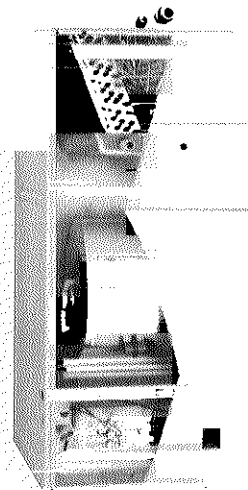


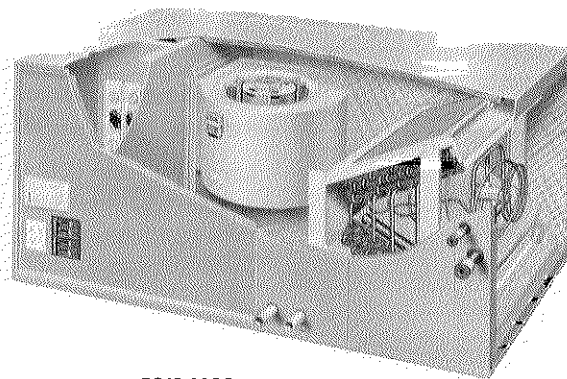


E12 & ES12 SERIES ELECTRIC FURNACES
UP-FLO — DOWN-FLO — HORIZONTAL
13,000 to 102,400 Btuh Electric Heating Capacity
Add-On Cooling — 1-1/2 thru 5 Nominal Tons

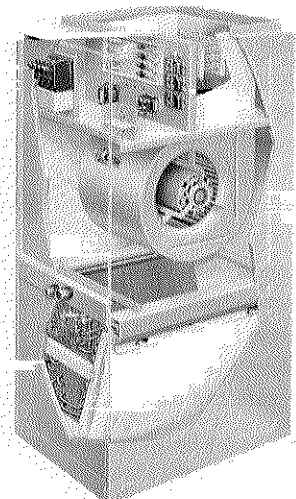
ENGINEERING DATA
HEATING UNITS
 ELECTRIC
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 July 1, 1983
 Supersedes 9-1-82



ES12 MODEL — DOWN-FLO
 WITH FIELD INSTALLED CPR12 COIL



ES12 MODEL — HORIZONTAL
 WITH FIELD INSTALLED CPS12 COIL



E12 MODEL — UP-FLO
 WITH FIELD INSTALLED CP12 COIL

Multi-Position Line Of Electric Furnaces Provide High Efficiency Performance And Installation Flexibility

The Lennox E12 and ES12 electric furnaces are designed for multi-position installation in a basement, utility room, alcove, closet, crawlspace or attic. Versatile units are applicable to heating only, heating-cooling or heat pump applications. Several models are available in varying sizes with a wide range of heating and cooling capacities. E12Q2 and E12Q3 models are for up-flo applications only. The E12Q4 and E12Q5 series models are applicable to either up-flo or down-flo installation. The ES12Q2, ES12Q3 and ES12Q4 series can be installed in the horizontal or down-flo position and the ES12Q5 models in the horizontal only.

The optional field additive "slide-in" coil installs internal to the cabinet (up stream from the blower and electric heat elements) and is specially matched to the unit for efficient air delivery and maximum capacity. For up-flo applications optional return air cabinets are available for installation on either side of the unit.

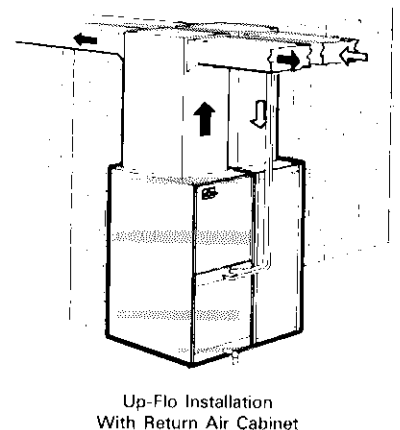
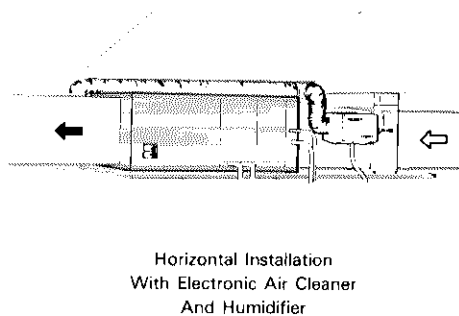
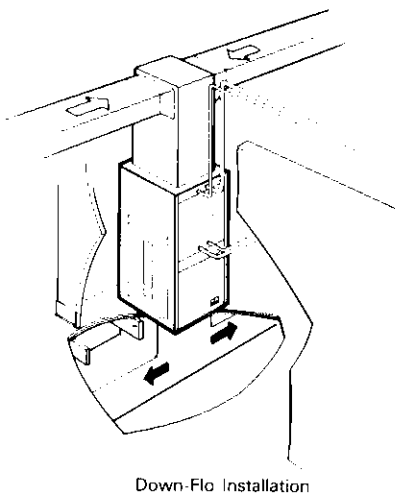
The cabinets are trim and attractive appearing with a durable electro-bonded paint finish. Removable front panels provide complete service access to

cabinet interior. Variable speed direct drive blowers have sufficient capacity to handle cooling air volume requirements. Hammock style fiberglass air filters are furnished on E12 up-flo models only. Nichrome heating elements give long service life and efficient heating operation. Factory installed circuit breakers are accessible external to the cabinet. Optional accessories available include thermostat, return air cabinets, down-flo additive base, outdoor thermostat and filter kits.

Units have been tested and rated according to Department of Energy (DOE) test procedures and Federal Trade Commission (FTC) labeling regulations in the Lennox Research Laboratory. Furnaces are U.L. listed. In addition, units and components within are bonded for grounding to meet safety standards for servicing required by UL and NEC. Blower performance data is from unit tests conducted in the Lennox Laboratory air test chamber.

Each unit is test operated at the factory and shipped assembled (except for the DX coil) with all controls mounted and prewired. The installer has only to make the necessary field duct and electrical connections.

Typical Applications



NOTE — Specifications, Ratings and Dimensions subject to change without notice.

FEATURES

Nichrome Heaters — The helix wound nichrome bare wire heating elements are exposed directly in the air stream resulting in instant heat transfer, lower element temperatures and long service life. Element support frame is constructed of heavy gauge steel. Porcelain insulators are accurately located for proper element support and best heater operation. Elements may easily be removed from unit individually for service.

Durable Cabinet — Constructed of heavy gauge cold rolled steel with a special Lennox "Electro-Deposition" process paint finish. Cabinet interior is lined with 1/2 inch thick 1-1/2 lb. density fiberglass insulation to keep cabinet temperatures low and minimize sound transmission. Leveling holes are provided in base for up-flo units. Installer must furnish bolts and nuts. Electrical inlets are located in side panels and cabinet cap. In addition, refrigerant line and condensate drain knockouts are furnished in the cabinet for field added coils. Complete service access is accomplished by removing the front panels of the cabinet. Blower assembly slides completely out of unit for service. Return air entry is possible in either side or bottom of cabinet for up-flo models.

Cabinet and Blower Process — The cabinet and blower have a special Lennox "Electro Deposition" process paint finish. Metal preparation consists of a special 6 station wash metal process. 1 — Spray application of a strong alkaline cleaner. 2 — Spray water rinse. 3 — Spray application of a corrosion resistant, paint bonding iron phosphate compound. 4 — Spray water rinse. 5 — Spray application of a chromic acid. 6 — Spray rinse with "de-ionized" water. After the final rinse the cabinet parts and blower enter a drying oven and are completely dried before receiving the paint finish. They are then submerged in the paint vat where an electroplating paint finish is applied. The paint solution and metal are given opposite electrical charges resulting in positive adhesion and even coverage of the paint to the metal surfaces. This process completely covers the entire surfaces, inside and out, including the edges of assembly holes. Following the paint process the finished components enter a high temperature oven where the Electro-bonded finish is baked on.

