

Data Average climate zone

Climate zone:	Average	Average
Temperature condition:	Low	High
Design temperature:	-10°C	-10°C
Bivalent temperature:	-4°C	-4°C
P design:	15,59kW	14,41kW
SCOP:	3,79	3,00
Energy efficiency, η_s :	148,6%	117,2%
Energy efficiency class:	A+	A+
Accumulated, Q_H :	32205kWh	29780kWh
Consumption, Q_{HE} :	8500kWh	9911kWh

Test result table: Average, Low temperature

Outdoor air (°C)	Flow temp (°C)	Part load ratio %	Part load (kW)	Capacity (kW)	COP _d (-)	Degradation coefficient (-)	CR (-)	COP _{bin} (-)	Power in off mode (kW)
-7	34,00	88,46	13,79	11,100	3,110	0,900	1,00	3,110	-
2	31,66	53,85	8,39	13,730	3,930	0,991	0,61	3,908	0,0314
7	30,46	34,62	5,40	16,541	4,200	0,992	0,33	4,132	0,0314
12	28,94	15,38	2,40	18,300	5,390	0,991	0,13	5,079	0,0314
-10	37,56	119,23	18,59	8,350	2,310	0,900	1,00	2,310	-
-4	32,67	76,92	11,99	11,991	3,430	0,900	1,00	3,430	-

Test result table: Average, High temperature

Outdoor air (°C)	Flow temp (°C)	Part load ratio %	Part load (kW)	Capacity (kW)	COP _d (-)	Degradation coefficient (-)	CR (-)	COP _{bin} (-)	Power in off mode (kW)
-7	52,00	88,46	12,75	10,090	2,200	0,900	1,00	2,200	-
2	44,91	53,85	7,76	13,053	3,040	0,993	0,59	3,025	0,0314
7	41,82	34,62	4,99	15,579	3,640	0,993	0,32	3,584	0,0314
12	38,36	15,38	2,22	17,432	4,480	0,992	0,13	4,245	0,0314
-10	55,33	100,00	14,41	9,090	1,980	0,900	1,00	1,980	-
-4	48,67	76,92	11,09	11,088	2,470	0,900	1,00	2,470	-

Data Cold climate zone

Climate zone:	Cold	Cold
Temperature condition:	Low	High
Design temperature:	-22°C	-22°C
Bivalent temperature:	-7°C	-7°C
P design:	18,63kW	17,14kW
SCOP:	3,05	2,47
Energy efficiency, η_s :	119,1%	95,7%
Energy efficiency class:	A	A
Accumulated, Q_H :	45919kWh	42253kWh
Consumption, Q_{HE} :	15044kWh	17116kWh

Test result table: Cold, Low temperature

Outdoor air (°C)	Flow temp (°C)	Part load ratio %	Part load (kW)	Capacity (kW)	COP _d (-)	Degradation coefficient (-)	CR (-)	COP _{bin} (-)	Power in off mode (kW)
-7	30,00	60,53	11,28	11,275	3,450	0,900	1,00	3,450	-
2	29,19	36,84	6,86	13,905	4,180	0,900	0,49	3,791	-
7	28,78	23,68	4,41	16,600	4,500	0,900	0,27	3,526	-
12	29,11	10,53	1,96	18,424	5,600	0,990	0,11	5,185	0,0314
-15	32,00	81,58	15,20	8,580	2,600	0,900	1,00	2,600	-
-7	30,00	60,53	11,28	11,275	3,450	0,900	1,00	3,450	-
-15	32,00	81,58	15,20	8,570	2,600	0,900	1,00	2,600	-

Test result table: Cold, High temperature

Outdoor air (°C)	Flow temp (°C)	Part load ratio %	Part load (kW)	Capacity (kW)	COP _d (-)	Degradation coefficient (-)	CR (-)	COP _{bin} (-)	Power in off mode (kW)
-7	44,00	60,53	10,38	10,375	2,490	0,900	1,00	2,490	-
2	40,80	36,84	6,32	13,236	3,270	0,900	0,48	2,947	-
7	38,49	23,68	4,06	15,874	3,910	0,900	0,26	3,029	-
12	36,78	10,53	1,80	17,780	4,890	0,991	0,10	4,543	0,0314
-15	49,00	81,58	13,98	7,780	1,930	0,900	1,00	1,930	-
-7	44,00	60,53	10,38	10,375	2,490	0,900	1,00	2,490	-
-15	49,00	81,58	13,98	7,780	1,930	0,900	1,00	1,930	-

Data Warm climate zone

Climate zone:	Warm	Warm
Temperature condition:	Low	High
Design temperature:	+2°C	+2°C
Bivalent temperature:	+4°C	+4°C
P design:	17,14kW	15,91kW
SCOP:	4,76	3,51
Energy efficiency, η_s :	187,6%	137,5%
Energy efficiency class:	A+++	A++
Accumulated, Q_H :	22905kWh	21254kWh
Consumption, Q_{HE} :	4808kWh	6051kWh

Test result table: Warm, Low temperature

Outdoor air (°C)	Flow temp (°C)	Part load ratio %	Part load (kW)	Capacity (kW)	COP _d (-)	Degradation coefficient (-)	CR (-)	COP _{bin} (-)	Power in off mode (kW)
2	35,00	100,00	17,14	13,500	3,600	0,900	1,00	3,600	-
7	32,66	64,29	11,02	16,373	4,530	0,991	0,67	4,511	0,0314
12	30,12	28,57	4,90	18,184	5,380	0,991	0,27	5,248	0,0314
2	35,00	100,00	17,14	13,500	3,600	0,900	1,00	3,600	-
5	33,40	85,71	14,70	14,695	4,030	0,900	1,00	4,030	-

Test result table: Warm, High temperature

Outdoor air (°C)	Flow temp (°C)	Part load ratio %	Part load (kW)	Capacity (kW)	COP _d (-)	Degradation coefficient (-)	CR (-)	COP _{bin} (-)	Power in off mode (kW)
2	55,00	100,00	15,91	12,600	2,400	0,900	1,00	2,400	-
7	48,68	64,29	10,23	15,097	3,130	0,993	0,68	3,120	0,0314
12	40,96	28,57	4,55	17,207	4,210	0,992	0,26	4,122	0,0314
2	55,00	100,00	15,91	12,600	2,400	0,900	1,00	2,400	-
5	51,40	85,71	13,64	13,636	2,760	0,900	1,00	2,760	-