Super Bry-Air® BrySmart® series (BBS) Dehumidifiers

Designed for
Continuously Optimized Dynamic Specific Performance (DSP™)

www.bryair.com
Super Bry-Air®
BrySmart® series (BBS) Dehumidifiers
embedded with Patented* BrySmart® and BryTherm™ Technologies

The Future is Here!
integrating 4.0 tomorrow based concepts & technologies**

1. Embedded with patented* BrySmart® Technology
   - Energy saving up to 48%
   - Optimized Dehumidifier performance
   - Reduced annual energy consumption
   - Lower energy usage & maintenance cost
   - Green technology

2. Dynamic Specific Performance
   Continuously senses and monitors temperature at varying locations in the rotor thus providing data for continuously optimizing performance

3. Embedded with patented* BryTherm™ Technology
   - Ensures maximum flexibility in operation
   - User has the option to control parameter

4. Incorporating BHP* (Bry-Air High Performance) Rotor
   with special Geometry and Chemistry
   The customized rotor delivers an additional energy saving of up to 20% by reducing initial react energy input for equivalent performance of standard dehumidifiers.

5. Optional... Bry-Air Prognos*
   Most advanced tool for predictive failure/maintenance...the new world order for continuously diagnosing and forecasting component failure e.g. heater, drivers, switchgears, etc.

** What is 4.0?...
Industry 4.0 is the next phase in the digitalization of the manufacturing sector. It introduces what has been called the "smart factory," in which cyber-physical systems monitor the physical processes of the factory and make decentralized decisions. The physical systems become Internet of Things, communicating and cooperating both with each other and with humans in real-time via the wireless web.

*BrySmart® and BryTherm™ are proprietary technologies of Bry-Air and are patented in several jurisdictions. Details are available at www.bryair.com

BrySmart®
US Patent No.: 8,528,894
South Korea Patent No.: 10-1400990
Canada Patent No.: 2079015
Mexico Patent No.: 31,8416
China Patent No.: ZL201010020664.8
South Africa Patent No.: 2011/078830
Australia Patent No.: 2012/445643
WO2012/036822
Patent pending:
India, Europe, Japan, Brazil

Real Time Energy Optimization

Inputs:
1. Ambient Temperature
2. Ambient Humidity
3. Space Temperature
4. Space Humidity
5. Unit Inlet Temp
6. Unit Outlet Temp
7. Unit Inlet Humidity
8. Unit Outlet Humidity
9. Reat Inlet Temp
10. Reat Discharge Temp
11. Process Airflow
12. Reat Airflow

Controlled Variables:
1. Process Airflow
2. Reat Airflow
3. Reat Heat Input
4. Rotor Speed
5. Process Airflow
6. Reat Airflow

Key Features:
- No top-up heater required
- Special algorithm to collectively modulate rotor speed, reactivating airflow, temperature and process bypass
- RS232 and RS485 communication ports
- Ethernet port
- 7 inch colour touch panel for easy operation/control
- Bacnet/Modbus communication protocol
- Remote start/stop facility to switch on/off the dehumidifier from a remote location
- Remote fault warning output

Helps in your march towards achieving

ISO 50001
Energy management systems

*ISO 50001 is based on the management system model of continuous improvement helping organization to better manage their energy usage.

Designed as per the new proposed ASHRAE Standards that states Specific Performance as moisture removal, kg/hr/kW
the BBS Technology not only optimizes the specific performance but also optimizes the specific performance on a dynamic basis with constantly changing loads and environmental conditions.
Advantage: Super Bry-Air® BrySmart series (BBS) Dehumidifiers

- Upto 48% energy saving
- Faster return on investment (ROI)
- Lowest cost of ownership
- Designed aesthetically for ruggedness and long life

The BBS modulates various critical components to optimize the energy consumption on a continuous basis. This technology is a step forward in energy conservation through enhanced automation (on real time).

The BBS uses Variable Frequency Drives (VFDs) on various motors, thyristor control for heaters and also includes mobile connectivity for sensor monitoring, controlling and data logging.

Advantage with

- Adsorbent, non-toxic, non-flammable, fully water washable
- In-situ synthesized metal silicate desiccant on an inert inorganic fiber substrate
- Active desiccant 80% of the media weight, so as to ensure high performance and minimal heat carry-over
- Rotor is non-flammable. The net organics in the honeycomb media is less than 2%
- Special edge hardened media surface to ensure a smooth surface and long life of both media and the seal contacting it
- Rotor perimeter flange extends media and seal life
- Rotor incorporates robust internal structure with perimeter flange for industrial quality, durability and easy serviceability

Remote Control and Monitoring through Android devices for Bry-Air Dehumidifiers