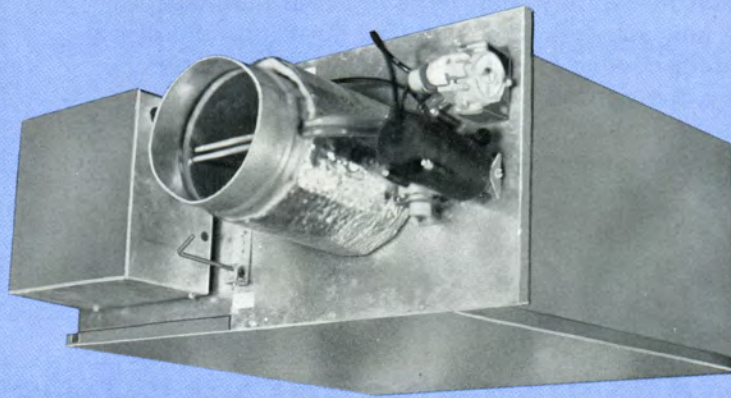


**Models ASFD/ASFF w/o Reheat
Models ATFD/ATFF w/o Reheat**

**Models ASWD/ASWF w/Hot Water Reheat
Models ATWD/ATWF w/Hot Water Reheat**

**Models ASFD/ASFF w/Electric Reheat
Models ATFD/ATFF w/Electric Reheat**



The Carnes intermittent fan terminal unit provides constant air volume to the space for reheat applications while retaining a variable air volume system during normal cooling operation.

The primary air control assembly operates independently as a standard throttling control valve for cooling loads. As cooling loads diminish, the secondary air supply fan(s) is energized to induce warm ceiling plenum air. A wide variety of control sequences makes this fan powered unit compatible with the most energy efficient system design.

Other Features Include:

- Fourteen unit sizes offering air flow capacities to 7300 CFM primary air and 3400 CFM secondary air with low pressure drop and low sound levels.
- Durable 22 gauge galvanized steel casing construction.
- Standard inlet and discharge connections.
- Forward curved centrifugal type fan assemblies with three speed, thermally protected, permanent split capacitor type 115 or 277 volt fractional horsepower motors.
- Field adjustable fan air flow damper (between three speeds).
- Field adjustable P/E switch with pneumatic controls.
- Performance data based on tests conducted in accordance with ADC/ARI Industry Standard 880.
- Averaging type velocity sensor and calibration chart for measuring primary air flow.
- All units equipped with pneumatic or electronic pressure independent controls.
- Insulation is 1" thick, 1½ lb. dual density fiberglass with surface treated to prevent air erosion, UL listed and meets NFPA 90A requirements.
- Low leakage primary air damper design.
- Optional ETL listing (Models ASFF/ATFF/ASWF/ATWF/ASEF/ATEF).
- Optional fan speed selector switch.
- Optional primary air controls enclosure.
- Optional secondary air sound baffle. Sound baffle is factory attached to secondary air inlet.
- Optional one or two row hot water coils (Models ASWD/ASWF and ATWD/ATWF. Coil is factory attached to primary air discharge.
- Optional one, two or three stage electric reheat coils (Models ASFD/ASFF and ATFD/ATFF). Coil is factory attached to primary air discharge, or shipped separately for field mounting.
- Optional secondary air filters, Class I (re-usable) and Class II (throw away).
- Optional non-fused fan disconnect switch.
- Optional foil coated insulation (Hospital, Laboratory, etc. applications).

Available Modules:

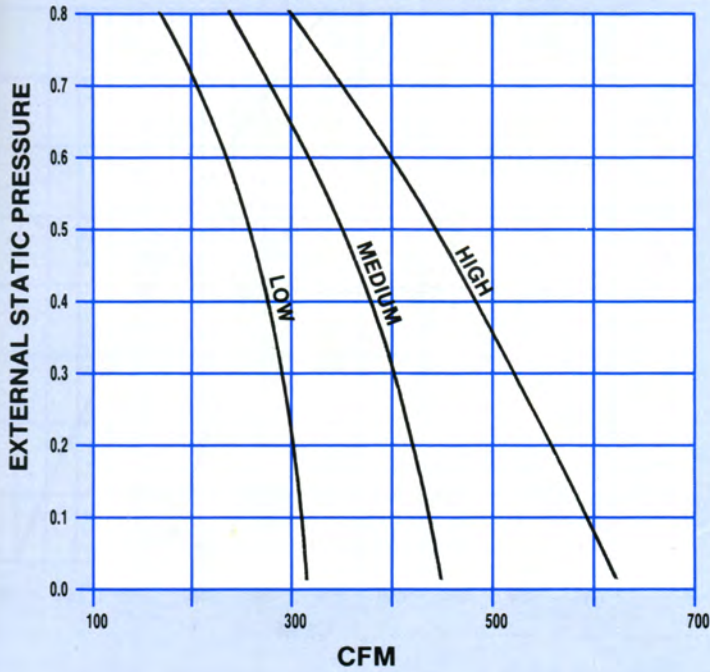
- Basic control unit—Models ASFD/ASFF/ATFD/ATFF.
- Basic control unit with hot water coil—Models ASWD/ASWF/ATWD/ATWF.
- Basic control unit with or without electric coil—Models ASFD/ASFF/ATFD/ATFF.

