

SAMSUNG

EHS

Technical Data Book

**EHS Mono HT Quiet for Europe
(R32, 50Hz, HP)**



Model : Outdoor unit (AE***BXYD*G/EU)
Hydro unit (AE***RNWM*G/EU)

Features & Benefits

EHS Mono HT Quiet



70°C hot water for all your needs

Leaving Water Temperature of up to 70°C*

Enjoy hot water of up to 70°C*. With its strengthened parts and an extended Oil Groove, the new Scroll Compressor can compress refrigerant at much higher pressure, while Flash Injection Technology increases the flow of refrigerant. So the compression ratio has increased from 13 to 17**..



* Leaving water temperature, when the outdoor temperature is between -15°C ~ 43°C. Results may vary depending on the actual usage conditions.

** Compression ratio = Discharge pressure / Suction pressure. Based on internal testing on an EHS Mono HT Quiet outdoor unit, compared to a conventional EHS outdoor unit.

2. Outdoor Units

2-2. Electrical characteristics

Capacity [kW]	Model	Power Supply				Voltage Range [V]		Nominal Running Current [A]		Current [A]	
		Φ	#	Hz	Voltage	Min. (-10%)	Max. (+10%)	Cooling	Heating	MCA	MFA
8.0	AE080BXYDEG/EU	1	2	50	220-240	198	264	7.56	8.04	26.0	28.6
12.0	AE120BXYDEG/EU	1	2	50	220-240	198	264	11.12	12.46	32.0	35.2
14.0	AE140BXYDEG/EU	1	2	50	220-240	198	264	13.10	14.87	32.0	35.2
8.0	AE080BXYDGG/EU	3	4	50	380-415	342	457	2.51	2.67	16.1	17.7
12.0	AE120BXYDGG/EU	3	4	50	380-415	342	457	3.69	4.14	16.1	17.7
14.0	AE140BXYDGG/EU	3	4	50	380-415	342	457	4.35	4.94	16.1	17.7

