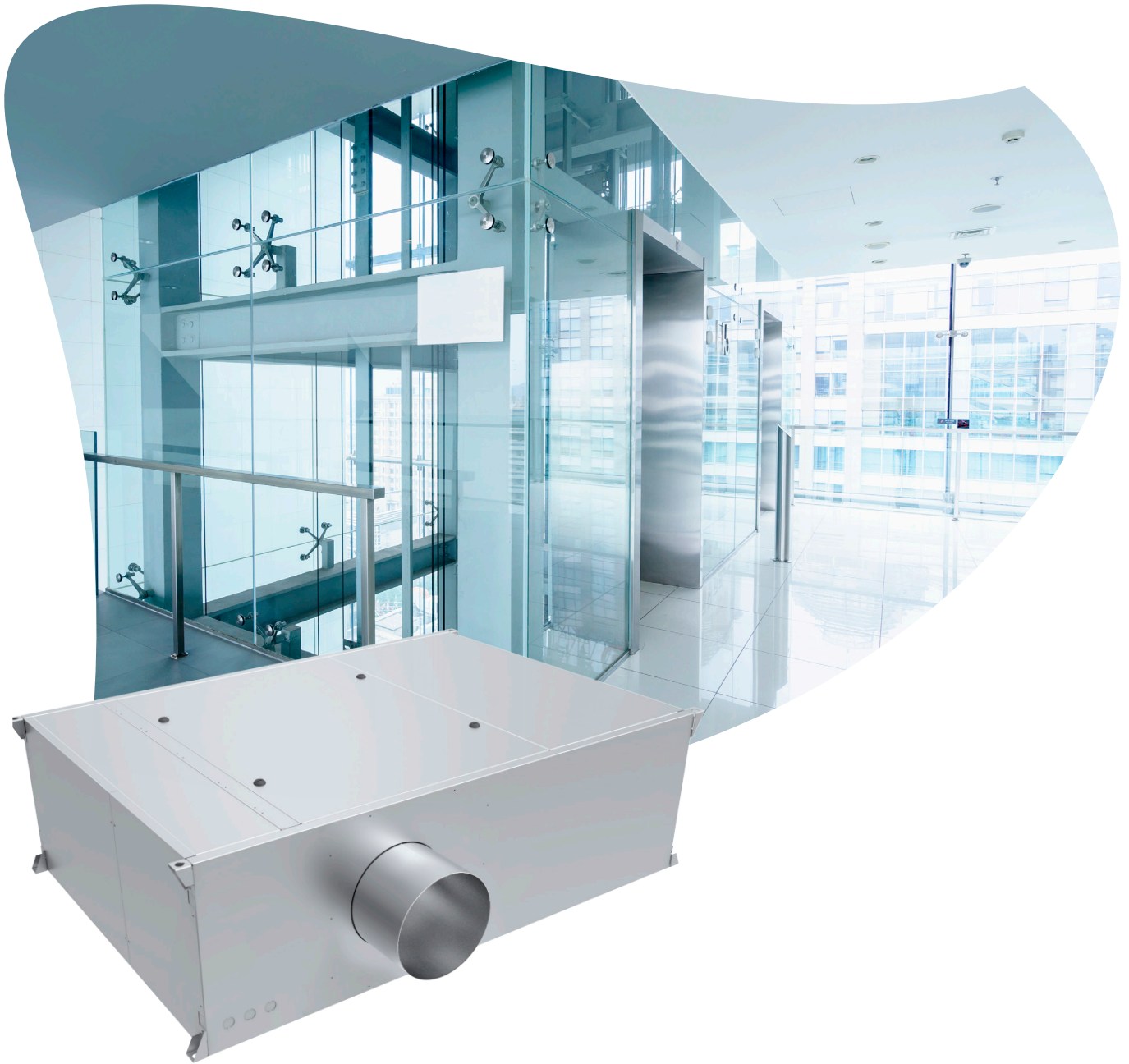


CRQ Ultra-Quiet Series Flow, Fan-Powered, VAV Terminal Units



CRQ Fan-Powered, VAV Terminals: Quiet operation, constant airflow

Owners

CRQ terminals are specifically designed for quiet operation. They also offer improved space comfort and flexibility for a wide variety of heating, ventilating, and air-conditioning (HVAC) systems. This is critical in today's buildings where occupants are placing more emphasis on indoor acoustics.

Occupants benefit from a CRQ design that minimizes low-frequency (125-250 Hz) sound levels that typically dominate the space sound level.

Superior flow-measuring allows control at lower minimum cubic-feet-per-minute (CFM) values, which reduces energy costs and sound levels while maintaining comfort in the occupied space.

Designers

Due to heightened interest in indoor air quality, many HVAC system designers are focusing on the effects of particulate contamination within a building's occupied space. Often, HVAC system noise is overlooked as a source of occupied-space contamination.

The CRQ terminal is specifically designed to eliminate obtrusive fan noise from reaching the occupants, while providing constant air motion in the space.