Circuit Breakers — Units are equipped with circuit breakers to provide overload and short circuit protection. Circuit breakers are factory mounted and wired in the controls compartment. Circuit breakers are current sensitive and temperature compensated to shut off heater if current draw is excessive. Breakers protrude through the element and control access panel for ease of access. Must be reset manually. Circuit breakers qualify as the disconnect means at unit in many areas and eliminate the need for a field supplied disconnect. Consult local electrical code in your area.

Powerful Blowers — Units are equipped with variable speed direct drive blowers. Each blower is statically and dynamically balanced as an assembly before it is installed in furnace. Motor is resiliently mounted. A choice of blower speeds is available. See blower performance tables. Change in blower speed is easily accomplished by a simple change in wiring.

Blower Cooling Relay — Relay is furnished as standard equipment and factory installed in element and control compartment. Relay activates blower for cooling operation.

Thermal Sequencer Relay — Factory installed and wired in element and control compartment. Sequencer brings the heating elements on and off the line, in 5 kw increments, with a time delay between each element. In addition, sequencer initiates and stops blower operation simultaneously with first element on and last element off.

Limit Controls — Each heating element is equipped with an accurately located limit control with a fixed temperature 'off' setting and automatic reset. In addition, elements have supplemental thermal cutoff safety fuses providing positive protection in case of hazardous overheating.

Transformer — 70 volt transformer is furnished as standard equipment and factory installed in the element and control compartment.

Large Air Filter (E12 Up-Flo Models Only) — A large hammock wraparound type filter is furnished standard. Media is one inch thick oil impregnated fiberglass. Filter mounting rack design provides quick and simple replacement of media.

Filter Kit (Optional) — Available on down-flo and horizontal models. Field installs in the return air duct exterior to the unit. 16 x 20 x 1 frame filter is included with kit. 2 kits are required on down-flo models. Filter media is washable or vacuum cleanable polyurethane coated with oil for increased efficiency.

Additive Coil (Optional) — Field additive "slide-in" up-flo, horizontal or down-flo coils are available for cooling or heat pump operation. Addition of coil to unit cabinet requires no costly, time consuming plenum or duct changes. Simply remove coil access panels and slide coil in place. CH16-51FF and CH16-65V models are in a separate cabinet and attach to return air end of ES12Q5 unit. For complete data on coils see individual bulletins in section Cooling Units — Coils-Blower Coil Units or Heat Pumps — Matched Remote Systems.

Return Air Cabinets (Optional — Up-Flo Only) — Simplifies return air duct connection to E12 up-flo model cabinets. May be installed on either side of the E12 unit. Return air cabinet is constructed of heavy gauge steel with a electro-bonded paint finish. Shipped knocked down and field assembled.

Down-flo Additive Base (Optional) — An optional additive base is required for models with electric heat installed in the down-flo position on combustible floors. Base is not furnished and must be ordered extra for field installation. See Specifications table.

Thermostat (Not Furnished) — Heating thermostat is optional equipment and must be ordered extra. For all season applications a heating-cooling thermostat is available with the outdoor unit. Several models can be two stage controlled, see electric heat data table. For two stage heating operation a two stage heating thermostat is required and must be specified when ordering.

Outdoor Thermostat (Optional) — An outdoor thermostat can be used to lock out some of the heating elements on units where two stage control is applicable. Outdoor thermostat maintains the heating load on the low power input as long as possible before allowing the full power load to come on the line. Thermostat (LB-29740BA) and mounting box (M-1595) must be ordered extra.

E12 SERIES SPECIFICATIONS

Model No.		E12Q2-05	E12Q3-05	E12Q4-10	E12Q5-15
		E12Q2-10	E12Q3-10	E12Q4-15	E12Q5-20
		E12Q2-15	E12Q3-15	E12Q4-20	E12Q5-25
			E12Q3-20	E12Q4-25	E12Q5-30
Blower wheel nominal diam. x width (in.)		9 x 7	10 x 8	10 x 8	12 x 12
Blower motor hp		1/4	1/3	1/2	3/4
Up-Flo Models Only	Net free filter area (sq. ft.)	5.3	6.3	7.8	8.7
	Filter cut size (in.)	30 x 26 x 1	40 x 26 x 1	44 x 26 x 1	50 x 26 x 1
Tons of cooling that can be added		1-1/2 or 3	2-1/2 or 3	3, 3-1/2 or 4	4 or 5
Shipping weight (lbs.)		121	127	160	192
Number of packages in shipment		1	1	1	1
Electrical characteristics		208-240v/60hz/1 phase			
†Optional Return Air Cabinet (Up-Flo only)	Model No.	RA10-16-49		RA10-16-53	
	Shipping weight (lbs.)	54		56	
†Optional Additive Coils Model No.	Up-Flo	CP12-26V	CP12-31V, CP12-41V	CP12-46V, CP12-51V	CP12-65V
	Down-Flo	----	----	CPR12-46V, CPR12-51V	CPR12-65V
†Down-Flo Additive Base (Optional)		----	----	LB-34695BC	LB-34695BD
†Filter Kit (Optional) Down Flo Models Only		----	----	*LB-51349CA	

†Must be ordered extra.

*2 kits are required for down-flo applications.

E12 SERIES ELECTRIC HEAT RATINGS

Model Number	†Output Btuh	†A.F.U.E.
E12Q2-05	16,000	100%
E12Q2-10	31,000	100%
E12Q2-15	45,000	100%
E12Q3-05	16,000	100%
E12Q3-10	31,000	100%
E12Q3-15	46,000	100%
E12Q3-20	61,000	100%
E12Q4-10	31,000	100%
E12Q4-15	46,000	100%
E12Q4-20	61,000	100%
E12Q4-25	75,000	100%
E12Q5-15	46,000	100%
E12Q5-20	62,000	100%
E12Q5-25	75,000	100%
E12Q5-30	91,000	100%

†Annual Fuel Utilization Efficiency based on DOE test procedures and according to FTC labeling regulations.

ES12 SERIES SPECIFICATIONS

Model No.		ES12Q2-05	ES12Q3-05	ES12Q4-05	ES12Q5-15
		ES12Q2-10	ES12Q3-10	ES12Q4-10	
		ES12Q2-15	ES12Q3-15	ES12Q4-15	ES12Q5-20
			ES12Q3-20	ES12Q4-20	
Blower wheel nominal diam. x width (in.)		9 x 7	9 x 7	10 x 8	12 x 9
Blower motor hp		1/4	1/3	1/3	3/4
Tons of cooling that can be added		1-1/2 or 3	2-1/2	3 or 3-1/2	4 or 5
Shipping weight (lbs.)		121	131	140	116
Number of packages in shipment		1	1	1	1
Electrical characteristics		208-240v/60hz/1 phase			
†Optional Additive Coils Model No.	Horizontal	CPS12-26V	CPS12-31V	CPS12-41/46V	CH16-51FF or CH16-65V
	Down-Flo	CPR12-26V	CPR12-31V	CPR12-41V	----
†Down-Flo Additive Base (Optional)		LB-34695BA	LB-34695BB	LB-34695BB	----
†Filter Kit (Optional)		LB-51349CA			

†Must be ordered extra.

