GERCHAMP

G-TIC-Z
NICKEL-ZINC
BATTERY MANAGEMENT SYSTEM

INTRODUCTION

G-TIC-Z is designed for the comprehensive operation and intelligent maintenance of nickel-zinc batteries.
It uses a distributed architecture for real-time monitoring of key parameters including voltage, internal resistance, temperature, busbar voltage of individual batteries and total voltage, charge/discharge current of battery strings.
The system also features thermal runaway early warnings and integrates charging management.

ADVANTAGES

REAL-TIME MANAGEMENT

Provides accurate and reliable data and eliminates manual maintenance risks

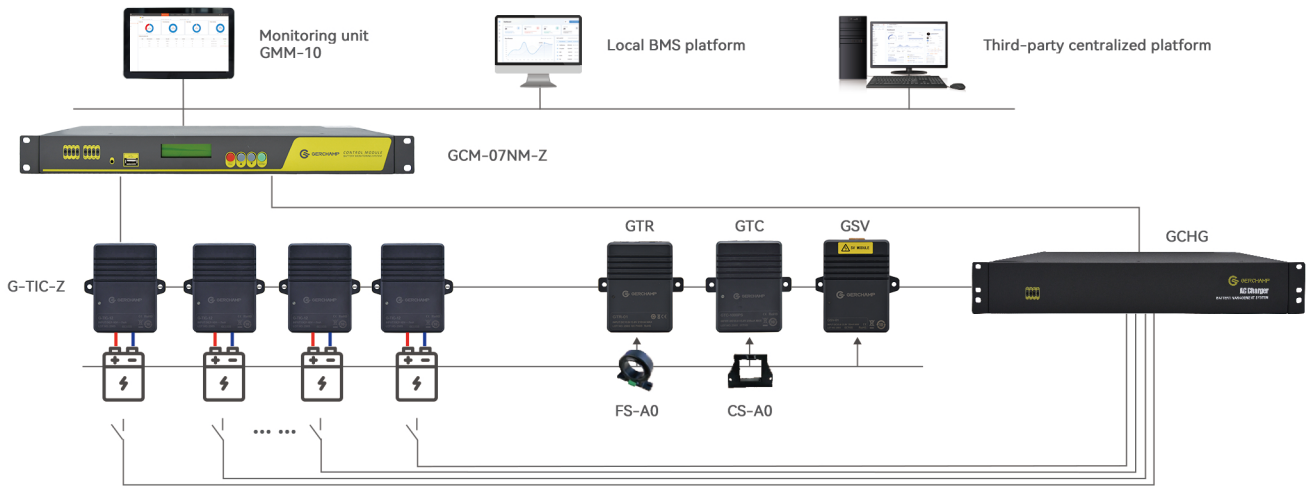
COMPREHENSIVE MONITORING

Full monitoring key parameters of individual cells and battery strings

INTELLIGENT ANALYSIS

Intelligent monitoring of battery performance and reports for actionable insights

TOPOLOGY



FEATURES & BENEFITS

Centralized & Intelligent Management	Support data collection, upload, storage and analysis as well as management of sub-modules via UART for system
Multi-level Alarms Support	Support alarm classification (up to four levels) and customized alarm configuration, as well as local sound and light alarm
Thermal Runaway Early Warning	Early warning of thermal runaway by accurately measuring changes in the float charge current of battery strings
Charging Performance	Charge 5 batteries at one time to realize the charging of the whole battery packs by switching the charging channel, ensuring the voltage difference is within the appropriate range

SPECIFICATIONS

<table>
<tr><th>Items</th><th colspan="4">Tech Specification</th></tr>
<tr><td rowspan="9">Power Consumption</td><td>Module</td><td colspan="2">Powered by</td><td>Current Consumption</td></tr>
<tr><td>G-TIC-Z</td><td colspan="2">Battery 5~16VDC (with revers protection)</td><td>≤10mA</td></tr>
<tr><td>GSV</td><td colspan="2" rowspan="3">CM module
10.8~13.8VDC
(with revers protection)</td><td>≤35mA</td></tr>
<tr><td>GTC</td><td>≤100mA</td></tr>
<tr><td>GTR</td><td>≤100mA</td></tr>
<tr><td>Module</td><td colspan="2">Powered by</td><td>Rated Output Power</td></tr>
<tr><td>GCHG</td><td colspan="2">External power 100-240VDC</td><td>120W</td></tr>
<tr><td>GCM-07NM-Z</td><td colspan="2">External power 100-240VDC</td><td>15W</td></tr>
<tr><td rowspan="4">Environment</td><td colspan="2">Operating temperature</td><td colspan="2">-20~+60℃</td></tr>
<tr><td colspan="2">Relative humidity</td><td colspan="2">5~95%RH</td></tr>
<tr><td colspan="2">Atmospheric pressure</td><td colspan="2">80~110kPa</td></tr>
<tr><td colspan="2">Altitude (above sea level)</td><td colspan="2">0~2000m</td></tr>
<tr><td>Functions</td><td colspan="4">Support single cell voltage, internal resistance, negative terminal temperature collection, busbar voltage collection & battery string voltage measurement, current acquisition & thermal runaway warning & battery charging function.</td></tr>
<tr><td rowspan="5">Other Functions</td><td rowspan="2">Alarm</td><td colspan="3">Support alarm classification (up to four levels) and customized alarm configuration</td></tr>
<tr><td colspan="3">Support local sound and light alarm</td></tr>
<tr><td>Configuration</td><td colspan="3">Provide built-in WEB parameter configuration function and built-in WEB data view and export function</td></tr>
<tr><td>Program upgrade</td><td colspan="3">Support data export or program upgrade via USB</td></tr>
<tr><td>Protocols</td><td colspan="3">Support MODBUS/SNMP/customized protocols and gain easy access to the third-party environment supervision system</td></tr>
<tr><td>Communication Interfaces</td><td colspan="4">4-channel digital inputs/4-channel output dry contacts/1-channel alarm dry contact/2-channel network ports/1-channel isolated RS485</td></tr>
<tr><td>Storage</td><td colspan="4">Built-in 8G storage capacity
Storage period: More than 12 months
Default storage interval: 60 seconds (adjustable)</td></tr>
<tr><td rowspan="2">Installation</td><td colspan="4">GCM/GCHG module: Fixed to 19-inch cabinet or battery rack</td></tr>
<tr><td colspan="4">Collection module: Built on in battery surface or battery rack</td></tr>
<tr><td>Performance</td><td colspan="4">Each string in charge of 96 cells at maximum</td></tr>
</table>

GERCHAMP
https://www.gerchamp.com

North America
+140 1257 9992
info@gerchamp.com
Suite802, 440 Cobia Drive, Katy, Texas77494

India
+91 9819 9454 57
ved.kartik@gerchamp.com
Office no 1205, 145 Business bay, 145, Vallabh Baug Ln, Railway Police Colony, Ghatkopar East, Mumbai, Maharashtra 400075, India

Other Area
+86 153 9808 0718
sales@gerchamp.com
2nd & 3rd Floor of No.3 Building, No.1418-50 Moganshan Road, Hangzhou, China