RCMT APPARATUS

Comes in various number of channels

Vedantrik Technologies

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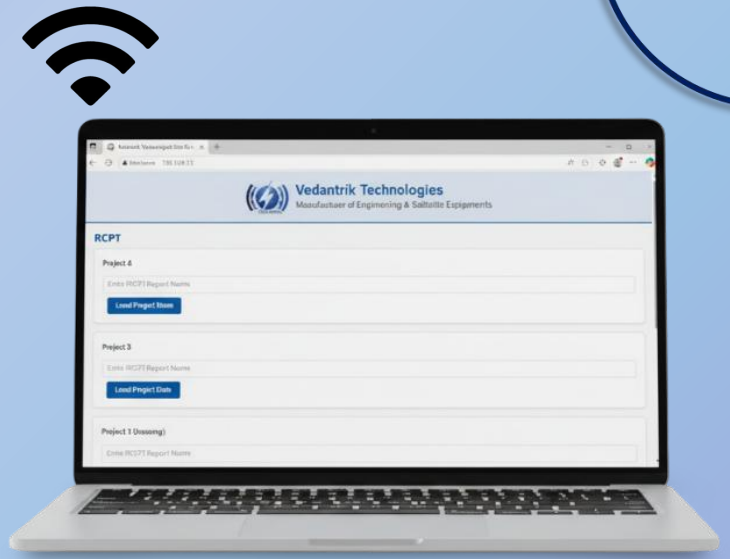
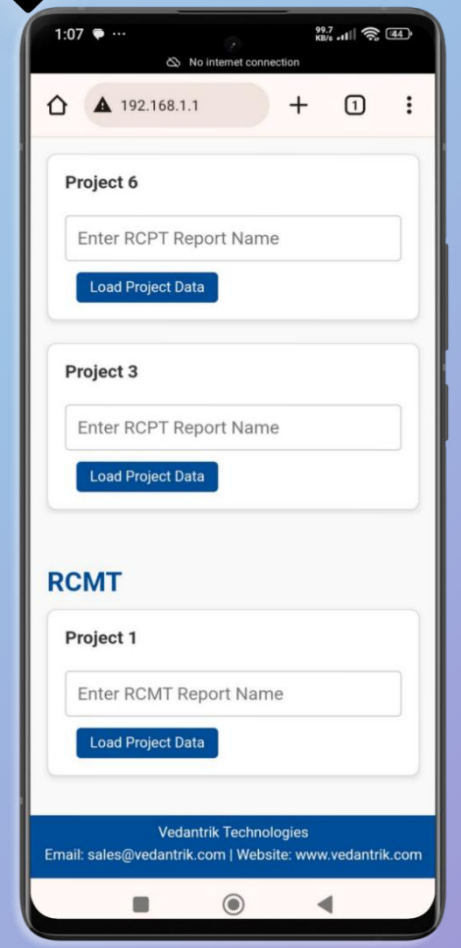
Technical Specifications

- Voltage: 0-80V DC Variable and voltage can be varied independently at individual level.
- Chamber Suitable for NaCl and NaOH to conduct the test. Dimensions as per NT BUILD 492.
- Current Measurement accuracy: +/- 1mA with 0.001mA resolution
- Temperature Range 0-100 deg cel.
- Temperature sensing with individual sensor slot with accuracy of +/- 1 degree Celsius.
- Input Voltage = 230v-290v

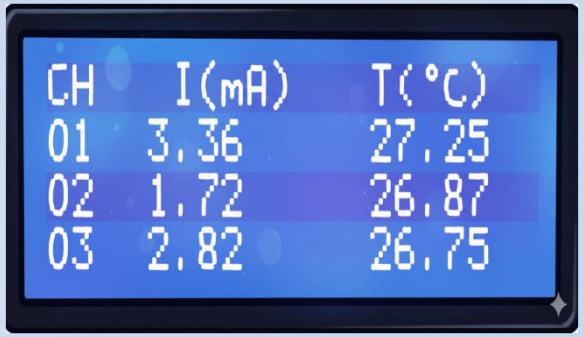
WIRELESS CONNECTIVITY

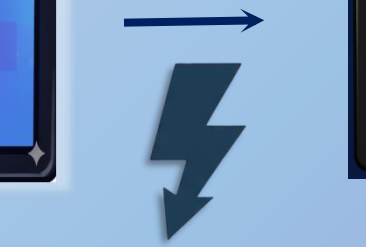




Protection against Power cut

- The Rapid Chloride Migration Test (RCMT), as per NT BUILD 492, runs for a test-specific duration based on the initial current reading.
- Any power interruption during the test can affect results—but not with the Vedantrik RCMT.
- Thanks to its intelligent power failure recovery system, the machine automatically tracks test progress and resumes the test from the exact point of interruption—no manual intervention required.
- This ensures test continuity, safeguards data integrity, and delivers consistent, reliable performance every time.



