R32 SIDE DISCHARGE ULTRA HEAT A-COIL 24VAC UNITARY + RS485 CONTROL

60,000 BTU/H UNITARY HEAT PUMP

SUBMITTAL DATA: TCAC60H/NhA & TUH60-48D32E2O

Job Name	Location		Date	
Purchaser	Engineer			
Submitted To	For	☐ Reference	☐ Approval	☐ Construction
Unit Designation	Schedule No.			

Operating Range

Cooling	5 ~ 118°F / -15 ~ 54 °C
Heating	-22 ~ 75°F / -30 ~ 24 °C







TWK-010WC1
(Optional)

SYSTEM FEATURES

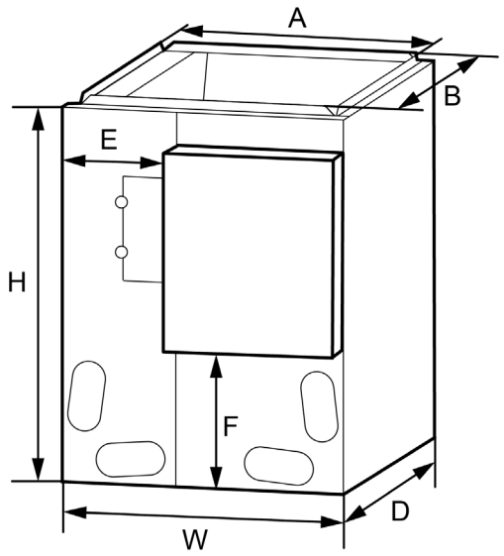
Outdoor EEV Control	YES
Indoor EEV Control	YES
Compressor e-Heater	YES
Base Pan e-Heater	YES
Intelligent Preheating	YES
Outdoor Low Noise Control	YES
Communication Protocol	RS485, 24Vac

SYSTEM PERFORMANCE			
Cooling	Rated Capacity @ 95°F	Btu/h	52,000
	Min-Max Capacity	Btu/h	15,200 – 52,000
	SEER2 / EER2	/	16.0 / 9.8
Heating	Rated Capacity @ 47°F	Btu/h	54,000
	Rated Capacity @ 17°F	Btu/h	41,000
	Rated Capacity @ 5°F	Btu/h	54,000
	Min-Max Capacity	Btu/h	14,400 – 54,600
	HSPF2 (Region IV /V)	/	9.0 / 7.0
	COP @47°F / @5°F	/	3.1 / 1.8
INDOOR UNIT			
Power Ssupply		VAC	24V / 1Ph / 60Hz
Dehumidification		pt/hr	13.11
Mini. Air Flow Rate(Recommended)		CFM	917
Condensate Drain Hose Size(OD)		in	1
Unit Dimension (WxHxD)		in	24-1/2 x 28-1/2 x 21-1/4
Weight (Net / Gross)		lbs	110 / 124
OUTDOOR UNIT			
Compressor Type			Inverter Rotary + EVI
Compressor RLA		A	30.1
Sound Pressure Level		dB(A)	54 (48 -54)
Unit Dimension (WxHxD)		in	35-7/16 x 49-5/8 x 13-3/8
Package Dimension (WxHxD)		in	40-11/16 × 55-3/16 × 17-38
Weight (Net / Gross)		lbs	242 / 264
R32 Pre-Charged		oz / lbs	162.3 / 10.14
Coil Type (Golden Fin)			Copper Tube / Aluminum Fin
REFRIGERANT PIPING			
Line Set Size (Liquid - Gas)		in	3/8 – 3/4
Pre-Charge Lengh		ft	25
Additional Charge		oz/ft	0.32
Pipe Length (Min - Max)		ft	10 – 100
Max. Pipe Elevation		ft	50
ELECTRICAL			
Power Supply			208/230V / 1Ph / 60 Hz
Outdoor Unit	Rated Current (Cooling / Heating)	A	24.5 / 23.5
	MCA / MOCP	A	39.9 / 45.0
Main Power Wire Size			AWG 8x3 or Per Local Code
LIMITED WARRANTY	10 Year Parts, 10 Years Compressor		