FAN CURVES — CFM vs External Static Pressure

Models AS 06 & 07 — AT 08 & 10

1/6 H. P. Motor

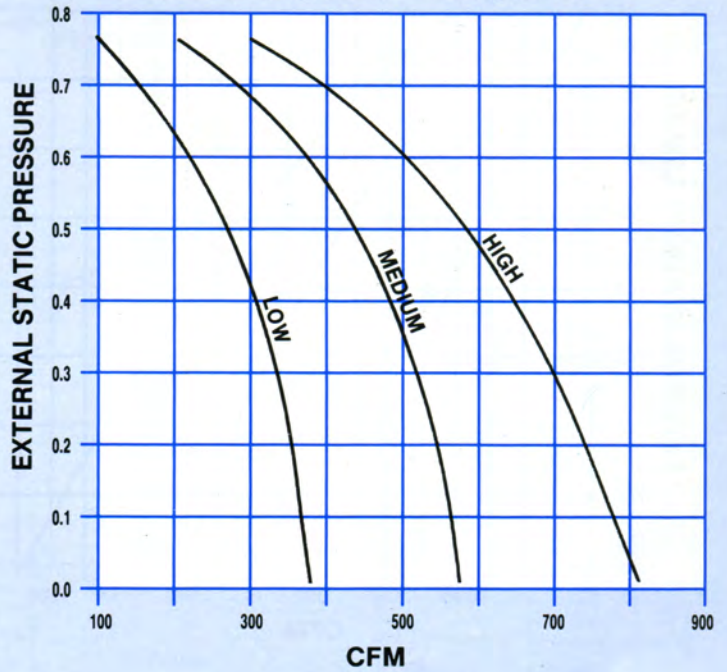
F.L.A.: 2.0A @ 120V 1.0A @ 277V



Models AS 08 — AT 12

1/5 H. P. Motor

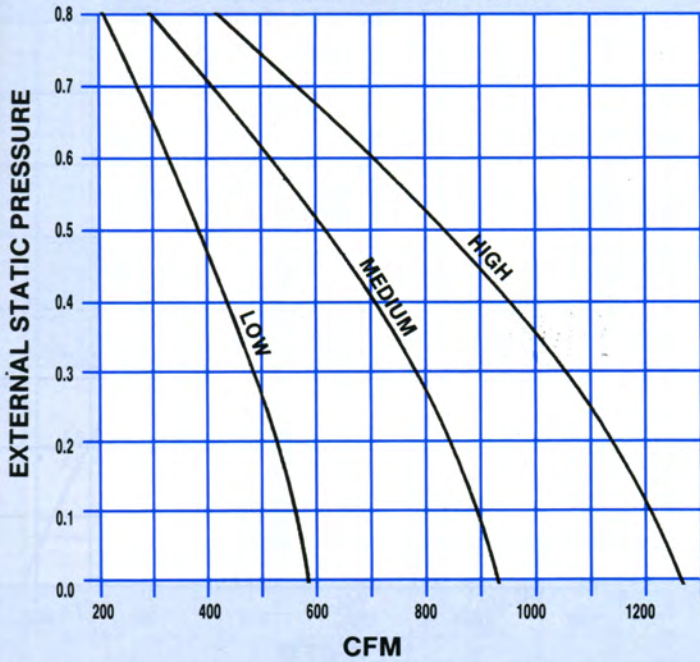
F.L.A.: 3.1A @ 120V 1.3A @ 277V



Models AS 10 — AT 14

1/4 H. P. Motor

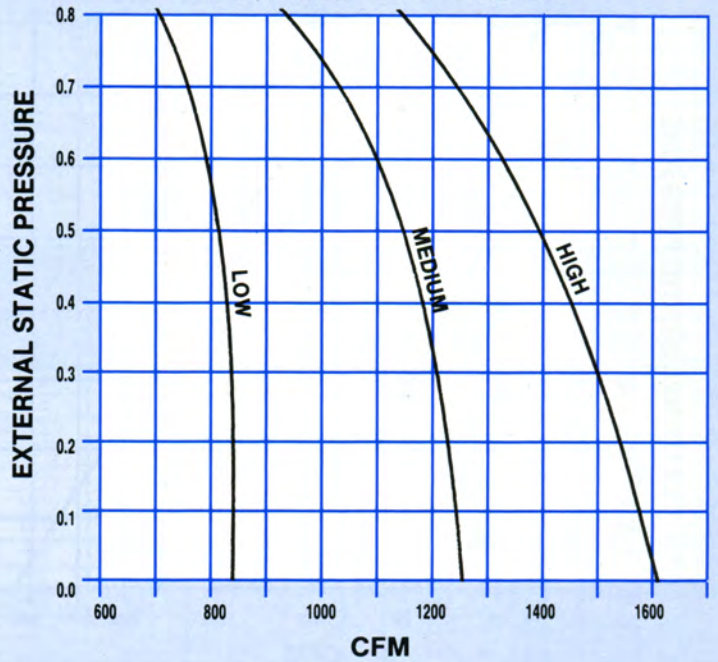
F.L.A.: 4.9A @ 120V 1.7A @ 277V



Models AS 12 — AT 16

1/2 H. P. Motor

F.L.A.: 6.6A @ 120V 2.5A @ 277V



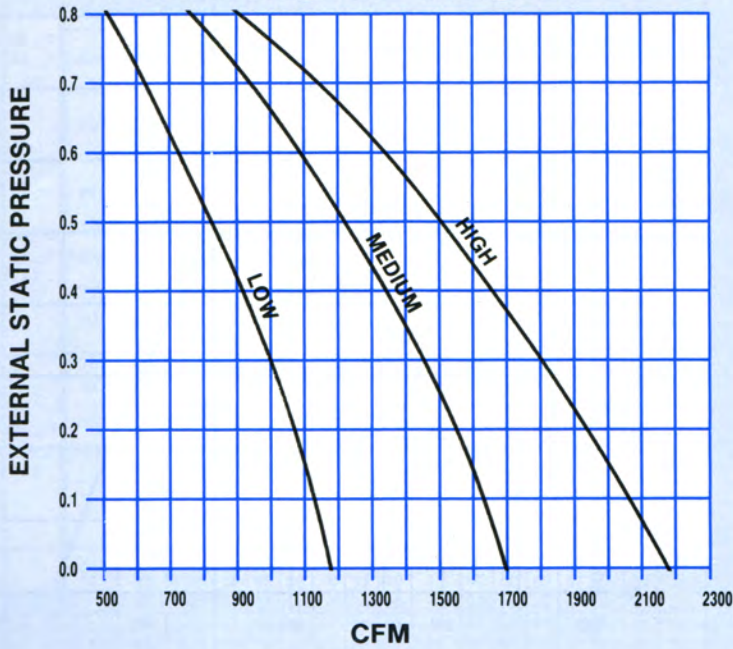
- NOTES:** 1. Pressure drops due to heating coils are treated as external static pressures (Refer to coil sections of this catalog for additional information.)
 2. F.L.A. = Full Load Amps of motor.

