

# FAN POWERED CHILLED WATER TERMINAL UNIT CONSTANT VOLUME • SENSIBLE COOLING (DOAS) MODELS: 33SZ, 33SZE AND 33SZW UNIT SIZE 30 (LOW PROFILE)

### **DESCRIPTION:**

• Sensible cooling coil on the induced air inlet handles zone sensible load. Opposite side to controls location. Aluminum ripple fins (10 FPI) and 1/2" (13) copper tubes. Hand of coil connection is determined looking in direction of airflow (RH shown).

• 20 ga. (1.0) galvanized steel construction.

 16 ga. (1.6) galvanized steel inclined opposed blade damper.
 45° rotation. CW to close. Size 30 only.

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

• 1/2" (13) dual density fiberglass installation, exposed edge coated to prevent air erosion. Meets requirements of NFPA 90A and UL 181.

· Access panels top and bottom.

• Multi-point averaging diamond flow sensor.

• Discharge opening for flanged duct connection.

· Single point electrical connection.

• Low voltage enclosure for factory mounted DDC controls.

• Controls mounted as standard on RH side as shown. Unit size 30 ordered with LH controls (optional) is inverted and discharge duct hanging elevation will therefore change.

Galvanized steel drip pan integral to sensible coil.

#### OPTIONS: cw coil:

- $\square$  2-Row  $\square$  4-Row  $\square$  6-Row
- Left Hand coil connections.

Condensate Sensor.

# LINER:

- Fiber-free liner.
- Perforated metal liner.

Solid metal liner.

Steri-liner.

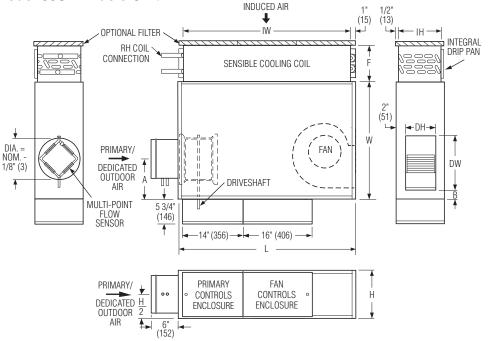
- Steri-liner w/perforated liner. **FILTERS**:
- 1" (25) Throwaway.

SCHEDULE TYPE:

- 2" (51) Pleated MERV 8.
- 2" (51) Pleated MERV 13.

Ducted Return Filter Rack (See submittal 33SZ-FR).

# Model 33SZ • Basic Unit



# **Dimensional Data**

Unit Size		w	н	L	A	в	Cooling Coil IW x IH	F	Outlet Discharge DW x DH	Filter Size
30	5, 6, 8 (127, 152, 203)	26½ (673)	11 (279)	40¼ (1022)	7 (178)	2 (51)	36 X 8¾ (914 X 222)	2 Row: 5 ¼ (130) 4 Row: 7 ½ (186) 6 Row: 9 ½ (241)	12 ¾ X 6 ¼ (314 X 175)	38 X 10 (965 X 254)

### **Electrical Motor Data**

	Motor		ECM		
Size	H. P.	120/1/60	208/1/60	240/1/60	277/1/60
30	*	7.5	5.0	5.0	4.9

\* The ECM is a variable horsepower motor.

Refer to Selectworks Schedule. FLA = Full load amperage

#### ELECTRICAL:

- LH Controls enclosure
- □ Toggle disconnect switch.
- □ FN2 90° line voltage enclosure.
- □ FN3 Remote line voltage enclosure.
- Motor fusing.

## OTHERS:

Hanger brackets.

# CW Coil O.D. Sweat Connections

Unit	
Size	2, 4, & 6
30	7/8" (22)



Page 1 of 2. For heat options; see page 2. Dimensions are in inches (mm).

PROJECT:	Dii	mensions are	e in inches (m	ım).
ENGINEER:	DATE	<b>B SERIES</b>	SUPERSEDES	DRAWING NO.
CONTRACTOR:	8 - 19 - 15	3300	12 - 3 - 14	33SZ-1

Nailor Industries Inc. reserves the right to change any information concerning product or pricing without notice.



# FAN POWERED CHILLED WATER TERMINAL UNIT CONSTANT VOLUME • SENSIBLE COOLING (DOAS) MODELS: 33SZE AND 33SZW UNIT SIZE 30 (LOW PROFILE)

## Hot Water Coil Section Model 33SZW

### **Standard Features:**

- Coil section installed on unit discharge.
- 1/2" (13) copper tubes.
- Aluminum ripple fins (10 FPI).
  Sweat Connections: One row: 1/2" (13) O.D. male solder. Two row: 5/8" (16) O.D. male solder.
- · Flanged outlet duct connection.

