

SL280DFNV(K)

DAVE LENNOX SIGNATURE® COLLECTION

Downflow | Two-Stage Heat | Variable Speed Blower | Refrigerant Detection | 60Hz



RESIDENTIAL
PRODUCT SPECIFICATIONS (EHB)

AFUE - 80%

Meets NOx Limit of 14 ng/J

Input - 60,000 to 80,000 Btuh

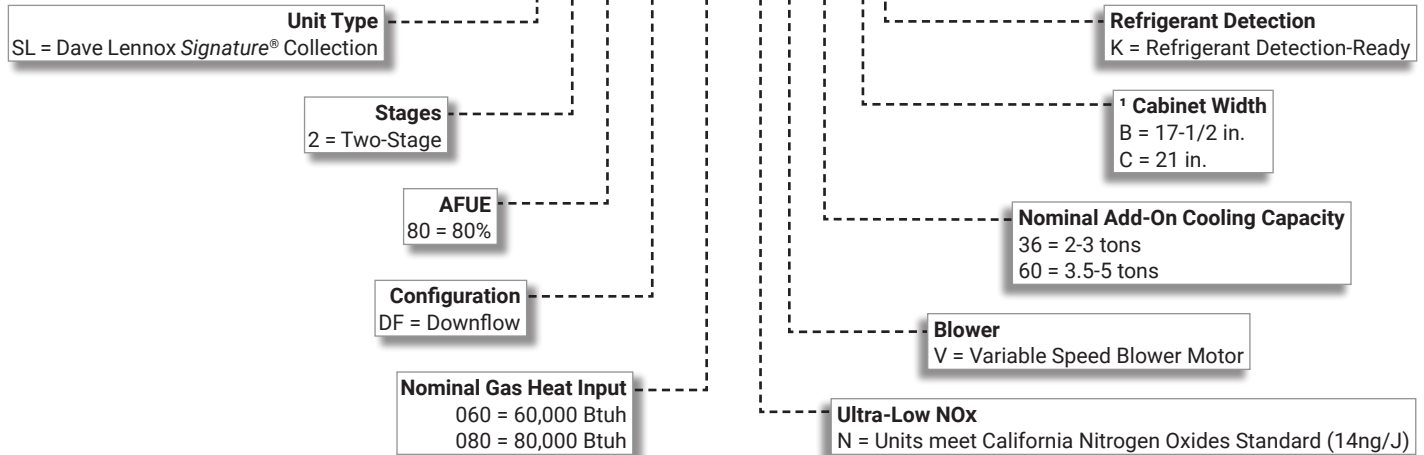
Nominal Add-on Cooling - 2 to 5 Tons



S40 Smart Wi-Fi
Communicating Thermostat
(Not Furnished)

MODEL NUMBER IDENTIFICATION

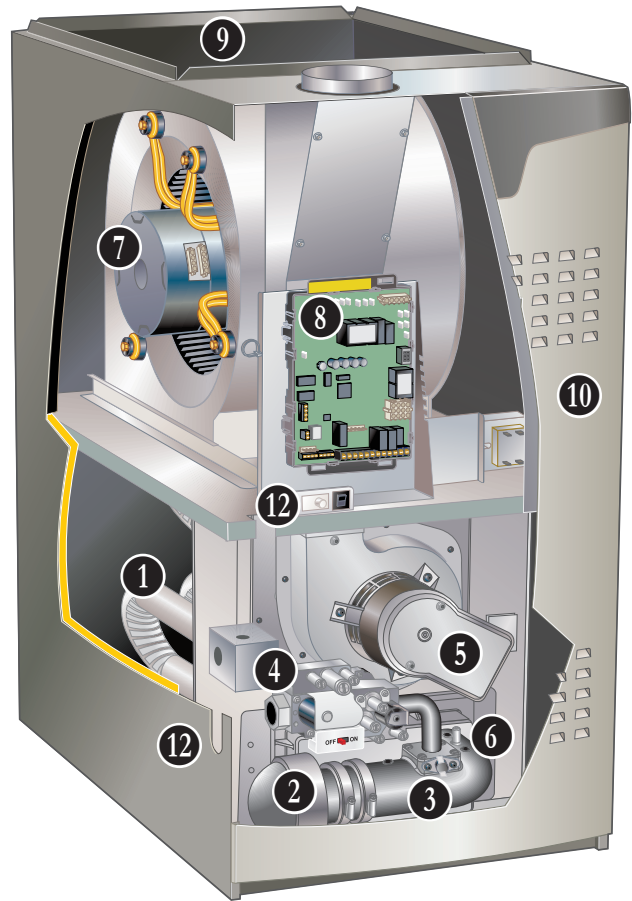
SL 2 80 DF 060 N V 36 B K



¹ Downflow indoor coils with the same letter designation physically match the furnace supply air opening.

FEATURE HIGHLIGHTS

1. Heat Exchanger Assembly
2. Burner Orifice/Air Intake Assembly
3. SureLight® Hot Surface Ignitor
4. Modulating Gas Control Valve
5. Variable-Speed Combustion Air Inducer
6. Thermal Switch
7. Variable Speed Direct Drive Blower
8. SureLight® Integrated Furnace Control
9. Variable Speed Direct Drive Blower
10. Insulated Cabinet
11. Safety Interlock Switch
12. Gas Piping And Electrical Inlets



NOTE - SL280DFNV(K) FURNACES ARE NOT AVAILABLE IN CANADA!
NOTE - SL280DFNV(K) FURNACES CANNOT BE TWINNED!
NOTE - NOT AVAILABLE IN ALL AREAS!
CONTACT YOUR NEAREST LENNOX SALES OFFICE FOR DETAILS.

CONTENTS

Blower Data	16
Approvals And Warranty	3
Control Options	9
Dimensions	13
- Furnace/Coil Combined Dimensions	15
- Optional Accessories	14
- Unit	13
Features	3
Gas Heat Accessories	12
High Altitude Operation.	12
Indoor Air Quality Product Options	8
Model Number Identification.	1
Optional Accessories - Order Separately	12
Refrigerant Detection System (Rds) Components	12
Specifications	11

APPROVALS AND WARRANTY

APPROVALS

- AHRI Certified
- Tested and rated according to US DOE test procedures and FTC labeling regulations
- Approved by the California Energy Commission and meets California Nitrogen Oxides Standard (NOx) limits of 14 ng/J
- Units are approved for installations from 0 - 4500 ft.
- ISO 9001 Registered Manufacturing Quality System
- Blower data from unit tests conducted in Lennox Laboratory air test chamber
- All models meet UL 60335-2-40 Refrigerant Detector Requirements

NOTE - This furnace has not been CSA International design certified for installation in mobile homes, recreational vehicles, or outdoors.

