

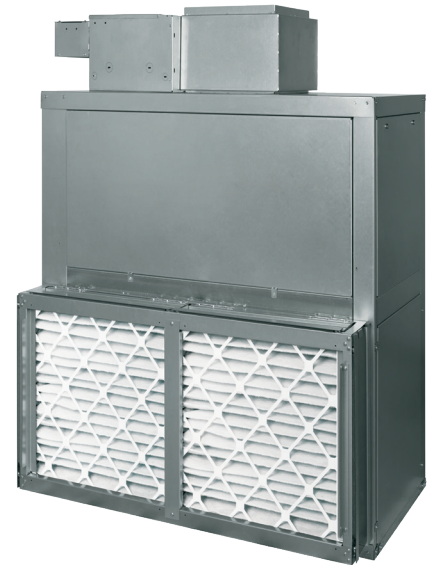
# DIRECT DRIVE BLOWER COILS

## Horizontal HDY

## Vertical VDY



### Upgrade to IEC's Direct Drive Blower Coils



- **Energy Efficient**
- **Easy to Install**
- **Extended Service Life**

- **Engineered to save our customers money**
- **Eliminate the belt and pulleys**
- **Energy efficient EC Motor**
- **Improve indoor air quality**
- **Nominal CFM range of 600 to 3,000 CFM**

# DIRECT DRIVE BLOWER COILS

## FEATURES AND BENEFITS

### Upgrade to IEC's Direct Drive Blower Coil

Horizontal and Vertical options each offered in 8 different unit sizes  
Nominal 600 to 3,000 CFM



**Fewer blower assembly parts  
makes removal and maintenance fast & efficient**

**Energy efficient EC motor  
Field adjustable 3-speed operation**

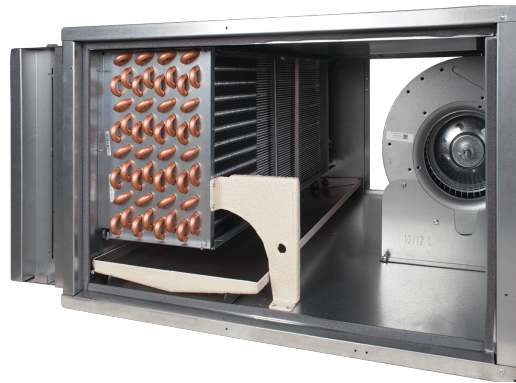
**Universal filter rack fits 1", 2", or 4" filters  
Tool-free access from three sides**

**Removable double-sloped  
stainless steel drain pan**

**Optional Mixing Box for improved IAQ requirements**

**Optional .025" wall tubing**

**4, 6, 8 row coil sizes to meet heating and  
cooling requirements**



**Direct drive up to 2.25 inches of total static eliminates need for belt-drive models.  
Reduce commissioning and maintenance costs!**

**IEC's Market Leadership is established by meeting our customers' specific requirements. Simply stated, we go above and beyond what most fan coil suppliers can or will do to meet customers' needs.**

# DIRECT DRIVE BLOWER COILS

## FEATURES AND BENEFITS

### Upgrade to IEC's Direct Drive Fan Blower Coils

Your Benefit	Features
Reduce Costs	<ul style="list-style-type: none"><li>• Eliminating the belt reduces install time, parts and maintenance</li><li>• Efficient EC Motor reduces operating costs:<ul style="list-style-type: none"><li>Soft start performance reduces the inrush current</li><li>3 speed operation allows the fan to run at low speed during light load conditions</li></ul></li></ul>
Experience Quieter Operation	<ul style="list-style-type: none"><li>• No belt squeal</li><li>• Soft start motor performance gradually increases fan speed</li></ul>
Improve Indoor Air Quality	<ul style="list-style-type: none"><li>• Removable double-sloped stainless steel drain pan eliminates water accumulation</li><li>• Mixing box option circulates in outside fresh air</li></ul>

### Direct Drive Blower Coils Meet the Versatile Needs of Our Customer

These compact blower coils are ideally suited for a variety of ducted applications that require a range of 600 to 3000 CFM, capacities between 1.5 tons to 9 tons, and generally rated for applications up to 2.25" w.g of total static pressure. These units provide comfort cooling and heating while offering a broad range of application flexibility between the traditional fan coil unit and a central station air handling unit. Several configurations are available to meet the needs of different climates and applications.

