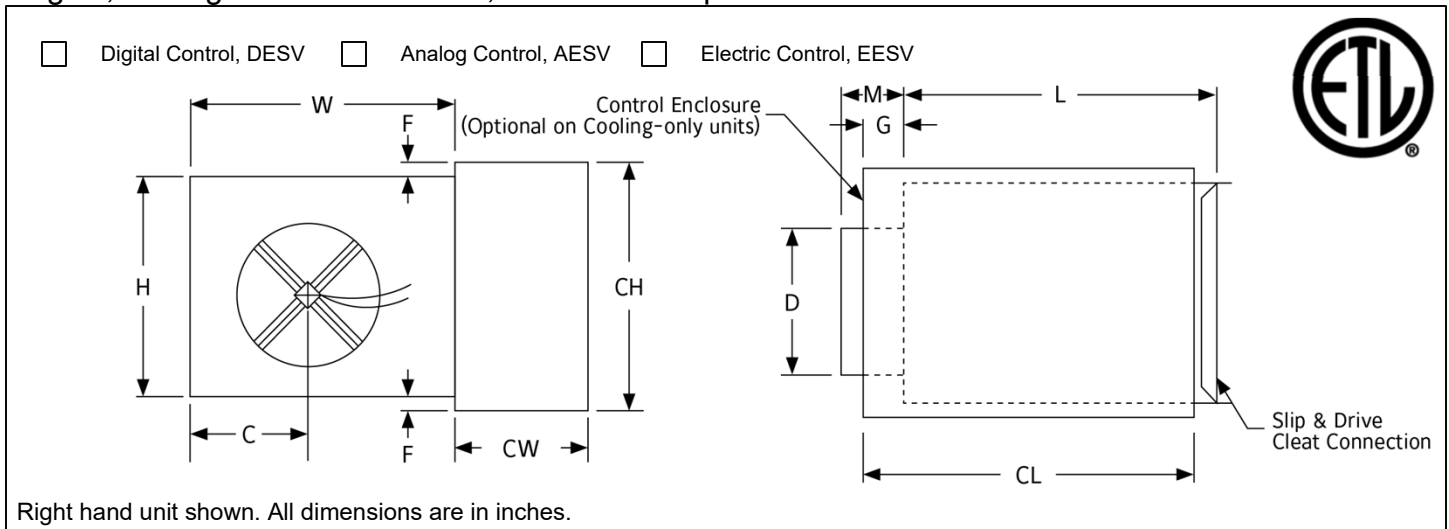


## ESV

Single Duct Terminal Unit

Digital, Analog or Electric Control, Pressure Independent



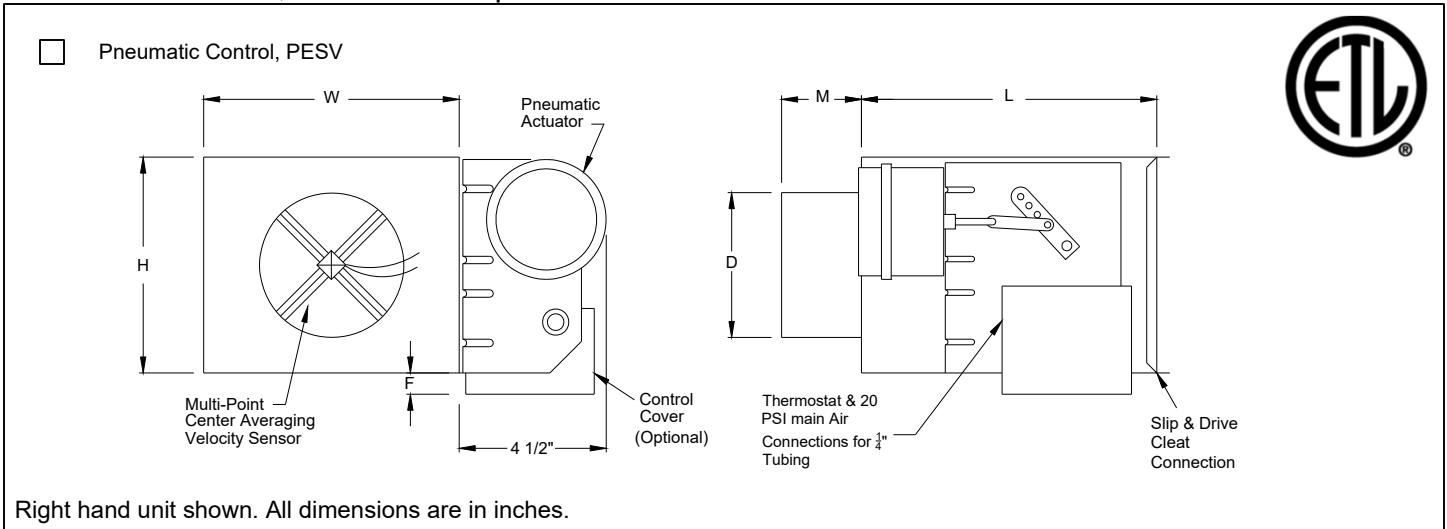
Size	CFM Range	D (H x W)	C	F	G	H	L	M	W	CH	CL	CW
4	0-225	3 <sup>7</sup> / <sub>8</sub>	6 <sup>1</sup> / <sub>2</sub>	2 <sup>1</sup> / <sub>8</sub>	7 <sup>3</sup> / <sub>8</sub>	8	15 <sup>1</sup> / <sub>2</sub>	5 <sup>3</sup> / <sub>8</sub>	12	12 <sup>1</sup> / <sub>4</sub>	18	6 <sup>1</sup> / <sub>2</sub>
5	0-350	4 <sup>7</sup> / <sub>8</sub>	6 <sup>1</sup> / <sub>2</sub>	2 <sup>1</sup> / <sub>8</sub>	7 <sup>3</sup> / <sub>8</sub>	8	15 <sup>1</sup> / <sub>2</sub>	5 <sup>3</sup> / <sub>8</sub>	12	12 <sup>1</sup> / <sub>4</sub>	18	6 <sup>1</sup> / <sub>2</sub>
6	0-500	5 <sup>7</sup> / <sub>8</sub>	6 <sup>1</sup> / <sub>2</sub>	2 <sup>1</sup> / <sub>8</sub>	7 <sup>3</sup> / <sub>8</sub>	8	15 <sup>1</sup> / <sub>2</sub>	3 <sup>3</sup> / <sub>8</sub>	12	12 <sup>1</sup> / <sub>4</sub>	18	6 <sup>1</sup> / <sub>2</sub>
7	0-650	6 <sup>7</sup> / <sub>8</sub>	6	1 <sup>1</sup> / <sub>8</sub>	7 <sup>3</sup> / <sub>8</sub>	10	15 <sup>1</sup> / <sub>2</sub>	3 <sup>3</sup> / <sub>8</sub>	12	12 <sup>1</sup> / <sub>4</sub>	18	6 <sup>1</sup> / <sub>2</sub>
8	0-900	7 <sup>7</sup> / <sub>8</sub>	6	1 <sup>1</sup> / <sub>8</sub>	7 <sup>3</sup> / <sub>8</sub>	10	15 <sup>1</sup> / <sub>2</sub>	3 <sup>3</sup> / <sub>8</sub>	12	12 <sup>1</sup> / <sub>4</sub>	18	6 <sup>1</sup> / <sub>2</sub>
9	0-1050	8 <sup>7</sup> / <sub>8</sub>	7	-	5 <sup>3</sup> / <sub>8</sub>	12 <sup>1</sup> / <sub>2</sub>	15 <sup>1</sup> / <sub>2</sub>	3 <sup>3</sup> / <sub>8</sub>	14	12 <sup>1</sup> / <sub>4</sub>	18	6 <sup>1</sup> / <sub>2</sub>