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DIMENSIONS : TCAC60H/NhA

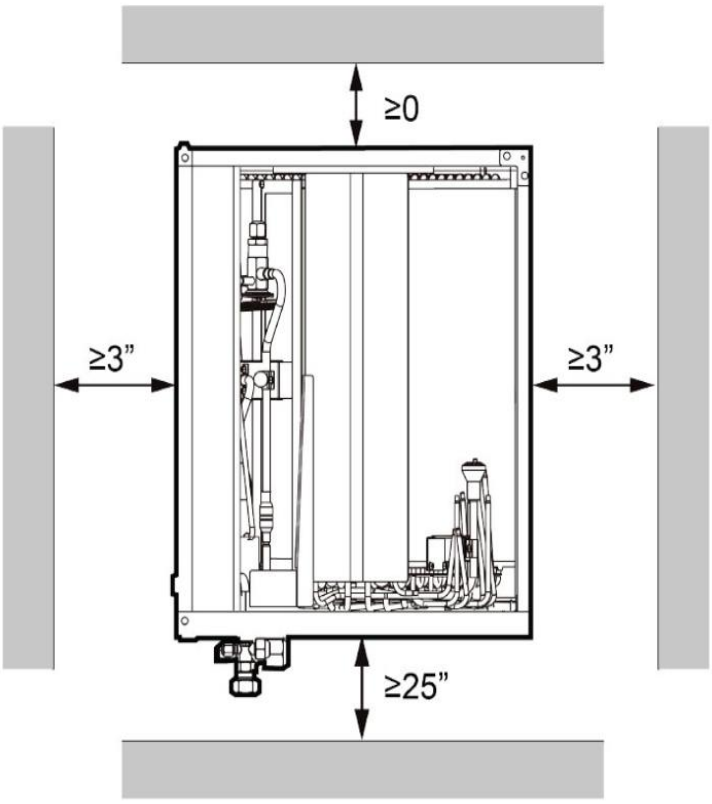
Indoor Unit Dimension



Unit: inch

Dimensions	
W	24-1/2
D	21-1/4
H	28-1/2
A	22-7/8
B	19-3/8
E	8
F	4-1/8

Indoor Unit Clearance

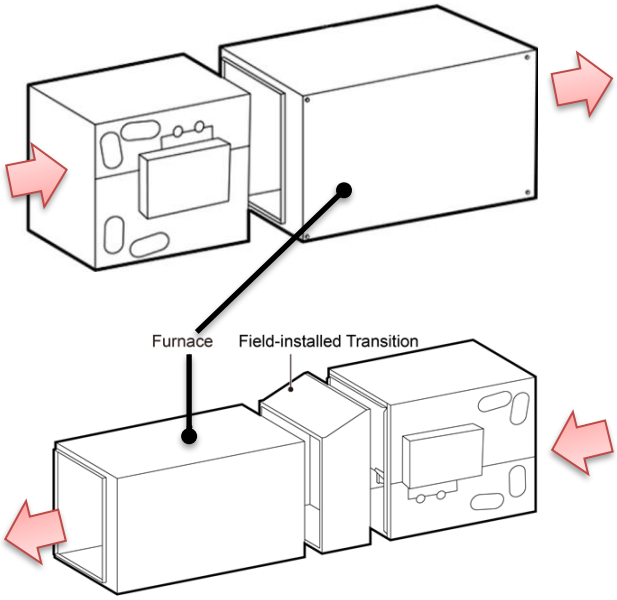


Minimum Clearances	
Front	> 24 inch

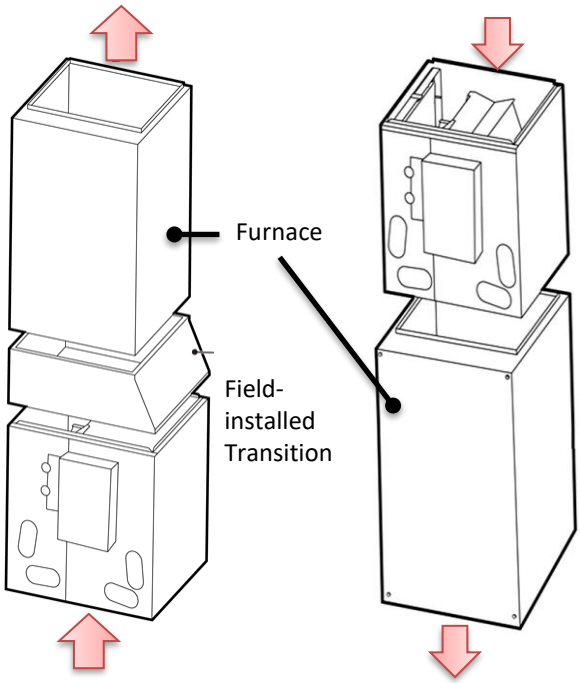
Allow a minimum of 24” in front of the unit for service clearance. When installing in an area directly over a finished ceiling (such as an attic), an emergency drain pan is required directly under the unit. See local codes for requirements. When installing this unit in an area that may become wet, elevate the unit with a sturdy, non-porous