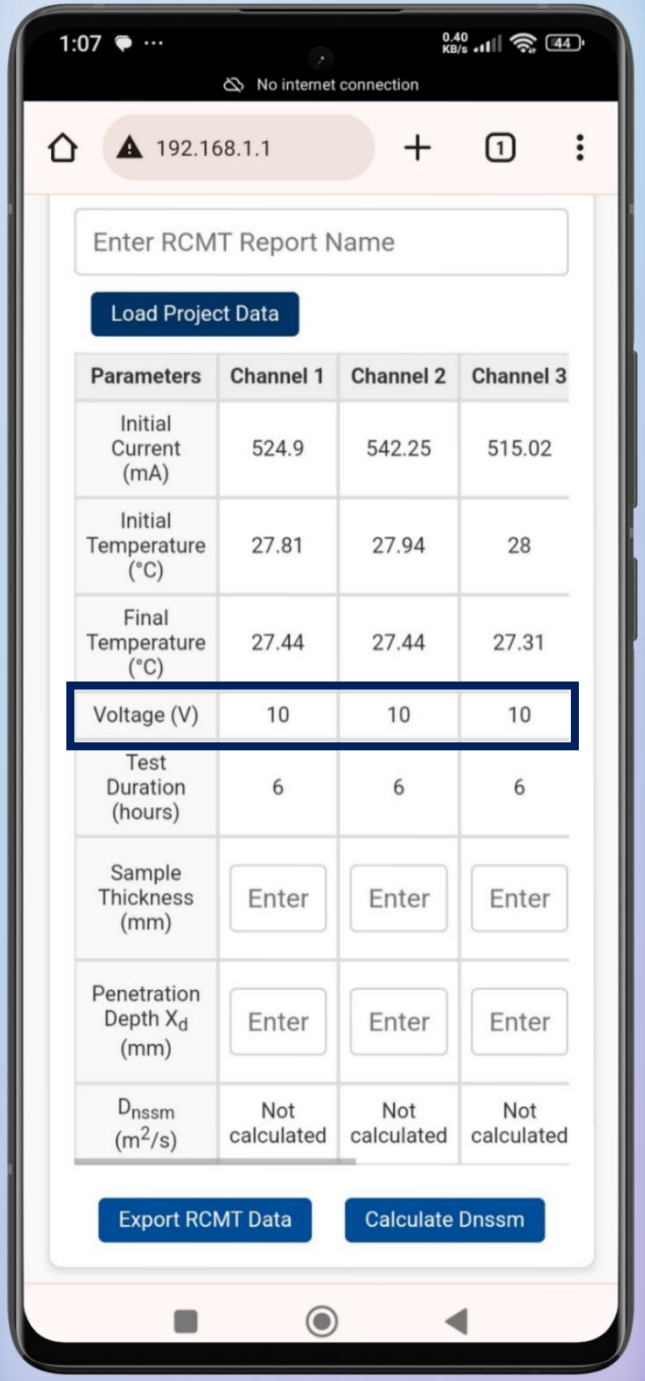


2. POWER FAILURE DETECTED

INTELLIGENT BACKUP & DATA HOLD

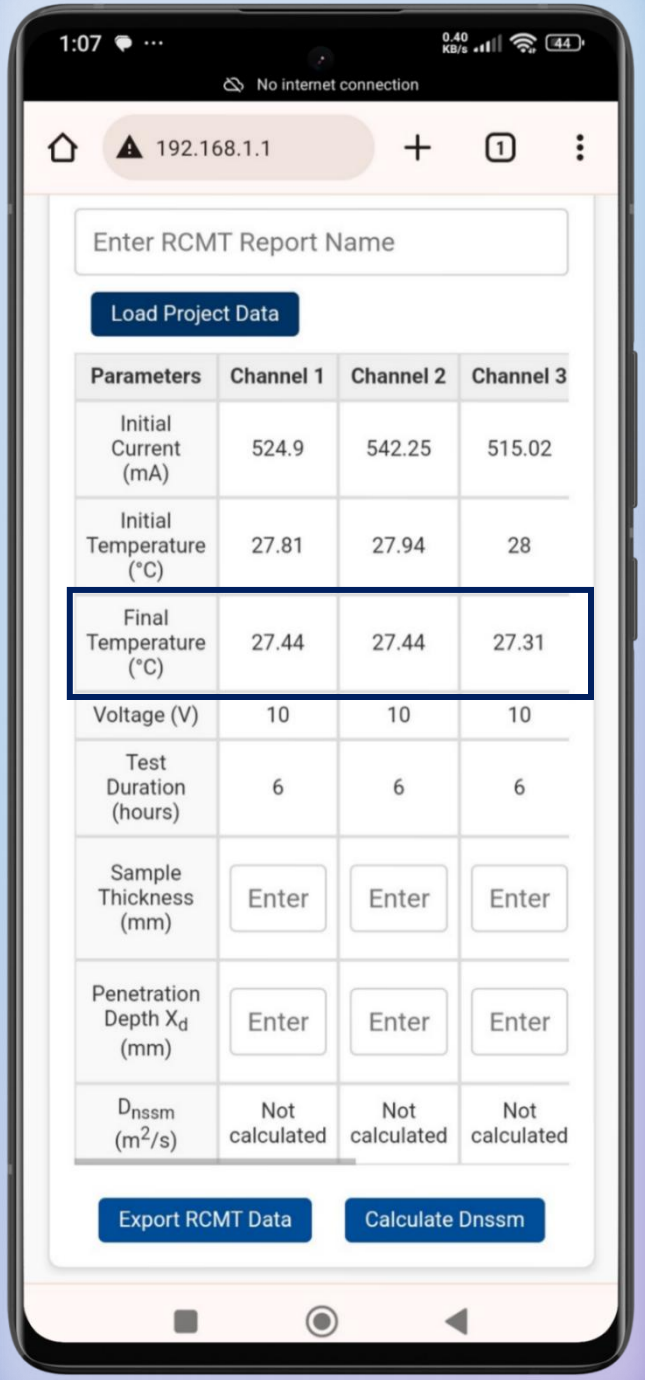
Automated Voltage & Duration Recommendation

- In the Rapid Chloride Migration Test (RCMT), based on the NT Build 492 standard, an initial voltage of 30V is applied to the specimen, and the initial current is automatically recorded by the system.
- Using this value, the RCMT apparatus calculates and recommends the appropriate next voltage and the total test duration, following the standard's guidelines.
- These recommendations can be viewed through the web-based software after the initial current is recorded. The user must then manually adjust the voltage using the knob on the apparatus according to the recommended value shown.
- The test duration is also displayed for reference preset by the system based on the initial measurement and standard requirements.



Automatic Final Temperature Capture

- In the RCMT test, both the initial temperature at the start and the final temperature at the end are critical measurements used to calculate final results.
- To simplify this important process, the Vendantrik RCMT apparatus automatically logs the final temperature value at the conclusion of each test.
- This feature reduces manual effort, minimizes the risk of human error, and ensures precise data capture, making your testing workflow more efficient and reliable.



Parameters	Channel 1	Channel 2	Channel 3
Initial Current (mA)	524.9	542.25	515.02
Initial Temperature (°C)	27.81	27.94	28
Final Temperature (°C)	27.44	27.44	27.31
Voltage (V)	10	10	10
Test Duration (hours)	6	6	6
Sample Thickness (mm)	Enter	Enter	Enter
Penetration Depth X_d (mm)	Enter	Enter	Enter
D_{nssm} (m^2/s)	Not calculated	Not calculated	Not calculated

In-Built Volatge Stabilizer

- Unlike conventional RCMT setups that depend on bulky external transformers to manage voltage fluctuations, the Vedantrik RCMT features advanced micro-controller based power electronics for precise voltage regulation.
- This intelligent system delivers a stable and accurate test voltage—even when input power is inconsistent—ensuring full compliance with NT BUILD 492.
- The result: compact design, reliable performance, and consistently accurate test results