The Direct Drive units can be ordered as:

- 2-pipe system
- 2-pipe system with electric heat
- 4-pipe system
- Direct expansion system cooling
- Direct expansion cooling with electric heat
- Direct expansion cooling with hot water heating

VDY units are floor-mounted and have a small footprint, allowing fit through a standard 36" door. HDY/VDY are available with left- or right-hand arrangements for design flexibility.

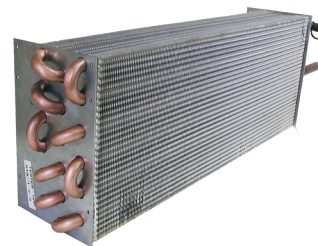
# DIRECT DRIVE BLOWER COILS

## Options & Accessories

### IEC offers multiple accessories to meet our customers needs

#### Coil size, material, & thickness

- 4, 6, & 8 row coil sizes offered to match the heating and cooling loads of the space
- Coils offered with copper fins with stainless steel end sheets and bottom coil baffles
- .025" wall tubing available



#### Energy efficient EC Motors

- Field-adjustable variable speed
- ½, 1, 1 ½, and 3 HP options available, depending on unit size
- Offered in multiple voltages
  - 115, 208-230, & 277 volt, single-phase, 50/60 Hz
  - 208-230 & 460 volt, 3-phase, 50/60 Hz



#### Mixing box

- Mixing box offered to support outside air ventilation requirements
- Ships fully assembled with low leak dampers

#### Electric heat box

- Factory installed electric heater with high limit protection shuts off power in the event of airflow loss
- Single-point power connection

#### Double-wall construction

- 3/4" double-wall insulated construction provides an easy-to-clean durable surface
- Helps reduce case-radiated sound in ducted applications
- Protects from water and mechanical damage

#### Condensate float switch

- Factory installed condensate float switch prevents leaks and water damage

#### Controls

- A family of thermostats, both standard and programmable, are available
- Relay board to adjust fan speed



# DIRECT DRIVE BLOWER COIL

## AIR DELIVERY

### HDY Air Performance Table

Unit Size	Airflow (CFM)	Total Static Pressure (TSP) Recommended	Total Capacity (BTU)	Sensible Capacity (BTU)
06	500	0.15	12494	10576
	600	0.40	14620	12490
	700	0.75	16632	14344
	800	1.15	18549	16157
08	600	0.20	14620	12490
	700	1.00	16632	14344
	800	1.35	18549	16157
	900	1.80	20366	17923
	1000	2.25	22125	19657
10	700	0.75	18168	14776
	900	1.50	22594	18606
	1000	1.40	24650	20447
	1200	1.15	28727	24107
	1300	0.85	30625	25868
12	800	1.15	20427	16713
	1100	2.20	26711	22288
	1200	2.00	28727	24107
	1375	1.75	32040	27191
	1500	1.35	34359	29371
16	1000	0.75	23718	20203
	1250	1.50	29061	24938
	1600	2.25	36028	31332
	1750	2.00	38777	33970
	2000	1.35	43313	38345
20	1800	1.75	43825	37094
	1900	1.55	45664	38823
	2000	1.50	47559	40572
	2250	1.25	52123	44843
	2400	1.00	54872	47408
22	1800	1.80	43825	37094
	2100	2.10	49422	42299
	2200	2.25	51221	44004
	2300	2.20	53086	45715
	2400	2.15	54872	47408
30	2250	0.80	59466	49735
	2500	1.25	64561	54363
	3000	2.00	74434	63403
	3350	1.80	80809	69420
	3600	1.60	85194	73622

**NOTES:** 1. Ratings are based on 75°F (23.9°C) DB and 63°F (17.2°C) WB EAT, 45°F (7.2°C) EWT, 10°F Δ (5.6°C Δ) water temperature rise, 2" MERV 8 air filter and 4 row coil.