The CRQ terminal is manufactured and assembled with the FlowStar™ multi-axis, multi-point, center-averaging, airflow sensor. This sensor provides a signal to the controller enabling it to quietly and precisely measure airflow.

CRQ terminals can be used in these types of applications:

- Series Fan, Cooling Only
- Series Fan, Electric Heat or Hot Water Reheat

Model CRQ-EH offers electric heat and model CRQ-WC offers hot-water heat. Both are available with Electronically Commutated Motor (ECM) for the ultimate in efficiency.

Model CRQ terminals are available with Verasys® ZEC Series Direct Digital Control (DDC) for BACnet, or consignment controls. Verasys® ZEC DDC is specifically designed for use with CRQ terminals.

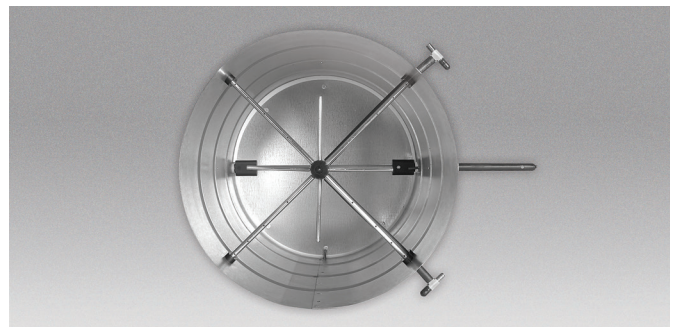
Designed by experts in VAV terminal operation, these controls can accommodate a multitude of control schemes, from the most basic to the most sophisticated sequence of operation.

Contractors

All CRQ terminals are thoroughly inspected during each step of the manufacturing process, including a comprehensive pre-shipment inspection, to assure the highest quality product available. Each unit is also run-tested, before leaving the factory, to ensure trouble-free start-up.

For the ultimate in installation convenience, CRQ terminals come equipped with an integrated sound attenuator, and integrated vibration isolating hanger brackets. CRQ units are also available with optional factory-provided and factory-installed valve packages.

A single-point power connection, and factory-calibrated controls minimize installation time. Electronic controls and electrical components are located on the same side of the casing in a flippable enclosure with side and bottom access for quick adjustment and troubleshooting.



FlowStar™ multi-axis airflow sensor

The FlowStar™ sensor ensures accurate airflow measurement, regardless of the installation conditions. A calibration label and wiring diagram are located on the terminal for quick reference during start-up.

CRQ terminals require no periodic maintenance other than optional filter replacement. If component replacement becomes necessary, the unit is designed to minimize field labor.

Top and bottom casing panels are easily removed via durable, low-profile quarter turn latches, providing easy access to the fan assembly, and motor electrical harnesses are easily accessible, allowing for quick motor and blower maintenance.



Model CRQ Construction Features

The CRQ terminal incorporates many unique features. Many of these **standard** features are expensive options for other manufacturers.

All unit configurations listed with ETL for safety compliance with UL 1995

20 gauge galvanized steel casing withstands 125 hour salt spray test per ASTM B-117

Electrical devices installed within an integrated, flippable NEMA 1 enclosure, with single point power connection

Integrated sound attenuator

Fan assembly utilizes a forward curved, dynamically balanced, galvanized wheel with a direct drive motor

Integral discharge collar simplifies field installation

Mechanical lock construction ensures lowest possible casing breakage

Top and bottom removable access panels with durable, low-profile latches

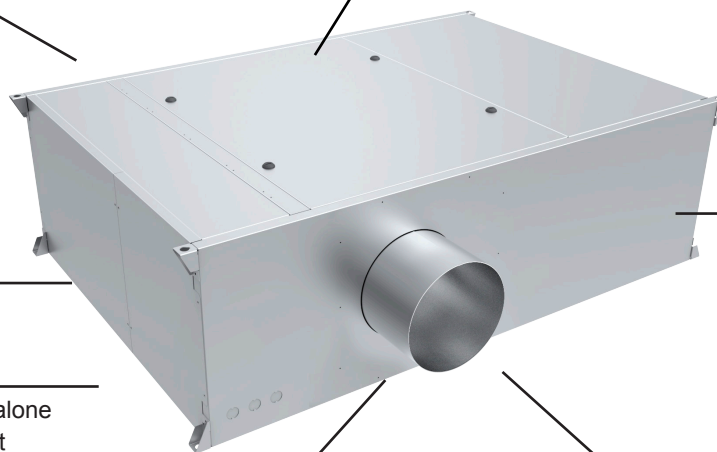
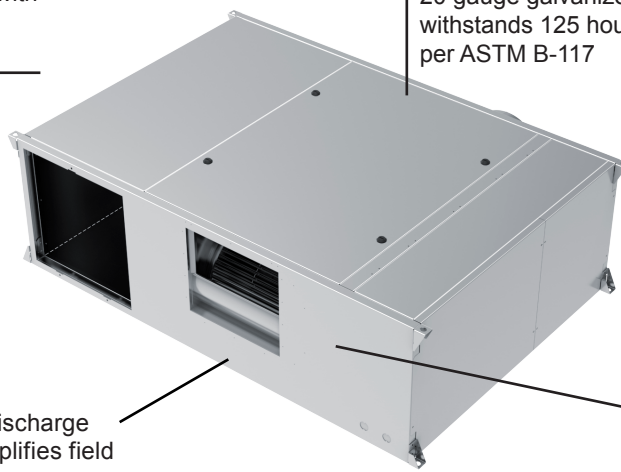
High-performance EC motor technology for ultimate efficiency

