



Datasheet

Battery Meter

Stock number : 180-4810 **RSBM-3300 (300V)** 180-4811 **RSBM-3080 (80V)**

EN



FEATURES

- 3.5" TFT LCD (320x240)
- Measurement Items : DC Voltage and AC Resistance
 - * Voltage Measurement : 300V (RSBM-3300) or 80V (RSBM-3080)
 - * Resistance Measurement : $0\text{m}\Omega \sim 3.2\text{k}\Omega$ (max.)
- Basic Accuracy For Voltage Measurement : 0.01%
- Basic Accuracy For Resistance Measurement : 0.5%
- Measurement Resolution up to $0.1\ \mu\Omega$ and $10\ \mu\text{V}$, Suitable For Single-cell Measurement
- Independent Go/NoGo Determination Function For Voltage and Resistance Respectively
- The Judgment Mechanism of Test Lead (Probe) Disconnect/Contact Failure is to Ensure The Measurement Reliability
- Standard Interfaces : USB Host/Device, RS-232C and Handler

RS launches a new series of desktop battery tester, the RSBM-3000 series, which uses AC 1kHz as the test signal and measures battery's voltage and internal resistance to 300V (RSBM-3300) and 80V (RSBM-3080). The series features 3.5" TFT LCD, 4-wire measurement method, high-resolution (6-digit voltage / 5-digit resistance) measurement display capability, and independent GO/NOGO determination of voltage and resistance, various communications interfaces, etc. to meet various types of battery measurements, ranging from single cell, battery cell, to the end product (battery), etc. so as to facilitate users in achieving accurate measurements at all stages of production.

The RSBM-3000 series provides excellent features for various types of batteries in measuring open circuit voltage and resistance. For voltage measurement, the accuracy is as high as $\pm (0.01\% \text{ reading} + 3 \text{ digits})$, and measurement resolution is up to $10 \mu\text{V}$ (at 8V). For resistance measurement, the accuracy reaches $\pm (0.5\% \text{ reading} + 5 \text{ digits})$ and the resolution achieves $0.1 \mu\Omega$ (at $3\text{m}\Omega$) that is especially suitable for the sorting of single cell measurements, which is to achieve a better output balance for the follow-up series and parallel connections. In the meantime, in order to facilitate users to quickly and clearly interpret the measurement results, the RSBM-3000 series features HI/LO determination respectively based on voltage and resistance, and can be switched to the simple (big numerical display) mode to meet the requirements of test accuracy, clear and easy-to-read, and elevated inspection efficiency and capabilities.

Other than the excellent measurement capabilities, the RSBM-3000 series also provides a number of functions to ensure effectiveness and convenience. For the effectiveness, the test lead (probe) contact status detection function is to effectively prompt users whether test lead (probe) and DUT are in good contact to ensure the validity of the measured value. In terms of convenience, the RSBM-3000 series provides two data storage methods (up to 10,000 lots of measurement values). "General storage" only stores the measured voltage and resistance values; "statistical storage" has the related parameters (Cp/Ckp/Mean/MAX/MIN...) for the statistical analysis. Users can store the data from the measurement process in the internal memory first and then transfer the data to the computer via flash drive for subsequent analysis without being limited to the connection with the computer.

In addition, for retrieving and storing measurement results via the transmission method, the RSBM-3000 series provides RS-232C/USB device (virtual COM) for writing programs and retrievals. The handler interface is provided for external trigger control via PLC. All interfaces are standard-equipped that not only save the cost of instruments, but also meet the requirement of using different automated measurement systems.

PANEL INTRODUCTION



1. 3.5" TFT LCD
2. Operation Key
3. Numeric & Navigator Key
4. Setup & Measure Key
5. Test Terminal
6. USB Host
7. Standard Interface : USB Device, RS-232C, Handler
8. Universal Input Power

