



TADIRAN

INVIZ outdoor units
Two Stage Air Conditioner
Product Data Guide



Introduction

Tadiran presents the INVIZ concealed air-conditioning revolution, ideal solution for private houses where a remote CDU cannot be installed due to the house limitations.

Applications

- Perfect for tight lot line applications, sound critical installs and aesthetically challenging buildings
- Flexible installation in enclosed spaces
- Installs in garages, attics, crawlspaces, under decks, porches and more
- Stacking possibility
- Only 19.6" height

Performance

- Capacity range 2 and 3 Ton
- Cooling only and heat pump versions
- Flexible matching to any indoor unit
- White-Rodgers control board
- Factory installed bi-flow TXV (in heat-pump version)
- Service valves with sweat connections
- Front air discharge

Efficiency

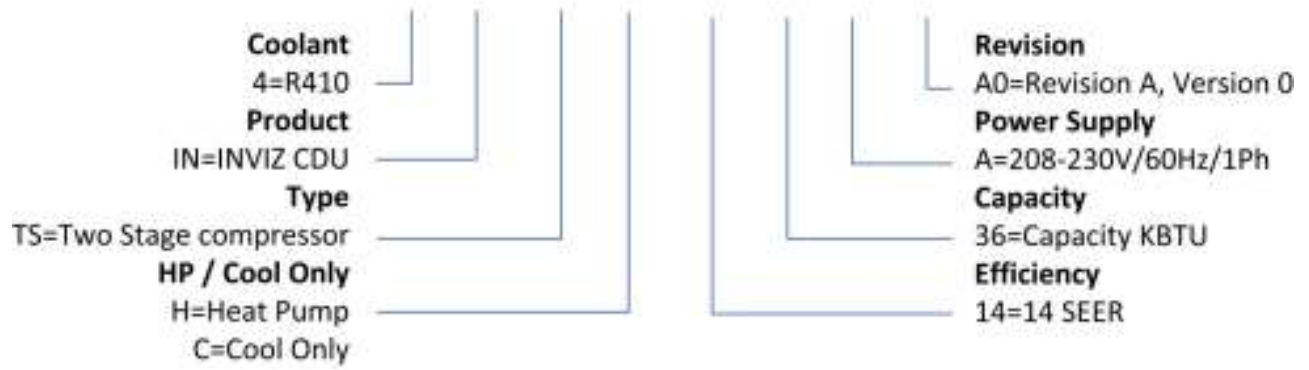
- Energy efficiency - 14 SEER
- Two-stage compressor

Advantages

- Low weight aluminum frame
- Easy transport, installation and maintenance
- US patent pending

Product number nomenclature

4-IN-TS-H-14-36-A-A0



Physical data

Model	4-IN-TS-H-14-24-A-A0 (Heat pump) 4-IN-TS-C-14-24-A-A0 (Cooling Only)	4-IN-TS-H-14-36-A-A0 (Heat pump) 4-IN-TS-C-14-36-A-A0 (Cooling Only)
Cooling [BTU/h, Nominal]	24,000	36,000
Heating [BTU/h, Nominal]	24,000	36,000
SEER / EER	14/11.5	
HSPF	8.2	
Compressor		
Type	Scroll 2 Step	
RLA	11.7	15.6
LRA	55.0	83.0
Fan Motor		
Number of Fans	2	3
Air Flow [CFM]	2,000	3,000
Horsepower	1/10 each	1/10each
FLA	0.8 each	0.8each
Refrigerant System		
Refrigerant Line		
Liquid Line Size [O.D.]	3/8"	
Suction Line Size [O.D.]	3/4"	
Valve Connection Type	Sweat	
Liquid Valve Size [O.D.]	3/8"	
Suction Valve Size [O.D.]	3/4"	
Refrigerant Charge [oz.]	141	166
Electrical Data		
Volts/Phase [60Hz]	208-230/1	
MCA - Minimum Circuit Ampacity ¹ [A]	11.0	22.0
MOP - Maximum Overcurrent Protection ² [A]	20	40
Current		
Starting [A]	83	
Running [A]	15.6	
Minimum/ Maximum Voltage	197 / 253 V	
Cooling Operation Range	60 ÷ 120 °F	
Heating Operation Range	5 ÷ 75 °F	
Electrical Conduit Size	1/2" or 3/4"	
Equipment Weight [lbs]	262	280
Ship Weight [lbs]	280	310
Sound Power Level [dB(A)]	72	73

(1) Determine the wire size in accordance with the relevant standards and the length of the wire.

