



*Fotos meramente ilustrativas

ROOFTOP INVERTER

ROOFTOP

The Airway Rooftop C series are completely assembled, piped and wired at the factory to provide one-piece shipment and rigging. Each unit is pressurized with a holding charge of refrigerant-410A for storage and shipping.

Can offer the perfect combination of superior product quality, high operating efficiency and cost efficiency. The compact design, outstanding anti-corrosive cabinet and quiet operation make these units suitable for both light commercial and residential applications.

From dedicated design of each part to the unit assembling, together with complete test, the unit offers reliable operation and comfort experience. Comprehensive protections can guarantee the system safety and prevent damage of critical components such as compressor under harsh working conditions.

All sheet metal parts are constructed of commercial grade galvanized steel. The unit external parts are coated with special paint to ensure anti-corrosion performance.

FEATURES

DC Inverter design

The Airway Rooftop unit meets CB requirements.

The compressor and outdoor fan can adjust the operating frequency according to different room loads, and automatically adjust the capacity output to ensure the comfort of the room environment.

At the same time, the power consumption of the unit changes along with the capacity output and the power consumption of unit is low in low-load operation.

Compared with the fixed speed unit, its annual power consumption is lower, which is high-efficiency and power-saving.

DC Inverter motor

The outdoor heat exchanger applies DC inverter motor with high back electromotive force.

Power input of motor is lower and operating current is smaller, thus the efficiency is greatly improved compared with the AC motor.

High efficiency fan blade

New high-efficiency fan blade design adopts CFD simulation technology to optimize the matching of blade type and blade angle. In addition to the special trail edge design, the working area of blade is effectively increased and the air volume is greatly increased.

Anti-corrosive and dustproof

Weather fastness fan blade

The fan blades of the condenser fan are directly injection molded with ABS+glass fiber material, which has excellent weather fastness and anti-corrosive performance.



Model		AI-H-10TH-I	AI-H-15TH-I	AI-H-20TH-I	AI-H-25TH-I
Ton		10	15	20	25
		Capacity			
Cooling Capacity	Btu/h	119400	170900	216700	303700
Cooling Capacity	kW	35.0	50.1	63.5	89
Heating Capacity	Btu/h	133100	191100	264400	344600
Heating Capacity	kW	39.0	56.0	77.5	101
		Electrical Data			
Power Supply		380-415V 3N~ 50/60Hz	380-415V 3N~ 50Hz	380-415V 3N~ 50Hz	380-415V 3N~ 50Hz
Cooling Power Input	kW	13.5	23.0	28.5	38.0
Heating Power Input	kW	11.5	16.5	25.0	32.5
Max. Power Input	kW	15.0	26.0	30.0	43.0
Max. Current	A	23.0	44.0	51.0	73.0
		Sound			
Sound Pressure Level	dB(A)	72	74	75	76
		Refrigerant			
Refrigerant Type	-	R410A	R410A	R410A	R410A
Refrigerant Weight	kg	10.0	12.0	16.0	25.0
		Air Flow			
Air Flow Volume	CFM	3414	5592	8829	9712
Air Flow Volume	m³/h	5800	9500	15000	16500
		Pressure			
External Static Pressure	Pa	90	130	150	200
External Static Pressure	InWg	0.36	0.52	0.60	0.8
External Static Pressure Range	Pa	0-210	50-200	75-220	100-250
External Static Pressure Range	InWg	0-0.84	0.2-0.8	0.3-0.88	0.4-1
		Dimension			
Outline Dimension(W×D×H)	mm	1450×1120×1215	2260×1140×1245	2240×1880×1250	2880×2240×1270
Package Dimension(W×D×H)	mm	1463×1133×1260	2283×1163×1290	2258×1898×1300	2893×2253×1290
		Weight			
Net Weight	kg	350	590	820	1180
Gross Weight	kg	370	618	870	1224
		Loading			
Loading Quantity	20'GP	7	4	3	1
Loading Quantity	40'HQ	32	20	12	8

Notice

- The T1 cooling capacity stated above is measured under following conditions.
Indoor Conditions: 27°C (80.6 °F) DB/19°C (66.2 °F)WB;
Outdoor Conditions: 35°C (95°F) DB/24°C (75.2°F)WB;
- The T3 cooling capacity stated above is measured under following conditions.
Indoor Conditions: 29°C (84.2 °F) DB/19°C (66.2 °F)WB;
Outdoor Conditions: 46°C (114.8°F) DB/24°C (75.2°F)WB;
- The air volume is measured at the relevant standard external static pressure.
- The technical parameters are changed along with the products improvement; please refer to the name plate of the unit for actual data.