1" dual density micromat insulation complying with UL 181, NFPA 90A, and ASTM C1071

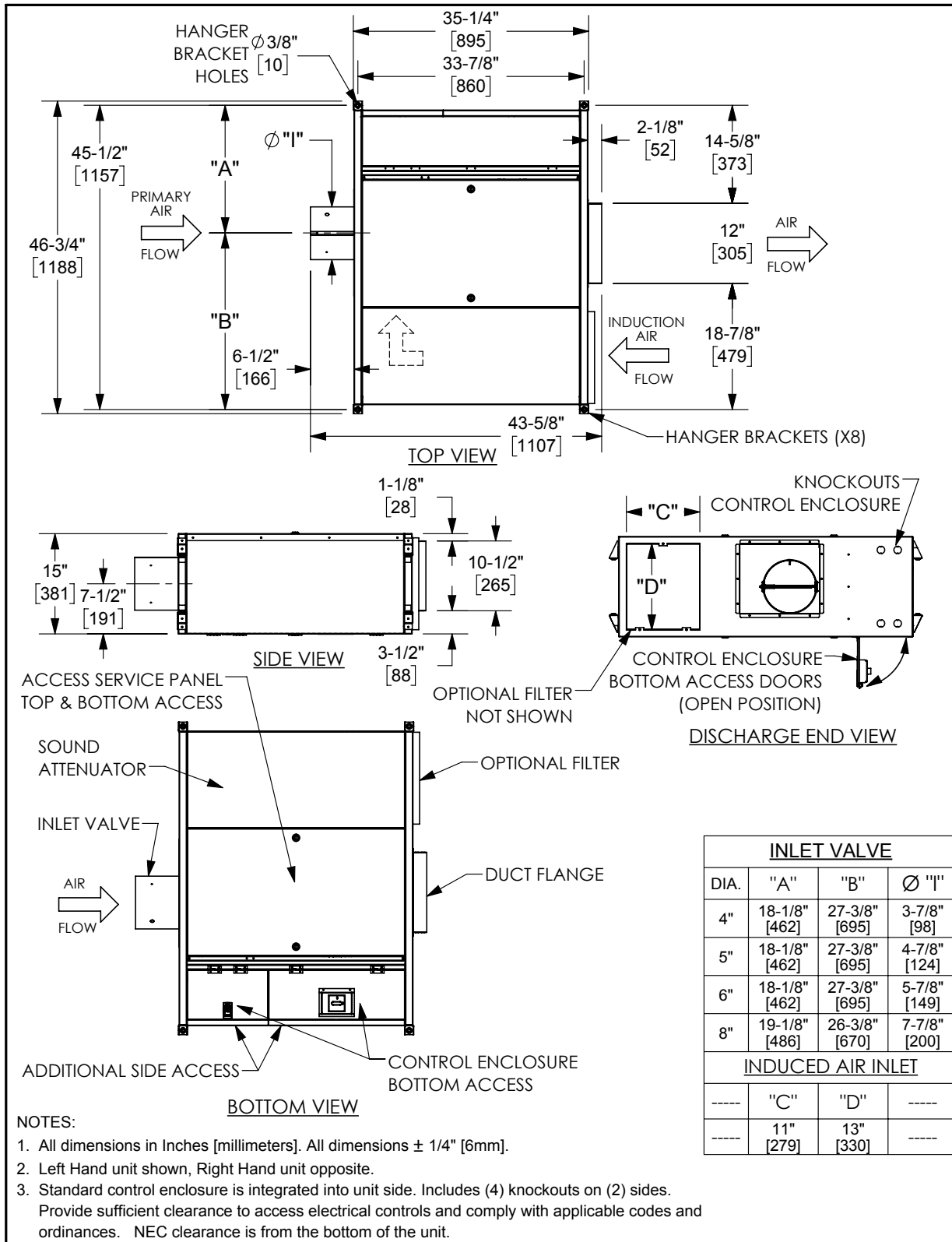
Verasys® ZEC500 standalone or ZEC510 BACnet Direct Digital Control (DDC)

Round Inlets: 20 gauge galvanized steel, roll formed with integral stiffening ribs for added strength and rigidity

Patented FlowStar™ airflow sensor (Patent number 5,481,925)