(2) Use slow blow circuit breakers.

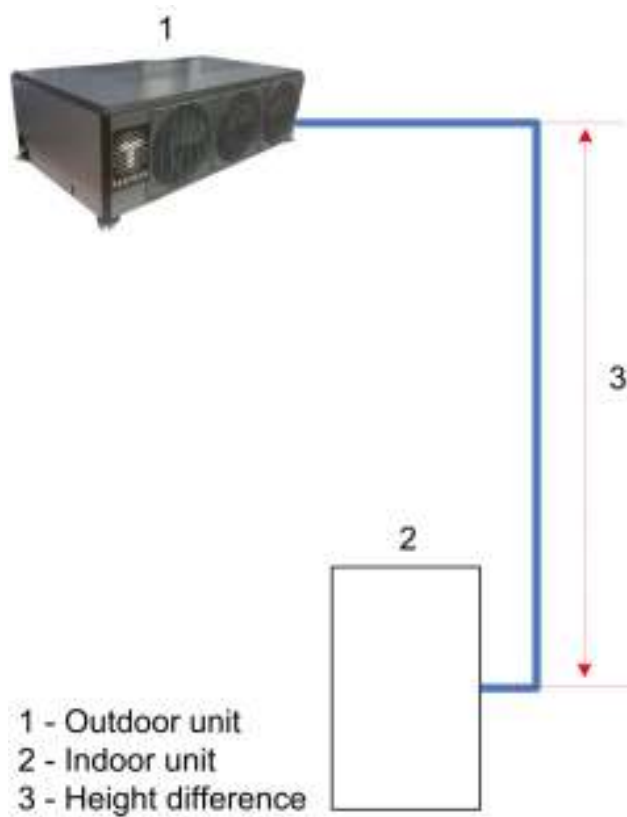
The products is tested and rated according to AHRI 210/240 standard.

Notes for the installer

- Always check the name plate on the installed unit for electrical data.
- Use only refrigeration grade pipes, seamless, degreased and deoxidized.
- Use copper wire from service disconnect to unit.
- The unit is charged with refrigerant for a 25-foot, $\frac{3}{8}$ " liquid line.
- Adjust the system charge as in the table below.

Liquid line	3/8"
Add refrigerant if piping is longer than 25 ft, for each additional 1 foot add	0.32 oz

Refrigerant piping length limitations



	Model	
	4-IN-TS-H-14-24-A-A0 / 4-IN-TS-C-14-24-A-A0	4-IN-TS-H-14-36-A-A0 / 4-IN-TS-C-14-36-A-A0
Max. pipe length (ft)	160	
Max. height difference (ft)	50	

Maximum pipe length and height difference (ft)

