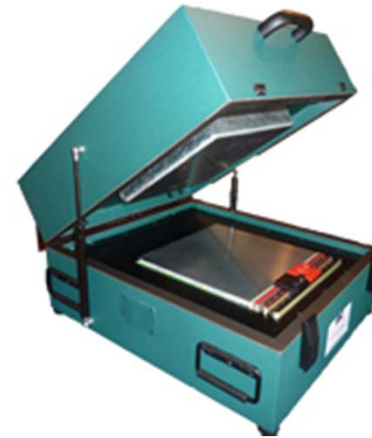


Isothermal Battery Calorimeter

By Thermal Hazard Technology



The IBC-P_L provides accurate and easy testing of heat output from the charging and discharging of a single prismatic pouch cell.

Heat occurring during the charging and discharging of batteries is largely due to several different sources.

Characterization of this heat at different operating temperatures is vital for efficient thermal management of cells in packs or modules. Charging and discharging under different applied load conditions is done through a connection to an external cycler.

Measuring heat generation can be done to ascertain the effects of the following parameters:

- Chemistry modification
- Applied load
- Size and shape
- State of charge
- Environmental temperature
- Age

Calorimeter Specification

Max Temperature (°C)	60
Min Temperature (°C)	-20
Temperature Stability (°C)	0.01
Refrigerated recirculator required	Yes
Calorimeter chamber diameter (mm)	300 x 3000
Calorimeter chamber depth (mm)	20
Number of sample chambers	1
Number of reference chambers	0
RMS Noise	10 mW
<i>(under controlled ambient conditions)</i>	
Max heat detection	50 W
Max Current	100 A
Current resolution	Defined by cycler
Internal wiring (force)	2 ga (6.5mm)
Internal wiring (sense)	20 ga (0.8mm)
Heat capacity measurement capability	Yes
Heat cut out	Yes
N ₂ Purge	Yes
External cycler terminals	Yes
Footprint (Width x Height x Depth)	24 x 13 x 28 inch (61 x 33 x 71 cm)
Weight	85 lbs (39 kg)