

# Akkumodul / Battery Module Z270A

## Lithium-Polymer-Akku

## Lithium Polymer Rechargeable Battery

3-349-997-15  
3/11.18

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### Anwendung

Das Zubehör Akkumodul **Z270A** wird für die Stromversorgung des Isolationstesters und Milliohmmeters **METRAHIT IM XTRA / METRAHIT IM E-DRIVE** eingesetzt.

Die Verwendung für andere Zwecke ist nicht zulässig.

Die Montage des Akkumoduls ist in der Kurzanleitung (3-447-036-15) zum **METRAHIT IM XTRA / METRAHIT IM E-DRIVE** beschrieben.

### Anforderungen nach UN-Klassifizierung

Das Akkumodul Z270A beinhaltet genau eine Zelle des Lithium-Polymer-Akkus des Herstellers Cameron Sino Technology Limited und einer zusätzlichen Schaltung zur Begrenzung der Ladespannung, die nur bei Anliegen einer Ladespannung aktiv ist und keine Rückwirkung auf den Akku mit seiner internen Schutzschaltung hat. Hiermit bestätigen wir, dass der im Akkumodul Z270A eingebaute Lithium-Polymer-Akku die UN Transport Tests im Teil III Abschnitt 38.3 im „Handbuch Prüfungen und Kriterien“ der UN erfüllt. Explizit verweisen wir auf das anliegende „Material Safety Data Sheet“ Ref No: CSM SDS17 des Herstellers Cameron Sino Technology, welches das „Certificate of UN test for Lithium ion or Lithium polymer cell“ Ref: UN38.3 beinhaltet.

Beachten Sie auch das Handling-Dokument für freigestellte Lithium-Ionen-Batterien (3-349-854-15)!

### Rücknahme und umweltverträgliche Entsorgung des Lithium-Polymer-Akkus

Sofern der in Ihrem Gerät eingesetzte Akku nicht mehr leistungsfähig ist, muss dieser ordnungsgemäß nach den gültigen nationalen Richtlinien entsorgt werden.

Entsorgen Sie den Akku vorschriftsmäßig oder senden Sie diesen an die GMC-I Service GmbH zur kostenlosen Rücknahme, Anschrift siehe unten.

### Reparatur- und Ersatzteil-Service Kalibrierzentrum und Mietgeräteservice

Bitte wenden Sie sich im Bedarfsfall an:

GMC-I Service GmbH  
**Service-Center**  
Beuthener Straße 41  
90471 Nürnberg • Germany  
Telefon +49 911 817718-0  
Telefax +49 911 817718-253  
E-Mail [service@gossenmetrawatt.com](mailto:service@gossenmetrawatt.com)  
[www.gmci-service.com](http://www.gmci-service.com)

Diese Anschrift gilt nur für Deutschland. Im Ausland stehen unsere jeweiligen Vertretungen oder Niederlassungen zur Verfügung.

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### Application

The **Z270A** accessory battery module is used for the power supply of the **METRAHIT IM XTRA / METRAHIT IM E-DRIVE** insulation tester and milliohmmeter.

Application for any other purpose is not permitted.

The installation of the battery module is described in the short-form operating instructions (3-447-036-15) for **METRAHIT IM XTRA / METRAHIT IM E-DRIVE**.

### Requirements According To UN Classification

The Z270A battery module contains exactly one Lithium polymer rechargeable battery by the manufacturer Cameron Sino Technology Limited and an additional switch to limit the charging voltage which is only active when charging voltage is applied and which has no feedback effect on the battery with its internal protective circuit. We herewith confirm that the Lithium polymer battery integrated in the Z270A battery module fulfills the UN transport tests quoted in volume III, section 38.3 of the „Manual for Tests and Criteria“ of the UN. We explicitly refer to the attached „Material Safety Data Sheet“ Ref No: CSM SDS17 of the manufacturer Cameron Sino Technology, which includes the „Certificate of UN test for Lithium ion or Lithium polymer cell“ Ref: UN38.3.

Please also note the transport document for detached Lithium ion batteries (3-349-854-15)!

### Return and Environmentally Sustainable Disposal of the Lithium Polymer Battery

If the battery inserted in your instrument is no longer efficient, it must be properly disposed of in accordance with the applicable national regulations.

Please ensure that the battery is disposed of in accordance with the applicable regulations or return it to GMC-I Service GmbH free of charge, address see below.

### Repair and Replacement Parts Service Calibration Center and Rental Instruments Service

If required please contact:

GMC-I Service GmbH  
**Service Center**  
Beuthener Straße 41  
90471 Nürnberg • Germany  
Phone: +49 911 817718-0  
Fax: +49 911 817718-253  
e-Mail: [service@gossenmetrawatt.com](mailto:service@gossenmetrawatt.com)  
[www.gmci-service.com](http://www.gmci-service.com)

This address is only valid in Germany. Please contact our representatives or subsidiaries for service in other countries.