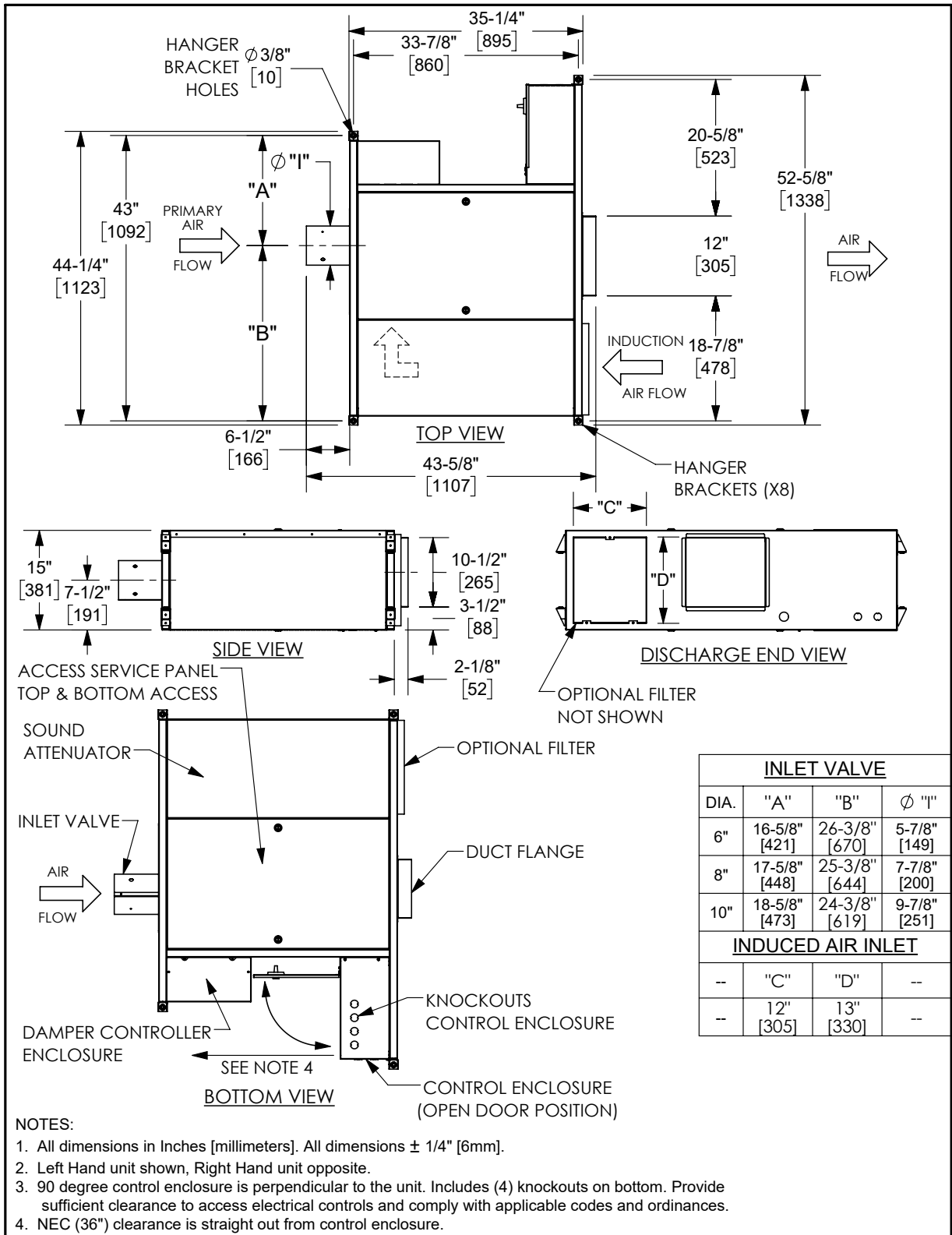


Model CRQ Cooling Only, Unit Size 10



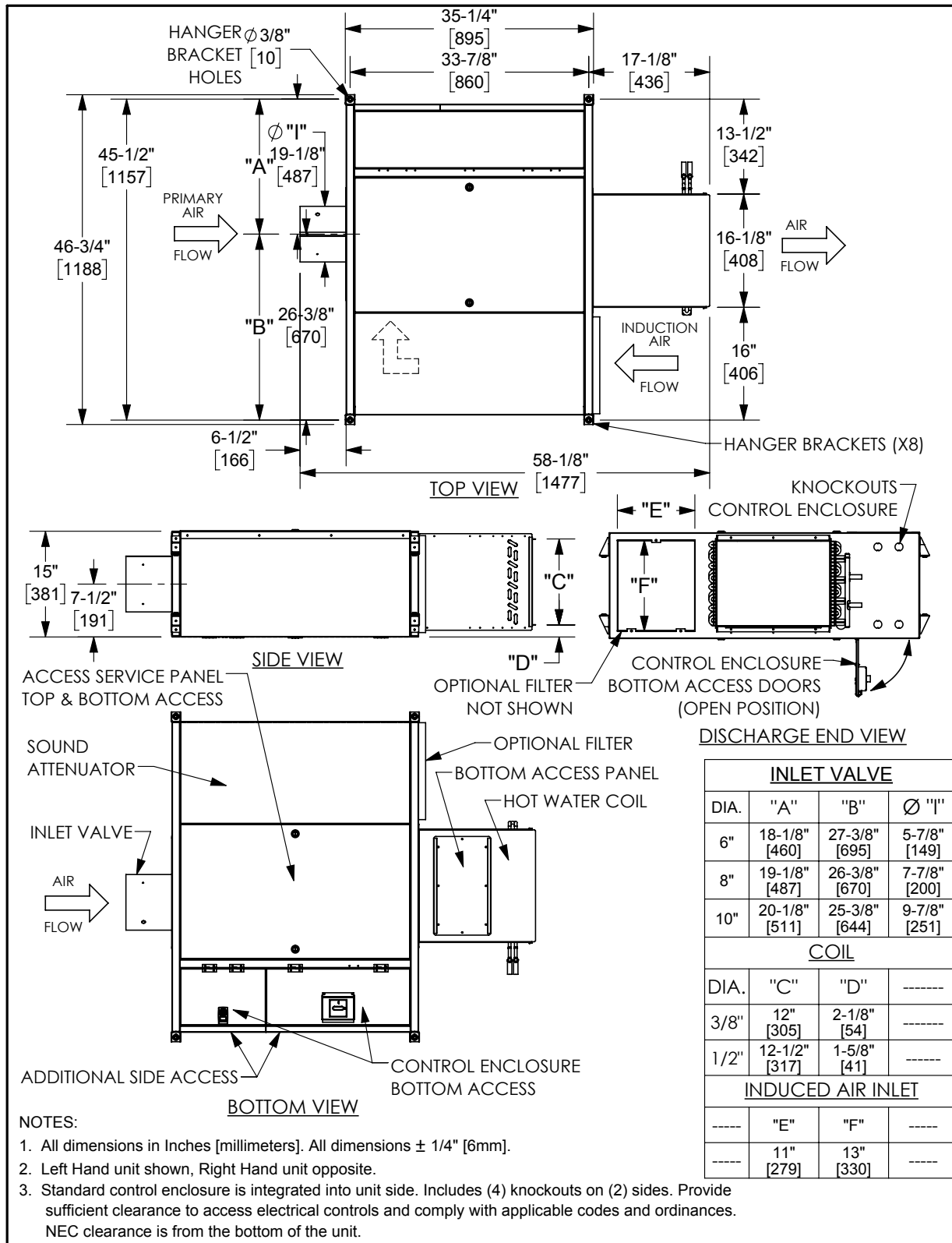
NOTE: Drawings are not to scale and are not for installation purposes. Unit sizes 07 and 10 are shown for illustrative purposes. For complete selection of sizes and options, visit www.enviro-tec.com or contact your Enviro-Tec representative for more information. All data and dimensions are subject to change without notice.

