



Report of Materials and Equipment Acceptance Division

NYC Department of Buildings
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Pursuant to Administrative Code Section 27-131, the following equipment or material has been found acceptable for use subject to the terms and conditions contained herein.

MEA 415-91-E Vol. 2

Manufacturer: Desert Aire Corporation
N120 W18485 Freistadt Road
Germantown, Wisconsin 53022

Trade Name(s): Desert Aire

Product: Refrigeration cycle dehumidifiers with heating/cooling
MEA Index 600-20 – Refrigerator Systems

Pertinent Code Section(s): 27-770, 27-777

Prescribed Test(s): RS 13-11B (ANSI B9.1), RS 13-11 (UL 465, UL 1995)

Laboratory: Intertek, ETL Semko Division

Test Report(s): Intertek No. 516333

Description: Units are refrigeration cycle dehumidifiers with options for comfort heating and cooling. These units are typically duct connected and may utilize air- or water-cooled condensing or remote condensers. The dehumidifiers are semi-custom products which may fit a general catalog description but may incorporate features to specifically outline in the catalog or this report. Listed products are a combination of refrigeration and air-handling components assembled in the appropriate enclosure and using an electrical control component format in accordance with this report. The products may be installed indoors or outdoors. The models are approved for electric heat up to 210kW, gas heat up to 1,200,000 Btu/h, and the use of an approved energy recovery wheel. The product designation section covers maximum amount of electric/gas heating available per model series.

Products Covered:

Models: LT-NR, LT-RR, WC-NR, WC-RR, IH-NR, IH-RR, PD-NR, PD-RR, PDW-NR, PDW-RR, RC, PH, HTC, ND, SA, QS, QM, QV, RQ and LC.

Product Designation:

LT-NR models are self-contained units designed primarily for commercial low temperature dehumidification applications. These systems are not piped to accept the addition of a remote condenser. This model is approved for 80 kW of electric heat and 300,000 btu/h of gas heat.

LT-RR models are self-contained units designed primarily for commercial low temperature dehumidification applications. These systems are piped to accept the addition of a remote condenser. This model is approved for 80 kW of electric heat and 300,000 btu/h of gas heat.

WC-NR models are self-contained units which also feature a water-cooled condenser in addition to the standard air-cooled condenser. These units are not piped to allow the addition of a remote condenser and are designed primarily for commercial applications. This model is approved for 80 kW of electric heat and 300,000 btu/h of gas heat.

WC-RR models are self-contained units which also feature a water-cooled condenser in addition to the standard air-cooled condenser. These units are piped to allow the addition of a remote condenser and are designed primarily for commercial applications. This model is approved for 80 kW of electric heat and 300,000 btu/h of gas heat.

IH-NR models are self-contained units, designed primarily for commercial applications that are not piped to allow the addition of a remote condenser. This model is approved for 80 kW of electric heat and 300,000 btu/h of gas heat.

IH-RR models are self-contained units, designed primarily for commercial applications that are piped to allow the addition of a remote condenser. This model is approved for 80 kW of electric heat and 300,000 btu/h of gas heat.

PD-NR models are self-contained units, designed primarily for residential applications that are not piped to allow the addition of a remote condenser. This model is approved for 80 kW of electric heat and 300,000 btu/h of gas heat.

PD-RR models are self-contained units, designed primarily for residential applications that are piped to allow the addition of a remote condenser. This model is approved for 80 kW of electric heat and 300,000 btu/h of gas heat.

PDW-NR models are self-contained units which also feature a water-cooled condenser in addition to the standard air-cooled condenser. These units are not piped to allow the addition of a remote condenser and are designed primarily for residential applications. This model is approved for 80 kW of electric heat and 300,000 btu/h of gas heat.

PDW-RR models are self-contained units which also feature a water-cooled condenser in addition to the standard air-cooled condenser. These units are piped to allow the addition of a remote condenser and are designed primarily for residential applications. This model is approved for 80 kW of electric heat and 300,000 btu/h of gas heat.

