

6. Performance Data

6.2 Heating Operation

■ Maximum Heating Capacity (Include defrost effect)

◆ ZHBW056A2 [HM051MRS UA40]

Outdoor Temperature	Water flow rate 15.81 LPM								Water flow rate 9.9 LPM				Water flow rate 7.9 LPM			
	LWT 30°C		LWT 35°C		LWT 40°C		LWT 45°C		LWT 50°C		LWT 55°C		LWT 60°C		LWT 65°C	
	TC	COP	TC	COP	TC	COP	TC	COP	TC	COP	TC	COP	TC	COP	TC	COP
-25 °C DB	5.50	2.02	5.50	1.88	5.50	1.74	5.50	1.60								
-20 °C DB	5.50	2.57	5.50	2.38	5.50	2.19	5.50	2.00	5.23	1.82						
-15 °C DB	5.50	2.71	5.50	2.50	5.50	2.33	5.50	2.16	5.23	2.04	5.23	1.93				
-7 °C DB	5.50	3.15	5.50	2.95	5.50	2.63	5.50	2.30	5.50	2.15	5.50	1.99	5.50	1.93		
-4 °C DB	5.50	3.31	5.50	3.12	5.50	2.93	5.50	2.77	5.50	2.58	5.50	2.39	5.50	2.10	5.50	1.93
-2 °C DB	5.50	3.46	5.50	3.23	5.50	3.04	5.50	2.84	5.50	2.66	5.50	2.48	5.50	2.21	5.50	2.03
2 °C DB	5.50	3.64	5.50	3.46	5.50	3.26	5.50	3.05	5.50	2.85	5.50	2.64	5.50	2.44	5.50	2.24
7 °C DB	5.50	5.02	5.50	4.70	5.50	4.15	5.50	3.59	5.50	3.23	5.50	2.86	5.50	2.68	5.50	2.49
10 °C DB	5.50	5.87	5.50	5.41	5.50	4.69	5.50	3.97	5.50	3.55	5.50	3.57	5.50	3.11	5.50	2.64
15 °C DB	5.50	6.43	5.50	5.92	5.50	5.21	5.50	4.50	5.50	4.03	5.50	3.91	5.50	3.40	5.50	2.90
18 °C DB	5.50	6.76	5.50	6.23	5.50	5.52	5.50	4.82	5.50	4.32	5.50	4.11	5.50	3.58	5.50	3.05
20 °C DB	5.50	6.98	5.50	6.43	5.50	5.73	5.50	5.03	5.50	4.51	5.50	4.25	5.50	3.70	5.50	3.15
35 °C DB	5.50	8.65	5.50	7.97	5.50	7.30	5.50	6.62	5.50	5.95	5.50	5.27	5.50	4.60	5.50	3.92

◆ ZHBW076A2 [HM071MRS UA40]

Outdoor Temperature	Water flow rate 20.12 LPM								Water flow rate 12.6 LPM				Water flow rate 10.0 LPM			
	LWT 30°C		LWT 35°C		LWT 40°C		LWT 45°C		LWT 50°C		LWT 55°C		LWT 60°C		LWT 65°C	
	TC	COP	TC	COP	TC	COP	TC	COP	TC	COP	TC	COP	TC	COP	TC	COP
-25 °C DB	5.85	1.98	5.85	1.84	5.85	1.69	5.85	1.55								
-20 °C DB	6.43	2.53	6.43	2.34	6.43	2.15	6.43	1.96	6.10	1.76						
-15 °C DB	7.00	2.68	7.00	2.45	7.00	2.28	7.00	2.11	6.65	2.00	6.65	1.89				
-7 °C DB	7.00	3.16	7.00	2.92	7.00	2.58	7.00	2.24	7.00	2.10	7.00	1.95	7.00	1.89		
-4 °C DB	7.00	3.35	7.00	3.09	7.00	2.89	7.00	2.73	7.00	2.54	7.00	2.35	7.00	2.06	7.00	1.89
-2 °C DB	7.00	3.50	7.00	3.20	7.00	3.00	7.00	2.80	7.00	2.62	7.00	2.44	7.00	2.17	7.00	1.99
2 °C DB	7.00	3.56	7.00	3.43	7.00	3.22	7.00	3.02	7.00	2.81	7.00	2.61	7.00	2.40	7.00	2.20
7 °C DB	7.00	4.97	7.00	4.70	7.00	4.11	7.00	3.52	7.00	3.17	7.00	2.81	7.00	2.63	7.00	2.45
10 °C DB	7.00	5.83	7.00	5.37	7.00	4.62	7.00	3.86	7.00	3.46	7.00	3.53	7.00	3.06	7.00	2.60
15 °C DB	7.00	6.38	7.00	5.88	7.00	5.14	7.00	4.41	7.00	3.95	7.00	3.87	7.00	3.36	7.00	2.86
18 °C DB	7.00	6.72	7.00	6.19	7.00	5.46	7.00	4.73	7.00	4.24	7.00	4.07	7.00	3.54	7.00	3.01
20 °C DB	7.00	6.94	7.00	6.39	7.00	5.67	7.00	4.95	7.00	4.43	7.00	4.21	7.00	3.66	7.00	3.11
35 °C DB	7.00	8.60	7.00	7.93	7.00	7.25	7.00	6.58	7.00	5.90	7.00	5.23	7.00	4.55	7.00	3.88