# Direct Drive Blower Coils

## AIR DELIVERY

### VDY Air Performance Table

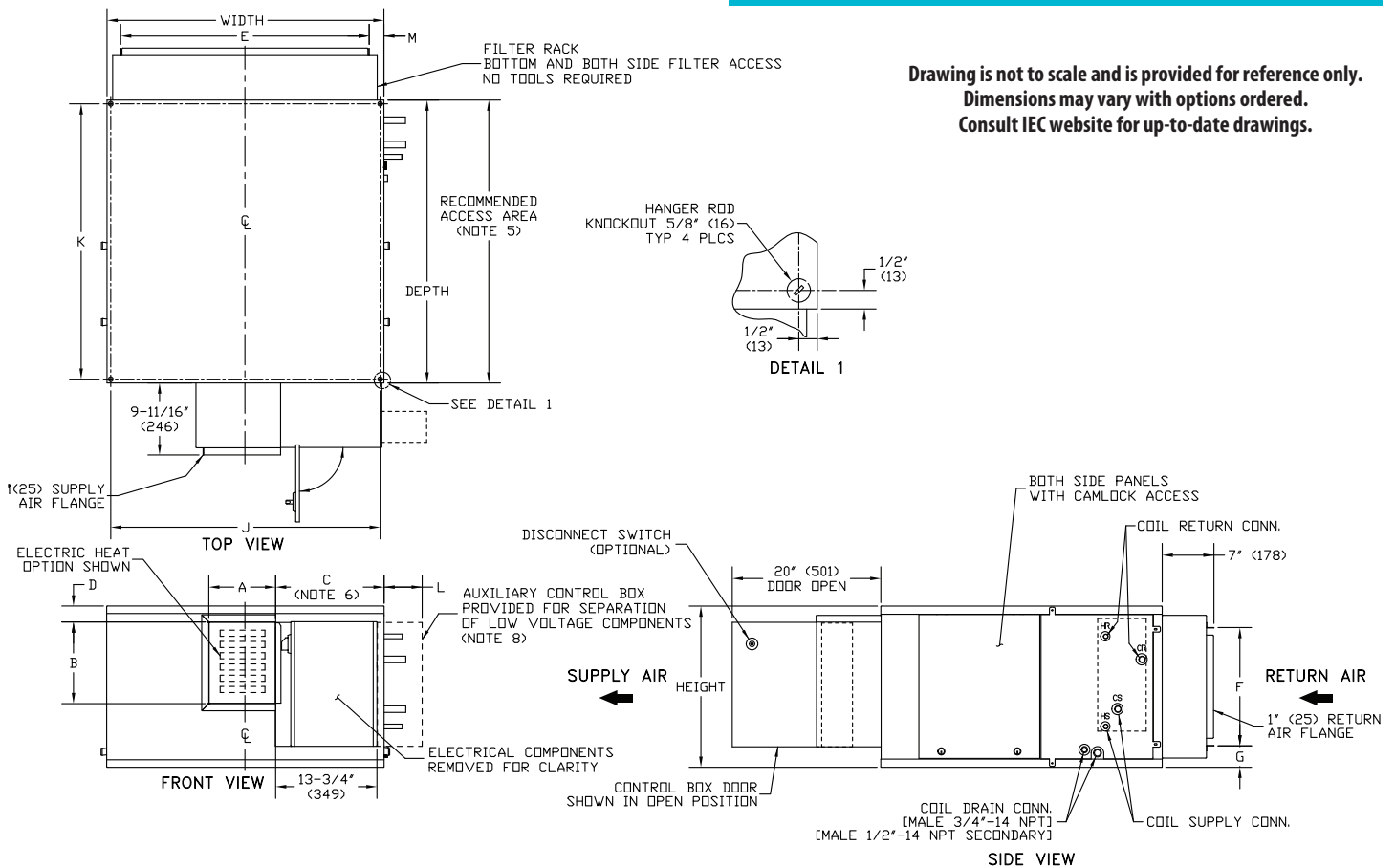
Unit Size	Airflow (CFM)	Total Static Pressure (TSP) Recommended	Total Capacity (BTU)	Sensible Capacity (BTU)
06	500	0.15	8740	7886
	600	0.40	10564	9472
	700	0.75	12264	11009
	800	1.15	13948	12531
08	600	0.20	10564	9472
	700	1.00	12264	11009
	800	1.35	13948	12531
	900	1.80	15553	14025
	1000	2.25	17152	15511
10	700	0.75	15712	13208
	900	1.50	19648	16669
	1000	1.40	21465	18328
	1200	1.15	24973	21588
	1300	0.85	26676	23196
12	800	1.15	17712	14953
	1100	2.20	23191	19951
	1200	2.00	25378	21981
	1375	1.75	27898	24370
	1500	1.35	29976	26350
16	1000	0.75	20102	17312
	1250	1.50	24813	21424
	1600	2.25	30835	26911
	1750	2.00	33313	29218
	2000	1.35	37324	32994
20	1800	1.75	36342	31238
	1900	1.55	38057	32795
	2000	1.50	39670	34310
	2250	1.25	43701	38079
	2400	1.00	46007	40286
22	1800	1.80	36342	31238
	2100	2.10	41351	35850
	2200	2.25	42921	37336
	2300	2.20	44476	38818
	2400	2.15	46007	40286
30	2250	0.80	48768	42050
	2500	1.25	53106	46065
	3000	2.00	61735	54013
	3350	1.80	67463	59414
	3600	1.60	71264	63117

