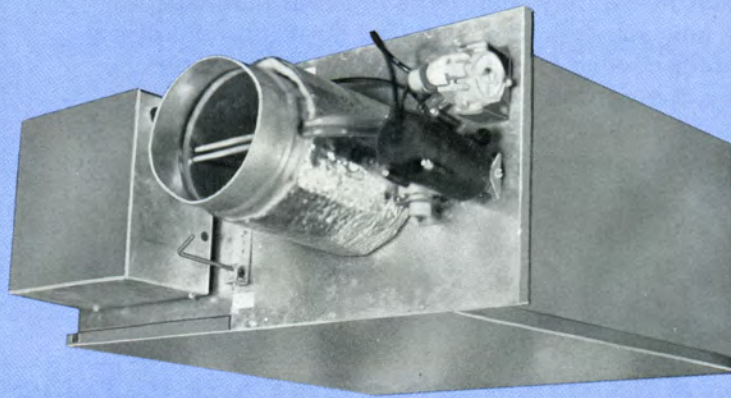


**Models ASFD/ASFF w/o Reheat
Models ATFD/ATFF w/o Reheat**

**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:

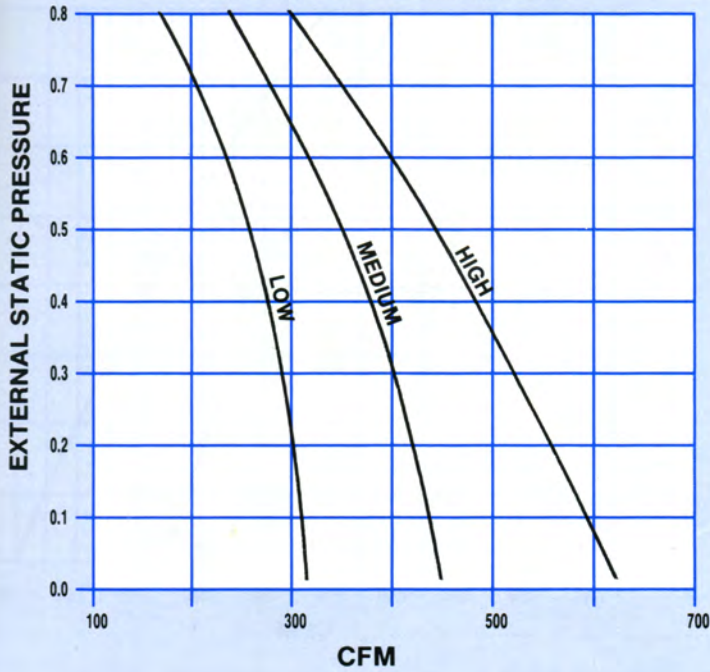
- Basic control unit—Models ASFD/ASFF/ATFD/ATFF.
- Basic control unit with hot water coil—Models ASWD/ASWF/ATWD/ATWF.
- Basic control unit with or without electric coil—Models ASFD/ASFF/ATFD/ATFF.

