DR80TC / DD80TC

Two-Stage, Variable Speed ECM Gas Furnace 80% AFUE

Heating Input: 60,000 –100,000 BTU/h

R32

Contents

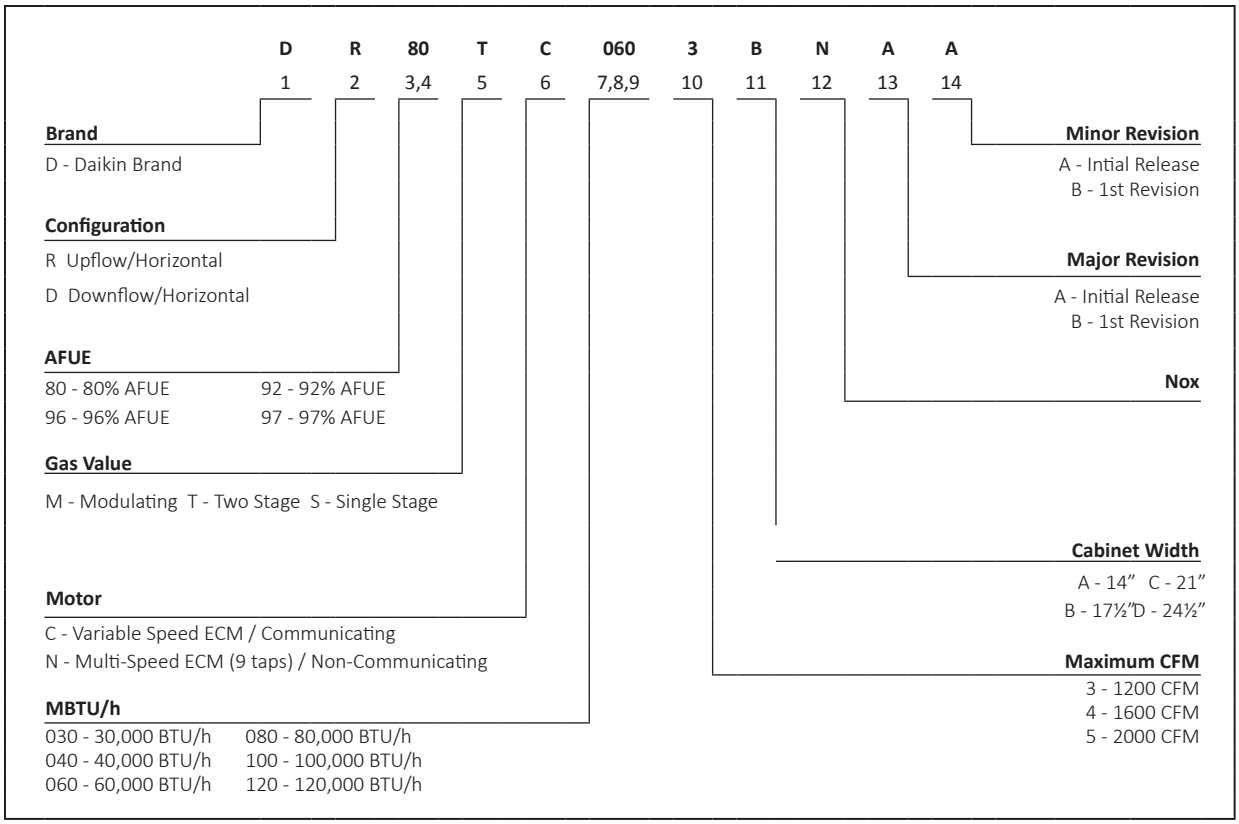
Standard Features

- Compatible with Daikin *One*+ smart thermostat and other Daikin communicating equipment
- Heavy-duty stainless-steel dual-diameter, tubular heat exchanger
- Two-stage gas valve provides quiet, economical heating
- Durable Silicon Nitride igniter
- Quiet two-speed draft inducer
- Self-diagnostic control board with constant memory fault code history output to a dual 7-segment display
- Color-coded low-voltage terminals with provisions for electronic air cleaner and humidifier
- Efficient and quiet variable-speed airflow system gently ramps up or down according to heating or cooling demand
- Multiple continuous fan speed options offer quiet air circulation
- Auto-Comfort and enhanced dehumidification modes available
- California Low NO_X emissions-compliant models available
- Can no longer be installed in California's South Coast Air Quality Management District (SCAQMD) on or after October 1, 2019
- AHRI Certified; ETL Listed

