

冰水主機效率檢測報告

工廠名稱	台盟電子
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委託單位：財團法人塑膠工業技術發展中心

檢測單位：東訊股份有限公司

中華民國 115 年 07 月 27 日

冰水主機效率檢測報告

工程名稱：冰水主機性能測試

檢測項目：冰水主機

委託單位：塑膠工業技術發展中心

測試地點：空調機房

檢測單位：東訊股份有限公司

單位電話：03-5775141 EXT 2524

檢測日期：115 年 06 月 06 日

聲明

1. 本報告僅對委託檢測設備負責。
2. 本報告一式連同封頁 18，非本檢測單位書面同意不得分開或節錄使用。
3. 本報告僅供參考，不得作為商業廣告或訴訟之用。

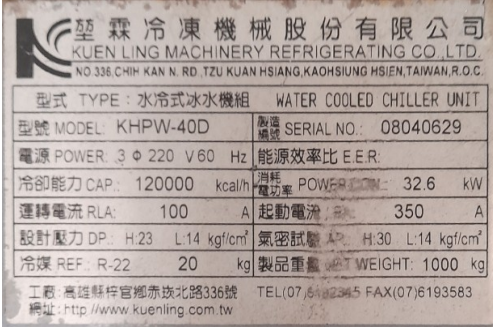
檢測單位：東訊股份有限公司

測試人員：周佳慶

一、 冰水主機標示規格

廠牌	堃霖(定頻)	冷媒種類	R-22
型號	KHPW-40D	壓縮機數量	2
用途	製程設備	冷卻方式	水冷式
額定功率	32.6kW	製冷能力	120000 kcal/h
冰水設計流量	-	額定電壓	220V
製造日期	2008 年	重量	1000Kg

檢測設備照片(外觀、銘牌、量測畫面等)

	
設備名牌	測試設備
	
流量計安裝	流量計主機
	
電力計主機	電力計安裝

二、量測儀器

本案所使用儀器詳見表 1，皆使用出廠日期一年內標準儀器進行檢測。

表 1 量測設備

量測設備	品牌/型號	準確度	出廠日期
電力計	MEATROL ME440	電壓:±0.2% 電流:± 0.5%	2026/03/18
溫度計	YonGjia/TCS110 0	溫度:-30~+150℃/±0.5℃	2026/03/06
流量計	Ultrasonic/ UFM-120	流量:± 1 %	2026/03/23

三、檢測結果

銘牌/測試資料	數值	單位
額定冷凍能力	40	RT
測試溫度	12/7	℃
設計流量(冰水/冷卻水)	--	LPM
額定輸入功率(額定)	32.6	kW
單位冷凍噸耗電	--	kW/RT
COP	--	kW/kW
額定電壓	220	V
冰水入水溫度	15.496	℃
冰水出水溫度	14.270	℃
冰水溫差	1.226	℃
冰水流量	32650	LPM
耗電	16.98	kW
冰水機使用噸數	13.328	RT
負載率	33.32	%
單位冷凍噸耗電(量測)	1.274	kW/RT

四、相關量測紀錄數據圖表

註：1.紀錄至少 1 個月相關數據。

日期	小時耗 電量 (kWh)	冰水機區域 系統負荷 (RTh)	效率值 (KW/RT)	小時冰水機總 流量 (L)	冰水出口均溫 (°C)	冰水入口均溫 (°C)	冰水溫差 (°C)
2026-06-06 00:00	16.4	11.938	1.374	33000	14.354	15.448	1.094
2026-06-06 01:00	14.6	11.557	1.263	33000	14.204	15.263	1.059
2026-06-06 02:00	16.4	11.952	1.372	34000	14.269	15.332	1.063
2026-06-06 03:00	15.7	11.96	1.313	33000	14.265	15.361	1.096
2026-06-06 04:00	15	12.43	1.207	33000	14.114	15.253	1.139
2026-06-06 05:00	16.1	14.065	1.145	34000	14.100	15.351	1.251
2026-06-06 06:00	14.9	12.888	1.156	33000	14.188	15.369	1.181
2026-06-06 07:00	15.1	12.626	1.196	33000	14.174	15.331	1.157
2026-06-06 08:00	16.2	12.042	1.345	34000	14.375	15.446	1.071
2026-06-06 09:00	15	11.546	1.299	33000	14.394	15.452	1.058
2026-06-06 10:00	15.8	12.188	1.296	34000	14.383	15.467	1.084
2026-06-06 11:00	16.3	13.805	1.181	33000	14.257	15.522	1.265
2026-06-06 12:00	14.2	13.073	1.086	33000	14.252	15.450	1.198
2026-06-06 13:00	15.9	12.075	1.317	34000	14.488	15.562	1.074
2026-06-06 14:00	15.7	13.106	1.198	33000	14.622	15.823	1.201
2026-06-06 15:00	14.6	12.345	1.183	34000	14.595	15.693	1.098
2026-06-06 16:00	16	11.6	1.379	33000	14.726	15.789	1.063
2026-06-06 17:00	15.6	11.772	1.325	34000	14.717	15.764	1.047
2026-06-06 18:00	14.2	11.96	1.187	33000	14.414	15.510	1.096
2026-06-06 19:00	15.7	10.913	1.439	33000	14.567	15.567	1.000
2026-06-06 20:00	15.1	11.435	1.321	34000	14.556	15.573	1.017
2026-06-06 21:00	14.6	11.175	1.306	33000	14.383	15.407	1.024
2026-06-06 22:00	15.7	11.839	1.326	34000	14.461	15.514	1.053
2026-06-06 23:00	14.7	11.12	1.322	33000	14.442	15.461	1.019
2026-06-07 00:00	14.8	11.288	1.311	34000	14.393	15.397	1.004
2026-06-07 01:00	15.5	11.917	1.301	33000	14.480	15.572	1.092
2026-06-07 02:00	14.1	11.401	1.237	34000	14.420	15.434	1.014
2026-06-07 03:00	15.5	11.349	1.366	33000	14.387	15.427	1.040
2026-06-07 04:00	15.3	11.412	1.341	34000	14.474	15.489	1.015
2026-06-07 05:00	14.3	11.164	1.281	33000	14.360	15.383	1.023
2026-06-07 06:00	15.6	10.989	1.420	33000	14.587	15.594	1.007
2026-06-07 07:00	14.6	12.3	1.187	34000	14.670	15.764	1.094
2026-06-07 08:00	15.5	12.233	1.267	34000	14.866	15.954	1.088
2026-06-07 09:00	15.9	11.284	1.409	33000	15.225	16.259	1.034
2026-06-07 10:00	14.7	12.48	1.178	34000	15.035	16.145	1.110
2026-06-07 11:00	16.4	11.928	1.375	33000	15.201	16.294	1.093
2026-06-07 12:00	15.2	12.705	1.196	34000	15.359	16.489	1.130
2026-06-07 13:00	16.4	12.015	1.365	33000	15.534	16.635	1.101
2026-06-07 14:00	15.6	12.102	1.289	33000	14.898	16.007	1.109
2026-06-07 15:00	15.3	11.435	1.338	34000	14.487	15.504	1.017
2026-06-07 16:00	16.5	10.989	1.502	33000	14.717	15.724	1.007
2026-06-07 17:00	14.9	11.693	1.274	34000	14.573	15.613	1.040
2026-06-07 18:00	16.4	11.6	1.414	33000	14.667	15.730	1.063
2026-06-07 19:00	14.3	11.666	1.226	33000	14.506	15.575	1.069
2026-06-07 20:00	16.1	11.468	1.404	34000	14.556	15.576	1.020
2026-06-07 21:00	15.1	11.378	1.327	34000	14.493	15.505	1.012
2026-06-07 22:00	14.6	11.415	1.279	33000	14.308	15.354	1.046
2026-06-07 23:00	15.6	12.199	1.279	34000	14.370	15.455	1.085
2026-06-08 00:00	14.8	10.913	1.356	33000	14.429	15.429	1.000