FAN CURVES — CFM vs External Static Pressure

Models AS 06 & 07 — AT 08 & 10

1/6 H. P. Motor

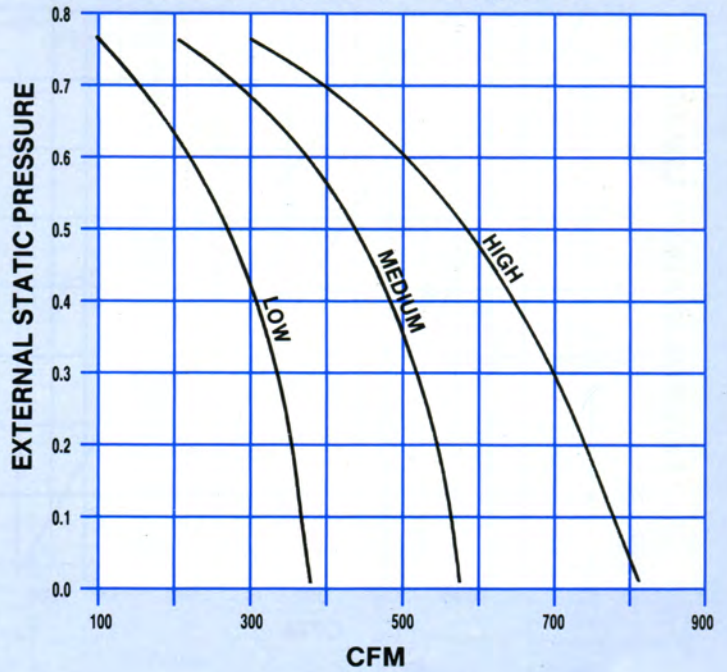
F.L.A.: 2.0A @ 120V 1.0A @ 277V



Models AS 08 — AT 12

1/5 H. P. Motor

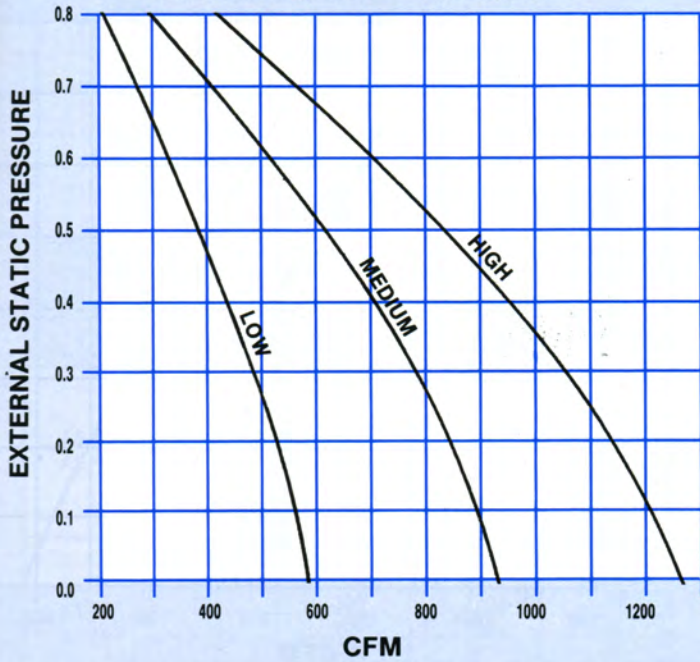
F.L.A.: 3.1A @ 120V 1.3A @ 277V



Models AS 10 — AT 14

1/4 H. P. Motor

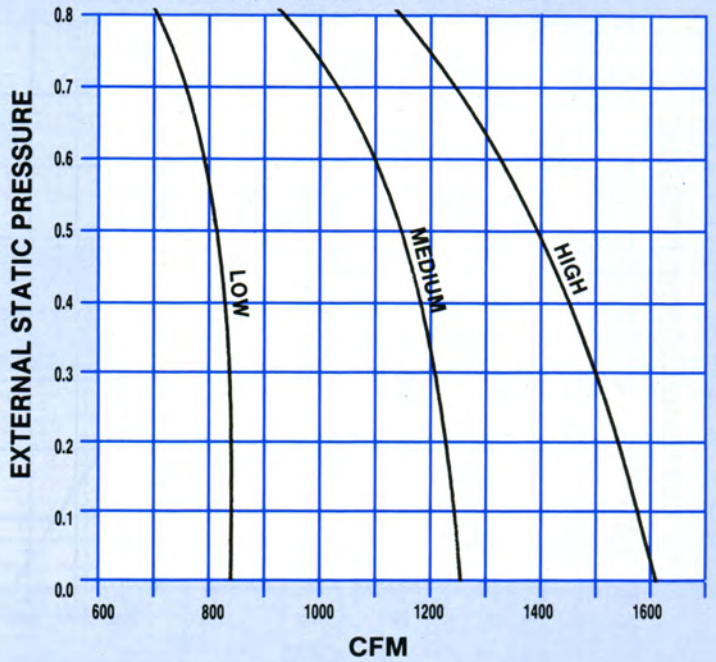
