FAN POWERED TERMINAL UNIT WITH ECM MOTOR

PARALLEL FLOW • VARIABLE VOLUME

MODELS: 35N, 35NW AND 35NE • UNIT SIZES 2 – 6

DESCRIPTION:

• 20 ga. (1.00) galvanized steel construction.

• Round laminated 2 x 20 ga. (1.00) butterfly damper with peripheral gasket. 90° rotation. CCW to open.

• Backdraft damper mounted on fan discharge.

• Multi-point averaging Diamond Flow sensor. Supplied with balancing tees.

• Bottom access panels.

• Ultra-high efficiency ECM fan motor with overload protection. EPIC fan volume controller.

• Solid state fan speed controller with minimum voltage stop.

• 3/4" (19) dual density insulation, exposed edges coated to prevent air erosion, meets requirements of NFPA 90A and UL 181.

• Single point electrical and /or pneumatic main air connection.

• Discharge opening for flanged duct connection.

• Full primary air valve low voltage NEMA 1 type enclosure for factory mounted DDC and analog electronic controls.

• Controls mounted as standard on RH side as shown (Right Hand unit). Terminals ordered with LH controls (optional) are built as mirror image (Left Hand unit). Inlets and discharge are opposite of dwg.

OPTIONS:

Digital Controls:

❑ Factory mounted (supplied by others)

❑ Field mounted (supplied by others)

❑ Nailor EZvav. See separate submittal.

Liner:

❑ Steri-liner

❑ Steri-liner + Perforated metal

❑ Fiber-free

❑ Perforated metal

❑ Solid metal

❑ 1" (25) fiberglass

Other:

❑ Left-hand controls location

❑ Toggle disconnect switch

❑ Fan unit fusing

❑ 24/24V Isolation transformer

❑ Cross Flow Sensor

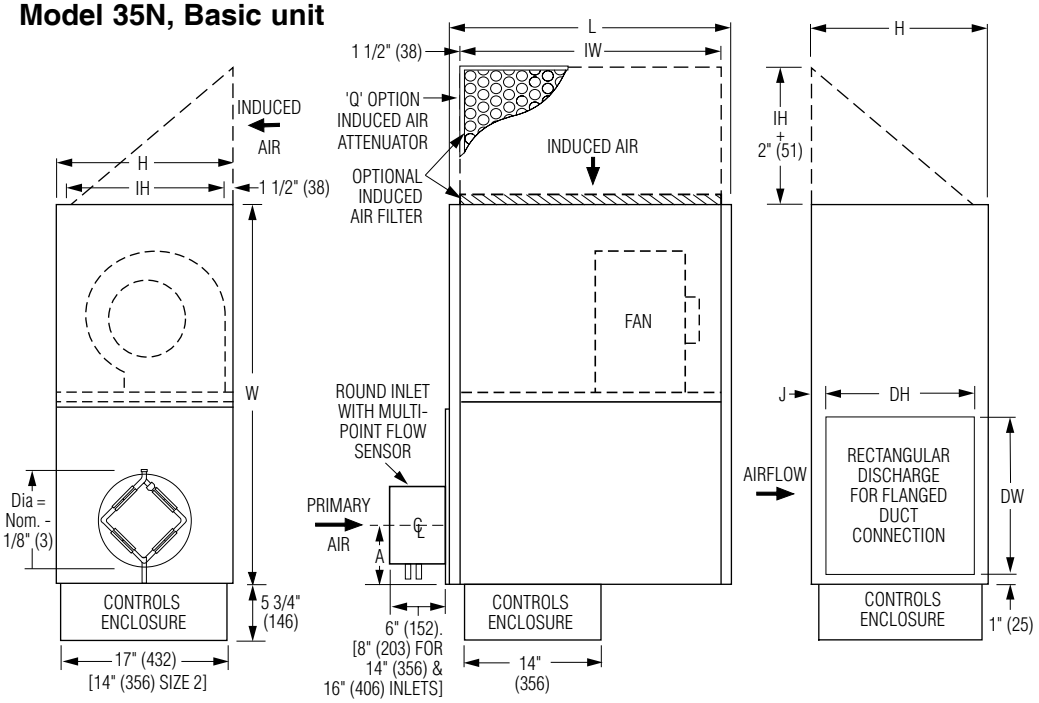
❑ 'Q' Option – Induced Air Inlet Attenuator (Top entry. Important: 6" (152) clearance required above unit).