2026-06-08 01:00	14.6	11.426	1.278	33000	14.257	15.304	1.047
2026-06-08 02:00	15.5	11.952	1.297	34000	14.338	15.401	1.063
2026-06-08 03:00	13.9	10.771	1.291	33000	14.259	15.246	0.987
2026-06-08 04:00	15.8	11.797	1.339	33000	14.218	15.299	1.081
2026-06-08 05:00	15.3	12.21	1.253	34000	14.279	15.365	1.086
2026-06-08 06:00	16	11.655	1.373	33000	14.221	15.289	1.068
2026-06-08 07:00	16.3	10.978	1.485	33000	14.489	15.495	1.006
2026-06-08 08:00	19	14.271	1.331	35000	14.213	15.446	1.233
2026-06-08 09:00	19	12.55	1.514	33000	14.622	15.772	1.150
2026-06-08 10:00	21.7	15.313	1.417	34000	14.537	15.899	1.362
2026-06-08 11:00	19.7	15.081	1.306	33000	14.545	15.927	1.382
2026-06-08 12:00	20.3	14.47	1.403	34000	14.637	15.924	1.287
2026-06-08 13:00	19.9	14.438	1.378	33000	14.351	15.674	1.323
2026-06-08 14:00	20	16.947	1.180	33000	13.885	15.438	1.553
2026-06-08 15:00	24.1	16.798	1.435	34000	13.526	15.020	1.494
2026-06-08 16:00	22.7	18.727	1.212	35000	13.126	14.744	1.618
2026-06-08 17:00	20.8	16.271	1.278	33000	13.976	15.467	1.491
2026-06-08 18:00	18.5	15.437	1.198	34000	14.109	15.482	1.373
2026-06-08 19:00	17.4	13.837	1.257	33000	14.269	15.537	1.268
2026-06-08 20:00	18.2	13.301	1.368	34000	14.502	15.685	1.183
2026-06-08 21:00	17.8	11.306	1.574	33000	14.410	15.446	1.036
2026-06-08 22:00	16.6	12.451	1.333	33000	14.261	15.402	1.141
2026-06-08 23:00	17.6	12.154	1.448	34000	14.505	15.586	1.081
2026-06-09 00:00	15.6	11.851	1.316	33000	14.429	15.515	1.086
2026-06-09 01:00	16.8	11.993	1.401	33000	14.369	15.468	1.099
2026-06-09 02:00	16.7	12.604	1.325	34000	14.433	15.554	1.121
2026-06-09 03:00	15.2	11.502	1.322	33000	14.356	15.410	1.054
2026-06-09 04:00	17.3	11.316	1.529	33000	14.458	15.495	1.037
2026-06-09 05:00	16.6	12.386	1.340	33000	14.157	15.292	1.135
2026-06-09 06:00	18.4	13.829	1.331	34000	14.193	15.423	1.230
2026-06-09 07:00	18	13.761	1.308	33000	14.002	15.263	1.261
2026-06-09 08:00	20.4	15.909	1.282	34000	13.528	14.943	1.415
2026-06-09 09:00	22.9	15.769	1.452	33000	13.416	14.861	1.445
2026-06-09 10:00	19.6	14.994	1.307	33000	13.690	15.064	1.374
2026-06-09 11:00	19.9	14.144	1.407	34000	13.885	15.143	1.258
2026-06-09 12:00	18.6	13.848	1.343	33000	14.061	15.330	1.269
2026-06-09 13:00	19	14.427	1.317	33000	14.097	15.419	1.322
2026-06-09 14:00	19.1	16.146	1.183	34000	13.924	15.360	1.436
2026-06-09 15:00	19.1	15.758	1.212	33000	13.904	15.348	1.444
2026-06-09 16:00	18.7	15.933	1.174	33000	13.894	15.354	1.460
2026-06-09 17:00	18.9	16.573	1.140	34000	13.802	15.276	1.474
2026-06-09 18:00	17.8	15.987	1.113	33000	13.758	15.223	1.465
2026-06-09 19:00	18.7	16.978	1.101	34000	13.686	15.196	1.510
2026-06-09 20:00	18.8	14.972	1.256	33000	13.801	15.173	1.372
2026-06-09 21:00	18.7	16.467	1.136	33000	13.631	15.140	1.509
2026-06-09 22:00	17.7	15.302	1.157	34000	13.903	15.264	1.361
2026-06-09 23:00	17.8	14.36	1.240	32000	13.905	15.262	1.357
2026-06-10 00:00	15.9	15.235	1.044	34000	13.829	15.184	1.355
2026-06-10 01:00	16.7	14.11	1.184	33000	13.963	15.256	1.293
2026-06-10 02:00	16.4	14.751	1.112	34000	13.955	15.267	1.312
2026-06-10 03:00	15.3	13.968	1.095	33000	13.843	15.123	1.280
2026-06-10 04:00	17	14.034	1.211	33000	13.884	15.170	1.286
2026-06-10 05:00	16.2	14.71	1.101	33000	13.804	15.152	1.348
2026-06-10 06:00	17.7	14.754	1.200	33000	13.775	15.127	1.352
2026-06-10 07:00	16.4	15.179	1.080	34000	13.759	15.109	1.350
2026-06-10 08:00	18.9	15.125	1.250	33000	13.696	15.082	1.386
2026-06-10 09:00	20.5	15.725	1.304	33000	13.378	14.819	1.441

2026-06-10 10:00	19.8	15.37	1.288	34000	13.583	14.950	1.367
2026-06-10 11:00	18.4	14.601	1.260	33000	13.794	15.132	1.338
2026-06-10 12:00	17	14.241	1.194	33000	13.869	15.174	1.305
2026-06-10 13:00	17	14.285	1.190	33000	14.049	15.358	1.309
2026-06-10 14:00	18.5	15.01	1.233	34000	13.923	15.258	1.335
2026-06-10 15:00	18.8	15.311	1.228	33000	13.673	15.076	1.403
2026-06-10 16:00	18.2	15.66	1.162	33000	13.595	15.030	1.435
2026-06-10 17:00	16.5	13.859	1.191	33000	13.870	15.140	1.270
2026-06-10 18:00	16.1	14.688	1.096	33000	13.932	15.278	1.346
2026-06-10 19:00	16.1	13.193	1.220	33000	14.082	15.291	1.209
2026-06-10 20:00	15.5	12.919	1.200	34000	13.868	15.017	1.149
2026-06-10 21:00	16.8	12.964	1.296	33000	14.096	15.284	1.188
2026-06-10 22:00	15.3	14.425	1.061	34000	14.023	15.306	1.283
2026-06-10 23:00	15.2	13.892	1.094	33000	14.024	15.297	1.273
2026-06-11 00:00	15.2	13.063	1.164	33000	14.112	15.309	1.197
2026-06-11 01:00	14.9	13.335	1.117	33000	14.001	15.223	1.222
2026-06-11 02:00	14.6	13.041	1.120	33000	13.891	15.086	1.195
2026-06-11 03:00	15.5	14.2	1.092	34000	13.926	15.189	1.263
2026-06-11 04:00	14.6	13.848	1.054	33000	13.815	15.084	1.269
2026-06-11 05:00	14.8	13.848	1.069	33000	13.747	15.016	1.269
2026-06-11 06:00	15.5	13.695	1.132	33000	13.811	15.066	1.255
2026-06-11 07:00	15.9	13.903	1.144	33000	13.909	15.183	1.274
2026-06-11 08:00	15.7	15.038	1.044	33000	13.743	15.121	1.378
2026-06-11 09:00	17.9	15.685	1.141	34000	13.820	15.215	1.395
2026-06-11 10:00	16.7	15.867	1.052	33000	13.645	15.099	1.454
2026-06-11 11:00	18.4	16.631	1.106	33000	13.756	15.280	1.524
2026-06-11 12:00	17.8	16.063	1.108	33000	13.786	15.258	1.472
2026-06-11 13:00	16.7	16.816	0.993	33000	13.754	15.295	1.541
2026-06-11 14:00	18.6	17.384	1.070	33000	13.774	15.367	1.593
2026-06-11 15:00	18.8	18.799	1.000	34000	13.471	15.143	1.672
2026-06-11 16:00	18.6	17.133	1.086	33000	13.802	15.372	1.570
2026-06-11 17:00	16.7	17.157	0.973	34000	13.726	15.252	1.526
2026-06-11 18:00	17.9	15.397	1.163	32000	13.967	15.422	1.455
2026-06-11 19:00	16.2	16.348	0.991	34000	13.805	15.259	1.454
2026-06-11 20:00	18.1	15.441	1.172	33000	13.986	15.401	1.415
2026-06-11 21:00	16	15.551	1.029	33000	13.815	15.240	1.425
2026-06-11 22:00	15.9	14.425	1.102	34000	14.062	15.345	1.283
2026-06-11 23:00	15.7	13.695	1.146	33000	14.120	15.375	1.255
2026-06-12 00:00	14.4	13.488	1.068	33000	14.047	15.283	1.236
2026-06-12 01:00	15.2	13.106	1.160	33000	14.067	15.268	1.201
2026-06-12 02:00	15.2	13.281	1.144	33000	14.118	15.335	1.217
2026-06-12 03:00	14.3	12.735	1.123	33000	14.058	15.225	1.167
2026-06-12 04:00	15.7	12.817	1.225	34000	14.184	15.324	1.140
2026-06-12 05:00	16.2	12.299	1.317	33000	14.175	15.302	1.127
2026-06-12 06:00	15	13.215	1.135	33000	14.075	15.286	1.211
2026-06-12 07:00	16.4	13.99	1.172	33000	14.126	15.408	1.282
2026-06-12 08:00	17	15.354	1.107	33000	14.113	15.520	1.407
2026-06-12 09:00	18.4	15.125	1.217	33000	14.259	15.645	1.386
2026-06-12 10:00	16.9	14.47	1.168	33000	14.220	15.546	1.326
2026-06-12 11:00	19.2	15.482	1.240	34000	14.143	15.520	1.377
2026-06-12 12:00	17.7	14.907	1.187	33000	14.218	15.584	1.366
2026-06-12 13:00	18.2	14.349	1.268	32000	14.195	15.551	1.356
2026-06-12 14:00	18.8	17.034	1.104	34000	13.697	15.212	1.515
2026-06-12 15:00	18.6	15.998	1.163	33000	13.948	15.414	1.466
2026-06-12 16:00	18.6	16.26	1.144	33000	13.838	15.328	1.490
2026-06-12 17:00	16.5	16.227	1.017	33000	13.753	15.240	1.487
2026-06-12 18:00	16.7	15.595	1.071	34000	13.901	15.288	1.387

