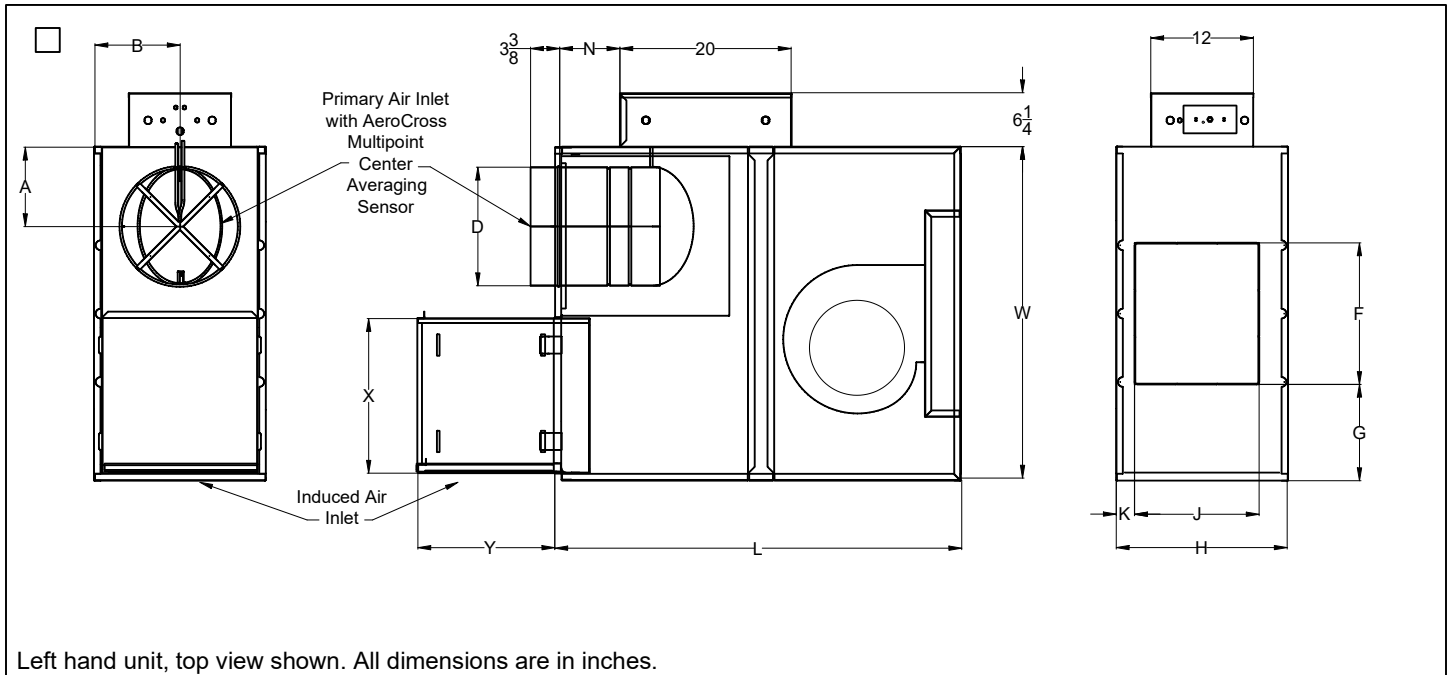


TFS-F Phantom IQ™

Ultra Quiet Fan Powered Terminal, Series Flow

Direct Digital, Analog Control (DTFS, ATFS), Pressure Independent



Unit Size	Inlet Size	A	B	X	Y	D	Induced Air Inlet		F	G	H	J	K	L	N	W	Filter Size
							Height	Width									
B	6	6	8	19	13 7/8	5 7/8	12 5/8	8 3/4	14	11 1/2	16	11	2 1/4	43	2 7/8	37	11 x 14
	8	6				7 7/8									2 7/8		
	10	7				9 7/8									4 7/8		
	12	8				11 7/8									4 7/8		
C	6	6	8	19	13 7/8	5 7/8	12 5/8	8 3/4	14	11 1/2	16	11	2 1/4	43	2 7/8	37	11 x 14
	8	6				7 7/8									2 7/8		
	10	7				9 7/8									4 7/8		
	12	8				11 7/8									4 7/8		
D	10	7	10	18 1/8	16 7/8	9 7/8	16 5/8	15 3/4	16 1/2	11 1/4	20	14 5/8	2	46 3/4	4 7/8	39	18 x 17
	12	8				11 7/8									4 7/8		
	14	10				13 7/8									6 7/8		