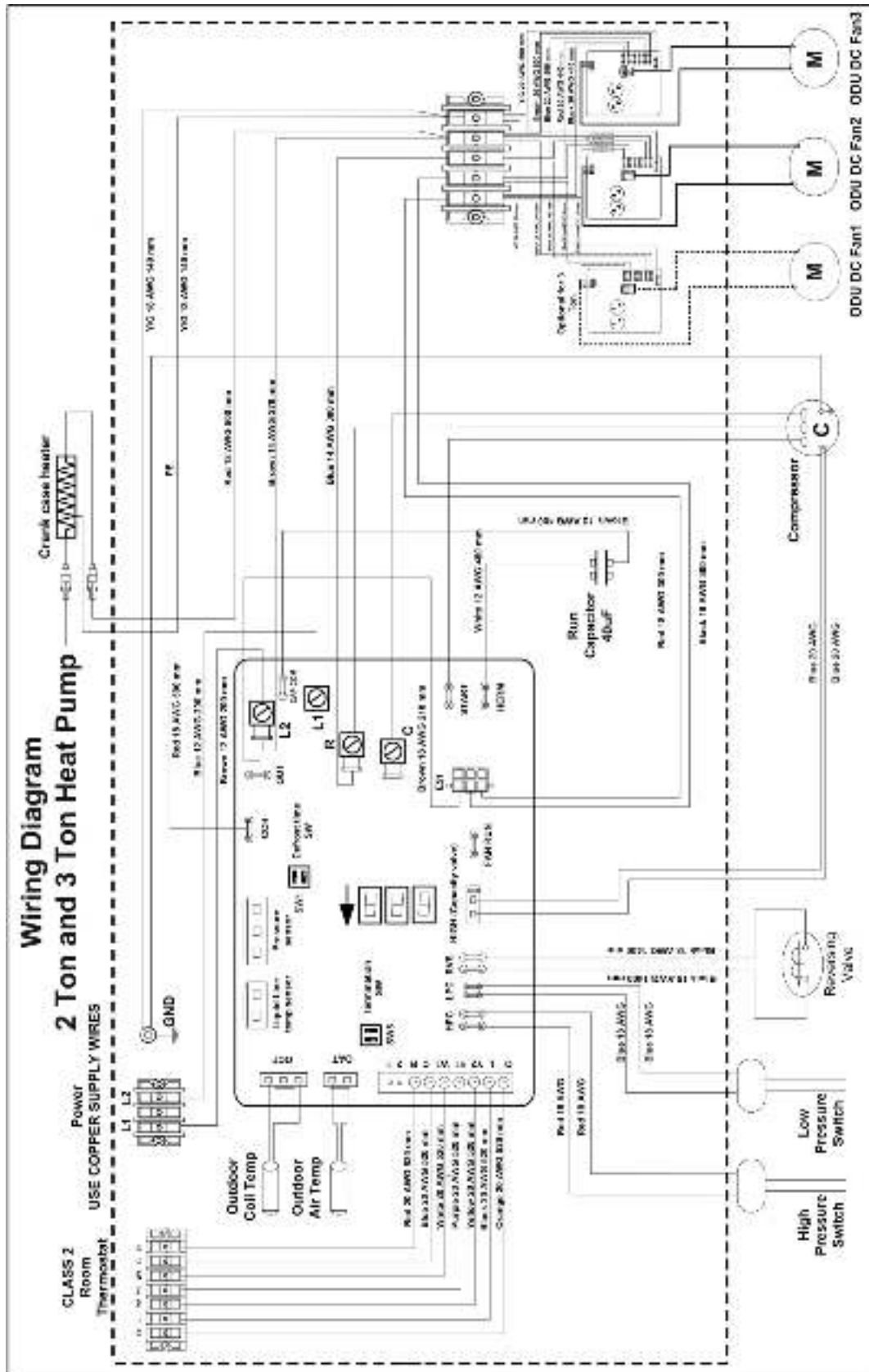
	Model	
	4-IN-TS-H-14-24-A-A0 / 4-IN-TS-C-14-24-A-A0	4-IN-TS-H-14-36-A-A0 / 4-IN-TS-C-14-36-A-A0
Maximum pipe length (ft)	160	
Maximum height difference (ft)	50	

Metering device(for heat pump models only)

