The intelligent air dryer is part of a new generation of air supply systems. It combines compact size with intelligent control and monitoring features: The unique and adaptable control system optimizes desiccant regeneration according to actual environmental conditions. This results in a reduced air consumption and ultimately in savings of electric energy.

**CUSTOMER BENEFITS**
- Compact, lightweight modular design
- Diagnostics with continuous monitoring of output humidity, temperature, and hardware status
- Optimized closed-loop regeneration increases net air delivery by up to 10% in average* 
- Energy savings are provided by a reduction of regeneration air losses by up to 50%* 
- Low noise emission (reduction of up to 20 dB(A) peak sound pressure compared to conventional technology)
- Wide operating temperature range
- Immediately ready for operation even in cold conditions
- Designed for oil-free compressors as well as for oil-lubricated conventional compressor technology

**APPLICATIONS**
- High-speed trains
- Locomotives
- Metros
- Passenger cars
- Regional & commuter trains
- Special vehicles

*depending on temperature profile and compressor size
STATE OF THE ART AIR DRYER WITH CONTINUOUS REGENERATION

- The ability of air to hold water increases exponentially with the temperature.
- State-of-the-art air dryers are designed to handle maximum water loading corresponding to the maximum service temperature at all inlet conditions independent of the actual service temperature.
- This results in a regeneration air loss sized to the maximum service temperature condition.

INTELLIGENT AIR DRYER WITH WATER LOADING AND TEMPERATURE DEPENDENT REGENERATION

- Ambient temperature and thus the water loading varies over the day, year and other operating conditions.
- The intelligent control of regeneration ensures that the regeneration air losses are optimized to the actual water loading and not the dryer’s maximum rated capacity.

ENERGY SAVING WITH INTELLIGENT AIR DRYER

* Different sizes

INLET AIR

- Pressure: 0 – 12 bar
- Temperature: -40 °C – +70 °C
- Air flow: 400 – 3500 l/min*

OUTLET AIR

- Air quality: ISO 8573-1:2010
- Particles: Class 2
- Water: Class 2, Oil: Class 2, up to -60 °C dew point suppression at 10 bar and 35 °C

KEY FEATURES

- High-efficiency air treatment system with pre-filtration for bulk water, oil and particles
- Minimized air losses as well as longer component life due to fewer valve operation cycles, both as a result of intelligent regeneration control
- Two-stage (standard) and three-stage (optional) pre-filtration
- Significantly reduced height by up to 30%
- Advanced diagnostics optionally available

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