California Only

- These furnaces **meet** the South Coast Air Quality Management District (SCAQMD) Rule 1111 and San Joaquin Valley Air Pollution Control District (SJVAPCD) Rule 4905 NOx emission limit (14 ng/J) and can be installed within the SCAQMD, SJVAPCD and Bay area

WARRANTY

- Heat Exchanger:
 - Limited twenty years in residential applications
 - Limited ten years in non-residential applications
- All other covered components:
 - Limited ten years in residential installations
 - Limited one year in non-residential installations

NOTE - Refer to Lennox® Basic Limited Warranty at www.Lennox.com for additional details.

FEATURES

APPLICATIONS

- Input capacities of 60,000 and 80,000 Btuh
- Energy efficiency (AFUE) - 80%
- Compact cabinet for downflow applications without any internal modifications to the unit
- Lennox add-on indoor coils, high-efficiency air cleaners and humidifiers can easily be added to furnace
- Shipped factory assembled with all controls installed and wired
- Each unit factory test operated to ensure proper operation

ZONING APPLICATIONS

- The SL280NV furnace is designed to work with the Lennox Lennox® Smart Zoning System with the Lennox® Communicating Thermostat
- The Lennox® Smart Zoning System provides direct feedback to the furnace, controlling both airflow and heat output to precisely match the comfort requirements for up to four zones

HEATING SYSTEM

- 1 Heat Exchanger Assembly**
 - Heavy gauge aluminized steel heat exchanger
 - Tubular design
 - Designed for normal expansion and contraction
 - Round surfaces create minimum resistance to air flow for excellent heat transfer
 - Laboratory life cycle tested in excess of industry standards
 - Compact size permits low overall design of furnace cabinet
- 2 Burner Orifice/Air Intake Assembly**
 - Burner assembly has a single orifice located between the gas valve and the air intake assembly
 - Orifice is precisely matched to the burner input
 - Burner can be removed for servicing
- 3 SureLight® Hot Surface Ignitor**
 - Tough, reliable, long-life, trouble-free performance
 - Silicon nitride ignitor
 - 120 volt
 - Cemented to steatite block for protection against current leakage
 - Ignition leads are constructed of nickel plated copper and are enclosed in high temperature Teflon® insulation for dependable operation
- 4 Modulating Gas Control Valve**
 - 24 volt redundant combination modulating gas control valve combines manual shut off switch (On-Off), automatic electric valve (dual) and gas pressure regulation into a compact combination control
- 5 Variable-Speed Combustion Air Inducer**
 - Heavy duty variable-speed blower prepurges heat exchanger and safely vents flue products
 - Pressure switch (low fire/high fire) proves blower operation before allowing gas valve to open
 - Operates only during heating cycle

FEATURES

HEATING SYSTEM (continued)

- 6 Thermal Switch**
- Factory installed on air/fuel intake assembly
 - Automatic reset
 - Switch provides protection from abnormal operating conditions

Limit Controls

- Primary limit is accurately located on vestibule panel on all units
- Automatic reset

Optional Accessories

High Altitude Pressure Switch Kit

- Required on 60K natural gas units for proper operation at altitudes from 4501 to 7500 ft.

Natural Gas to LPG/Propane Conversion Kit

Required for field changeover from natural gas to LPG/Propane

- Includes gas and air orifices

Combustion Air Intake Muffler Kit

- Significantly reduces outdoor operating sound levels
- Installed vertically or horizontally in the intake piping
- See Optional Accessories Dimension Drawing

BLOWER

- 7 Variable Speed Direct Drive Blower**
- Each blower assembly statically and dynamically balanced
 - Blower assembly easily removed for servicing

Variable Speed Blower Motor

- Variable speed motor maintains specified air volume from 0 through 0.8 in. w.g. (heating) and 0 through 1.0 in. w.g. (Cooling) static range
- Variable speed operation is achieved by the use of an ECM (Electronically Commutated Motor) motor
- Motor is controlled by furnace control
- Change in blower speed is easily accomplished by simple DIP switch change on furnace control
- See Blower Data tables
- Motor is resiliently mounted

NOTE - When furnaces are used with the Lennox® Smart Zoning System and the Lennox® Communicating Thermostat, the blower motor operates from predetermined minimum - maximum air volumes to satisfy zone requirements.

CONTROLS

8 SureLight® Integrated Furnace Control (Lennox® Communicating)

- Advanced control communicates information about various operating parameters in the furnace to the optional Lennox® Communicating Thermostat to constantly maintain the highest level of comfort and performance available
- **Auto Configuration** - On start-up the control automatically sends a description of the unit to the optional Lennox® Communicating Thermostat to automatically configure the number of stages and features available
- Terminals for connecting a conventional heating/cooling thermostat are also provided on the control
- Control also features Innovative AirFlex™ technology which allows custom blower settings based on the application
- **Thermostat Control** - For optimal performance, the use of a high-quality, digital two-stage thermostat with adjustable settings for first stage/second stage, on/off differentials and adjustable stage timers is recommended



Furnace Input Staging Options

Thermostat Type	Input Staging Available
Lennox® Communicating Thermostat	Two-Stage (65 and 100%)
Two-Stage (Conventional)	
Single-Stage (Conventional)	

- **Safety Controls** - Flame sensor utilizes flame rectification for safe and reliable operation
- Should flame fail to ignite, control will initiate 4 re-attempts at ignition before locking out unit operation for 60 minutes
- Watchguard type circuit automatically resets ignition control after one hour of continuous thermostat demand after unit lockout, eliminating nuisance calls for service
- **Display LED** - Seven segment LED displays alpha-numeric information related to diagnostics as well as system operation and status
 - Diagnostic codes are held in non-volatile memory, immune from power interruptions
 - Holds up to ten diagnostic codes in order of occurrence for recall on demand
 - Port on blower door allows for easy viewing