Model CRQ Cooling Only, 90 Degree Enclosure, Unit Size 10



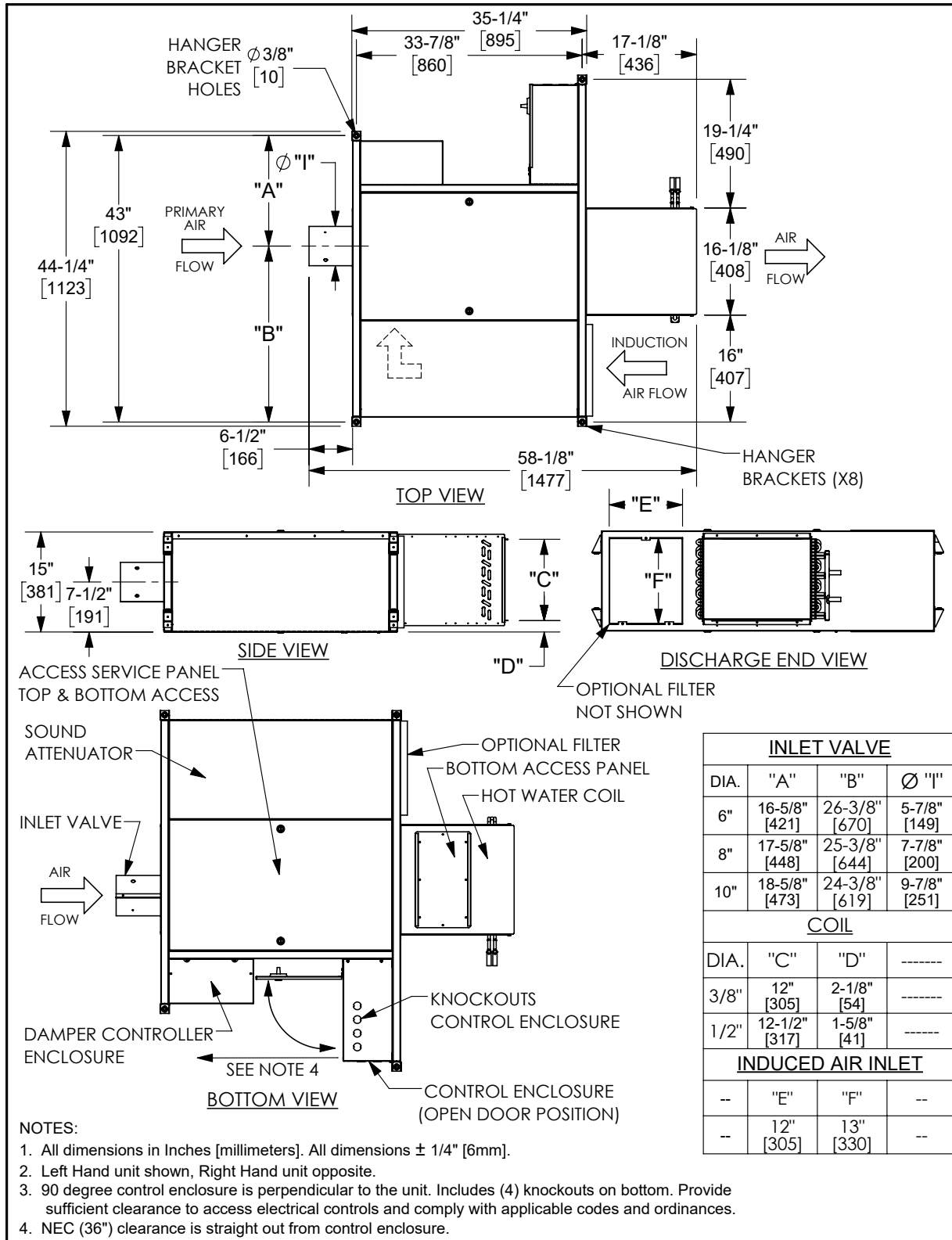
NOTE: Drawings are not to scale and are not for installation purposes. Unit sizes 07 and 10 are shown for illustrative purposes. For complete selection of sizes and options, visit www.enviro-tec.com or contact your Enviro-Tec representative for more information. All data and dimensions are subject to change without notice.