	16	11				15 7/8									6 7/8		
E	12	8	10	18 1/8	16 7/8	11 7/8	16 5/8	15 3/4	16 1/2	11 1/4	20	14 5/8	2	46 3/4	4 7/8	39	18 x 17
	14	10				13 7/8									6 7/8		
	16	11				15 7/8									6 7/8		

PSC Motor Amperage Ratings

Unit Size	Motor hp	120V/1/60 FLA	208/240V/1/60 FLA	277V/1/60 FLA
B	1/6	3.0	1.4	1.0
C	1/4	3.9	1.7	1.5
D	1/3	7.4	3.0	2.6
E	3/4	11.2	5.3	4.5

ECM Motor Amperage Ratings

Unit Size	Motor hp	120V/1/60 FLA	208V/1/60 FLA	277V/1/60 FLA
B	1/3	5.0	2.8	2.6
C	1/3	5.0	2.8	2.6
D	1/2	7.7	4.3	4.1
E	3/4	9.6	6.8	5.5

FLA = Full Load Amperage, as tested in accordance with UL 60335
 All fan motors are single phase, same voltage as electric coil (when supplied), with exception that 277V motors are used with 480V, 3 phase coils (4 wire wye).

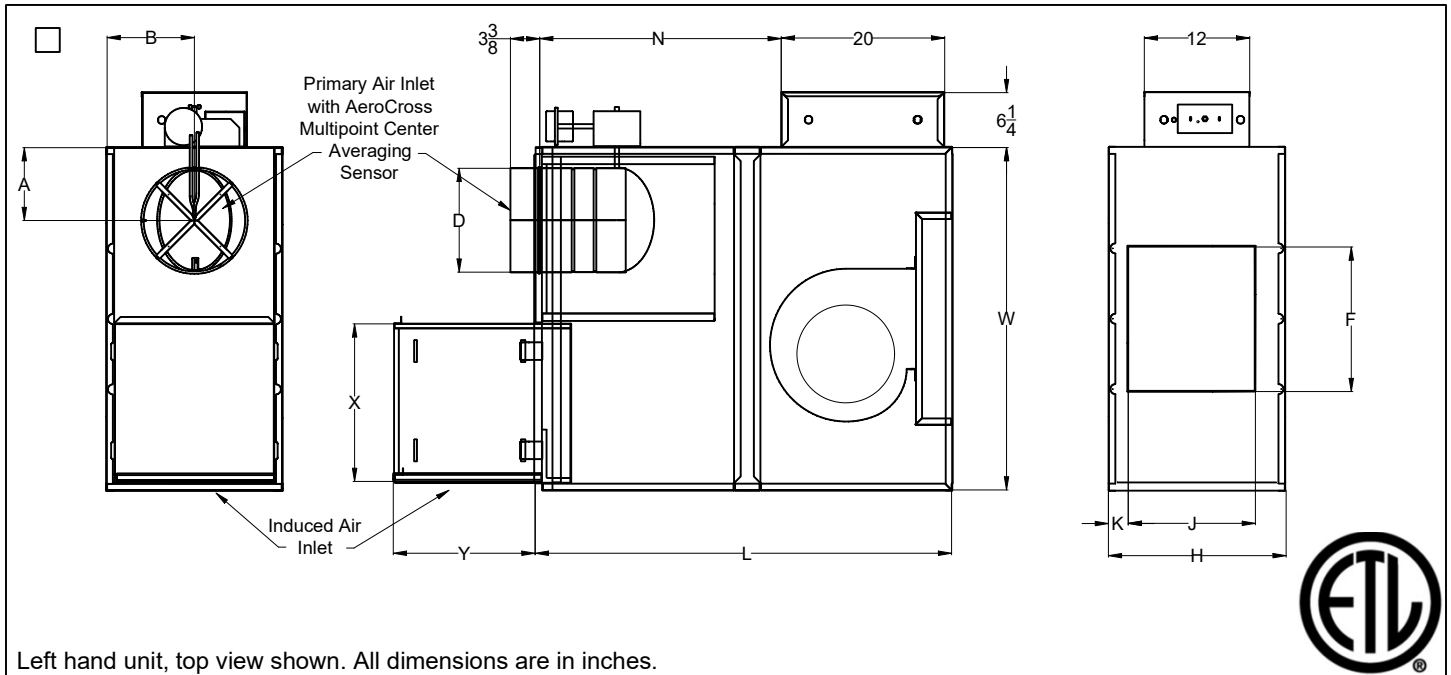
Accessories (Optional)