**NOTES:** 1. Ratings are based on 75°F (23.9°C) DB and 63°F (17.2°C) WB EAT, 45°F (7.2°C) EWT, 10°F Δ (5.6°C Δ) water temperature rise, 2" MERV 8 air filter and 4 row coil.

# Horizontal Direct Drive Blower Coils

## PHYSICAL DATA

Drawing is not to scale and is provided for reference only.  
Dimensions may vary with options ordered.  
Consult IEC website for up-to-date drawings.



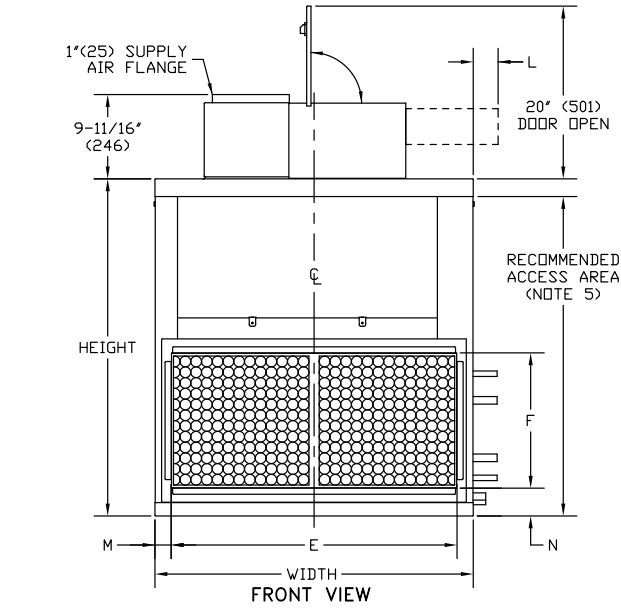
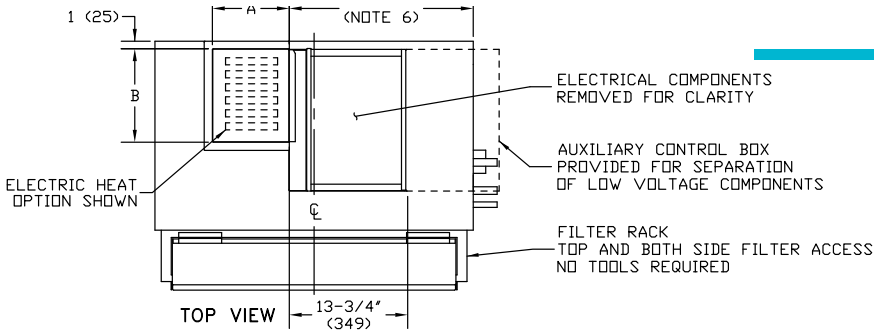
Size	Fan Size	Depth	Width	Height	Supply Duct				Return Duct			Mounting Holes		Aux. Ctrl. Box	M
					A	B	C	D	E	F	G	J	K	L	
06	9x6	36 (914)	28 (711)	19-3/4 (502)	8-7/8 (225)	10-7/8 (276)	13-3/4 (349)	2-1/4 (57)	24-1/4 (616)	14 (356)	2-3/4 (70)	27-1/4 (686)	35-1/4 (895)	5-3/4 (146)	2 (51)
08	9x6	36 (914)	28 (711)	19-3/4 (502)	8-7/8 (225)	10-7/8 (276)	13-3/4 (349)	2-1/4 (57)	24-1/4 (616)	14 (356)	2-3/4 (70)	27-1/4 (686)	35-1/4 (895)	5-3/4 (146)	2 (51)
10	9x6	37-1/2 (953)	37 (940)	21-1/2 (546)	10-1/4 (260)	10-7/8 (276)	14-1/2 (368)	2-1/4 (57)	33-1/4 (845)	15-3/4 (401)	2-7/8 (73)	36-1/4 (921)	37 (940)	5 (124)	2 (51)
12	9x6	37-1/2 (953)	37 (940)	21-1/2 (546)	10-1/4 (260)	10-7/8 (276)	14-1/2 (368)	2-1/4 (57)	33-1/4 (845)	15-3/4 (401)	2-7/8 (73)	36-1/4 (921)	37 (940)	5 (124)	2 (51)