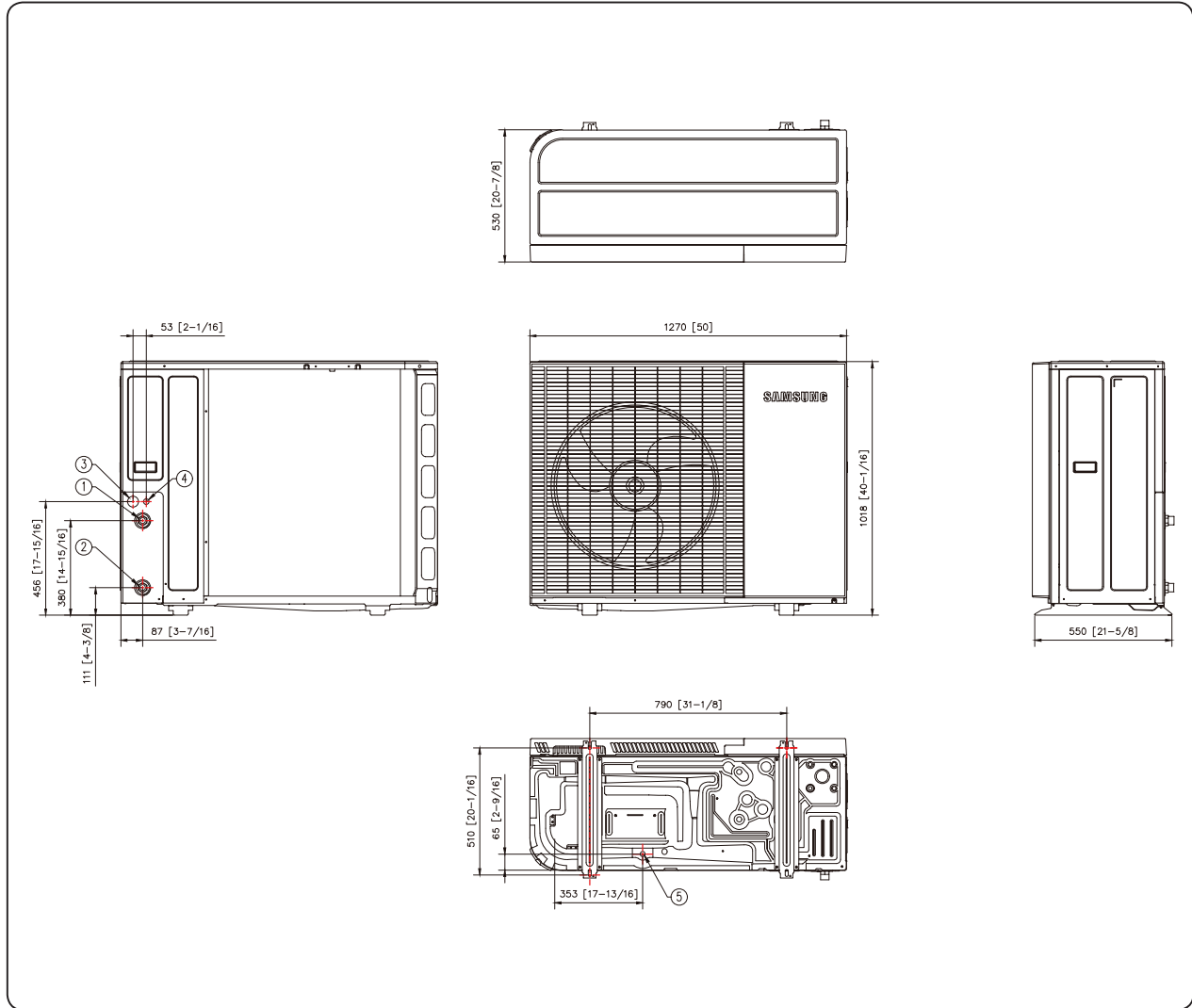
NOTE

- MCA : Minimum circuit amperes
- MFA : Maximum fuse amperes
- Select wire size based on the value of MCA

2. Outdoor Units

2-3. Dimensional drawing

Units : mm [inches]