10	0-1400	9 <sup>7</sup> / <sub>8</sub>	7	-	5 <sup>3</sup> / <sub>8</sub>	12 <sup>1</sup> / <sub>2</sub>	15 <sup>1</sup> / <sub>2</sub>	3 <sup>3</sup> / <sub>8</sub>	14	12 <sup>1</sup> / <sub>4</sub>	18	6 <sup>1</sup> / <sub>2</sub>
12	0-2000	11 <sup>7</sup> / <sub>8</sub>	8	-	5 <sup>3</sup> / <sub>8</sub>	15	15 <sup>1</sup> / <sub>2</sub>	3 <sup>3</sup> / <sub>8</sub>	16	12 <sup>1</sup> / <sub>4</sub>	18	6 <sup>1</sup> / <sub>2</sub>
14	0-3000	13 <sup>7</sup> / <sub>8</sub>	10 <sup>1</sup> / <sub>2</sub>	-	3 <sup>3</sup> / <sub>8</sub>	17 <sup>1</sup> / <sub>2</sub>	15 <sup>1</sup> / <sub>2</sub>	3 <sup>3</sup> / <sub>8</sub>	20	12 <sup>1</sup> / <sub>4</sub>	18	6 <sup>1</sup> / <sub>2</sub>
16	0-4000	15 <sup>7</sup> / <sub>8</sub>	13 <sup>1</sup> / <sub>2</sub>	-	3 <sup>3</sup> / <sub>8</sub>	18	15 <sup>1</sup> / <sub>2</sub>	3 <sup>3</sup> / <sub>8</sub>	24	12 <sup>1</sup> / <sub>4</sub>	18	6 <sup>1</sup> / <sub>2</sub>
20	0-2000	7 <sup>1</sup> / <sub>2</sub> x 12 <sup>1</sup> / <sub>4</sub>	8	1 <sup>1</sup> / <sub>8</sub>	3	10	15 <sup>1</sup> / <sub>2</sub>	3 <sup>3</sup> / <sub>8</sub>	16	10 <sup>1</sup> / <sub>4</sub>	15 <sup>1</sup> / <sub>4</sub>	6 <sup>1</sup> / <sub>2</sub>
30	0-4000	7 <sup>1</sup> / <sub>2</sub> x 23 <sup>3</sup> / <sub>4</sub>	13 <sup>5</sup> / <sub>8</sub>	1 <sup>1</sup> / <sub>8</sub>	3	10	15 <sup>1</sup> / <sub>2</sub>	3 <sup>3</sup> / <sub>8</sub>	27 <sup>1</sup> / <sub>4</sub>	10 <sup>1</sup> / <sub>4</sub>	15 <sup>1</sup> / <sub>4</sub>	6 <sup>1</sup> / <sub>2</sub>
40	0-8000	15 <sup>7</sup> / <sub>8</sub> x 23 <sup>7</sup> / <sub>8</sub>	19	1 <sup>1</sup> / <sub>8</sub>	5 <sup>3</sup> / <sub>8</sub>	18	15	3 <sup>3</sup> / <sub>8</sub>	38	12 <sup>1</sup> / <sub>4</sub>	18	6 <sup>1</sup> / <sub>2</sub>