F.L.A.: 4.9A @ 120V 1.7A @ 277V



Models AS 12 — AT 16

1/2 H. P. Motor

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



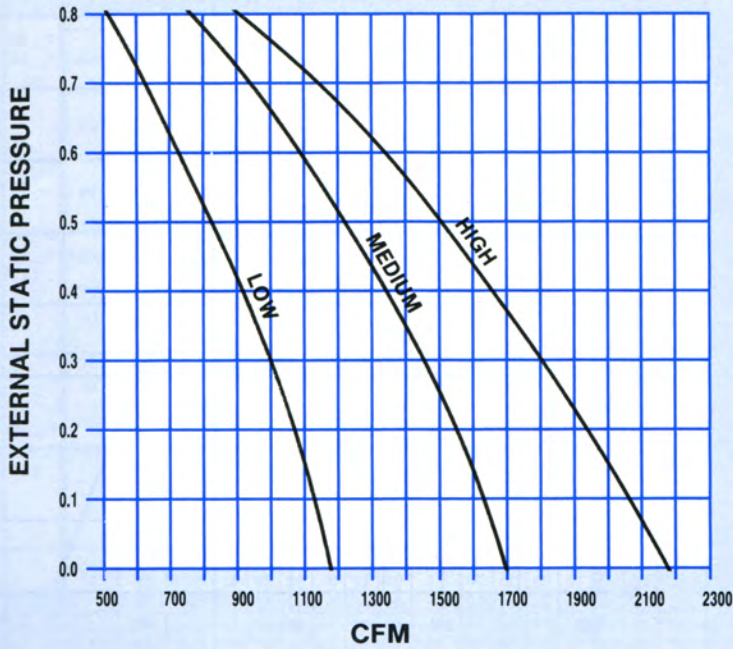
- NOTES:** 1. Pressure drops due to heating coils are treated as external static pressures (Refer to coil sections of this catalog for additional information.)
 2. F.L.A. = Full Load Amps of motor.