Cabinet Features

- Multi-position installation:
  DR80TC: Upflow, horizontal left or right.
  DD80TC: Downflow, horizontal left or right.
  Convenient left or right connection for gas and electrical service
- Cabinet air leakage (Q_{Leak}) ≤ 2%
- Heavy-gauge steel cabinet with durable baked-enamel finish
- Fully insulated heat exchanger and blower section

* Complete warranty details available from your local dealer or at www.daikincomfort.com. To receive the Lifetime Heat Exchanger Limited Warranty (good for as long as you own your home), the 12-Year Unit Replacement Limited Warranty and the 12-Year Parts Limited Warranty, online registration must be completed within 60 days of installation. Additional requirements for annual maintenance are required for the Unit Replacement Limited Warranty. Online registration and some of the additional requirements are not required in Florida, California, or Québec. The duration of warranty coverage in Texas and Florida differs in some cases. Other limitations and exclusions apply; refer to complete warranty details for a full list of limitations and exclusions.


D R 80 T C 060 3 B N A A
1 2 3,4 5 6 7,8,9 10 11 12 13 14
Brand
D - Daikin Brand
Configuration
R Upflow/Horizontal
D Downflow/Horizontal
AFUE
80 - 80% AFUE
92 - 92% AFUE
96 - 96% AFUE
97 - 97% AFUE
Gas Value
M - Modulating T - Two Stage S - Single Stage
Motor
C - Variable Speed ECM / Communicating
N - Multi-Speed ECM (9 taps) / Non-Communicating
MBTU/h
030 - 30,000 BTU/h
040 - 40,000 BTU/h
060 - 60,000 BTU/h
080 - 80,000 BTU/h
100 - 100,000 BTU/h
120 - 120,000 BTU/h
Minor Revision
A - Intial Release
B - 1st Revision
Major Revision
A - Initial Release
B - 1st Revision
Nox
Cabinet Width
A - 14" C - 21"
B - 17½"D - 24½"
Maximum CFM
3 - 1200 CFM
4 - 1600 CFM
5 - 2000 CFM

	DR80TC 0603B*	DR80TC 0604B*	DR80TC 0803B*	DR80TC 0804C*	DR80TC 0805C*	DR80TC 0805D*	DR80TC 1005C*
HEATING CAPACITY							
High Fire Input (BTU/h)[1]	60,000	60,000	80,000	80,000	80,000	80,000	100,000
High Fire Output (BTU/h)[1] (below)							
Natural Gas	48,000	48,000	64,000	64,000	64,000	64,000	80,000
LP Gas	48,000	48,000	64,000	64,000	64,000	64,000	80,000
Low Fire Input (BTU/h)[1]	42,000	42,000	56,000	56,000	56,000	56,000	70,000
Low Fire Output (BTU/h)[1] (below)							
Natural Gas	33,600	33,600	44,800	44,800	44,800	44,800	56,000
LP Gas	33,600	33,600	44,800	44,800	44,800	44,800	56,000
AFUE [2]	80	80	80	80	80	80	80
Available AC @ 0.5" ESP	1.5 - 3.0	1.5 - 4.0	1.5 - 3.0	3.0 - 4.0	2.0 - 5.0	2.5 - 5.0	2.0 - 5.0
Temp Rise Range (° F) High/Low Fire	15-45 / 15-45	20-50 / 20-50	30-60 / 30-60	25-55 / 25-55	20-50 / 20-50	20-50 / 20-50	25-55 / 25-55
CIRCULATOR BLOWER							
Size (D x W)	10" x 8"	10" x 8"	10" x 8"	11" x 10"	10" x 10"	11" x 10"	10" x 10"
Horsepower - RPM	1/2	3/4	1/2	1/2	3/4	3/4	3/4
Speed	Variable	Variable	Variable	Variable	Variable	Variable	Variable
Vent Diameter	4"	4"	4"	4"	4"	4"	4"
No. of Burners	3	3	4	4	4	4	5
ELECTRICAL DATA							
Min. Circuit Ampacity [3]	7.6	10.8	7.6	7.6	10.8	10.8	10.8
Max. Overcurrent Device (amps) [4]	15	15	15	15	15	15	15
SHIP WEIGHT (LBS)	105	107	110	118	121	129	124

[1] Natural Gas BTU/h; for altitudes above from 0' to 4,500' above sea level, reduce input rating 4% for each 1,000' above 4,500' altitude. Low-fire rate is 70% of high-fire rate.