2026-06-12 19:00	14.2	14.603	0.972	32000	13.727	15.107	1.380
2026-06-12 20:00	15.8	14.538	1.087	34000	13.842	15.135	1.293
2026-06-12 21:00	15.3	15.114	1.012	33000	13.780	15.165	1.385
2026-06-12 22:00	13.9	13.652	1.018	33000	13.832	15.083	1.251
2026-06-12 23:00	15.1	13.073	1.155	33000	13.965	15.163	1.198
2026-06-13 00:00	13.4	13.121	1.021	34000	13.839	15.006	1.167
2026-06-13 01:00	14.8	12.011	1.232	32000	13.974	15.109	1.135
2026-06-13 02:00	13.5	12.32	1.096	33000	13.899	15.028	1.129
2026-06-13 03:00	14.9	12.66	1.177	34000	13.981	15.107	1.126
2026-06-13 04:00	13.6	12.244	1.111	33000	13.937	15.059	1.122
2026-06-13 05:00	14.6	11.753	1.242	33000	14.006	15.083	1.077
2026-06-13 06:00	13.5	11.633	1.160	33000	14.075	15.141	1.066
2026-06-13 07:00	14.5	12.08	1.200	33000	14.095	15.202	1.107
2026-06-13 08:00	14.2	11.709	1.213	33000	14.226	15.299	1.073
2026-06-13 09:00	14.2	12.525	1.134	34000	14.184	15.298	1.114
2026-06-13 10:00	15.4	13.226	1.164	33000	14.409	15.621	1.212
2026-06-13 11:00	14.2	12.79	1.110	33000	14.387	15.559	1.172
2026-06-13 12:00	15.2	12.604	1.206	33000	14.655	15.810	1.155
2026-06-13 13:00	13.9	11.797	1.178	33000	14.614	15.695	1.081
2026-06-13 14:00	15.3	11.985	1.277	34000	14.730	15.796	1.066
2026-06-13 15:00	14.9	12.495	1.192	33000	14.743	15.888	1.145
2026-06-13 16:00	14.4	12.768	1.128	33000	14.718	15.888	1.170
2026-06-13 17:00	15.2	13.042	1.165	34000	14.812	15.972	1.160
2026-06-13 18:00	13.5	11.228	1.202	32000	14.546	15.607	1.061
2026-06-13 19:00	15.1	11.457	1.318	34000	14.479	15.498	1.019
2026-06-13 20:00	14.3	11.742	1.218	33000	14.353	15.429	1.076
2026-06-13 21:00	14.3	11.491	1.244	33000	14.310	15.363	1.053
2026-06-13 22:00	15.1	11.404	1.324	33000	14.386	15.431	1.045
2026-06-13 23:00	13.5	10.49	1.287	34000	14.275	15.208	0.933
2026-06-14 00:00	14.8	10.963	1.350	32000	14.267	15.303	1.036
2026-06-14 01:00	13.4	10.715	1.251	34000	14.228	15.181	0.953
2026-06-14 02:00	14.9	11.316	1.317	33000	14.195	15.232	1.037
2026-06-14 03:00	14	11.175	1.253	33000	14.290	15.314	1.024
2026-06-14 04:00	14.3	11.131	1.285	33000	14.224	15.244	1.020
2026-06-14 05:00	14.3	11.12	1.286	33000	14.319	15.338	1.019
2026-06-14 06:00	13.8	10.805	1.277	34000	14.266	15.227	0.961
2026-06-14 07:00	14.9	11.033	1.350	33000	14.405	15.416	1.011
2026-06-14 08:00	13.5	10.433	1.294	33000	14.308	15.264	0.956
2026-06-14 09:00	15	10.935	1.372	33000	14.467	15.469	1.002
2026-06-14 10:00	13.6	10.323	1.317	33000	14.427	15.373	0.946
2026-06-14 11:00	14.9	11.098	1.343	33000	14.362	15.379	1.017
2026-06-14 12:00	14.5	11.648	1.245	34000	14.407	15.443	1.036
2026-06-14 13:00	14.4	11.502	1.252	33000	14.368	15.422	1.054
2026-06-14 14:00	15.2	11.022	1.379	33000	14.605	15.615	1.010
2026-06-14 15:00	13.7	10.629	1.289	33000	14.496	15.470	0.974
2026-06-14 16:00	15	11.36	1.320	33000	14.464	15.505	1.041
2026-06-14 17:00	14.2	12.113	1.172	33000	14.317	15.427	1.110
2026-06-14 18:00	14	12.844	1.090	33000	14.118	15.295	1.177
2026-06-14 19:00	14.6	12.091	1.208	33000	14.267	15.375	1.108
2026-06-14 20:00	13.3	10.64	1.250	33000	14.233	15.208	0.975
2026-06-14 21:00	14.4	10.465	1.376	33000	14.316	15.275	0.959
2026-06-14 22:00	13.4	10.891	1.230	33000	14.199	15.197	0.998
2026-06-14 23:00	14.5	10.509	1.380	33000	14.249	15.212	0.963
2026-06-15 00:00	13.9	10.684	1.301	33000	14.282	15.261	0.979
2026-06-15 01:00	14.1	11.03	1.278	34000	14.236	15.217	0.981
2026-06-15 02:00	14.4	10.64	1.353	33000	14.348	15.323	0.975
2026-06-15 03:00	13.2	10.243	1.289	32000	14.207	15.175	0.968

2026-06-15 04:00	14.9	10.895	1.368	34000	14.293	15.262	0.969
2026-06-15 05:00	13.9	10.258	1.355	33000	14.200	15.140	0.940
2026-06-15 06:00	15.7	10.236	1.534	33000	14.268	15.206	0.938
2026-06-15 07:00	15	11.435	1.312	34000	14.344	15.361	1.017
2026-06-15 08:00	16.6	11.365	1.461	32000	14.351	15.425	1.074
2026-06-15 09:00	17	12.638	1.345	34000	14.418	15.542	1.124
2026-06-15 10:00	19.4	13.99	1.387	33000	14.333	15.615	1.282
2026-06-15 11:00	18.6	14.35	1.296	33000	14.365	15.680	1.315
2026-06-15 12:00	18.5	12.941	1.430	34000	14.648	15.799	1.151
2026-06-15 13:00	18.9	12.517	1.510	33000	14.583	15.730	1.147
2026-06-15 14:00	19.8	14.219	1.393	33000	14.115	15.418	1.303
2026-06-15 15:00	20.9	16.816	1.243	33000	14.045	15.586	1.541
2026-06-15 16:00	19.6	17.022	1.151	34000	13.903	15.417	1.514
2026-06-15 17:00	18.8	13.139	1.431	33000	14.441	15.645	1.204
2026-06-15 18:00	18.5	12.364	1.496	33000	14.418	15.551	1.133
2026-06-15 19:00	17	13.019	1.306	33000	14.336	15.529	1.193
2026-06-15 20:00	17.7	13.357	1.325	33000	14.357	15.581	1.224
2026-06-15 21:00	18.2	11.578	1.572	33000	14.461	15.522	1.061
2026-06-15 22:00	15.8	12.473	1.267	33000	14.316	15.459	1.143
2026-06-15 23:00	17.3	13.019	1.329	33000	14.414	15.607	1.193
2026-06-16 00:00	15.9	11.873	1.339	34000	14.459	15.515	1.056
2026-06-16 01:00	15.8	12.953	1.220	33000	14.202	15.389	1.187
2026-06-16 02:00	16.5	11.344	1.455	32000	14.397	15.469	1.072
2026-06-16 03:00	15	11.611	1.292	33000	14.235	15.299	1.064
2026-06-16 04:00	16.6	11.753	1.412	33000	14.186	15.263	1.077
2026-06-16 05:00	16.2	11.491	1.410	33000	14.218	15.271	1.053
2026-06-16 06:00	17.3	12.57	1.376	34000	14.179	15.297	1.118
2026-06-16 07:00	16	11.884	1.346	32000	14.373	15.496	1.123
2026-06-16 08:00	19	13.751	1.382	34000	14.269	15.492	1.223
2026-06-16 09:00	21.2	15.46	1.371	34000	14.232	15.607	1.375
2026-06-16 10:00	19.8	16.337	1.212	34000	14.461	15.914	1.453
2026-06-16 11:00	20.5	15.707	1.305	34000	14.575	15.972	1.397
2026-06-16 12:00	18.3	14.754	1.240	33000	15.047	16.399	1.352
2026-06-16 13:00	20.9	13.946	1.499	33000	15.053	16.331	1.278
2026-06-16 14:00	20.7	15.605	1.326	33000	14.440	15.870	1.430
2026-06-16 15:00	20.8	17.753	1.172	34000	14.607	16.186	1.579
2026-06-16 16:00	22	17.326	1.270	34000	14.116	15.657	1.541
2026-06-16 17:00	19.3	16.129	1.197	33000	14.254	15.732	1.478
2026-06-16 18:00	17	14.088	1.207	33000	14.472	15.763	1.291
2026-06-16 19:00	17.7	14.11	1.254	33000	14.569	15.862	1.293
2026-06-16 20:00	19	13.99	1.358	33000	14.430	15.712	1.282
2026-06-16 21:00	17	14.961	1.136	33000	14.360	15.731	1.371
2026-06-16 22:00	17.8	14.372	1.239	33000	14.500	15.817	1.317
2026-06-16 23:00	15.8	13.466	1.173	33000	14.376	15.610	1.234
2026-06-17 00:00	17.2	12.997	1.323	33000	14.476	15.667	1.191
2026-06-17 01:00	15.7	11.677	1.345	33000	14.428	15.498	1.070
2026-06-17 02:00	16.8	11.666	1.440	33000	14.401	15.470	1.069
2026-06-17 03:00	16.7	11.862	1.408	33000	14.468	15.555	1.087
2026-06-17 04:00	16	11.764	1.360	33000	14.270	15.348	1.078
2026-06-17 05:00	17.4	12.069	1.442	33000	14.348	15.454	1.106
2026-06-17 06:00	16.5	13.281	1.242	33000	14.149	15.366	1.217
2026-06-17 07:00	17.9	13.434	1.332	33000	14.431	15.662	1.231
2026-06-17 08:00	21.1	15.156	1.392	34000	13.989	15.337	1.348
2026-06-17 09:00	22.6	17.663	1.280	34000	13.923	15.494	1.571
2026-06-17 10:00	21.8	16.202	1.346	34000	14.608	16.049	1.441
2026-06-17 11:00	21.7	18.63	1.165	34000	14.363	16.020	1.657
2026-06-17 12:00	20.6	16.533	1.246	33000	15.059	16.574	1.515