FAN CURVES — CFM vs External Static Pressure

Model AS 14

(2) 1/4 H. P. Motors

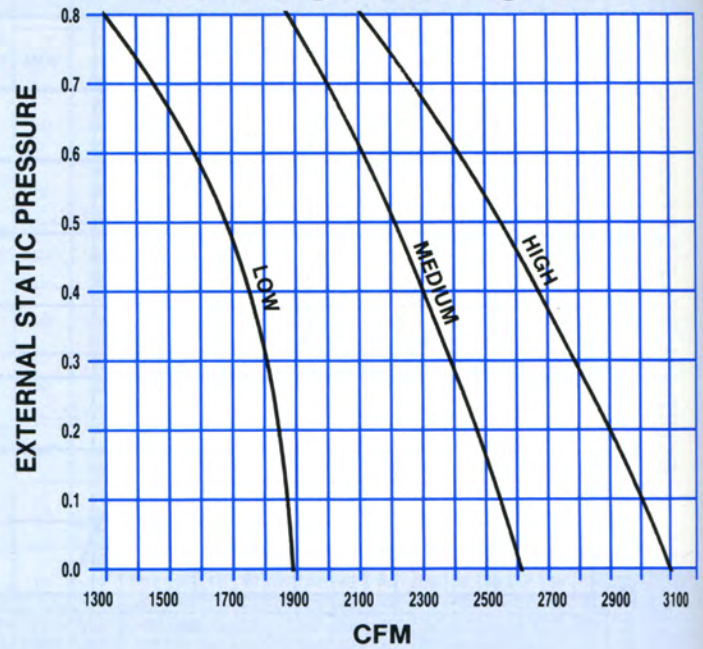
F.L.A.: 9.8A @ 120V 3.4A @ 277V



Model AS 16

(2) 1/2 H. P. Motors

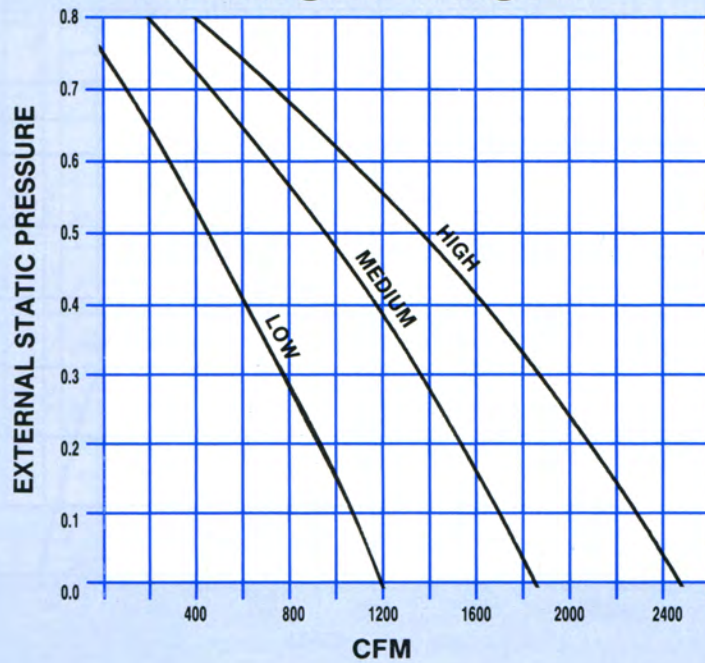