[2] DOE AFUE based upon Isolated Combustion System (ICS)

[3] Minimum Circuit Ampacity = (1.25 x Circulator Blower Amps) + ID Blower amps. Wire size should be determined in accordance with National Electrical Codes. Extensive wire runs will require larger wire sizes.

[4] Maximum Overcurrent Protection Device refers to maximum recommended fuse or circuit breaker size. May use fuses or HACR-type circuit breakers of the same size as noted.

NOTES

- All furnaces are manufactured for use on 115 VAC, 60 Hz, single-phase electrical supply.
- Gas Service Connection ½" FPT
- Important: Size fuses and wires properly and make electrical connections in accordance with the National Electrical Code and/or all existing local codes.

	DD80TC 0603BX	DD80TC 0803BX	DD80TC 0805CX	DD80TC 1005CX
HEATING CAPACITY				
High Fire Input (BTU/h)[1]	60,000	80,000	80,000	100,000
High Fire Output (BTU/h)[1] (below)				
Natural Gas	48,000	64,000	64,000	80,000
LP Gas	48,000	64,000	64,000	80,000
Low Fire Input (BTU/h)[1]	42,000	56,000	56,000	70,000
Low Fire Output (BTU/h)1 (below)				
Natural Gas	33,600	44,800	44,800	56,000
LP Gas	33,600	44,800	44,800	56,000
AFUE [2]	80	80	80	80
Available AC @ 0.5" ESP	1.5 - 3.0	1.5 - 3.0	2.0 - 5.0	2.0 - 5.0
Temp Rise Range (° F) High/Low Fire	25-55 / 25-55	30-60 / 30-60	25-55 / 25-55	20-50 / 20-50
CIRCULATOR BLOWER				
Size (D x W)	10" x 8"	10" x 8"	10" x 10"	10" x 10"
Horsepower - RPM	1/2	½	3/4	3/4
Speed	Variable	Variable	Variable	Variable
Vent Diameter	4"	4"	4"	4"
No. of Burners	3	4	4	5
ELECTRICAL DATA				
Min. Circuit Ampacity [3]	7.6	7.6	10.8	10.8
Max. Overcurrent Device (amps) [4]	15	15	15	15
SHIP WEIGHT (LBS)	105	109	125	129

[1] Natural Gas BTU/h; for altitudes above from 0' to 4,500' above sea level, reduce input rating 4% for each 1,000' above 4,500' altitude. Low-fire rate is 70% of high-fire rate.

[2] DOE AFUE based upon Isolated Combustion System (ICS)

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NOTES

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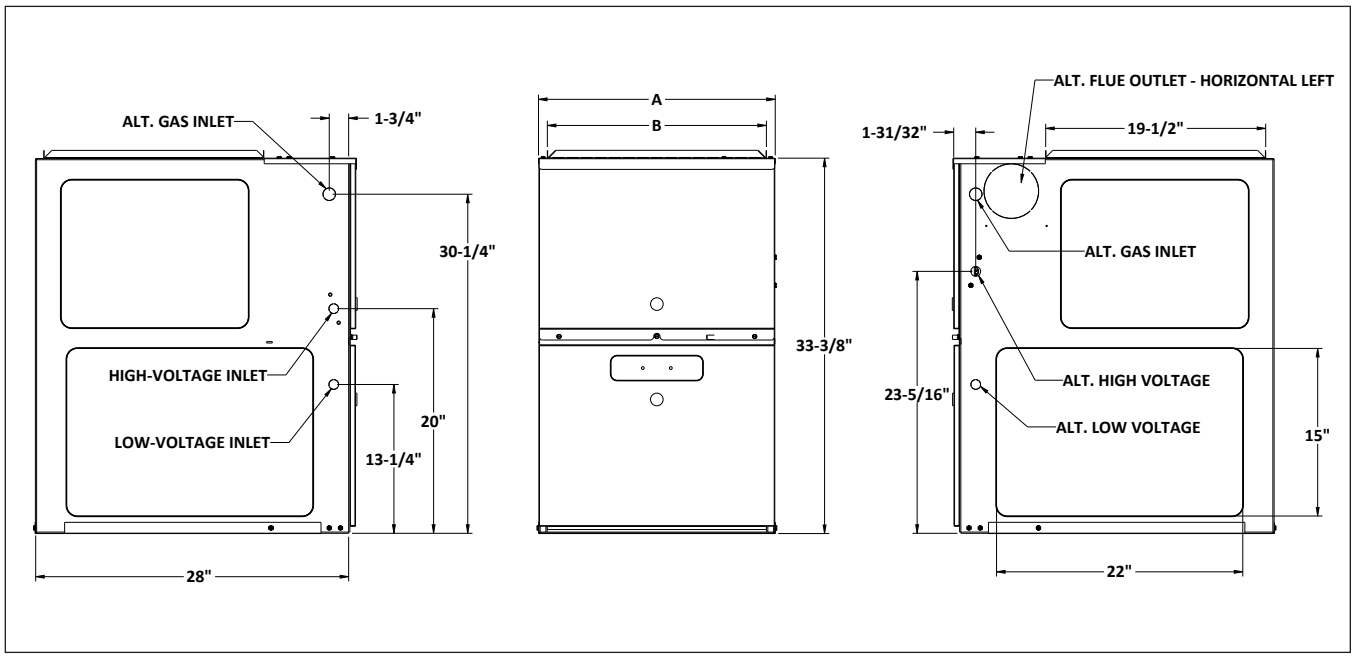
- Gas Service Connection ½" FPT
- Important: Size fuses and wires properly and make electrical connections in accordance with the National Electrical Code and/or all existing local codes.



