Blue Frontier LD-DOAS is a packaged liquid desiccant DOAS (Dedicated Outdoor Air System) with on-board energy storage and integral load shaping capabilities. This unit provides continuous dehumidification and delivers 100% outdoor air at room-neutral 55°F dew point supply air without the need for reheat.

Blue Frontier LD-DOAS offers extreme efficiency, boasting COPs (Coefficient of Performance) that exceed 20 and increase as outdoor air temperature rises. Its Moisture Removal Efficiency is more than double the proposed ASHRAE standard. The LD-DOAS energy storage capacity is expandable to meet your specific needs, enabling the shifting of renewable, low-cost, or low-carbon electricity for maximum sustainability and grid resiliency.

This system eliminates ventilation and latent loads from downstream air conditioning equipment, allowing for a reduction in their size, improved zone control, and reduced energy consumption. It also enhances indoor air quality, eliminates odors, and makes breathing easier.

**FEATURES**

- 15 ton liquid desiccant DOAS
- Uniquely designed for increased ventilation air
- New technology for dehumidication
- No re-heat required
- Precise separate humidity and temperature control
- Exceeds proposed ASHAE ISMRE 2024 energy efficiency standards.
- Proprietary non-corrosive desiccant
- Integral load-shaping energy storage capability
- Intelligent controls
- Low GWP refrigerant
- Intelligent, adapts to dynamic and changing climactic conditions from hot/humid through hot/dry
- Future-proof your building against global warming trends
- Latent and sensible cooling capacity increases as outdoor temperatures rise.

**TECHNICAL SPECIFICATIONS**

<table>
<thead>
<tr>
<th>Model</th>
<th>Nominal Capacity</th>
<th>Air Flow Range*</th>
<th>MRR</th>
<th>ISMRE2**</th>
<th>Dimensions</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>LD-DOAS™</td>
<td>15 ton</td>
<td>2000-2500 CFM</td>
<td>60 to 140 lb/h</td>
<td>9.2 lb/kWh</td>
<td>L: 14'-4&quot; x W: 5'-4&quot; x H: 6'</td>
<td>6,500 lbs</td>
</tr>
</tbody>
</table>

* Unit capable of operating with a wider air flow range.
** The proposed ASHRAE minimum standard for DOAS is 3.8 lb/kWh
Blue Frontier is Rethinking Air. Designing a healthy and comfortable indoor environment with a higher rate of ventilation air for cognitive enhancement and productivity is at odds with sustainability goals to reduce energy and emissions. *Blue Frontier solves this problem.*

### HOW OUR TECHNOLOGY WORKS

1. **Hot and humid outside air** enters the conditioner core where a liquid desiccant solution absorbs its humidity.
2. **The dry conditioned air is then cooled to room-neutral conditions by a counterflow, indirect evaporative cooler.**
3. **Dry and cooled neutral air is delivered to an existing RTU to be mixed with return air or fed directly to the occupied space.**
4. **A small portion of the dry and cooled air is bypassed to the neighboring channel to promote evaporative cooling.**
5. **Saturated air is purged to the outside.**

### AWARDS

- [RD 100 Winner](#)
- [BNEF Pioneers 2022](#)
- [BloombergNEF](#)

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