ROOFTOP

Working Range

Mode	Range of Outdoor Temperature°C(°F)
Cooling	18(64.4) ~ 52(125.6)
Heating	-15(5) ~ 24(75.2)

Capacity Correction

AI-H-10TH-I

Outdoor Air DBT		Air Flow Rate	Entering Air DBT		Indoor Air Wet Bulb Temperature °F (°C)														
					62 °F (17°C)					67 °F (19°C)					72 °F (22°C)				
					Total Capacity		Sensible Capacity		Power Input	Total Capacity		Sensible Capacity		Power Input	Total Capacity		Sensible Capacity		Power Input
°C	°F	m³/h	°C	°F	kW	Mbh	kW	Mbh	kW	kW	Mbh	kW	Mbh	kW	kW	Mbh	kW	Mbh	kW
25	77	5800	23	73.4	32.25	110	24.19	83	10.95	36.65	125	25.66	88	11.46	37.75	129	20.39	70	11.02
			24	75.2	32.58	111	26.07	89	11.06	37.03	126	27.03	92	11.58	38.14	130	22.50	77	11.13
			27	80.6	32.91	112	26.66	91	10.89	37.40	128	28.42	97	12.17	38.52	131	25.04	85	11.16
			31	87.8	33.24	113	27.92	95	10.56	37.77	129	29.84	102	11.54	38.91	133	27.24	93	11.19
35	95	5800	23	73.4	29.32	100	21.99	75	12.65	33.32	114	23.32	80	13.36	34.32	117	18.53	63	12.74
			24	75.2	29.62	101	23.70	81	12.78	33.66	115	24.57	84	13.50	34.67	118	20.46	70	12.87
			27	80.6	29.92	102	24.24	83	12.51	34.00	116	25.84	88	13.50	35.02	119	22.76	78	12.88
			31	87.8	30.22	103	25.38	87	12.12	34.34	117	27.13	93	13.37	35.37	121	24.76	84	12.88
46	115	5800	23	73.4	24.76	84	18.57	63	12.99	28.14	96	19.70	67	13.72	28.98	99	15.65	53	13.08
			24	75.2	25.01	85	20.01	68	13.12	28.42	97	20.75	71	13.86	29.28	100	17.27	59	13.21
			27	80.6	25.26	86	20.46	70	12.84	28.71	98	21.82	74	14.00	29.57	101	19.22	66	13.22
			31	87.8	25.77	88	21.65	74	12.57	29.28	100	23.13	79	13.86	30.16	103	21.11	72	13.36
50	122	5800	23	73.4	20.41	70	15.31	52	13.44	23.19	79	16.24	55	14.19	23.89	82	12.90	44	13.52
			24	75.2	20.62	70	16.49	56	13.57	23.43	80	17.10	58	14.33	24.13	82	14.24	49	13.66
			27	80.6	20.83	71	16.87	58	13.28	23.67	81	17.99	61	14.33	24.38	83	15.84	54	13.67
			31	87.8	21.03	72	17.67	60	12.87	23.90	82	18.88	64	14.19	24.62	84	17.23	59	13.68
52	126	5800	23	73.4	18.11	62	13.58	46	13.59	20.58	70	14.41	49	14.35	21.20	72	11.45	39	13.68
			24	75.2	18.30	62	14.64	50	13.73	20.79	71	15.18	52	14.50	21.41	73	12.63	43	13.82
			27	80.6	18.48	63	14.97	51	13.43	21.00	72	15.96	54	14.50	21.63	74	14.06	48	13.83
			31	87.8	18.66	64	15.68	53	13.02	21.21	72	16.76	57	14.36	21.85	75	15.29	52	13.84

Notices:

- ◆ DBT: Dry Bulb Temperature.
- ◆ TC: Total Cooling Capacity
- ◆ SCC: Sensible Cooling Capacity
- ◆ PI: Power Input