Model	Dimensions			Heights	
	W	D	H	A	B
DR80TC0603B**	17½"	28"	33⅜"	17½"	16"
DR80TC0604B**	17½"	28"	33⅜"	17½"	16"
DR80TC0803B**	17½"	28"	33⅜"	17½"	16"
DR80TC0804C**	21"	28"	33⅜"	21"	19½"
DR80TC0805C**	21"	28"	33⅜"	21"	19½"
DR80TC0805D**	24½"	28"	33⅜"	24½"	23"
DR80TC1005C**	21"	28"	33⅜"	21"	19½"

Minimum Clearances to Combustible Materials

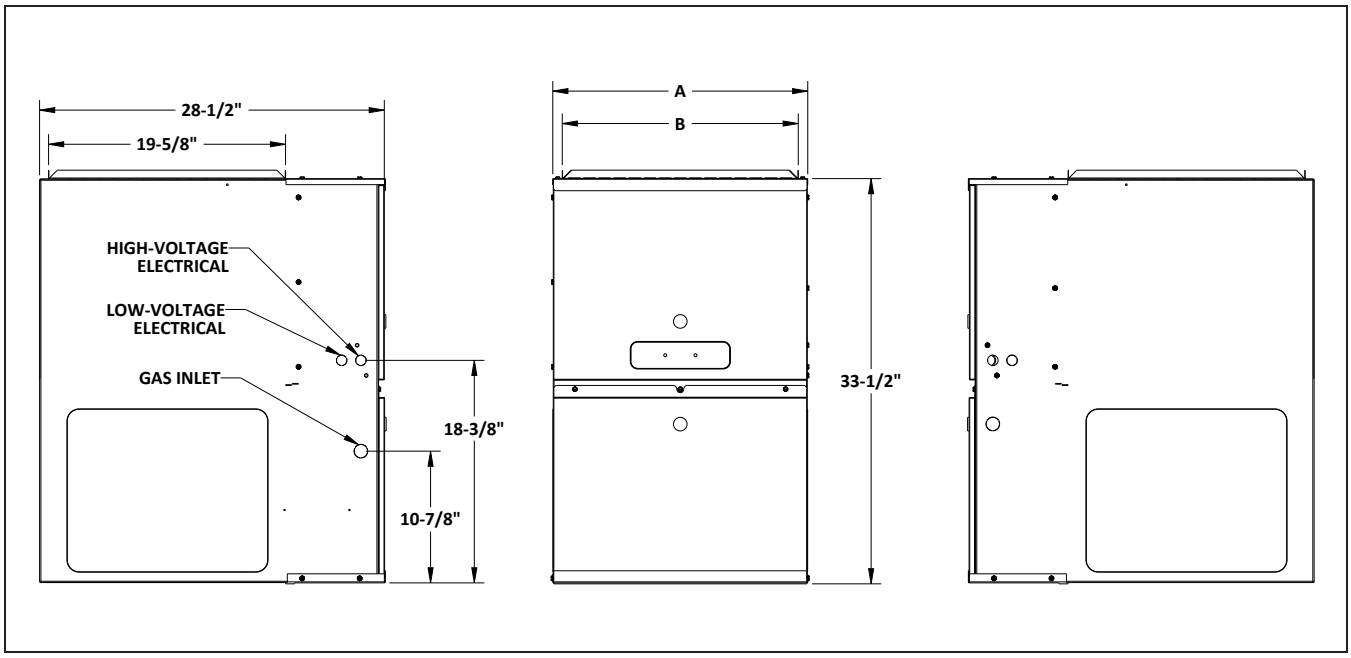
Sides	Rear	Front [1]	Bottom	Vent		Top
				SW	B	
1	0	3	C	6	1	1

