

Estimates of World Air Conditioner Demand

July 2022

JRAIA

The Japan Refrigeration and Air Conditioning Industry Association

Estimates of World Air Conditioner Demand by Country

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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 2021, 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 2021 is estimated at 110,041 thousand units, which represents 102% of the world demand a year before.

Looking at the 2021 world demand in terms of Japan, China and other regions, the largest demand is from China, of which demand is estimated to have reached 41,305 thousand units, representing 98% of its 2020 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 17,983 thousand units, followed by North America with 16,515 thousand units, Japan with 10,201 thousand units, Europe with 8,885 thousand units and Latin America with 6,547 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.

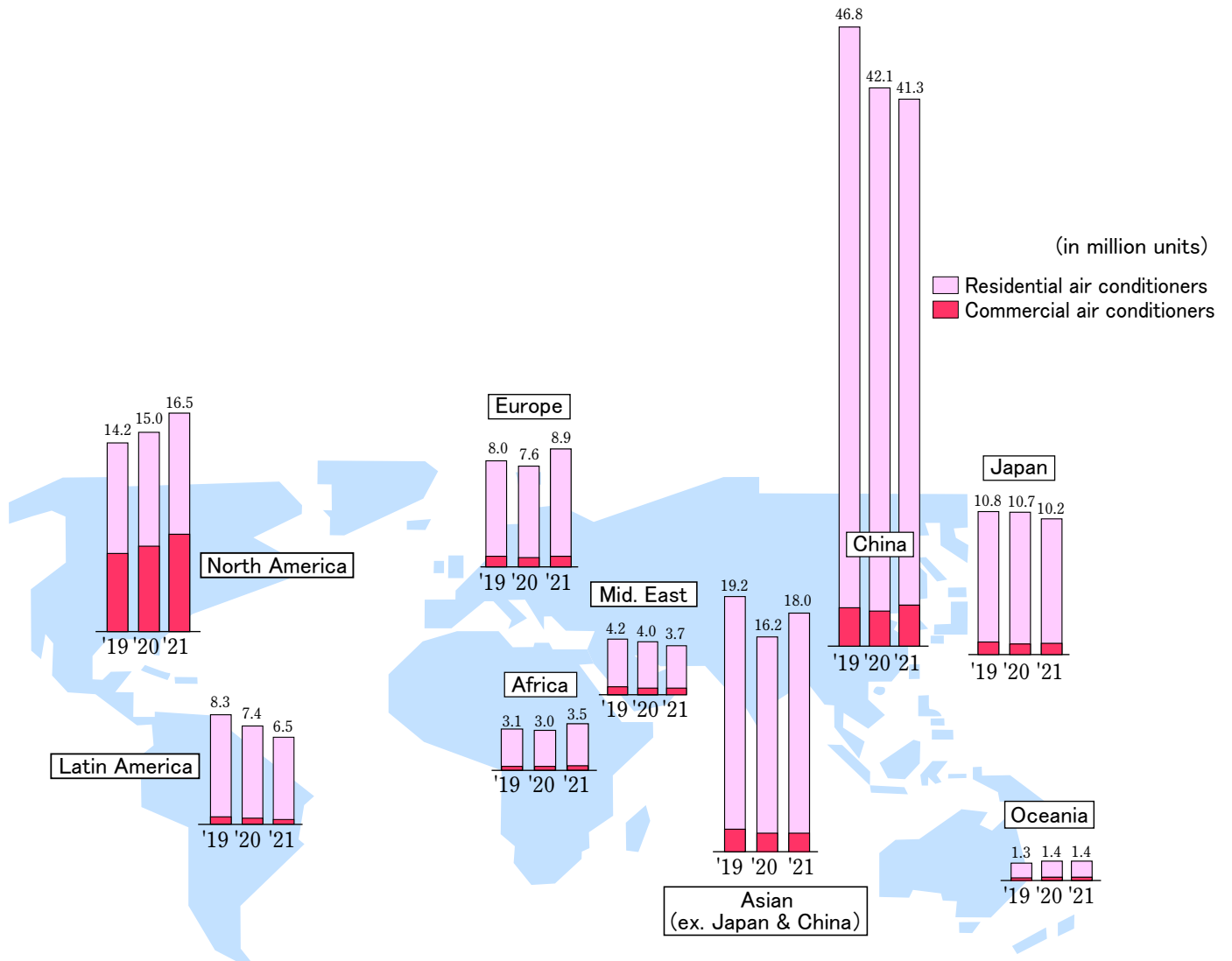
Commercial air conditioners consist of mainly medium- and large-sized split-type air conditioners, as well as remote condenser-type air conditioners, single package-type air conditioners and variable refrigerant flow (VRF) systems. Unitary air conditioners and unitary heat pumps that are the mainstream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