Model CRQ With Hot Water Coil, Unit Size 10



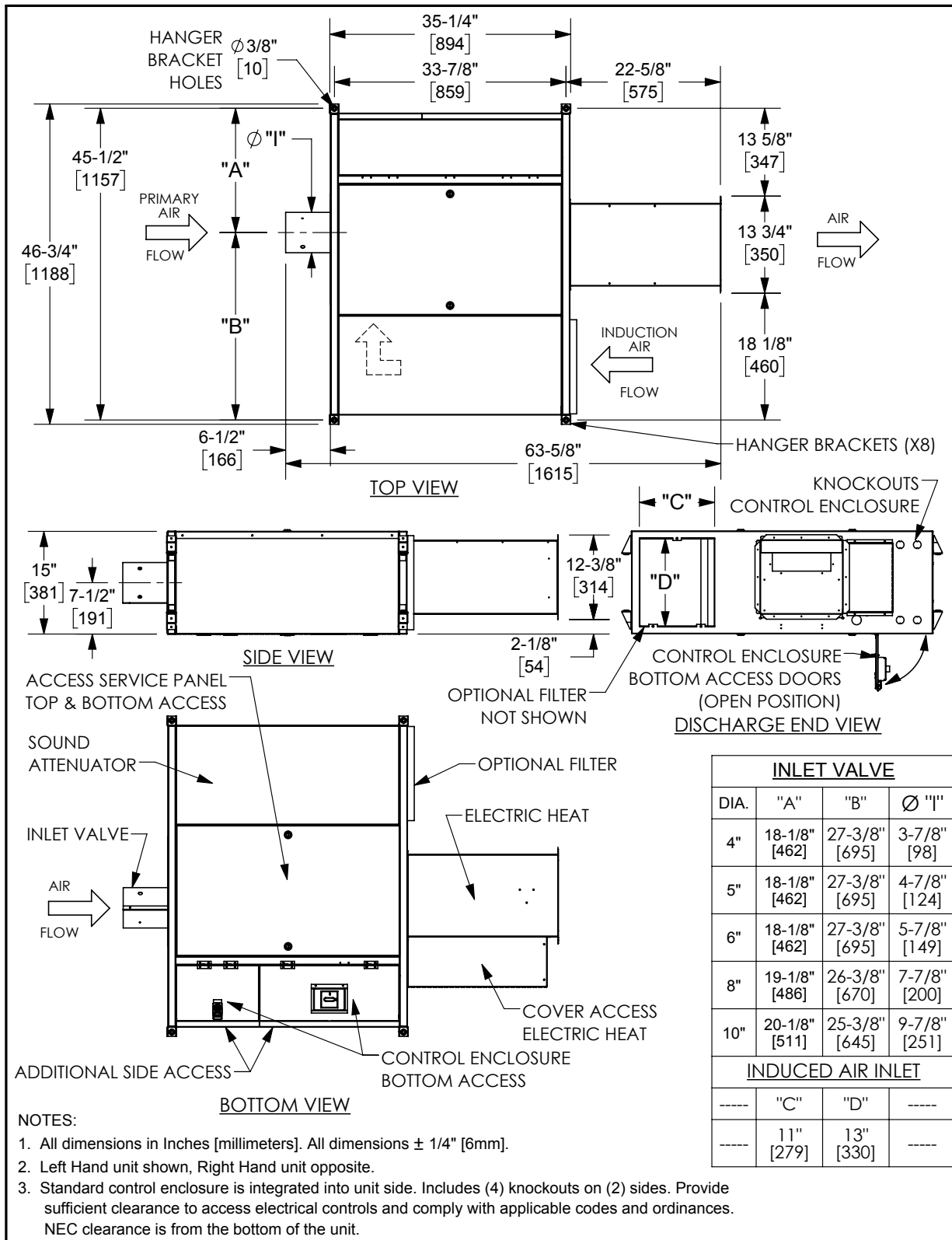
NOTE: Drawings are not to scale and are not for installation purposes. Unit sizes 07 and 10 are shown for illustrative purposes. For complete selection of sizes and options, visit www.enviro-tec.com or contact your Enviro-Tec representative for more information. All data and dimensions are subject to change without notice.