ES12 SERIES ELECTRIC HEAT RATINGS

Model Number	†Output Btuh	†A.F.U.E.
ES12Q2-05	15,000	98.8%
ES12Q2-10	30,000	98.8%
ES12Q2-15	47,000	98.8%
ES12Q3-05	16,000	99.0%
ES12Q3-10	31,000	99.0%
ES12Q3-15	45,000	99.0%
ES12Q3-20	63,000	99.0%
ES12Q4-05	16,000	99.0%
ES12Q4-10	31,000	99.0%
ES12Q4-15	46,000	99.0%
ES12Q4-20	64,000	99.0%
ES12Q5-15	46,000	99.3%
ES12Q5-20	65,000	99.3%

†Annual Fuel Utilization Efficiency based on DOE test procedures and according to FTC labeling regulations.

E12 SERIES ELECTRIC HEAT DATA

Model No.	No. of Elements & Phase	No. of Steps	Volts Input	kw Input	Btuh Input	*Minimum Circuit Ampacity		
						Circuit 1	Circuit 2	Circuit 3
E12Q2-05	1 (1 phase)	1	208	3.8	13,000	25.3	----	----
			220	4.2	14,300	28.8	----	----
			230	4.6	15,700			
			240	5.0	17,100			
E12Q2 10	2 (1 phase)	2	208	7.5	25,600	47.9	----	----
			220	8.4	28,700	54.8	----	----
			230	9.2	31,400			
			240	10.0	34,100			
†E12Q2-15	3 (1 phase)	3	208	11.2	38,200	47.9	22.6	----
			220	12.6	43,000	54.8	26.0	----
			230	13.7	46,700			
			240	15.0	51,200			
E12Q3-05	1 (1 phase)	1	208	3.8	13,000	27.0	----	----
			220	4.2	14,300	30.4	----	----
			230	4.6	15,700			
			240	5.0	17,100			
E12Q3 10	2 (1 phase)	2	208	7.5	25,600	49.5	----	----
			220	8.4	28,700	56.5	----	----
			230	9.2	31,400			
			240	10.0	34,100			
†E12Q3-15	3 (1 phase)	3	208	11.2	38,200	49.5	22.6	----
			220	12.6	43,000	56.5	26.0	----
			230	13.7	46,700			
			240	15.0	51,200			
†E12Q3-20	4 (1 phase)	4	208	15.1	51,500	49.5	45.2	----
			220	16.9	57,700	56.5	52.1	----
			230	18.5	63,100			
			240	20.0	68,300			
E12Q4-10	2 (1 phase)	2	208	7.5	25,600	50.0	----	----
			220	8.4	28,700	57.0	----	----
			230	9.2	31,400			
			240	10.0	34,100			
†E12Q4-15	3 (1 phase)	3	208	11.2	38,200	50.0	22.6	----
			220	12.6	43,000	57.0	26.0	----
			230	13.7	46,700			
			240	15.0	51,200			
†E12Q4-20	4 (1 phase)	4	208	15.1	51,500	50.0	45.2	----
			220	16.9	57,700	57.0	52.1	----
			230	18.5	63,100			
			240	20.0	68,300			
†E12Q4 25	5 (1 phase)	5	208	18.6	63,500	50.0	45.2	22.6
			220	20.8	71,000	57.0	52.1	26.0
			230	22.7	77,500			
			240	25.0	85,300			
†E12Q5-15	3 (1 phase)	3	208	11.2	38,200	51.1	22.6	----
			220	12.6	43,000	58.1	26.0	----
			230	13.7	46,700			
			240	15.0	51,200			
†E12Q5-20	4 (1 phase)	4	208	15.1	51,500	51.1	45.2	----
			220	16.9	57,700	58.1	52.1	----
			230	18.5	63,100			
			240	20.0	68,300			
†E12Q5-25	5 (1 phase)	5	208	18.6	63,500	51.1	45.2	22.6
			220	20.8	71,000	58.1	52.1	26.0
			230	22.7	77,500			
			240	25.0	85,300			
†E12Q5-30	6 (1 phase)	6	208	22.5	76,800	51.1	45.2	45.2
			220	25.2	86,000	58.1	52.1	52.1
			230	27.5	93,800			
			240	30.0	102,400			

*Refer to National Electrical Code manual to determine wire, fuse and disconnect size requirements.

Use wires suitable for at least 167°F.

†May be used with two stage heating.

ES12 SERIES ELECTRIC HEAT DATA

Model No.	No. of Elements & Phase	No. of Steps	Volts Input	kw Input	Btuh Input	*Minimum Circuit Ampacity		
						Circuit 1	Circuit 2	Circuit 3
ES12Q2 05	1 (1 phase)	1	208	3.8	13,000	25.3	---	---
			220	4.2	14,300	28.8	---	---
			230	4.6	15,700			
			240	5.0	17,100			
ES12Q2 10	2 (1 phase)	2	208	7.5	25,600	47.9	---	---
			220	8.4	28,700	54.8	---	---
			230	9.2	31,400			
			240	10.0	34,100			
†ES12Q2-15	3 (1 phase)	3	208	11.2	38,200	47.9	22.6	---
			220	12.6	43,000	54.8	26.0	---
			230	13.7	46,700			
			240	15.0	51,200			
ES12Q3-05	1 (1 phase)	1	208	3.8	13,000	25.3	---	---
			220	4.2	14,300	28.8	---	---
			230	4.6	15,700			
			240	5.0	17,100			
ES12Q3 10	2 (1 phase)	2	208	7.5	25,600	47.9	---	---
			220	8.4	28,700	54.8	---	---
			230	9.2	31,400			
			240	10.0	34,100			
†ES12Q3-15	3 (1 phase)	3	208	11.2	38,200	47.9	22.6	---
			220	12.6	43,000	54.8	26.0	---
			230	13.7	46,700			
			240	15.0	51,200			
†ES12Q3 20	4 (1 phase)	4	208	15.1	51,500	47.9	45.2	---
			220	16.9	57,700	54.8	52.1	---
			230	18.5	63,100			
			240	20.0	68,300			
ES12Q4-05	1 (1 phase)	1	208	3.8	13,000	27	---	---
			220	4.2	14,300	30.4	---	---
			230	4.6	15,700			
			240	5.0	17,100			
ES12Q4-10	2 (1 phase)	2	208	7.5	25,600	49.5	---	---
			220	8.4	28,700	56.5	---	---
			230	9.2	31,400			
			240	10.0	34,100			
†ES12Q4 15	3 (1 phase)	3	208	11.2	38,200	49.5	22.6	---
			220	12.6	43,000	56.5	26.0	---
			230	13.7	46,700			
			240	15.0	51,200			
†ES12Q4-20	4 (1 phase)	4	208	15.1	51,500	49.5	45.2	---
			220	16.9	57,700	56.5	52.1	---
			230	18.5	63,100			
			240	20.0	68,300			
†ES12Q5-15	3 (1 phase)	3	208	11.2	38,200	51.1	22.6	---
			220	12.6	43,000	58.1	26.0	---
			230	13.7	46,700			
			240	15.0	51,200			
†ES12Q5-20	4 (1 phase)	4	208	15.1	51,500	51.1	45.2	---
			220	16.9	57,700	58.1	52.1	---
			230	18.5	63,100			
			240	20.0	68,300			