material. In installations that may lead to physical damage (i.e. a garage) it is advised to install a protective barrier to prevent such damage. This A-coil is designed for a complete supply and return ductwork system.

INSTALLATION: TCAC60H/NhA & TUH60-48D32E2O

Horizontal Installation



Vertical Installation

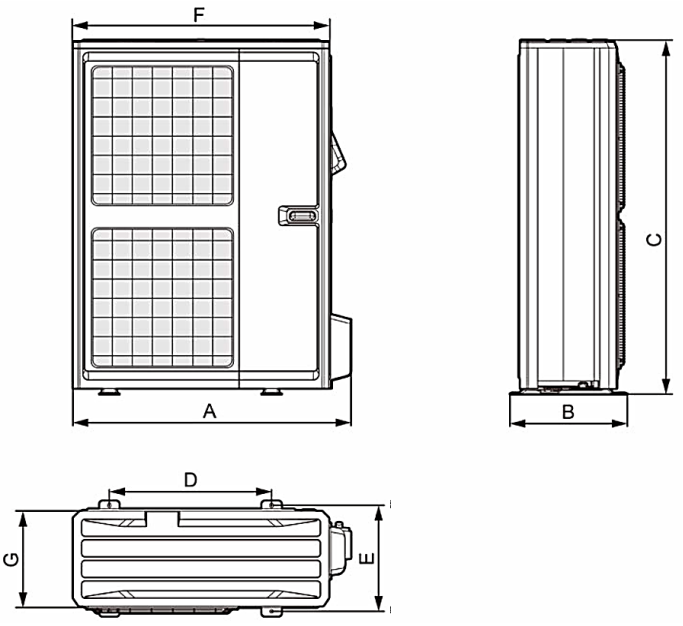


ESP Loss

Unit: inwc

STANDARD CFM	800	900	1,000	1,100	1,200	1,300	1,400	1,500	1,600
Dry Air	0.110	0.175	0.194	0.226	0.294	0.315	0.341	0.380	0.432
Wet Air	0.115	0.181	0.195	0.234	0.303	0.320	0.347	0.389	0.437

Outdoor Unit Dimension



Unit: inch

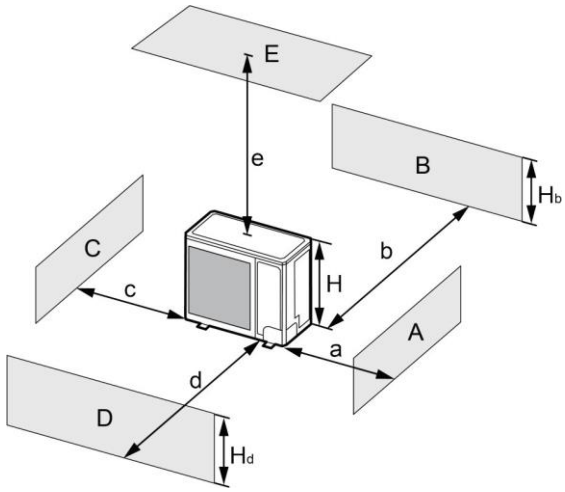
Dimensions	
A	38-1/2
B	16-1/4
C	49-5/8
D	22-7/16
E	14-7/8
F	35-7/16