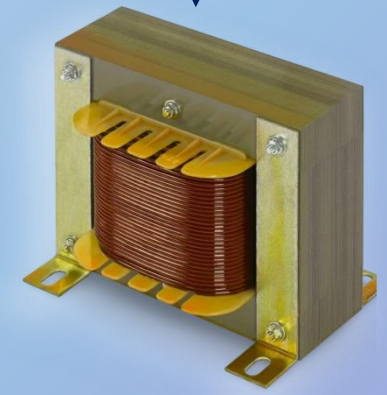
VEDANTRIK RCMT

MICRO CONTROLLER BASED POWER ELECTRONICS

FLUCTUATNG AC INPUT BUT STILL PRECISE AND STABLE DC OUTPUT

DESIRABLE

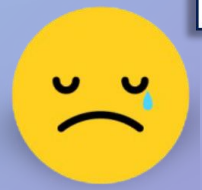
OTHER RCMT



BULKY TRANFORMER

FLUCTUATNG AC INPUT LEADS TO FLUCTUATING DC OUTPUT

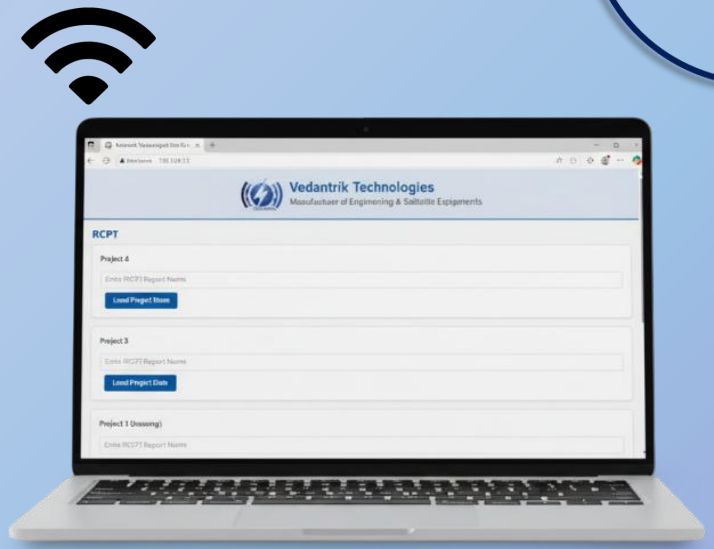
UNDESIRABLE

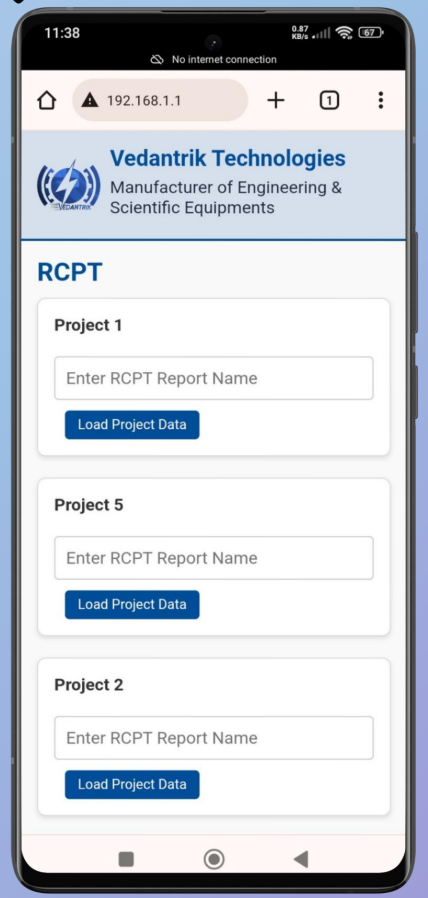


In-Built Wi-Fi Hot-spot on Motherboard

- Traditional RCMT machines rely on USB cables or RS232 ports, requiring driver installations, manual COM port setup, and a constant wired connection during the test.
- The Vedantrik RCMT eliminates all that with a built-in Wi-Fi Hotspot directly on the motherboard. Simply connect wirelessly from your PC or laptop—no cables, no drivers, and no interruptions.
- It's smart, seamless, and built for modern labs.