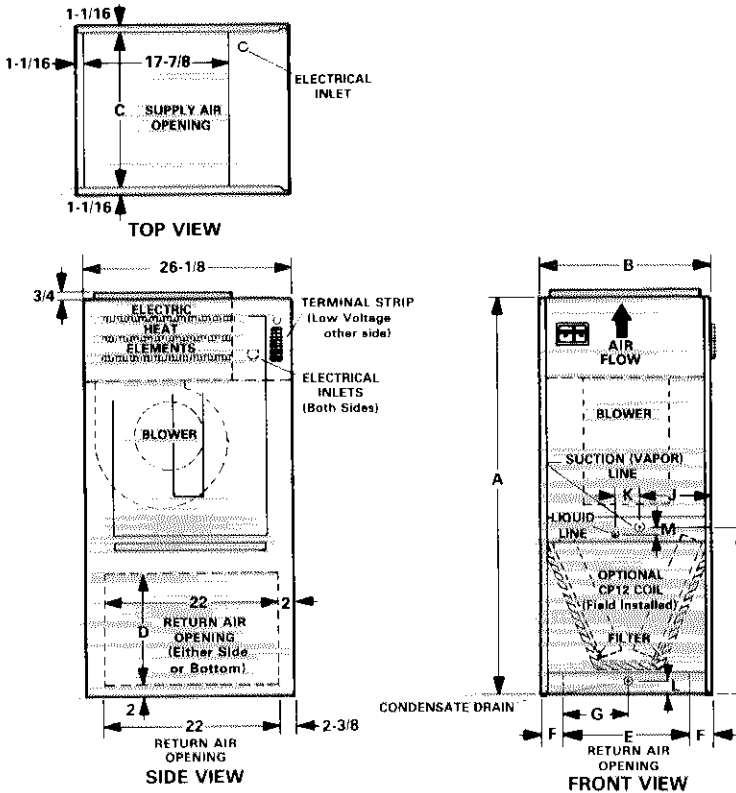
*Refer to National Electrical Code manual to determine wire, fuse and disconnect size requirements.

Use wires suitable for at least 167°F.

†May be used with two stage heating.

DIMENSIONS (inches)

UP-FLO MODELS



U. L. INSTALLATION CLEARANCES

Cabinet	0 inch
Plenum and Outlet duct on blower/coil units	0 inch
Plenum and warm air duct within 3 ft. of cabinet	1 inch
Floor	*Combustible

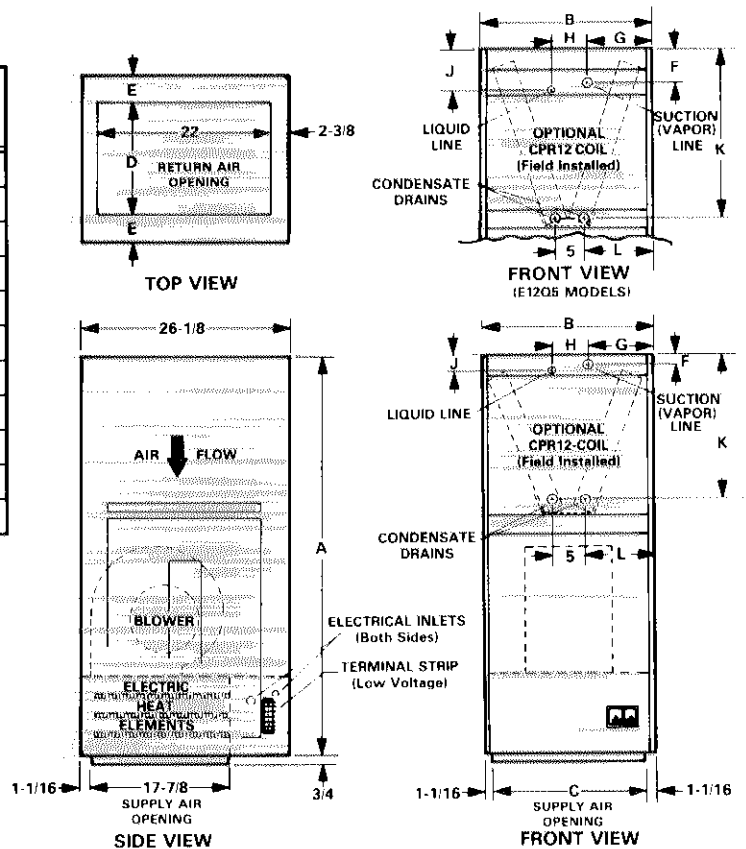
*When unit is installed in the down-flo position with electric heat on a combustible floor the optional down flo base is required.

Model No.	E12Q2 Series	E12Q3 Series	E12Q4 Series	E12Q5 Series
A	49	49	53	53
B	16-1/4	21-1/4	26-1/4	31-1/4
C	14-1/8	19-1/8	24-1/8	29-1/8
D	14	14	18	18
E	11	14	21	26
F	2-5/8	3-5/8	2-5/8	2-5/8
G	5-1/2	7	10-1/2	13
H	21-1/8	21-1/8	24-11/16	22
J	7-1/4	9-7/8	10-3/8	14
K	2	2-3/16	4-3/4	5-1/4
L	2	2	1-3/4	1-5/16
M	1-3/16	1-3/16	7/8	1/2

DOWN-FLO MODELS

Model No.	ES12Q2 Series	ES12Q3, ES12Q4 Series	E12Q4 Series	E12Q5 Series
A	49	49	53	53
B	16-1/4	21-1/4	26-1/4	31-1/4
C	14-1/8	19-1/8	24-1/8	29-1/8
D	11	14	21	26
E	2-5/8	3-5/8	2-5/8	2-5/8
F	1-1/2	1-1/2	1-1/2	4-3/4
G	7-1/4	9-7/8	10-3/8	14
H	2	2	4-3/4	5-1/4
J	2-3/8	2-3/8	1-3/4	5-3/16
K	12-13/16	*14-13/16	**17-3/16	21-5/16
L	5-5/8	8-1/8	10-5/8	13-1/8

*17-3/8 with CPR12-41V coil.
**21-3/4 with CPR12 51V coil.

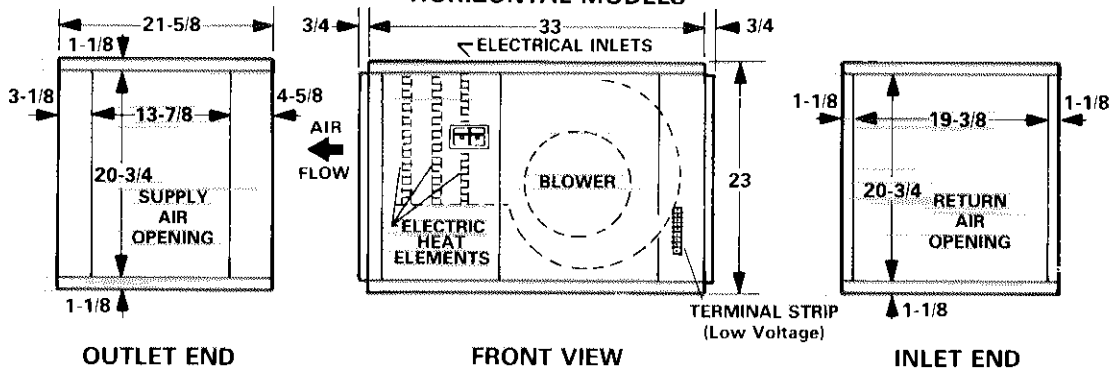


NOTE When installing on a combustible floor an additive base is required. Make an opening in the floor - 26-3/8 in. wide by 20-1/8 front to rear for LB-34695BC base (E12Q4 - Series), 31-3/8 in. wide by 20-1/8 in. front to rear for LB-34695BD base (E12Q5 - Series), 15-5/8 wide by 20-1/8 in. front to rear for LB-34695BA base (ES12Q2 - Series), 21-3/8 in. wide by 20-1/8 in. front to rear for LB-34695BB base (ES12Q3, ES12Q4 - Series).

