SUBMITTAL DATA

UNIX ECO 20 Seer 48KBTU

Model: TUD48-R32AHEDU/ TU48-R32WGDU

Job Name	Location	Date
Purchaser	Engineer	
Submitted to	For	
Unit Designation	Schedule No.	

TUD48-R32AHEDU

TU48-R32WGDU

GENERAL FEATURES:

- High Efficiency DC Inverter Technology
- 24VAC Thermostat Compatible
- Zero Lot Line Design
- 8 Speed Fan Motor
- Designed for New Construction or Replacement Market
- Compact and Quiet, as low as 55 dB(A) Side Discharge outdoor unit
- Cooling down to 5°F
- Heating down to 5°F
- Coil (Outdoor) Copper Tube/Aluminum Fin with Anti-Corrosion
- Coil Coating (Gold Colored Fin - 1500Hr Salt Spray Rating)
- Coil (Indoor) Copper Tube/Aluminum Fin with Anti-Corrosion
- Coil Coating (Blue Colored Fin - 500Hr Salt Spray Rating

Americo HVAC Supply LLC

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1266 San Luis Obispo Ave.
Hayward, CA. 94544

SPECIFICATIONS & FUNCTIONS:

Air Handler		TUD48-R32AHEDU
Power Supply	V~/Phases/Hz	208~230/1/60
Air Flow Volume	CFM	1200
External Static Pressure	W.C.	0.5
External Static Pressure Range	W.C.	0~1
Sound Pressure Level	dB	52
Rated Voltage	V	208/230
Rated Frequency	Hz	60
Phases	-	1
Fuse Current	A	3.15
Circuit Breaker	A	15
Output of Heater	W	6000/9000/12000
MOCP	A	15
Motor Full Load Amp(FLA)	A	5.50
Fan Motor Drive Type	-	Direct-driven
Fan Motor Speed	rpm	950
Fan Motor Power Output	HP	1
Evaporator Material	-	Inner groove copper tube-Aluminum fin
Evaporator Face Area	sq.ft	5.49
Evaporator Pipe Diameter	inch	0.37
Evaporator Number of Rows	-	4
Evaporator Tube Pitch×Row Pitch	inch	1.0×0.87
Evaporator Fin Pitch	inch	0.071
Evaporator Number of Circuits	-	12
Evaporator L×H×W	inch	16.3×24×3.5
Evaporator Max. Allowable Pressure	MPa	12.7
Air Filter	-	Metal
Air Filter Size L×W/NO.	inch	23.0×20.3/1
Air Filter Size (Thickness)	inch	0.6
Drainage Connection Size	inch	φ1×0.05
Cooling Temperature Range	°F	64.4~89.6
Heating Temperature Range	°F	50~80.6
Refrigerant	-	R32
Dimension of Outline(W×D×H)	inch	24.8×21.26×51.97
Dimension of Package(L×W×H)	inch	27.28×25.98×54.8
Net Weight	lbs	199.5
Gross Weight	lbs	218.3

Product Model		TU48-R32WGDU
Power Supply	VAC/Phase/Hz	208~230/1/60
Cooling Capacity	Btu/h	48000
Heating Capacity	Btu/h	48000
EER	(Btu/h)/W	11.7
COP	(Btu/h)/W	11.6
SEER	-	20
HSPF	-	9.5
Air Flow Volume	CFM	4000
Sound Pressure Level	dB(A)	**55**
MOCP	A	40
MCA	A	35.5
Compressor Model	-	FTz-SC400AXAB
Compressor Type	-	Inverter Rotary
Compressor Refrigerant Oil Type	-	FW68L
Compressor Refrigerant Oil Charge Volume	L	1.2
Condenser Material	-	Inner Groove Copper Tube-Aluminum fin
Condenser Face Area	sq.ft	11.41
Condenser Pipe Diameter	inch	ϕ0.28
Condenser Number of Rows	-	3
Condenser Tube Pitch(a)×Row Pitch(b)	inch	0.87×0.75
Condenser Fin Pitch	inch	0.059
Condenser Fins per Inch (FPI)	-	17
Condenser Number of Circuits	-	12
Condenser L×H×W	inch	39.5×36.4×2.3
Cooling Temperature Range	°F	5~118.4
Heating Temperature Range	°F	5~75.2
Defrosting Method	-	Automatic Defrosting
Refrigerant Charge-R32	oz	148.2
Dimension of Outline(W×D×H)	inch	35 7/16×13 3/8×49 5/8
Dimension of Package(L×W×H)	inch	40.7×17.4×55.3
Net Weight	lbs	214
Gross Weight	lbs	236
Connection Pipe Length	ft	24.6
Not Additional Gas Connection Pipe Length	ft	31.2
Connection Pipe Gas Additional Charge	oz/ft	0.215
Line Set Size (Liquid - Gas)	inch	3/8"-3/4"
Connection Pipe Max. Distance H×L	ft	49.2×98.4