AI-H-15TH-I

Outdoor Air DBT		Air Flow Rate	Entering Air DBT		Indoor Air Wet Bulb Temperature °F (°C)														
					62 °F (17°C)					67 °F (19°C)					72 °F (22°C)				
					Total Capacity		Sensible Capacity		Power Input	Total Capacity		Sensible Capacity		Power Input	Total Capacity		Sensible Capacity		Power Input
°C	°F	m³/h	°C	°F	kW	Mbh	kW	Mbh	kW	kW	Mbh	kW	Mbh	kW	kW	Mbh	kW	Mbh	kW
25	77	9500	23	73.4	47.53	162	35.65	122	18.65	54.01	184	37.81	129	19.52	55.63	190	30.04	102	18.78
			24	75.2	48.01	164	38.41	131	18.84	54.56	186	39.83	136	19.72	56.20	192	33.16	113	18.97
			27	80.6	48.50	165	39.28	134	18.55	55.11	188	41.88	143	20.74	56.76	194	36.90	126	19.02
			31	87.8	48.98	167	41.14	140	17.99	55.66	190	43.97	150	19.66	57.33	196	40.13	137	19.07
35	95	9500	23	73.4	43.21	147	32.40	111	21.56	49.10	168	34.37	117	22.77	50.57	173	27.31	93	21.70
			24	75.2	43.65	149	34.92	119	21.78	49.60	169	36.21	124	23.00	51.09	174	30.14	103	21.92
			27	80.6	44.09	150	35.71	122	21.31	50.10	171	38.08	130	23.00	51.60	176	33.54	114	21.94
			31	87.8	44.53	152	37.40	128	20.65	50.60	173	39.97	136	22.77	52.12	178	36.48	124	21.95
46	115	9500	23	73.4	31.59	108	23.69	81	20.42	35.90	122	25.13	86	21.56	36.97	126	19.97	68	20.55
			24	75.2	31.91	109	25.53	87	20.62	36.26	124	26.47	90	21.78	37.35	127	22.04	75	20.76
			27	80.6	32.23	110	26.11	89	20.18	36.63	125	27.84	95	22.00	37.73	129	24.52	84	20.77
			31	87.8	32.88	112	27.62	94	19.75	37.36	127	29.52	101	21.78	38.48	131	26.94	92	20.99
50	122	9500	23	73.4	28.46	97	21.34	73	21.87	32.34	110	22.64	77	23.10	33.31	114	17.99	61	22.01
			24	75.2	28.75	98	23.00	78	22.10	32.67	111	23.85	81	23.33	33.65	115	19.85	68	22.24
			27	80.6	29.04	99	23.52	80	21.61	33.00	113	25.08	86	23.33	33.99	116	22.09	75	22.25
			31	87.8	29.33	100	24.64	84	20.95	33.33	114	26.33	90	23.10	34.33	117	24.03	82	22.27
52	126	9500	23	73.4	26.73	91	20.05	68	22.50	30.38	104	21.27	73	23.76	31.29	107	16.90	58	22.64
			24	75.2	27.01	92	21.61	74	22.73	30.69	105	22.40	76	24.00	31.61	108	18.65	64	22.87
			27	80.6	27.28	93	22.10	75	22.23	31.00	106	23.56	80	24.00	31.93	109	20.75	71	22.89
			31	87.8	27.55	94	23.14	79	21.55	31.31	107	24.73	84	23.76	32.25	110	22.57	77	22.91

Notices:

- ◆ DBT: Dry Bulb Temperature.
- ◆ TC: Total Cooling Capacity
- ◆ SCC: Sensible Cooling Capacity
- ◆ PI: Power Input