5E	0-350	4 <sup>7</sup> / <sub>8</sub>	6	2 <sup>1</sup> / <sub>8</sub>	7 <sup>3</sup> / <sub>8</sub>	10	15 <sup>1</sup> / <sub>2</sub>	3 <sup>3</sup> / <sub>8</sub>	12	12 <sup>1</sup> / <sub>4</sub>	18	6 <sup>1</sup> / <sub>2</sub>
6E	0-500	5 <sup>7</sup> / <sub>8</sub>	6	2 <sup>1</sup> / <sub>8</sub>	7 <sup>3</sup> / <sub>8</sub>	10	15 <sup>1</sup> / <sub>2</sub>	3 <sup>3</sup> / <sub>8</sub>	12	12 <sup>1</sup> / <sub>4</sub>	18	6 <sup>1</sup> / <sub>2</sub>
7E	0-650	6 <sup>7</sup> / <sub>8</sub>	7	1 <sup>1</sup> / <sub>8</sub>	5 <sup>3</sup> / <sub>8</sub>	12 <sup>1</sup> / <sub>2</sub>	15 <sup>1</sup> / <sub>2</sub>	3 <sup>3</sup> / <sub>8</sub>	14	12 <sup>1</sup> / <sub>4</sub>	18	6 <sup>1</sup> / <sub>2</sub>
8E	0-900	7 <sup>7</sup> / <sub>8</sub>	7	1 <sup>1</sup> / <sub>8</sub>	5 <sup>3</sup> / <sub>8</sub>	12 <sup>1</sup> / <sub>2</sub>	15 <sup>1</sup> / <sub>2</sub>	3 <sup>3</sup> / <sub>8</sub>	14	12 <sup>1</sup> / <sub>4</sub>	18	6 <sup>1</sup> / <sub>2</sub>
1E	0-1400	9 <sup>7</sup> / <sub>8</sub>	8	-	5 <sup>3</sup> / <sub>8</sub>	15	15 <sup>1</sup> / <sub>2</sub>	3 <sup>3</sup> / <sub>8</sub>	16	12 <sup>1</sup> / <sub>4</sub>	18	6 <sup>1</sup> / <sub>2</sub>
2E	0-2000	11 <sup>7</sup> / <sub>8</sub>	10	-	3 <sup>3</sup> / <sub>8</sub>	17 <sup>1</sup> / <sub>2</sub>	15 <sup>1</sup> / <sub>2</sub>	3 <sup>3</sup> / <sub>8</sub>	20	12 <sup>1</sup> / <sub>4</sub>	18	6 <sup>1</sup> / <sub>2</sub>
4E	0-3000	13 <sup>7</sup> / <sub>8</sub>	12	-	3 <sup>3</sup> / <sub>8</sub>	18	15 <sup>1</sup> / <sub>2</sub>	3 <sup>3</sup> / <sub>8</sub>	24	12 <sup>1</sup> / <sub>4</sub>	18	6 <sup>1</sup> / <sub>2</sub>