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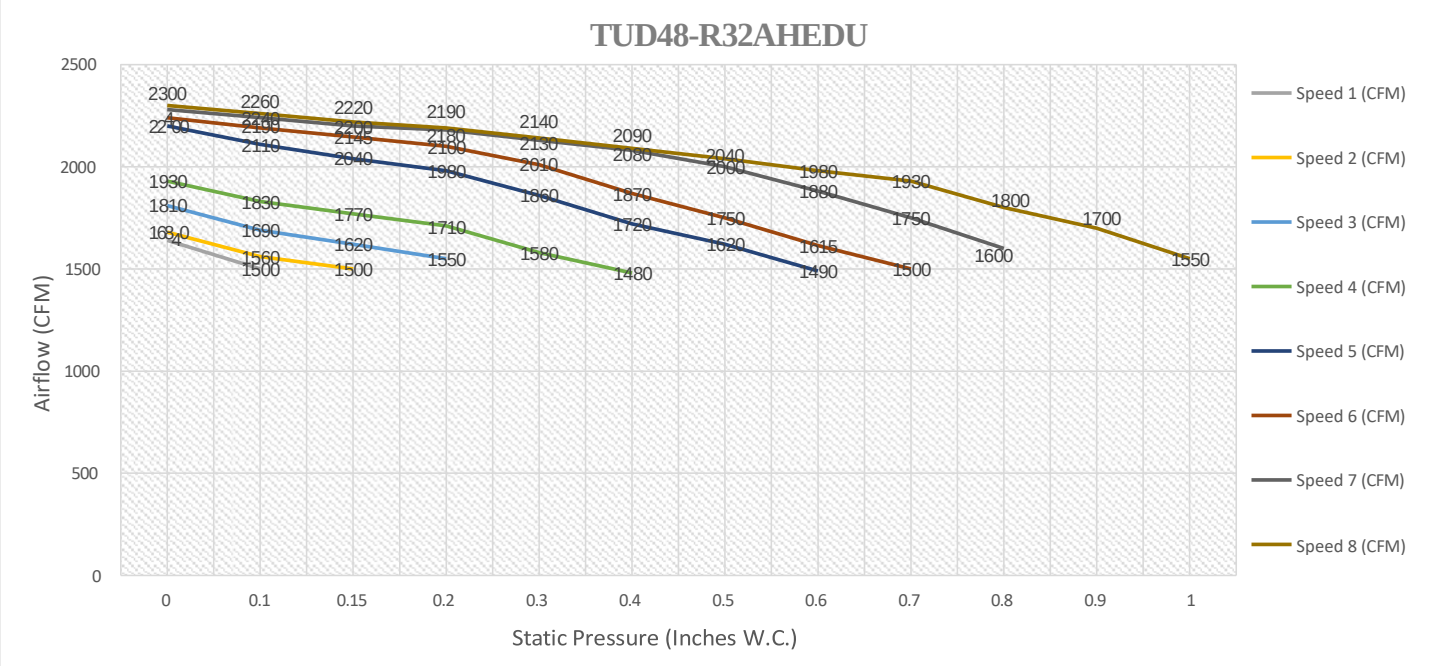
FAN PERFORMANCE