#### **Coil Rows:**

#### □ 1-Row □ 2-Row

# **Coil Hand Connections:**

(Looking in direction of airflow).

- Right Hand (illustrated). Standard.
- Left Hand. Optional.

Heating coil, sensible coil and controls enclosure orientation must all be specified separately.

# Electric Coil Section Model 33SZE

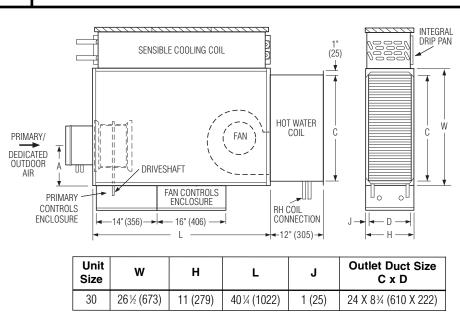
### Standard Features:

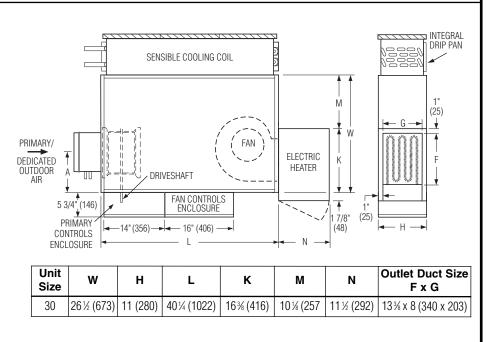
- Unique hinged heater design permits easy access, removal and replacement of heater element without disturbing ductwork.
- · Coil installed on unit discharge.
- Insulated coil element wrapper.
- Automatic reset high limit cut-outs (one per element).
- Single point electrical connection for entire terminal unit.
- · Electronic Fan Interlock Relay.
- · Flanged outlet duct connection.
- Controls mounted as standard on RH side as shown. Terminals ordered with L.H. controls (optional) are inverted.

#### Voltage:

Single phase, 60 Hz. □ 120V □ 208V □ 240V □ 277V Three phase, 60 Hz. □ 208V □ 480V (4 wire wye). □ 600V (dual point connection).

SCHEDULE TYPE:





# **Electric Coil Options:**

- □ SCR control (0–10 VDC).
- 🖵 4–20ma
- with discharge temperature control.
- □ Toggle disconnect (includes fan).
- Door interlock disconnect switch.
- Quiet contactors.

- Main line fusing.
- Class 'A' 80/20 Ni./Ch. wire.
- Dust tight construction.
- Manual Reset secondary thermal cut out.
- Desitive Pressure airflow switch.

## Page 2 of 2.

Dimensions are in inches (mm).

PROJECT:	51			
ENGINEER:	DATE	<b>B SERIES</b>	SUPERSEDES	DRAWING NO
CONTRACTOR:	8 - 19 - 15	3300	12 - 3 - 14	33SZ-1



# FAN POWERED CHILLED WATER TERMINAL UNIT CONSTANT VOLUME • SENSIBLE COOLING (DOAS) MODELS: 33SZ, 33SZE AND 33SZW UNIT SIZES: 40 AND 50

### **DESCRIPTION:**

· Sensible cooling coil on the induced air inlet handles zone sensible load. Opposite side to controls location. Aluminum ripple fins (10 FPI) and 1/2" (13) copper tubes. Hand of coil connection is determined looking in direction of airflow (RH shown).

• 16 ga. (1.6) galvanized steel channel frame with 20 ga. (1.0) casing components.

• 16 ga. (1.6) galvanized steel inclined opposed blade damper. 45° rotation. CW to close.

· Ultra-high efficiency ECM, fan motor. EPIC fan volume controller.

• 3/4" (19) dual density fiberglass installation, exposed edge coated to prevent air erosion. Meets requirements of NFPA 90A and UL 181.

· Access panels top and bottom.

· Multi-point averaging diamond flow sensor.

· Discharge opening for flanged duct connection.

• Sinale point electrical connection.

· Low voltage enclosure for factory mounted DDC controls.

· Controls mounted as standard on RH side as shown. Terminals ordered with LH controls (optional) are inverted and hanging discharge duct elevation will therefore change. Galvanized steel drip pan

integral to sensible coil. • Filter Frame and 1" (25)

disposable filter.