This submittal is meant to demonstrate general dimensions of this product. The drawings are not meant to detail every aspect of the product. Drawings are not to scale. Titus reserves the right to make changes without written notice.

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## ESV

Single Duct Terminal Unit  
Pneumatic Control, Pressure Independent



Size	CFM Range	D (H x W)	F	H	L	M	W
4	0-225	3 <sup>7</sup> / <sub>8</sub>	2 <sup>1</sup> / <sub>8</sub>	8	15 <sup>1</sup> / <sub>2</sub>	5 <sup>3</sup> / <sub>8</sub>	12
5	0-350	4 <sup>7</sup> / <sub>8</sub>	2 <sup>1</sup> / <sub>8</sub>	8	15 <sup>1</sup> / <sub>2</sub>	5 <sup>3</sup> / <sub>8</sub>	12
6	0-500	5 <sup>7</sup> / <sub>8</sub>	2 <sup>1</sup> / <sub>8</sub>	8	15 <sup>1</sup> / <sub>2</sub>	3 <sup>3</sup> / <sub>8</sub>	12
7	0-650	6 <sup>7</sup> / <sub>8</sub>	1 <sup>1</sup> / <sub>8</sub>	10	15 <sup>1</sup> / <sub>2</sub>	3 <sup>3</sup> / <sub>8</sub>	12
8	0-900	7 <sup>7</sup> / <sub>8</sub>	1 <sup>1</sup> / <sub>8</sub>	10	15 <sup>1</sup> / <sub>2</sub>	3 <sup>3</sup> / <sub>8</sub>	12
9	0-1050	8 <sup>7</sup> / <sub>8</sub>	-	12 <sup>1</sup> / <sub>2</sub>	15 <sup>1</sup> / <sub>2</sub>	3 <sup>3</sup> / <sub>8</sub>	14
10	0-1400	9 <sup>7</sup> / <sub>8</sub>	-	12 <sup>1</sup> / <sub>2</sub>	15 <sup>1</sup> / <sub>2</sub>	3 <sup>3</sup> / <sub>8</sub>	14
12	0-2000	11 <sup>7</sup> / <sub>8</sub>	-	15	15 <sup>1</sup> / <sub>2</sub>	3 <sup>3</sup> / <sub>8</sub>	16
14	0-3000	13 <sup>7</sup> / <sub>8</sub>	-	17 <sup>1</sup> / <sub>2</sub>	15 <sup>1</sup> / <sub>2</sub>	3 <sup>3</sup> / <sub>8</sub>	20
16	0-4000	15 <sup>7</sup> / <sub>8</sub>	-	18	15 <sup>1</sup> / <sub>2</sub>	3 <sup>3</sup> / <sub>8</sub>	24
20	0-1800	7 <sup>1</sup> / <sub>2</sub> x 12 <sup>1</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>8</sub>	10	15 <sup>1</sup> / <sub>2</sub>	3 <sup>3</sup> / <sub>8</sub>	16
30	0-4000	7 <sup>1</sup> / <sub>2</sub> x 23 <sup>3</sup> / <sub>4</sub>	<sup>1</sup> / <sub>4</sub>	10	15 <sup>1</sup> / <sub>2</sub>	3 <sup>3</sup> / <sub>8</sub>	27 <sup>1</sup> / <sub>4</sub>
40	0-8000	23 <sup>7</sup> / <sub>8</sub> x 15 <sup>7</sup> / <sub>8</sub>	1 <sup>1</sup> / <sub>8</sub>	18	15	3 <sup>3</sup> / <sub>8</sub>	38

