

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:	10,26kW	10,21kW
SCOP:	3,61	3,04
Energy efficiency, η_s :	141,3%	118,8%
Energy efficiency class:	A+	A+
Accumulated, Q_H :	21191kWh	21084kWh
Consumption, Q_{HE} :	5875kWh	6925kWh

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	9,07	7,250	2,950	0,900	1,00	2,950	-
2	31,48	53,85	5,52	8,940	3,700	0,987	0,62	3,670	0,0314
7	29,63	34,62	3,55	9,630	4,070	0,987	0,37	3,980	0,0314
12	29,19	15,38	1,58	13,590	5,440	0,987	0,12	4,965	0,0314
-10	37,56	119,23	12,23	5,780	2,340	0,900	1,00	2,340	-
-4	32,67	76,92	7,89	7,890	3,240	0,900	1,00	3,240	-

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	9,03	6,890	2,180	0,900	1,00	2,180	-
2	44,21	53,85	5,50	8,580	2,970	0,989	0,64	2,952	0,0314
7	41,66	34,62	3,53	11,420	3,910	0,989	0,31	3,818	0,0314
12	38,44	15,38	1,57	13,330	4,740	0,989	0,12	4,374	0,0314
-10	55,33	100,00	10,21	6,490	1,970	0,900	1,00	1,970	-
-4	48,67	76,92	7,85	7,850	2,570	0,900	1,00	2,570	-

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:	12,13kW	11,50kW
SCOP:	2,96	2,53
Energy efficiency, η_s :	115,3%	98,1%
Energy efficiency class:	A	A
Accumulated, Q_H :	29883kWh	28345kWh
Consumption, Q_{HE} :	10107kWh	11216kWh

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	7,34	7,340	3,200	0,900	1,00	3,200	-
2	28,98	36,84	4,47	9,040	4,000	0,900	0,49	3,629	-
7	27,96	23,68	2,87	9,710	4,400	0,900	0,30	3,554	-
12	29,33	10,53	1,28	13,600	5,500	0,987	0,09	4,899	0,0314
-15	32,00	81,58	9,89	5,820	2,700	0,900	1,00	2,700	-
-7	30,00	60,53	7,34	7,340	3,250	0,900	1,00	3,250	-
-15	32,00	81,58	9,89	5,820	2,700	0,900	1,00	2,700	-

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	6,96	6,960	2,600	0,900	1,00	2,600	-
2	40,20	36,84	4,24	8,700	3,300	0,900	0,49	2,985	-
7	38,37	23,68	2,72	11,600	4,100	0,900	0,23	3,092	-
12	36,89	10,53	1,21	13,600	5,100	0,988	0,09	4,551	0,0314
-15	49,00	81,58	9,38	5,780	1,900	0,900	1,00	1,900	-
-7	44,00	60,53	6,96	6,960	2,600	0,900	1,00	2,600	-
-15	49,00	81,58	9,38	5,780	1,900	0,900	1,00	1,900	-

Data Warm climate zone

Climate zone:	Warm	Warm
Temperature condition:	Low	High
Design temperature:	+2°C	+2°C
Bivalent temperature:	+5°C	+5°C
P design:	11,34kW	13,36kW
SCOP:	4,57	3,53
Energy efficiency, η_s :	179,7%	138,1%
Energy efficiency class:	A+++	A++
Accumulated, Q_H :	15150kWh	17854kWh
Consumption, Q_{HE} :	3317kWh	5060kWh

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	11,34	9,000	3,500	0,900	1,00	3,500	-
7	31,98	64,29	7,29	9,550	4,500	0,985	0,76	4,479	0,0314
12	30,46	28,57	3,24	13,560	5,350	0,988	0,24	5,147	0,0314
2	35,00	100,00	11,34	9,000	3,500	0,900	1,00	3,500	-
5	32,60	78,57	8,91	8,910	3,700	0,900	1,00	3,700	-

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	13,36	9,710	2,600	0,900	1,00	2,600	-
7	48,02	64,29	8,59	11,400	3,000	0,992	0,75	2,992	0,0314
12	40,73	28,57	3,82	13,200	4,550	0,989	0,29	4,432	0,0314
2	55,00	100,00	13,36	9,710	2,600	0,900	1,00	2,600	-
5	49,60	78,57	10,50	10,500	2,800	0,900	1,00	2,800	-