FEATURES

DIP Switch Settings

- **Select Thermostat Used** - Single-Stage or Two-Stage
- Two selectable second stage recognition times (7 and 12 minutes) are available on the control when the furnace is used with a single-stage thermostat
- When used with a two-stage thermostat, furnace will only initiate second stage operation with a second stage thermostat demand
- **Heating Speeds** - A combination of DIP switch settings allow the following motor speed selection settings within the heating speed selected for fine tuning air volume:
 - Factory default
 - 6%, 12%, 18% or 24% increase
 - 6%, 12% or 18% decrease
 - See Blower Performance tables
- **Cooling Speeds** - A combination of DIP switch settings allow the following motor speed selection settings within the cooling speed selected for fine tuning air volume:
 - Factory default
 - 10% increase
 - 10% decrease
 - See Blower Performance tables
- **Blower Speed Ramping (Cooling Mode)** - DIP switch settings allow one of four blower speed profiles during cooling operation
 - **Profile A (factory setting)** - Motor runs at 50% for 30 seconds, then at 82% for 7-1/2 minutes, then at 100% (if needed) until demand is satisfied. Once demand is met, motor runs at 50% for 30 seconds, then ramps down to stop
 - **Profile B** - Motor runs at 82% for 7-1/2 minutes and then at 100% (if needed) until demand is satisfied. Once demand is met, motor ramps down to stop
 - **Profile C** - Motor runs at 100% until demand is satisfied. Once demand is met, motor runs at 100% for 60 seconds, then ramps down to stop
 - **Profile D** - Motor runs at 100% until demand is satisfied. Once demand is met, motor ramps down to stop
- **Dehumidification (Active or Humiditrol® Option)** - A jumper on the control must be clipped to enable active dehumidification and/or operation with a Humiditrol® Whole-Home Dehumidification System
- A humidity controlling thermostat or device is also required
- During a call for cooling, air volume is automatically reduced, forcing humidity removal by the air conditioner or heat pump system (single stage units or two-stage units running at 2nd stage)
- After the humidity has reached the desired set-point the cooling air volume returns to its designed rate
- A dehumidification signal from the thermostat reduces the cooling cfm to 70% of the requested cooling cfm

CONTROLS (continued)

- **Dual-Fuel Operation** - A jumper on the control must be clipped to enable operation with a single or two-stage heat pump
- The indoor blower is started without delay when a call for heat is received
- **Two-Stage Compressor Operation** - A jumper on the control must be clipped to enable operation with a two-stage compressor
- The cooling blower speeds for first and second stage cooling will be dictated by the applicable DIP switch settings
- **Lennox System Operations Monitor Connection** - Monitors outdoor unit operation (communicating mode)
- **Blower On/Off Time (Heating)** - Blower on time is fixed at 30 seconds, blower off time is adjustable from 60, 90, 120 and 180 seconds (factory setting - 120 seconds)
- **Blower On/Off Time (Cooling)** - For air-conditioning applications, blower on time is 2 seconds following thermostat demand for cooling
- See Blower Speed Ramping (Cooling Mode) profiles for various blower off details
- Controls evaporator humidity by controlling blower and compressor speed on two-stage outdoor units when used with the Lennox® Communicating Thermostat or the CS7500 Thermostat
- **Continuous Blower Speed** - Adjustable continuous blower speed is a percentage of the high cooling speed selection
- Two selectable options (via DIP switch settings) of 28% and 38% (default setting)
- **Accessory Terminal** - One accessory terminal furnished for additional power supply requirements for 120 volt (less than 1 amp) powered air cleaners
- One unpowered pair of contacts are provided for humidifier connections and may be connected to 24V or 120V
- Control is factory installed in the unit control box

24 Volt Transformer (40VA)

- Furnished and factory installed on outside of control box
- Circuit breaker (furnished) is wired in series

Field Wiring Make-Up Box

- Furnished for line voltage wiring
- Factory installed internally on left side of furnace
- Box may be installed internally on right side of furnace

FEATURES

Refrigeration Detection System (RDS)

(Part of the SureLight® Integrated Furnace Control)

- Complies with UL 60335-2-40 approved standard
- Required for all systems using R-454B refrigerant
- Plug-in connection to the RDS Coil Sensor
- Supports up to two RDS Coil Sensors (factory setting)
- Used as an interface between indoor unit and thermostat to control system
- Ensures safe operation for systems equipped with R-454B refrigerant
- If R-454B refrigerant is detected, the refrigerant detection system will stop compressor and/or heating operation and operate the blower to reduce concentrations in the conditioned space
- Once safe levels are reached the HVAC system will resume normal operation
- Low GWP test button for troubleshooting
- Alarm/Zone relay interface can trigger an external alarm if R-454B refrigerant is detected and open all zone dampers (if part of a zoning system) if R-454B refrigerant is detected
- Power is disabled to non-communicating thermostats to prevent demand if R-454B refrigerant is detected
- On system start-up blower will run for five minutes and any thermostat demands are disabled

Optional Accessories

Thermostat

- Thermostat is not furnished with unit
- See page 8

Transformer (75VA)

- Recommended when furnace is used with zoning or defrost thermostats and other 24V accessories requiring a higher VA rating
- Circuit breaker (furnished) is wired in series
- Replaces the standard 40VA transformer

CABINET

- Low-profile, narrow width cabinet allows easy installation
- Heavy-gauge, cold rolled steel construction
- Pre-painted cabinet finish
- Flanges provided on supply air opening for ease of plenum connection
- 9 • Insulated cabinet with foil faced insulation on sides and back of heating compartment and mat faced insulation in blower compartment
- Sealed blower compartment
- Inner blower compartment access panel seals blower compartment from air leakage
- 10 • Cabinet door can be removed without any tools
- Complete service access
- 11 • Safety interlock switch automatically shuts off power to unit when inner blower compartment access panel is removed
- 12 • Gas piping and electrical inlets are provided in both sides of cabinet.

Coil Match-Up

- All Lennox downflow indoor coils will physically match the furnace **supply air opening** with the same letter designation (A, B, C, D) as in the furnace model number

Low Leakage Cabinet

- All models have less than 2% air leakage
- Meets ANSI/ASHRAE Standard 193-2010 "Method of Test for Determining the Air Tightness of HVAC Equipment"

Optional Accessories

Downflow Combustible Flooring Base

- Required for heating only units installed on combustible floors
- Not required in add-on cooling applications
- See Dimension Drawing

FILTER (not furnished)

- Filter and provisions for external mounting must be field provided

Optional Accessories

Downflow Filter and Rack Kit

- Filter cabinet mounts directly on top of furnace
- "B" and "C" width cabinets include two filters
- Filter rails are furnished
- Front access for servicing
- Cleanable filter(s) are furnished