WIRELESS CONNECTIVITY



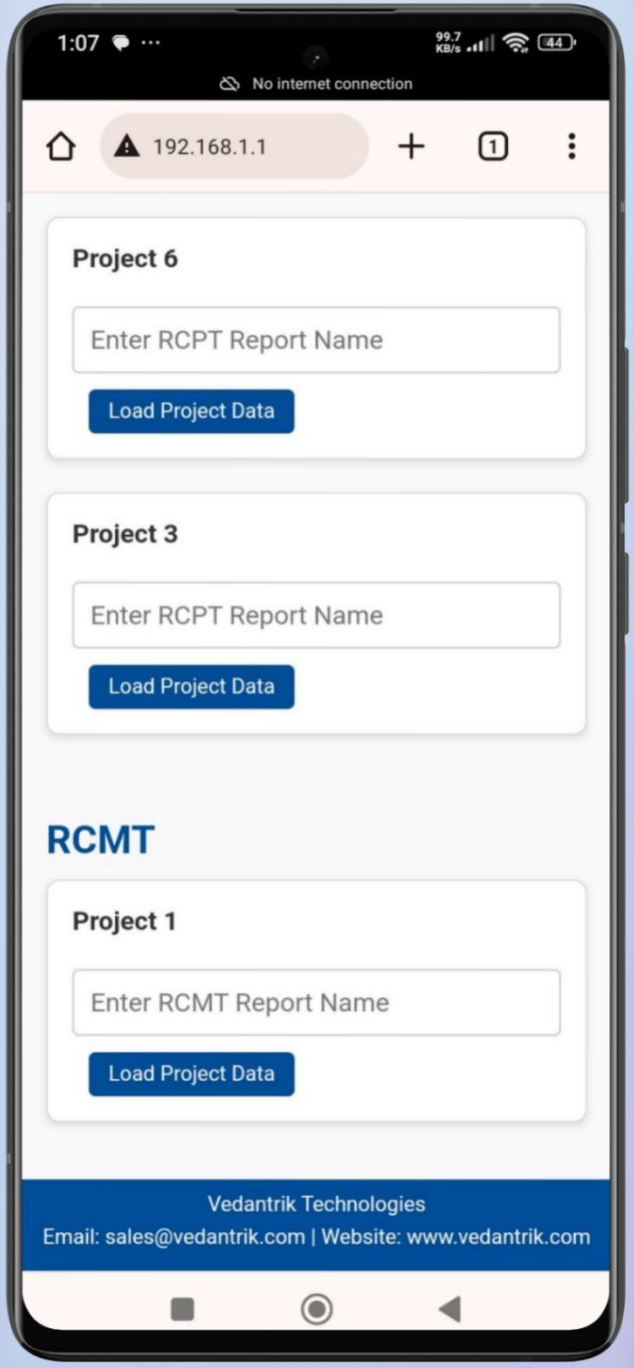


Web-Based software works without internet using Wi-Fi Hot-spot

- The Vedantrik RCMT comes with powerful web-based software that runs directly through its built-in Wi-Fi Hotspot—no internet connection, no installation, and no compatibility issues.

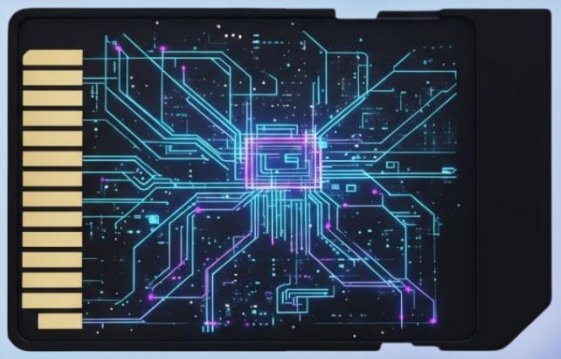
- Just connect from any laptop, PC, or smartphone using a standard web browser. Monitor live current and temperature readings, view real-time current vs. time graphs, and generate automatic test reports—including migration coefficients and temperature logs.

- All data can be downloaded or exported instantly. Unlike traditional systems that rely on complex software and fixed hardware setups, Vedantrik offers a flexible, modern, and user-friendly experience from anywhere within Wi-Fi range.



In-built Data Acquisition System

- Traditional RCMT setups often depend on external data acquisition systems or dedicated PCs connected via cables, making the process more complex and less portable.
- The Vedantrik RCMT eliminates these dependencies with a fully integrated data acquisition system built right into the machine.
- It captures and stores all test data in real-time, with results automatically saved and accessible wirelessly through the built-in Wi-Fi Hotspot.
- This simplifies the setup and system reliability and mobility—perfect for modern testing environments.



- INDEPENDENT OPERATION
- SEAMLESS WIRELESS DATA ACCESS
- SUPERIOR RELIABILITY & PORTABILITY

Over Temperature Notification

- If the temperature in an RCPT test cell exceeds 90°C, the results must be discarded due to compromised accuracy.
- The Vedantrik RCPT machine solves this with an intelligent LED-based over-temperature alert system that automatically activates when any cell crosses the 90°C threshold.
- This real-time notification ensures users can take immediate action—protecting data integrity and ensuring full compliance with testing standards.