Static Pressure (Inches W.C.)	0	0.1	0.15	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1
Speed 1 (CFM)	1640	1500										
Speed 2 (CFM)	1680	1560	1500									
Speed 3 (CFM)	1810	1690	1620	1550								
Speed 4 (CFM)	1930	1830	1770	1710	1580	1480						
Speed 5 (CFM)	2200	2110	2040	1980	1860	1720	1620	1490				
Speed 6 (CFM)	2240	2190	2145	2100	2010	1870	1750	1615	1500			
Speed 7 (CFM)	2280	2240	2200	2180	2130	2080	2000	1880	1750	1600		
Speed 8 (CFM)	2300	2260	2220	2190	2140	2090	2040	1980	1930	1800	1700	1550



NOTE:
1. Above chart CFM ratings are based on dry coil with factory filter installed.
2. For wet coil CFM ratings, multiply the CFM by 0.96 correction factor.

DIMENSIONS

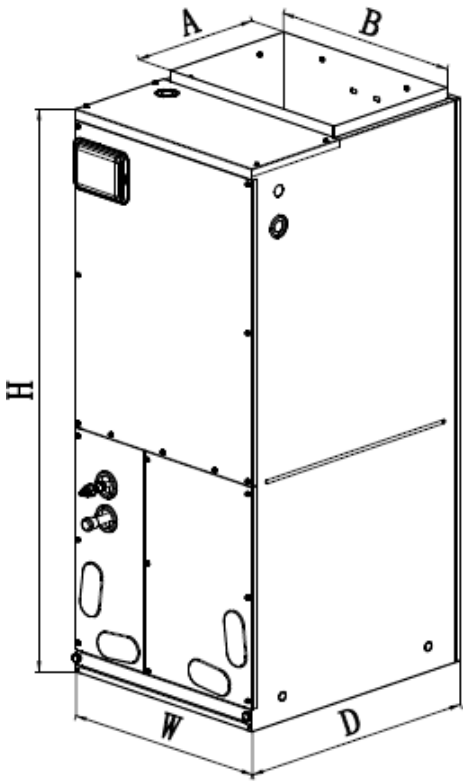
INDOOR UNIT

Unit: inch

TUD48-R32AHEDU	
DIMENSIONS	
A	11-5/8
B	20
H	52
W	24-3/4
D	21-1/4

FILTER SIZE	
Supplied*	20-3/4 x 20-3/8 x 5/8
Suggested	20-3/4 x 20-3/8 x 1

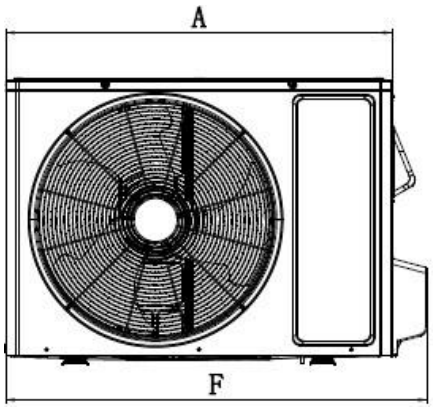
*Supplied filter is metal mesh

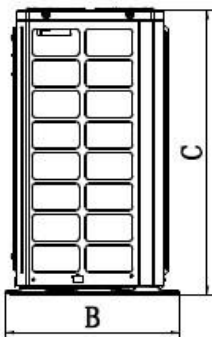


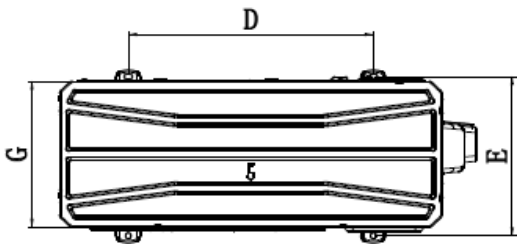
OUTDOOR UNIT

Unit: inch

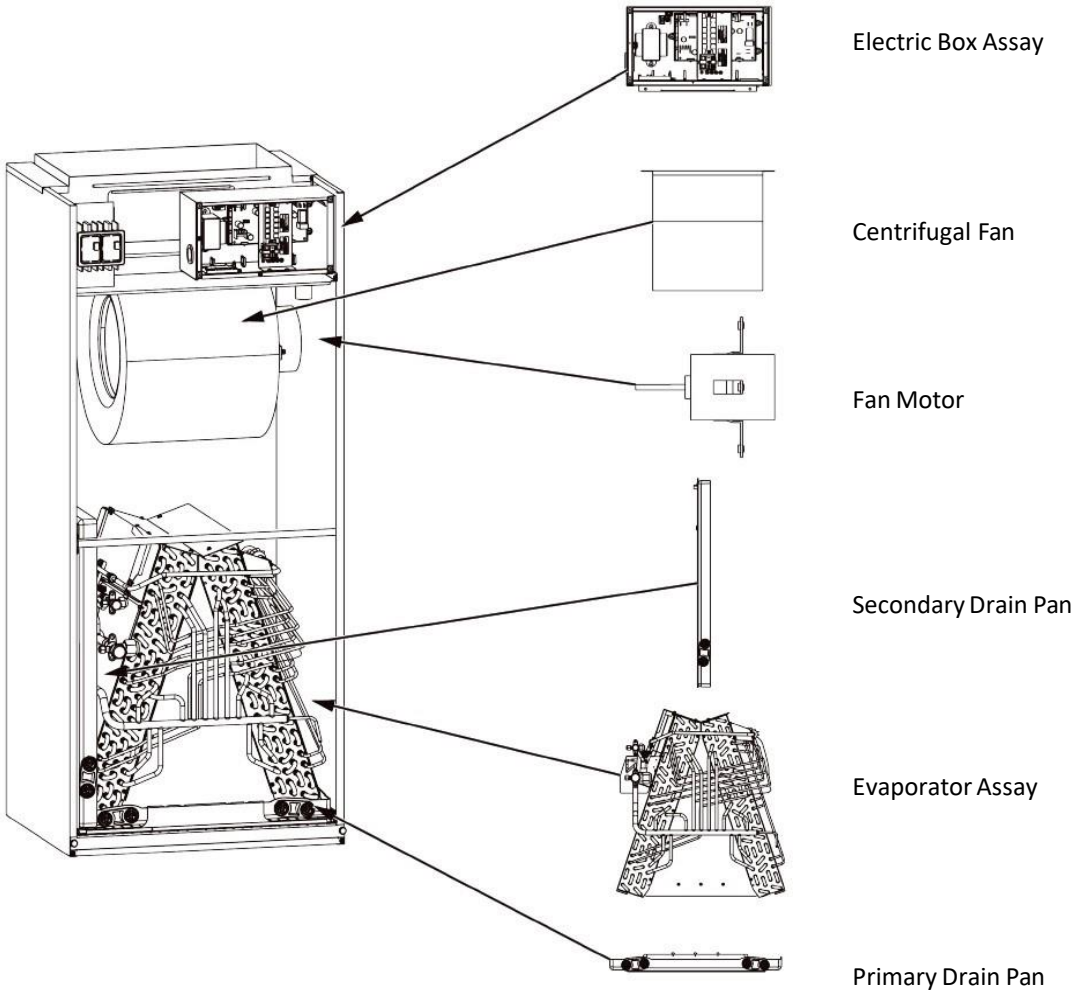
TU48-R32WGDU	
DIMENSIONS	
A	37-1/8
B	15-13/16
C	32-1/2
D	22-7/16
E	14-9/16
F	38-1/4
G	14-5/8