AI-H-20TH-I

Outdoor Air DBT		Air Flow Rate	Entering Air DBT		Indoor Air Wet Bulb Temperature °F (°C)														
					62 °F (17 °C)					67 °F (19 °C)					72 °F (22 °C)				
					Total Capacity		Sensible Capacity		Power Input	Total Capacity		Sensible Capacity		Power Input	Total Capacity		Sensible Capacity		Power Input
°C	°F	m³/h	°C	°F	kW	Mbh	kW	Mbh	kW	kW	Mbh	kW	Mbh	kW	kW	Mbh	kW	Mbh	kW
25	77	15000	23	73.4	60.24	206	45.18	154	23.11	68.45	234	47.92	163	24.19	70.51	241	38.07	130	23.27
			24	75.2	60.85	208	48.68	166	23.34	69.15	236	50.48	172	24.44	71.23	243	42.02	143	23.51
			27	80.6	61.47	210	49.79	170	22.99	69.85	238	53.09	181	25.70	71.95	245	46.76	160	23.57
			31	87.8	62.08	212	52.15	178	22.29	70.55	241	55.73	190	24.36	72.66	248	50.87	174	23.63
35	95	15000	23	73.4	54.76	187	41.07	140	26.72	62.23	212	43.56	149	28.21	64.10	219	34.61	118	26.89
			24	75.2	55.32	189	44.26	151	26.99	62.87	214	45.89	157	28.50	64.75	221	38.20	130	27.16
			27	80.6	55.88	191	45.26	154	26.40	63.50	217	48.26	165	28.50	65.41	223	42.51	145	27.18
			31	87.8	56.44	193	47.41	162	25.59	64.14	219	50.67	173	28.22	66.06	225	46.24	158	27.20
46	115	15000	23	73.4	43.97	150	32.98	113	27.84	49.97	170	34.98	119	29.40	51.46	176	27.79	95	28.02
			24	75.2	44.42	152	35.53	121	28.12	50.48	172	36.85	126	29.70	51.99	177	30.67	105	28.30
			27	80.6	44.87	153	36.34	124	27.51	50.99	174	38.75	132	30.00	52.51	179	34.13	116	28.33
			31	87.8	45.76	156	38.44	131	26.93	52.00	177	41.08	140	29.70	53.56	183	37.50	128	28.63
50	122	15000	23	73.4	37.51	128	28.14	96	28.12	42.63	145	29.84	102	29.70	43.91	150	23.71	81	28.30
			24	75.2	37.90	129	30.32	103	28.41	43.07	147	31.44	107	30.00	44.36	151	26.17	89	28.59
			27	80.6	38.28	131	31.01	106	27.79	43.50	148	33.06	113	30.00	44.81	153	29.12	99	28.61
			31	87.8	38.66	132	32.48	111	26.93	43.94	150	34.71	118	29.71	45.25	154	31.68	108	28.63
52	126	15000	23	73.4	34.06	116	25.55	87	28.12	38.71	132	27.10	92	29.70	39.87	136	21.53	73	28.30
			24	75.2	34.41	117	27.53	94	28.41	39.11	133	28.55	97	30.00	40.28	137	23.76	81	28.59
			27	80.6	34.76	119	28.16	96	27.79	39.50	135	30.02	102	30.00	40.69	139	26.45	90	28.61
			31	87.8	35.11	120	29.49	101	26.93	39.90	136	31.52	108	29.71	41.09	140	28.76	98	28.63

Notices:

- ◆ DBT: Dry Bulb Temperature.
- ◆ TC: Total Cooling Capacity
- ◆ SCC: Sensible Cooling Capacity
- ◆ PI: Power Input

AI-H-25TH-I

Outdoor Air DBT		Air Flow Rate	Entering Air DBT		Indoor Air Wet Bulb Temperature °F (°C)														
					62 °F (17°C)					67 °F (19°C)					72 °F (22°C)				
					Total Capacity		Sensible Capacity		Power Input	Total Capacity		Sensible Capacity		Power Input	Total Capacity		Sensible Capacity		Power Input
°C	°F	m³/h	°C	°F	kW	Mbh	kW	Mbh	kW	kW	Mbh	kW	Mbh	kW	kW	Mbh	kW	Mbh	kW
25	77	16500	23	73.4	84.43	288	63.32	216	34.46	95.94	327	67.16	229	36.07	98.82	337	53.36	182	34.70
			24	75.2	85.29	291	68.23	233	34.81	96.92	331	70.75	241	36.44	99.83	341	58.90	201	35.05
			27	80.6	86.15	294	69.78	238	34.28	97.90	334	74.40	254	38.32	100.84	344	65.54	224	35.15
			31	87.8	87.01	297	73.09	249	33.24	98.88	337	78.11	267	36.32	101.85	347	71.29	243	35.24
35	95	16500	23	73.4	76.75	262	57.57	196	39.84	87.22	298	61.05	208	42.07	89.84	307	48.51	166	40.09
			24	75.2	77.54	265	62.03	212	40.25	88.11	301	64.32	219	42.50	90.75	310	53.54	183	40.50
			27	80.6	78.32	267	63.44	216	39.37	89.00	304	67.64	231	42.50	91.67	313	59.59	203	40.53
			31	87.8	79.10	270	66.45	227	38.16	89.89	307	71.01	242	42.08	92.59	316	64.81	221	40.56
46	115	16500	23	73.4	51.65	176	38.74	132	30.16	58.70	200	41.09	140	31.85	60.46	206	32.65	111	30.35
			24	75.2	52.18	178	41.74	142	30.47	59.30	202	43.29	148	32.18	61.07	208	36.03	123	30.66
			27	80.6	52.71	180	42.69	146	29.80	59.90	204	45.52	155	32.50	61.69	210	40.10	137	30.69
			31	87.8	53.76	183	45.16	154	29.17	61.09	208	48.26	165	32.18	62.93	215	44.05	150	31.01
50	122	16500	23	73.4	48.44	165	36.33	124	35.78	55.04	188	38.53	131	37.78	56.69	193	30.62	104	36.01
			24	75.2	48.93	167	39.15	134	36.14	55.61	190	40.59	138	38.17	57.27	195	33.79	115	36.37
			27	80.6	49.43	169	40.04	137	35.35	56.17	192	42.69	146	38.17	57.85	197	37.60	128	36.40
			31	87.8	49.92	170	41.93	143	34.27	56.73	194	44.82	153	37.79	58.43	199	40.90	140	36.43
52	126	16500	23	73.4	46.57	159	34.93	119	38.43	52.92	181	37.04	126	40.59	54.51	186	29.43	100	38.68
			24	75.2	47.04	161	37.64	128	38.83	53.46	182	39.03	133	41.00	55.06	188	32.49	111	39.07
			27	80.6	47.52	162	38.49	131	37.98	54.00	184	41.04	140	41.00	55.62	190	36.15	123	39.10
			31	87.8	48.00	164	40.32	138	36.81	54.54	186	43.09	147	40.60	56.18	192	39.32	134	39.13