 Check ☒ if provided.

- | | |
|---|---|
| ☐ Induced Air Filter, 1" thick, disposable construction type. | ☐ 1" Fiberglass Liner |
| ☐ Fan disconnect switch (not available on units with optional electric coils.) | ☐ 1" EcoShield Liner |
| ☐ Fibre Free Liner | ☐ 1" EcoShield Liner (Foil Face) |
| ☐ SteriLoc Liner | ☐ 1" Fibre Free Liner |
| ☐ 1/2" EcoShield Liner | ☐ Hanger Brackets |
| ☐ 1/2" EcoShield Liner (Foil Face) | ☐ OSP & IBC Certification |
| ☐ 1/2" Fibre Free Liner | |
| ☐ Fan unit fusing | |
| ☐ Cam Latch for Access Door | |

TFS-F Phantom IQ™

Ultra Quiet Fan Powered Terminal, Series Flow
Pneumatic Control (PTFS), Pressure Independent



Unit Size	Inlet Size	A	B	X	Y	D	Induced Air Inlet		F	G	H	J	K	L	N	W	Filter Size
							Height	Width									
B	6	6	8	19	13 ⁷ / ₈	5 ⁷ / ₈	12 ⁵ / ₈	8 ³ / ₄	14	11 ¹ / ₂	16	11	2 ¹ / ₄	43	20 ¹ / ₈	37	11 x 14
	8	6				7 ⁷ / ₈											
	10	7				9 ⁷ / ₈											
	12	8				11 ⁷ / ₈											
C	6	6	8	19	13 ⁷ / ₈	5 ⁷ / ₈	12 ⁵ / ₈	8 ³ / ₄	14	11 ¹ / ₂	16	11	2 ¹ / ₄	43	20 ¹ / ₈	37	11 x 14
	8	6				7 ⁷ / ₈											
	10	7				9 ⁷ / ₈											
	12	8				11 ⁷ / ₈											
D	10	7	10	18 ¹ / ₈	16 ⁷ / ₈	9 ⁷ / ₈	16 ⁵ / ₈	15 ³ / ₄	16 ¹ / ₂	11 ¹ / ₄	20	14 ⁵ / ₈	2	46 ³ / ₄	26 ¹ / ₄	39	18 x 17
	12	8				11 ⁷ / ₈											
	14	10				13 ⁷ / ₈											
	16	11				15 ⁷ / ₈											
E	12	8	10	18 ¹ / ₈	16 ⁷ / ₈	11 ⁷ / ₈	16 ⁵ / ₈	15 ³ / ₄	16 ¹ / ₂	11 ¹ / ₄	20	14 ⁵ / ₈	2	46 ³ / ₄	26 ¹ / ₄	39	18 x 17
	14	10				13 ⁷ / ₈											
	16	11				15 ⁷ / ₈											
	16	11				15 ⁷ / ₈											