UNIT SIZE	OUTDOOR	REQUIRED SUBCOOLING °F
24	TXV	12
36		12

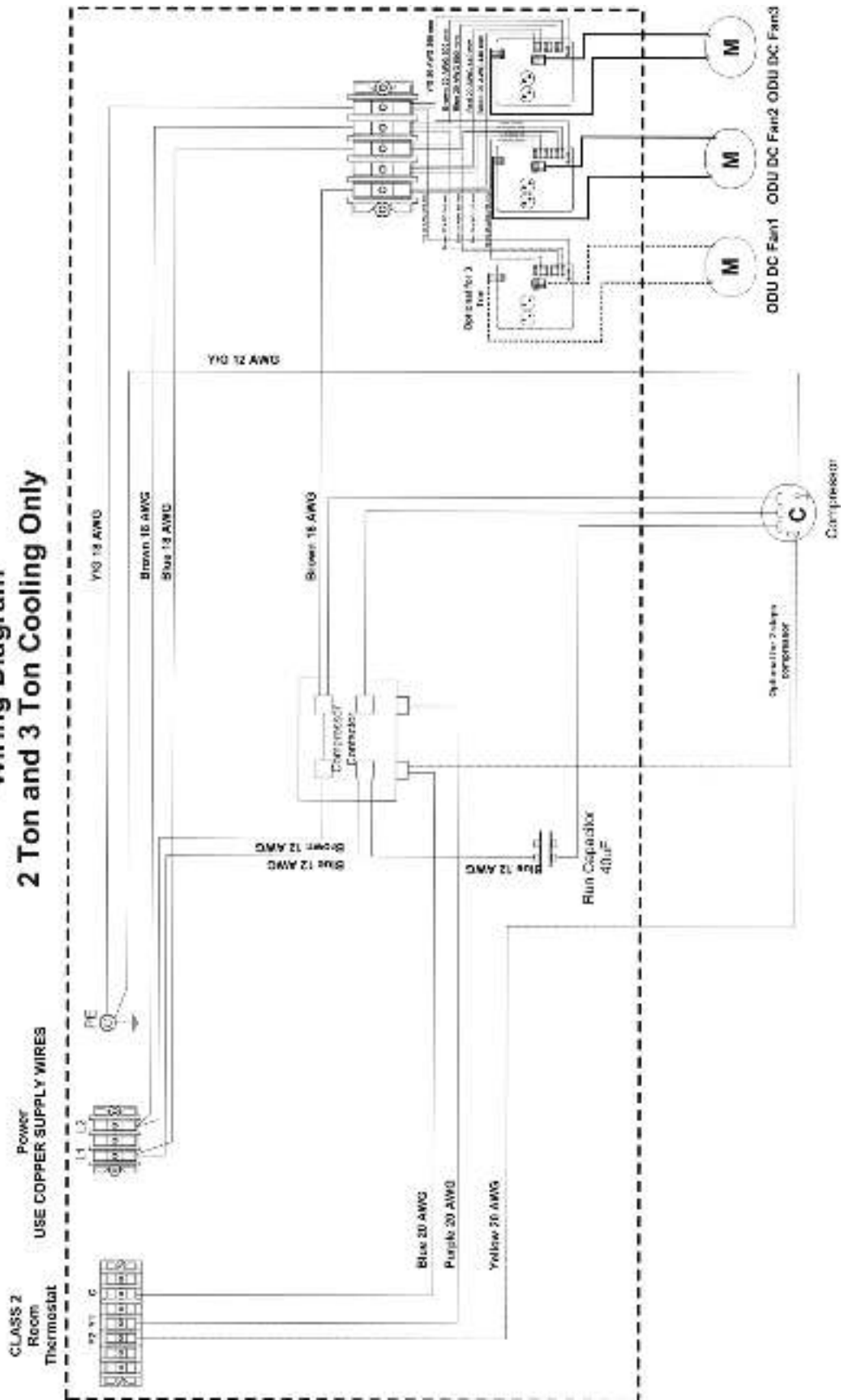
- For heat pump models, metering devices not required in the indoor unit.
- For cooling only models use metering device supplied with the indoor unit.

