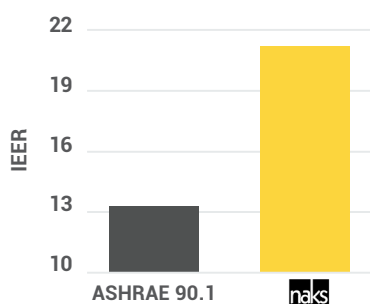




## HEATING, VENTILATION, & AIR CONDITIONING SYSTEM

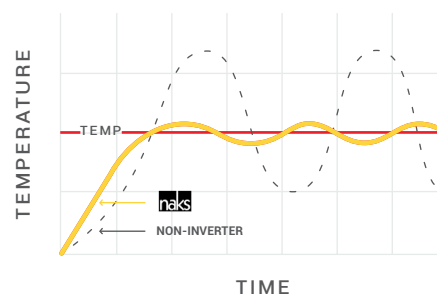
NAKS HVAC offers exceptional energy savings, unprecedented comfort, and precise humidity control. This unit is the ideal HVAC solution for schools, hospitals, restaurants, grocery stores, hotel corridors, and any commercial application that requires conditioned outdoor air.

### SUPERIOR ENERGY EFFICIENCY

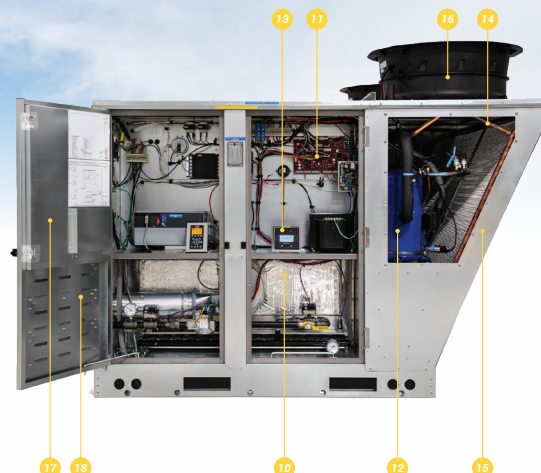
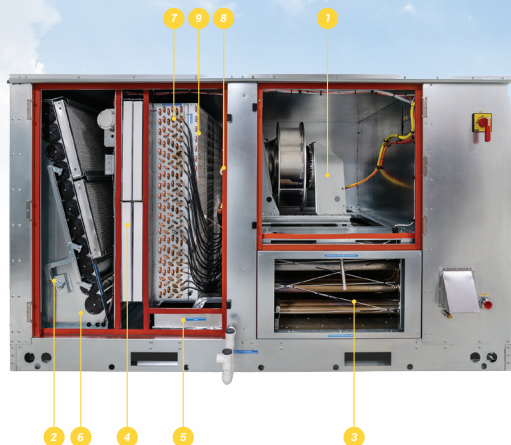


NAKS HVAC achieves an impressive 21.3 Integrated Energy Efficiency Ratio (IEER) rating which is 1.5x the ASHRAE 90.1-2019 IEER standard. Designed with the future in mind, the unit is poised to exceed rising IEER standards for years to come.

### PRECISE TEMPERATURE & HUMIDITY CONTROL



NAKS HVAC contains fully modulating refrigeration and optional hot gas reheat components that deliver the exact amount of air requested at the desired temperature and humidity. Variable speed components allow NAKS HVAC to adjust its heating and cooling capacity to match the required load. This provides a consistent temperature throughout the space and avoids large temperature swings often associated with single stage equipment.



- 1 VARIABLE SPEED DIRECT DRIVE SUPPLY FAN**  
High efficiency Variable Frequency Drive (VFD) or Electronically Commutated Motor (ECM) options available  
Low maintenance and reduced failures due to brushless/beltless design
- 2 LOW-LEAKAGE OUTDOOR AIR DAMPER**  
Modulates to meet variable outdoor air requirements - exceeds AMCA Class 1A Leakage Standards  
Low entering air velocity prevents debris or precipitation from entering the unit airstream
- 3 AVERAGING TEMPERATURE SENSOR/HUMIDITY SENSOR**  
Monitors mixed air temperature/humidity  
Averaging Intake, Indoor Coil, and Discharge temp sensors provide accurate readings for unit modulation
- 4 UP TO THREE LAYERS OF OUTDOOR AIR FILTRATION**  
Standard 2" metal mesh outdoor air filters  
Filtration options available: 2" thick MERV-8 & 13, 4" thick MERV-15 & HEPA
- 5 STAINLESS STEEL SLOPED CONDENSATE DRAIN PAN**  
Insulated drain pan allows for easy maintenance and serviceability exceeding ASHRAE standards  
Float switch monitors water level and protects against condensate overflow
- 6 SMOKE DETECTOR (OPTIONAL)**  
Monitors "fire activity" in the return airstream and shuts down blower to protect unit from smoke or fire damage
- 7 WIDE INDOOR COIL DESIGN**  
Up to 7-row coil with staggered design allows for optimal equipment efficiencies, full conditioning of outdoor air, moisture control through increased residence time of airstream, and reduces supply air bypass
- 8 ELECTRONIC EXPANSION VALVE**  
Provides automated superheat control and monitoring by modulating from 0-100%
- 9 FULLY MODULATING HOT GAS REHEAT COIL (OPTIONAL)**  
Provides highly accurate humidity/temperature control