◆ ZHBW096A2 [HM091MRS UA40]

Outdoor Temperature	Water flow rate 25.87 LPM								Water flow rate 16.2 LPM				Water flow rate 12.9 LPM			
	LWT 30°C		LWT 35°C		LWT 40°C		LWT 45°C		LWT 50°C		LWT 55°C		LWT 60°C		LWT 65°C	
	TC	COP	TC	COP	TC	COP	TC	COP	TC	COP	TC	COP	TC	COP	TC	COP
-25 °C DB	6.20	1.97	6.20	1.82	6.20	1.68	6.20	1.53								
-20 °C DB	7.60	2.50	7.60	2.31	7.60	2.12	7.60	1.93	7.22	1.74						
-15 °C DB	9.00	2.64	9.00	2.43	9.00	2.25	9.00	2.07	8.55	1.96	8.55	1.80				
-7 °C DB	9.00	3.06	9.00	2.89	9.00	2.68	9.00	2.19	9.00	2.10	9.00	1.84	9.00	1.82		
-4 °C DB	9.00	3.22	9.00	3.05	9.00	2.84	9.00	2.67	9.00	2.48	9.00	2.29	9.00	2.00	9.00	1.85
-2 °C DB	9.00	3.46	9.00	3.15	9.00	2.94	9.00	2.75	9.00	2.57	9.00	2.38	9.00	2.12	9.00	1.95
2 °C DB	9.00	3.53	9.00	3.36	9.00	3.16	9.00	2.95	9.00	2.75	9.00	2.55	9.00	2.35	9.00	2.15
7 °C DB	9.00	4.89	9.00	4.60	9.00	4.04	9.00	3.48	9.00	3.12	9.00	2.76	9.00	2.58	9.00	2.40
10 °C DB	9.00	5.46	9.00	5.27	9.00	4.48	9.00	3.70	9.00	3.41	9.00	3.46	9.00	3.00	9.00	2.55
15 °C DB	9.00	6.05	9.00	5.77	9.00	5.01	9.00	4.25	9.00	3.88	9.00	3.79	9.00	3.29	9.00	2.80
18 °C DB	9.00	6.41	9.00	6.07	9.00	5.32	9.00	4.58	9.00	4.17	9.00	3.99	9.00	3.47	9.00	2.95
20 °C DB	9.00	6.64	9.00	6.27	9.00	5.53	9.00	4.80	9.00	4.36	9.00	4.12	9.00	3.59	9.00	3.05
35 °C DB	9.00	8.43	9.00	7.77	9.00	7.11	9.00	6.44	9.00	5.78	9.00	5.12	9.00	4.46	9.00	3.80

Note

1. DB : Dry bulb temperature(°C), LWT : Leaving water temperature(°C), LPM : Liter per minute (ℓ/min)
2. TC : Total capacity(kW), EER: Energy efficiency ratio(kW/kW), COP : Coefficient of performance (kW/kW)
3. Direct interpolation is permissible. Do not extrapolate.
4. Measuring procedure follows EN14511.
 - Rated values are based on standard conditions, and it can be found on specifications.
 - Above table values may not be matched according to installation condition. Except for rated value, the performance is not guaranteed.
 - In accordance with the test standard(or nations), the results may vary.
5. The Shaded areas are not guaranteed continuous operation.