#### **OPTIONS:** CW COIL:

□ 2-Row □ 4-Row □ 6-Row Left Hand coil connections. Condensate sensor. LINER: Given Fiber-free liner. Perforated metal liner. Solid metal liner. Steri-liner.

Steri-liner w/perforated liner.

FILTERS:

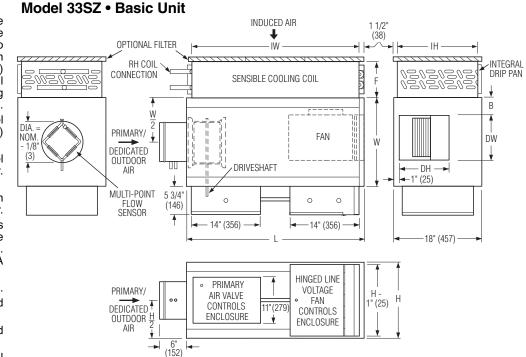
- □ 1" (25) Throwaway.
- 2" (51) Pleated MERV 8.

2" (51) Pleated MERV 13.

(See submittal 33SZ-FR).

#### SCHEDULE TYPE:

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PR	O.I	FC	Т
	00	EC	••



# **Dimensional Data**

Unit Size		w	Н	L	в	Cooling Coil IW x IH	F	Outlet Discharge DW x DH	Filter Size
40	4, 5, 6, 8, 10 (102, 127, 152, 203, 254)	18 (457)	18 (457)	36 (914)	3½ (89)	31 X 15 (787 X 381)	2 Row: 5 ¼ (130) 4 Row: 7 % (186)	9 1/8 X 10 1/4 (232 X 260)	33 X 16 (838 X 406)
50	5, 6, 8, 10, 12 (127, 152, 203, 254, 305)	26 (660)	18 (457)	41 (1041)	5 (127)	36 x 15 (914 X 381)	6 Row: 9½ (241)	13 ¼ X 11 ¼ (232 X 286)	38 X 16 (965 X 406)

### **Electrical Motor Data**

	Motor		ECM		
Size	H. P.	120/1/60	208/1/60	240/1/60	277/1/60
40	*	6.5	4.2	4.2	4.2
50	*	9.5	6.4	6.2	6.0

\* The ECM is a variable horsepower motor.

Refer to Selectworks Schedule.

FLA = Full load amperage

#### **ELECTRICAL:**

- LH Controls enclosure
- □ Toggle disconnect switch.
- □ FN2 90° line voltage enclosure.
- □ FN3 Remote line voltage enclosure.
- Motor fusing.

Ducted Return Filter Rack OTHERS: Hanger brackets.

## **CW Coil O.D. Sweat Connections**

Unit	
Size	2, 4, & 6
40	7/8" (22)
50	110 (22)



Page 1 of 2. For heat options; see page 2. Dimensions are in inches (mm).

ENGINEER:	DATE	<b>B SERIES</b>	SUPERSEDES	DRAWING NO.
CONTRACTOR:	12 - 3 - 14	3300	NEW	33SZ-2



# FAN POWERED CHILLED WATER TERMINAL UNIT CONSTANT VOLUME • SENSIBLE COOLING (DOAS) MODELS: 33SZE AND 33SZW UNIT SIZES: 40 AND 50

HOT WATER

COIL

С

SENSIBLE COOLING COIL

DRIVESHAFT

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FAN

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0

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5 3/4

(146)

PRIMARY/

DEDICATED

OUTDOOR AIR INTEGRAL

DRIP PAN

W

С

1

1" (25)

12020

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# Hot Water Coil Section Model 33SZW

#### Standard Features:

- Coil section installed on unit discharge.
- 1/2" (13) copper tubes.
- Aluminum ripple fins @ 10 FPI.
  Sweat Connections: Size 40 one row: 1/2" (13) O.D. male solder. All others: 7/8" (22) O.D. male solder.
- Flanged outlet duct connection.

### **Coil Rows:**

□ 1-Row □ 2-Row

### **Coil Hand Connections:**

(Looking in direction of airflow). Right Hand (illustrated). Standard.

Left Hand. Optional.

Heating coil, sensible coil and controls enclosure orientation must all be specified separately.