(In thousand units)

	2019	2020	2021	% year on year
World total	115,872	107,447	110,041	102
Japan	10,768	10,687	10,201	95
Outside Japan	105,104	96,760	99,840	103
China	46,751	42,142	41,305	98
Asia total	19,245	16,196	17,983	111
India	5,871	4,575	6,283	
Indonesia	2,365	1,929	2,159	
Vietnam	2,432	2,153	1,877	
Thailand	1,636	1,515	1,438	
Taiwan	1,163	1,210	1,272	
Malaysia	1,001	902	867	
Philippines	980	755	822	
Pakistan	848	651	715	
Hong Kong/Macau	557	482	530	
Bangladesh	211	184	208	
Myanmar	252	164	126	
Singapore	135	113	121	
Cambodia	134	113	110	
Sri Lanka	83	67	88	
Others	1,578	1,383	1,367	
Middle East total	4,194	3,992	3,684	92
Saudi Arabia	1,371	1,233	1,170	
Israel	716	754	607	
UAE	411	546	516	
Oman	243	220	233	
Iraq	84	80	180	
Qatar	206	191	169	
Kuwait	138	123	133	
Lebanon	63	50	32	
Bahrain	42	38	32	
Others	920	757	613	
Europe total	7,991	7,604	8,885	117
Russia	1,501	1,465	1,916	
Italy	1,304	1,201	1,533	
Spain	788	721	806	
France	703	729	791	
Turkey	677	591	644	
Greece	259	217	292	
Ukraine	321	298	269	
Germany	193	216	227	
England	204	179	213	
Poland	163	164	183	
Portugal	151	140	172	
Netherlands	104	133	159	
Bulgaria	142	159	154	
Belgium	85	115	150	
Romania	161	139	126	
Hungary	127	132	118	
Norway	80	72	85	
Finland	61	60	81	
Sweden	68	68	72	
Cyprus	62	63	63	
Croatia	75	67	59	
Czech Republic	49	43	51	
Austria	43	40	44	
Denmark	27	29	35	
Slovenia	-	28	28	
Slovakia	-	27	25	
Switzerland	12	18	21	
Ireland	14	11	12	
Others	536	388	457	
North America total	14,226	15,029	16,515	110
USA	6,555	7,143	8,091	
Canada	359	372	458	
Latin America total	8,254	7,423	6,547	88
Brazil	3,480	3,671	3,519	
Mexico	914	562	592	
Peru	-	-	41	
Others	2,690	3,189	2,395	
Africa total	3,125	2,981	3,489	117
Egypt	755	737	660	
Nigeria	503	482	504	
South Africa	204	188	142	
Others	1,344	1,265	1,844	
Oceania total	1,319	1,396	1,432	103
Australia	1,121	1,174	1,178	
New Zealand	153	168	200	
Others	4	4	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. 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. Room Air Conditioners

(In thousand units)