## MATERIAL SAFETY DATA SHEET

Ref No: CSMDS17

- 1. Manufacturer**  
 Name of Company : Cameron Sino Technology Limited  
 Address : Unit 6-7, 11/F. Ho Lik Centre, 66A Sha Tsui Road, Tsuen Wan, N.T., Hong Kong  
 Representative : Mr. Longman CHEUNG  
 Tel No. : 852-24269811

- 2. Name of Product**  
 Lithium ion or Lithium polymer rechargeable battery
- 3. Substance Identification**  
 Substance : Lithium ion or Lithium polymer rechargeable battery  
 UN Class : Classified as Lithium ion or Lithium polymer batteries (UN3480), 2017 IATA Dangerous Goods regulations 58<sup>th</sup> edition Packing Instruction 965 Section IB is applied. The product is handled as Non-Dangerous Goods by meeting the following requirements (1)

Lithium ion or Lithium polymer batteries offered for transport are not subject to other additional requirements of the UN Regulations if they meet the following:  
 1. for cells, the watt-hour rating is not more than 20Wh;  
 2. for batteries, Watt-hour rating is not more than 100Wh.  
 The Watt-hour rating must be marked on outside of the battery case except those manufactured before 1 January 2009 which may be transported without this marking until 31 December 2010.  
 3. each cell or battery is of the type proven to meet the requirements of each test in the UN Manual of Tests and Criteria Part III subsection 38.3.

Cells and batteries must be packed in strong outer packaging that conform to 5.0.2.4, 5.0.2.6.1 and 5.0.2.12.1

And they are out of scope for Special Provision A154 and comply with Special Provision A164.

- 4. Hazardous and Toxicity Class**  
 Class name : Not applicable for regulated class  
 Hazard : It may cause heat generation or electrolyte leakage if battery terminals contact with other metals. Electrolyte is flammable. In case of electrolyte leakage, move the battery from fire immediately.

- 5. First Aid Measures**  
 The product contains organic electrolyte. In case of electrolyte leakage from the battery, actions described below are required.

Eye contact : Flush the eyes with plenty of clean water for at least 15 minutes immediately, without rubbing. Take a medical treatment, if appropriate procedures are not taken, this may cause an eye irritation.

Skin contact : Wash the contact areas off immediately with plenty of water and soap. If appropriate procedures are not taken, this may cause sores on the skin.

Skin contact : Wash the contact areas off immediately with plenty of water and soap. If appropriate procedures are not taken, this may cause sores on the skin.



Inhalation : Remove to fresh air immediately. Take a medical treatment.

- 6. Fire Fighting Measures**  
 Extinguishing method: Since vapor, generated from burning batteries may make eyes, nose and throat irritate, be sure to extinguish the fire on the windward side. Wear the respiratory protection equipment in some cases.

Fire extinguishing agent: Plenty of water and alcohol-resistant foam are effective.

- 7. Measures for electrolyte leakage from the battery**
  - Take up with absorbent cloth
  - Move the battery away from the fire.

- 8. Handling and storage**
  - When packing the batteries, do not allow battery terminals to contact each other, or contact with other metals. Be sure to pack batteries by providing partitions in the packaging box, or in a separate plastic bag so that the single batteries are not mixed together.
  - Use strong material for packaging boxes so that they will not be damaged by vibration, impact, dropping and stacking during their transportation.
  - Do not let water penetrate into packaging boxes during their storage and transportation.
  - The batteries will be stored at room temperature.
  - Do not store the battery in places of the high temperature exceeding 35°C or under direct sunlight, or in front of a stove. Please also avoid the places of high humidity. Be sure not to expose the battery to condensation, water drop or not to store it under frozen condition.
  - Batteries are sure to be packed in such a way as to prevent short circuits under conditions normally encountered in transport.
  - Please avoid storing the battery in the places where it is exposed to the static electricity so that no damage will not be caused to the protection circuit of the battery pack.

- 9. Exposure Control**  
 Facilities : Provide appropriate ventilation system such as local ventilator in the storage place.  
 Protective clothing : Gas mask for organic gases, safety goggles, safety gloves.

- 10. Physical and Chemical Properties of Single cell**  
 Appearance : Single cell : Prismatic or Cylindrical cell  
 Nominal Voltage : Single cell : 3.7V

- 11. Stability and Reactivity**  
 Since batteries utilize a chemical reaction they are actually considered a chemical product. As such, battery performance will deteriorate over time even if stored for a long period of time without being used. In addition, the various usage conditions such as charge, discharge, ambient temperature, etc...are not maintained within the specified ranges the life expectancy of the battery may be shortened or the device in which the battery is used may be damaged by electrolyte leakage.