# Electric Coil Section Model 33SZE

#### Standard Features:

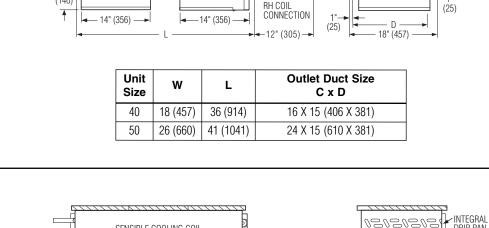
- Unique hinged heater design permits easy access, removal and replacement of heater element without disturbing ductwork.
- Coil installed on unit discharge.
- Insulated coil element wrapper.
- Automatic reset high limit cut-outs (one per element).
- Single point electrical connection for entire terminal unit.
- Electronic Fan Interlock Relay.
- · Flanged outlet duct connection.
- Controls mounted as standard on RH side as shown. Terminals ordered with L.H. controls (optional) are inverted and discharge duct hanging elevation will change.

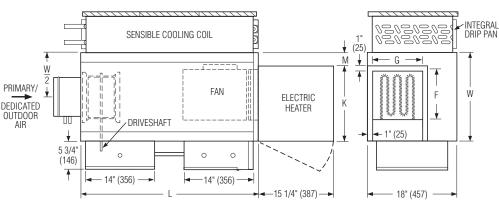
### Voltage:

SCHEDULE TYPE:

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Single phas	se, 60 Hz.
🖵 120V	□ 208V
🖵 240V	🖵 277V
Three phas	e, 60 Hz.
208V	480V (4 wire wye)
	al point connection).
	· · ·





Unit Size	w	L	к	М	Outlet Duct Size F x G
40	18 (457)	36 (914)	15½ (394)	2½ (64)	10¼ x 10½ (260 x 267)
50	26 (660)	41 (1041)	22 (559)	4 (102)	14¼ x 11¾ (362 x 298)

# **Electric Coil Options:**

- □ SCR control (0–10 VDC).
- 🖵 4–20ma
- with discharge temperature control.
- Toggle disconnect (includes fan).
- Door interlock disconnect switch.
- Quiet contactors.

- A Main line fusing.
- Class 'A' 80/20 Ni./Ch. wire.
- Dust tight construction.
- Annual Reset secondary thermal
- cut out. Positive Pressure airflow switch.
- Positive Pressure airflow switch

# Page 2 of 2.

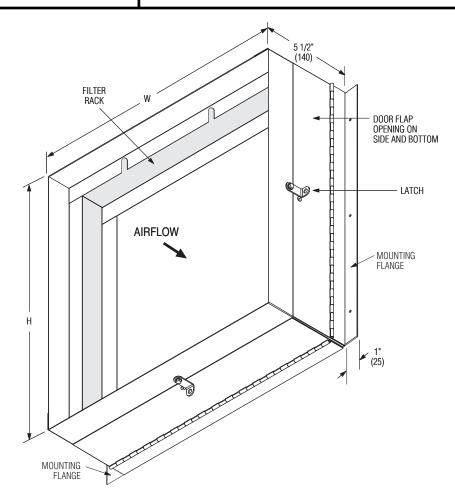
Dimensions are in inches (mm).

PROJECT:				
ENGINEER:	DATE	<b>B SERIES</b>	SUPERSEDES	DRAWING NO.
CONTRACTOR:	12 - 3 - 14	3300	NEW	33SZ-2

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# FAN POWERED CHILLED WATER TERMINAL UNIVERSAL DUCTED RETURN FILTER RACK ACCESSORY CODE DRFR MODEL SERIES: 33SZ



# **DESCRIPTION:**

- The DRFR Ducted Return Filter Rack is an optional accessory for the Fan Powered Chilled Water Terminal Model Series 33SZ.
- The accessory is required for ducted inlet applications where a filter is also required and ease of accessibility is required.
- The Ducted Filter Connection features a filter rack, which accommodates a 1" (25) standard or 2" (51) optional filter.
- Factory mounted on the induced air inlet of the draw through water coil section.
- A piano-hinged door flap with latch on the side and bottom of the unit accessory allows for easy removal and replacement of the filter.
- The accessory is provided with a nominally sized duct connection collar.

# **Dimensional Data**

Unit Size	Inlet Size W x H	Filter Size W x H		
30	36 x 8¾ (914 x 222)	38 X 10 (965 X 254)		
40	31 x 15 (787 x 381)	33 X 16 (838 X 406)		
50	36 x 15 (914 x 381)	38 X 16 (965 X 406)		

SCHEDULE TYPE: Dimensions are in inches (mm).				m)
PROJECT:				
ENGINEER:	DATE	<b>B SERIES</b>	SUPERSEDES	DRAWING NO.
CONTRACTOR:	8 - 19 - 15	33SZ	2 - 11 - 15	33SZ-FR

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