2026-06-17 13:00	23.2	16.685	1.390	34000	14.989	16.473	1.484
2026-06-17 14:00	24.1	19.282	1.250	34000	13.241	14.956	1.715
2026-06-17 15:00	21.9	16.989	1.289	34000	13.703	15.214	1.511
2026-06-17 16:00	21.7	17.231	1.259	33000	13.690	15.269	1.579
2026-06-17 17:00	19.7	16.227	1.214	33000	14.086	15.573	1.487
2026-06-17 18:00	19.1	13.695	1.395	33000	14.351	15.606	1.255
2026-06-17 19:00	18.9	11.949	1.582	33000	14.610	15.705	1.095
2026-06-17 20:00	18.9	11.84	1.596	33000	14.456	15.541	1.085
2026-06-17 21:00	18.3	12.135	1.508	33000	14.310	15.422	1.112
2026-06-17 22:00	16.3	11.426	1.427	33000	14.478	15.525	1.047
2026-06-17 23:00	17	11.022	1.542	33000	14.418	15.428	1.010
2026-06-18 00:00	17	11.142	1.526	33000	14.488	15.509	1.021
2026-06-18 01:00	15.6	11.24	1.388	33000	14.334	15.364	1.030
2026-06-18 02:00	16.5	11	1.500	33000	14.390	15.398	1.008
2026-06-18 03:00	16.7	11.637	1.435	34000	14.424	15.459	1.035
2026-06-18 04:00	15.4	10.899	1.413	32000	14.278	15.308	1.030
2026-06-18 05:00	17.6	11.044	1.594	33000	14.366	15.378	1.012
2026-06-18 06:00	16.8	11.949	1.406	33000	14.387	15.482	1.095
2026-06-18 07:00	18.6	12.042	1.545	34000	14.778	15.849	1.071
2026-06-18 08:00	21.9	13.784	1.589	34000	14.548	15.774	1.226
2026-06-18 09:00	22.6	16.762	1.348	33000	14.134	15.670	1.536
2026-06-18 10:00	25.8	17.438	1.480	34000	14.448	15.999	1.551
2026-06-18 11:00	26.4	19.294	1.368	35000	13.702	15.369	1.667
2026-06-18 12:00	20.8	17.7	1.175	33000	14.501	16.123	1.622
2026-06-18 13:00	25.3	19.024	1.330	34000	14.177	15.869	1.692
2026-06-18 14:00	26.5	22.616	1.172	35000	13.627	15.581	1.954
2026-06-18 15:00	23.8	19.817	1.201	33000	12.971	14.787	1.816
2026-06-18 16:00	24	18.383	1.306	34000	13.668	15.303	1.635
2026-06-18 17:00	18.7	16.243	1.151	32000	13.709	15.244	1.535
2026-06-18 18:00	10.8	8.732	1.237	27000	14.957	15.935	0.978
2026-06-18 19:00	10.5	8.472	1.239	28000	14.904	15.819	0.915
2026-06-18 20:00	10.5	8.407	1.249	28000	14.863	15.771	0.908
2026-06-18 21:00	10.5	8.545	1.229	27000	14.780	15.737	0.957
2026-06-18 22:00	10.4	8.028	1.295	28000	14.830	15.697	0.867
2026-06-18 23:00	9.7	7.833	1.238	28000	14.535	15.381	0.846
2026-06-19 00:00	10.5	7.981	1.316	28000	14.569	15.431	0.862
2026-06-19 01:00	10.4	8.366	1.243	27000	14.553	15.490	0.937
2026-06-19 02:00	10.4	8.296	1.254	28000	14.565	15.461	0.896
2026-06-19 03:00	9.8	8.056	1.216	28000	14.357	15.227	0.870
2026-06-19 04:00	10.5	8.565	1.226	28000	14.309	15.234	0.925
2026-06-19 05:00	10.5	7.973	1.317	27000	14.383	15.276	0.893
2026-06-19 06:00	10.5	8.796	1.194	28000	14.598	15.548	0.950
2026-06-19 07:00	9.9	8.694	1.139	28000	14.834	15.773	0.939
2026-06-19 08:00	10	7.204	1.388	28000	15.124	15.902	0.778
2026-06-19 09:00	10.7	7.946	1.347	27000	15.389	16.279	0.890
2026-06-19 10:00	10.6	8.833	1.200	28000	15.507	16.461	0.954
2026-06-19 11:00	10.6	9.343	1.135	28000	15.429	16.438	1.009
2026-06-19 12:00	10.5	9.074	1.157	28000	15.820	16.800	0.980
2026-06-19 13:00	10.7	7.777	1.376	27000	16.577	15.706	0.871
2026-06-19 14:00	10.8	8.075	1.337	29000	15.643	16.485	0.842
2026-06-19 15:00	10.6	3.88	2.732	28000	16.145	16.564	0.419
2026-06-19 16:00	10.7	7.046	1.519	28000	15.792	16.553	0.761
2026-06-19 17:00	10.6	8.768	1.209	27000	15.462	16.444	0.982
2026-06-19 18:00	10.4	7.926	1.312	28000	15.420	16.276	0.856
2026-06-19 19:00	9.8	7.704	1.272	28000	15.222	16.054	0.832
2026-06-19 20:00	10.5	8.176	1.284	28000	14.955	15.838	0.883
2026-06-19 21:00	10.6	8.046	1.317	28000	14.846	15.715	0.869

