

Heat pump model **Master Therm** **BA26IP-0, BA26IP-1**

Heat pump type	Air/Water
Supplementary heater	Yes
Heat pump combination heater	No

Reference heating season	Average		SCOP	
Reference water temperature	LOW, 35°C		5,14	
Full load heating	Prated [kW]	6,57		
Seasonal efficiency	η_s [%]	203	A+++	
Annual electricity consumption	Q_{HE} [kWh]	2639		
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 _d h (-)
A	-7	6,03	3,21	0,900
B	2	3,62	5,01	0,900
C	7	2,32	7,40	0,900
D	12	2,51	9,00	0,932
TOL (E)	-10	6,57	3,26	0,900
Tbivalent (F)	-10	6,57	3,26	0,900

Reference heating season	Average		SCOP	
Reference water temperature	High, 55°C		3,83	
Full load heating	Prated [kW]	6,22		
Seasonal efficiency	η_s [%]	150	A+++	
Annual electricity consumption	Q_{HE} [kWh]	3359		
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 _d h (-)
A	-7	5,59	2,45	0,900
B	2	3,36	3,65	0,900
C	7	2,23	5,49	0,900
D	12	2,43	6,71	0,947
TOL (E)	-10	6,22	2,40	0,900
Tbivalent (F)	-10	6,22	2,40	0,900

Reference heating season	Warmer			
Reference water temperature	Low, 35°C			
Full load heating	Prated [kW]	8,43		
Seasonal efficiency	η_s [%]	260		
Annual electricity consumption	Q_{HE} [kWh]	1715		
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 _d h (-)
B	2	8,43	3,77	0,900
C	7	5,81	6,05	0,900
D	12	2,51	9,00	0,900
TOL (E)	2	8,43	3,77	0,900
Tbivalent (F)	2	8,43	3,77	0,900

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Reference heating season		Warmer		
Reference water temperature		High, 55°C		
Full load heating		Prated [kW]	7,96	
Seasonal efficiency		η_s [%]	188	
Annual electricity consumption		Q_{HE} [kWh]	2228	
Warmer 55°C	Outdoor heat exchanger	Declared capacity	COP at part load	Degradation Coefficient
	Outdoor air			
	Tj [°C]	Pdh [kW]	COPd (-)	Cdh (-)
B	2	7,96	2,69	0,900
C	7	5,47	4,15	0,900
D	12	2,42	6,48	0,900
TOL (E)	2	7,96	2,69	0,900
Tbivalent (F)	2	7,96	2,69	0,900

Reference heating season		Colder		
Reference water temperature		Low, 35°C		
Full load heating		Prated [kW]	9,72	
Seasonal efficiency		η_s [%]	170	
Annual electricity consumption		Q_{HE} [kWh]	5541	
Colder 35°C	Outdoor heat exchanger	Declared capacity	COP at part load	Degradation Coefficient
	Outdoor air			
	Tj [°C]	Pdh [kW]	COPd (-)	Cdh (-)
A	-7	6,08	3,45	0,900
B	2	3,66	5,51	0,900
C	7	2,34	8,01	0,900
D	12	2,51	9,00	0,932
TOL (E)	-20	6,01	3,01	0,900
Tbivalent (F)	-10	6,65	3,50	0,900
G	-15	6,33	3,25	0,900

Reference heating season		Colder		
Reference water temperature		High, 55°C		
Full load heating		Prated [kW]	9,31	
Seasonal efficiency		η_s [%]	133	
Annual electricity consumption		Q_{HE} [kWh]	6741	
Colder 55°C	Outdoor heat exchanger	Declared capacity	COP at part load	Degradation Coefficient
	Outdoor air			
	Tj [°C]	Pdh [kW]	COPd (-)	Cdh (-)
A	-7	5,89	2,74	0,900
B	2	3,54	4,12	0,900
C	7	2,27	6,20	0,900
D	12	2,45	7,17	0,944
TOL (E)	-20	5,95	2,14	0,900
Tbivalent (F)	-10	6,37	2,74	0,900
G	-15	6,16	2,44	0,900

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Power consumption in modes other than "active mode"		
Off mode	P_{OFF} [kW]	0,019
Thermostat off mode	P_{TO} [kW]	0,019
Standby mode	P_{SB} [kW]	0,019
Crankcaseheater mode	P_{CK} [kW]	-

Supplementary heater capacity	P_{sup} [kW]	5,7(+2,8)
Supplementary heater type	[-]	electricity

Capacity control		Variable
Sound power level Indoor	L_{WA} [dBA]	-
Sound power level Outdoor	L_{WA} [dBA]	53
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	%	203	150
Space heating annual electricity consumption, Average cl.	kWh	2639	3359

Nominal heating capacity Pdesign, Colder climate	kW	10	9
Space heating seasonal efficiency, Colder climate	%	170	133
Space heating annual electricity consumption, Colder cl.	kWh	5541	6741

Nominal heating capacity Pdesign, Warmer climate	kW	8	8
Space heating seasonal efficiency, Warmer climate	%	260	188
Space heating annual electricity consumption, Warmer cl.	kWh	1715	2228

Sound power level Lwa Outdoor	dBA	53
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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	%	205	152
Set Space heating energy efficiency class, Average climate	-	A+++	A+++
Set Space heating seasonal efficiency, Colder climate	%	172	135
Set Space heating seasonal efficiency, Warmer climate	%	262	190

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	%	207	154
Set Space heating energy efficiency class, Average climate	-	A+++	A+++
Set Space heating seasonal efficiency, Colder climate	%	174	137
Set Space heating seasonal efficiency, Warmer climate	%	264	192