

Heat pump model	Master Therm	AQ261-1, AQ261-0
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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]	COPd (-)	Cdh (-)
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]	COPd (-)	Cdh (-)
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]	COPd (-)	Cdh (-)
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		η_s [%]	141	
Annual electricity consumption		Q_{HE} [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		η_s [%]	198	
Annual electricity consumption		Q_{HE} [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		η_s [%]	151	
Annual electricity consumption		Q_{HE} [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]	3-4(4,5-6)
Supplementary heater type	[-]	electricity

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	dBA	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