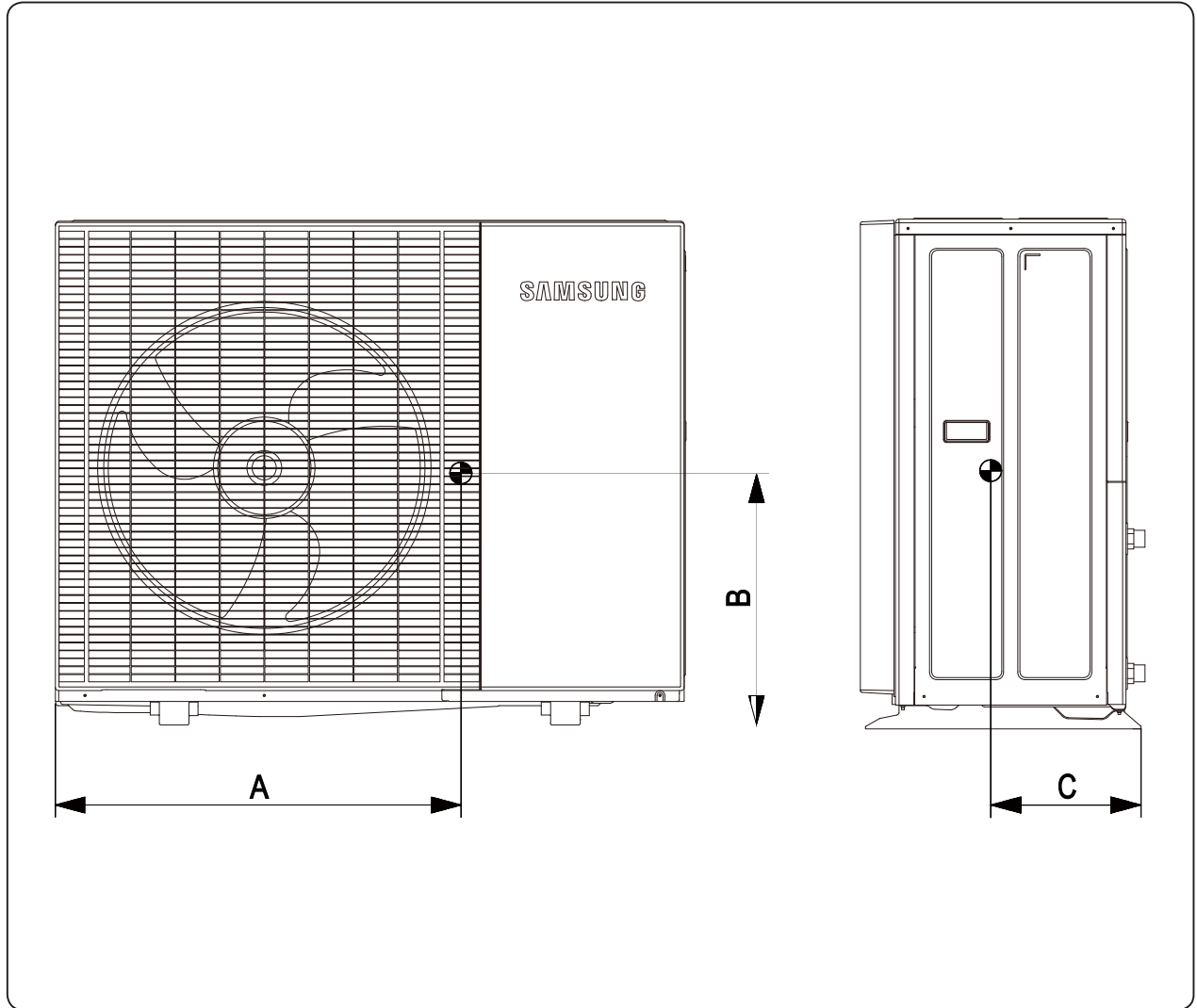


NO	Name	Description
1	Water Pipe(Out)	Φ28
2	Water Pipe(In)	Φ28
3	Power wiring conduit	Φ44
4	communication wiring conduit	Φ22
5	Drain holes	connect with the provided drain plug

2. Outdoor Units

2-4. Center of Gravity

Units : mm [inches]



Model	A	B	C
AE*****	800 [31-1/2]	214 [8-7/16]	361 [14-3/16]

2. Outdoor Units

2-9. Capacity table

1) Maximum Heating Capacity (Peak Value)

LWT (Leaving Water Temp.), Tamb (Ambient Temp.), HC (Heating Capacity), PI (Power input)