Product Designation: (Cont'd.)

RC models are remote air-cooled condensing units.

PH models are self-contained units which only feature water-cooled condensers, and offer optional electric back-up heat.

HTC models are custom-designed, self-contained units designed for commercial applications where there are cabinet size constraints. Unit frames are of angle iron construction. These units typically feature remote ready piping along with water and air-cooled condensers.

ND models are custom-designed, self-contained units designed for commercial applications where standard cabinet size is acceptable. These units typically feature remote ready piping along with water and air-cooled condensers. This model is approved for 200 kW of electric heat and 1,000,000 btu/h of gas heat.

SA models are custom-designed, self-contained units designed for commercial applications. Unit frames are of angle iron construction or tolled-steel construction. These units feature an exhaust/inlet section which allows the inlet of outside air and the discharge of air from the condition environment. These units typically feature remote ready piping along with water and air-cooled condensers. This model is approved for 200 kW of electric heat and 1,000,000 btu/h of gas heat.

QS models are used in conjunction with the **RQ** remote condensers and are designed for commercial pre-treating of outside air typically used to satisfy indoor air quality code requirements. These units feature precise control of leaving air temperature. This model is approved for 210 kW of electric heat and 1,200,000 btu/h of gas heat and use of an approved energy recovery wheel.

QM models are used in conjunction with the **RQ** remote condensers and are designed for commercial pre-treating of outside air typically used to satisfy indoor air quality code requirements. These units do not feature precise control of leaving air temperature. This model is approved for 210 kW of electric heat and 1,200,000 btu/h of gas heat and use of an approved energy recovery wheel.

QV models have a vertical cabinet and are used in conjunction with the **RQ** or **ROC** remote condensers and are designed for commercial pre-treating of outside air typically used to satisfy indoor air quality code requirements. These units feature control of leaving air temperature. This model is approved for 150 kW of electric heat and 800,000 btu/h of gas heat.

RQ models are remote condensers designed specifically for use with **QS** and **QM** units.

LC models are self-contained units designed for residential and commercial applications. These models are options for a water-cooled condenser and/or remote condenser piping in addition to the standard air-cooled condenser. These models are approved for 80 kW of electric heat and 800,000 btu/h of gas heat.

Terms and Conditions: The above-described refrigeration cycle dehumidifiers with heating/cooling units are accepted under the following conditions:

1. Units shall use only Refrigerant R-22 or R-410A and natural gas only.
2. If utilized for residence heating, air circulation system shall have (a) one register or grille without closable shutters and the duct leading thereto shall be without a damper, or (b) dampers and shutters within the system that shall be constructed or controlled so as to prevent closure beyond 80 percent of the gross duct area at all times.
3. A tag must be permanently affixed to the equipment stating that if installed in New York City within 100 feet of any dwelling unit window, there shall be compliance with all provisions of Section 27-770 as to maximum sound levels permitted for exterior mechanical equipment.
4. Approval of all electrical equipment, apparatus, materials and devices shall be obtained from the Department's Electrical Advisory Board before installation.
5. Units shall be used in compliance with the Energy Conservation Construction Code of New York State.
6. All shipments and deliveries of such equipment shall be provided with a metal tag, suitably placed, certifying that the equipment shipped or delivered is equivalent to that tested and accepted for use, as provided in Section 27-131 of the New York City Building Code.

Note: In accordance with Section 27-131(d), all materials tested and accepted for use shall be subject to periodic retesting as determined by the Commissioner; and any material which upon retesting is found not to comply with Code requirements or the requirements set forth in the approval of the Commissioner shall cease to be acceptable for the use intended. During the period for such retesting, the Commissioner may require the use of such material to be restricted or discontinued if necessary to secure safety.

Final Acceptance August 6, 2008

Examined By Siun Derkhudam