C = If placed on combustible floor, the floor MUST be wood ONLY.

Notes

- For servicing or cleaning, a 24" front clearance is recommended.
- Unit connections (electrical, flue, and drain) may necessitate greater clearances than the minimum clearances listed above.
- In all cases, accessibility clearance must take precedence over clearances from the enclosure where accessibility c learances are greater.
- Refer to the appropriate USA and Canadian codes:

  In the USA: the National Fuel Gas Code NFPA 54 / ANSI Z223.1
  In Canada: the Canada National Standard of Canada, CAN/CSA B149.1 and CAN/CSA B142.2



Model	Dimensions			Widths	
	W	D	H	A	B
DD80TC0603BX*	17½"	28"	33⅜"	17½"	16"
DD80TC0803BX*	17½"	28"	33⅜"	17½"	16"
DD80TC0805CX*	21"	28"	33⅜"	21"	19½"
DD80TC1005CX*	21"	28"	33⅜"	21"	19½"

Minimum Clearances to Combustible Materials

Sides	Rear	Front	Vent		Top
			SW	B	
1	0	3	6	1	1

Approved for line contact in the horizontal position.

[1] 24" clearance for serviceability recommended.

[2] Single Wall Vent (SW) to be used only as a connector. Refer to the venting tables outlined in the Installation Manual for additional venting requirements.

MODEL/TEMP RISE RANGE (MID-RISE)	DD80TC0603BXA* 25-55 (40)		DD80TC0803BXA* 30-60 (45)		DD80TC0805CXA* 25-55 (40)		DD80TC1005CXA* 20-50 (35)		DR80TC0603B*A* 15-45 (30)		DR80TC0604B*A* 25-50 (35)	
	CFM	RISE	CFM	RISE	CFM	RISE	CFM	RISE	CFM	RISE	CFM	RISE
Recommended CFM for High Heat/ Expected Temperature Rise	1100	40	1325	45	1470	40	2090	35	1400	32	1275	35
Lowest Recommended CFM for High Heat/Expected Temperature Rise	810	55	990	60	1070	55	1475	50	980	45	890	50

MODEL/TEMP RISE RANGE (MID-RISE)	DR80TC0803B*A* 30-60 (45)		DR80TC0804C*A* 25-55 (40)		DR80TC0805C*A* 20-50 (35)		DR80TC0805D*A* 20-50 (35)		DR80TC1005C*A* 25-55 (40)	
	CFM	RISE	CFM	RISE	CFM	RISE	CFM	RISE	CFM	RISE
Recommended CFM for High Heat/ Expected Temperature Rise	1330	45	1400	42	1700	35	1700	35	1850	40
Lowest Recommended CFM for High Heat/Expected Temperature Rise	980	60	1090	54	1175	50	1175	50	1350	55

DR80TC0603B*A*, DR80TC0803B*A*
DD80TC0603BXA*, DD80TC0803BXA*
COOLING SPEED
(@ 0.1" - 0.8" w.c. ESP)

TONS	HIGH-STAGE CFM	LOW-STAGE CFM
1.5	600	420
2	800	560
2.5	1,000	700
3	1,200	840
MAX	1,400	

DR80TC0604B*A*
DR80TC0804C*A*
COOLING SPEED
(@ 0.1" - 0.8" w.c. ESP)