PSC Motor Amperage Ratings

Unit Size	Motor hp	120V/1/60 FLA	208/240V/1/60 FLA	277V/1/60 FLA
B	¹ / ₆	3.0	1.4	1.0
C	¹ / ₄	3.9	1.7	1.5
D	¹ / ₃	7.4	3.0	2.6
E	³ / ₄	11.2	5.3	4.5

ECM Motor Amperage Ratings

Unit Size	Motor hp	120V/1/60 FLA	208V/1/60 FLA	277V/1/60 FLA
B	¹ / ₃	5.0	2.8	2.6
C	¹ / ₃	5.0	2.8	2.6
D	¹ / ₂	7.7	4.3	4.1
E	³ / ₄	9.6	6.8	5.5

FLA = Full Load Amperage, as tested in accordance with UL 60335
All fan motors are single phase, same voltage as electric coil (when supplied), with exception that 277V motors are used with 480V, 3 phase coils (4 wire wye).

Accessories (Optional)

Check ☒ if provided.

- ☐ Induced Air Filter, 1" thick, disposable construction type.
- ☐ Fan disconnect switch (not available on units with optional electric coils.)
- ☐ Fibre Free Liner
- ☐ SteriLoc Liner
- ☐ ½" EcoShield Liner
- ☐ ½" EcoShield Liner (Foil Face)
- ☐ ½" Fibre Free Liner
- ☐ Fan unit fusing
- ☐ Cam Latch for Access Door
- ☐ 1" Fiberglass Liner
- ☐ 1" EcoShield Liner
- ☐ 1" EcoShield Liner (Foil Face)
- ☐ 1" Fibre Free Liner
- ☐ Hanger Brackets
- ☐ OSP & IBC Certification

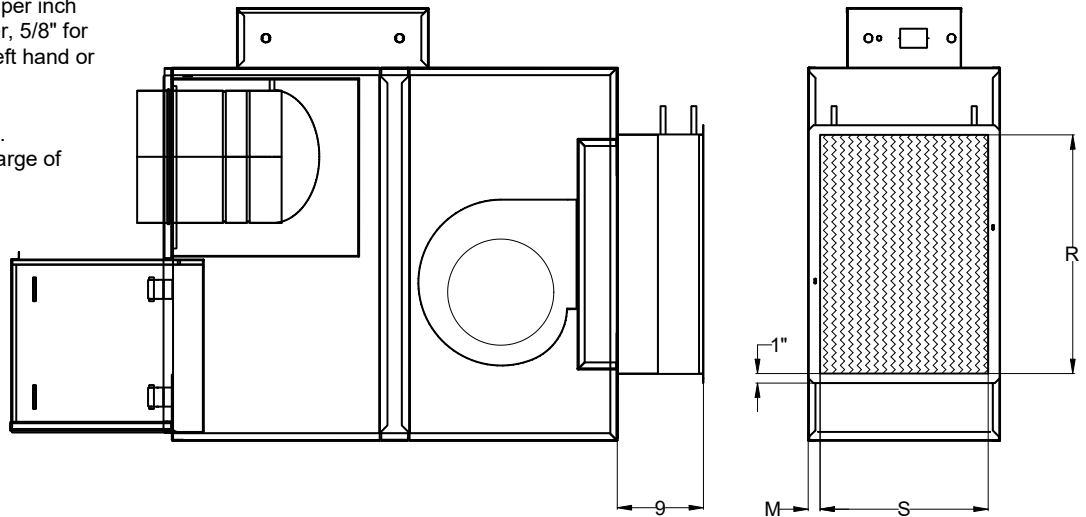
Accessories (Optional)

☐ Hot Water Coil Section

- 1/2" copper tubes
- Aluminum ripple fins, 10 per inch
- Connections: Male solder, 5/8" for both 1-row and 2-row. Left hand or right hand connections.
- Galvanized steel casing
- Flanged duct connection.
- Coil is installed on discharge of unit.