INSTALLATION CLEARASNCES: TUH60-48D32E2O

Minimum Clearances

Note: The outdoor unit **2inches** above the snow level

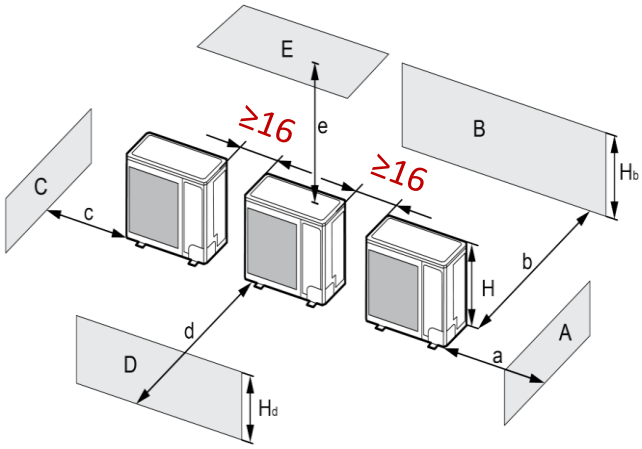
- Install one outdoor unit



Obstacle/Wall A~E	Obstacle/Wall Hb Hd H		Clearance (in)				
			A	b	c	d	e
B	—		-	⩾4	-	-	-
A,B,C,	—		⩾12	⩾4	⩾4	-	-
B,E	—		-	⩾4	-	-	⩾40
A,B,C,E	—		⩾12	⩾6	⩾6	-	⩾40
A,C,E	—		⩾8	-	⩾20	-	⩾10
D	—		-	-	-	⩾40	-
D,E	—		-	-	-	⩾40	⩾40
B,D	Hb < Hd	Hd > H	-	⩾4	-	⩾40	-
	Hb > Hd	Hd < H	-	⩾4	-	⩾40	-
B,D,E	Hb < Hd	Hb⩽1/2H	-	⩾10	-	⩾80	⩾40
		1/2H < Hb⩽H	-	⩾10	-	⩾80	⩾40
		Hb > H	Prohibited				
	Hb > Hd	Hd⩽1/2H	-	⩾4	-	⩾80	⩾40
		1/2H < Hd⩽H	-	⩾8	-	⩾80	⩾40
		Hd > H	Prohibited				