❑ 1" (25) Throwaway filter

❑ 2" (51) MERV 8 filter

❑ Hanger brackets.

Model 35N, Basic unit



Dimensional Data

Unit Size	Inlet Size	W	H	L	J	Induced Air Inlet IW x IH	Outlet Discharge DW x DH	Filter Size
2	6, 8, 10, 12 (152, 203, 254, 305)	34 3/4 (883)	14 (356)	27 9/16 (700)	1 (25)	24 9/16 x 10 3/4 (624 x 273)	16 x 12 (406 x 305)	26 x 13 (660 x 330)
3	8, 10, 12, 14 (203, 254, 305, 356)	38 1/4 (972)	18 (457)	28 9/16 (725)	1 1/2 (38)	25 9/16 x 14 3/4 (649 x 375)	16 x 15 (406 x 381)	27 x 17 (686 x 432)
5	10, 12, 14 (254, 305, 356)	45 5/8 (1159)	18 (457)	34 1/2 (876)	1 1/2 (38)	31 1/2 x 14 3/4 (800 x 375)	24 x 15 (610 x 381)	33 x 17 (838 x 432)
6	12, 14, 16 (305, 356, 406)	50 3/4 (1289	20 (508)	36 (914)	1 1/4 (32)	33 x 16 3/4 (838 x 426)	28 x 17 1/2 (711 x 445)	35 x 19 (889 x 483)

Electrical Data

Unit Size	Motor H. P.	EPIC ECM Motor FLA†			
		120V	208V	240V	277V
2	*	3.9	2.2	2.2	1.8
3	*	6.9	3.9	3.9	3.5
5	*	11.9	6.8	6.8	6.1
6	*	13.7	7.9	7.9	6.7

* The ECM is a variable horsepower motor. Refer to Selectworks Schedule.

FLA = Full load amperage

† EON motor series

Inlet Size	Dim. A
6	5 (127)
8	6 (152)
10	7 (178)
12	8 (203)
14	9 (229)
16	10 (254)

❑ 1/4-turn fasteners (access panel)

❑ Duct tight enclosure seal

❑ Manual reset secondary outlet

Seismic Certification:

❑ Seismic Source International (Standard)

❑ HCAI (formerly OSHPD, California)

❑ Special Features: _____ .

SSI Listed

ETL LISTED c US Intertek

AHRI CERTIFIED™ www.ahridirectory.org VAV Terminals AHRI Standard 880

For heat options; see page 2.

Dimensions are in inches (mm).

SCHEDULE TYPE:				
PROJECT:				
ENGINEER:	DATE	B SERIES	SUPERSEDES	DRAWING NO.
CONTRACTOR:	11 - 20 - 26	3500	9 - 25 - 25	35N-3A

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Nailor® Industries Inc.

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PARALLEL FLOW • VARIABLE VOLUME
HEAT ACCESSORIES
MODELS: 35NW AND 35NE • UNIT SIZES 2 – 6

❑ Hot Water Coil Section Model 35NW

Standard Features:

- Coil are mounted on unit discharge.
- 1/2" (13) copper tubes.
- Aluminum ripple fins.
- Sweat Connections: Size 2 and 3 one row, 1/2" (13) O.D. male solder. All others 7/8" (22) O.D. male solder.
- Bottom access panel for inspection and coil cleaning.
- Discharge opening for slip and drive connection.

Coil Rows:

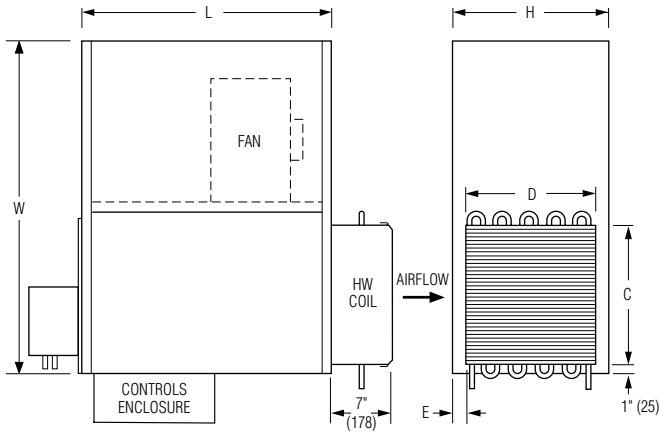
❑ 1-Row ❑ 2-Row ❑ 3-Row

Coil Hand Connections:

(Looking in direction of airflow).