Electrical Drawings

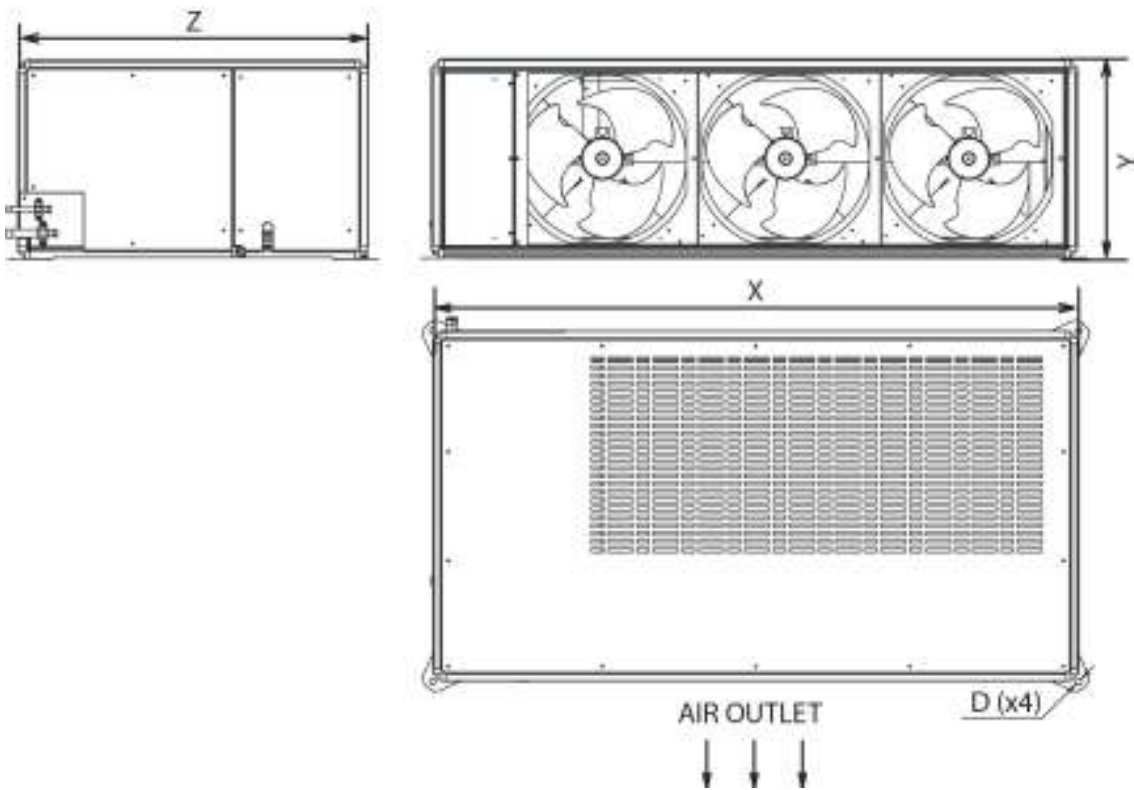




Wiring Diagram 2 Ton and 3 Ton Cooling Only



Dimensions

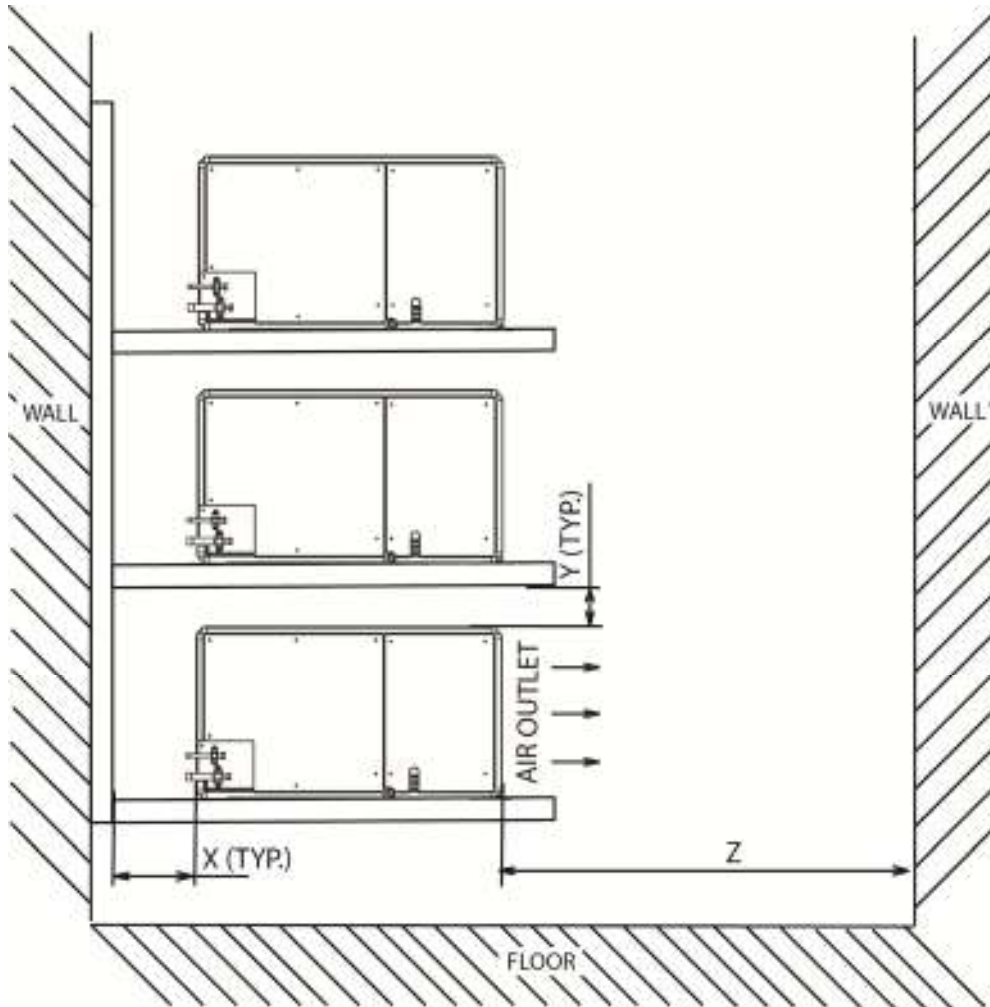


MODEL	Height (Y) ["]	Length (X) ["]	Width (Z) ["]	Diameter (D) ["]
4-IN-TS-H-14-24-A-A0 / 4-IN-TS-C-14-24-A-A0	19.00	52.00	33.30	0.60
4-IN-TS-H-14-36-A-A0 / 4-IN-TS-C-14-36-A-A0	19.00	61.40	33.30	0.60