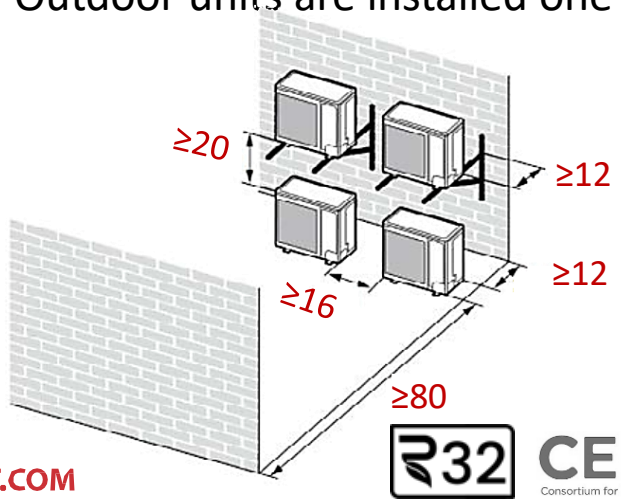
- Install two or more outdoor units

1. Outdoor units are installed side by side



Obstacle/Wall A~E	Obstacle/Wall Hb Hd H		Minimum Clearance (in)				
			A	b	c	d	e
A,B,C	—		⩾12	⩾12	⩾40	—	—
A,B,C,E	—		⩾12	⩾12	⩾40	—	⩾40
D	—		—	—	—	⩾80	—
D,E	—		—	—	—	⩾80	⩾40
B,D	Hb < Hd	Hd > H	—	⩾12	—	⩾80	—
	Hb > Hd	Hd < 1/2H	—	⩾10	—	⩾80	—
		1/2H < Hd⩽H	—	⩾12	—	⩾100	⩾40
B,D,E	Hb < Hd	Hb⩽1/2H	—	⩾12	—	⩾80	⩾40
		1/2H < Hb⩽H	—	⩾12	—	⩾100	
		Hb > H	Prohibited				
	Hb > Hd	Hd⩽1/2H	—	⩾10	—	⩾100	⩾40
		1/2H < Hd⩽H	—	⩾12	—	⩾100	⩾40
		Hd > H	Prohibited				

2. Outdoor units are installed one above another

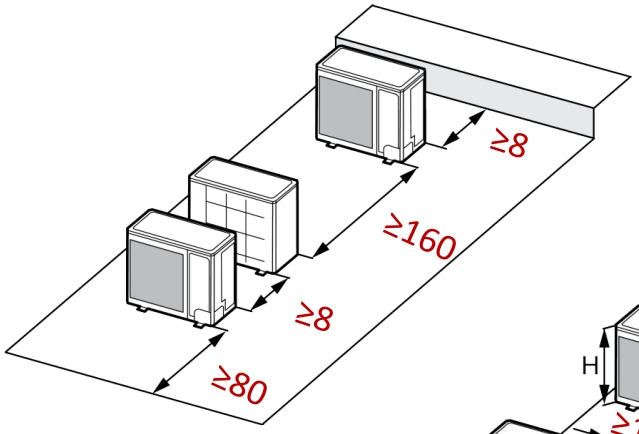


R32 CEE Consortium for Energy Efficiency INVERTER Intertek AHRI CERTIFIED COLD CLIMATE

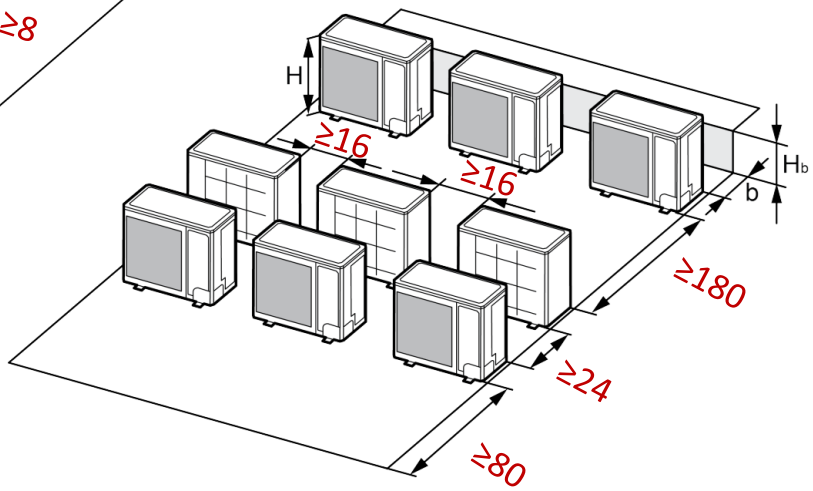
INSTALLATION CLEARASNCES: TUH60-48D32E2O

Minimum Clearances
Note: The outdoor unit **2inches** above the expected snow level

3. Outdoor units are installed in rows



Obstacle/Wall H_b, H_d	Clearance (in)
$H_b \leqslant 1/2H$	b ⩽ 10
$1/2H < H_b \leqslant H$	b ⩽ 12
$H_b > H_d$	Prohibited



For the narrow space cannot guarantee the front clearance, requires to apply the below wind baffle to change the air flow direction



After installed



Wind baffle (field supplied)