DHR150-W/R Dehydrator

Monitors and maintains optimum pressure, humidity and dew point inside the antenna system

The dehydrator in combination with the Antenna Control Unit (ACU) automatically monitors and maintains optimum pressure, humidity and dew point inside the antenna system to improve reliability by eliminating condensing humidity. Wall mount and Rack mount versions are available.

Standard System Features

Orbital Systems antenna positioners and feeds are sealed and pressurized with dehydrated air to prevent corrosion of system components. The antenna control unit monitors the temperature and humidity in the electrical cabinet, the elevation T enclosure, the feed, and if present the arm mounted accessory cabinet.

Dehydrator

- Dry air is supplied using conventional transmission line dehydrator technology
- Connects to antenna with 1/2" (12.7 mm) plastic air tubing and is typically installed with other system cables
- Operates at approximately 2.9 kPa (0.4 psi)
- Automatically regenerated desiccant does not need regular replacement
- No condensate drain is connection required

Antenna Pressurization

- Built in temperature and humidity sensors are monitored by the antenna control unit, which automatically manages the system to purge excess moisture
- Sensors measure relative humidity which is managed by purging to stay below 20% RH in all parts of the antenna system
- Purge valve built into feed is automatically opened to release humid air from system as needed
- System may be opened for maintenance without a specific de-pressurization step due to low system pressure used. After maintenance is completed the system will re-pressurize and dry out automatically
- Dehydrator unit is typically placed on wall or in equipment rack that is located inside a utility or mechanical room that is always above freezing
- Air tubing from dehydrator to system cables is rated for continuous exposure to sun and is typically run along with the system cables through conduits and cable trays
- Dehydrator makes a small amount of mechanical noise during operation
- Power outlet should be installed within 2m (6 ft) of top of dehydrator unit
- Antenna system remains operational even if pressurization fails

Applications

Used with all models of Orbital Systems antenna positioners and feeds.

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DHR150-W/R Dehydrator Specifications

Dehydrator Specifications

Dehydrator Type	Automatic Heat Regenerated Desiccant
Flow Rate	150.0 SLPH (5.3 SCFH)
Mount Types Available	Wall or Rack
Automatically Regulated Output Pressure	2.9 kPa (0.4 psi)
Operating Temperature	-5 °C to +50 °C (+23 °F to +122 °F)
Air Output Tubing	1/2" (12.7 mm) black plastic air tube

Dehydrator Dimensions

Wall mount unit weight	13.6 kg (30 lb)
Wall mount unit dimensions	58.4 cm h x 33 cm w x 14 cm d (23" x 13" x 5.5")
Rack mount unit weight	6.4 kg (14 lb)
Rack mount unit dimensions	2U h x 38cm d (2U x 15")

Electrical Specifications

Voltage	88-264 VAC 50/60 Hz
Maximum Amperage	2.5 A maximum inrush current
Power Consumption, Maximum	50 W
Fuses	4A SB/TL
Location to Power Outlet, Maximum (measured from top of dehydrator)	2m (6 ft)

Prices and specifications are subject to change without notice.

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