F.L.A.: 13.2A @ 120V 5.0A @ 277V



Model AT 18

(2) 1/4 H. P. Motors

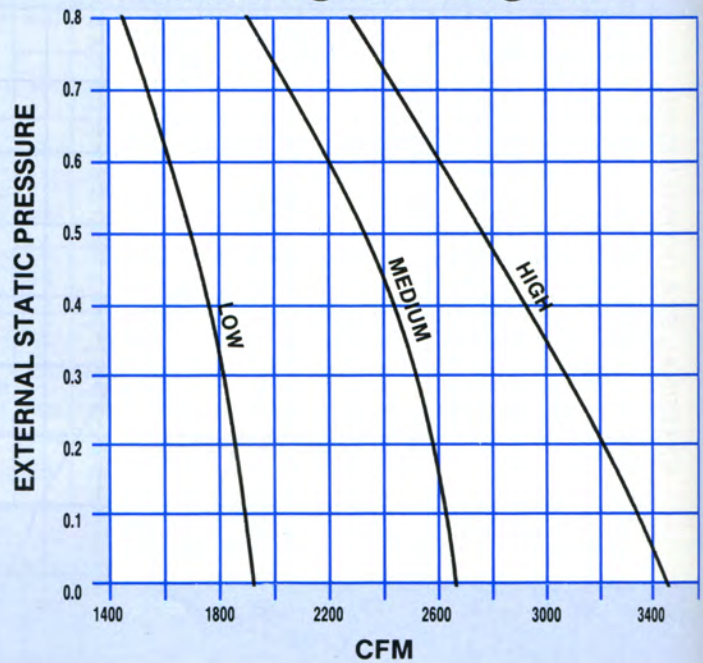
F.L.A.: 9.8A @ 120V 3.4A @ 277V



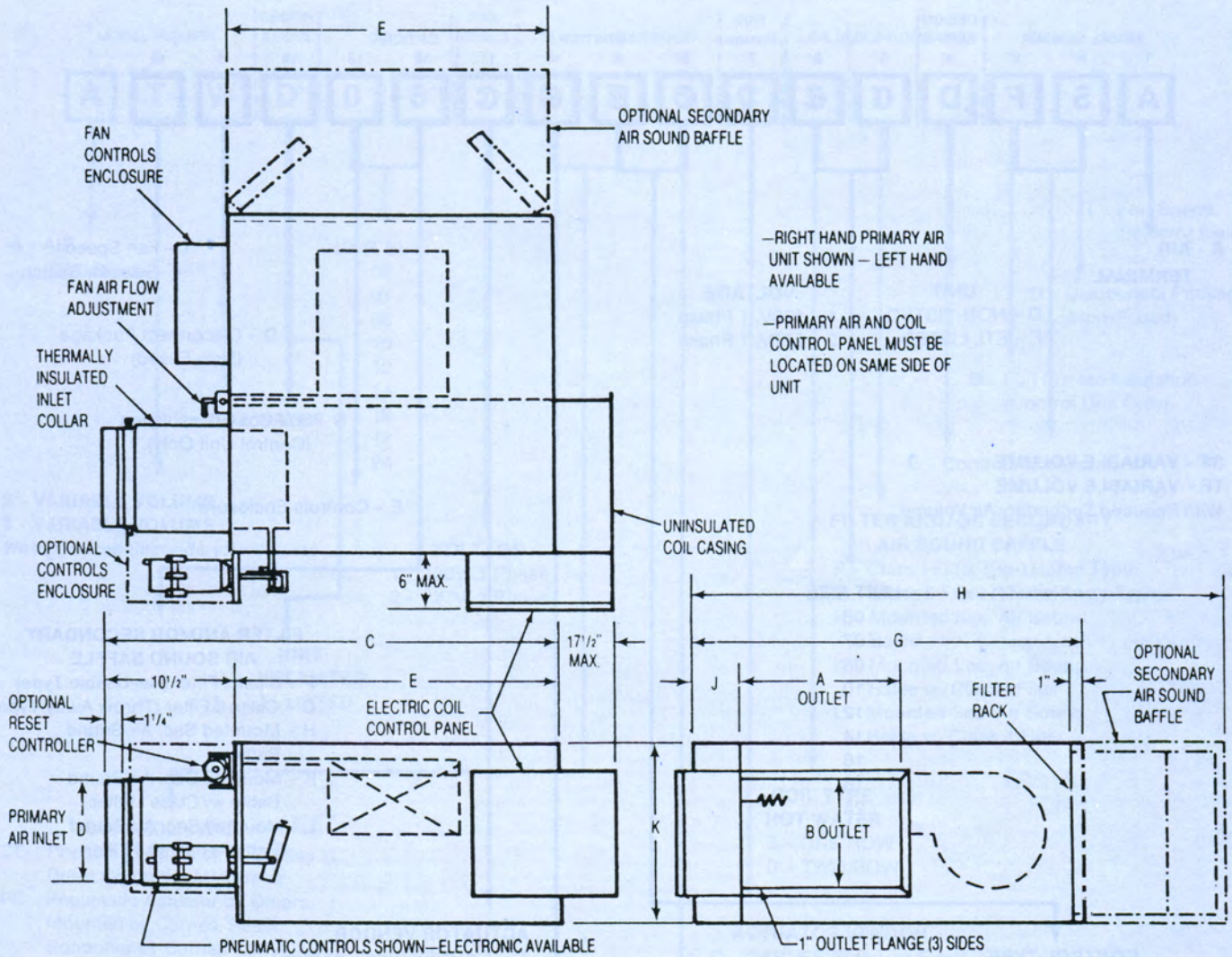
Model AT 24

(2) 1/2 H. P. Motors

F.L.A.: 13.2A @ 120V 5.0A @ 277V