TONS	HIGH-STAGE CFM	LOW-STAGE CFM
2	800	560
2.5	1,000	700
3	1,200	840
4	1,600	1,120
MAX	1,760	

DD80TC0805CXA*
DD80TC1005CXA*
COOLING SPEED
(@ 0.1" - 0.8" w.c. ESP)

TONS	HIGH-STAGE CFM	LOW-STAGE CFM
2	800	560
3	1,200	840
4	1,600	1,120
5	2,000	1,400
MAX	2,000	

DR80TC0805C*A*, DR80TC0805D*A*
DR80TC1005C*A*
COOLING SPEED
(@ 0.1" - 0.8" w.c. ESP)

TONS	HIGH-STAGE CFM	LOW-STAGE CFM
2	800	560
3	1,200	840
4	1,600	1,120
5	2,000	1,400
MAX	2,200	

DD80TC CONTINUOUS FAN SPEEDS

MODEL	FURNACE MAXIMUM CFM	CONTINUOUS FAN SPEED
DD80TC0603BXA*	1,400	350-1,400
DD80TC0803BXA*	1,400	350-1,400
DD80TC0805CXA*	2,200	550-2,200
DD80TC1005CXA*	2,200	550-2,200

DD80TC MINIMUM FILTER SIZES

MODEL #	DD80TC0603BX, DD80TC0803BX	DD80TC0805CX	DD80TC1005CX
Filter Size (in^2)	(2) 10 x 20 or (1) 16 x 25 (Top Return)	(2) 14 x 20 or (1) 20 x 25 (Top Return)	

Note: Other size filters of equal or greater surface area may be used; filters may also be centrally located.

[1] Use 2 - 16 X 25 filters on side returns or 20 X 25 filter on bottom return if furnace is connected to a cooling unit over 4 tons nominal capacity.

DR80TC CONTINUOUS FAN SPEEDS

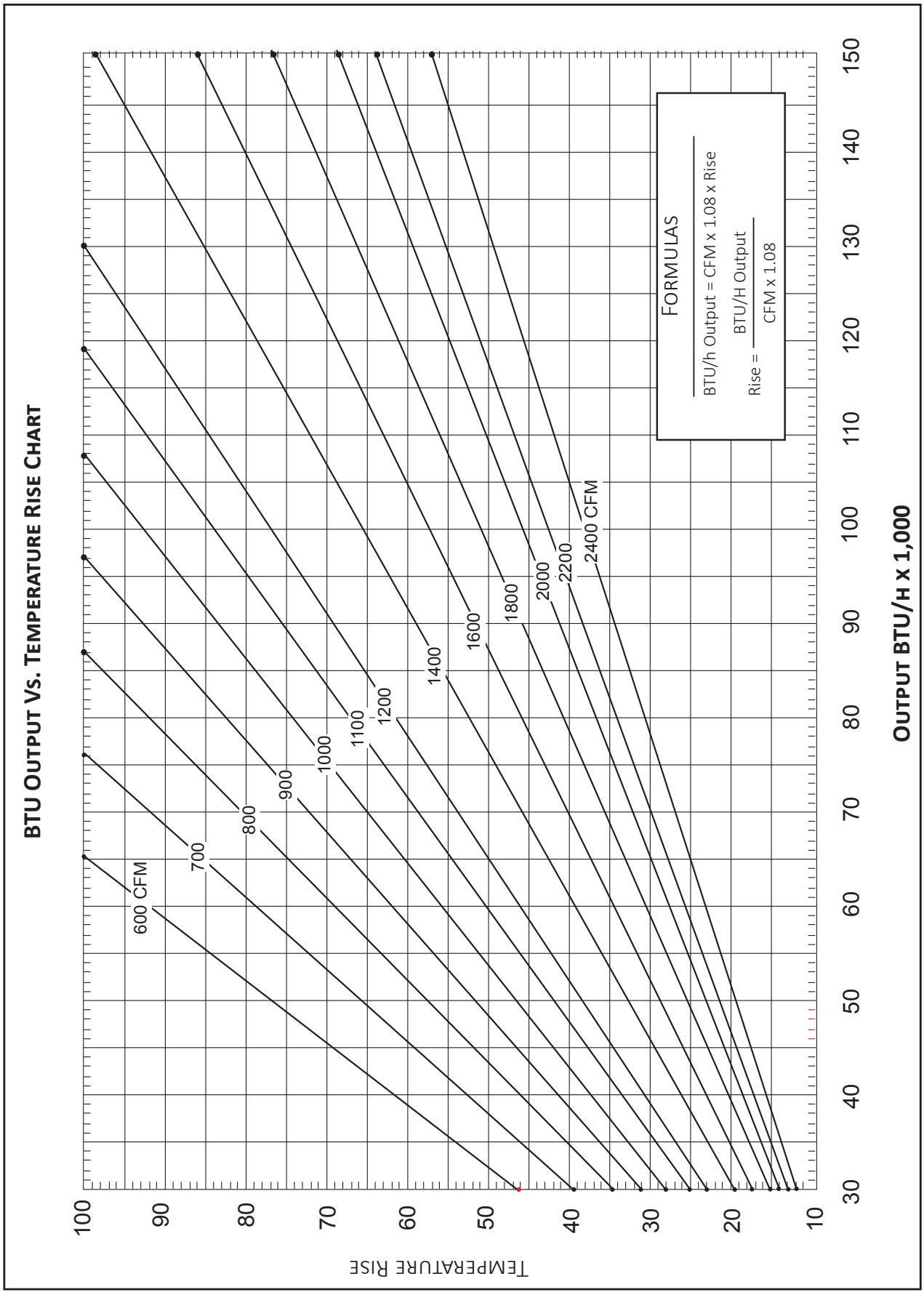
MODEL	FURNACE MAXIMUM CFM	CONTINUOUS FAN SPEED
DR80TC0603B*A*	1,400	350-1,400
DR80TC0604B*A*	1,760	440-1,760
DR80TC0803B*A*	1,400	350-1,400
DR80TC0804C*A*	1,760	440-1,760
DR80TC0805C*A*	2,200	550-2,200
DR80TC0805D*A*	2,200	550-2,200
DR80TC1005C*A*	2,200	550-2,200