INDOOR AIR QUALITY PRODUCT OPTIONS

Dave Lennox *Signature*® Collection PureAir® S Air Purification System

- Photo-catalytic Oxidation - The UVA lamp activates the photo-catalyst on the PureAir Cartridge that captures and destroys odors and chemical vapors as they flow through the PCO3S
- Carbon Clean 16® (MERV 16) media filter captures more than 95% of particles 0.3 microns and larger and more than 90% of particles 0.01 microns and larger
- Multiple sensors in the cabinet automatically detect and report to the S40 Smart Wi-Fi Thermostat (Required)
 - Dirty air filter status
 - Air filter life notification (%)
 - UVA lamp operational status (On or Off)
 - UVA lamp life notification (%)
- Highest airflow performance and lowest pressure drop compared to a leading brand.
- Long life filters and UVA lamp life up to one year



Healthy Climate® Media Air Cleaner

- High performance in a narrow 7 in. cabinet
- Available with MERV 11, 13, or 16 rated filters
- Multi-position heavy gauge steel cabinet will support furnace/coil or air handler and associated duct work
- Tool-less entry
- Tool-less assembly for quick installation



Healthy Climate® Whole Home In Duct Air Purifiers

- Compact Duct Mounted Design
- Effective against odors and VOC's
- Certified Ozone free
- UVC lamp and carbon cells



Healthy Climate® Ultraviolet Germicidal Lights

- Compact duct mounted design
- Single or dual applications
- Certified ozone free
- Effective against odors to help keep the system clean
- Safety Interlocks (Additional UVC Compliance Kit for UL 60335-2-40 is available for A2L applications)
- Low power consumption
- Available for 24V or 110/230V
- Up to 1340 microwatts /cm² output (dual lamp model)



Lennox™ Smart Air Quality Monitor

- Designed to work with the S40 Smart Wi-Fi Thermostat
- Continually monitors CO₂, particulates and VOC's providing real-time overall air quality score
- Works in conjunction with PureAir® S Air Purification System and Heat Recovery Ventilators (HRV) and Energy Recovery Ventilators (ERV) to automatically operate the blower to provide clean air



NOTE - Please refer to the individual Product Specifications for these products for full information.

CONTROL OPTIONS

S40 Smart Wi-Fi Thermostat

- Recognizes and connects to all Lennox® Communicating products to automatically configure and control the heating/cooling system
- Advanced communicating controls in specific heating and cooling units, PureAir™ S Air Purification System and Healthy Climate® HRV/ERV (Heat/Energy) Recovery Ventilators transmit information about various operating parameters to the thermostat to constantly maintain the most comfortable and efficient operating conditions possible
- Lennox Smart Room Sensors, Lennox Wireless Extenders and Lennox Smart Air Quality Monitor can be added to the system
- One-Touch Away Mode, Smart Away™ (geo-fencing), equipment maintenance reminders and scheduling
- Smart home automation compatible with Amazon Alexa®, Google Assistant, Control4®, Building36® and Matter
- Lennox® Home App controls temperature, fan operation, set programs/schedules and set Away mode on a smartphone
- Lennox Smart Tech App allows the installer to commission the system and remotely turn the system on and off during setup or service call on a smartphone



NOTE - When S40 Thermostats are used with a Lennox® communicating furnace and a conventional (non-communicating) heat pump for dual-fuel applications, the optional Equipment Interface Module (EIM) is required for proper operation.

E40 Smart Wi-Fi Thermostat

- 3 Htg.-2 Clg.
- 7-day, universal, programmable, touchscreen thermostat
- Controls dehumidification during cooling mode and humidification during heating mode
- Smooth Setback Recovery and compressor short-cycle protection
- One-Touch Away Mode, Smart Away™ (geo-fencing), equipment maintenance reminders and scheduling
- Smart home automation compatible with Amazon Alexa®, Google Assistant, Control4®, Building36® and Matter
- Lennox® Home App controls temperature, fan operation, set programs/schedules and set Away mode on a smartphone
- Lennox Smart Tech App allows the installer to commission the system and remotely turn the system on and off during setup or service call on a smartphone



M40 Smart Wi-Fi Thermostat

- 3 Htg.-2 Clg.
- 7-day, universal, programmable, touchscreen thermostat
- Smooth Setback Recovery and compressor short-cycle protection
- One-Touch Away Mode, Smart Away™ (geo-fencing), equipment maintenance reminders and scheduling
- Smart home automation compatible with Apple HomeKit™, Amazon Alexa®, Google Assistant and Matter
- Lennox® Home App controls temperature, fan operation, set programs/schedules and set Away mode on a smartphone
- Lennox Smart Tech App allows the installer to commission the system and remotely turn the system on and off during setup or service call on a smartphone



NOTE - Please refer to the individual Product Specifications for these products for full information.

INDOOR AIR QUALITY PRODUCT OPTIONS - ORDERING

NOTE - Refer to the individual Product Specifications documents for additional accessories and maintenance items.

Description	Dimensions	Furnace Width	Order Number
PureAir® S Air Purification System			
PCO3S-16-16	17-1/2 x 8-3/4 x 26-1/2	A/B/C	Y8904
PCO3S-20-16	21-1/8 x 8-3/4 x 26-1/2	C/D	Y8903
Healthy Climate® Media Air Cleaner			
HCC16-28 (Cabinet)	17-1/2 x 28-1/2 x 7	A/B/C	Y2920
HCC16-28 (Cabinet) 4-pack	17-1/2 x 28-1/2 x 7	---	Y2921
HCF16-16 (Filter) MERV 16	16 x 25 x 5	---	X6672
HCXF16-16 (Expandable Filter) MERV 16	16 x 25 x 5	---	X8306
HCF16-13 MERV 13	16 x 25 x 5	---	19L16
HCF16-11 (Filter) MERV 11	16 x 25 x 5	---	X6670
HCXF16-11 (Expandable Filter) MERV 11	16 x 25 x 5	---	X8303
HCC20-28 (Cabinet)	21 x 28-1/2 x 7	C/D	X6661
HCC20-28 (Cabinet) 4-pack	21 x 28-1/2 x 7	---	X7751
HCF20-16 (Filter) MERV 16	20 x 25 x 5	---	X6675
HCXF20-16 (Expandable Filter) MERV 16	20 x 25 x 5	---	X8307
HCF20-13 MERV 13	20 x 25 x 5	---	19L17
HCF20-11 (Filter) MERV 11	20 x 25 x 5	---	X6673
HCXF20-11 (Expandable Filter) MERV 11	20 x 25 x 5	---	X8304
Healthy Climate® Whole Home In Duct Air Purifiers			
HCWHAP1	8 x 7 x 16.5	---	23V99
Healthy Climate® Ultraviolet Germicidal Lights			
UVC-24V (24V) 17-1/2 in.	Ballast 4-3/4 x 2-1/4 x 2	---	X9423
UVC-41W-S (110/230V) 17-1/2 in.	Ballast 11-3/4 x 2-3/4 x 1-5/8	---	X9424
UVC-41W-D (110/230V) 17-1/2 in.	Ballast 11-3/4 x 2-3/4 x 1-5/8	---	X9425
CONTROLS - ORDERING			
S40 Smart Wi-Fi Thermostat	5 x 7-1/4 x 1	---	22V24
E40 Smart Wi-Fi Thermostat	3-3/8 x 5-3/8 x 1	---	30L26
Lennox® Smart Room Sensor	4 x 5-1/2 x 3	---	22V25
Lennox® Smart Air Quality Monitor	3-5/8 x 4-3/8 x 1-3/8	---	21P02
Lennox® Wireless Extender	4 x 5-1/2 x 2-1/2	---	22V26
M40 Smart Wi-Fi Thermostat	3-5/16 x 4-5/16 x 7/8	---	30L27
Thermostat Accessories			
¹ Discharge Air Temperature Sensor (For S40, E40)			88K38
² Remote Outdoor Air Temperature Sensor (For E40/L40) (For dual-fuel and Humiditrol®)			X2658