☐ 1 Row

☐ 2 Row



Unit Size	M (1 row)	M (2 row)	R	S
B,C	1	1	20 1/2	12 1/2
D,E	1	1 1/4	25	17 1/2

R and S are inside dimensions.

☐ Electric Coil Section

☐ Optional Lynergy Controlled Electric Heater

Standard Features

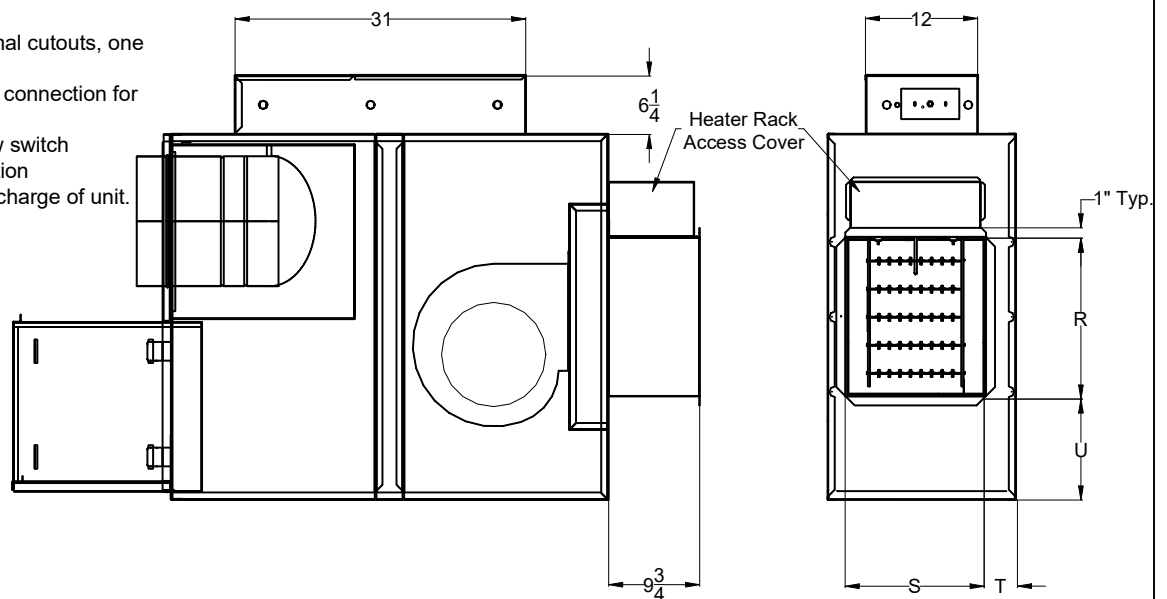
- Single side access to low voltage, high voltage, and electric heater controls.
- Automatic reset thermal cutouts, one per element
- Single point electrical connection for entire unit
- Positive pressure flow switch
- Flanged duct connection
- Coil is installed at discharge of unit.
- Transformer

Options

- ☐ Fuse Block
- ☐ Disconnect switch, door interlock type
- ☐ Manual reset cutout
- ☐ Dust tight construction
- ☐ Mercury contactors

Supply Voltage

- ☐ 208V, 1 ph, 60Hz
- ☐ 240V, 1 ph, 60Hz
- ☐ 277V, 1 ph, 60Hz
- ☐ 208V, 3 ph, 60Hz
- ☐ 480V, 3 ph, 60Hz (4 wire wye only)



Unit Size	U	R	S	T
B,C	11 3/8	14 1/2	11 1/2	2 3/8
D,E	11	17	15	3 1/8

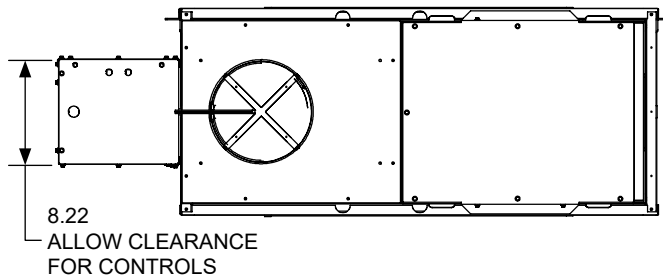
R and S are inside dimensions.