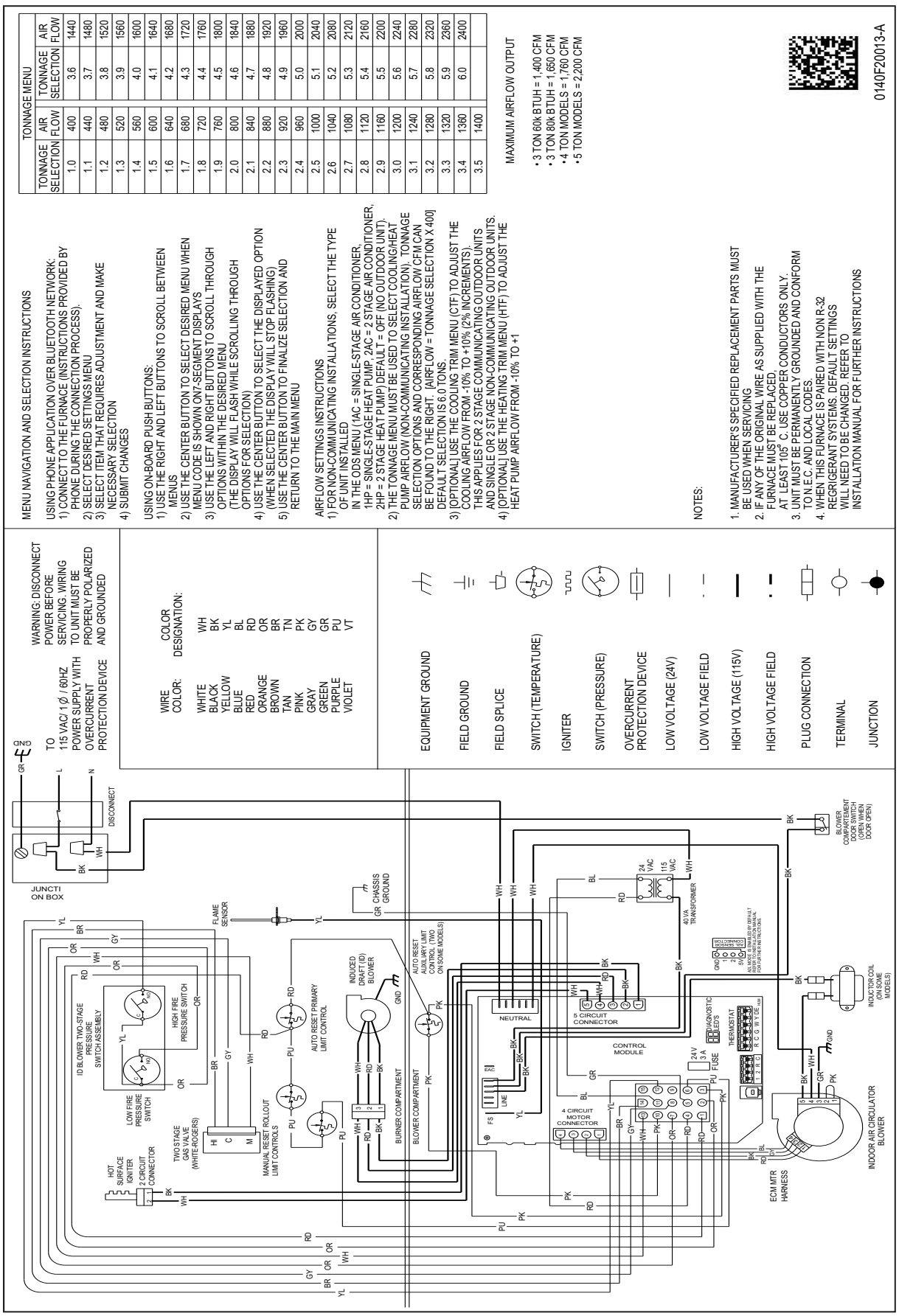
DR80TC MINIMUM FILTER SIZES

MODEL #	DR80TC0603B*, DR80TC0604B*, DR80TC0803B*	DR80TC0804C*, DR80TC0805C*, DR80TC0805D*	DR80TC1005C*
Filter Size (in^2)	(1) 16 x 25 (Side or Bottom)	(1) 16 x 25 (Side or Bottom)	(2) 16 x 25 (Side) or (1) 20 x 25 (Bottom)

Note: Other size filters of equal or greater surface area may be used; filters may also be centrally located.

[1] Use 2 - 16 X 25 filters on side returns or 20 X 25 filter on bottom return if furnace is connected to a cooling unit over 4 tons nominal capacity.


BTU Output Vs. Temperature Rise Chart
Temperature Rise
100
90
80
70
60
50
40
30
20
10
600 CFM
700
800
900
1000
1100
1200
1400
1600
1800
2000
2200
2400 CFM
Formulas
BTU/h Output = CFM x 1.08 x Rise
Rise = BTU/H Output / CFM x 1.08
30
40
50
60
70
80
90
100
110
120
130
140
150
Output BTU/h x 1,000



⚠ WARNING

High Voltage: Disconnect all power before servicing or installing this unit. Multiple power sources may be present. Failure to do so may cause property damage, personal injury, or death.