¹ Optional for service diagnostics (S40/E40).

² Remote Outdoor Air Temperature Sensor is used with conventional (non-Lennox® Communicating) outdoor units (sensor is furnished with Lennox® Communicating outdoor units). Allows the thermostat to display outdoor temperature. Required in dual-fuel and Humiditrol® applications.

SPECIFICATIONS

Gas Heating Performance	Model	SL280DF060NV36BK	SL280DF080NV60CK
	¹ AFUE	80%	80%
High Fire	Input - Btuh	60,000	80,000
	Output - Btuh	47,000	64,000
	Temperature rise range - °F	35 - 65	25 - 55
	Gas Manifold Pressure (in. w.g.) Natural Gas Only	3.4	3.4
Low Fire	Input - Btuh	39,000	52,000
	Output - Btuh	32,000	43,000
	Temperature rise range - °F	25 - 55	15 - 45
	Gas Manifold Pressure (in. w.g.) Natural Gas Only	1.5	1.5
High static - in. w.g.	Heating	0.8	0.8
	Cooling	1.0	1.0
Connections	Flue connection – in. round	4	4
	Gas pipe size IPS	1/2	1/2
Indoor Blower	Wheel diameter x width - in.	10 x 8	11-1/2 x 10
	Motor output - hp	1/2	1.0
	Tons of add-on cooling	2 - 3	3 - 5
	Air Volume Range - cfm	600 - 1350	890 - 2270
Electrical Data	Voltage	120 volts - 60 hertz - 1 phase	
	Blower motor full load amps	7.7	12.8
	Maximum overcurrent protection	15	15
Shipping Data	lbs. - 1 package	123	145

NOTE - Filters and provisions for mounting are not furnished and must be field provided.

¹ Annual Fuel Utilization Efficiency based on DOE test procedures and according to FTC labeling regulations. Isolated combustion system rating for non-weatherized furnaces.

INSTALLATION CLEARANCES

Vent Type	Type B1	Type C
Sides	0 inches (0 mm)	¹ 0 inches (0 mm)
Rear	0 inches (0 mm)	0 inches (0 mm)
Top	1 inch (25 mm)	1 inch (25 mm)
Front	2-1/4 inches (57 mm)	2-1/4 inches (57 mm)
Front (alcove)	24 inches (610 mm)	24 inches (610 mm)
Front (service)	24 inches (610 mm)	24 inches (610 mm)
Floor	² Combustible	² Combustible
Flue	1 inch (25 mm)	6 inches (152 mm)

NOTE - Air for combustion must conform to the methods outlined in the National Fuel Gas Code (NFPA 54/ANSI-Z223.1).

NOTE - In the U.S. flue sizing must conform to the methods outlined in the current National Fuel Gas Code (NFPA 54/ANSI-Z223.1) or applicable provisions of local building codes.

¹ Left side requires 4 in. clearance if single wall vent is used on 14-1/2 in. A" width cabinets, and 2 in. clearance on 17-1/2 in. B" width cabinets.

² Clearance for installation on combustible floor if optional Downflow Combustible Flooring Base is installed between furnace and combustible floor. Not required in add-on cooling applications if installed in accordance with local codes or National Fuel Gas Code ANSI-Z223.1.

OPTIONAL ACCESSORIES - ORDER SEPARATELY

	"B" Width Models	"C" Width Models
CABINET ACCESSORIES		
Downflow Combustible Flooring Base	11M60	11M61
CONTROLS		
Transformer (75VA)	27J32	27J32
DOWNFLOW FILTER KITS		
Downflow Air Filter and Rack Kit No. and Size of filter - in.	51W07	51W08
	(2) 16 x 20 x 1	(2) 16 x 20 x 1
DOWNFLOW FILTER KITS		
Combustion Air Intake Muffler Kit	29K98	29K98

REFRIGERANT DETECTION SYSTEM (RDS) COMPONENTS

Description	Order No.	
Refrigerant Detection System (RDS) Coil Sensor Kit	26Z69	
Refrigerant Detection System (RDS) Blower Control Board	Any Lennox® Communicating Furnace <u>or</u> any Non-Communicating 24V Furnace (Universal)	27A03
	Any Non-Communicating 24V Furnace	27A02

NOTE - Communicating Blower Control Board and Sensor can be used universally with Lennox® communicating furnace or any non-communicating 24 volt furnace.
Non-Communicating Blower Control Board and Sensor can be used with any non-communicating 24 volt furnace.

