

DH50 DESICCANT DEHUMIDIFIER

DESCRIPTION

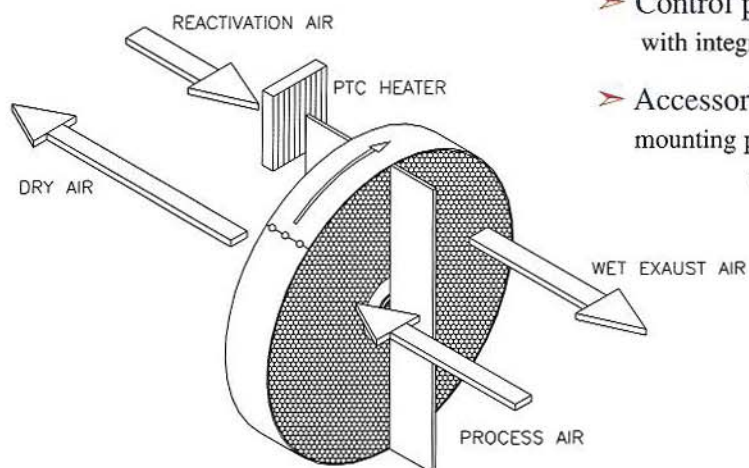
The DH50 desiccant dehumidifier was developed specifically for military storage applications. The unit produces dry air to prevent corrosion, increase readiness, reduce maintenance, and improve Mean Time Between Failure (MTBF) for electronic systems.

With the DH50 dehumidifier, humidity can be controlled below levels at which moisture condenses on surfaces and thereby preventing corrosion, mold and mildew formation.

The heart of the unit is NovelAire's proprietary desiccant dehumidification wheel. A PTC electric resistance heater is used for regeneration and low speed and low noise compact blowers are used to move supply and regeneration air throughout the unit. Other elements include a small drive motor and belt to rotate the wheel, an integral humidistat, and a customized printed circuit board.

PRINCIPLE OF OPERATION

The operation of the DH50 desiccant system is based on two counter current air streams flowing through the wheel. Return air from the conditioned space is drawn through the rotating desiccant wheel. The desiccant absorbs moisture from the air stream and the dry supply air is returned to the conditioned space. The moisture containing portion of the wheel rotates into the regeneration section. The desiccant releases the absorbed moisture into the heated regeneration air stream which is then exhausted to the outside.



NOVELAIRE TECHNOLOGIES HIGH CAPACITY DEHUMIDIFICATION WHEEL



FEATURES

- Compact design – 14.5" x 14.5" x 9.5" and weighs only 27 lbs.
- High capacity – delivers 50 scfm and removes 28.6 lbs. of H₂O/24 hrs. at 90°F.
- Solid construction – built with rugged aluminum frame and panel construction—all anodized back.
- Utilities – The unit can be configured for 115v/60 Hz or 220v 50/60 Hz, 1 phase. Power required: .935 kW
- Control panel – simple on-off-auto switch with integral humidistat control.
- Accessories available – surface mounting pan, duct transition adapter, light weight flexible duct, and heavy duty power cord.

