

WORLD RENOWNED RESEARCH AND DEVELOPMENT CAPABILITIES

Modine is dedicated to HVAC research and development. All of our products are tested and proven at our state-of-the-art technical center, located in Racine, WI. These facilities give us the capability of putting our packaged ventilation systems to the test in simulated working/operating environments. Our labs are third-party certified and ensure our HVAC solutions deliver comfort whenever and wherever it is needed.

THIRD-PARTY CERTIFIED LABS

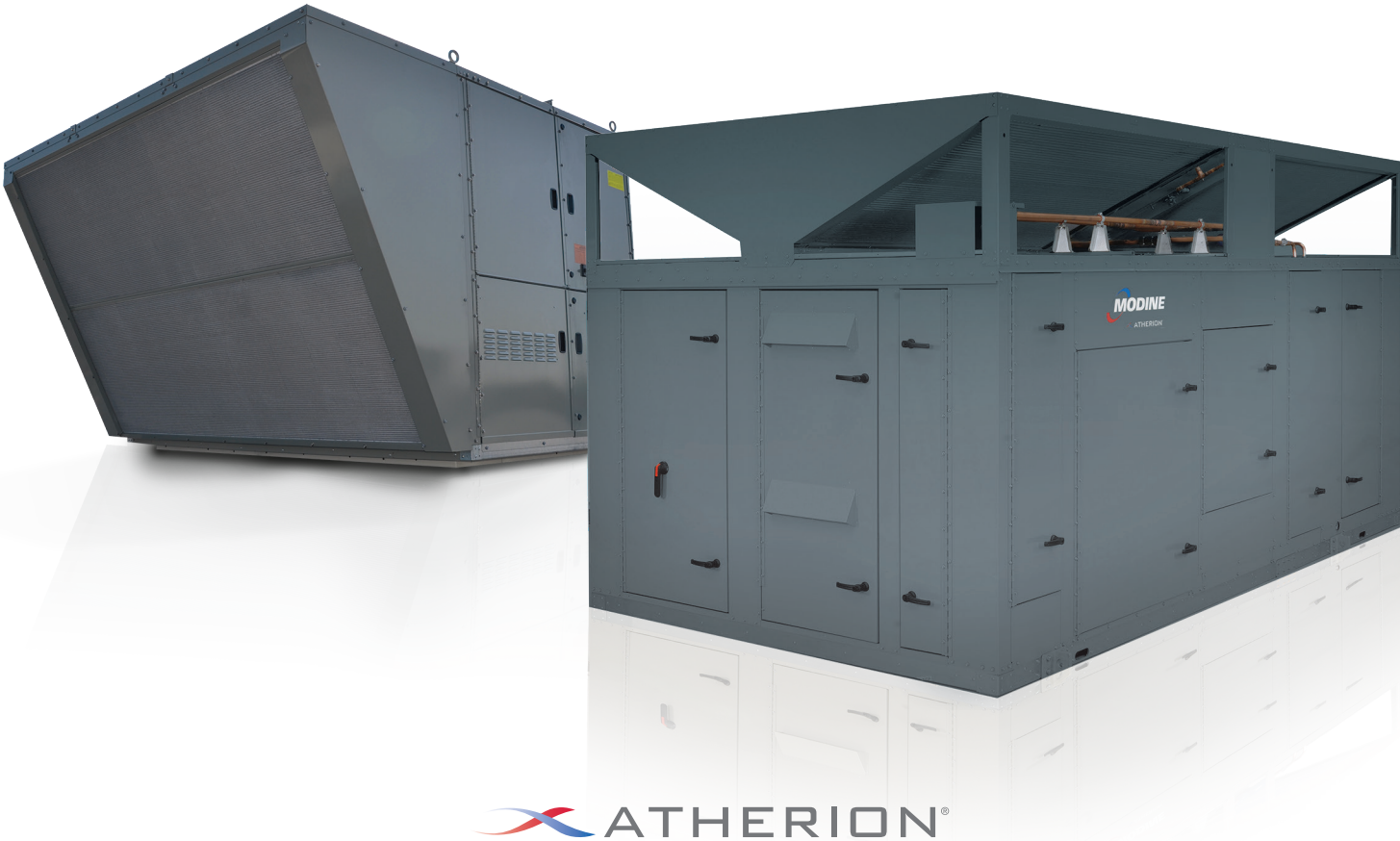
With our certified labs, customers can trust that our results meet today's rigorous standards.

