

## **Simultaneous TGA/DSC/DTA SYSTEM SPECIFICATIONS**

The detailed specifications are as follows;

Temperature Range	: Ambient to 1400 Deg C or above.
Temperature Repeatability	: $\pm 0.1^{\circ}\text{C}$ , based on metal standards
Thermocouples	: Platinum based or Platinum –Rhodium based
Balance design	: Horizontal dual beam (Sample & reference)
Weight measurements	: Capable to measure sample & reference mass independently.
Furnace windings	: Platinum/Composite based
Balance Sensitivity	: 0.1micro gram
Weighing accuracy / Precision	: 0.005% / 0.002% or better
Minimum Weight	: 0.1 mg or better
Dual TGA Capability	: Built-in
High resolution TGA	: Built-in (Dynamic Heating rate)
Modulated TGA	: Built-in (Super imposition of sinusoidal heating profile under isothermal condition for kinetic data)
Modulated DSC	: Built-in (Super imposition sinusoidal heating rate over underline linear heating rate)
Heating rates from	: 0.1 to 100 $^{\circ}\text{C}/\text{min}$ or above
DSC Sensitivity	: 4 Microwatts
Balance Drift	: Less than 100 micro gram (RT to 1400deg C)
Calorimetric Accuracy	: $\pm 2\%$ (based on metal standards)
Calorimetric Precision	: $\pm 2\%$ (based on metal standards)
Gas Switching & MFC for Two gases	: Built-in
Reactive gas inlet	: Built-in

Exhaust Reactive gas outlet from the equipment	: Should be provided with necessary exhaust fan and chimney
Vacuum	: 0.05 torr or better
Sample Capacity	: 200mg (350mg with crucible)
Alumina Crucibles	: Reusable (20 nos.) and Disposable (200 nos.)
EGA Option	: Same furnace should be compatible with FTIR, MS, CG-MS with multiple loops and coupling cables
Service and Application Support for the equipment	: 5 years
Warranty	: 3 years
UPS	: 1 hour backup
Tool Kit	: 1 no.
Software Package	: The system should have the complete software package for the above instrument control, measurements and analysis for analysis necessary parameters.
Computer	: HP PC with 21” Monitor with Laser color printer
AMC	: 2 years after expiration of warranty
Spares	: Thermocouple 1 set and Disposable Alumina crucible (200 nos.)
Manual & Diagrams	: Should supply at the time of installation
Operating Voltage	: Indian Standard – 250 V: 50 Hz

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