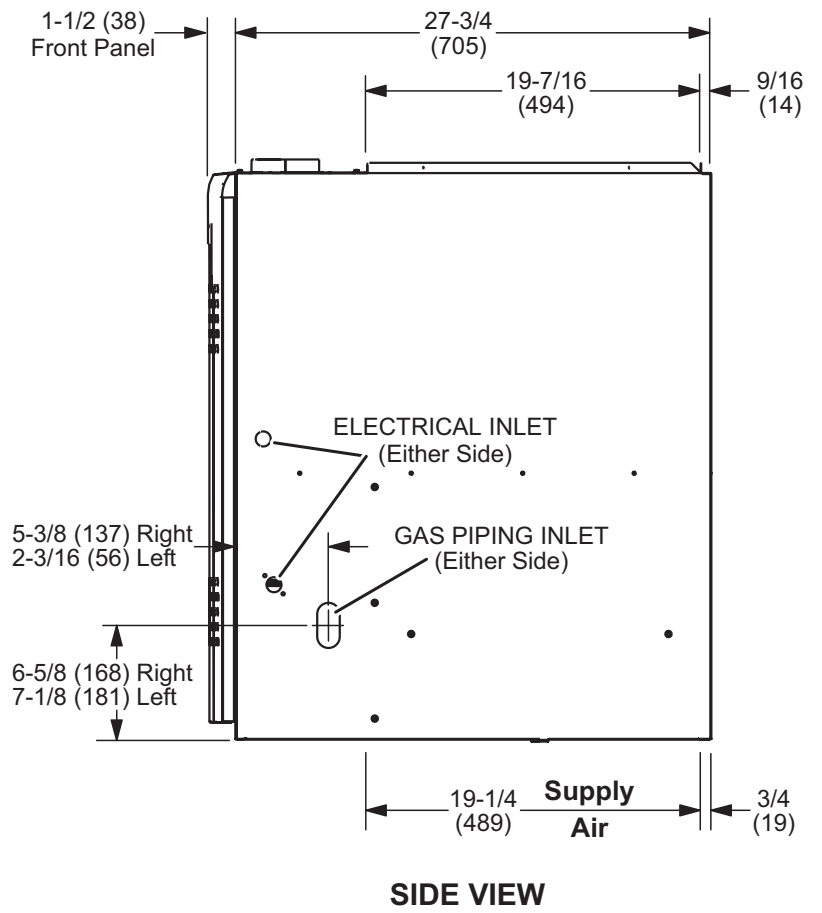
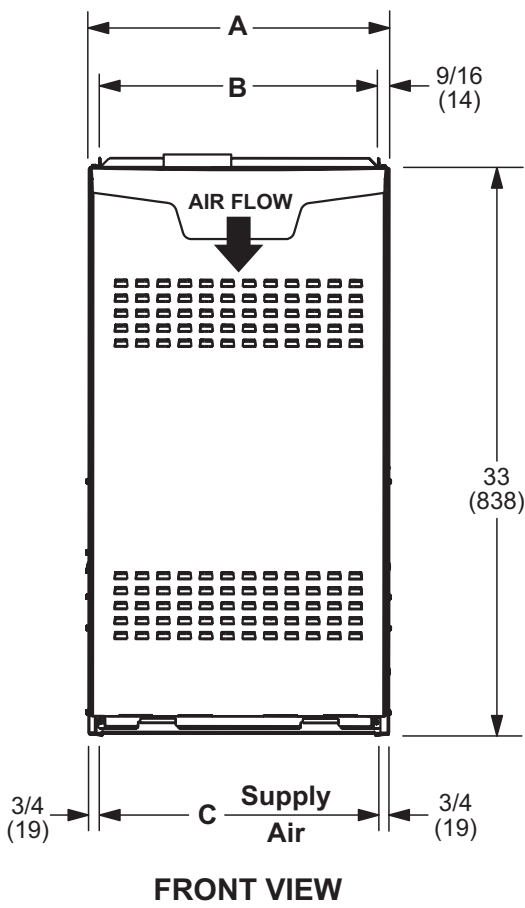
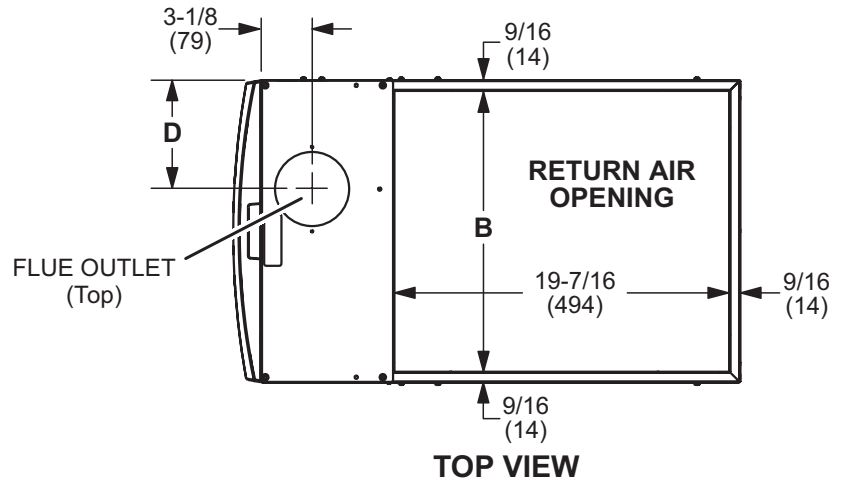
HIGH ALTITUDE OPERATION

Units may be installed at altitudes up to 7500 ft. above sea level without any modification.

60K natural gas units installed at altitudes of 4501 to 7500 feet require a field installed High Altitude Pressure Switch. See table below.

GAS HEAT ACCESSORIES

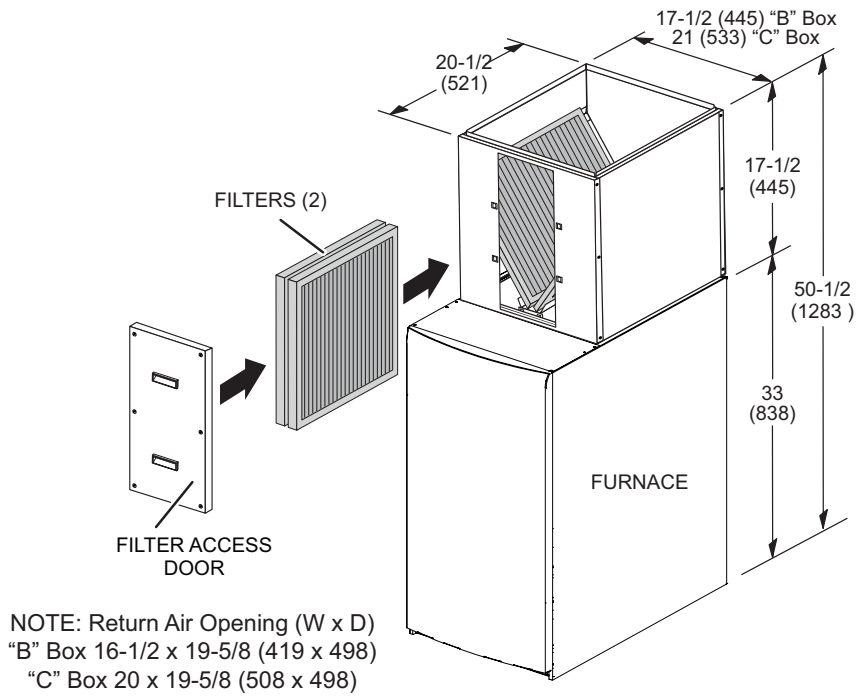
Input	High Altitude Pressure Switch Kit (4501 - 7500 ft.)		Natural Gas to LPG/Propane Kit	
	Natural Gas	LPG/Propane	0 - 4500 ft.	0 - 7500 ft.
060	20K91	No Change	- - -	20P40
080	No Change	N/A	20P41	- - -