16	10x7	37-3/4 (959)	47 (1194)	21-1/2 (546)	13 (330)	12 (305)	18-3/8 (467)	2-1/4 (57)	43-7/8 (1115)	15-3/4 (401)	2-7/8 (73)	46-1/4 (1175)	37 (940)	1-1/4 (32)	1-1/2 (38)
20/22	11x10	40-1/4 (1022)	48 (1219)	24 (610)	16-1/4 (413)	13 (330)	17-1/4 (438)	2-1/4 (57)	44-1/4 (1124)	18 (457)	2-7/8 (73)	47-1/4 (1200)	39-1/2 (1033)	2-3/8 (60)	2 (51)
30	12x12	40-1/4 (1022)	48 (1219)	32-1/4 (819)	16-1/4 (413)	14 (356)	16 (406)	7-1/8 (181)	44-1/4 (1124)	26-1/2 (673)	1-1/4 (32)	47-1/4 (1200)	39-1/2 (1033)	3-3/4 (95)	2 (51)

### NOTES:

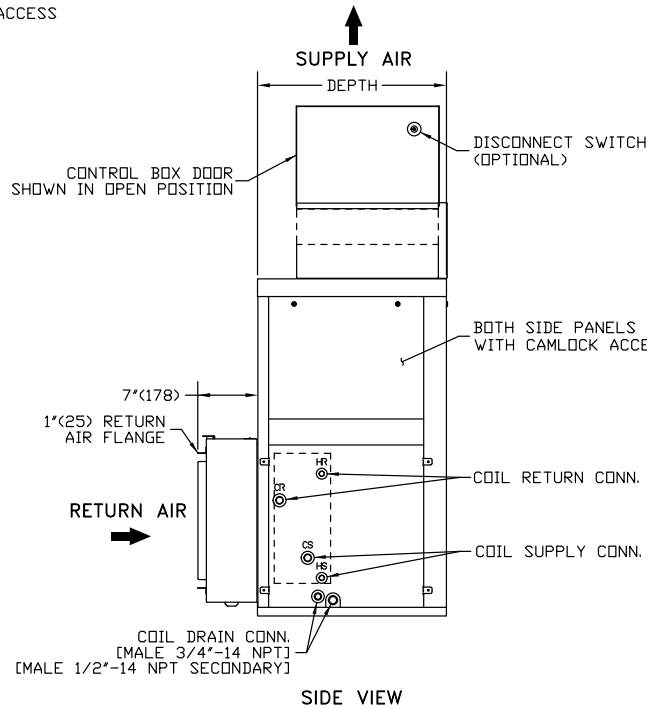
1. RH shown, LH opposite.
2. All dimensions are +/- 1/4" (6 mm).
3. Product specifications are subject to change without notice.
4. Dimensions in parenthesis are shown in (millimeters).
5. Allow adequate spacing or maneuverability around unit to allow service through recommended access area.
6. "C" dimension is measured from coil side of unit.
7. Mixing Box option will vary return duct dimensions; refer to Mixing Box submittal.
8. Auxiliary control box required with 3-speed EC motor and/or cabinet lighting option, not required with low voltage (0-10V) controls.