- 13. Ecological Information**  
 In case of the worn-out battery was disposed in land, the battery case may be corroded, and leak electrolyte. But, we have no ecological information.  
 Heavy metal in battery: Mercury (Hg) and Cadmium (Cd) are neither contained nor used in battery.

- 14. Disposal Considerations**
  - When the battery is worn out, dispose of it under the ordinance of each local government or the low issued by relating government.
  - Disposal of worn out battery may be subjected to Collection and Recycling Regulation.

- 15. Transport Information**
  - During the transportation of a large amount of batteries by ship, trailer or railway, do not leave them in the places of high temperatures and do not allow them to be exposed to condensation.





Address: Unit 6-7, 11/F., Ho Lik Centre, 66A Sha Tsui Road, Tsuen Wan, N.T., Hong Kong  
 Tel: +852 2426 9811 Fax: +852 2426 2911 \* http://www.cameronsino.net Email: info@cameronsino.net

During the transportation do not allow packages to be fallen down or damaged.

- Lithium ion or Lithium polymer batteries identified by manufacturer as being defective for safety reasons, or that have been damaged that have the potential of producing a dangerous evolution of heat, fire or short circuit are forbidden for transport (e.g. those being returned to the manufacturer for safety reasons).
- Except when installed in equipment, for air shipment that contain one or more cells or batteries, they are necessary to meet the following items.

- A. Each consignment must be accompanied with a document such as air waybill with an indication that:
  - I. The package contains lithium ion or lithium polymer cells or batteries
  - II. The package must be handled with care and that a flammability hazard exists if the package is damaged;
  - III. Special procedures should be followed in the event the package is damaged, to include in section and repacking if necessary; and
  - IV. A telephone number for additional information.
  - V. An overpack must be marked with the word "OVERPACK" on the outer box

B. Each package must be labeled with a lithium battery handling label  
 \*The width 120mm x 110mm sized lithium battery handling label must be labeled onto the side of a package without bending it.

- C. Each package must be capable of withstanding a 1.2 m drop test in any orientation.
  - I. Damage to cells or batteries contained therein;
  - II. Shifting of the contents so as to allow battery to battery (or cell to cell) contact;
  - III. Releaser of contents.

D. Quantity per package shall not exceed 10kgs.  
 E. Each package containing more than four cells or more than two batteries installed in equipment must be complied with above item 1 and 2.



16. Regulatory Information
- IATA Dangerous Goods Regulations 58<sup>th</sup> Edition Effective 1 January 2017.
  - ICAO Technical Instructions for the safe transport of dangerous goods by air.



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 Tel: +852 2426 9811 Fax: +852 2426 2911 \* http://www.cameronsino.net Email: info@cameronsino.net

Certificate of UN test for Lithium ion or Lithium polymer cell

Ref: CSUN38.3

Manual of Tests and Criteria (38.3 Lithium batteries)

No	Test Item	Criteria	Result	Remark	Number of test cells	
T1	Altitude Simulation	No mass Loss, leakage, venting, disassembly, rupture and fire. OCV should not be less than 90% before	Passed		First cycle fully charged 10 cells First cycle fully Discharged 10 cells	
T2	Thermal Test	No mass loss, leakage, venting, disassembly, rupture and fire. OCV should not be less than 90% before	Passed			
T3	Vibration	No mass loss, leakage, venting, disassembly, rupture, and fire. OCV should not be less than 90% before	Passed			
T4	Shock	No mass Loss, leakage, venting, disassembly, rupture and fire. OCV should not be less than 91% before	Passed			
T5	External Short Circuit	External temperature should not exceed 170 degC. No disassembly, rupture, and fire within six hours of this test.	Passed			
T6	Impact	External temperature should not exceed 170 degC. No disassembly and fire within six hours of this test.	Passed		First cycle 50% charged. 5 cells for cylindrical cell and 10 cells for prismatic cell.	After 50 cycles, fully discharged. 5 cells for cylindrical cell. 10 cells for prismatic cell.
T7	Overcharge	No disassembly and fire within seven days of this test.	Passed	Battery only	For Battery only	
T8	Forced Discharge	No disassembly and fire within seven days of this test.	Passed		First cycle, fully discharged 10 cells	After 50 cycles, fully discharged 10 cells

We declare that the above - mentioned test is the result of being checked according to UN test (Manual of Tests and Criteria ST/SG/AC. 10/11/Rev. 4, PartIII, sub-section 38.3)



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