Notices:

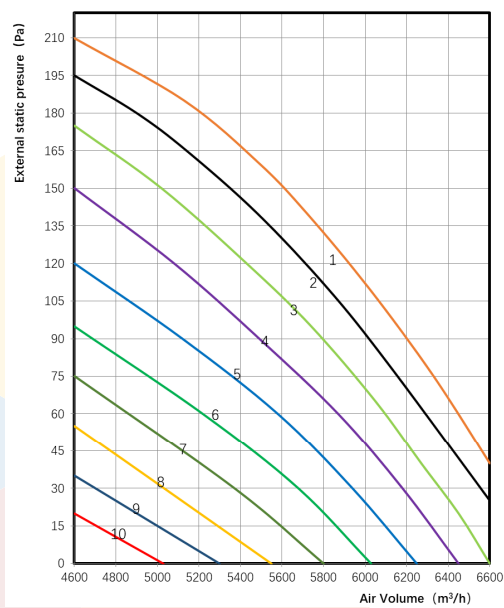
- ◆ DBT: Dry Bulb Temperature.
- ◆ TC: Total Cooling Capacity
- ◆ SCC: Sensible Cooling Capacity
- ◆ PI: Power Input



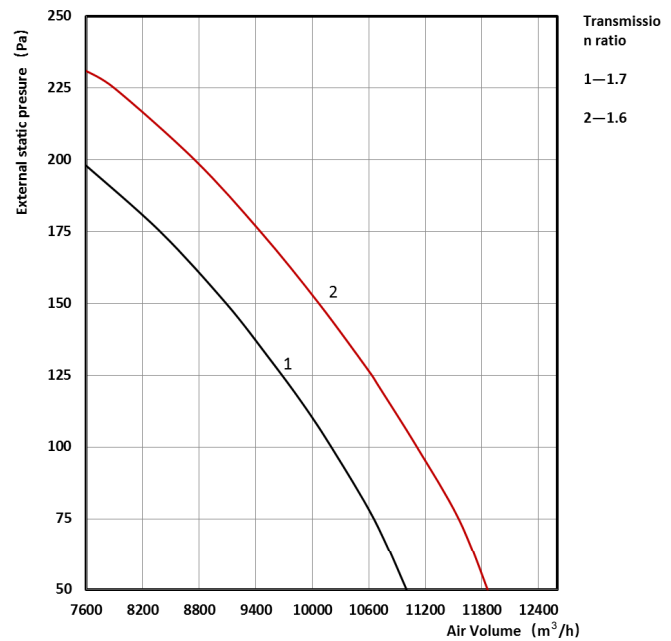
ROOFTOP