FAN CURVES — CFM vs External Static Pressure

Model AS 14

(2) 1/4 H. P. Motors

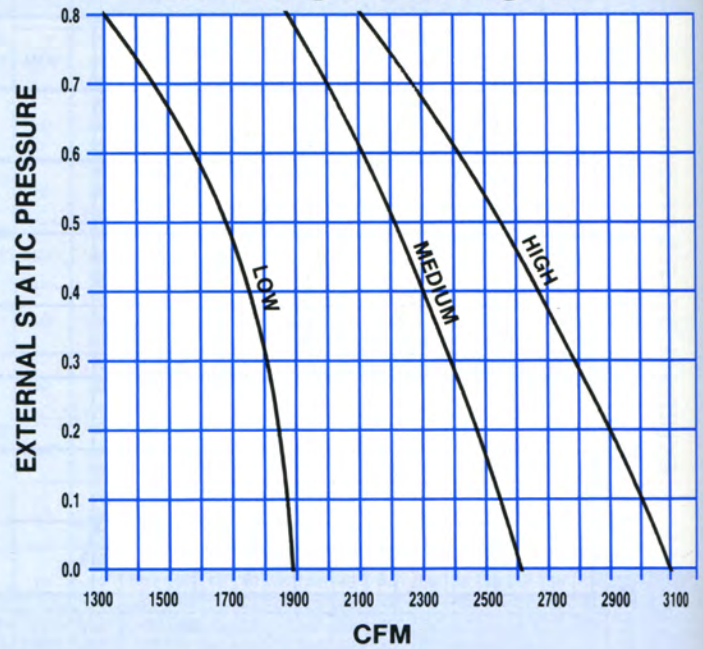
F.L.A.: 9.8A @ 120V 3.4A @ 277V



Model AS 16

(2) 1/2 H. P. Motors

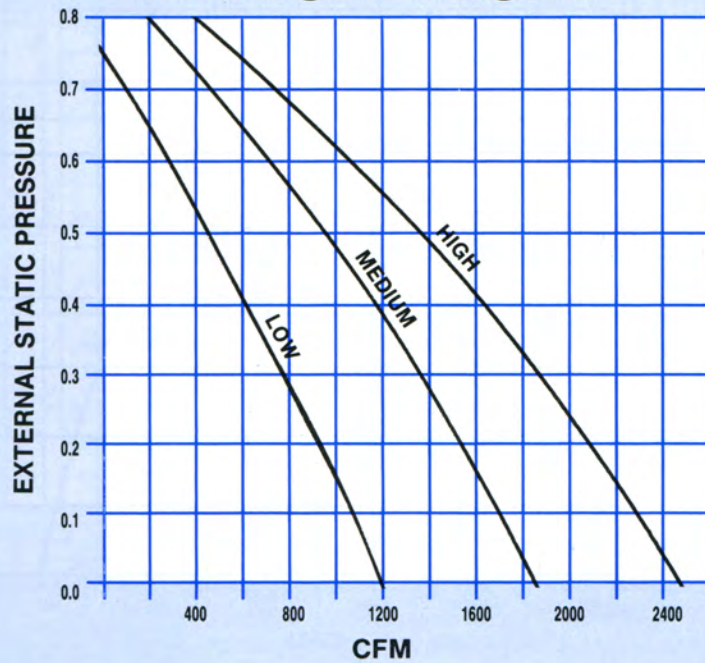
F.L.A.: 13.2A @ 120V 5.0A @ 277V



Model AT 18

(2) 1/4 H. P. Motors

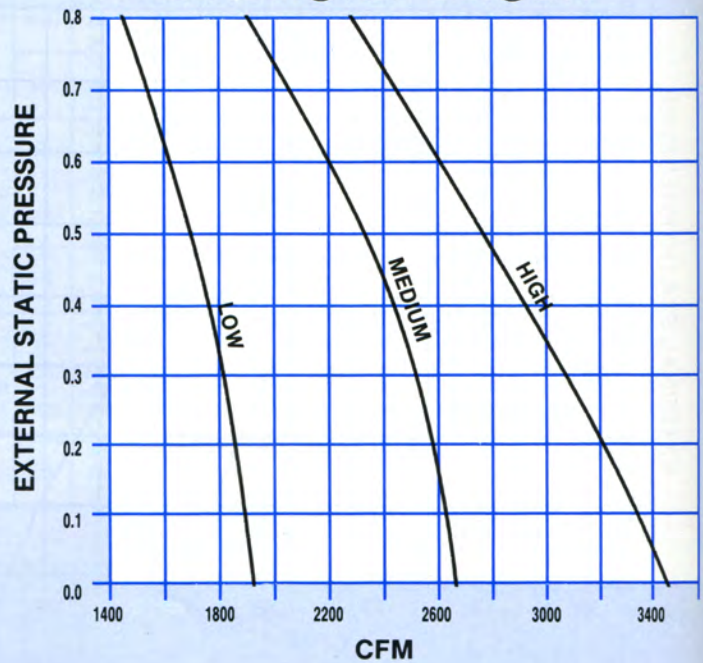
F.L.A.: 9.8A @ 120V 3.4A @ 277V



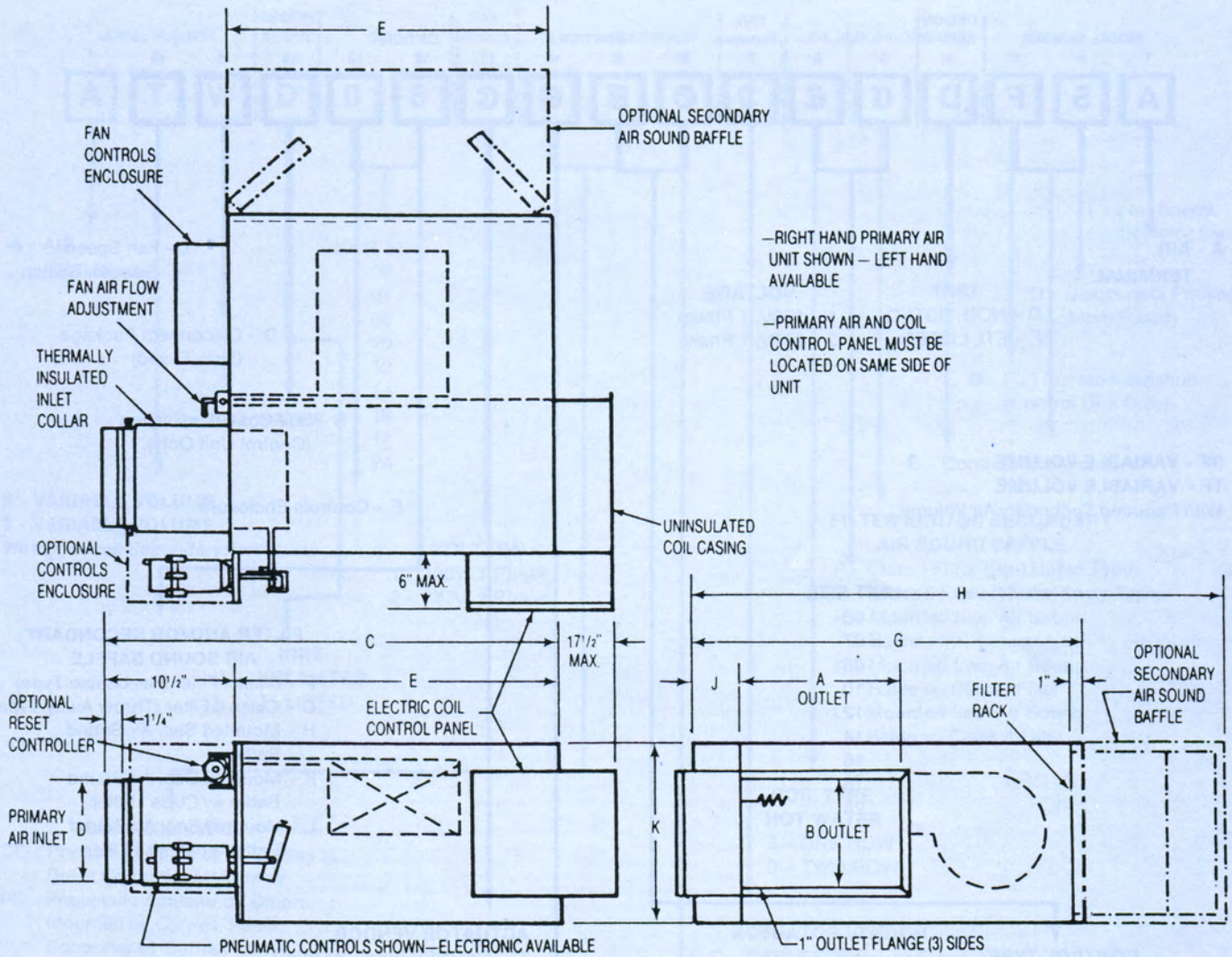
Model AT 24

(2) 1/2 H. P. Motors

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

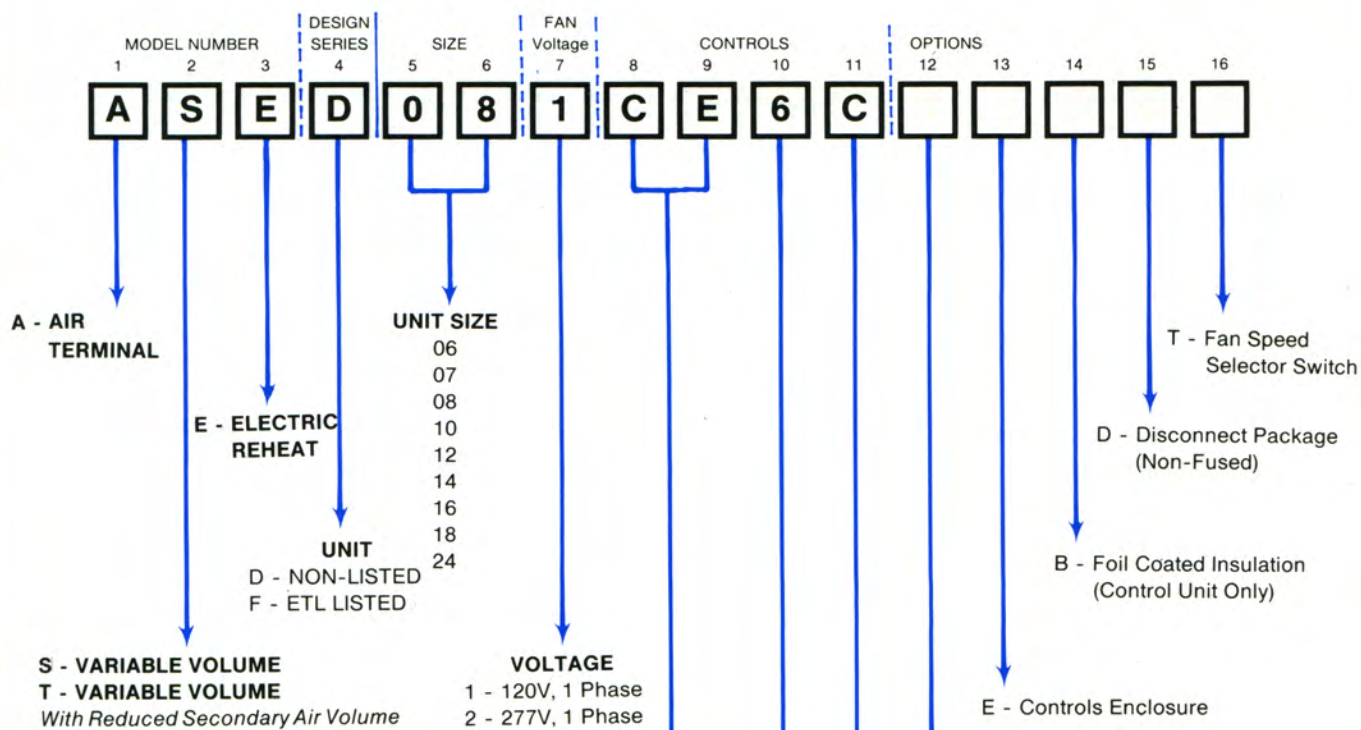


NOTES: 1. Pressure drops due to heating coils are treated as external static pressures (Refer to coil sections of this catalog for additional information.)
2. F.L.A. = Full Load Amps of motor.



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	31¾	43¾	3½	14
	07	700	580	1/6	14	8	36½	6⅞	26	31¾	43¾	3½	14
	08	1000	770	1/5	14	8	36½	7⅞	26	31¾	43¾	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	31¾	43¾	3½	14
	10	1500	580	1/6	14	8	36½	9⅞	26	31¾	43¾	3½	14
	12	2300	770	1/5	16	10½	36½	11⅞	26	33¾	45¾	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) | 5 - Normally Open Right Hand Primary Air and Coil Control Panel Location (Pneumatic CE or PE Controls for Direct 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) | 6 - Normally Open Left Hand Primary Air and Coil Control Panel Location (Pneumatic CE or PE Controls for Direct Acting Thermostat) |
| 3 - Normally Closed Right 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) |
| 4 - Normally Closed Left Hand Primary Air and Coil Control Panel Location (Pneumatic CE or PE Controls for Direct 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.

Electronic Units Do Not Fail Open. "1" or "2" is used for model numbering only.

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