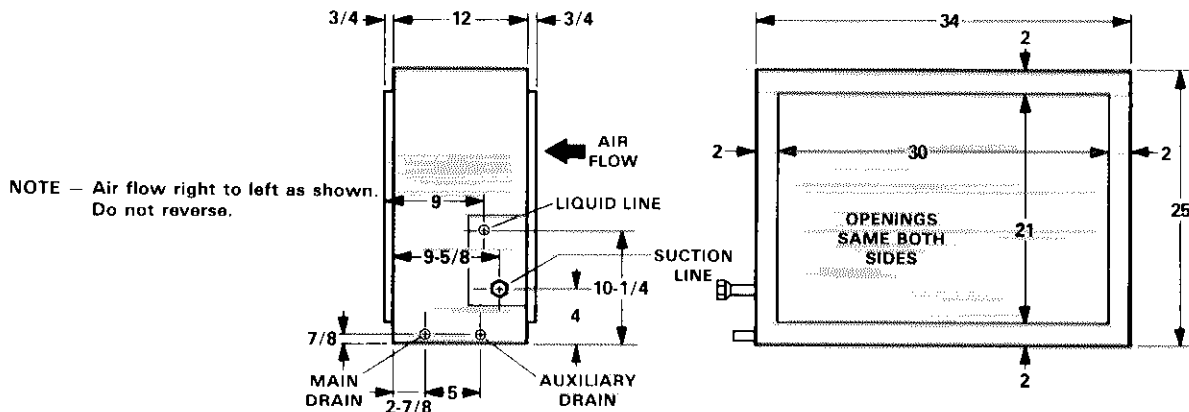
DIMENSIONS (inches)

ES12Q5

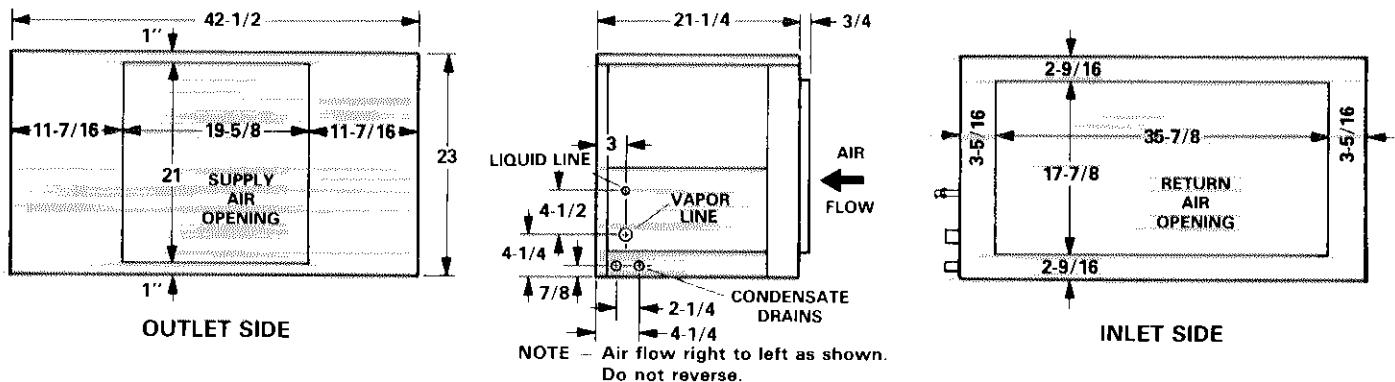
HORIZONTAL MODELS



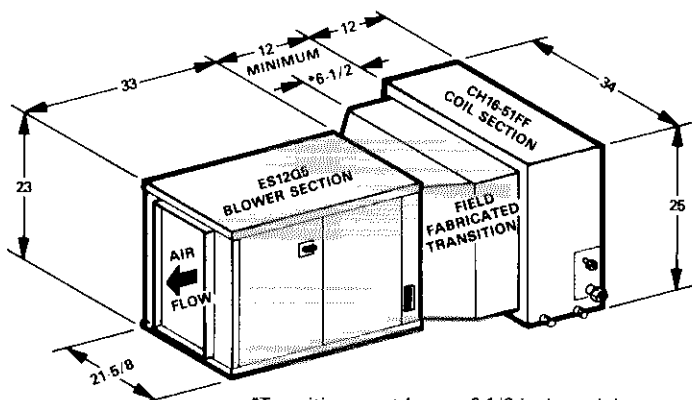
CH16-51FF HORIZONTAL COIL



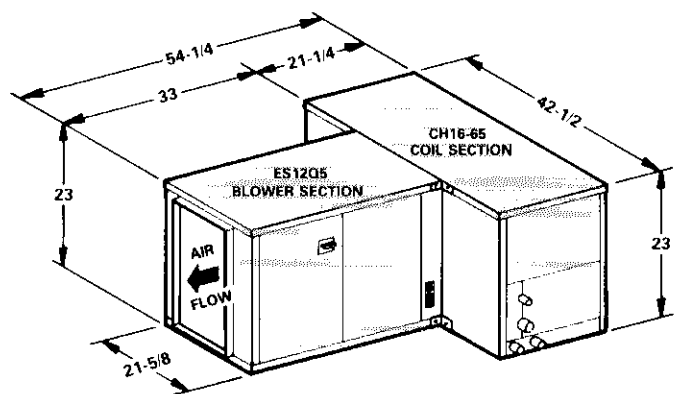
CH16-65V HORIZONTAL COIL



ES12Q5 UNIT WITH CH16-51FF COIL



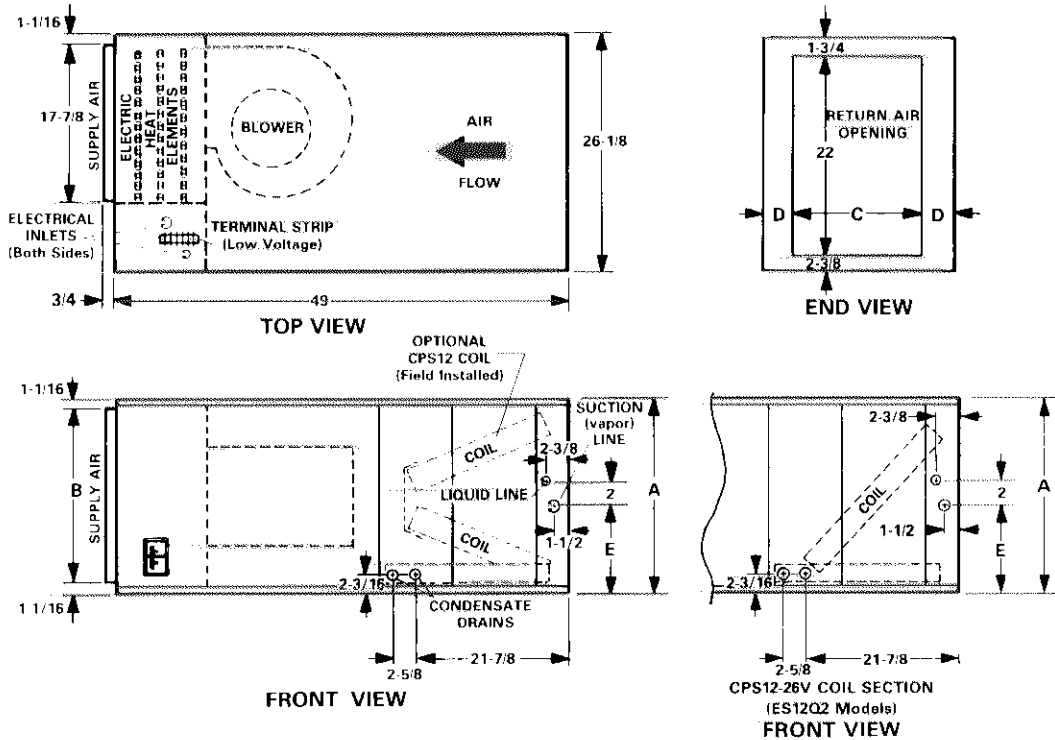
ES12Q5 UNIT WITH CH16-65V COIL



*Transition must have a 6-1/2 inch straight section from coil before transitioning.