Air Volume Static Pressure Curve

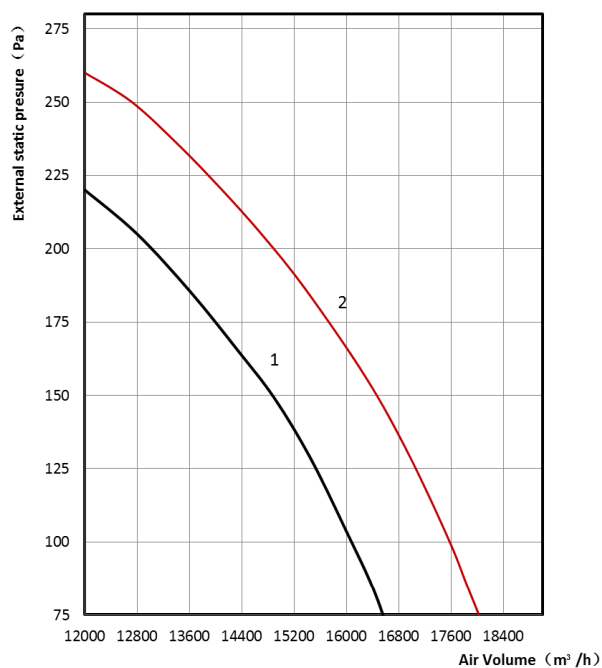
AI-H-10TH-I



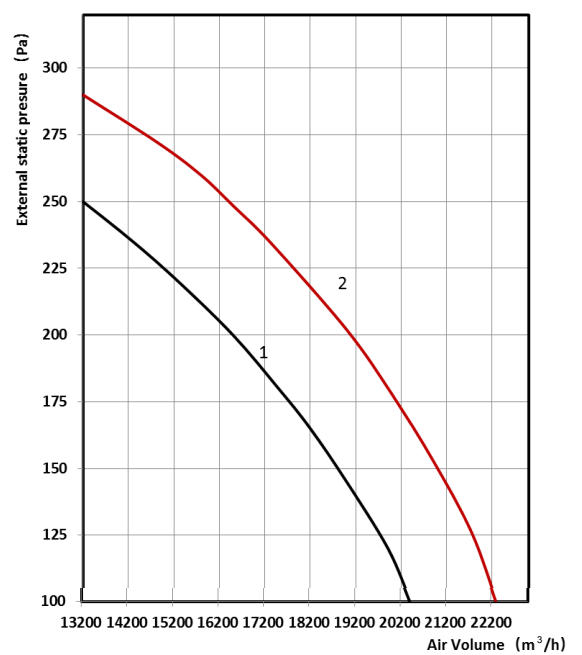
AI-H-15TH-I



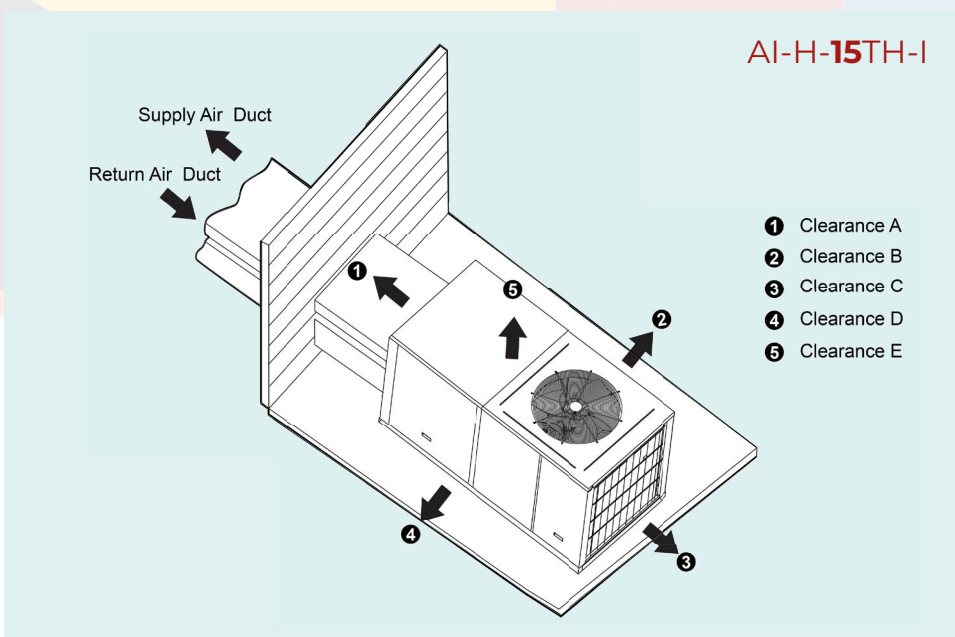
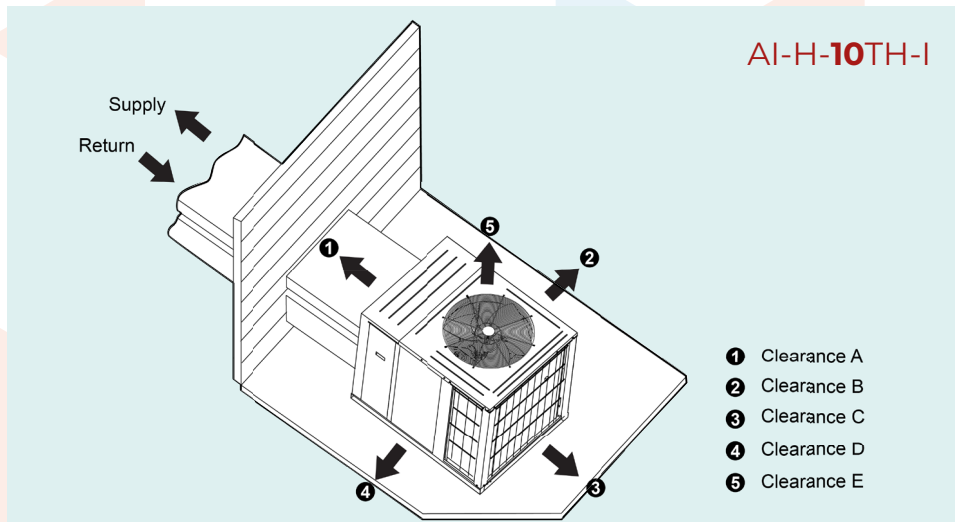
AI-H-20TH-I