90 Ton Psychrometric – Capable of temperatures from -40°F to 140°F and relative humidity of 10-90%, this cell is used for testing packaged rooftop equipment like the Atherion. Able to test to AHRI 340/360 CSA C747-06, and AHRI 920.

Wind Tunnel – Capable of duplicating almost any location on Earth: up to 520 tons of cooling capacity; replicates 96% of the sun's UV rays; and generates temperatures of -20°F to 131° and wind speeds up to 150 MPH. Another lab used for testing the Atherion. Able to test to AHRI 340/360 CSA C747-06, and AHRI 920.



**MODINE'S ENGINEERING
TEAM PUTS THE ATHERION
THROUGH RIGOROUS CLIMATE
TESTING. THIS INCLUDES
THERMAL AND STRUCTURAL
TESTING WELL BEYOND
GOVERNING STANDARDS.**



ATHERION®



To learn more, visit
www.modinehvac.com/atherion
or call 800-828-HEAT

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COMMERCIAL SOLUTIONS



STEP INSIDE FOR A BREATH OF FRESH AIR



Available in 7 to 60 nominal ton capacities

The Atherion® is the ideal solution to bring fresh, tempered outside air into your facility, regardless of your geographic location.

Whether you are in the humidity-soaked air of the Southeastern United States, in the drier, milder air of the West, or the four-season-friendly confines of the upper Midwest and Northeast, the Atherion can be customized to meet your outside ventilation air requirements. And by including the advanced Energy Recovery Module option, your system becomes a high-efficiency, 100% dedicated outside air unit, potentially saving you thousands in annual energy costs.



Atherion D-cabinet model pictured



Basic Unit Capabilities	Feature	Cabinet Size	Data [Ⓞ]
	Model Size (Nominal Tons)	B	7, 10, 13, 15, 20
		C	15, 20, 26, 30
		D	30, 40, 52, 60 [Ⓞ]
	Airflow Range (CFM)	B	1,100-6,000 [Ⓞ]
		C	3,000-10,500 [Ⓞ]
		D	4,000-18,000 [Ⓞ]
	Voltages Available (60Hz)	B, C, D	208V/3ph, 230V/3ph, 460V/3ph, 575V/3ph
Controls	Controls System	B, C, D	Modine Controls System featuring Carel
	Control Hardware	B, C, D	Carel pC05+
	Optional Communications	B, C, D	BACNet® MS/TP or Ethernet, LonWorks® FTT-10
Cooling System	Compressor	B - 7 Ton	Modulating Single Digital Scroll
		B & C - 10 through 30 Ton	Modulating Tandem Digital - On/Off Scroll
		D	Modulating Tandem Digital - On/Off Scroll + Modulating Tandem On/Off - On/Off Scroll
	Modulating Range	B - 7 Ton	25-100%
		B & C - 10 through 30 Ton	12.5-100%
		D	6.25-100%
	Evaporator Coil	B & C	High Capacity 4 Row, 14 FPI
		D	High Capacity 6 Row, 14 FPI
	Condenser Coil	B, C, D	PF™ Aluminum Microchannel from Modine
	Condenser Fan Motor Control	B, C, D	Variable Speed for Precise Head Pressure Control
IEER Part Load Efficiency	B, C, D	Meets or Exceeds ASHRAE 90.1 and 189.1	
Hot Gas Reheat (Optional)	Hot Gas Reheat Coil	B & C	1 Row, 2-Circuit (patent pending), 14 FPI
		D	1 Row, 1-Circuit, 14 FPI
	Modulating Range	B, C, D	0-100%
Heating Section (Optional)	Natural Gas Heat Options (Efficiency)	B	150 - 400MBH (81%), 175 - 310MBH (94%)
		C	300 - 600MBH (81%), 350 - 450MBH (90%)
		D	400 - 1,600MBH (81%), 450 - 1,420MBH (86-94%)
	Heat Exchanger Type	B, C, D	Tubular 409 Stainless Steel with Inshot Burners
	Natural Gas Modulation Range	B	20 to 100%
		C	15 to 100%
		D	5 to 100%
	Optional Auxiliary Electric	B & C	20kW SCR Controlled
		D	40kW SCR Controlled
	Maximum Temp Rise	B & C	100°F
	Electric Heat Options	B	20 through 80kW
		C	20 through 100kW
D		40 through 200kW	
Electric Modulation Range	B, C, D	Full SCR Modulating	
Maximum Temp Rise	B, C, D	100°F	
Supply Blower	Blower Type	B & C	High Efficiency, Backward Inclined, Airfoil and Non-Airfoil Plenum Fans
	Blower Qty	B	1
		C & D	1 or 2
	Blower Sizes (Diameter)	B	11", 12", 14", 16"
		C	16", 20", Dual 16"
		D	20", 25", Dual 25"
Blower Motor Range	B & C	1 - 10HP, ODP and TE NEMA Premium Efficiency	
	D	1 - 20HP, ODP and TE NEMA Premium Efficiency	
Filtration	Primary Filter Ratings	B, C, D	2" MERV 10, 13 or 15
	Optional Secondary Filter Ratings	B, C, D	4" MERV 13 or 16
Power Exhaust Blower (Optional)	Blower Type	B & C	High Efficiency, Backward Inclined, Airfoil and Non-Airfoil Plenum Fans
		D	Not Applicable
	Blower Qty	B & C	1
	Blower Sizes (Diameter)	B	11", 16", 20"
C		20" or 28"	
Energy Recovery (Optional)	Blower Motor Range (HP)	B & C	1 - 10HP, ODP and TE NEMA Premium Efficiency
	Wheel Type	B & C	Total Energy Recovery, 4Å Zeolite over Aluminum
		D	Not Applicable
	Wheel Effectiveness	B & C	Minimum 60% to Meet ASHRAE 189.1
	Wheel Sizes (Diameter)	B	28", 36" or 48"
C		48" or 58"	

