

Estimates of World Air Conditioner Demand

July 2024

JRAIA

The Japan Refrigeration and Air Conditioning Industry Association

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The Japan Refrigeration and Air Conditioning Industry Association (JRAIA) has compiled the estimated data on world air conditioner demand by country in 2023, as shown below.

* In this report, air conditioners are those used for houses, buildings, etc. and are classified into two: room air conditioners that include window-type and small-sized split-type air conditioners; and commercial air conditioners that cover those other than room air conditioners.

I. Overview

The world's total air conditioner demand in 2023 is estimated at 123,932 thousand units, which represents 105% of the world demand a year before.

Looking at the 2023 world demand in terms of Japan, China and other regions, the largest demand is from China, of which demand is estimated to have reached 47,440 thousand units, representing 110% of its 2022 demand. China's demand accounts for 38% of the world's total demand. Next to China, the Asian region (excluding Japan and China) stands at 22,464 thousand units, followed by North America with 18,416 thousand units, Europe with 9,650 thousand units, Japan with 9,589 thousand units and Latin America with 7,288 thousand units.

II. Covered Products and Survey Method

(1) Covered Products and Classification

Covered products are air conditioners used for houses, buildings, etc. as a complete air conditioning system. Heat pump-type cooling and heating air conditioners are included, but portable-type air conditioners and those using a chiller/heater system are excluded.

Room air conditioners consist of window-type air conditioners and small-sized single and multiple split-type air conditioners.

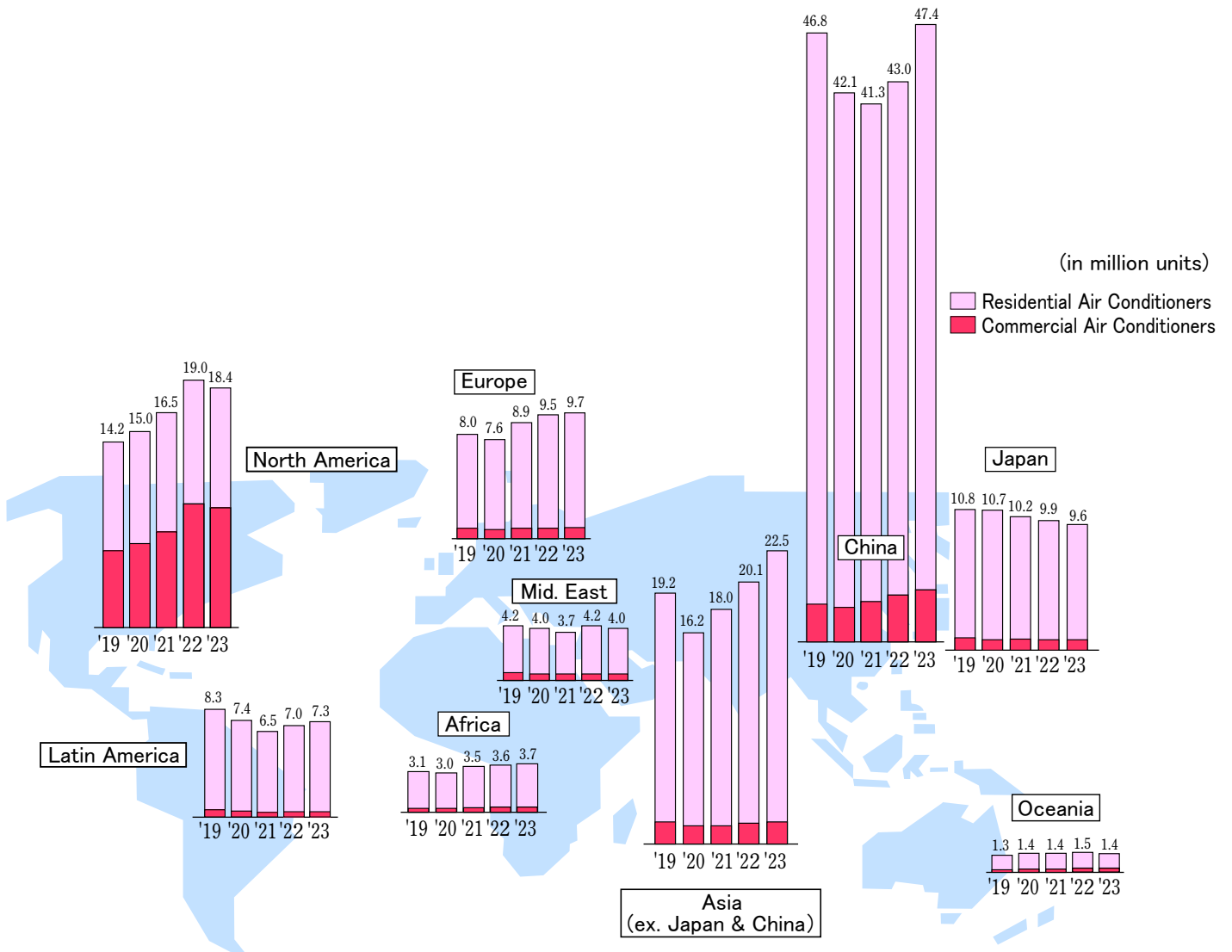
Commercial air conditioners consist of mainly medium- and large-sized split-type air conditioners, as well as remote condenser-type air conditioners, single package-type air conditioners and variable refrigerant flow (VRF) systems. Unitary air conditioners and unitary heat pumps that are the mainstream in the U.S. are included here.