- 10 MODULAR/SPLIT MANIFOLD HEATING (OPTIONAL)**  
Natural gas indirect fired furnace with constant 81% efficiency throughout modulation (other options available)  
Enhanced heating turndown (18:1) for minimum temp. rise at low loads
- 11 INTEGRATED CONTROLS**  
In-house controls developed using multiple PID loops with several control offerings  
Available extreme low ambient logic allows for DX cooling operation in ambient conditions down to -25°F
- 12 DANFOSS VARIABLE SPEED INVERTER SCROLL COMPRESSOR**  
Modulating and throttling ability to provide precise load matching with reduced energy consumption  
Variable Frequency Drive (VFD) provides phase and over-amp protection to maximize life of unit
- 13 HUMAN MACHINE INTERFACE (HMI)**  
Up to 7-row coil with staggered design allows for optimal equipment efficiencies, full conditioning of outdoor air, moisture control through increased residence time of airstream, and reduces supply air bypass  
Customizable user-friendly interface allows for simple programming of settings
- 14 HEAVY DUTY PIPING & SUPPORTS**  
Hanging supports and vibration isolators prevent refrigeration piping from moving during transport and operation  
Machine-bent copper piping reduces amount of brazes and possible failure points
- 15 OUTDOOR COIL HAIL GUARD (OPTIONAL)**  
Protects outdoor coil from damage, correctly sized to ensure a clean overall look with total protection
- 16 VARIABLE SPEED OUTDOOR FANS WITH EC MOTORS**  
10:1 turndown maintains peak efficiency for all outdoor air conditions, aerodynamically designed bionic blades drastically reduce noise emissions
- 17 DOUBLE WALL, GALVANIZED STEEL CONSTRUCTION**  
Corrosion resistant galvanized steel insulated with 2" thick, R13 closed cell foam or 1" thick, R4.3 fiberglass board
- 18 REMOVABLE HINGED ACCESS DOORS**  
Allow for easier maintenance and serviceability - fully insulated control cabinet reduces condensation

## NAKS HVAC System Sizing & Specifications

Unit Size (Nominal Tonnage)	5	6	7.5	8	10	12.5	15	20	22	25	30	40	50
Min Airflow (CFM)	500	600	750	800	1000	1250	1500	2000	2200	2500	3000	4000	5000
Max Airflow (CFM)	2000	2400	3000	3200	4000	5000	6000	7000	8800	10000	12000	15000	15000
Indoor Coil Rows	4	4	5	5	5	6	6	7	5	5	6	6	10
Cooling Turndown Ratio	7:1	7:1	7:1	7:1	7:1	7:1	4:1	4:1	4:1	4:1	4:1	8:1	10:1
IEER	17.9	19.5	18.6	20.2	18.6	21.3	18.8	18.2	18.1	17.9	17.8	16.6	17.1
Max Heating Turndown Ratio*	20:1	17:1	14:1	21:1	16:1	25:1	16:1	16:1	18:1	18:1	18:1	18:1	18:1
Furnace Input Capacity (MBH)	50-200	50-200	50-200	50-300	50-300	150-500	150-500	150-500	200-600	200-800	200-800	200-800	200-800
Electric Coil Capacity (kW)	10-60	10-60	10-60	15-60	15-60	15-100	15-100	15-100	30-240	30-240	30-240	30-240	30-240
Curb Size (L x W)	71" x 41"	71" x 41"	71" x 41"	75" x 49.5"	75" x 49.5"	91" x 59.5"	91" x 59.5"	91" x 59.5"	111" x 80"	111" x 80"	111" x 80"	111" x 80"	111" x 80"
Unit Length	77.25"	77.25"	77.25"	81.75"	81.75"	99"	99"	99"	174"	174"	174"	174"	174"
Unit Width	62"	62"	62"	80.75"	80.75"	89.75"	89.75"	89.75"	89.75"	89.75"	89.75"	89.75"	89.75"
Unit Height	47.5"	47.5"	47.5"	60.75"	60.75"	69"	69"	69"	94"	94"	94"	94"	94"
Approximate Weight (lbs)	1000	1100	1200	1650	1730	2440	2500	2650	4250	4700	5000	6000	6250

\*Contingent upon heat source