CONSTRUCTION

- 1 Robust 2 in. Double-Wall Construction**
 - a. 2 in. double-wall insulated, weatherproof cabinet (insulated roof, floor and walls) for energy efficiency and IAQ
 - b. Standing roof seam for strength and durability
- 2 Casing Material Selected for Outstanding Corrosion Resistance**
 - a. Prepainted G90 galvanized steel cabinet construction
 - b. Tested to meet ASTM specs for 2,500 hr. salt spray test
 - c. Optional corrosion coat package available; meets ASTM spec for 5,000 hr. salt spray test
- 3 Full-Length, Piano-Hinged Access Doors**
 - a. Easy to open quarter turn latches
 - b. Double-wall construction protects insulation and ensures durability during maintenance
- 4 Stainless Steel, Double-Sloped Drain Pan**
 - a. Prevents corrosion
 - b. Avoids standing water for high IAQ

AIR FLOW MANAGEMENT

- 5 Ultra Low Leak Air Dampers**
 - a. AMCA Class 1A 3cfm/ft(2) meets ASHRAE Standards 90.1 and 189.1
 - b. Air foil blades with blade edge and jamb seals
 - c. Provides up to 100% outside air
 - d. Direct drive damper controls
- 6 Energy Efficient Airfoil Plenum Fan**
 - a. Energy efficient, quiet, direct drive blower assembly
 - b. NEMA Premium Efficient motor is standard to meet Energy Independence and Security Act requirements

FILTRATION

- 7 Best-in-class Filtration**
 - a. 2 in. primary up to MERV 15
 - b. 4 in. secondary filters up to MERV 16
 - c. Significantly lower air-side pressure drop requires less motor energy