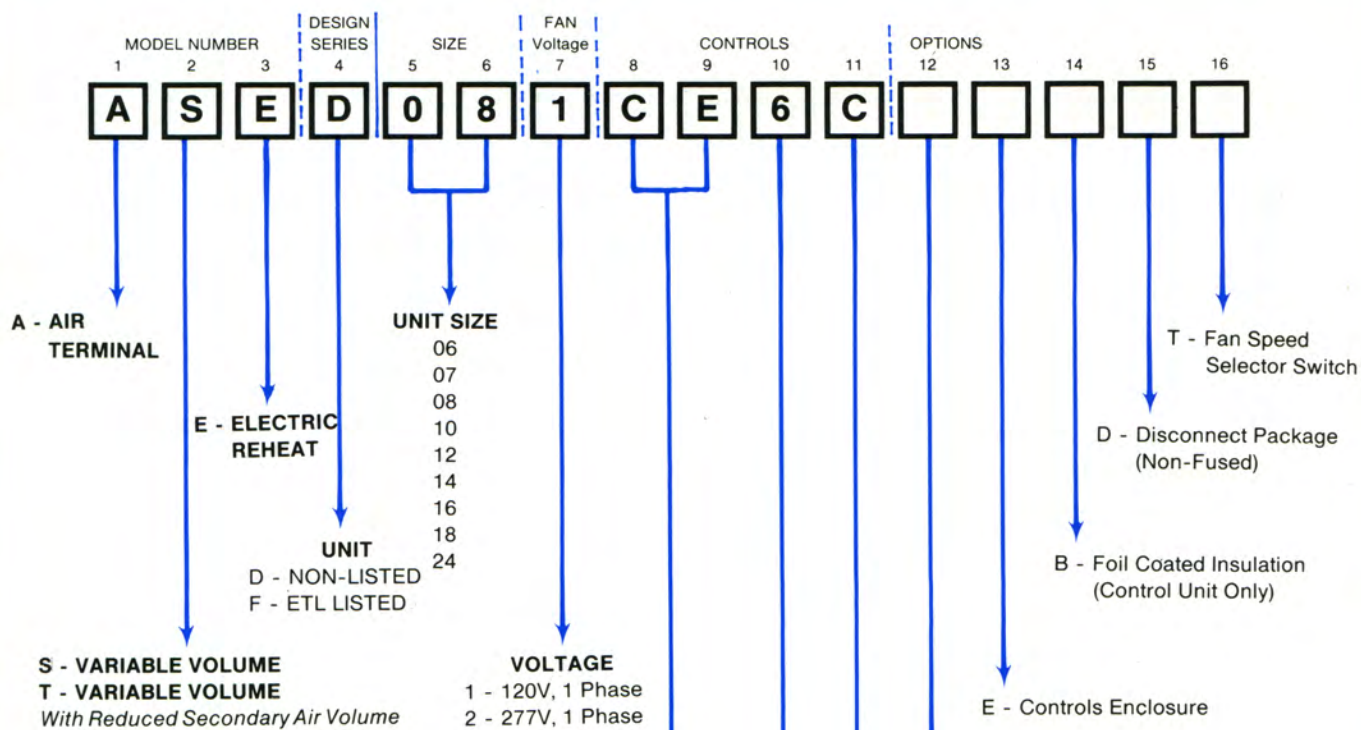


NOTES: 1. Pressure drops due to heating coils are treated as external static pressures (Refer to coil sections of this catalog for additional information.)
2. F.L.A. = Full Load Amps of motor.