	2019				2020				2021			
	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	-	-	-	101,952	-	-	-	93,949	-	-	-	95,162
Japan	-	-	-	9,813	-	-	-	9,869	-	-	-	9,373
Outside Japan	12,282	75,378	4,480	92,139	12,086	67,562	4,431	84,080	12,521	68,522	4,746	85,789
China	-	40,899	2,969	43,868	-	36,545	2,935	39,480	-	35,174	3,032	38,206
Asia total	1,954	15,311	270	17,535	1,603	12,945	245	14,793	1,868	14,507	232	16,607
India	723	4,830	53	5,605	556	3,790	44	4,390	773	5,276	27	6,075
Indonesia	5	2,275	7	2,287	4	1,871	6	1,880	-	2,094	6	2,100
Vietnam	-	2,316	20	2,336	-	2,057	16	2,073	-	1,788	14	1,802
Thailand	1	1,417	1	1,419	1	1,336	1	1,339	0	1,277	1	1,279
Taiwan	206	808	90	1,103	216	841	93	1,151	208	908	95	1,212
Malaysia	-	909	8	917	-	816	7	823	-	784	6	790
Philippines	585	305	4	894	447	250	3	700	470	289	3	762
Pakistan	-	798	0	798	-	613	0	613	-	715	-	715
Hong Kong/Macau	315	190	19	525	268	171	17	456	293	194	15	502
Bangladesh	-	189	0	189	-	159	0	159	-	182	0	182
Myanmar	-	230	0	230	-	149	0	149	-	118	-	118
Singapore	-	45	62	107	-	38	54	92	-	36	62	98
Cambodia	-	120	1	121	-	101	1	102	-	98	-	98
Sri Lanka	-	74	3	77	-	60	2	62	-	83	1	84
Others	119	807	1	927	111	693	1	805	123	667	1	791
Middle East total	1,406	2,192	1	3,599	1,363	2,118	1	3,482	1,056	2,123	1	3,180
Saudi Arabia	744	481	-	1,225	693	423	0	1,116	579	476	-	1,055
Israel	-	628	-	628	-	675	-	675	-	551	-	551
UAE	-	248	-	248	180	227	0	407	143	232	0	375
Oman	101	110	-	212	92	101	-	193	68	121	-	190
Iraq	-	83	-	83	-	79	-	79	-	177	-	177
Qatar	89	86	-	175	84	79	0	163	62	78	0	140
Kuwait	-	79	-	79	-	74	-	74	0	79	-	79
Lebanon	-	56	1	57	-	45	1	46	-	29	1	29
Bahrain	-	33	-	33	-	31	-	31	-	21	-	21
Others	472	386	0	858	314	385	0	699	204	358	0	562
Europe total	80	6,299	819	7,198	90	5,969	840	6,899	98	6,970	1,039	8,107
Russia	-	1,373	36	1,409	-	1,347	34	1,381	-	1,812	28	1,840
Italy	-	944	297	1,241	-	866	284	1,150	-	1,095	374	1,469
Spain	-	569	68	637	-	523	63	587	-	579	73	652
France	-	405	173	578	-	424	187	611	-	437	216	653
Turkey	-	599	19	618	-	521	17	538	-	570	21	590
Greece	-	243	4	247	-	204	3	207	-	270	7	276
Ukraine	-	307	7	314	-	285	6	291	-	257	6	263
Germany	-	118	31	149	-	135	40	175	-	137	50	187
England	-	102	11	113	-	96	11	107	-	119	14	132
Poland	-	133	10	143	-	137	10	147	-	149	14	163
Portugal	-	107	31	138	-	98	30	129	-	120	39	159
Netherlands	-	72	15	87	-	94	24	117	-	105	37	142
Bulgaria	-	132	6	138	-	148	7	155	-	143	7	150
Belgium	-	50	21	72	-	69	33	102	-	80	55	135
Romania	-	147	5	152	-	126	5	131	-	113	6	118
Hungary	-	112	9	122	-	116	11	126	-	104	9	113
Norway	-	76	1	77	-	69	1	70	-	81	1	83
Finland	-	58	2	59	-	56	2	58	-	78	2	79
Sweden	-	63	2	65	-	63	2	65	-	66	2	69
Cyprus	-	58	1	58	-	59	1	60	-	60	1	60
Croatia	-	65	8	72	-	58	7	65	-	50	7	57
Czech Republic	-	30	8	38	-	29	7	35	-	33	10	43
Austria	-	24	10	34	-	23	10	33	-	24	12	36
Denmark	-	24	1	25	-	27	1	28	-	33	1	34
Slovenia	-	-	-	-	-	21	5	26	-	22	5	27
Slovakia	-	-	-	-	-	21	5	25	-	18	5	23
Switzerland	-	9	3	11	-	9	3	12	-	11	3	13
Ireland	-	5	0	5	-	4	0	4	-	4	0	5
Others	-	474	42	516	-	342	31	373	-	402	37	439
North America total	7,312	725	288	8,324	7,513	773	294	8,580	7,966	854	326	9,146
USA	-	610	264	874	-	654	269	923	-	694	283	977
Canada	-	115	24	138	-	119	25	144	-	160	42	202
Latin America total	1,170	6,472	66	7,708	1,157	5,784	53	6,993	1,143	4,997	47	6,187
Brazil	-	3,206	30	3,236	352	3,077	27	3,456	321	3,006	28	3,355
Mexico	-	719	23	741	-	443	15	458	-	476	17	493
Peru	-	-	-	-	-	-	-	-	-	37	0	37
Others	-	2,547	14	2,561	805	2,264	11	3,080	822	1,478	2	2,302
Africa total	320	2,456	33	2,809	310	2,341	30	2,681	340	2,788	36	3,164
Egypt	-	651	2	654	-	633	2	636	-	554	2	556
Nigeria	-	465	0	465	-	445	0	445	-	464	0	464
South Africa	-	155	2	157	-	143	2	145	-	100	1	101
Others	-	1,184	29	1,213	-	1,120	26	1,146	-	1,670	32	1,702
Oceania total	40	1,024	34	1,098	50	1,087	34	1,171	50	1,109	33	1,193
Australia	-	892	31	922	-	941	31	972	-	934	29	963
New Zealand	-	129	3	133	-	143	3	146	-	172	4	176
Others	-	3	0	3	-	3	0	3	-	3	0	3

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3. Commercial Air Conditioners

(In thousand units)