(2) Survey Method

Global Committee's Overseas Air Conditioning Working Group has collected the statistics, conducted the survey and compiled the estimated results of world air conditioner demand.

Disclaimer:

JRAIA shall not be liable for any future change, interruption, suspension, abolition or other related matters regarding this data.



1. Total Number of Air Conditioners

(In thousand units)

	2019年	2020年	2021年	2022年	2023年	% year on year
World total	115,872	107,447	110,041	117,770	123,932	105
Japan	10,768	10,687	10,201	9,885	9,589	97
Outside Japan	105,104	96,760	99,840	107,885	114,342	106
China	46,751	42,142	41,305	42,998	47,440	110
Asia total	19,245	16,196	17,983	20,066	22,464	112
India	5,871	4,575	6,283	7,650	9,231	
Indonesia	2,365	1,929	2,159	2,374	2,693	
Vietnam	2,432	2,153	1,877	1,825	1,929	
Thailand	1,636	1,515	1,438	1,496	1,584	
Taiwan	1,163	1,210	1,272	1,259	1,360	
Malaysia	1,001	902	867	889	913	
Philippines	980	755	822	870	922	
Hong Kong/Macau	557	482	530	526	526	
Bangladesh	211	184	208	253	341	
Singapore	135	113	121	129	127	
Others	2,895	2,378	2,406	2,794	2,838	
Middle East total	4,194	3,992	3,684	4,227	4,009	95
Saudi Arabia	1,371	1,233	1,170	1,485	1,484	
UAE	411	546	516	563	599	
Oman	243	220	233	277	294	
Qatar	206	191	169	169	165	
Kuwait	138	123	133	155	150	
Others	1,825	1,678	1,463	1,576	1,317	
Europe total	7,991	7,604	8,885	9,517	9,650	101
Italy	1,304	1,201	1,533	1,686	1,666	
Spain	788	721	806	831	1,003	
France	703	729	791	821	865	
Turkey	677	591	644	713	840	
Greece	259	217	292	335	407	
United Kingdom	204	179	213	237	232	
Bulgaria	142	159	154	230	187	
Poland	163	164	183	214	200	
Germany	193	216	227	204	185	
Portugal	151	140	172	194	221	
Romania	161	139	126	172	167	
Netherlands	104	133	159	162	163	
Hungary	127	132	118	133	114	
Belgium	85	115	150	129	121	
Norway	80	72	85	111	117	
Sweden	68	68	72	108	90	
Finland	61	60	81	106	78	
Czech Republic	49	43	51	56	48	
Austria	43	40	44	44	41	
Denmark	27	29	35	38	33	
Switzerland	12	18	21	20	19	
Ireland	14	11	12	12	11	
Others	2,495	2,336	2,817	2,865	2,754	
North America total	14,226	15,029	16,515	19,026	18,416	97
USA	6,555	7,143	8,091	10,591	1,245	
Canada	359	372	458	551	275	
Latin America total	8,254	7,423	6,547	7,016	7,288	104
Africa total	3,125	2,981	3,489	3,572	3,699	104
Oceania total	1,319	1,396	1,432	1,464	1,376	94
Australia	1,121	1,174	1,178	1,205	1,143	
New Zealand	153	168	200	204	176	
Others	4	4	4	5	5	

*1 Figures are for calendar years from January to December. *2 Asia total is the total demand of Asian countries excluding Japan and China. *3 Rounded values are displayed. Total values may not be equal to the sum because they are numbers that add room air conditioners and commercial air conditioners together. *4 Figures not shown but indicated by - are included in others in the corresponding region or in the corresponding regional total.

