PRODUCT DATASHEET

KD-M20 Series Dehydrator

KD-M20 Automatic Dehydrator, Membrane Technologies, 0.26 SCFM, 440L/h, 0.2 to 14psi Field Adjustable Pressure

The automatic dehydrator series KD-M20 is specifically engineered to pressurize elliptical waveguides, coaxial cables, rigid transmission lines, and antenna systems reliably. By utilizing dry pressurized air in the distribution system, condensation is prevented, ensuring optimal system performance.

The KD-M20 dehydrators utilize advanced membrane technologies to ensure a continuous provision of dry air. This polymer-based membrane is selectively permeable, permitting only water molecules to pass through while obstructing larger oxygen and nitrogen molecules. This innovative membrane design allows KD-M20 dehydrators efficiently remove moisture and provide dry air without the necessity of desiccant replacement or manual reactivation. KD-M20 dehydrators are perfect for unsupervised operation with minimal maintenance needed.



FEATURES / BENEFITS

- High flow rate and capacity to support telecom, small to medium size broadcasting and radar applications: 0.26SCFM or 7.3L/min (+/-10% at 25°C)
- Pre-programed in the factory to minimize installation time on the site.
- High pressure, low pressure, excess run, dew point alarm, and compressor failure alarms come as standard configuration.
- 4 gas outlet ports with supplied tubing support up to 4 transmission lines, optional gas distribution manifold is available.
- Unique leakage detection function aids in inspecting the airtightness of the system.
- Pressure relief function ensures the system remain protected against potential damages caused by sudden increase in temperature or pressure.
- Supports versatile mounting including desktop, rack and wall mount.
- 110VAC, 220VAC and 48VDC power models available.
- KD-M20S/KD-M22S/KD-M24S models can be managed by network management system using SNMP and other popular protocols.

Technical features

GENERAL SPECIFICATIONS

Product Model		KD-M20	KD-M20S	KD-M22	KD-M22S	KD-M24-DC	KD-M24S-DC
Dehydrator Type		Automatic Pressurization, Membrane Technologies, No Desiccant					
System Capacity		Standard					
60 Hz Output Capacity Nl/h (SCFM)		440 (0.26) +/- 10%		440 (0.26) +/- 10%		402 (0.24) +/- 10%	
50 Hz Output Capacity Nl/h (SCFM)		402 (0.24) +/- 10%		402 (0.24) +/- 10%			
Output Dew Point	°C (°F)	Better than -45 (-49)					
Factory Set Output Pressure (on/off)	kPa (psig)	20 / 34 (3 / 5)					
Field Adjustable Output Pressure Range	kPa (psig)	Field configurable from 1 - 96 (0.2 - 14)					
Safety Relief Pressure	kPa (psig)	Factory set at output high pressure limit + 5 (0.7)					
Number of Outlets		4					
Output Fitting		Push-on quick fit for 3/8" OD tube					
Network Management Protocols		KD-M20/M22/M24: N/A			KD-M20S/M22S/M24S: SNMP, TCP Server/Client, UDP, Multicast		

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ELECTRICAL SPECIFICATIONS

Product Model		KD-M20	KD-M20S	KD-M22	KD-M22S	KD-M24-DC	KD-M24S-DC
Operating Voltage	V	110 +/- 10%, 60Hz		220 +/- 10%, 50/60Hz		-48VDC +/- 10%	
Max. Active Current	A	2.5		1.3		5.7	
Max. Power Consumption	Watt	270					
Electrical Feed Circuit Configuation		Single phase, 3-Conductor (Phase/Neutral/Ground)					
Electrical Inlet Connector		IEC 320 Type C 14					

ENVIRONMENTAL SPECIFICATIONS

Ambient Temperature Range	°C (°F)	-25 to 65 (-13 to 149)
Ambient Humidity Range, relative	%	0 - 95
Noise, dBA @ 1 m, Active	dBA	65

MECHANICAL SPECIFICATIONS

Dimensions, H x W x D	mm (in)	218 x 430 x 260 (8.6 x 16.9 x 10.2)
Net Weight	kg (lb)	13.8 (30.4)
Mounting		Desktop, 19" Rack, ETSI Rack, and Wall Mount

INTERFACE

Front Panel Indicators		Alarm (red), Working (green), L D (yellow)
Display		4 Segment Numeric Display to Show Pressure Values, Alarm Codes, Dehydrator State Codes and Other Information
Control Buttons		4, including +Add/P, -Dec/Q, Set and LeakDetection buttons
Alarm Terminal		Alarm Summary and Power Failure, 3 Pin Dry Contact NC, COM, NO
Keypad Tone		Field adjustable to On or Off

ALARMS

Alarm Configuration		Low Pressure Alarm, High Pressure Alarm, Excess Run Alarm, Dew Point Alarm, Compressor Failure Alarm
Alarm Contact Rating		Dry Contact, 30VDC 1A or 125VAC 0.5A
Low Pressure Alarm		Factory set at 0.1 psi lower than the low pressure limit setting
High Pressure Alarm		Factory set at 0.5 psi higher than the high pressure limit setting
Excess Run Alarm	minutes	30
Dew Point Alarm		When unit output air dew point is higher than -5°C (23°F)
Event Log		Unit power-on time, Accumulated inflating time, Number of inflating, Alarm Code, Working State

COMPLIANCE

Compliance		CE, RoHS LVD: EN 60204-1:2018 EMC: EN IEC 61000-6-2: 2019, EN IEC 61000-6-4: 2019

STANDARD ACCESSORIES

Item	Quantity	Description
Power Cord	1 pc	6ft (1.8m) long, 110V and 220V AC models with plug, 48V DC model has lugs

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Fuse	2 pcs	Spare fuse
Gas Inlet Adaptor	4 pcs	1/8 thread and 3/8" OD screw-on
Plastic Tube	33 ft (10m)	Black, 3/8" OD
Mount Bracket	1 pair	For rack mount and wall mount
Teflon Tape	1 roll	For Air-tightness in Connections

External Document Links
Quick Installation Guide
Product Manual

Notes
1) All specifiactions at 23°C (73°F) and 50% relative humidity at mean sea level (MSL) unless otherwise noted.

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