Model	LWT (°C)	25		30		35		40		45		50		55		60		65		70	
	Tamb (°C)	HC(kw)	PI(kw)	HC(kw)	PI(kw)	HC(kw)	PI(kw)	HC(kw)	PI(kw)	HC(kw)	PI(kw)	HC(kw)	PI(kw)	HC(kw)	PI(kw)	HC(kw)	PI(kw)	HC(kw)	PI(kw)	HC(kw)	PI(kw)
AE080BXYDEG/EU	-30	5.82	2.53	5.89	2.80	5.96	3.14	6.22	3.48	6.48	3.88	6.74	4.19	6.92	4.43	6.94	4.69				
	-25	8.00	3.47	8.00	3.63	8.00	3.79	8.00	4.03	8.00	4.28	8.00	4.49	8.00	4.85	8.40	5.17	7.95	5.28		
	-20	8.00	3.05	8.00	3.20	8.00	3.39	8.00	3.59	8.00	3.84	8.00	4.09	8.00	4.31	9.11	5.13	8.75	5.26		
	-15	8.00	2.61	8.00	2.86	8.00	3.14	8.00	3.36	8.00	3.61	8.00	3.84	8.00	4.01	9.35	4.87	9.54	5.24	8.00	4.85
	-10	8.00	2.28	8.00	2.47	8.00	2.72	8.00	2.88	8.00	3.06	8.00	3.33	8.00	3.56	9.65	4.48	10.01	4.96	10.21	5.27
	-7	8.00	2.10	8.00	2.34	8.00	2.46	8.00	2.64	8.00	2.87	8.00	3.10	8.00	3.26	10.19	4.39	10.43	4.81	10.79	5.18
	-2	8.00	1.95	8.00	2.05	8.00	2.10	8.00	2.32	8.00	2.57	8.00	2.69	8.00	2.79	10.36	3.92	10.80	4.62	11.04	4.86
	2	8.00	1.62	8.00	1.72	8.00	1.82	8.00	2.01	8.00	2.26	8.00	2.44	8.00	2.58	10.11	3.57	10.63	4.21	11.01	4.75
	7	8.00	1.29	8.00	1.43	8.00	1.60	8.00	1.80	8.00	2.05	8.00	2.23	8.00	2.50	9.11	3.16	9.66	3.79	10.03	4.29
	12	8.92	1.18	8.95	1.35	8.98	1.57	9.02	1.80	9.05	2.11	9.08	2.38	9.11	2.71	9.57	3.11	10.08	3.72	10.43	4.25
	15	9.10	1.09	9.14	1.26	9.20	1.49	9.26	1.71	9.30	2.01	9.36	2.29	9.42	2.62	9.85	3.01	10.33	3.59	10.67	4.10
	20	9.39	0.99	9.48	1.14	9.57	1.34	9.66	1.50	9.74	1.77	9.83	2.08	9.91	2.46	10.31	2.82	10.76	3.38	11.08	4.04
	25	9.69	0.93	9.82	1.07	9.93	1.24	10.06	1.42	10.17	1.66	10.30	1.96	10.41	2.32	10.78	2.67	11.18	3.20	11.48	3.99
	30	9.99	0.93	10.15	1.06	10.30	1.23	10.45	1.37	10.60	1.55	10.76	1.83	10.91	2.17	11.24	2.49	11.59	3.01	11.88	3.79
	35	10.29	0.92	10.48	1.03	10.66	1.17	10.75	1.29	10.99	1.46	11.22	1.73	11.41	2.04	11.70	2.35	12.02	2.85	12.28	3.62
43	10.77	0.92	11.01	1.01	11.25	1.11	11.49	1.24	11.73	1.41	11.97	1.65	12.21	1.93	12.45	2.23	12.69	2.72	12.92	3.33	
AE120BXYDEG/EU	-30	7.76	3.45	7.85	3.83	7.95	4.30	8.29	4.78	8.64	5.30	8.99	5.74	9.23	6.07	9.26	6.41				
	-25	11.23	5.00	11.62	5.43	12.00	5.83	12.00	6.20	12.00	6.58	11.56	6.65	11.00	6.67	10.54	6.67	9.77	6.67		
	-20	11.88	4.62	11.95	4.90	12.00	5.23	12.00	5.55	12.00	5.90	12.00	6.29	12.00	6.61	11.47	6.67	10.76	6.66		
	-15	12.00	4.02	12.00	4.38	12.00	4.53	12.00	5.16	12.00	5.55	12.00	5.89	12.00	6.17	12.00	6.42	11.81	6.66	11.00	6.67
	-10	12.00	3.82	12.00	4.04	12.00	4.29	12.00	4.54	12.00	4.81	12.00	5.25	12.00	5.58	12.86	6.28	12.84	6.66	12.30	6.67
	-7	12.00	3.42	12.00	3.60	12.00	3.81	12.00	4.14	12.00	4.51	12.00	4.87	12.00	5.16	13.59	6.13	13.77	6.67	13.29	6.67
	-2	12.00	3.01	12.00	3.11	12.00	3.29	12.00	3.64	12.00	4.03	12.00	4.23	12.00	4.38	13.81	5.47	14.40	6.46	14.48	6.67
	2	12.00	2.45	12.00	2.62	12.00	2.79	12.00	3.15	12.00	3.55	12.00	3.83	12.00	4.06	13.48	4.98	14.18	5.87	14.68	6.27