TFS-F, UNIT SIZE B&C

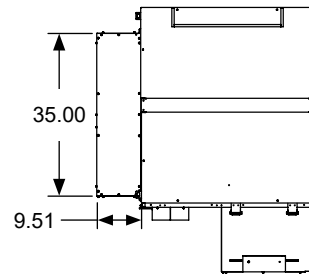
Accessories (Optional)

☐ Bottom Facing Enclosure

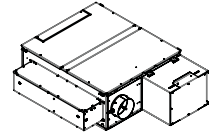
- Electrical enclosure door opens downward and is serviceable from underneath the unit.
- Direct NEC clearance requirement below the unit (towards floor)
- Enables easier placement during design and installation.
- Easier serviceability with hard ceiling installation and limited ceiling access panels



INLET VIEW

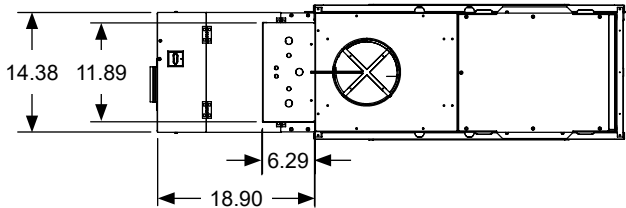


TOP VIEW

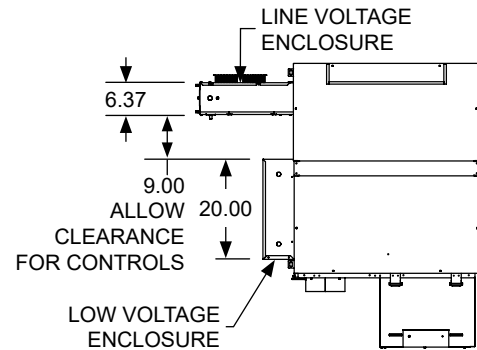


☐ 90° Facing Line Voltage Enclosure

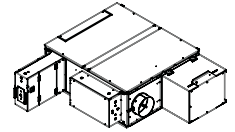
- Line voltage enclosure is mounted to direct NEC clearance requirement parallel to airflow
- Enables easier placement during design and installation



INLET VIEW

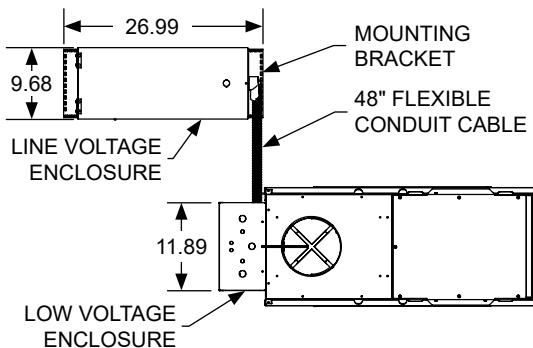


TOP VIEW

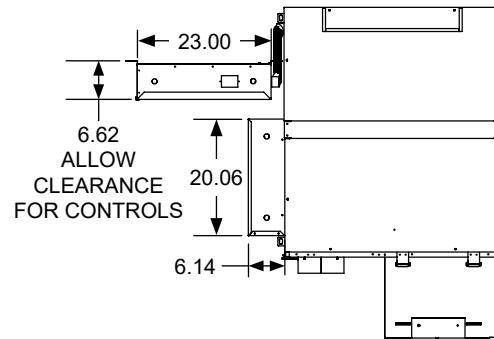


☐ Remote Mounted Line Voltage Enclosure

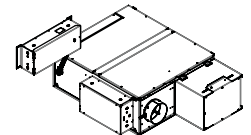
- Line voltage enclosure is tethered to the unit by 48" flexible conduit cable and is to be field mounted
- Provide flexibility for the installer to place the unit in tighter ceiling spaces while maintaining NEC clearance requirement for the line voltage enclosure