Model CRQ With Hot Water Coil, 90 Degree Enclosure, Unit Size 10



NOTE: Drawings are not to scale and are not for installation purposes. Unit sizes 07 and 10 are shown for illustrative purposes. For complete selection of sizes and options, visit www.enviro-tec.com or contact your Enviro-Tec representative for more information. All data and dimensions are subject to change without notice.

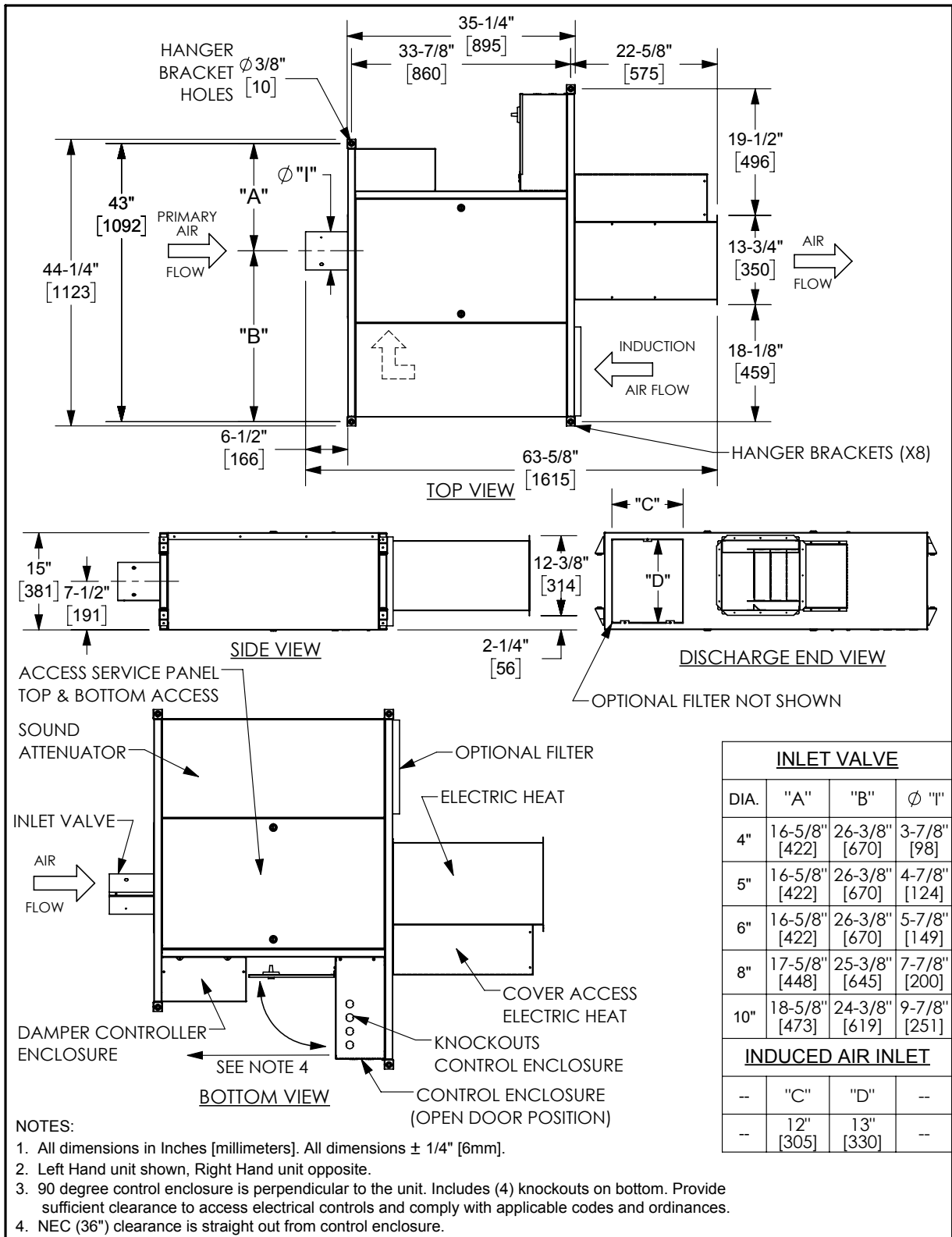
Model CRQ With Electric Heat, Unit Sizes 07 and 10