2026-06-19 22:00	10.6	8.232	1.288	27000	14.729	15.651	0.922
2026-06-19 23:00	10.6	9.204	1.152	28000	14.641	15.635	0.994
2026-06-20 00:00	10.3	7.839	1.314	27000	14.699	15.577	0.878
2026-06-20 01:00	9.7	7.454	1.301	28000	14.559	15.364	0.805
2026-06-20 02:00	10.6	7.833	1.353	28000	14.515	15.361	0.846
2026-06-20 03:00	10.6	7.954	1.333	28000	14.480	15.339	0.859
2026-06-20 04:00	10.5	8.426	1.246	28000	14.450	15.360	0.910
2026-06-20 05:00	10.4	7.964	1.306	27000	14.566	15.458	0.892
2026-06-20 06:00	9.7	7.88	1.231	28000	14.579	15.430	0.851
2026-06-20 07:00	10.6	8.074	1.313	28000	14.845	15.717	0.872
2026-06-20 08:00	10.6	8.58	1.235	27000	15.112	16.073	0.961
2026-06-20 09:00	10.6	8.574	1.236	28000	15.454	16.380	0.926
2026-06-20 10:00	10.6	7.778	1.363	28000	16.417	17.257	0.840
2026-06-20 11:00	11.5	8.509	1.352	27000	15.637	16.590	0.953
2026-06-20 12:00	11.5	8.723	1.318	27000	16.040	17.017	0.977
2026-06-20 13:00	12.5	10.17	1.229	27000	15.774	16.913	1.139
2026-06-20 14:00	12.7	10.18	1.248	26000	15.681	16.865	1.184
2026-06-20 15:00	12.2	10.125	1.205	27000	15.657	16.791	1.134
2026-06-20 16:00	12.1	9.337	1.296	26000	15.572	16.658	1.086
2026-06-20 17:00	12.3	9.545	1.289	27000	15.311	16.380	1.069
2026-06-20 18:00	12.2	8.964	1.361	27000	15.147	16.151	1.004
2026-06-20 19:00	12.2	9.372	1.302	26000	14.899	15.989	1.090
2026-06-20 20:00	12.2	9.375	1.301	27000	14.819	15.869	1.050
2026-06-20 21:00	12.2	9.295	1.313	27000	14.710	15.751	1.041
2026-06-20 22:00	12	9.217	1.302	26000	14.603	15.675	1.072
2026-06-20 23:00	12.1	9.268	1.306	27000	14.541	15.579	1.038
2026-06-21 00:00	12.1	9.964	1.214	27000	14.409	15.525	1.116
2026-06-21 01:00	12.1	9.492	1.275	26000	14.317	15.421	1.104
2026-06-21 02:00	11.9	9.116	1.305	27000	14.335	15.356	1.021
2026-06-21 03:00	11.4	8.589	1.327	26000	14.319	15.318	0.999
2026-06-21 04:00	11.7	9.277	1.261	27000	14.272	15.311	1.039
2026-06-21 05:00	12.1	9.071	1.334	27000	14.239	15.255	1.016
2026-06-21 06:00	12.1	8.929	1.355	27000	14.323	15.323	1.000
2026-06-21 07:00	12.1	9.372	1.291	26000	14.545	15.635	1.090
2026-06-21 08:00	12	9.741	1.232	27000	14.976	16.067	1.091
2026-06-21 09:00	12.1	9.241	1.309	27000	15.317	16.352	1.035
2026-06-21 10:00	12.2	9.174	1.330	26000	15.586	16.653	1.067
2026-06-21 11:00	12.1	9.232	1.311	27000	15.898	16.932	1.034
2026-06-21 12:00	12.1	9.205	1.315	27000	16.034	17.065	1.031
2026-06-21 13:00	12.2	9.569	1.275	26000	16.045	17.158	1.113
2026-06-21 14:00	12.4	10.054	1.233	27000	16.003	17.129	1.126
2026-06-21 15:00	12.3	9.161	1.343	27000	16.089	17.115	1.026
2026-06-21 16:00	12.3	9.714	1.266	27000	15.857	16.945	1.088
2026-06-21 17:00	12.3	9.768	1.259	27000	15.706	16.800	1.094
2026-06-21 18:00	12.2	8.735	1.397	26000	15.430	16.446	1.016
2026-06-21 19:00	11.9	9.196	1.294	27000	15.194	16.224	1.030
2026-06-21 20:00	12.1	8.847	1.368	26000	14.997	16.026	1.029
2026-06-21 21:00	12.2	9.563	1.276	27000	14.784	15.855	1.071
2026-06-21 22:00	12.2	9.009	1.354	27000	14.855	15.864	1.009
2026-06-21 23:00	12.2	9.804	1.244	27000	14.766	15.864	1.098
2026-06-22 00:00	19	12.55	1.514	33000	14.622	15.772	1.150
2026-06-22 01:00	21.7	15.313	1.417	34000	14.537	15.899	1.362
2026-06-22 02:00	19.7	15.081	1.306	33000	14.545	15.927	1.382
2026-06-22 03:00	20.3	14.47	1.403	34000	14.637	15.924	1.287
2026-06-22 04:00	19.9	14.438	1.378	33000	14.351	15.674	1.323
2026-06-22 05:00	20	16.947	1.180	33000	13.885	15.438	1.553
2026-06-22 06:00	24.1	16.798	1.435	34000	13.526	15.020	1.494

2026-06-22 07:00	22.7	18.727	1.212	35000	13.126	14.744	1.618
2026-06-22 08:00	20.8	16.271	1.278	33000	13.976	15.467	1.491
2026-06-22 09:00	18.5	15.437	1.198	34000	14.109	15.482	1.373
2026-06-22 10:00	17.4	13.837	1.257	33000	14.269	15.537	1.268
2026-06-22 11:00	18.2	13.301	1.368	34000	14.502	15.685	1.183
2026-06-22 12:00	17.8	11.306	1.574	33000	14.410	15.446	1.036
2026-06-22 13:00	16.6	12.451	1.333	33000	14.261	15.402	1.141
2026-06-22 14:00	17.6	12.154	1.448	34000	14.505	15.586	1.081
2026-06-22 15:00	15.6	11.851	1.316	33000	14.429	15.515	1.086
2026-06-22 16:00	16.8	11.993	1.401	33000	14.369	15.468	1.099
2026-06-22 17:00	16.7	12.604	1.325	34000	14.433	15.554	1.121
2026-06-22 18:00	15.2	11.502	1.322	33000	14.356	15.410	1.054
2026-06-22 19:00	17.3	11.316	1.529	33000	14.458	15.495	1.037
2026-06-22 20:00	16.6	12.386	1.340	33000	14.157	15.292	1.135
2026-06-22 21:00	18.4	13.829	1.331	34000	14.193	15.423	1.230
2026-06-22 22:00	18	13.761	1.308	33000	14.002	15.263	1.261
2026-06-22 23:00	20.4	15.909	1.282	34000	13.528	14.943	1.415
2026-06-23 00:00	15.9	11.873	1.339	34000	14.459	15.515	1.056
2026-06-23 01:00	15.8	12.953	1.220	33000	14.202	15.389	1.187
2026-06-23 02:00	16.5	11.344	1.455	32000	14.397	15.469	1.072
2026-06-23 03:00	15	11.611	1.292	33000	14.235	15.299	1.064
2026-06-23 04:00	16.6	11.753	1.412	33000	14.186	15.263	1.077
2026-06-23 05:00	16.2	11.491	1.410	33000	14.218	15.271	1.053
2026-06-23 06:00	17.3	12.57	1.376	34000	14.179	15.297	1.118
2026-06-23 07:00	16	11.884	1.346	32000	14.373	15.496	1.123
2026-06-23 08:00	19	13.751	1.382	34000	14.269	15.492	1.223
2026-06-23 09:00	21.2	15.46	1.371	34000	14.232	15.607	1.375
2026-06-23 10:00	19.8	16.337	1.212	34000	14.461	15.914	1.453
2026-06-23 11:00	20.5	15.707	1.305	34000	14.575	15.972	1.397
2026-06-23 12:00	18.3	14.754	1.240	33000	15.047	16.399	1.352
2026-06-23 13:00	20.9	13.946	1.499	33000	15.053	16.331	1.278
2026-06-23 14:00	20.7	15.605	1.326	33000	14.440	15.870	1.430
2026-06-23 15:00	20.8	17.753	1.172	34000	14.607	16.186	1.579
2026-06-23 16:00	22	17.326	1.270	34000	14.116	15.657	1.541
2026-06-23 17:00	19.3	16.129	1.197	33000	14.254	15.732	1.478
2026-06-23 18:00	17	14.088	1.207	33000	14.472	15.763	1.291
2026-06-23 19:00	17.7	14.11	1.254	33000	14.569	15.862	1.293
2026-06-23 20:00	19	13.99	1.358	33000	14.430	15.712	1.282
2026-06-23 21:00	17	14.961	1.136	33000	14.360	15.731	1.371
2026-06-23 22:00	17.8	14.372	1.239	33000	14.500	15.817	1.317
2026-06-23 23:00	15.8	13.466	1.173	33000	14.376	15.610	1.234
2026-06-24 00:00	17.2	12.997	1.323	33000	14.476	15.667	1.191
2026-06-24 01:00	15.7	11.677	1.345	33000	14.428	15.498	1.070
2026-06-24 02:00	16.8	11.666	1.440	33000	14.401	15.470	1.069
2026-06-24 03:00	16.7	11.862	1.408	33000	14.468	15.555	1.087
2026-06-24 04:00	16	11.764	1.360	33000	14.270	15.348	1.078
2026-06-24 05:00	17.4	12.069	1.442	33000	14.348	15.454	1.106
2026-06-24 06:00	16.5	13.281	1.242	33000	14.149	15.366	1.217
2026-06-24 07:00	17.9	13.434	1.332	33000	14.431	15.662	1.231
2026-06-24 08:00	21.1	15.156	1.392	34000	13.989	15.337	1.348
2026-06-24 09:00	22.6	17.663	1.280	34000	13.923	15.494	1.571
2026-06-24 10:00	21.8	16.202	1.346	34000	14.608	16.049	1.441
2026-06-24 11:00	21.7	18.63	1.165	34000	14.363	16.020	1.657
2026-06-24 12:00	20.6	16.533	1.246	33000	15.059	16.574	1.515
2026-06-24 13:00	23.2	16.685	1.390	34000	14.989	16.473	1.484
2026-06-24 14:00	24.1	19.282	1.250	34000	13.241	14.956	1.715
2026-06-24 15:00	21.9	16.989	1.289	34000	13.703	15.214	1.511