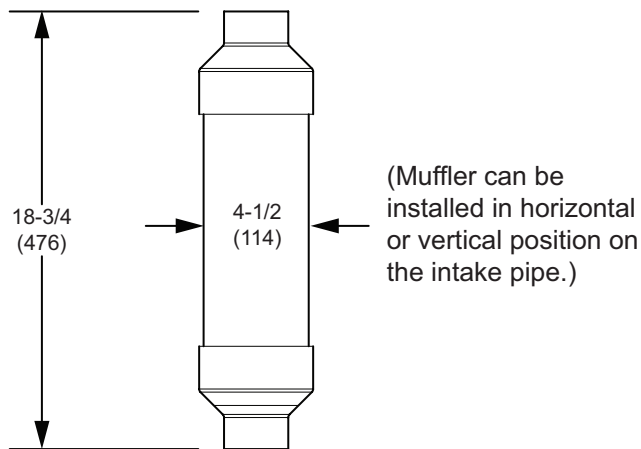
Model No.	A		B		C		D	
	in.	mm	in.	mm	in.	mm	in.	mm
SL280DF060NV36BK	17-1/2	446	16-3/8	416	16	406	6-1/4	159
SL280DF080NV60CK	21	533	19-7/8	504	19-1/2	495	8	203

DOWNFLOW FILTER CABINET

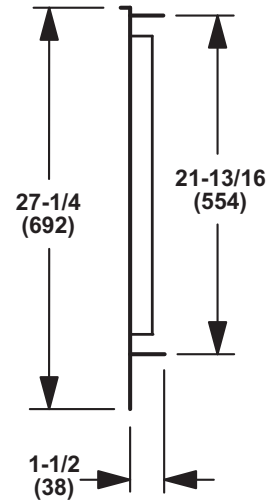
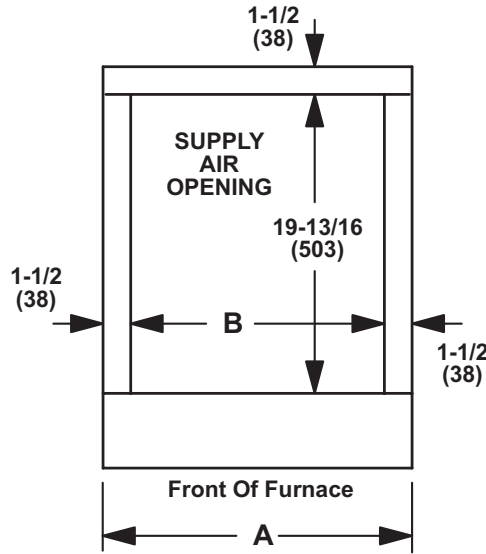
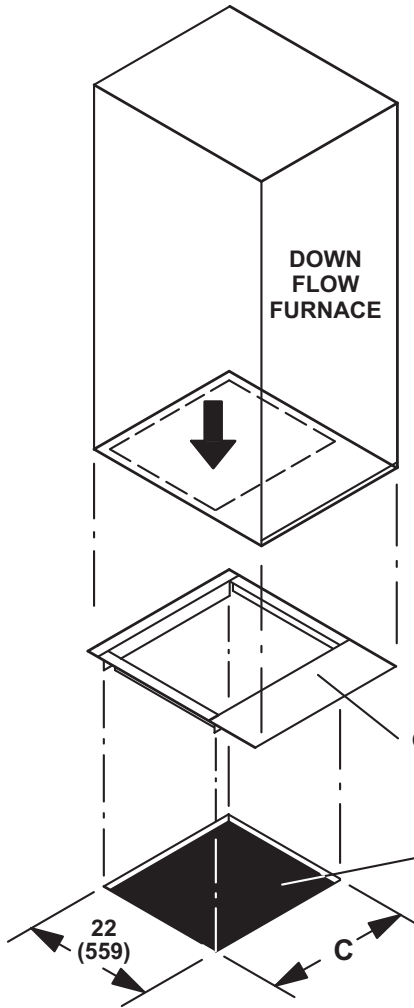
**"B AND "C" WIDTH FURNACES
(Two Filters)**



**COMBUSTION AIR INTAKE MUFFLER KIT
29K98 - 2-inch**



DOWNFLOW COMBUSTIBLE FLOORING BASE

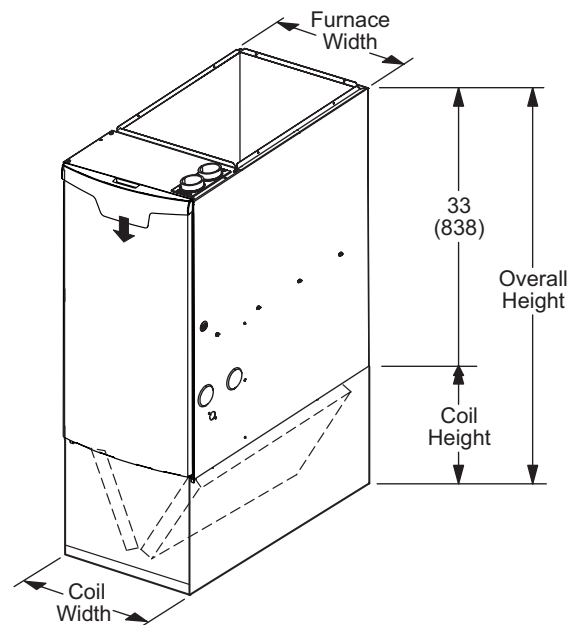


TOP VIEW

SIDE VIEW

Cabinet Width	Catalog Number	A		B		C	
		in.	mm	in.	mm	in.	mm
B	11M60	19-9/16	497	16-9/16	421	18-3/4	476
C	11M61	23-1/16	586	20-1/16	510	22-1/4	565

Model	Coil/Furnace Width		Coil Height		Overall Height	
	in.	mm	in.	mm	in.	mm
CK40DT						
CK40DT-24B	17-1/2	445	18	457	51	1295
CK40DT-30/36B	17-1/2	445	23-1/2	597	56-1/2	1435
CK40DT-30/36C	21	533	23-1/2	597	56-1/2	1435
CK40DT-42B	17-1/2	445	23-1/2	597	56-1/2	1435
CK40DT-48C	21	533	27-1/2	699	60-1/2	1537
CK40CT-50/60C	21	533	27-1/2	699	60-1/2	1537