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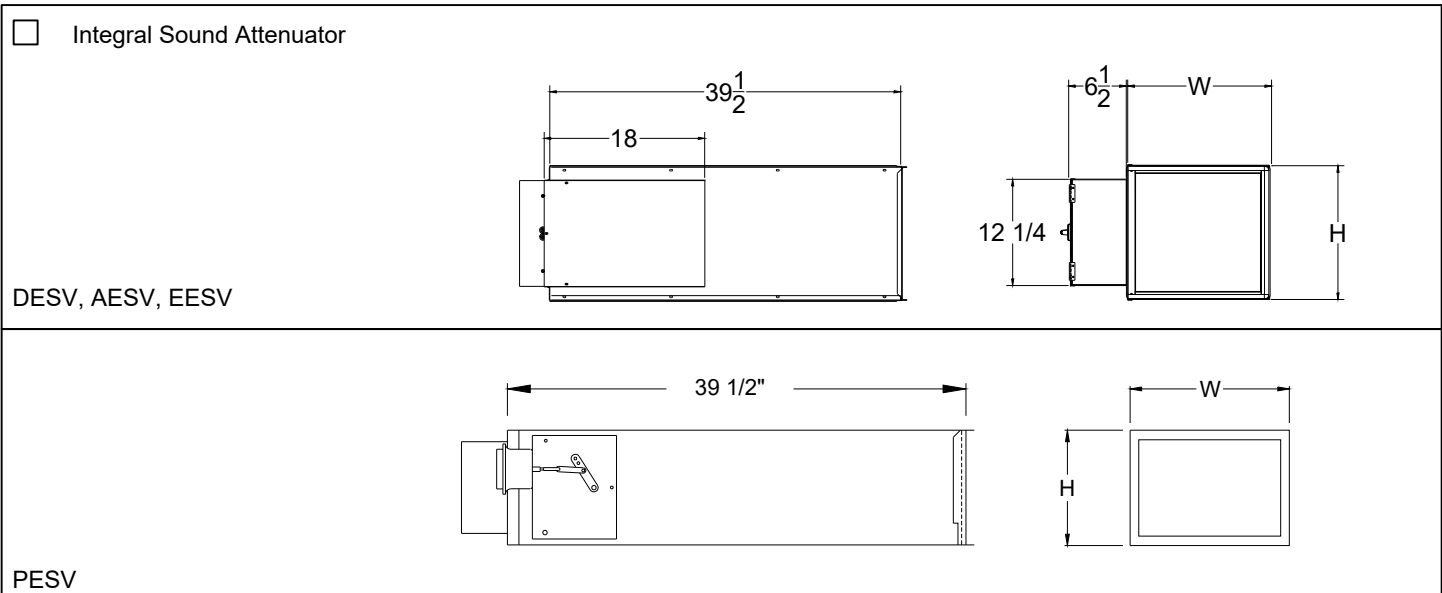
## General Description