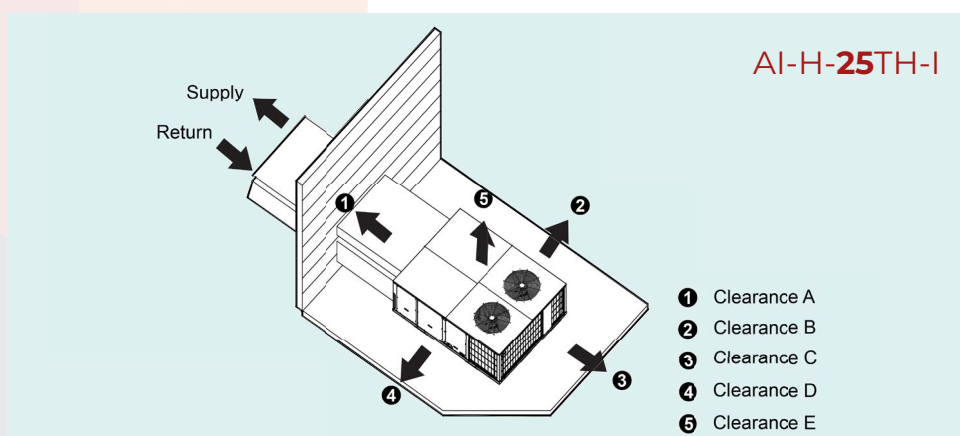
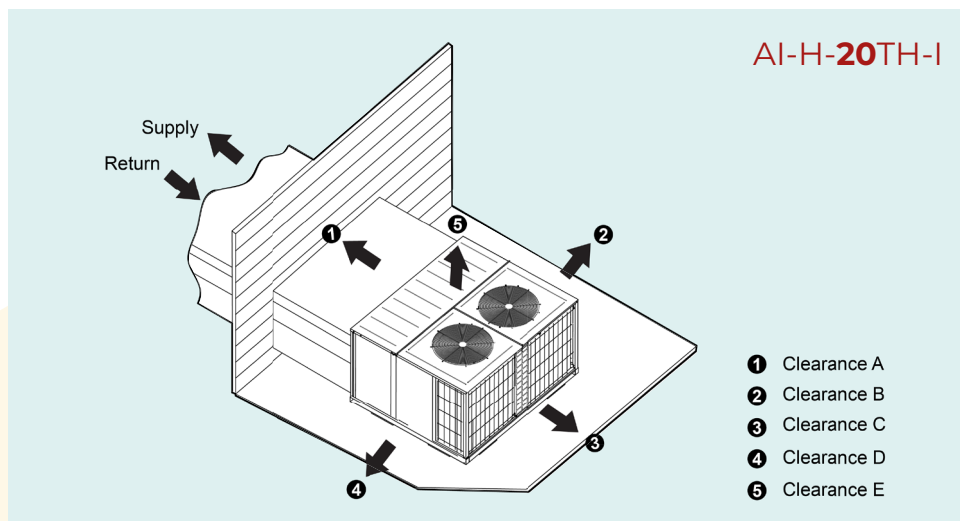