ACCESSORY HEATER AND GENERAL INFORMATION



Model	Heat Kit Model	Electric Heat (kW)		Min. Circuit Ampacity (A)		Max Fuse or Breaker (A)	
		208V	230V	208V	230V	208V	230V
TUD48-R32AHEDU	One Mains Supply						
	ELEMHT16-5KW	3.74	4.6	31	33	35	35
	ELEMHT16-5KW	6.03	7.36	44	48	45	50
	ELEMHT16-5KW	7.49	9.2	53	58	60	60
	Two Mains Supply						

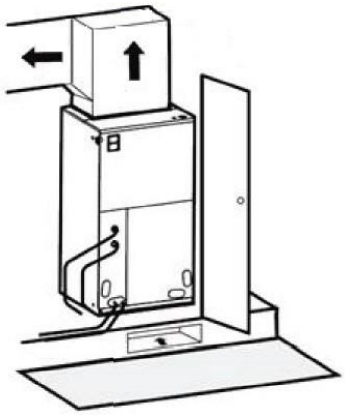
	Power A	Power B	Power A	Power B	Power A	Power B	Power A	Power B	Power A	Power B	Power A	Power B
ELEMHT16-15KW	7.49	3.74	9.2	4.6	53	23	58	25	60	25	60	30
ELEMHT16-20KW	7.49	7.49	9.2	9.2	53	46	58	50	60	50	60	60

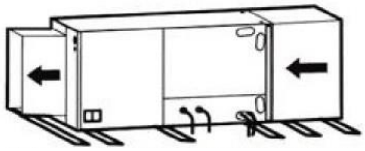
CLEARANCES

INDOOR UNIT

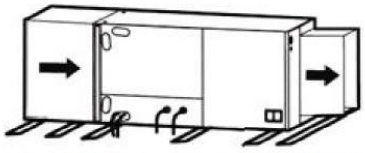
Minimum clearance

FRONT	> 24





Horizontal Left Configuration - No Modification Needed



Horizontal Right Configuration - Must Relocate Drain Pan

NOTE:
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 and state 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 air handler is designed for a complete supply and return ductwork system.