INLET VALVE			
DIA.	"A"	"B"	$\phi 1"$
4"	18-1/8" [462]	27-3/8" [695]	3-7/8" [98]
5"	18-1/8" [462]	27-3/8" [695]	4-7/8" [124]
6"	18-1/8" [462]	27-3/8" [695]	5-7/8" [149]
8"	19-1/8" [486]	26-3/8" [670]	7-7/8" [200]
10"	20-1/8" [511]	25-3/8" [645]	9-7/8" [251]
INDUCED AIR INLET			
----	"C"	"D"	----
----	11" [279]	13" [330]	----

NOTE: Drawings are not to scale and are not for installation purposes. Unit sizes 07 and 10 are shown for illustrative purposes. For complete selection of sizes and options, visit www.enviro-tec.com or contact your Enviro-Tec representative for more information. All data and dimensions are subject to change without notice.

Model CRQ With Electric Heat, 90 Degree Enclosure, Unit Sizes 07 and 10



NOTE: Drawings are not to scale and are not for installation purposes. Unit sizes 07 and 10 are shown for illustrative purposes. For complete selection of sizes and options, visit www.enviro-tec.com or contact your Enviro-Tec representative for more information. All data and dimensions are subject to change without notice.

CRQ Terminal Features

STANDARD FEATURES

Construction

- AHRI 880 certified and labeled
- 20 gauge galvanized steel casing and valve
- 1" dual density micromat insulation
- Full metal nosing for 1" insulation
- Top and bottom access panels with durable latches
- Removable motor/blower assembly
- Integrated hanger brackets with vibration isolating grommets
- Dual-layer perforated metal diffuser
- Integrated sound attenuator

Fan Assembly

- Forward curved, dynamically balanced, direct drive, galvanized fan wheel
- 120, 208-230, and 277 volt single-phase EC motors
- Solo or Sync motor control technology
- Constant Torque or Constant Airflow Operation
- Thermally protected motor
- Vibration isolation motor mounts
- Single point wiring

Primary Air Valve

- Embossed rigidity rings
- Low thermal conductance damper shaft
- Position indicator on end of damper shaft
- Mechanical stops for open and closed position
- FlowStar™ center averaging airflow sensor
- Balancing tees
- Plenum rated sensor tubing

Hot Water Coils

- Coils are designed, manufactured, and tested by ENVIRO-TEC
- AHRI 410 certified and labeled
- 1, 2, 3, 4 row coils with 5/8" headers
- Tested at a minimum of 450 PSIG under water and rated at 450 PSIG working pressure at 200°F
- Left or right hand connections

Electrical

- cETL listed for safety compliance
- Flippable integrated electrical/controls enclosure with side and bottom access
- NEMA 1 certified enclosure

Electric Heat

- ETL assembly-listed for UL 1995 safety compliance
- Removable electric heat assembly
- Automatic reset primary and back-up secondary thermal limits
- Single point power connection
- Fusing per NEC

Controls

- Verasys® ZEC500 Standalone or ZEC510 DDC for BACnet

OPTIONAL FEATURES

Construction

- 1" foil-faced fiberglass or 1" closed cell foam insulation
- 1" double wall construction with 20 gauge liner (Fall 2021)
- 1" and 2" throwaway or pleated filters
- 1" and 2" tool-free filter clips
- 90-degree electrical control enclosure, NEMA 1 certified

Fan Assembly

- 480 volt three-phase EC motor
- 120, 208-230, and 277 volt single-phase PSC motors (Fall 2021)

Electrical

- Full unit toggle disconnect
- Inline motor fusing
- Primary and secondary transformer fusing

Electric Heat

- Staged or Proportional with SSR
- Fused or non-fused door interlocking disconnect switches

Configuration Tool

- Mobile Access Portal (MAP) Gateway Tool (sold separately)

Controls

- Consignment DDC controls (factory mount and wire controls provided by others), or pneumatic

Piping Packages

- Factory-provided and factory-mounted
- 1/2" 2 way, normally closed, two position electric motorized valves
- Isolation ball valves with memory stop
- Fixed (FC) and adjustable (PICV) flow control devices
- Y-Strainers, P/T ports, 18" flexible hose
- Floating point modulating control valves

ENVIRO-TEC is a registered trademark of Johnson Controls, Inc. in the United States of America and other countries. Other trademarks used herein may be trademarks or registered trademarks of other companies.