IMPORTANT!! DO NOT USE AIR DUCTS

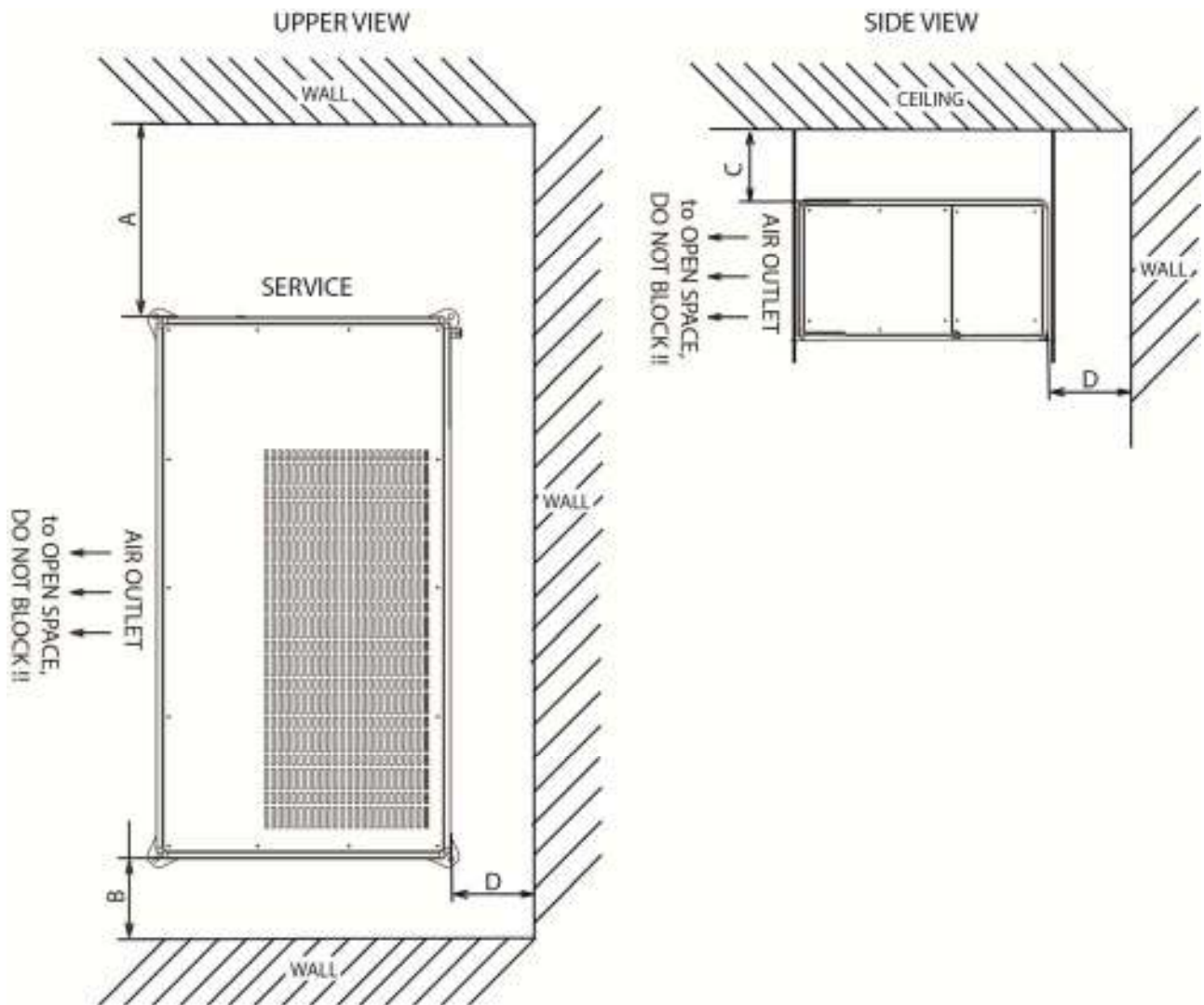
Stack installation

In addition to stacking installation possibility, the unit is intended for installation in garages, attics, crawl spaces, under decks, porches, and more.