DIMENSIONS LISTED IN INCHES

Models	Unit Size	Primary Nominal CFM	Secondary Nominal CFM @ .10" E.S.P.	Fan H.P.	A	B	C	D	E	G	H	J	K
ASED ASEF	06	500	580	1/6	14	8	36½	5⅞	26	31¼	43¼	3½	14
	07	700	580	1/6	14	8	36½	6⅞	26	31¼	43¼	3½	14
	08	1000	770	1/5	14	8	36½	7⅞	26	31¼	43¼	3½	14
	10	1500	1220	1/4	16	13	36½	9⅞	26	36¼	48¼	3½	17½
	12	2300	1575	1/2	16	13	36½	11⅞	26	36¼	48¼	3½	17½
	14	3100	2060	(2) 1/4	24	15½	56½	13⅞	46	44¼	61¼	3½	17½
	16	4200	3020	(2) 1/2	24	15½	56½	15⅞	46	44¼	61¼	3½	17½
ATED ATEF	08	1000	580	1/6	14	8	36½	7⅞	26	31¼	43¼	3½	14
	10	1500	580	1/6	14	8	36½	9⅞	26	31¼	43¼	3½	14
	12	2300	770	1/5	16	10½	36½	11⅞	26	33¼	45¼	3½	14
	14	3100	1220	1/4	24	15½	36½	13⅞	26	44¼	56¼	3½	17½
	16	4200	1575	1/2	24	15½	36½	15⅞	26	44¼	56¼	3½	17½
	18	5500	2310	(2) 1/4	32	15½	56½	15⅞x17⅞	46	52⅞	69⅞	4⅞	17½
	24	7300	3380	(2) 1/2	32	15½	56½	15⅞x23⅞	46	52⅞	69⅞	4⅞	17½



CONTROL TYPE

CE - Pneumatic Actuator by Carnes Reset Controller by Carnes

PE - Pneumatic Actuator by Others Mounted by Carnes, Reset Controller by Carnes

ES - Electronic Reset Controller with Fan Sequencing, Morning Warmup, Night Setback, Transformer and Actuator by Carnes

ET - Electronic Reset Controller with Fan Sequencing, Night Setback, Transformer and Actuator by Carnes (Less Morning Warmup)

FILTER AND/OR SECONDARY AIR SOUND Baffle

F - Class I Filter (Re-Usable Type)

G - Class II Filter (Throw Away Type)

H - Mounted Sec. Air Sound Baffle

K - Mounted Sec. Air Sound Baffle w/Class I Filter

L - Mounted Sec. Air Sound Baffle w/Class II Filter

ACTUATOR VENDOR

C - CARNES (Pneu. or Elec.)

H - HONEYWELL (Pneu. Only)

J - JOHNSON (Pneu. Only)

P - POWERS (Pneu. Only)

R - ROBERTSHAW (Pneu. Only)

- CONTROL/DAMPER ARRANGEMENT AND ELECTRIC COIL CONTROL PANEL LOCATION**
- 1 - Normally Open Right Hand Primary Air and Coil Control Panel Location (Electronic ES and ET Controls)(Pneumatic CE or PE Controls for Reverse Acting Thermostat)
 - 2 - Normally Open Left Hand Primary Air and Coil Control Panel Location (Electronic ES and ET Controls)(Pneumatic CE or PE Controls for Reverse Acting Thermostat)
 - 3 - Normally Closed Right Hand Primary Air and Coil Control Panel Location (Pneumatic CE or PE Controls for Direct Acting Thermostat)
 - 4 - Normally Closed Left Hand Primary Air and Coil Control Panel Location (Pneumatic CE or PE Controls for Direct Acting Thermostat)
 - 5 - Normally Open Right Hand Primary Air and Coil Control Panel Location (Pneumatic CE or PE Controls for Direct Acting Thermostat)
 - 6 - Normally Open Left Hand Primary Air and Coil Control Panel Location (Pneumatic CE or PE Controls for Direct Acting Thermostat)
 - 7 - Normally Closed Right Hand Primary Air and Coil Control Panel Location (Pneumatic CE or PE Controls for Reverse Acting Thermostat)
 - 8 - Normally Closed Left Hand Primary Air and Coil Control Panel Location (Pneumatic CE or PE Controls for Reverse Acting Thermostat)

NOTE: Hand is determined by facing the unit in the direction of primary air flow into the unit from supply duct.

A Carnes Thermostat **must be ordered** for compatibility with ES and ET Control Options.