2026-06-24 16:00	21.7	17.231	1.259	33000	13.690	15.269	1.579
2026-06-24 17:00	19.7	16.227	1.214	33000	14.086	15.573	1.487
2026-06-24 18:00	19.1	13.695	1.395	33000	14.351	15.606	1.255
2026-06-24 19:00	18.9	11.949	1.582	33000	14.610	15.705	1.095
2026-06-24 20:00	18.9	11.84	1.596	33000	14.456	15.541	1.085
2026-06-24 21:00	18.3	12.135	1.508	33000	14.310	15.422	1.112
2026-06-24 22:00	16.3	11.426	1.427	33000	14.478	15.525	1.047
2026-06-24 23:00	17	11.022	1.542	33000	14.418	15.428	1.010
2026-06-25 00:00	17	11.142	1.526	33000	14.488	15.509	1.021
2026-06-25 01:00	15.6	11.24	1.388	33000	14.334	15.364	1.030
2026-06-25 02:00	16.5	11	1.500	33000	14.390	15.398	1.008
2026-06-25 03:00	16.7	11.637	1.435	34000	14.424	15.459	1.035
2026-06-25 04:00	15.4	10.899	1.413	32000	14.278	15.308	1.030
2026-06-25 05:00	17.6	11.044	1.594	33000	14.366	15.378	1.012
2026-06-25 06:00	16.8	11.949	1.406	33000	14.387	15.482	1.095
2026-06-25 07:00	18.6	12.042	1.545	34000	14.778	15.849	1.071
2026-06-25 08:00	21.9	13.784	1.589	34000	14.548	15.774	1.226
2026-06-25 09:00	22.6	16.762	1.348	33000	14.134	15.670	1.536
2026-06-25 10:00	25.8	17.438	1.480	34000	14.448	15.999	1.551
2026-06-25 11:00	26.4	19.294	1.368	35000	13.702	15.369	1.667
2026-06-25 12:00	20.8	17.7	1.175	33000	14.501	16.123	1.622
2026-06-25 13:00	25.3	19.024	1.330	34000	14.177	15.869	1.692
2026-06-25 14:00	26.5	22.616	1.172	35000	13.627	15.581	1.954
2026-06-25 15:00	23.8	19.817	1.201	33000	12.971	14.787	1.816
2026-06-25 16:00	18.6	16.26	1.144	33000	13.838	15.328	1.490
2026-06-25 17:00	16.5	16.227	1.017	33000	13.753	15.240	1.487
2026-06-25 18:00	16.7	15.595	1.071	34000	13.901	15.288	1.387
2026-06-25 19:00	14.2	14.603	0.972	32000	13.727	15.107	1.380
2026-06-25 20:00	15.8	14.538	1.087	34000	13.842	15.135	1.293
2026-06-25 21:00	15.3	15.114	1.012	33000	13.780	15.165	1.385
2026-06-25 22:00	13.9	13.652	1.018	33000	13.832	15.083	1.251
2026-06-25 23:00	15.1	13.073	1.155	33000	13.965	15.163	1.198
2026-06-26 00:00	17.9	15.685	1.141	34000	13.820	15.215	1.395
2026-06-26 01:00	16.7	15.867	1.052	33000	13.645	15.099	1.454
2026-06-26 02:00	18.4	16.631	1.106	33000	13.756	15.280	1.524
2026-06-26 03:00	17.8	16.063	1.108	33000	13.786	15.258	1.472
2026-06-26 04:00	16.7	16.816	0.993	33000	13.754	15.295	1.541
2026-06-26 05:00	18.6	17.384	1.070	33000	13.774	15.367	1.593
2026-06-26 06:00	18.8	18.799	1.000	34000	13.471	15.143	1.672
2026-06-26 07:00	18.6	17.133	1.086	33000	13.802	15.372	1.570
2026-06-26 08:00	16.7	17.157	0.973	34000	13.726	15.252	1.526
2026-06-26 09:00	17.9	15.397	1.163	32000	13.967	15.422	1.455
2026-06-26 10:00	16.2	16.348	0.991	34000	13.805	15.259	1.454
2026-06-26 11:00	18.1	15.441	1.172	33000	13.986	15.401	1.415
2026-06-26 12:00	17.7	13.357	1.325	33000	14.357	15.581	1.224
2026-06-26 13:00	18.2	11.578	1.572	33000	14.461	15.522	1.061
2026-06-26 14:00	15.8	12.473	1.267	33000	14.316	15.459	1.143
2026-06-26 15:00	17.3	13.019	1.329	33000	14.414	15.607	1.193
2026-06-26 16:00	15.9	11.873	1.339	34000	14.459	15.515	1.056
2026-06-26 17:00	15.8	12.953	1.220	33000	14.202	15.389	1.187
2026-06-26 18:00	16.5	11.344	1.455	32000	14.397	15.469	1.072
2026-06-26 19:00	15	11.611	1.292	33000	14.235	15.299	1.064
2026-06-26 20:00	16.6	11.753	1.412	33000	14.186	15.263	1.077
2026-06-26 21:00	16.2	11.491	1.410	33000	14.218	15.271	1.053
2026-06-26 22:00	17.3	12.57	1.376	34000	14.179	15.297	1.118
2026-06-26 23:00	23.8	19.817	1.201	33000	12.971	14.787	1.816
2026-06-27 00:00	22.9	15.769	1.452	33000	13.416	14.861	1.445

2026-06-27 01:00	19.6	14.994	1.307	33000	13.690	15.064	1.374
2026-06-27 02:00	19.9	14.144	1.407	34000	13.885	15.143	1.258
2026-06-27 03:00	18.6	13.848	1.343	33000	14.061	15.330	1.269
2026-06-27 04:00	19	14.427	1.317	33000	14.097	15.419	1.322
2026-06-27 05:00	19.1	16.146	1.183	34000	13.924	15.360	1.436
2026-06-27 06:00	19.1	15.758	1.212	33000	13.904	15.348	1.444
2026-06-27 07:00	18.7	15.933	1.174	33000	13.894	15.354	1.460
2026-06-27 08:00	18.9	16.573	1.140	34000	13.802	15.276	1.474
2026-06-27 09:00	17.8	15.987	1.113	33000	13.758	15.223	1.465
2026-06-27 10:00	18.7	16.978	1.101	34000	13.686	15.196	1.510
2026-06-27 11:00	18.8	14.972	1.256	33000	13.801	15.173	1.372
2026-06-27 12:00	18.7	16.467	1.136	33000	13.631	15.140	1.509
2026-06-27 13:00	15.6	11.24	1.388	33000	14.334	15.364	1.030
2026-06-27 14:00	16.5	11	1.500	33000	14.390	15.398	1.008
2026-06-27 15:00	16.7	11.637	1.435	34000	14.424	15.459	1.035
2026-06-27 16:00	15.4	10.899	1.413	32000	14.278	15.308	1.030
2026-06-27 17:00	17.6	11.044	1.594	33000	14.366	15.378	1.012
2026-06-27 18:00	16.8	11.949	1.406	33000	14.387	15.482	1.095
2026-06-27 19:00	18.6	12.042	1.545	34000	14.778	15.849	1.071
2026-06-27 20:00	21.9	13.784	1.589	34000	14.548	15.774	1.226
2026-06-27 21:00	22.6	16.762	1.348	33000	14.134	15.670	1.536
2026-06-27 22:00	25.8	17.438	1.480	34000	14.448	15.999	1.551
2026-06-27 23:00	26.4	19.294	1.368	35000	13.702	15.369	1.667
2026-06-28 00:00	20.8	17.7	1.175	33000	14.501	16.123	1.622
2026-06-28 01:00	25.3	19.024	1.330	34000	14.177	15.869	1.692
2026-06-28 02:00	26.5	22.616	1.172	35000	13.627	15.581	1.954
2026-06-28 03:00	23.8	19.817	1.201	33000	12.971	14.787	1.816
2026-06-28 04:00	17.9	15.685	1.141	34000	13.820	15.215	1.395
2026-06-28 05:00	16.7	15.867	1.052	33000	13.645	15.099	1.454
2026-06-28 06:00	18.4	16.631	1.106	33000	13.756	15.280	1.524
2026-06-28 07:00	17.8	16.063	1.108	33000	13.786	15.258	1.472
2026-06-28 08:00	16.7	16.816	0.993	33000	13.754	15.295	1.541
2026-06-28 09:00	18.6	17.384	1.070	33000	13.774	15.367	1.593
2026-06-28 10:00	18.8	18.799	1.000	34000	13.471	15.143	1.672
2026-06-28 11:00	18.6	17.133	1.086	33000	13.802	15.372	1.570
2026-06-28 12:00	16.7	17.157	0.973	34000	13.726	15.252	1.526
2026-06-28 13:00	17.9	15.397	1.163	32000	13.967	15.422	1.455
2026-06-28 14:00	16.2	16.348	0.991	34000	13.805	15.259	1.454
2026-06-28 15:00	18.1	15.441	1.172	33000	13.986	15.401	1.415
2026-06-28 16:00	17.7	13.357	1.325	33000	14.357	15.581	1.224
2026-06-28 17:00	18.2	11.578	1.572	33000	14.461	15.522	1.061
2026-06-28 18:00	15.8	12.473	1.267	33000	14.316	15.459	1.143
2026-06-28 19:00	17.3	13.019	1.329	33000	14.414	15.607	1.193
2026-06-28 20:00	15.9	11.873	1.339	34000	14.459	15.515	1.056
2026-06-28 21:00	15.8	12.953	1.220	33000	14.202	15.389	1.187
2026-06-28 22:00	16.5	11.344	1.455	32000	14.397	15.469	1.072
2026-06-28 23:00	15	11.611	1.292	33000	14.235	15.299	1.064
2026-06-29 00:00	16.6	11.753	1.412	33000	14.186	15.263	1.077
2026-06-29 01:00	16.2	11.491	1.410	33000	14.218	15.271	1.053
2026-06-29 02:00	17.3	12.57	1.376	34000	14.179	15.297	1.118
2026-06-29 03:00	23.8	19.817	1.201	33000	12.971	14.787	1.816
2026-06-29 04:00	22.9	15.769	1.452	33000	13.416	14.861	1.445
2026-06-29 05:00	19.6	14.994	1.307	33000	13.690	15.064	1.374
2026-06-29 06:00	19.9	14.144	1.407	34000	13.885	15.143	1.258
2026-06-29 07:00	18.6	13.848	1.343	33000	14.061	15.330	1.269
2026-06-29 08:00	14.8	10.913	1.356	33000	14.429	15.429	1.000
2026-06-29 09:00	14.6	11.426	1.278	33000	14.257	15.304	1.047