BLOWER DATA

SL280DF060NV36BK BLOWER PERFORMANCE (less filter)

0 through 0.8 in. w.g. (Heating) and 0 through 1.0 in. w.g. (Cooling) External Static Pressure Range

HEATING		
¹ Heating Speed DIP Switch Settings	First Stage Heating Speed - cfm	Second Stage Heating Speed - cfm
+24%	1065	1175
+18%	1010	1105
+12%	965	1055
+6%	910	990
Factory Default	855	930
-6%	795	880
-12%	745	820
-18%	695	760

COOLING								
¹ Cooling Speed DIP Switch Settings	First Stage Cooling Speed - cfm				Second Stage Cooling Speed - cfm			
	Low	Medium-Low	Medium-High	² High	Low	Medium-Low	Medium-High	² High
+	730	780	840	960	1000	1090	1215	1350
Factory Default	665	705	760	870	910	990	1095	1220
-	600	635	685	765	810	885	985	1095

¹ Cooling and heating speeds are based on a combination of DIP switch settings on the furnace control. Refer to Installation Instructions for specific DIP Switch Settings.

² Factory default setting.

NOTES - The effect of static pressure is included in air volumes shown.

First stage HEAT is approximately 91% of the same second stage HEAT.

First stage COOL (two-stage air conditioning units only) is approximately 70% of the same second stage COOL speed position.

Continuous Fan Only speed is selectable at 28% and 38% of the selected second stage cooling speed - minimum 380 cfm.

Lennox® Smart Zoning System Applications - Minimum blower speed is 380 cfm.

SL280DF060NV36BK BLOWER MOTOR WATTS (COOLING)

¹ Cooling Speed DIP Switch Settings	Motor Watts @ Various External Static Pressures - in. w.g.																		
	First Stage									Second Stage									
	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0	
+ Setting																			
Cooling Speed	Low	65	86	106	125	148	160	179	196	116	143	177	193	224	251	269	297	321	350
	Med-Low	71	98	115	133	157	177	190	215	146	174	200	232	261	288	317	338	372	394
	Med-High	87	115	130	156	178	203	215	239	191	228	265	295	324	355	386	416	445	477
	High	102	136	156	182	207	228	252	279	246	293	335	362	399	441	476	508	531	547
Factory Default																			
Cooling Speed	Low	56	73	92	109	128	145	158	175	95	118	143	166	188	212	233	256	277	303
	Med-Low	57	77	99	119	134	151	168	188	113	139	170	194	216	245	268	290	311	336
	Med-High	70	90	111	134	152	169	191	213	146	176	205	230	260	289	320	345	370	406
	High	87	106	129	147	174	198	216	239	191	228	263	294	332	360	391	413	447	475
- Setting																			
Cooling Speed	Low	47	65	81	98	113	134	146	162	76	99	118	144	165	184	202	223	246	267
	Med-Low	52	69	88	106	124	137	152	171	91	110	138	155	183	203	224	246	267	291
	Med-High	55	75	96	111	131	147	168	187	111	139	167	189	216	240	265	289	313	341
	High	64	89	106	130	153	169	185	211	150	189	217	244	270	295	327	348	374	405

BLOWER DATA

SL280DF080NV60CK BLOWER PERFORMANCE (less filter)

0 through 0.8 in. w.g. (Heating) and 0 through 1.0 in. w.g. (Cooling) External Static Pressure Range

HEATING

¹ Heating Speed DIP Switch Settings	First Stage Heating Speed - cfm	Second Stage Heating Speed - cfm
+24%	1475	1610
+18%	1385	1515
+12%	1335	1445
+6%	1255	1360
Factory Default	1175	1285
-6%	1100	1195
-12%	1050	1140
-18%	980	1045

COOLING

¹ Cooling Speed DIP Switch Settings	First Stage Cooling Speed - cfm				Second Stage Cooling Speed - cfm			
	Low	Medium-Low	Medium-High	² High	Low	Medium-Low	Medium-High	² High
+	1090	1220	1380	1575	1575	1800	2000	2270
Factory Default	990	1110	1250	1440	1400	1600	1820	2050
-	890	995	1135	1300	1270	1435	1635	1855

¹ Cooling and heating speeds are based on a combination of DIP switch settings on the furnace control. Refer to Installation Instructions for specific DIP Switch Settings.

² Factory default setting.

NOTES - The effect of static pressure is included in air volumes shown.

First stage HEAT is approximately 91% of the same second stage HEAT.

First stage COOL (two-stage air conditioning units only) is approximately 70% of the same second stage COOL speed position.

Continuous Fan Only speed is selectable at 28% and 38% of the selected second stage cooling speed - minimum 450 cfm.

Lennox® Smart Zoning System Applications - Minimum blower speed is 450 cfm.

SL280DF080NV60CK BLOWER MOTOR WATTS (COOLING)

¹ Cooling Speed DIP Switch Settings	Motor Watts @ Various External Static Pressures - in. wg.																	
	First Stage								Second Stage									
	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0

+ Setting

Cooling Speed	Low	117	148	175	200	228	252	276	297	296	336	368	404	444	478	515	545	577	611
	Med-Low	155	184	212	243	273	302	330	354	408	441	484	522	554	601	641	689	731	774
	Med-High	215	255	283	319	354	380	411	439	578	629	682	718	763	824	859	903	951	989
	High	285	335	358	401	436	473	512	545	877	935	979	1036	1052	1058	1057	1047	1042	1035

Factory Default

Cooling Speed	Low	98	121	150	173	198	221	238	262	221	247	293	317	362	388	417	448	483	504
	Med-Low	126	150	179	207	233	262	286	309	317	350	393	432	471	503	538	572	610	642
	Med-High	167	199	231	259	286	319	344	368	423	464	520	547	593	646	686	722	760	813
	High	225	255	292	322	359	392	428	456	639	683	733	789	837	887	932	977	1018	1034

- Setting

Cooling Speed	Low	86	110	135	157	177	197	217	238	164	198	228	260	288	320	349	372	399	429
	Med-Low	95	123	148	173	202	222	241	264	239	269	302	343	376	411	437	472	501	534
	Med-High	137	166	196	217	248	271	296	320	309	342	385	426	463	501	538	573	603	644
	High	166	201	229	264	292	323	347	384	458	501	545	586	632	687	729	762	814	851

REVISIONS

Sections	Description of Change
Control Options	Updated to reflect latest product offering.



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