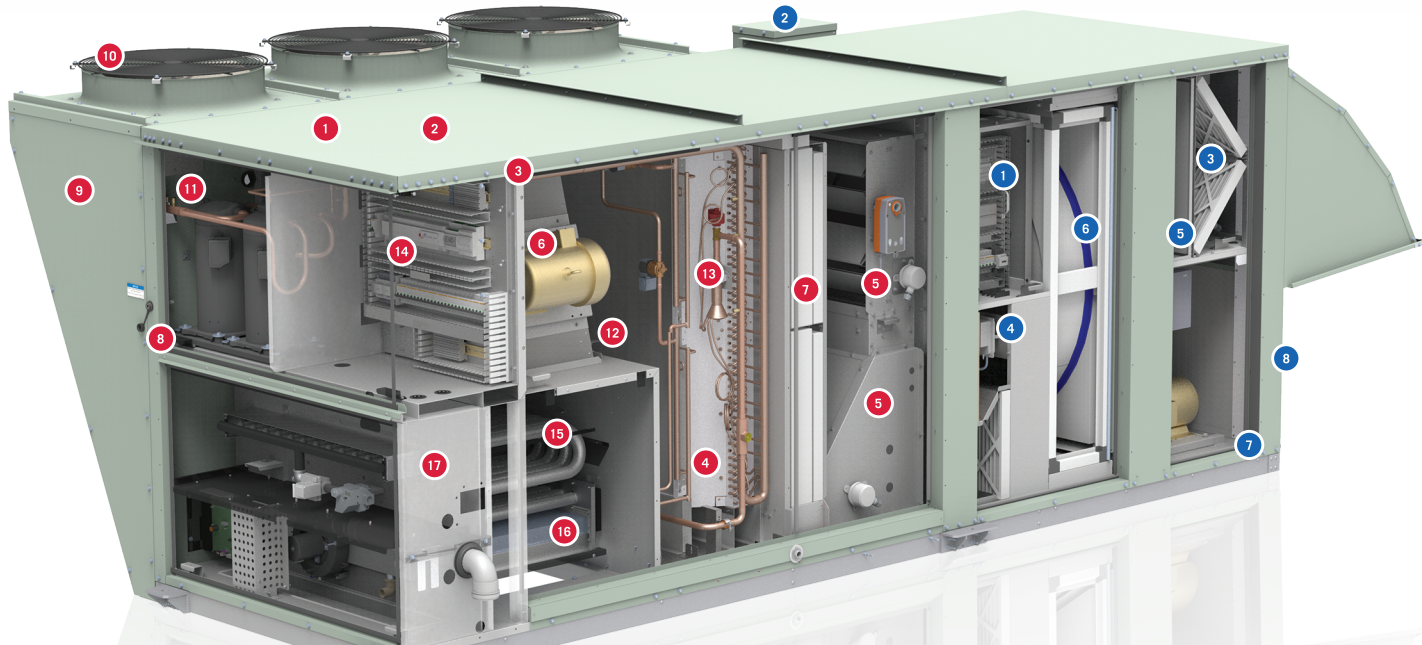
SERVICEABILITY & MAINTENANCE

- 8 Optional external port to access the unit's controls using a remote user interface module without powering down the unit**

REFRIGERATION CIRCUIT

- 9 PF™ Microchannel Condenser Coils from the Company that Invented them – Modine**
 - a. Reduced depth for lower air side static pressure and lower refrigerant volumes
 - b. Improved corrosion resistance between fin, tubes and headers
 - c. Ideally suited for the high refrigerant operating pressures found in R410A
- 10 Modulating Variable Speed Head Pressure Control**
 - a. Provides maximum hot gas reheat capacity for excellent dehumidification at part load conditions.
 - b. Provides energy savings when the fans are running at reduced speeds with variable frequency drive or EC motors
 - c. Regulates refrigerant pressure for use in low ambient temperatures

- 11 Modulating Tandem Digital Scroll Compressors are Standard**
 - a. Fully modulating digital scroll compressor set(s) provide maximum turndown to as low as 6.25% of full capacity for superior temperature control and high part load efficiency



Atherion B-cabinet model pictured

- 12 Modulating Hot Gas Reheat**
 - a. Provides enhanced supply air temperature control during dehumidification without using additional energy
- 13 Electronic Expansion Valve(s)**
 - a. Provides superior superheat control and energy savings

CONTROL

- 14 Modine Controls System**
 - a. Factory designed, programmed, and installed integrated control system provides interoperability with all popular network communication protocols, such as BACnet® or LonWorks®, for easy integration into building automation systems

HEATING

- 15 Standard Stainless Steel Heat Exchanger**
 - a. Ensured long life with stainless steel tubular heat exchanger for maximum heat transfer – up to 100°F temperature rise
 - b. Modulating capacity turndown ratio as low as 15% of full capacity
 - c. Gas heat also available with supplemental electric heat for enhanced discharge air temperature control
- 16 Optional High Efficient Gas Heating Option**
 - a. Up to 94% efficiency with Modine's proven Conservicore® Technology – up to 100°F temperature rise
- 17 Optional Electric or Hot Water Heat**
 - a. SCR control (up to 100kW)

EVERY ATHERION UNIT INCLUDES THE MODINE CONTROLS SYSTEM, ENSURING MAXIMIZED PERFORMANCE



Maximize Efficiency and Operation

- Controls engineered around the unit vs. equipment designed around the controls
- More efficient sequencing and programming

Reliability

- Designed for robust conditions
- End users get everything from one company in one box
- Every unit is fully factory programmed and end of line tested as a complete system

Serviceability

- Intuitive user interface to access unit operating characteristics and setpoint adjustment
- Controls developed AND supported by Modine Controls Engineers, not third party companies
- Compatible with all major Building Management Systems such as BacNET® and LonWorks®



Ⓞ As Modine Manufacturing Company has a continuous product improvement program, it reserves the right to change design and specifications without notice.
Ⓞ Design conditions and/or application may limit the airflow to less than the maximum airflow shown.
Ⓞ 52 and 60 units available Summer 2018