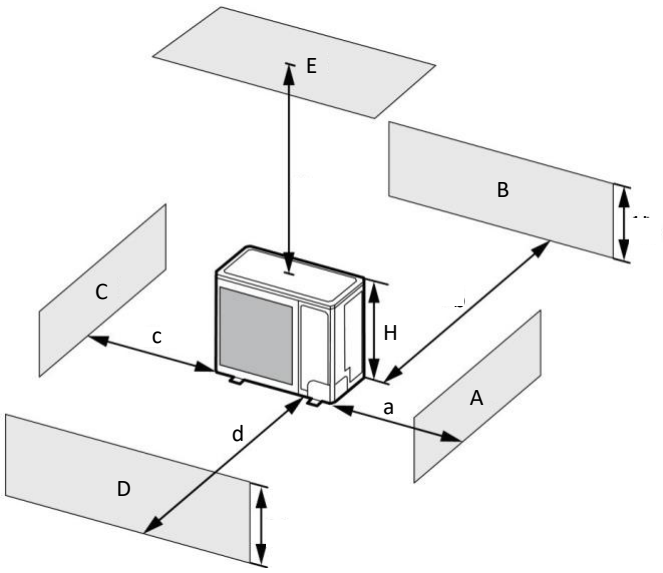
OUTDOOR UNIT

Minimum clearance

NOTE:
Install the Outdoor Unit **2 Inches** Above the Expected Snow Line

1. When one outdoor unit is to be installed.

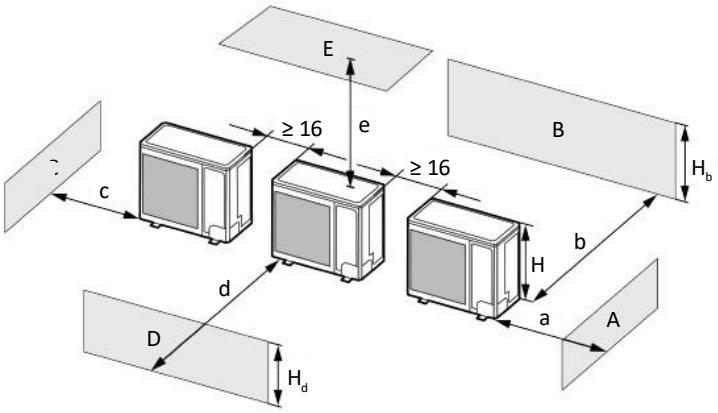
A - E	H_b H_d H		(in) a	b	c	d	e
B	-		-	≥ 4	-	-	-
A, B, C	-		≥ 12	≥ 4	≥ 4	-	-
B, E	-		-	≥ 4	-	-	≥ 40
A, B, C, E	-		≥ 12	≥ 6	≥ 6	-	≥ 40
D	-		-	-	-	≥ 40	-
D, E	-		-	-	-	≥ 40	≥ 40
B, D	$H_b < H_d$	$H_d < H$	-	≥ 4	-	≥ 40	-
	$H_b > H_d$	$H_d > H$	-	≥ 4	-	≥ 40	-
B, D, E	$H_b < H_d$	$H_b \leq 1/2H$	-	≥ 10	-	≥ 80	≥ 40
		$1/2H < H_b \leq H$	-	≥ 10	-	≥ 80	≥ 40
		$H_b > H$	Prohibited				
	$H_b > H_d$	$H_d \leq 1/2H$	-	≥ 4	-	≥ 80	≥ 40
		$1/2H < H_d \leq H$	-	≥ 8	-	≥ 80	≥ 40
		$H_d > H$	Prohibited				



CLEARANCES

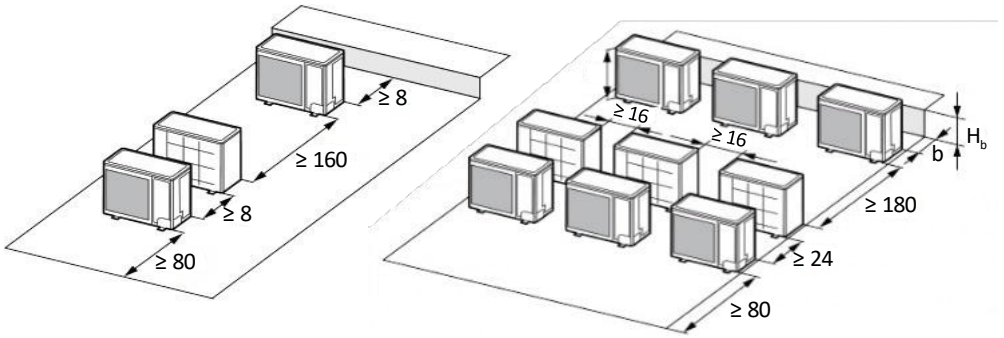
2. When two or more outdoor units are to be installed side by side.

A - E	H_b H_d H		(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	$H_b < H_d$	$H_d > H$	-	≥ 12	-	≥ 80	-
B, D, E	$H_b > H_d$	$H_d \leq 1/2H$	-	≥ 10	-	≥ 80	-
		$1/2H < H_d \leq H$	-	≥ 12		≥ 100	
	$H_b < H_d$	$H_b \leq 1/2H$	-	≥ 12	-	≥ 80	≥ 40
		$1/2H < H_b \leq H$	-	≥ 12	-	≥ 100	≥ 40
		$H_b > H$	Prohibited				
	$H_b > H_d$	$H_d \leq 1/2H$	-	≥ 10	-	≥ 100	≥ 40
		$1/2H < H_d \leq H$	-	≥ 12	-	≥ 100	≥ 40
	$H_d > H$		Prohibited				



3. When outdoor units are installed in rows.

H_b H_d	(in)
$H_b \leq 1/2H$	b ≤ 10
$1/2H < H_b \leq H$	b ≤ 12
$H_b > H_d$	Prohibited



4. When outdoor units are installed one above another.