	7	12.00	1.90	12.00	2.10	12.00	2.35	12.00	2.64	12.00	3.00	12.00	3.26	12.00	3.53	13.66	4.46	14.49	5.35	15.05	6.17
	12	13.38	1.73	13.42	1.98	13.47	2.30	13.52	2.64	13.57	3.08	13.62	3.48	13.67	3.83	14.35	4.40	15.12	5.25	15.65	6.01
	15	13.64	1.61	13.72	1.85	13.80	2.18	13.88	2.51	13.96	2.94	14.04	3.35	14.12	3.70	14.78	4.25	15.50	5.07	16.01	5.78
	20	14.09	1.45	14.22	1.67	14.35	1.96	14.48	2.21	14.61	2.59	14.74	3.04	14.87	3.47	15.47	3.98	16.14	4.77	16.62	5.71
	25	14.54	1.37	14.72	1.56	14.90	1.82	15.08	2.08	15.26	2.43	15.44	2.87	15.62	3.28	16.17	3.76	16.76	4.52	17.22	5.63
	30	14.99	1.36	15.22	1.55	15.44	1.80	15.67	2.01	15.90	2.27	16.14	2.68	16.37	3.06	16.86	3.52	17.39	4.24	17.82	5.35
	35	15.43	1.35	15.72	1.51	16.00	1.71	16.27	1.91	16.53	2.14	16.84	2.53	17.11	2.89	17.56	3.32	18.03	4.02	18.42	5.11
43	16.15	1.35	16.51	1.48	16.87	1.63	17.23	1.83	17.59	2.06	17.95	2.41	18.31	2.72	18.67	3.14	19.03	3.83	19.38	4.70	
AE140BXYDEG/EU	-30	8.46	3.82	8.57	4.24	8.67	4.75	9.05	5.27	9.42	5.87	9.80	6.35	10.07	6.71	10.10	7.09				
	-25	12.25	5.53	12.68	5.99	13.11	6.48	12.96	6.79	12.18	6.78	11.60	6.78	11.20	6.79	10.57	6.78	9.78	6.77		
	-20	12.96	5.13	13.42	5.59	13.87	6.11	13.94	6.52	13.60	6.78	12.74	6.79	12.12	6.79	11.54	6.78	10.88	6.79		
	-15	13.86	4.72	13.78	5.12	13.70	5.59	13.85	6.05	14.00	6.58	13.60	6.78	13.03	6.79	12.49	6.78	11.87	6.77	11.20	6.79
	-10	13.91	4.49	13.94	4.75	13.97	5.05	13.99	5.35	14.00	5.69	14.00	6.20	14.00	6.61	13.69	6.77	13.02	6.78	12.30	6.65
	-7	13.93	4.15	13.97	4.32	14.00	4.52	14.00	4.90	14.00	5.35	14.00	5.76	14.00	6.09	13.88	6.38	13.72	6.79	13.51	6.79
	-2	13.95	3.54	13.98	3.74	14.00	3.90	14.00	4.30	14.00	4.78	14.00	5.00	14.00	5.17	14.32	5.79	14.71	6.76	14.57	6.78
	2	13.96	2.73	13.98	3.00	14.00	3.33	14.00	3.72	14.00	4.20	14.00	4.54	14.00	4.81	14.60	5.45	15.36	6.44	15.21	6.73
	7	14.00	2.24	14.00	2.48	14.00	2.77	14.00	3.11	14.00	3.54	14.00	3.85	14.00	4.18	14.80	4.90	15.70	5.88	16.30	6.78
	12	14.49	1.89	14.54	2.17	14.59	2.52	14.65	2.89	14.70	3.38	14.76	3.82	14.81	4.21	15.55	4.83	16.38	5.77	16.95	6.61
	15	14.78	1.76	14.86	2.03	14.95	2.39	15.04	2.75	15.12	3.23	15.21	3.67	15.30	4.07	16.01	4.67	16.79	5.58	17.34	6.36
	20	15.26	1.59	15.40	1.83	15.55	2.15	15.69	2.42	15.83	2.84	15.97	3.34	16.11	3.81	16.76	4.38	17.48	5.24	18.00	6.27
	25	15.75	1.50	15.95	1.71	16.14	1.99	16.34	2.29	16.53	2.67	16.73	3.15	16.92	3.61	17.52	4.14	18.16	4.97	18.65	6.19
	30	16.24	1.49	16.49	1.70	16.73	1.98	16.98	2.21	17.23	2.49	17.48	2.94	17.73	3.37	18.27	3.87	18.84	4.66	19.30	5.88
	35	16.72	1.48	17.03	1.66	17.33	1.88	17.63	2.09	17.91	2.35	18.24	2.77	18.54	3.17	19.02	3.65	19.53	4.42	19.96	5.62
43	17.50	1.48	17.89	1.62	18.28	1.79	18.67	2.00	19.06	2.26	19.45	2.64	19.84	3.00	20.23	3.46	20.62	4.21	21.00	5.16	