MODEL	Y (")	X (")	Z (")
4-IN-TS-H-14-24-A-A0 / 4-IN-TS-C-14-24-A-A0	5.90	12.0	78.0
4-IN-TS-H-14-36-A-A0 / 4-IN-TS-C-14-36-A-A0	5.90	12.0	78.0

Clearances



MODEL	A (")	B (")	C (")	D (")
4-IN-TS-H-14-24-A-A0 / 4-IN-TS-C-14-24-A-A0	24	12	2.0	12.0
4-IN-TS-H-14-36-A-A0 / 4-IN-TS-C-14-36-A-A0	24	12	2.0	12.0

Condenser only rating

SST ° F (° C)		CONDENSER ENTERING AIR TEMPERATURES ° F (° C)							
		55 (12.78)	65 (18.33)	75 (23.89)	85 (29.44)	95 (35.0)	105 (40.56)	115 (46.11)	125 (51.67)
4-IN-TS-H-14-24-A-A0 / 4-IN-TS-C-14-24-A-A0									
30 (±1.11)	TCG	22.15	20.89	19.74	18.48	17.32	16.06	14.80	13.54
	SDT	67	77	86	96	105	114	124	133
	KW	1.05	1.26	1.36	1.57	1.78	1.99	2.20	2.52
35 (1.67)	TCG	24.36	22.99	21.73	20.37	19.11	17.74	16.38	14.91
	SDT	68	78	87	97	106	115	125	134
	KW	1.05	1.26	1.36	1.57	1.78	1.99	2.21	2.52
40 (4.44)	TCG	26.77	25.30	23.83	22.47	21	19.53	18.06	16.48
	SDT	70	79	88	98	107	116	126	135
	KW	1.05	1.26	1.365	1.57	1.78	1.99	2.20	2.52
45 (7.22)	TCG	29.29	27.72	26.14	24.67	23.1	21.42	19.74	18.06
	SDT	71	80	90	99	108	117	127	136
	KW	1.05	1.26	1.36	1.57	1.78	1.99	2.20	2.52
50 (10.0)	TCG	32.02	30.34	28.66	26.98	25.2	23.41	21.63	19.74
	SDT	73	82	91	100	109	119	128	137
	KW	1.05	1.26	1.365	1.57	1.78	1.99	2.20	2.52
55 (12.78)	TCG	34.86	33.07	31.18	29.4	27.51	25.51	23.52	21.52
	SDT	74	83	92	102	111	120	129	138
	KW	1.05	1.26	1.36	1.57	1.78	1.99	2.20	2.52
4-IN-TS-H-14-36-A-A0 / 4-IN-TS-C-14-36-A-A0									
30 (±1.11)	TCG	26.88	29.19	29.19	27.93	26.04	23.73	21.42	19.32
	SDT	63	74	85	94	104	113	122	132
	KW	1.36	1.78	2.1	2.41	2.62	2.94	3.25	3.67
35 (1.67)	TCG	30.76	32.65	32.44	30.97	28.87	26.46	24.04	21.73
	SDT	65	76	86	95	105	114	123	132
	KW	1.36	1.78	2.1	2.31	2.62	2.83	3.255	3.67
40 (4.44)	TCG	34.75	36.33	35.80	34.12	31.81	29.19	26.56	24.15
	SDT	66	77	87	96	105	115	124	133
	KW	1.36	1.78	2.1	2.31	2.62	2.83	3.25	3.67
45 (7.22)	TCG	38.85	39.9	39.16	37.27	34.75	32.025	29.19	26.56
	SDT	67	78	88	97	106	115	125	134
	KW	1.26	1.68	1.99	2.31	2.625	2.83	3.25	3.67
50 (10.0)	TCG	42.73	43.47	42.42	40.32	37.69	34.65	31.71	28.87
	SDT	69	79	89	98	107	116	125	135
	KW	1.26	1.68	1.99	2.31	2.62	2.83	3.25	3.67
55 (12.78)	TCG	46.62	46.93	45.67	43.36	40.42	37.27	34.12	31.08
	SDT	70	80	90	99	108	117	126	135
	KW	1.26	1.68	1.99	2.31	2.625	2.887	3.255	3.67

- KW - Outdoor Unit Kilowatts Only.
- SDT - Saturated Temperature Leaving Compressor (° F)
- SST - Saturated Temperature Entering Compressor (° F)
- TCG - Gross Cooling Capacity (1000 Btuh)