



BF-DOAS™

The World's Most Energy-Efficient DOAS



Blue Frontier Dedicated Outdoor Air System (BF-DOAS™) is the world's first packaged DOAS designed with sustainability in mind. Improving your indoor air quality through increased ventilation with precise dehumidification doesn't have to come with an energy penalty.

BF-DOAS™ offers extreme efficiency, boasting Moisture Removal Efficiency at more than double the proposed ASHRAE standard. We deliver unparalleled sustainability benefits by eliminating the use of high GWP refrigerants, load-shaping with integral energy storage, and slashing electricity use.

BF-DOAS™ delivers precise dehumidification via a more efficient isothermal path ...in other words we don't cool to the dew point! On unit uses a non-corrosive liquid desiccant to dehumidify and deliver 100% outdoor air at 55 °F dew point and room neutral temperature without reheat.

BF-DOAS™ delivers pre-conditioned ventilation air directly to packaged rooftop units. Closing ventilation air dampers relieves latent load, improves efficiency, and increases return air cooling capacity.

► FEATURES

- ✓ 15 ton liquid desiccant DOAS
- ✓ Uniquely designed for increased ventilation air
- ✓ New technology for dehumidification
- ✓ No re-heat required
- ✓ Exceeds proposed ASHRAE 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

Model	Nominal Capacity	Air Flow Range*	MRR	ISMRE2**	Dimensions	Weight
BF-DOAS™	15 ton	2000-3500 CFM	60 to 140 lb/h	9.2 lb/kWh	L: 17' x W: 6' x H: 6'	6,500 lbs

* Unit capable of operating with a wider air flow range.

** The proposed ASHRAE minimum standard for DOAS is 3.8 lb/kWh



**BLUE
FRONTIER™**

RETHINKINGAIR™

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.

► AWARDS



► HOW OUR TECHNOLOGY WORKS

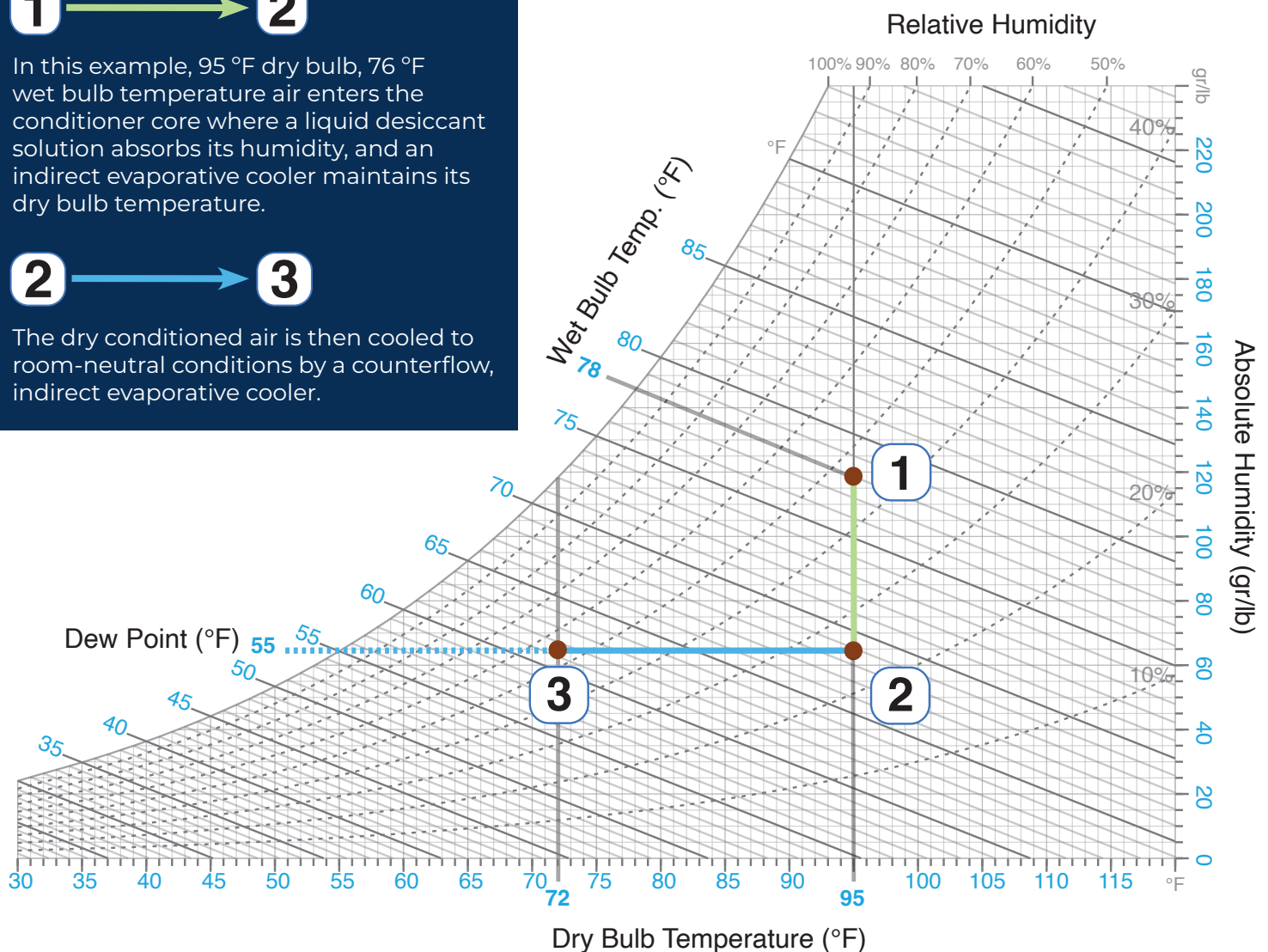
1 → **2**

In this example, 95 °F dry bulb, 76 °F wet bulb temperature air enters the conditioner core where a liquid desiccant solution absorbs its humidity, and an indirect evaporative cooler maintains its dry bulb temperature.

2 → **3**

The dry conditioned air is then cooled to room-neutral conditions by a counterflow, indirect evaporative cooler.

PSYCHROMETRIC CHART



**BLUE
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