SPECIFICATIONS

| DISPLAY | Screen Resistance Voltage | 3.5" (320 x240) TFT LCD 5 digits 6 digits | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------------------|---|--|--|-------------------|--------------------------------|-------------------------|--------------|------------------------------------|--|--|------------------|------------------------------------|--|---|---|---------------------------|------------------|---------------|-------|----|---|---------------|------------------|----------------|------|----|---|------------|-----------------|-----------------|-----|----|---|-------------|-----------------|-------------|-------------------|----|---|--------------|-----------------|--------------|------------------|------|---|-------------|-----------------|---------------|------------------|
| TEST SPEED | Slow Medium Fast Ex. Fast | 3 time/second 14 time/second 25 time/second 65 time/second | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| RESISTANCE MEASUREMENT | Test Frequency | 1kHz ($\pm 0.5\text{Hz}$) Fixed | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Input Impedance | 3m Ω ~ 300m Ω : 99k Ω , 3 Ω ~ 3k Ω : 2M Ω | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Range | <table border="1"> <thead> <tr> <th>Range No.</th> <th>Range</th> <th>Max. scale</th> <th>Resolution</th> <th>Test Current</th> <th>Open-circuit Voltage (Vpp,Max)</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>3mΩ</td> <td>3.1000mΩ</td> <td>0.1 $\mu\Omega$</td> <td>100mA</td> <td>8V</td> </tr> <tr> <td>1</td> <td>30mΩ</td> <td>31.000mΩ</td> <td>1 $\mu\Omega$</td> <td>100mA</td> <td>8V</td> </tr> <tr> <td>2</td> <td>300mΩ</td> <td>310.00mΩ</td> <td>10 $\mu\Omega$</td> <td>10mA</td> <td>7V</td> </tr> <tr> <td>3</td> <td>3Ω</td> <td>3.1000Ω</td> <td>100 $\mu\Omega$</td> <td>1mA</td> <td>3V</td> </tr> <tr> <td>4</td> <td>30Ω</td> <td>31.000Ω</td> <td>1mΩ</td> <td>100 μA</td> <td>2V</td> </tr> <tr> <td>5</td> <td>300Ω</td> <td>310.00Ω</td> <td>10mΩ</td> <td>10 μA</td> <td>1.5V</td> </tr> <tr> <td>6</td> <td>3kΩ</td> <td>3200.0Ω</td> <td>100mΩ</td> <td>10 μA</td> <td>1.5V</td> </tr> </tbody> </table> | Range No. | Range | Max. scale | Resolution | Test Current | Open-circuit Voltage (Vpp,Max) | 0 | 3m Ω | 3.1000m Ω | 0.1 $\mu\Omega$ | 100mA | 8V | 1 | 30m Ω | 31.000m Ω | 1 $\mu\Omega$ | 100mA | 8V | 2 | 300m Ω | 310.00m Ω | 10 $\mu\Omega$ | 10mA | 7V | 3 | 3 Ω | 3.1000 Ω | 100 $\mu\Omega$ | 1mA | 3V | 4 | 30 Ω | 31.000 Ω | 1m Ω | 100 μA | 2V | 5 | 300 Ω | 310.00 Ω | 10m Ω | 10 μA | 1.5V | 6 | 3k Ω | 3200.0 Ω | 100m Ω | 10 μA |
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| 2 | 300m Ω | 310.00m Ω | 10 $\mu\Omega$ | 10mA | 7V | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| OTHER FUNCTIONS | Range Selection Comparator Contact Detection Buzzer Trigger | Auto range, Hold range, Nom range ABS, PER or SEQ OPEN & WIRE OFF, Pass, Fail INT, EXT | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| INTERFACE | | USB Host/USB Device/RS-232C/Handler | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| POWER SOURCE | | AC 100-240, 50-60Hz; Consumption: 10W | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| DIMENSIONS & WEIGHT | | 264(W) x 107(H) x 309(D) mm, Approx. 2.8kg | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Specifications subject to change without notice.

ORDERING INFORMATION

RSBM-3300 300V Battery Meter (including RS-232C/USB device/host and HANDLER interface)
RSBM-3080 80V Battery Meter (including RS-232C/USB device/host and HANDLER interface)

ACCESSORIES

Safety sheet x 1, Power cord x 1,
 GBM-01 x 1 : 4 Wire (kelvin clip) test lead, 90V(max.), approx..1100mm,
 CD x 1 (including complete user manual and USB driver)

OPTION ACCESSORIES

GBM-02 4 Wire (single pin) test probe, 80V (max.), approx. 1100mm
GBM-03 4 Wire (twin pin) test probe, 300V (max.), approx. 1400mm
GBM-S1 Short Bar (for GBM-02/GBM-03)
GTL-232 RS-232C cable, 9-pin Female to 9-pin, null modem for computer, Approx. 2000mm
GTL-246 USB cable, A-B type, approx.1200mm
GRA-422 Rack Mount kit



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