

Heat pump model	Master Therm	BA26IS-1
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Heat pump type	Air/Water
Supplementary heater	Yes
Heat pump combination heater	No

Reference heating season			Average	SCOP 4.29
Reference water temperature			LOW, 35°C	
Full load heating	Prated [kW]		6.51	
Seasonal efficiency	η_s [%]		168	A++
Annual electricity consumption	Q_{HE} [kWh]		3139	
Average 35°C	Outdoor heat exchanger	Declared capacity	COP at part load	Degradation Coefficient
	Outdoor air			
	Tj [°C]	Pdh [kW]	COPd (-)	Cdh (-)
A	-7	5.76	2.59	0.900
B	2	3.72	3.91	0.900
C	7	2.42	6.53	0.900
D	12	2.74	7.82	0.951
TOL (E)	-10	5.88	2.52	0.900
Tbivalent (F)	-7	5.76	2.59	0.900

Reference heating season			Average	SCOP 3.24
Reference water temperature			High, 55°C	
Full load heating	Prated [kW]		6.33	
Seasonal efficiency	η_s [%]		126	A++
Annual electricity consumption	Q_{HE} [kWh]		4039	
Average 55°C	Outdoor heat exchanger	Declared capacity	COP at part load	Degradation Coefficient
	Outdoor air			
	Tj [°C]	Pdh [kW]	COPd (-)	Cdh (-)
A	-7	5.60	1.94	0.900
B	2	3.50	3.02	0.900
C	7	2.33	4.69	0.900
D	12	2.78	5.93	0.963
TOL (E)	-10	5.66	1.82	0.900
Tbivalent (F)	-7	5.60	1.94	0.900

Reference heating season			Warmer	
Reference water temperature			Low, 35°C	
Full load heating	Prated [kW]		7.67	
Seasonal efficiency	η_s [%]		259	
Annual electricity consumption	Q_{HE} [kWh]		1567	
Warmer 35°C	Outdoor heat exchanger	Declared capacity	COP at part load	Degradation Coefficient
	Outdoor air			
	Tj [°C]	Pdh [kW]	COPd (-)	Cdh (-)
B	2	7.67	3.41	0.900
C	7	5.10	5.85	0.900
D	12	2.52	8.17	0.944
TOL (E)	2	7.67	3.41	0.900
Tbivalent (F)	2	7.67	3.41	0.900

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Reference heating season				Warmer	
Reference water temperature				High, 55°C	
Full load heating		Prated [kW]		7.40	
Seasonal efficiency		η_s [%]		177	
Annual electricity consumption		Q_{HE} [kWh]		2199	
Warmer 55°C	Outdoor heat exchanger	Declared capacity	COP at part load	Degradation Coefficient	
	Outdoor air				
	Tj [°C]	Pdh [kW]	COPd (-)	Cdh (-)	
B	2	7.40	2.21	0.900	
C	7	5.17	3.71	0.900	
D	12	2.46	6.13	0.957	
TOL (E)	2	7.40	2.21	0.900	
Tbivalent (F)	2	7.40	2.21	0.900	

Reference heating season				Colder	
Reference water temperature				Low, 35°C	
Full load heating		Prated [kW]		9.65	
Seasonal efficiency		η_s [%]		132	
Annual electricity consumption		Q_{HE} [kWh]		5987	
Colder 35°C	Outdoor heat exchanger	Declared capacity	COP at part load	Degradation Coefficient	
	Outdoor air				
	Tj [°C]	Pdh [kW]	COPd (-)	Cdh (-)	
A	-7	5.84	2.70	0.900	
B	2	3.54	4.55	0.900	
C	7	2.97	6.91	0.960	
D	12	3.45	8.24	0.959	
TOL (E)	-22	4.16	2.08	0.900	
Tbivalent (F)	-7	5.84	2.70	0.900	
G	-15	4.81	2.32	0.900	

Reference heating season				Colder	
Reference water temperature				High, 55°C	
Full load heating		Prated [kW]		9.31	
Seasonal efficiency		η_s [%]		107	
Annual electricity consumption		Q_{HE} [kWh]		7116	
Colder 55°C	Outdoor heat exchanger	Declared capacity	COP at part load	Degradation Coefficient	
	Outdoor air				
	Tj [°C]	Pdh [kW]	COPd (-)	Cdh (-)	
A	-7	5.63	2.17	0.900	
B	2	3.69	3.58	0.900	
C	7	2.86	5.64	0.966	
D	12	3.33	6.74	0.965	
TOL (E)	-22	3.53	1.42	0.900	
Tbivalent (F)	-7	5.63	2.17	0.900	
G	-15	4.34	1.71	0.900	

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Power consumption in modes other than "active mode"		
Off mode	P _{OFF} [kW]	0.018
Thermostat off mode	P _{TO} [kW]	0.017
Standby mode	P _{SB} [kW]	0.018
Crankcaseheater mode	P _{CK} [kW]	-

Supplementary heater capacity	P _{SUP} [kW]	4,5+ (4,5)
Supplementary heater type	[-]	electricity

Capacity control		Variable
Sound power level Indoor	L _{WA} [dBA]	48
Sound power level Outdoor	L _{WA} [dBA]	55
Rated airflow	[m ³ /h]	max. 3500

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	7	6
Space heating seasonal efficiency, Average climate	%	168	126
Space heating annual electricity consumption, Average cl.	kWh	3139	4039
Nominal heating capacity Pdesign, Colder climate	kW	10	9
Space heating seasonal efficiency, Colder climate	%	132	107
Space heating annual electricity consumption, Colder cl.	kWh	5987	7116
Nominal heating capacity Pdesign, Warmer climate	kW	8	7
Space heating seasonal efficiency, Warmer climate	%	259	177
Space heating annual electricity consumption, Warmer cl.	kWh	1567	2199
Sound power level Lwa Outdoor	dBA	55	

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	%	170	128
Set Space heating energy efficiency class, Average climate	-	A++	A++
Set Space heating seasonal efficiency, Colder climate	%	134	109
Set Space heating seasonal efficiency, Warmer climate	%	261	179

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	%	172	130
Set Space heating energy efficiency class, Average climate	-	A++	A++
Set Space heating seasonal efficiency, Colder climate	%	136	111
Set Space heating seasonal efficiency, Warmer climate	%	263	181