2. Residential Air Conditioners

(In thousand units)

	2021				2022				2023			
	Window-type	Split-type (Single)	Split-type (Multi)	Total	Window-type	Split-type (Single)	Split-type (Multi)	Total	Window-type	Split-type (Single)	Split-type (Multi)	Total
World total	-	-	-	95,162	-	-	-	99,899	-	-	-	105,857
Japan	-	-	-	9,373	-	-	-	9,059	-	-	-	8,784
Outside Japan	12,521	68,522	4,746	85,789	12,377	73,587	4,875	90,839	12,257	79,945	4,871	97,073
China	-	35,174	3,032	38,206	-	36,491	2,923	39,414	-	40,617	2,822	43,439
Asia total	1,868	14,507	232	16,607	1,953	16,328	223	18,505	2,044	18,531	203	20,778
India	773	5,276	27	6,075	858	6,532	14	7,404	906	8,033	-	8,939
Indonesia	-	2,094	6	2,100	-	2,303	6	2,309	-	2,616	6	2,622
Vietnam	-	1,788	14	1,802	-	1,735	13	1,749	-	1,833	17	1,850
Thailand	0	1,277	1	1,279	-	1,324	1	1,325	-	1,405	1	1,406
Taiwan	208	908	95	1,212	175	917	95	1,187	166	1,024	89	1,279
Malaysia	-	784	6	790	-	809	6	815	-	829	6	835
Philippines	470	289	3	762	488	314	3	805	510	340	-	851
Hong Kong/Macau	293	194	15	502	301	184	15	500	318	169	15	501
Bangladesh	-	182	0	182	-	217	-	217	-	296	-	296
Singapore	-	36	62	98	-	38	68	107	-	35	68	103
Others	123	1,680	2	1,806	132	1,954	1	2,086	144	1,950	1	2,095
Middle East total	1,056	2,123	1	3,180	1,014	2,671	0	3,684	985	2,492	0	3,477
Saudi Arabia	579	476	-	1,055	518	823	-	1,340	491	837	-	1,328
UAE	143	232	0	375	143	263	-	406	149	285	-	434
Oman	68	121	-	190	71	157	-	228	71	171	-	242
Qatar	62	78	0	140	59	80	-	139	55	81	-	136
Kuwait	0	79	-	79	20	82	-	102	16	84	-	100
Others	204	1,136	1	1,340	203	1,267	0	1,469	204	1,033	0	1,237
Europe total	98	6,970	1,039	8,107	96	7,453	1,130	8,679	88	7,480	1,235	8,803
Italy	-	1,095	374	1,469	-	1,175	440	1,615	-	1,131	465	1,596
Spain	-	579	73	652	-	582	75	657	-	711	91	802
France	-	437	216	653	-	459	226	685	-	473	263	736
Turkey	-	570	21	590	-	633	22	655	-	737	40	777
Greece	-	270	7	276	-	309	7	317	-	380	8	388
United Kingdom	-	119	14	132	-	135	16	151	-	127	21	148
Bulgaria	-	143	7	150	-	210	14	224	-	170	12	182
Poland	-	149	14	163	-	172	18	190	-	156	23	179
Germany	-	137	50	187	-	114	47	161	-	99	45	144
Portugal	-	120	39	159	-	133	43	176	-	151	49	200
Romania	-	113	6	118	-	155	8	163	-	150	7	157
Netherlands	-	105	37	142	-	110	34	144	-	111	36	148
Hungary	-	104	9	113	-	118	10	129	-	101	9	110
Belgium	-	80	55	135	-	66	47	113	-	60	47	107
Norway	-	81	1	83	-	107	2	109	-	112	2	114
Sweden	-	66	2	69	-	101	3	104	-	84	2	86
Finland	-	78	2	79	-	102	2	104	-	75	1	76
Czech Republic	-	33	10	43	-	37	11	48	-	32	10	42
Austria	-	24	12	36	-	26	10	36	-	23	10	33
Denmark	-	33	1	34	-	35	1	37	-	30	1	32
Switzerland	-	11	3	13	-	10	3	13	-	10	3	13
Ireland	-	4	0	5	-	4	0	5	-	5	0	5
Others	-	2,620	88	2,708	-	2,657	92	2,749	-	2,552	88	2,640
North America total	7,966	854	326	9,146	7,885	1,137	473	9,494	7,734	1,038	482	9,254
USA	-	694	283	977	-	949	428	1,377	-	807	438	1,245
Canada	-	160	42	202	-	188	45	233	-	231	44	275
Latin America total	1,143	4,997	47	6,187	1,036	5,523	55	6,614	1,001	5,803	58	6,862
Africa total	340	2,788	36	3,164	345	2,855	35	3,235	353	2,949	36	3,338
Oceania total	50	1,109	33	1,193	51	1,129	35	1,214	52	1,034	35	1,121
Australia	-	934	29	963	-	948	31	979	-	883	30	914
New Zealand	-	172	4	176	-	176	4	180	-	147	4	151
Others	-	3	0	3	-	4	0	4	-	4	0	4

