

TOPLAB INDIA

“Serving Science with Solution”

Microwave Synthesizer

Accurate Synthesis

Modular Design

User Friendly



Model: TOP-300MS

**Mainly applied to Pharmaceutical,
Chemistry and Biotechnology**



TOPLAB Microwave Synthesizer

**Improving Reaction Efficiency
Increasing Synthesis accuracy**

Model: TOP-300MS

Description:

TOPLAB INDIA'S Microwave Synthesizer integrates Model: TL-300MS Microwave Synthesizer with inner SS (Stainless Steel) body and Temperature sensor. It increases efficiency of microwave synthesis remarkably by assuring better reproducibility and accuracy of reaction. TOP-300MS has the feature of precise control, magnetic stirring, digital display both the temperature and the magnetic stirring speed. The operation is simple and the repeatability is good.

Our Microwave Synthesizer is applicable in scientific and practical experiments of microwave catalytic reaction conditions, especially ideal for those which require small microwave power and want to keep continuous microwave radiation.

It is mainly used in Pharmaceutical & chemical industries, research and Development Laboratories, Science Educational institutes & Pharmacy Colleges etc.

Working Principle

Microwave is a kind of high-frequency electromagnetic wave which does not generate heat. Because the microwave in nature is dispersed and not focused, it cannot be used as an energy source. While using magnetron can turn electric energy to microwave.

PRODUCT FEATURES

Features:

■ Microwave Power Automatic Frequency Control:

Using the latest frequency conversion technology, the inverter converts 50Hz power frequency into 10000Hz to 30000Hz variable frequency. It replaces the high-voltage transformer used in traditional microwave reactor and solves the problem of high voltage transformer under the impulse of peak pulse when the traditional microwave reactor is precisely controlled temperature, and causes the technical defects of transformer frequent damage. It is based on the PT100 sensor real-time detection of temperature change data, reaction material polarity, heat capacity change, reaction time and other mathematical models of the changing conditions, the adaptive PID adjustment, automatic frequency control microwave output power, thus making it control temperature accurately.

■ Digital Display Magnetic Stirring Speed:

The Microwave reaction chamber is equipped with magnetic stirring, and the high-temperature samarium cobalt magnet. The magnetic stirrer is placed at the bottom of chamber. The maximum operating temperature is up to 350°C, without losing of magnetism in a long-term usage. It also has the features of steeples speed regulation to control the stirring speed and digital display to indicate the current stirring speed.

■ Open Reaction System:

According to the reaction conditions, the user can install the reaction vessel (volume from 50 ~ 500ml), condensate reflux, drip, rehydration and water separation equipments. Meanwhile the synthesizer is equipped with protective gas inlet through gas inlet tube.

PRODUCT SPECIFICATION

Technical Specification:

Model	TOP-300MS
Max. Capacity:	30 Liter
Microwave Power:	≤900W (0 ~ 900 Continuous)
Microwave Frequency:	2450MHz ±50Hz (Adjustable)
Input Power:	1350W
Max. Input Current:	7.8A
Temperature Control Range:	RT ~250°C
Resolution	0.1°C
Temperature Accuracy	±1°C
Temperature Sensor Type:	Pt100
Temperature Display:	LED (digital display temperature)
Temperature Controller:	PID controller
Stirring Speed Range:	0 ~ 2000 rpm
Stirring Display:	LED (digital display speed)
Stirring Control:	Regulating Knob
Communication Interface:	RS485 (Optional)
Working Chamber Dimension:	350*350*250 (mm)
Overall Dimension:	525*450*425 (mm)
Power Supply :	AC 220V±10% 50Hz

Distributor:



Product by:

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