2026-06-29 10:00	15.5	11.952	1.297	34000	14.338	15.401	1.063
2026-06-29 11:00	13.9	10.771	1.291	33000	14.259	15.246	0.987
2026-06-29 12:00	15.8	11.797	1.339	33000	14.218	15.299	1.081
2026-06-29 13:00	15.3	12.21	1.253	34000	14.279	15.365	1.086
2026-06-29 14:00	16	11.655	1.373	33000	14.221	15.289	1.068
2026-06-29 15:00	16.3	10.978	1.485	33000	14.489	15.495	1.006
2026-06-29 16:00	19	14.271	1.331	35000	14.213	15.446	1.233
2026-06-29 17:00	19	12.55	1.514	33000	14.622	15.772	1.150
2026-06-29 18:00	21.7	15.313	1.417	34000	14.537	15.899	1.362
2026-06-29 19:00	19.7	15.081	1.306	33000	14.545	15.927	1.382
2026-06-29 20:00	20.3	14.47	1.403	34000	14.637	15.924	1.287
2026-06-29 21:00	19.9	14.438	1.378	33000	14.351	15.674	1.323
2026-06-29 22:00	20	16.947	1.180	33000	13.885	15.438	1.553
2026-06-29 23:00	24.1	16.798	1.435	34000	13.526	15.020	1.494
2026-06-30 00:00	22.7	18.727	1.212	35000	13.126	14.744	1.618
2026-06-30 01:00	20.8	16.271	1.278	33000	13.976	15.467	1.491
2026-06-30 02:00	18.5	15.437	1.198	34000	14.109	15.482	1.373
2026-06-30 03:00	17.4	13.837	1.257	33000	14.269	15.537	1.268
2026-06-30 04:00	18.2	13.301	1.368	34000	14.502	15.685	1.183
2026-06-30 05:00	17.8	11.306	1.574	33000	14.410	15.446	1.036
2026-06-30 06:00	16.6	12.451	1.333	33000	14.261	15.402	1.141
2026-06-30 07:00	17.6	12.154	1.448	34000	14.505	15.586	1.081
2026-06-30 08:00	15.6	11.851	1.316	33000	14.429	15.515	1.086
2026-06-30 09:00	16.8	11.993	1.401	33000	14.369	15.468	1.099
2026-06-30 10:00	16.7	12.604	1.325	34000	14.433	15.554	1.121
2026-06-30 11:00	15.2	11.502	1.322	33000	14.356	15.410	1.054
2026-06-30 12:00	17.3	11.316	1.529	33000	14.458	15.495	1.037
2026-06-30 13:00	16.6	12.386	1.340	33000	14.157	15.292	1.135
2026-06-30 14:00	18.4	13.829	1.331	34000	14.193	15.423	1.230
2026-06-30 15:00	15.6	11.851	1.316	33000	14.429	15.515	1.086
2026-06-30 16:00	16.8	11.993	1.401	33000	14.369	15.468	1.099
2026-06-30 17:00	16.7	12.604	1.325	34000	14.433	15.554	1.121
2026-06-30 18:00	15.2	11.502	1.322	33000	14.356	15.410	1.054
2026-06-30 19:00	17.3	11.316	1.529	33000	14.458	15.495	1.037
2026-06-30 20:00	16.6	12.386	1.340	33000	14.157	15.292	1.135
2026-06-30 21:00	18.4	13.829	1.331	34000	14.193	15.423	1.230
2026-06-30 22:00	18	13.761	1.308	33000	14.002	15.263	1.261
2026-06-30 23:00	20.4	15.909	1.282	34000	13.528	14.943	1.415
2026-07-01 00:00	17.9	15.685	1.141	34000	13.820	15.215	1.395
2026-07-01 01:00	16.7	15.867	1.052	33000	13.645	15.099	1.454
2026-07-01 02:00	18.4	16.631	1.106	33000	13.756	15.280	1.524
2026-07-01 03:00	17.8	16.063	1.108	33000	13.786	15.258	1.472
2026-07-01 04:00	16.7	16.816	0.993	33000	13.754	15.295	1.541
2026-07-01 05:00	18.6	17.384	1.070	33000	13.774	15.367	1.593
2026-07-01 06:00	18.8	18.799	1.000	34000	13.471	15.143	1.672
2026-07-01 07:00	18.6	17.133	1.086	33000	13.802	15.372	1.570
2026-07-01 08:00	16.7	17.157	0.973	34000	13.726	15.252	1.526
2026-07-01 09:00	17.9	15.397	1.163	32000	13.967	15.422	1.455
2026-07-01 10:00	16.2	16.348	0.991	34000	13.805	15.259	1.454
2026-07-01 11:00	18.1	15.441	1.172	33000	13.986	15.401	1.415
2026-07-01 12:00	17.7	13.357	1.325	33000	14.357	15.581	1.224
2026-07-01 13:00	18.2	11.578	1.572	33000	14.461	15.522	1.061
2026-07-01 14:00	15.8	12.473	1.267	33000	14.316	15.459	1.143
2026-07-01 15:00	17.3	13.019	1.329	33000	14.414	15.607	1.193
2026-07-01 16:00	15.9	11.873	1.339	34000	14.459	15.515	1.056
2026-07-01 17:00	15.8	12.953	1.220	33000	14.202	15.389	1.187
2026-07-01 18:00	16.5	11.344	1.455	32000	14.397	15.469	1.072