AI-H-25TH-I



Installation Clearances



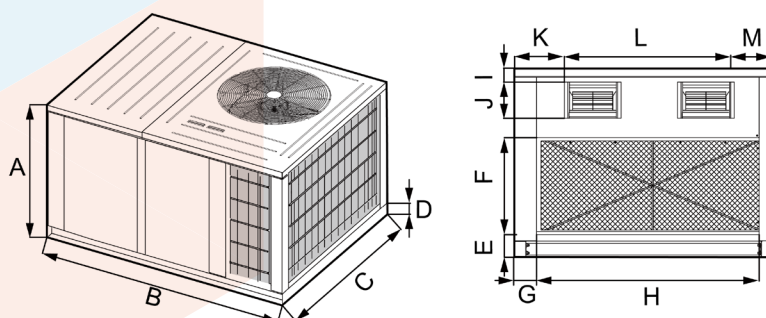




Installation Clearances

Installation clearances		
Dimension (minimum)	mm	inch
A	1000	39
B	1500	59
C	1100	43
D	1100	43
E	3000	118

Dimensional Data

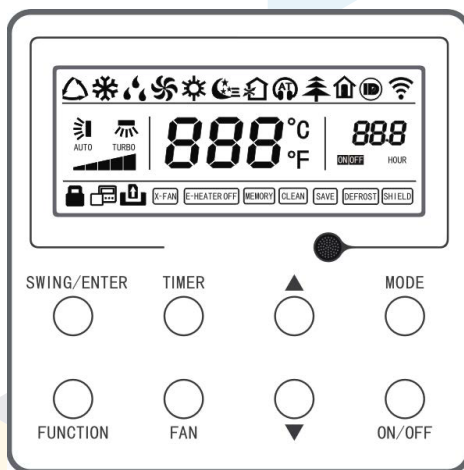


Dimension(mm)	A	B	C	D	E	G	Size of air return		I	K	Size of air supply		M
							F	H			J	L	
AI-H-10TH-I	1215	1450	1120	70	98	94	686	916	70	144	190	866	105
AI-H-15TH-I	1245	2260	1140	80	111	50	595	914	58	298	406	487	349
AI-H-20TH-I	1250	1880	2240	85	115	158	590	2021	45	311	412	1336	588
AI-H-25TH-I	1270	2880	2240	90	138	224	585	1920	71	294	407	1329	610

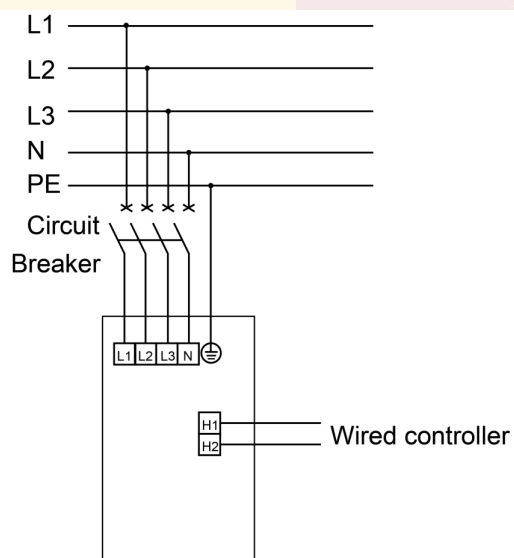
ROOFTOP

Controller

Wired Controller (Standard)



Wiring Diagram



Specification of Power Supply Wire and Circuit Breaker

Model name	Power supply	Capability of circuit breaker (A)	Min. sectional area of earth wire(mm ²)	Min. sectional area of power cord(mm ²)
AI-H-10TH-I	380-415V 3N~ 50/60Hz	32	4.0	4.0
AI-H-15TH-I	380-415V 3N~ 50Hz	63	10.0	10.0
AI-H-20TH-I	380-415V 3N~ 50Hz	63	10.0	10.0
AI-H-25TH-I	380-415V 3N~ 50Hz	80	16.0	25.0

Notice:

- ◆ An all-pole disconnection switch having a contact separation of at least 3mm in all poles should be connected in fixed wiring.
- ◆ The circuit breaker and power cord specification in above sheet is based on max power (max current) of the unit.
- ◆ The power cord specification in above sheet is based on ambient temperature of 40°C.
- ◆ If the supply cord is damaged, it must be replaced by the manufacturer or its service agent or a similarly qualified person in order to avoid a hazard.
- ◆ The circuit breaker specification in above sheet is based on ambient temperature of 40°C. If the working condition is different, please adjust it according to the specification sheet of circuit breaker.