6. Performance Data

◆ ZHBW126A2 [HM121MRS UB40] / ZHBW128A2 [HM123MRS UB40]

Outdoor Temperature	Water flow rate 34.5 LPM								Water flow rate 21.6 LPM				Water flow rate 17.3 LPM			
	LWT 30°C		LWT 35°C		LWT 40°C		LWT 45°C		LWT 50°C		LWT 55°C		LWT 60°C		LWT 65°C	
	TC	COP	TC	COP	TC	COP	TC	COP	TC	COP	TC	COP	TC	COP	TC	COP
-25 °C DB	9.50	2.13	9.50	1.97	9.50	1.81	9.50	1.65								
-20 °C DB	10.75	2.68	10.75	2.47	10.75	2.27	10.75	2.07	10.21	1.87						
-15 °C DB	12.00	2.77	12.00	2.55	12.00	2.34	12.00	2.14	11.50	2.07	11.50	2.00				
-7 °C DB	12.00	3.22	12.00	3.16	12.00	2.82	12.00	2.44	12.00	2.26	12.00	2.08	12.00	2.03		
-4 °C DB	12.00	3.39	12.00	3.29	12.00	3.00	12.00	2.68	12.00	2.49	12.00	2.31	12.00	2.21	12.00	2.06
-2 °C DB	12.00	3.50	12.00	3.38	12.00	3.11	12.00	2.84	12.00	2.65	12.00	2.46	12.00	2.32	12.00	2.16
2 °C DB	12.00	3.73	12.00	3.55	12.00	3.35	12.00	3.15	12.00	2.95	12.00	2.76	12.00	2.56	12.00	2.36
7 °C DB	12.00	5.15	12.00	4.90	12.00	4.37	12.00	3.83	12.00	3.50	12.00	3.16	12.00	2.88	12.00	2.61
10 °C DB	12.00	5.82	12.00	5.29	12.00	4.76	12.00	4.24	12.00	3.76	12.00	3.67	12.00	3.21	12.00	2.76
15 °C DB	12.00	6.39	12.00	5.83	12.00	5.28	12.00	4.73	12.00	4.21	12.00	4.00	12.00	3.50	12.00	3.01
18 °C DB	12.00	6.73	12.00	6.16	12.00	5.59	12.00	5.02	12.00	4.48	12.00	4.20	12.00	3.68	12.00	3.15
20 °C DB	12.00	6.96	12.00	6.38	12.00	5.80	12.00	5.21	12.00	4.66	12.00	4.34	12.00	3.80	12.00	3.25
35 °C DB	12.00	8.68	12.00	8.01	12.00	7.34	12.00	6.68	12.00	6.01	12.00	5.34	12.00	4.67	12.00	4.00

◆ ZHBW146A2 [HM141MRS UB40] / ZHBW148A2 [HM143MRS UB40]

Outdoor Temperature	Water flow rate 40.25 LPM								Water flow rate 25.2 LPM				Water flow rate 20.1 LPM			
	LWT 30°C		LWT 35°C		LWT 40°C		LWT 45°C		LWT 50°C		LWT 55°C		LWT 60°C		LWT 65°C	
	TC	COP	TC	COP	TC	COP	TC	COP	TC	COP	TC	COP	TC	COP	TC	COP
-25 °C DB	10.00	2.09	10.00	1.93	10.00	1.78	10.00	1.62								
-20 °C DB	12.00	2.62	12.00	2.42	12.00	2.23	12.00	2.03	11.40	1.83						
-15 °C DB	14.00	2.70	14.00	2.50	14.00	2.28	14.00	2.05	13.30	2.00	13.30	1.95				
-7 °C DB	14.00	3.24	14.00	2.83	14.00	2.76	14.00	2.25	14.00	2.16	14.00	2.06	14.00	1.98		
-4 °C DB	14.00	3.45	14.00	3.05	14.00	2.94	14.00	2.53	14.00	2.40	14.00	2.27	14.00	2.15	14.00	2.00
-2 °C DB	14.00	3.58	14.00	3.20	14.00	3.06	14.00	2.72	14.00	2.57	14.00	2.42	14.00	2.27	14.00	2.10
2 °C DB	14.00	3.85	14.00	3.50	14.00	3.30	14.00	3.10	14.00	2.90	14.00	2.70	14.00	2.50	14.00	2.30
7 °C DB	14.00	5.04	14.00	4.80	14.00	4.26	14.00	3.72	14.00	3.39	14.00	3.05	14.00	2.80	14.00	2.55
10 °C DB	14.00	5.65	14.00	5.11	14.00	4.57	14.00	4.02	14.00	3.66	14.00	3.60	14.00	3.15	14.00	2.70
15 °C DB	14.00	6.22	14.00	5.66	14.00	5.09	14.00	4.53	14.00	4.11	14.00	3.93	14.00	3.44	14.00	2.95
18 °C DB	14.00	6.56	14.00	5.99	14.00	5.41	14.00	4.84	14.00	4.38	14.00	4.13	14.00	3.61	14.00	3.10
20 °C DB	14.00	6.79	14.00	6.21	14.00	5.62	14.00	5.04	14.00	4.56	14.00	4.26	14.00	3.73	14.00	3.20
35 °C DB	14.00	8.52	14.00	7.86	14.00	7.21	14.00	6.56	14.00	5.91	14.00	5.25	14.00	4.60	12.50	3.95