INLET VIEW



TOP VIEW



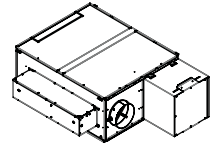
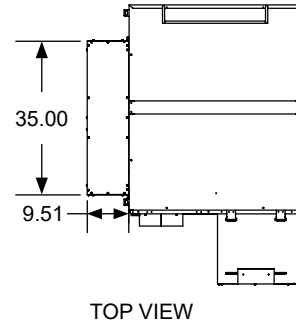
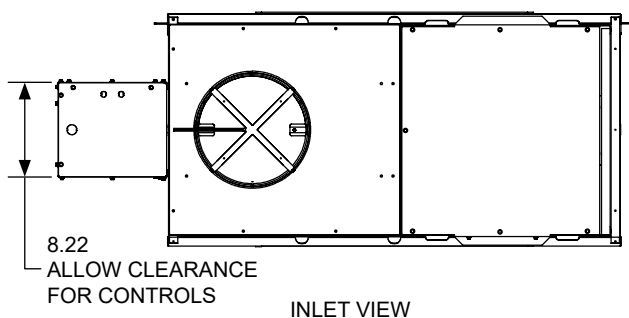
Note: Control enclosure options (90, RM, BF) are only available on sizes B,C,D,E.

TFS-F, UNIT SIZE D&E

Accessories (Optional)

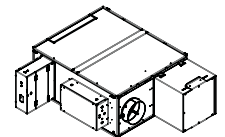
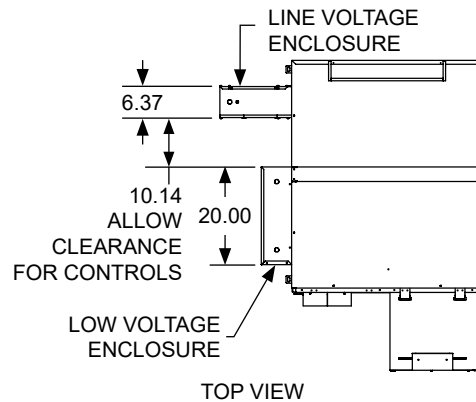
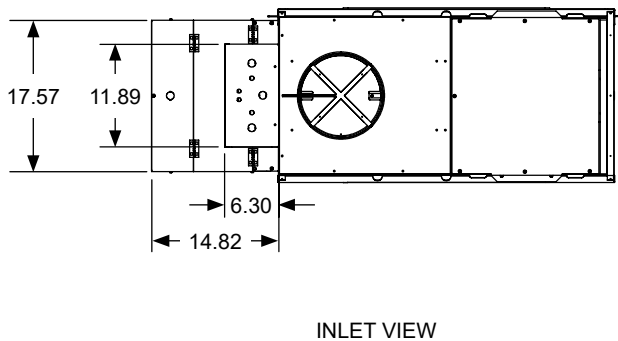
☐ Bottom Facing Enclosure

- Electrical enclosure door opens downward and is serviceable from underneath the unit.
- Direct NEC clearance requirement below the unit (towards floor)
- Enables easier placement during design and installation.
- Easier serviceability with hard ceiling installation and limited ceiling access panels



