Dais Analytic Corporation
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CONSERV™ N-SERIES ENERGY RECOVERY VENTILATION SYSTEM SPECIFICATIONS:

Energy recovery ventilation units shall be factory assembled, wired and tested prior to shipment. Units shall be constructed and assembled to UL 1812 and inspected by an approved NRTL. Field wiring shall require a single point power connection and a numbered terminal strip for low voltage remote wiring connections.

UNIT CONSTRUCTION

Unit construction for indoor or outdoor applications, with all seams sealed with weather-resistant sealant. The interior cabinet surfaces shall be lined with 1" thick fiberglass insulation board with a foil face. The base rail for exterior/rooftop units shall be constructed with heavy gauge galvanized steel with integral supports. Perimeter base frame designed to be such that it overhangs when mounted on a roof curb. Optional: Powder coat finish sky gray exterior finish with >1,000 hr life per ASTM B117 salt spray testing.

CONSERV ENERGY RECOVERY VENTILATOR CORES

The energy recovery cores shall be made of an Aqualyte™ moisture transfer membrane. The moisture transfer membrane shall be made of polymeric materials without using paper products and shall form a positive barrier between air streams without pores or holes communicating between the air streams. The moisture transfer membrane shall be selectively permeable to water molecules to facilitate the transfer of heat and moisture across the membrane while reducing the permeation of nitrogen, oxygen, carbon dioxide, and the other molecules comprising dry air. The housing of the energy recovery cores shall be constructed of a galvanized sheet metal (G60 rated) or equivalent material capable of protecting the energy transfer core and preventing corrosion. The crossflow energy flow separation layers are thermoformed corrugated plastic spacer that provides support and separation to the membrane layers.

The ConsERV™ core is the heart of the energy recovery ventilator and shall be tested and certified by the Air-Conditioning, Heating and Refrigeration Institute (AHRI) to AHRI Standard 1060. At the nominal certified CFM, the ConsERV™ core shall provide at least 60% total effectiveness for both heating and cooling conditions and 0% exhaust air transfer ratio (EATR) when tested at AHRI differential pressure between airstreams. These values are to be produced from official AHRI certification data and verification may be obtained via the www.ahri.org website which is made available to the public by AHRI to ensure proper comparison of air to air energy recovery products.

The system will have independent testing of the ConsERV™ core to UL Standard 900 with a flame spread result less than 25 and a smoke generation less than 50. These results meet NFPA 90A and 90B for a component within a ducted air system. The moisture transfer membrane shall not allow for growth of bacteria or fungus in accordance with ASTM G21 and G22 testing.

The ConsERV™ cores shall be capable of operating from -10°F to 140°F and will be frost-proof down to -10°F and shall survive temperatures from -40°F to +140°F without damage.

Drain pans are not required. The ConsERV™ cores shall be cleanable using a simple vacuuming method.

FANS

Supply and exhaust fans Impeller made of aluminum (AlMg3) with 7 backward curved blades and efficiency optimized circumferential diffusor. Sound optimized. Pressure orientated behaviour. Fluidic optimized inlet cone made of galvanised sheet steel.

Motorized Impeller, includes motor and impeller. Mounting either with horizontal or vertical motor shaft. Motorized Impeller statically and dynamically balanced according to DIN ISO 21940-11 at least with quality level G6.3.

Exceeds in accordance with IEC 60034-30-2 minimum requirements for IE5 (Ultra Premium Efficiency). Maintenance free ball bearings, closed on both sides with long-term lubrication. Magnets without rare earth elements. Motor made of die casted aluminum. Protection Class IP54 and insulation class F. Electronic with integrated terminal box and environmental resistant cable glands (2x M16 and 1x M20). Status LED integrated.

Comes with 100% speed controllable with integrated Motor Protection and Soft Start, eliminating the need for vibration isolation protection.

ModBus RTU Interface integrated. Bus configuration possibile on site by customer. Potential-free Alarm Contact and integrated 24V Supply for accessories. Applicable in all common energy grids and IT-Network. Low noise commutation. Fan complies with the guidelines required (Machinery-, EMC- and Low Voltage Directive) to comply with installation and conformity declaration as well as CE marking. Standard version with UL approval. **Optional** Air Flow measuring equipment by circular pressure connections

FILTERS

The entering Outside Air and entering exhausting air side of the enthalpy cores have a 2" deep MERV-8 medium efficiency pleated throwaway type filters.

COVERAGE AND TERMS

ConsERV™ N Series units and all ERV accessories as manufactured by Dais Corporation are warranted to the original buyer to be free from defects in materials or workmanship provided that these units and accessories have been installed and maintained in accordance with instructions and operated under normal conditions. Dais Corporation's sole obligation under this Limited Warranty is to repair or replace, at its opinion, free of charge to the customer (except as provided below), FOB factory, any part determined by Dais Corporation (in its sole discretion) to be defective. Warranty terms, from original ship date are as follows:

- Energy Recovery Core(s) ……10 Years
- All other components……..……..……...1 Year