

CP2000G Smart Type Maintenance Free Waveguide Dehydrator



1 Function and Overview

Waveguide dehydrator is important auxiliary equipment in communication system engineering, and is mainly used for the automatic dehydration of microwave station, radar station, satellite ground station, and waveguide of broadcast television transmitting station or a feeder system or container composed of a waveguide devices.

CP2000G waveguide dehydrator adopts industrial grade microprocessor as its central control unit, and blue-backlit LCD for panel display, which has a simple and easy-to-use man-machine interface. Pressure sensor for pressure signal acquisition is from MOTOROLA Company which made the equipment has high control precision and work reliability.

This equipment can fill the feeder line (FL) and cavity of different length and capacity with low dew point dry air, so that the corresponding device or component can be dehumidified for reliable operation under conditions of anti-corrosion, anti-oxidation and high pressure.

This equipment can realize intelligent pressure keeping and remote detection and control. The friendly interface in both Chinese and English languages is simple and easy to operate and features with large flow, low dew point and the working pressure can be continuously adjustable.

2 Major Features

- 1) The high-flow, high-pressure and high-efficiency industrial-grade air compression pump is produced by German technology and workmanship, together with the improved floating damping structure of the pump body, the overall performance of this equipment is more reliable and stable and is functionally better.
- 2) The most advanced polymer membrane water-gas separation device and air

molecular filtration device from Japan can effectively separate gas and moisture and remove the impurities in the air to manufacture clean and dry gas for maintenance free operation.

- 3) The internal power supply system of all serial products adopts professional customized high-frequency switching power supply components. The application of DC/DC and DC/AC combined power supply not only improves the working efficiency and voltage regulation performance of the power supply system, but also ensures the equipment can adapt wide range of voltage fluctuations in severe environment conditions.
- 4) Silicon pressure sensor from MOTOROLA and ATMEL's 8-bit series MCU are applied for pressure detection and main control circuit, and other accessories are selected from IT suppliers from Taiwan, which makes the detection and control more accurate and stable.
- 5) This dehydrator applies intermittent working mode, which made it not only energy-saving , environmental friendly to promote drying effect and reduce air temperature, but also made it able to detect the pressure of the container continuously, ensure the pressure accuracy, and make it pressure much more closer to the set value and more ideal for air dryness.
- 6) The multi-function display and control panel applies dot matrix blue backlit LCD screen which has a simple and friendly man-machine interface. Working pressure, dehydrating times, parameter settings etc. can be visually displayed and simply set on the panel. Dynamic digital display of indicators and LED indications enable the user to have a more comprehensive understanding of the equipment operating status and performance.
- 7) This dehydrator adopts a new control circuit design scheme, which not only provides a shortcut for short feeder and small capacity, but also provides a balanced charging mode for long feeder and large volume to effectively prevent overcharging and undercharging.
- 8) The equipment has perfect protection function. When the internal pressure exceeds 750Kpa, and the internal temperature of the air pump exceeds 90 Celsius degree, or air dryness does not meet the index, operation will be suspended, and when the working conditions are suitable, it will automatically resume to work.
- 9) This equipment has a fault alarm function, which the dehydration time and number of dehydration can be monitored and when there is a leakage in the system, it performs sound and light alarms.

3. Technical Parameters

S/N	Description	Technical Indicator
1	Working pressure	0~40KPa adjustable
2	Max. Dehydrating Flow	>15 litre ³ / minute
3	Working Voltage	AC:220V/110V(±10%) ; DC: 48V (±15%)
4	Dew Point Temperature	Better than -20℃
5	Power Consumption	Dehydrating status: max intermittent power: 420VA pressure-keeping status: less than 3VA
6	Air Supply Outlet	6 outlets
7	Working Temperature	-5~+50℃
8	Storage Temperature	-30~+60℃
9	Relative Humidity	≤95%
10	Noise	≤55dB (dehydrating status)
11	MTBF	45000h
12	External Dimension	Standard 19 inch 4U: 482.6×177×416mm (width × height × depth)
13	Weight	Approx. 19.3kg