❑ Right hand (illustrated). Standard.

❑ Left hand (terminals are inverted / built as mirror image). Optional. Connections must be selected same hand as controls enclosure location.



Unit Size	Outlet Duct Size C x D	W	H	L	E
2	16 x 12 1/2 (406 x 318)	34 3/4 (883)	14 (356)	27 9/16 (700)	3/4 (19)
3	16 x 15 (406 x 381)	38 1/4 (972)	18 (457)	28 9/16 (725)	1 1/2 (38)
5	24 x 15 (610 x 381)	45 5/8 (1159)	18 (457)	34 1/2 (876)	1 1/2 (38)
6	28 x 17 1/2 (711 x 445)	50 3/4 (1289)	20 (508)	36 (914)	1 1/4 (32)

❑ Electric Coil Section Model 35NE

Standard Features:

- Coil installed on unit discharge.
- Insulated coil element wrapper.
- Magnetic contactors.
- Automatic reset high limit cut-outs (one per element).
- Single point electrical connection for entire terminal unit.
- Fan interlock relay.
- Flanged outlet duct connection.
- Class A 80/20 Ni/Cr wire.
- Controls mounted as standard on RH side as shown. Terminals ordered with LH controls (optional) are built as mirror image.

Voltage:

Single phase, 60 Hz.

❑ 120V ❑ 208V ❑ 240V ❑ 277V

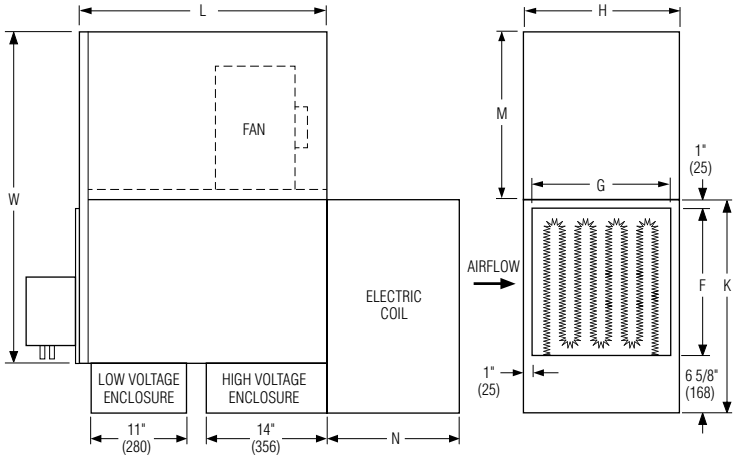
Three phase, 60 Hz.

❑ 208V ❑ 480V (4 wire wye).

❑ 600V (dual point connection). ❑ _____ .

Options:

❑ Airflow safety switch
❑ Toggle disconnect switch (includes fan)
❑ Door interlock disconnect switch
❑ SCR control
❑ SCR conrol with discharge temperature control
❑ Main line fusing
❑ Dust tight construction
❑ Manual reset secondary thermal cut out.



Unit Size	Outlet Duct Size F x G	K	H	M	N
2	17 x 12 (432 x 305)	24 5/8 (626)	14 (356)	15 7/8 (403)	12 1/2 (318)
3	17 x 16 (432 x 406)	24 5/8 (626)	18 (457)	19 3/8 (492)	15 1/4 (387)
5	25 x 16 (635 x 406)	32 5/8 (829)	18 (457)	18 3/4 (476)	15 1/4 (387)
6	29 x 18 (737 x 457)	36 5/8 (930)	20 (508)	19 7/8 (505)	15 1/4 (387)

SCHEDULE TYPE:	Page 2 of 2. Dimensions are in inches (mm).			
PROJECT:				
ENGINEER:	**DATE**	**B SERIES**	**SUPERSEDES**	**DRAWING NO.**
CONTRACTOR:	**11 - 20 - 26**	**3500**	**9 - 25 - 25**	**35N-3A**

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