Wiring is subject to change. Always refer to the wiring diagram on the unit for the most up-to-date wiring.

MODEL	DESCRIPTION	DR80TC 0603B*	DR80TC 0604B*	DR80TC 0803B*	DR80TC 0804C*	DR80TC 0805C*	DR80TC 0805D*	DR80TC 1005C*
AFE18-60A	Fossil Fuel (Dual Fuel) Kit	√	√	√	√	√	√	√
HA-04	High-Altitude Kit (2000 - 5400 feet)	—	—	√	√	√	√	√
HA-05	High-Altitude Kit (2000 - 5400 feet)	√	√	—	—	—	—	—
HA-04	High-Altitude Kit (5400 - 7800 feet)	—	—	—	—	—	—	—
HA-05	High-Altitude Kit (5400 - 7800 feet)	√	√	√	√	√	√	√
LPM-32	LP Conversion Kit	√	√	√	√	√	√	√

MODEL	DESCRIPTION	DD80TC 0603BX	DD80TC 0803BX	DD80TC 0805CX	DD80TC 1005CX
SBT17	Downflow Sub-Base 17.5"	√	√	—	—
SBT21	Downflow Sub-Base 21"	—	—	√	√
AFE18-60A	Fossil Fuel (Dual Fuel) Kit	√	√	√	√
HA-04	High-Altitude Kit (2000 - 5400 feet)	—	√	√	√
HA-05	High-Altitude Kit (2000 - 5400 feet)	√	—	—	—
HA-04	High-Altitude Kit (5400 - 7800 feet)	—	—	—	—
HA-05	High-Altitude Kit (5400 - 7800 feet)	√	√	√	√
LPM-32	LP Conversion Kit	√	√	√	√