◆ ZHBW166A2 [HM161MRS UB40] / ZHBW168A2 [HM163MRS UB40]

Outdoor Temperature	Water flow rate 46 LPM								Water flow rate 28.8 LPM				Water flow rate 23.0 LPM			
	LWT 30°C		LWT 35°C		LWT 40°C		LWT 45°C		LWT 50°C		LWT 55°C		LWT 60°C		LWT 65°C	
	TC	COP	TC	COP	TC	COP	TC	COP	TC	COP	TC	COP	TC	COP	TC	COP
-25 °C DB	10.50	1.96	10.50	1.84	10.50	1.72	10.50	1.60								
-20 °C DB	13.25	2.48	13.25	2.32	13.25	2.15	13.25	1.98	12.59	1.82						
-15 °C DB	16.00	2.58	14.40	2.45	14.40	2.23	14.40	2.01	13.68	1.97	13.68	1.94				
-7 °C DB	16.00	3.17	16.00	2.70	16.00	2.44	16.00	2.17	16.00	2.09	16.00	2.01	16.00	1.94		
-4 °C DB	16.00	3.35	16.00	2.93	16.00	2.69	16.00	2.45	16.00	2.34	16.00	2.22	16.00	2.11	16.00	1.95
-2 °C DB	16.00	3.47	16.00	3.09	16.00	2.86	16.00	2.64	16.00	2.50	16.00	2.36	16.00	2.22	16.00	2.05
2 °C DB	16.00	3.71	16.00	3.40	16.00	3.21	16.00	3.02	16.00	2.83	16.00	2.63	16.00	2.44	16.00	2.25
7 °C DB	16.00	4.88	16.00	4.70	16.00	4.16	16.00	3.61	16.00	3.26	16.00	2.91	16.00	2.71	16.00	2.50
10 °C DB	16.00	5.48	16.00	4.96	16.00	4.44	16.00	3.91	16.00	3.53	16.00	3.51	16.00	3.08	16.00	2.65
15 °C DB	16.00	6.06	16.00	5.51	16.00	4.96	16.00	4.42	16.00	3.99	16.00	3.84	16.00	3.37	16.00	2.90
18 °C DB	16.00	6.40	16.00	5.84	16.00	5.28	16.00	4.72	16.00	4.26	16.00	4.04	16.00	3.55	16.00	3.05
20 °C DB	16.00	6.63	16.00	6.06	16.00	5.49	16.00	4.92	16.00	4.44	16.00	4.18	16.00	3.66	16.00	3.15
35 °C DB	16.00	8.35	16.00	7.71	16.00	7.08	16.00	6.44	16.00	5.81	16.00	5.17	16.00	4.54	13.00	3.90

Note

1. DB : Dry bulb temperature(°C), LWT : Leaving water temperature(°C), LPM : Liter per minute (ℓ/min)
2. TC : Total capacity(kW), EER: Energy efficiency ratio(kW/kW), COP : Coefficient of performance (kW/kW)
3. Direct interpolation is permissible. Do not extrapolate.
4. Measuring procedure follows EN14511.
 - Rated values are based on standard conditions, and it can be found on specifications.
 - Above table values may not be matched according to installation condition. Except for rated value, the performance is not guaranteed.
 - In accordance with the test standard(or nations), the results may vary.
5. The Shaded areas are not guaranteed continuous operation.