# Vertical Direct Drive Blower Coils

## PHYSICAL DATA



Drawing is not to scale and is provided for reference only.  
 Dimensions may vary with options ordered.  
 Consult IEC website for up-to-date drawings.



Size	Fan Size	Depth	Width	Height	Supply Duct Flanges			Return Duct Flanges		Aux. Ctrl. Box	Unit side to duct flange	Unit bottom to duct flange
					A	B	C	E	F			
06	9 x 6	20 (508)	28 (711)	36-1/2 (927)	8-7/8 (225)	10-7/8 (276)	15-1/8 (384)	24-1/4 (616)	14 (356)	4-1/2 (114)	1-7/8 (48)	2-7/8 (73)
08	9 x 6	20 (508)	28 (711)	36-1/2 (927)	8-7/8 (225)	10-7/8 (276)	15-1/8 (384)	24-1/4 (616)	14 (356)	4-1/2 (114)	1-7/8 (48)	2-7/8 (73)
10	9 x 6	22 (559)	37 (940)	39-3/8 (1000)	10-1/4 (260)	10-7/8 (276)	21-1/2 (546)	33-1/4 (845)	15-3/4 (401)	0 (0)	1-7/8 (48)	2-7/8 (73)
12	9 x 6	22 (559)	37 (940)	39-3/8 (1000)	10-1/4 (260)	10-7/8 (276)	21-1/2 (546)	33-1/4 (845)	15-3/4 (401)	0 (0)	1-7/8 (48)	2-7/8 (73)
16	10 x 7	22 (559)	47 (1194)	39-3/8 (1000)	13 (330)	12 (305)	16-5/8 (422)	43-7/8 (1115)	15-3/4 (401)	3 (76)	1-5/8 (48)	2-7/8 (73)
20/22	11 x 10	24 (610)	48 (1219)	45-1/8 (1146)	16-1/4 (413)	13 (330)	17-1/8 (435)	44-1/4 (1124)	18 (457)	2-1/2 (64)	1-7/8 (48)	3-1/8 (79)
30	12 x 12	28 (711)	48 (1219)	54-1/4 (1378)	16-1/4 (413)	14 (356)	16 (406)	44-1/4 (1124)	26-1/2 (673)	3-5/8 (92)	1-7/8 (48)	2-3/4 (70)

**NOTES:**

1. RH shown, LH opposite.
2. All dimensions are +/- 1/4" (6 mm).
3. Product specifications are subject to change without notice.
4. Dimensions in parenthesis are shown in (millimeters).
5. Allow adequate spacing for maneuverability around unit to allow service through recommended access area.
6. "C" dimension is measured from coil side of unit.
7. Mixing Box option will vary return duct dimensions; refer to Mixing Box submittal.

Contact your local IEC Sales Representative for further details and pricing applicable to this product. Visit our website ([iec-okc.com](http://iec-okc.com)) to find your local IEC Sales Rep.

IEC Part Number: I100-90034451  
 FL-091 Rev.1 (6/2019)  
 ©2018-2019 International Environmental Corporation (IEC)



5000 West I-40 Service Road  
 Oklahoma City, OK 73128  
 P: 405.605.5000  
 F: 405.605.5001  
[www.iec-okc.com](http://www.iec-okc.com)