OVER TEMPERATURE INDICATOR

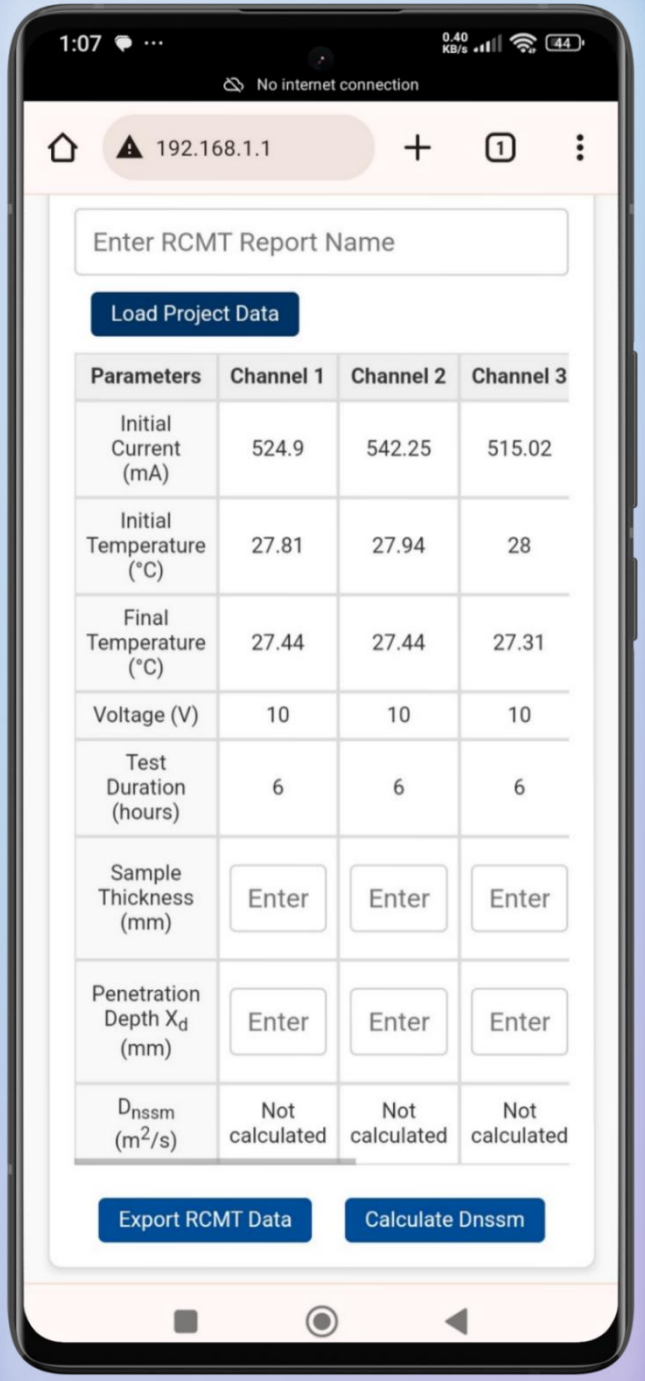
INTELLIGENT LED ALERT SYSTEM
AUTOMATIC ACTIVATION > 90^0C

REAL-TIME NOTIFICATION / IMMEDIATE ACTION
DATA INTEGRITY PROTECTED / FULL COMPLIANCE

Calculation and report generation

- RCPT testing requires complex calculations to interpret the final result, which can be time-consuming and prone to errors.
- The Vedantrik RCPT by automating the entire process, instantly providing the final Coulomb value for fast, accurate assessments.
- It generates detailed reports—including current vs. time graphs, temperature logs, and test duration—that can be downloaded from its web-based software, making documentation and analysis effortless.

- INSTANT COULOMB VALUE
- FAST, ACURRATE ASSESSMENTS
- FINAL RESULT PROVIDED



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Penetration Depth X_d (mm)	Enter	Enter	Enter
D_{nssm} (m^2/s)	Not calculated	Not calculated	Not calculated

Required Accessories

- RCMT Main Unit
- Tank size as per NT BUILD 492.
- Stainless steel clamp
- Rubber sleeve
- Acrylc prism 32^0.
- Anode & Cathode
- NaCl, NaOH
- Temperature sensor for individual cells
- Pair of cable with banana connector for each cell Red, Black (chamber)

Vacuum Pump & Desiccator Setup required for sample conditioning, before starting the test, It is a seperate part & accessories, mentioned in NT Build 492 is Qouted Seperately.