

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		4,90	
Full load heating	Prated [kW]	6,83		
Seasonal efficiency	η_s [%]	193		A+++
Annual electricity consumption	Q_{HE} [kWh]	2882		
Average 35°C	Outdoor heat exchanger	Declared capacity	COP at part load	Degradation Coefficient
	Outdoor air			
	Tj [°C]	Pdh [kW]	COPd (-)	Cdh (-)
A	-7	6,15	2,83	0,900
B	2	4,03	4,77	0,900
C	7	2,50	7,44	0,900
D	12	2,70	9,00	0,937
TOL (E)	-10	6,83	2,58	0,900
Tbivalent (F)	-10	6,83	2,58	0,900

Reference heating season	Average		SCOP	
Reference water temperature	High, 55°C		3,66	
Full load heating	Prated [kW]	6,74		
Seasonal efficiency	η_s [%]	144		A++
Annual electricity consumption	Q_{HE} [kWh]	3798		
Average 55°C	Outdoor heat exchanger	Declared capacity	COP at part load	Degradation Coefficient
	Outdoor air			
	Tj [°C]	Pdh [kW]	COPd (-)	Cdh (-)
A	-7	6,36	2,16	0,900
B	2	3,89	3,52	0,900
C	7	2,56	5,48	0,900
D	12	2,62	6,71	0,951
TOL (E)	-10	6,74	1,98	0,900
Tbivalent (F)	-10	6,74	1,98	0,900

Reference heating season	Warmer			
Reference water temperature	Low, 35°C			
Full load heating	Prated [kW]	7,93		
Seasonal efficiency	η_s [%]	267		
Annual electricity consumption	Q_{HE} [kWh]	1570		
Warmer 35°C	Outdoor heat exchanger	Declared capacity	COP at part load	Degradation Coefficient
	Outdoor air			
	Tj [°C]	Pdh [kW]	COPd (-)	Cdh (-)
B	2	7,93	3,45	0,900
C	7	5,44	6,15	0,900
D	12	2,71	9,43	0,934
TOL (E)	2	7,93	3,45	0,900
Tbivalent (F)	2	7,93	3,45	0,900

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

Reference heating season		Warmer		
Reference water temperature		High, 55°C		
Full load heating		Prated [kW]	7,58	
Seasonal efficiency		η_s [%]	183	
Annual electricity consumption		Q_{HE} [kWh]	2182	
Warmer 55°C	Outdoor heat exchanger	Declared capacity	COP at part load	Degradation Coefficient
	Outdoor air			
	Tj [°C]	Pdh [kW]	COPd (-)	Cdh (-)
B	2	7,58	2,49	0,900
C	7	5,11	4,03	0,900
D	12	2,61	6,47	0,953
TOL (E)	2	7,58	2,49	0,900
Tbivalent (F)	2	7,58	2,49	0,900

Reference heating season		Colder		
Reference water temperature		Low, 35°C		
Full load heating		Prated [kW]	10,08	
Seasonal efficiency		η_s [%]	148	
Annual electricity consumption		Q_{HE} [kWh]	6580	
Colder 35°C	Outdoor heat exchanger	Declared capacity	COP at part load	Degradation Coefficient
	Outdoor air			
	Tj [°C]	Pdh [kW]	COPd (-)	Cdh (-)
A	-7	6,10	3,03	0,900
B	2	4,07	5,19	0,900
C	7	2,51	7,72	0,900
D	12	2,70	9,00	0,937
TOL (E)	-20	5,16	2,36	0,900
Tbivalent (F)	-7	6,10	3,03	0,900
G	-15	5,52	2,62	0,900

Reference heating season		Colder		
Reference water temperature		High, 55°C		
Full load heating		Prated [kW]	9,86	
Seasonal efficiency		η_s [%]	120	
Annual electricity consumption		Q_{HE} [kWh]	7930	
Colder 55°C	Outdoor heat exchanger	Declared capacity	COP at part load	Degradation Coefficient
	Outdoor air			
	Tj [°C]	Pdh [kW]	COPd (-)	Cdh (-)
A	-7	5,97	2,45	0,900
B	2	3,95	3,95	0,900
C	7	2,44	6,02	0,900
D	12	2,64	7,17	0,948
TOL (E)	-20	5,28	1,81	0,900
Tbivalent (F)	-7	5,97	2,45	0,900
G	-15	5,55	2,06	0,900

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

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]	4,5(+4,5)
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

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

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	7
Space heating seasonal efficiency, Average climate	%	193	144
Space heating annual electricity consumption, Average cl.	kWh	2882	3798

Nominal heating capacity Pdesign, Colder climate	kW	10	10
Space heating seasonal efficiency, Colder climate	%	148	120
Space heating annual electricity consumption, Colder cl.	kWh	6580	7930

Nominal heating capacity Pdesign, Warmer climate	kW	8	8
Space heating seasonal efficiency, Warmer climate	%	267	183
Space heating annual electricity consumption, Warmer cl.	kWh	1570	2182

Sound power level Lwa Outdoor	dBA	53
-------------------------------	-----	----

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	%	195	146
Set Space heating energy efficiency class, Average climate	-	A+++	A++
Set Space heating seasonal efficiency, Colder climate	%	150	122
Set Space heating seasonal efficiency, Warmer climate	%	269	185

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	%	197	148
Set Space heating energy efficiency class, Average climate	-	A++	A++
Set Space heating seasonal efficiency, Colder climate	%	152	124
Set Space heating seasonal efficiency, Warmer climate	%	271	187