonal efficiency, Warmer climate	%	193	143

Information sheet for energy efficiency Set with Temperature controller + Room Terminal			
Temperature application		Low, 35°C	High, 55°C
Controller Carel pCO5/pCO5+/uPC + pAD, Class	-	VI	VI
Controller Carel pCO5/pCO5+/uPC, +pAD, Contribution	%	4.0	4.0
Set Space heating seasonal efficiency, Average climate	%	194	148
Set Space heating energy efficiency class, Average climate	-	A+++	A++
Set Space heating seasonal efficiency, Colder climate	%	202	155
Set Space heating seasonal efficiency, Warmer climate	%	195	145