DIMENSIONS (inches)

ES12Q2 – ES12Q3 – ES12Q4 HORIZONTAL MODELS

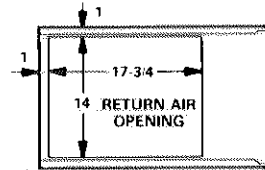
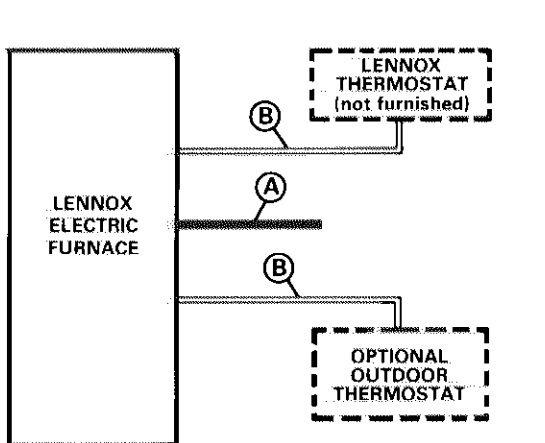


Model No.	A	B	C	D	E
ES12Q2 Series	16-1/4	14-1/8	11	2 3/8	7-1/4
ES12Q3 Series	21 1/4	19 1/8	14	3-5/8	9 7/8
ES12Q4 Series					

DIMENSIONS (inches)

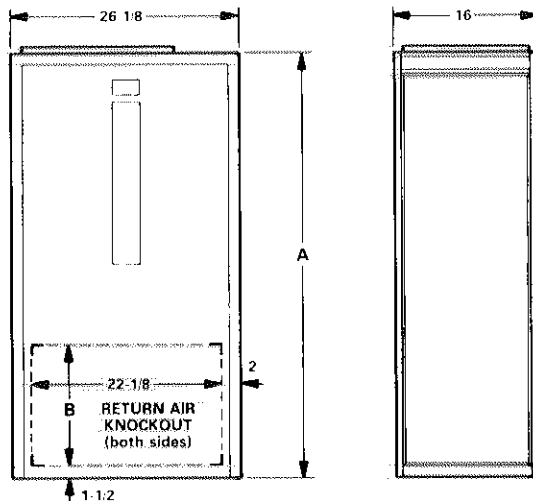
OPTIONAL RETURN AIR CABINET (For Up-Flo Models Only)

FIELD WIRING



Model No.	RA10-16-49	RA10-16-53
A	49	53
B	14	16

NOTE: Return air cabinet shipped knocked down and must be field assembled.



- A — Two wire power for each circuit required. (not furnished) See Electrical Data table.
 - B — Two wire low voltage (not furnished) — 18 ga. minimum.
- NOTE — All wiring must conform to NEC and local electrical codes.

BLOWER DATA

E12Q2 SERIES UPFLOW WITH †ELECTRIC HEAT ONLY BLOWER PERFORMANCE

External Static Pressure (in. wg.)	Air Volume (cfm) @ Various Speeds		
	High	Medium	Low
0	1295	990	680
.05	1275	990	685
.10	1255	985	690
.15	1235	980	690
.20	1210	975	690
.25	1190	970	685
.30	1160	960	685
.40	1100	935	670
.50	1030	895	645
.60	950	840	595

NOTE - All cfm is measured external to the unit with the air filter in place.
†Electric heat resistance reflects heater with maximum resistance (3 elements). To determine resistance of heater with less elements, deduct 0.05 external static pressure (in. wg.) per element.

E12Q2 SERIES UPFLOW WITH †ELECTRIC HEAT AND CP12-26 COIL BLOWER PERFORMANCE

External Static Pressure (in. wg.)	Air Volume (cfm) @ Various Speeds		
	High	Medium	Low
0	1045	915	710
.05	1015	895	705
.10	985	875	690
.15	955	855	675
.20	925	835	660
.25	895	805	640
.30	860	775	615
.40	790	700	555
.50	710	575	465
.60	600	400	---

NOTE - All cfm is measured external to the unit with the air filter in place.
†Electric heat resistance reflects heater with maximum resistance (3 elements). To determine resistance of heater with less elements, deduct 0.05 external static pressure (in. wg.) per element.

E12Q3 SERIES UPFLOW WITH †ELECTRIC HEAT BLOWER PERFORMANCE

External Static Pressure (in. wg.)	Air Volume (cfm) @ Various Speeds			
	High	Med-High	Med-Low	Low
0	1555	1340	1060	895
.05	1550	1340	1060	895
.10	1545	1340	1060	900
.15	1540	1335	1060	900
.20	1530	1330	1060	895
.25	1525	1325	1055	895
.30	1515	1320	1050	890
.40	1490	1300	1030	875
.50	1465	1275	1010	850
.60	1420	1240	980	820
.70	1370	1200	940	775

NOTE - All cfm is measured external to the unit with the air filter in place.
†Electric heat resistance reflects heater with maximum resistance (4 elements). To determine resistance of heater with less elements, deduct 0.05 external static pressure (in. wg.) per element.

E12Q3 SERIES UPFLOW WITH †ELECTRIC HEAT AND CP12-31 COIL BLOWER PERFORMANCE

External Static Pressure (in. wg.)	Air Volume (cfm) @ Various Speeds			
	High	Med-High	Med-Low	Low
0	1520	1360	1115	950
.05	1520	1360	1110	950
.10	1510	1360	1110	945
.15	1510	1350	1100	940
.20	1490	1340	1090	930
.25	1470	1325	1085	925
.30	1450	1310	1080	920
.40	1400	1275	1055	890
.50	1350	1230	1020	860
.60	1280	1170	980	810
.70	1210	1110		

NOTE - All cfm is measured external to the unit with the air filter in place.
†Electric heat resistance reflects heater with maximum resistance (4 elements). To determine resistance of heater with less elements, deduct 0.05 external static pressure (in. wg.) per element.

E12Q3 SERIES UPFLOW WITH †ELECTRIC HEAT AND CP12-41 COIL BLOWER PERFORMANCE

External Static Pressure (in. wg.)	Air Volume (cfm) @ Various Speeds			
	High	Med-High	Med-Low	Low
0	1530	1350	1090	920
.05	1510	1340	1085	915
.10	1490	1320	1080	910
.15	1465	1310	1075	905
.20	1450	1295	1070	895
.25	1420	1280	1060	885
.30	1400	1260	1050	880
.40	1350	1225	1030	850
.50	1295	1180	985	810
.60	1230	1120	925	740

NOTE - All cfm is measured external to the unit with the air filter in place.
†Electric heat resistance reflects heater with maximum resistance (4 elements). To determine resistance of heater with less elements, deduct 0.05 external static pressure (in. wg.) per element.

E12Q4 SERIES UPFLOW OR DOWNFLOW WITH †ELECTRIC HEAT BLOWER PERFORMANCE

External Static Pressure (in. wg.)	Air Volume (cfm) @ Various Speeds		
	High	Medium	Low
0	2040	1430	1180
.05	2020	1440	1180
.10	1995	1450	1175
.15	1970	1455	1170
.20	1945	1455	1165
.25	1920	1450	1160
.30	1890	1440	1150
.40	1830	1420	1130
.50	1750	1390	1110
.60	1660	1370	1090

NOTE - All cfm is measured external to the unit with the air filter in place.
†Electric heat resistance reflects heater with maximum resistance (5 elements). To determine resistance of heater with less elements, deduct 0.05 external static pressure (in. wg.) per element.