*1 Figures are for calendar years from January to December. *2 Asia total is the total demand of Asian countries excluding Japan and China. *3 Rounded values are displayed, so total values may not be equal to the sum. *4 Figures not shown but indicated by - are included in others in the corresponding region or in the corresponding regional total.

3. Commercial Air Conditioners

(In thousand units)

	2021年			2022年			2023年		
	PAC	VRF	合計	PAC	VRF	合計	PAC	VRF	合計
World total	12,782	2,097	14,879	15,396	2,476	17,871	15,112	2,963	18,075
Japan	687	142	828	677	148	825	660	146	805
Outside Japan	12,096	1,955	14,051	14,719	2,327	17,046	14,452	2,817	17,270
China	1,713	1,386	3,098	1,898	1,686	3,584	1,841	2,159	4,001
Asia total	1,156	220	1,376	1,314	247	1,561	1,416	270	1,686
India	162	45	207	193	53	246	226	65	291
Indonesia	52	8	60	56	9	65	60	10	70
Vietnam	63	12	75	65	12	77	67	12	79
Thailand	150	10	160	160	11	171	167	11	178
Taiwan	46	14	61	55	16	72	63	18	80
Malaysia	72	5	77	68	6	74	72	6	78
Philippines	53	7	60	57	8	65	62	9	71
Hong Kong/Macau	20	8	28	18	8	26	17	9	26
Bangladesh	25	1	26	34	2	35	43	2	45
Singapore	16	7	23	16	7	23	17	7	23
Others	499	101	600	592	115	707	622	121	743
Middle East total	470	34	505	510	33	542	500	33	533
Saudi Arabia	111	4	115	140	5	145	149	7	156
UAE	130	10	140	146	11	157	153	12	165
Oman	41	2	43	46	3	49	48	3	52
Qatar	26	3	29	27	3	30	26	3	30
Kuwait	53	1	54	52	1	53	49	1	50
Others	109	13	123	98	9	107	73	7	80
Europe total	602	176	778	641	197	838	650	197	847
Italy	39	26	64	43	29	72	40	30	70
Spain	141	13	154	158	16	174	184	17	201
France	108	29	138	103	33	136	95	33	128
Turkey	27	27	54	30	27	58	31	32	63
Greece	12	3	15	13	5	18	15	5	19
United Kingdom	64	17	81	68	18	86	66	17	83
Bulgaria	2	2	4	3	3	5	2	3	5
Poland	16	5	21	18	5	24	16	5	21
Germany	27	13	40	29	14	43	29	12	41
Portugal	10	4	14	13	5	18	17	5	22
Romania	6	1	7	7	2	9	8	2	10
Netherlands	14	3	17	14	3	18	13	3	16
Hungary	3	2	5	3	2	5	2	2	4
Belgium	12	3	15	12	3	15	11	3	14
Norway	2	0	2	2	0	2	3	0	3
Sweden	3	0	4	4	0	4	4	0	4
Finland	2	0	2	2	0	2	2	0	2
Czech Republic	6	2	8	6	2	8	5	1	6
Austria	6	2	8	6	2	8	5	2	7
Denmark	1	0	1	2	0	2	1	0	1
Switzerland	6	1	7	6	1	7	5	1	6
Ireland	6	1	7	6	1	7	6	1	7
Others	88	21	109	92	24	115	91	23	114
North America total	7,312	57	7,369	9,457	75	9,532	9,100	62	9,162
USA	7,061	53	7,114	9,144	70	9,214	-	-	0
Canada	251	4	255	314	4	318	-	-	0
Latin America total	326	34	360	363	39	402	384	42	426
Africa total	302	24	325	312	25	337	333	28	361
Oceania total	215	24	240	224	26	250	228	27	255
Australia	193	22	215	201	24	225	204	25	229
New Zealand	22	2	24	22	2	24	23	2	25
Others	1	0	1	1	0	1	1	0	1

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World Air Conditioner Demand by Region
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