1. Heating capacity : Capacity is according to Eurovent rating standard OM-3-2015 and valid for heated water range $\Delta t = 3\sim 8^{\circ}\text{C}$ (However, if the LWT is over 60°C , $\Delta t = 10^{\circ}\text{C}$.)
 2. Cooling capacity : Capacity is according to Eurovent rating standard OM-3-2015 and valid for chilled water range $\Delta t = 3\sim 8^{\circ}\text{C}$
 3. Power input : Power input is according to Eurovent rating standard OM-3-2015.
 4. Peak value : Tested without defrost operation in accordance with EN14511
- ※ The real capacity would be changed according to the install environment.

2. Outdoor Units

2-9. Capacity table

3) Cooling Capacity

LWT (Leaving Water Temp.), Tamb (Ambient Temp.), HC (Heating Capacity), PI (Power input)

	LWT(°C)	7		10		13		15		18		25	
	Tamb(°C)	CC (kW)	PI (kW)	CC (kW)	PI (kW)	CC (kW)	PI (kW)	CC (kW)	PI (kW)	CC (kW)	PI (kW)	CC (kW)	PI (kW)
AE080BXD*G/EU	10	8.30	1.09	8.52	1.09	8.75	0.99	8.88	0.98	9.33	0.96	10.26	1.01
	20	7.99	1.34	8.20	1.20	8.42	1.19	8.54	1.09	8.97	1.06	9.87	1.04
	30	7.67	1.91	7.87	1.78	8.08	1.65	8.20	1.58	8.61	1.48	9.47	1.41
	35	7.50	2.27	7.62	2.10	7.75	2.01	7.86	1.82	8.00	1.70	9.18	1.59
	46	7.00	3.00	7.12	2.78	7.31	2.61	7.33	2.49	7.79	2.43	8.66	2.07
		LWT(°C)	7		10		13		15		18		25
AE120BXD*G/EU	10	12.73	1.67	13.00	1.66	13.27	1.55	13.40	1.44	13.99	1.42	15.39	1.51
	20	12.25	2.07	12.51	1.83	12.77	1.80	12.89	1.64	13.46	1.56	14.81	1.56
	30	11.75	3.19	12.01	2.93	12.25	2.71	12.37	2.64	12.91	2.48	14.21	2.27
	35	11.50	3.59	11.63	3.42	11.75	3.26	11.86	2.96	12.00	2.64	13.76	2.59
	46	10.73	4.60	10.87	4.34	11.08	4.13	11.06	4.01	11.69	3.90	12.98	3.51
		LWT(°C)	7		10		13		15		18		25
AE140BXD*G/EU	10	13.84	1.94	14.31	1.85	14.91	1.76	15.36	1.71	16.32	1.68	17.96	1.76
	20	13.31	2.24	13.77	2.01	14.34	2.03	14.78	1.88	15.71	1.85	17.28	1.81
	30	12.78	3.86	13.21	3.43	13.77	3.13	14.18	3.03	15.06	2.79	16.58	2.83
	35	12.50	3.97	12.80	3.83	13.20	3.74	13.60	3.44	14.00	3.14	16.06	3.10
	46	11.67	5.10	11.96	4.82	12.45	4.66	12.69	4.60	13.63	4.52	15.15	4.03
		LWT(°C)	7		10		13		15		18		25

1. Heating capacity : Capacity is according to Eurovent rating standard OM-3-2015 and valid for heated water range $\Delta t = 3\sim 8^{\circ}\text{C}$ (However, if the LWT is over 60°C , $\Delta t = 10^{\circ}\text{C}$.)
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