

High Power Applications: Continuous 300 Ampere Pulses (7 C)

Lithium-ion Battery 48VDC – 42Ah – 2kWh
2414-01-0000029



Objectives

- Observing temperature evolution under hi-power pulses.
- Investigate the impact of Uni.T™ thermal management solution (Uni.T™ TMS).

Test conditions

Current Profile:

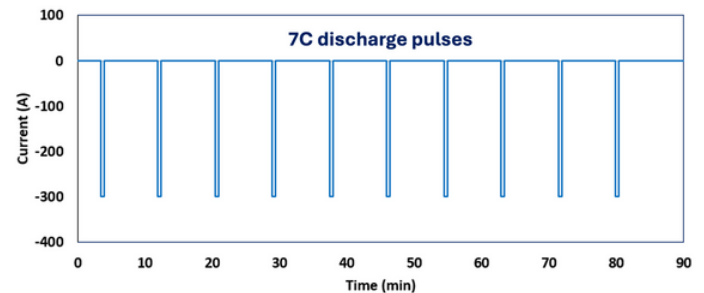
- Pulse intensity: 300A discharge (7C) for a duration of 30 seconds
- Resting Time between each pulse: 8 minutes

Test Conditions:

- Ambient temperature: 20°C

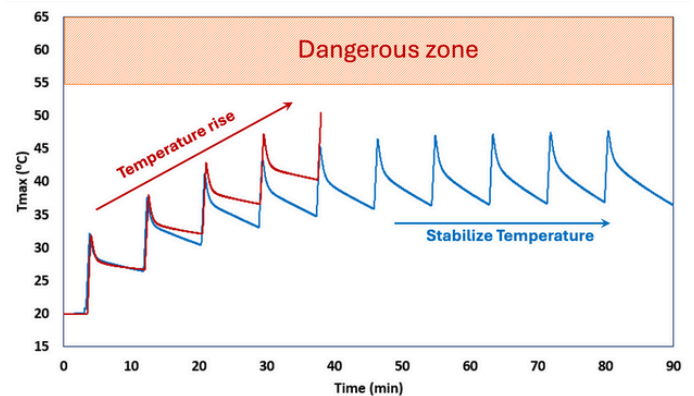
Thermal Management Conditions:

- Uni.T™ thermal management solution **activated**
- Uni.T™ thermal management solution **deactivated**



Results and conclusions

- **Cooling activated:** The cell temperature is **stabilized** below a dangerous zone (full discharge is possible).
- **Cooling deactivated:** the cell temperature **rises continuously**.
- Safety is required to terminate the test when the cell temperature reaches 50°C.



Temperature Profile