	2019			2020			2021		
	PAC	VRF	Total	PAC	VRF	Total	PAC	VRF	Total
World total	12,022	1,897	13,920	11,717	1,782	13,499	12,782	2,097	14,879
Japan	799	156	955	673	145	818	687	142	828
Outside Japan	11,223	1,741	12,965	11,044	1,637	12,681	12,096	1,955	14,051
China	1,753	1,130	2,883	1,556	1,107	2,662	1,713	1,386	3,098
Asia total	1,455	254	1,709	1,198	204	1,402	1,156	220	1,376
India	221	44	265	151	34	185	162	45	207
Indonesia	69	9	78	42	6	49	52	8	60
Vietnam	77	19	96	67	13	80	63	12	75
Thailand	203	13	216	166	10	176	150	10	160
Taiwan	47	13	60	46	13	59	46	14	61
Malaysia	77	7	84	73	6	79	72	5	77
Philippines	77	10	87	48	7	55	53	7	60
Pakistan	43	6	50	34	5	38	-	-	0
Hong Kong/Macau	25	7	32	20	7	26	20	8	28
Bangladesh	21	1	22	24	1	25	25	1	26
Myanmar	19	2	21	13	1	14	8	1	8
Singapore	18	9	28	14	7	22	16	7	23
Cambodia	11	2	13	9	2	10	10	2	12
Sri Lanka	5	1	6	4	1	5	4	1	4
Others	541	110	651	486	92	578	478	98	576
Middle East total	561	34	595	479	31	510	470	34	505
Saudi Arabia	141	5	146	114	3	117	111	4	115
Israel	82	6	88	71	7	78	50	6	56
UAE	153	10	163	131	9	139	130	10	140
Oman	28	3	31	25	2	27	41	2	43
Iraq	-	2	2	-	1	1	-	3	3
Qatar	28	3	31	25	3	28	26	3	29
Kuwait	58	1	58	49	1	50	53	1	54
Lebanon	4	1	6	3	1	4	2	1	3
Bahrain	9	0	9	8	0	8	10	1	11
Others	58	4	62	54	4	58	48	3	51
Europe total	618	175	793	549	155	705	602	176	778
Russia	84	9	93	75	9	84	65	12	77
Italy	39	24	63	31	20	51	39	26	64
Spain	137	14	151	123	11	134	141	13	154
France	97	28	125	93	25	118	108	29	138
Turkey	33	26	59	29	24	53	27	27	54
Greece	9	4	13	7	3	10	12	3	15
Ukraine	7	1	8	6	1	7	4	2	6
Germany	30	14	44	28	13	41	27	13	40
England	73	19	91	57	15	73	64	17	81
Poland	15	5	19	13	4	17	16	5	21
Portugal	9	3	13	8	3	12	10	4	14
Netherlands	14	3	17	13	3	16	14	3	17
Bulgaria	2	2	4	2	2	4	2	2	4
Belgium	11	3	14	10	3	13	12	3	15
Romania	7	2	8	6	1	7	6	1	7
Hungary	4	2	6	4	2	6	3	2	5
Norway	2	0	3	2	0	3	2	0	2
Finland	2	0	2	2	0	2	2	0	2
Sweden	3	0	3	3	0	3	3	0	4
Cyprus	1	2	3	1	2	4	1	2	3
Croatia	2	1	3	1	1	2	1	1	2
Czech Republic	8	3	11	6	2	8	6	2	8
Austria	6	3	9	4	2	7	6	2	8
Denmark	1	0	1	2	0	2	1	0	1
Slovenia	-	-	-	1	0	1	1	0	1
Slovakia	-	-	-	1	1	2	1	1	2
Switzerland	-	1	1	5	1	6	6	1	7
Ireland	8	1	9	6	1	7	6	1	7
Others	15	5	20	11	4	15	14	4	18
North America total	5,840	61	5,902	6,388	61	6,449	7,312	57	7,369
USA	5,625	56	5,681	6,164	56	6,220	7,061	53	7,114
Canada	216	5	221	224	5	229	251	4	255
Latin America total	506	40	546	395	34	429	326	34	360
Brazil	229	15	244	202	13	216	151	12	164
Mexico	168	5	173	102	3	105	96	3	99
Peru	-	-	-	-	-	-	3	1	4
Others	109	20	129	91	18	109	76	17	93
Africa total	292	25	317	278	22	299	302	24	325
Egypt	98	3	101	98	3	101	100	3	104
Nigeria	33	5	38	33	4	37	35	4	39
South Africa	43	4	47	39	4	43	36	4	41
Others	117	14	131	107	11	119	130	12	142
Oceania total	198	22	221	201	23	224	215	24	240
Australia	179	20	199	181	21	202	193	22	215
New Zealand	19	2	21	20	2	22	22	2	24
Others	1	0	1	1	0	1	1	0	1

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