NOVELAIRE DH50 PERFORMANCE

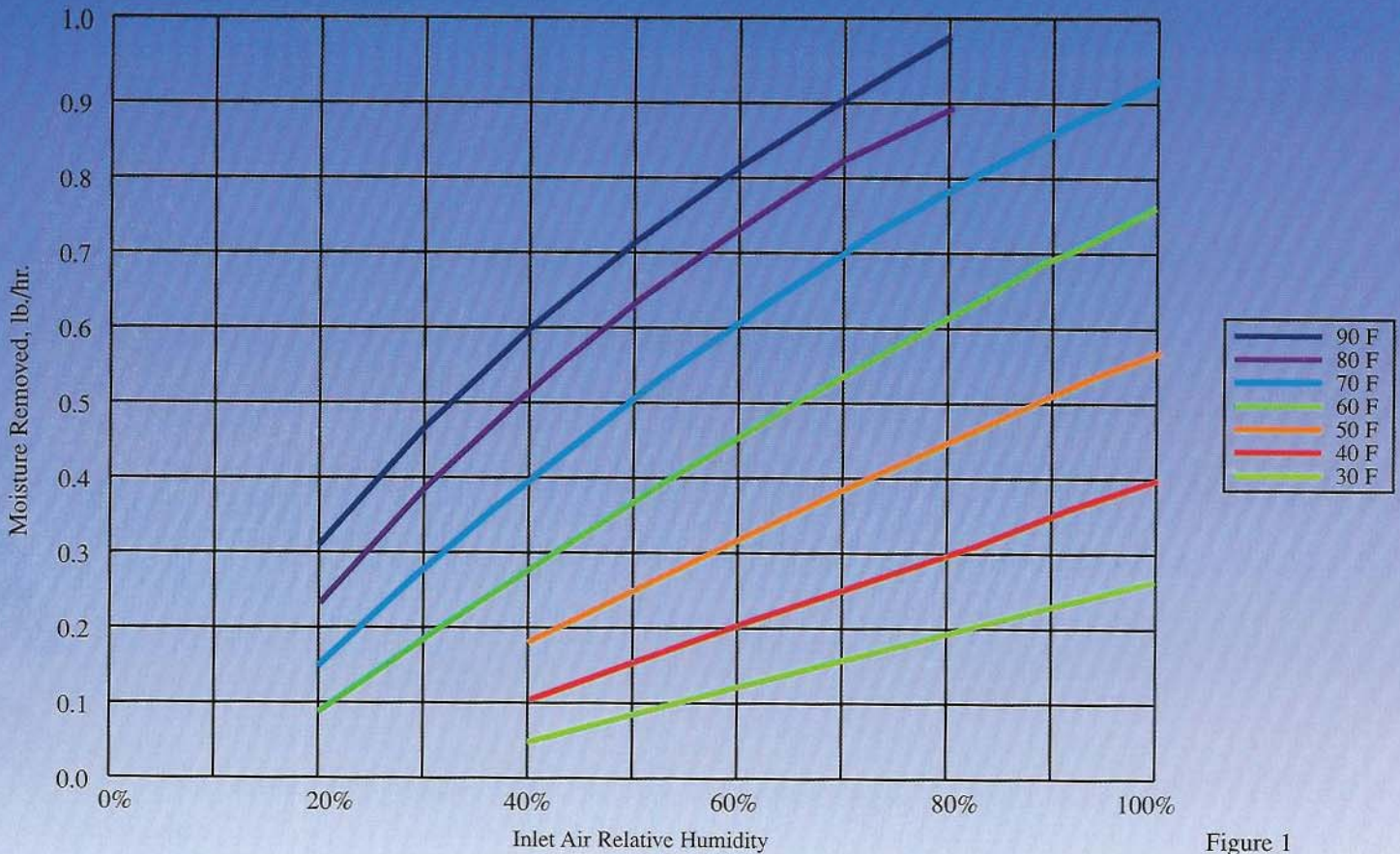


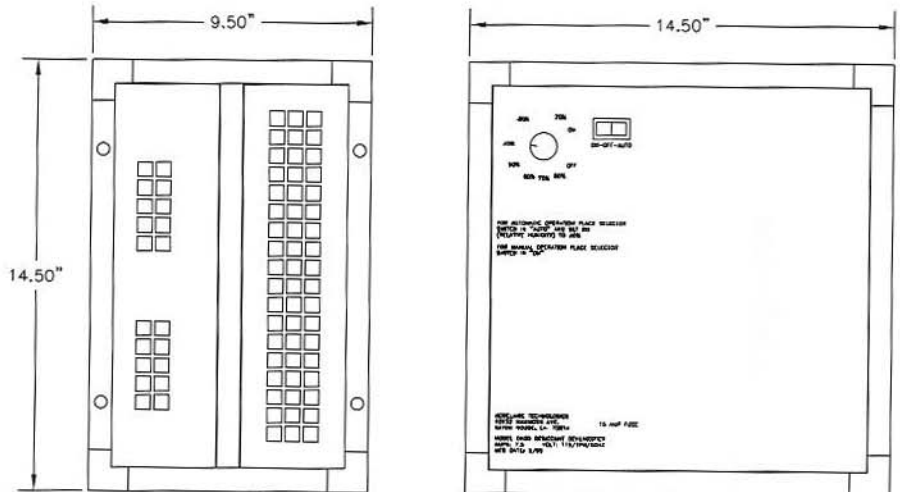
Figure 1

MOISTURE REMOVAL

Figure 1. shows the moisture removal capacity of the DH50 unit as a function of inlet temperature and humidity.

SPECIFICATIONS

- Process Volume: 55 scfm
- Dimensions: 14.5" (H) x 14.5" (L) x 9.5" (W)
- Weight: 27 lbs. (12.3Kg)
- Power: 935 watts
- Utilities: 115v/60Hz, 1ph
230v/50Hz, 1ph
- Static Pressure: .45 in wc (process)
.45 in wc (reactivation)



NOVELAIRE TECHNOLOGIES

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