BLOWER DATA

E12Q4 SERIES UPFLOW WITH †ELECTRIC HEAT AND CP12-46 COIL BLOWER PERFORMANCE

External Static Pressure (in. wg.)	Air Volume (cfm) @ Various Speeds		
	High	Medium	Low
0	1920	1460	1070
.05	1885	1450	1070
.10	1840	1440	1080
.15	1810	1430	1080
.20	1770	1415	1085
.25	1730	1400	1085
.30	1690	1380	1085
.40	1620	1335	1070
.50	1540	1280	1050
.60	1450	1210	1000

NOTE -- All cfm is measured external to the unit with the air filter in place.
†Electric heat resistance reflects heater with maximum resistance (5 elements). To determine resistance of heater with less elements, deduct 0.05 external static pressure (in. wg.) per element.

E12Q4 SERIES DOWNFLOW WITH †ELECTRIC HEAT AND CPR12-46 COIL BLOWER PERFORMANCE

External Static Pressure (in. wg.)	Air Volume (cfm) @ Various Speeds		
	High	Medium	Low
0	1870	1495	1150
.05	1820	1480	1130
.10	1770	1460	1120
.15	1730	1440	1110
.20	1700	1420	1100
.25	1660	1395	1100
.30	1630	1370	1090
.40	1550	1320	1080
.50	1480	1270	1050
.60	1400	1200	1010

NOTE All cfm is measured external to the unit.
†Electric heat resistance reflects heater with maximum resistance (5 elements). To determine resistance of heater with less elements, deduct 0.05 external static pressure (in. wg.) per element.

E12Q4 SERIES UPFLOW WITH †ELECTRIC HEAT AND CP12-51 COIL BLOWER PERFORMANCE

External Static Pressure (in. wg.)	Air Volume (cfm) @ Various Speeds		
	High	Medium	Low
0	1930	1420	1070
.05	1900	1410	1080
.10	1865	1400	1080
.15	1830	1390	1090
.20	1790	1380	1090
.25	1760	1370	1090
.30	1720	1360	1080
.40	1640	1320	1070
.50	1560	1280	1060
.60	1460	1220	1010

NOTE -- All cfm is measured external to the unit with the air filter in place.
†Electric heat resistance reflects heater with maximum resistance (5 elements). To determine resistance of heater with less elements, deduct 0.05 external static pressure (in. wg.) per element.

E12Q4 SERIES DOWNFLOW WITH †ELECTRIC HEAT AND CPR12-51 COIL BLOWER PERFORMANCE

External Static Pressure (in. wg.)	Air Volume (cfm) @ Various Speeds		
	High	Medium	Low
0	1870	1500	1130
.05	1830	1480	1130
.10	1790	1460	1140
.15	1755	1440	1140
.20	1720	1420	1135
.25	1680	1390	1130
.30	1650	1360	1120
.40	1570	1310	1090
.50	1480	1250	1050
.60	1390	1190	1010

NOTE -- All cfm is measured external to the unit.
†Electric heat resistance reflects heater with maximum resistance (5 elements). To determine resistance of heater with less elements, deduct 0.05 external static pressure (in. wg.) per element.

E12Q5 SERIES UPFLOW OR DOWNFLOW WITH †ELECTRIC HEAT BLOWER PERFORMANCE

External Static Pressure (in. wg.)	Air Volume (cfm) @ Various Speeds				
	High	Med-High	Medium	Med-Low	Low
0	2855	2610	2315	1985	1715
.05	2830	2585	2290	1970	1695
.10	2800	2560	2265	1945	1670
.15	2775	2535	2240	1925	1645
.20	2745	2510	2210	1905	1620
.25	2715	2480	2185	1880	1590
.30	2680	2445	2160	1850	1560
.40	2605	2375	2100	1795	1500
.50	2510	2295	2030	1725	1430
.60	2380	2190	1955	1640	1360

NOTE All cfm is measured external to the unit with the air filter in place.
†Electric heat resistance reflects heater with maximum resistance (6 elements). To determine resistance of heater with less elements, deduct 0.05 external static pressure (in. wg.) per element.

E12Q5 SERIES UPFLOW WITH †ELECTRIC HEAT AND CP12-65 COIL BLOWER PERFORMANCE

External Static Pressure (in. wg.)	Air Volume (cfm) @ Various Speeds				
	High	Med-High	Medium	Med-Low	Low
0	2525	2340	2105	1860	1655
.05	2490	2305	2080	1835	1610
.10	2450	2270	2050	1805	1575
.15	2410	2240	2020	1775	1540
.20	2370	2205	1990	1745	1505
.25	2330	2170	1960	1715	1470
.30	2290	2135	1930	1785	1440
.40	2210	2060	1860	1615	1370
.50	2120	1970	1790	1545	1295
.60	2020	1880	1700	1465	1215

NOTE All cfm is measured external to the unit with the air filter in place.
†Electric heat resistance reflects heater with maximum resistance (6 elements). To determine resistance of heater with less elements, deduct 0.05 external static pressure (in. wg.) per element.

**E12Q5 SERIES DOWNFLOW WITH
†ELECTRIC HEAT AND CPR12-65 COIL
BLOWER PERFORMANCE**

External Static Pressure (in. wg.)	Air Volume (cfm) @ Various Speeds				
	High	Med-High	Medium	Med-Low	Low
0	2490	2350	2165	1930	1680
.05	2460	2320	2140	1900	1655
.10	2430	2290	2110	1870	1630
.15	2395	2255	2080	1845	1605
.20	2360	2220	2050	1815	1580
.25	2325	2185	2020	1785	1550
.30	2285	2140	1980	1750	1520
.40	2200	2050	1900	1675	1460
.50	2090	1955	1800	1575	1380
.60	1930	1815	1650	1430	1270

NOTE All cfm is measured external to the unit.
†Electric heat resistance reflects heater with maximum resistance (6 elements). To determine resistance of heater with less elements, deduct 0.05 external static pressure (in. wg.) per element.

**ES12Q2 SERIES HORIZONTAL OR DOWNFLOW
WITH †ELECTRIC HEAT
BLOWER PERFORMANCE**

External Static Pressure (in. wg.)	Air Volume (cfm) @ Various Speeds		
	High	Medium	Low
0	1280	980	690
.05	1275	975	690
.10	1270	965	690
.15	1255	960	690
.20	1240	955	685
.25	1210	945	680
.30	1185	935	675
.40	1125	910	650
.50	1050	865	600
.60	925	770	---

NOTE All cfm is measured external to the unit.
†Electric heat resistance reflects heater with maximum resistance (3 elements). To determine resistance of heater with less elements, deduct 0.05 external static pressure (in. wg.) per element.

**ES12Q2 SERIES DOWNFLOW WITH
†ELECTRIC HEAT AND CPR12-26 COIL
BLOWER PERFORMANCE**

External Static Pressure (in. wg.)	Air Volume (cfm) @ Various Speeds		
	High	Medium	Low
0	1055	950	745
.05	1030	930	735
.10	1000	905	725
.15	975	880	705
.20	945	855	695
.25	915	830	675
.30	885	800	660
.40	820	740	610
.50	750	670	525
.60	650	600	---

NOTE --- All cfm is measured external to the unit.
†Electric heat resistance reflects heater with maximum resistance (3 elements). To determine resistance of heater with less elements, deduct 0.05 external static pressure (in. wg.) per element.

**ES12Q2 SERIES HORIZONTAL WITH
†ELECTRIC HEAT AND CPS12-26 COIL
BLOWER PERFORMANCE**

External Static Pressure (in. wg.)	Air Volume (cfm) @ Various Speeds		
	High	Medium	Low
0	1125	970	755
.05	1125	960	750
.10	1115	945	740
.15	1100	935	730
.20	1075	920	720
.25	1045	905	710
.30	1015	880	695
.40	935	840	660
.50	850	770	605
.60	750	---	---

NOTE --- All cfm is measured external to the unit.
†Electric heat resistance reflects heater with maximum resistance (3 elements). To determine resistance of heater with less elements, deduct 0.05 external static pressure (in. wg.) per element.