2026-07-01 19:00	15	11.611	1.292	33000	14.235	15.299	1.064
2026-07-01 20:00	16.6	11.753	1.412	33000	14.186	15.263	1.077
2026-07-01 21:00	16.2	11.491	1.410	33000	14.218	15.271	1.053
2026-07-01 22:00	17.3	12.57	1.376	34000	14.179	15.297	1.118
2026-07-01 23:00	23.8	19.817	1.201	33000	12.971	14.787	1.816
2026-07-02 00:00	22.9	15.769	1.452	33000	13.416	14.861	1.445
2026-07-02 01:00	19.6	14.994	1.307	33000	13.690	15.064	1.374
2026-07-02 02:00	19.9	14.144	1.407	34000	13.885	15.143	1.258
2026-07-02 03:00	18.6	13.848	1.343	33000	14.061	15.330	1.269
2026-07-02 04:00	19	14.427	1.317	33000	14.097	15.419	1.322
2026-07-02 05:00	19.1	16.146	1.183	34000	13.924	15.360	1.436
2026-07-02 06:00	19.1	15.758	1.212	33000	13.904	15.348	1.444
2026-07-02 07:00	18.7	15.933	1.174	33000	13.894	15.354	1.460
2026-07-02 08:00	18.9	16.573	1.140	34000	13.802	15.276	1.474
2026-07-02 09:00	17.8	15.987	1.113	33000	13.758	15.223	1.465
2026-07-02 10:00	18.7	16.978	1.101	34000	13.686	15.196	1.510
2026-07-02 11:00	18.8	14.972	1.256	33000	13.801	15.173	1.372
2026-07-02 12:00	18.7	16.467	1.136	33000	13.631	15.140	1.509
2026-07-02 13:00	15.6	11.24	1.388	33000	14.334	15.364	1.030
2026-07-02 14:00	16.5	11	1.500	33000	14.390	15.398	1.008
2026-07-02 15:00	16.7	11.637	1.435	34000	14.424	15.459	1.035
2026-07-02 16:00	15.4	10.899	1.413	32000	14.278	15.308	1.030
2026-07-02 17:00	17.6	11.044	1.594	33000	14.366	15.378	1.012
2026-07-02 18:00	16.8	11.949	1.406	33000	14.387	15.482	1.095
2026-07-02 19:00	18.6	12.042	1.545	34000	14.778	15.849	1.071
2026-07-02 20:00	21.9	13.784	1.589	34000	14.548	15.774	1.226
2026-07-02 21:00	22.6	16.762	1.348	33000	14.134	15.670	1.536
2026-07-02 22:00	25.8	17.438	1.480	34000	14.448	15.999	1.551
2026-07-02 23:00	26.4	19.294	1.368	35000	13.702	15.369	1.667
2026-07-03 00:00	20.8	17.7	1.175	33000	14.501	16.123	1.622
2026-07-03 01:00	25.3	19.024	1.330	34000	14.177	15.869	1.692
2026-07-03 02:00	26.5	22.616	1.172	35000	13.627	15.581	1.954
2026-07-03 03:00	23.8	19.817	1.201	33000	12.971	14.787	1.816
2026-07-03 04:00	17.9	15.685	1.141	34000	13.820	15.215	1.395
2026-07-03 05:00	16.7	15.867	1.052	33000	13.645	15.099	1.454
2026-07-03 06:00	18.4	16.631	1.106	33000	13.756	15.280	1.524
2026-07-03 07:00	17.8	16.063	1.108	33000	13.786	15.258	1.472
2026-07-03 08:00	16.7	16.816	0.993	33000	13.754	15.295	1.541
2026-07-03 09:00	18.6	17.384	1.070	33000	13.774	15.367	1.593
2026-07-03 10:00	18.8	18.799	1.000	34000	13.471	15.143	1.672
2026-07-03 11:00	18.6	17.133	1.086	33000	13.802	15.372	1.570
2026-07-03 12:00	16.7	17.157	0.973	34000	13.726	15.252	1.526
2026-07-03 13:00	17.9	15.397	1.163	32000	13.967	15.422	1.455
2026-07-03 14:00	16.2	16.348	0.991	34000	13.805	15.259	1.454
2026-07-03 15:00	18.1	15.441	1.172	33000	13.986	15.401	1.415
2026-07-03 16:00	17.7	13.357	1.325	33000	14.357	15.581	1.224
2026-07-03 17:00	18.2	11.578	1.572	33000	14.461	15.522	1.061
2026-07-03 18:00	15.8	12.473	1.267	33000	14.316	15.459	1.143
2026-07-03 19:00	17.3	13.019	1.329	33000	14.414	15.607	1.193
2026-07-03 20:00	15.9	11.873	1.339	34000	14.459	15.515	1.056
2026-07-03 21:00	15.8	12.953	1.220	33000	14.202	15.389	1.187
2026-07-03 22:00	16.5	11.344	1.455	32000	14.397	15.469	1.072
2026-07-03 23:00	15	11.611	1.292	33000	14.235	15.299	1.064
2026-07-04 00:00	16.6	11.753	1.412	33000	14.186	15.263	1.077
2026-07-04 01:00	16.2	11.491	1.410	33000	14.218	15.271	1.053
2026-07-04 02:00	17.3	12.57	1.376	34000	14.179	15.297	1.118
2026-07-04 03:00	23.8	19.817	1.201	33000	12.971	14.787	1.816

2026-07-04 04:00	22.9	15.769	1.452	33000	13.416	14.861	1.445
2026-07-04 05:00	19.6	14.994	1.307	33000	13.690	15.064	1.374
2026-07-04 06:00	19.9	14.144	1.407	34000	13.885	15.143	1.258
2026-07-04 07:00	18.6	13.848	1.343	33000	14.061	15.330	1.269
2026-07-04 08:00	14.8	10.913	1.356	33000	14.429	15.429	1.000
2026-07-04 09:00	14.6	11.426	1.278	33000	14.257	15.304	1.047
2026-07-04 10:00	15.5	11.952	1.297	34000	14.338	15.401	1.063
2026-07-04 11:00	13.9	10.771	1.291	33000	14.259	15.246	0.987
2026-07-04 12:00	15.8	11.797	1.339	33000	14.218	15.299	1.081
2026-07-04 13:00	15.3	12.21	1.253	34000	14.279	15.365	1.086
2026-07-04 14:00	16	11.655	1.373	33000	14.221	15.289	1.068
2026-07-04 15:00	16.3	10.978	1.485	33000	14.489	15.495	1.006
2026-07-04 16:00	19	14.271	1.331	35000	14.213	15.446	1.233
2026-07-04 17:00	19	12.55	1.514	33000	14.622	15.772	1.150
2026-07-04 18:00	21.7	15.313	1.417	34000	14.537	15.899	1.362
2026-07-04 19:00	19.7	15.081	1.306	33000	14.545	15.927	1.382
2026-07-04 20:00	20.3	14.47	1.403	34000	14.637	15.924	1.287
2026-07-04 21:00	19.9	14.438	1.378	33000	14.351	15.674	1.323
2026-07-04 22:00	20	16.947	1.180	33000	13.885	15.438	1.553
2026-07-04 23:00	24.1	16.798	1.435	34000	13.526	15.020	1.494
2026-07-05 00:00	22.7	18.727	1.212	35000	13.126	14.744	1.618
2026-07-05 01:00	20.8	16.271	1.278	33000	13.976	15.467	1.491
2026-07-05 02:00	18.5	15.437	1.198	34000	14.109	15.482	1.373
2026-07-05 03:00	17.4	13.837	1.257	33000	14.269	15.537	1.268
2026-07-05 04:00	18.2	13.301	1.368	34000	14.502	15.685	1.183
2026-07-05 05:00	17.8	11.306	1.574	33000	14.410	15.446	1.036
2026-07-05 06:00	16.6	12.451	1.333	33000	14.261	15.402	1.141
2026-07-05 07:00	17.6	12.154	1.448	34000	14.505	15.586	1.081
2026-07-05 08:00	15.6	11.851	1.316	33000	14.429	15.515	1.086
2026-07-05 09:00	16.8	11.993	1.401	33000	14.369	15.468	1.099
2026-07-05 10:00	16.7	12.604	1.325	34000	14.433	15.554	1.121
2026-07-05 11:00	15.2	11.502	1.322	33000	14.356	15.410	1.054
2026-07-05 12:00	17.3	11.316	1.529	33000	14.458	15.495	1.037
2026-07-05 13:00	16.6	12.386	1.340	33000	14.157	15.292	1.135
2026-07-05 14:00	18.4	13.829	1.331	34000	14.193	15.423	1.230
2026-07-05 15:00	15.6	11.851	1.316	33000	14.429	15.515	1.086
2026-07-05 16:00	16.8	11.993	1.401	33000	14.369	15.468	1.099
2026-07-05 17:00	16.7	12.604	1.325	34000	14.433	15.554	1.121
2026-07-05 18:00	15.2	11.502	1.322	33000	14.356	15.410	1.054
2026-07-05 19:00	17.3	11.316	1.529	33000	14.458	15.495	1.037
2026-07-05 20:00	16.6	12.386	1.340	33000	14.157	15.292	1.135
2026-07-05 21:00	18.4	13.829	1.331	34000	14.193	15.423	1.230
2026-07-05 22:00	18	13.761	1.308	33000	14.002	15.263	1.261
2026-07-05 23:00	20.4	15.909	1.282	34000	13.528	14.943	1.415

五、節能改善建議

方案名稱	現況概述	改善方法摘要	(1)節能效益		(2)環境效益	(3)經濟效益
			型式 (單位)	節能量	GHGs減量 (tCO ₂ e/年)	降低成本 (萬元/年)
冰水主機 採用高效率機種	透過電力計，溫度傳感器及流量計實際量測冰水主機相關運轉參數，其冰水平均出水溫度為14.27度，冰水主機效率1.274kW/RT。	建議可透過汰舊換新方式，將舊有冰水主機汰換為高效率冰水主機，其效率約為0.7 kW/RT。量測期間平均冷凍能力13.328RT。	電力 (kWh)	45,901	21.76	27.17
合計			電力 (kWh)	45,901	21.76	27.17

● 節能量(kWh/年)

$$(1.274-0.7) \text{ kW/RT} \times 13.328 \text{ RT} \times 6000 \text{ 時/年} = 45,901 \text{ kWh/年}$$

● 現行高效率冰水主機效率差異

$$(1.274-0.7) \text{ kW/RT} \div 1.274 \times 100 = 45\%$$

● GHGs 減量(tCO₂e/年)

$$45901 \text{ kWh/年} \times 0.474 \text{ kgCO}_2\text{e/kWh} \div 1,000 \text{ kg/t} = 21.76 \text{ tCO}_2\text{e/年}$$

● 節省能源費用

$$45901 \text{ kWh/年} \times 5.92 \text{ 元/度} \div 10,000 \text{ 元/萬元} = 27.17 \text{ 萬元/年}$$