- Heavy gauge steel housing. Mechanically sealed and gasketed, leak resistant construction. Less than 2% of nominal cfm at 1.5" sp wg.
- Dual density internal insulation, treated to resist air erosion.
- Meets requirements of NFPA 90A and UL 181.
- Units equipped with the Titus II velocity controller can either be direct acting or reverse acting, with the damper either normally open or normally closed. Controller maintains constant span and start point. (Span and start point are adjustable.)
- Rectangular discharge opening is designed for slip and drive cleat duct connection.
- Multipoint center averaging inlet velocity sensor.
- Control packages can be factory mounted by Titus.
- Choice of right hand or left hand control location.
- Units equipped with the Titus I velocity controller are available in both direct acting / normally open and reverse acting / normally closed operating modes.
- Model DESV without coils can be installed horizontally, vertically, or at any angle. Operation is not affected by position. For units with coils, consult technical support.
- Gauge tees for cfm measurement.
- OSHPD Seismic Certification: OSP-0352-10
- Only Titus Alpha digital and pneumatic controls approved for seismic installation.

## Accessories (Optional)

Check  if provided.

- |  |  |   |  |
|--|--|---|--|
| <input type="checkbox"/> 24 V Control Transformer  | <input type="checkbox"/> 1" Fiberglass Liner           | <input type="checkbox"/> UltraLoc Liner                 | <input type="checkbox"/> Removable Air Flow Sensor             |
| <input type="checkbox"/> Dust Tight Enclosure Seal | <input type="checkbox"/> 1" EcoShield Liner            | <input type="checkbox"/> ½" EcoShield Liner (Foil Face) | <input type="checkbox"/> Bottom Access Door                    |
| <input type="checkbox"/> Fibre Free Liner          | <input type="checkbox"/> 1" Fibre Free Liner           | <input type="checkbox"/> 1" EcoShield Liner (Foil Face) | <input type="checkbox"/> OSP & IBC -S Seismic Certification    |
| <input type="checkbox"/> ½" EcoShield Liner        | <input type="checkbox"/> Low Leakage Seal/Test/Certify | <input type="checkbox"/> Disconnect Switch              | <input type="checkbox"/> Red List Compliant "Google" Gasketing |
| <input type="checkbox"/> ½" Fibre Free Liner       | <input type="checkbox"/> SteriLoc Liner                | <input type="checkbox"/> Hanger Brackets                | <input type="checkbox"/> Stainless Steel Construction          |
|  |  |   | <input type="checkbox"/> _____                                 |



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## Accessories (Optional)

Hot Water Coil Section

- Aluminum ripple fins, 10 per inch
- Coil pipe connections are male, sweat, type "L" copper. Connection sizes on unit sizes 04-08 are 1/2" OD for 1 row coil and 5/8" on 2 row coils. All other coils have 7/8" OD.
- Coil is installed at discharge of unit.
- On units with attenuators, coil are installed at the discharge of attenuator.
- Coils rated and certified to AHRI Standard 410

1 Row  
 2 Row  
 3 Row  
 4 Row

Electric Coil Section     
  Optional SCR Controlled Electric Heater     
  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
- Manual reset secondary protection.
- Positive pressure flow switch
- Magnetic contactor for each step.
- Slip and drive cleat discharge duct connection.

**Options**

- Fuse Block
- Disconnect switch, door interlock type
- Dust tight construction

**Supply Voltage**

- 120V, 1 ph, 60Hz
- 208V, 1 ph, 60Hz
- 240V, 1 ph, 60Hz
- 277V, 1 ph, 60Hz
- 208V, 3 ph, 60Hz
- 480V, 3 ph, 60Hz (4 wire wye standard)

DES, AESV, EESV

PESV

Size	H	W	Water Coil	
			L (1-2 Row)	L (3-4 Row)
4	8	12	5	7 1/4
5	8	12	5	7 1/4
6	8	12	5	7 1/4
7	10	12	5	7 1/4
8	10	12	5	7 1/4
9	12 1/2	14	5	7 1/4
10	12 1/2	14	5	7 1/4
12	15	16	5	7 1/4
14	17 1/2	20	7 1/2	9 3/4
16	18	24	7 1/2	9 3/4
20	10	16	5	7 1/4
30	10	27 1/4	5	7 1/4
40	18	38	5	7 1/4

The total length of the ESV unit is the summation of the unit length (with or without attenuator) and the length of the optional water coil.

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