**ES12Q3 SERIES HORIZONTAL OR
DOWNFLOW WITH †ELECTRIC HEAT
BLOWER PERFORMANCE**

External Static Pressure (in. wg.)	Air Volume (cfm) @ Various Speeds		
	High	Medium	Low
0	1340	995	680
.05	1325	990	680
.10	1315	990	680
.15	1300	985	680
.20	1290	985	680
.25	1275	980	680
.30	1260	975	680
.40	1220	955	670
.50	1155	910	650
.60	1020	830	---

NOTE All cfm is measured external to the unit.
†Electric heat resistance reflects heater with maximum resistance (4 elements). To determine resistance of heater with less elements, deduct 0.05 external static pressure (in. wg.) per element.

**ES12Q3 SERIES DOWNFLOW
WITH †ELECTRIC HEAT AND CPR12-31 COIL
BLOWER PERFORMANCE**

External Static Pressure (in. wg.)	Air Volume (cfm) @ Various Speeds		
	High	Medium	Low
0	1245	955	660
.05	1225	950	660
.10	1200	945	660
.15	1175	935	655
.20	1150	925	655
.25	1125	915	650
.30	1095	905	645
.40	1045	875	615
.50	970	825	545

NOTE --- All cfm is measured external to the unit.
†Electric heat resistance reflects heater with maximum resistance (4 elements). To determine resistance of heater with less elements, deduct 0.05 external static pressure (in. wg.) per element.

ES12Q3 SERIES HORIZONTAL WITH †ELECTRIC HEAT AND CPS12-31 COIL BLOWER PERFORMANCE

External Static Pressure (in. wg.)	Air Volume (cfm) @ Various Speeds		
	High	Med-High	Med-Low
0	1220	945	660
.05	1200	940	660
.10	1175	930	655
.15	1155	925	655
.20	1130	920	650
.25	1105	910	645
.30	1080	895	635
.40	1020	865	610
.50	995	820	515

NOTE - All cfm is measured external to the unit.
†Electric heat resistance reflects heater with maximum resistance (4 elements). To determine resistance of heater with less elements, deduct 0.05 external static pressure (in. wg.) per element.

ES12Q4 SERIES HORIZONTAL OR DOWNFLOW WITH †ELECTRIC HEAT BLOWER PERFORMANCE

External Static Pressure (in. wg.)	Air Volume (cfm) @ Various Speeds			
	High	Med-High	Med-Low	Low
0	1585	1365	1090	935
.05	1580	1365	1090	930
.10	1575	1360	1090	925
.15	1570	1360	1085	925
.20	1570	1355	1085	920
.25	1560	1355	1085	915
.30	1555	1350	1085	910
.40	1535	1335	1075	905
.50	1510	1320	1055	895
.60	1460	1300	1040	880

NOTE - All cfm is measured external to the unit.
†Electric heat resistance reflects heater with maximum resistance (4 elements). To determine resistance of heater with less elements, deduct 0.05 external static pressure (in. wg.) per element.

ES12Q4 SERIES DOWNFLOW WITH †ELECTRIC HEAT †AND CPR12-41 COIL BLOWER PERFORMANCE

External Static Pressure (in. wg.)	Air Volume (cfm) @ Various Speeds			
	High	Med-High	Med-Low	Low
0	1575	1410	1130	965
.05	1555	1395	1125	960
.10	1535	1380	1120	955
.15	1515	1365	1115	950
.20	1495	1350	1110	945
.25	1475	1335	1100	940
.30	1455	1320	1090	930
.40	1410	1285	1075	915
.50	1360	1245	1050	890
.60	1310	1200	1010	850

NOTE - All cfm is measured external to the unit.
†Electric heat resistance reflects heater with maximum resistance (4 elements). To determine resistance of heater with less elements, deduct 0.05 external static pressure (in. wg.) per element.

ES12Q4 SERIES HORIZONTAL WITH †ELECTRIC HEAT AND CPS12-41/46 COIL BLOWER PERFORMANCE

External Static Pressure (in. wg.)	Air Volume (cfm) @ Various Speeds			
	High	Med-High	Med-Low	Low
0	1565	1365	1105	920
.05	1550	1365	1110	930
.10	1535	1360	1110	930
.15	1520	1350	1110	930
.20	1505	1340	1105	925
.25	1475	1330	1095	920
.30	1455	1310	1085	910
.40	1410	1275	1055	885
.50	1360	1225	1020	860
.60	1290	1170	975	820

NOTE - All cfm is measured external to the unit.
†Electric heat resistance reflects heater with maximum resistance (4 elements). To determine resistance of heater with less elements, deduct 0.05 external static pressure (in. wg.) per element.

ES12Q5 SERIES HORIZONTAL WITH †ELECTRIC HEAT BLOWER PERFORMANCE

External Static Pressure (in. wg.)	Air Volume (cfm) @ Various Speeds				
	High	Med-High	Medium	Med-Low	Low
0	2600	2400	2180	1880	1615
.05	2570	2360	2160	1860	1660
.10	2530	2330	2130	1840	1585
.15	2500	2300	2110	1820	1570
.20	2470	2280	2090	1800	1555
.25	2435	2250	2060	1780	1540
.30	2400	2220	2035	1760	1525
.40	2330	2160	1985	1720	1490
.50	2260	2100	1930	1680	1450
.60	2180	2030	1870	1620	1410
.70	2110	1960	1810	1570	1360

NOTE - All cfm is measured external to the unit.
†Electric heat resistance reflects heater with maximum resistance (4 elements). To determine resistance of heater with less elements, deduct 0.05 external static pressure (in. wg.) per element.

ES12Q5 SERIES HORIZONTAL WITH †ELECTRIC HEAT AND CH16-51FF COIL BLOWER PERFORMANCE

External Static Pressure (in. wg.)	Air Volume (cfm) @ Various Speeds				
	High	Med-High	Medium	Med-Low	Low
0	2410	2280	2130	1850	1630
.05	2375	2265	2100	1830	1610
.10	2340	2250	2075	1810	1585
.15	2310	2225	2050	1790	1560
.20	2275	2200	2015	1760	1535
.25	2240	2170	1985	1735	1510
.30	2205	2140	1950	1710	1480
.40	2135	2070	1880	1650	1430
.50	2055	1990	1810	1585	1370
.60	1970	1910	1740	1520	1300

NOTE - All cfm is measured external to the unit.
†Electric heat resistance reflects heater with maximum resistance (4 elements). To determine resistance of heater with less elements, deduct 0.05 external static pressure (in. wg.) per element.

ES12Q5 SERIES HORIZONTAL WITH †ELECTRIC HEAT AND CH16-65V COIL BLOWER PERFORMANCE

External Static Pressure (in. wg.)	Air Volume (cfm) @ Various Speeds				
	High	Med-High	Medium	Med-Low	Low
0	2480	2310	2130	1840	1600
.05	2450	2280	2100	1820	1580
.10	2420	2260	2080	1810	1560
.15	2390	2220	2050	1790	1540
.20	2360	2200	2030	1770	1520
.25	2330	2160	2000	1750	1500
.30	2300	2140	1970	1730	1470
.40	2230	2080	1920	1680	1420
.50	2160	2010	1860	1630	1370
.60	2080	1910	1790	1570	1280
.70	2010	---	---	---	---

NOTE - All cfm is measured external to the unit.
†Electric heat resistance reflects heater with maximum resistance (4 elements). To determine resistance of heater with less elements, deduct 0.05 external static pressure (in. wg.) per element.