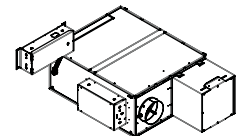
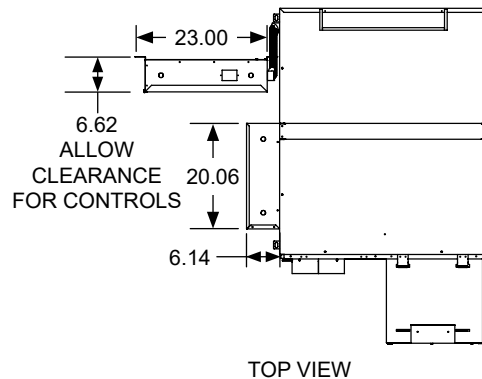
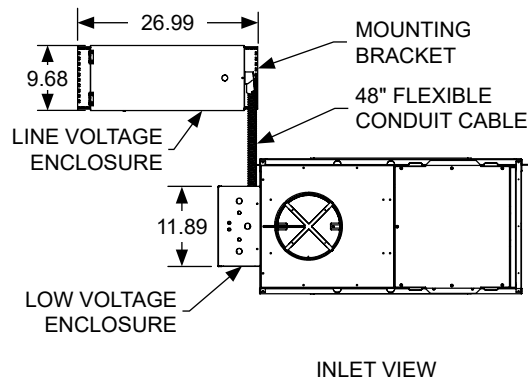
☐ 90° Facing Line Voltage Enclosure

- Line voltage enclosure is mounted to direct NEC clearance requirement parallel to airflow
- Enables easier placement during design and installation



☐ Remote Mounted Line Voltage Enclosure

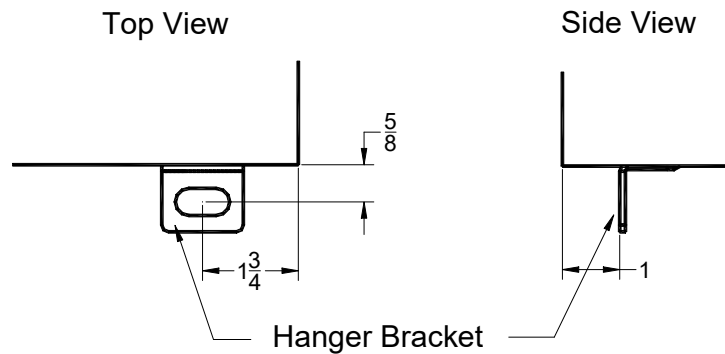
- Line voltage enclosure is tethered to the unit by 48" flexible conduit cable and is to be field mounted
- Provide flexibility for the installer to place the unit in tighter ceiling spaces while maintaining NEC clearance requirement for the line voltage enclosure



Note: Control enclosure options (90, RM, BF) are only available on sizes B,C,D,E.

Accessories (Optional)

Hanger Bracket Location



General Description

- Heavy steel casing, with leak resistant construction.
- Dual density insulation, coated to prevent air erosion, meet requirements of NFPA 90A and UL 181.
- Energy efficient fan motor, permanent split capacitor type, mounted in vibration isolators.
- ECM Only: Ultra high efficiency, brushless DC ECM motor with a unique microprocessor based motor controller, mounted in vibration isolators.
- ECM Only: Manual PWM controller allows simple screwdriver adjustment of fan speed.
- ECM Only: Optional remote PWM controller allows for a 0-10 V signal from the DDC controller to adjust the fan speed.
- ECM Only: Efficiencies of up to 70% across the entire operating range.
- PSC Only: Adjustable SCR fan speed control with minimum voltage stop.
- Patented FAST™ attenuator system that greatly reduces radiated sound power levels. The FAST™ attenuator ships assembled inside the casing, pulls out easily and snaps into place for operation.
- Top and bottom access panels can be removed for service.
- Multipoint, center averaging velocity sensor.
- Primary air flow balancing connections.
- Pressure independent primary flow control.
- Single point electrical connections.
- Rectangular discharge opening is designed for flanged duct connections.
- OSHPD Seismic Certification: OSP-0352-10
- Only Titus Alpha digital controls package approved for seismic installation.