LUNA2000-(107-215) Series Smart String ESS

Alarm Reference

Issue	03
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About this Document

Purpose

This document describes how to handle all alarms of the following products:

- LUNA2000-215-2S11 Smart String ESS
- LUNA2000-215-2S10 Smart String ESS
- LUNA2000-215-2S12 Smart String ESS
- LUNA2000-161-2S11Smart String ESS
- LUNA2000-107-1S11Smart String ESS

Intended Audience

The document is intended for:

- Technical support engineers
- Commissioning engineers
- Maintenance engineers

Change History

Changes between document issues are cumulative. The latest document issue contains all the changes made in earlier issues.

Issue 03 (2025-07-22)

Added **2.3.6 3351 Inconsistent BCU Software Versions**.

Added **2.6.32 3532 PCS Startup Abnormal**.

Added **2.7.25 3646 Insufficient Refrigerant**.

Added **2.8.1 3380 RPCB Software Versions Inconsistent**.

Added **2.8.2 3381 Inconsistent DCDC Software Versions**.

Added **2.8.3 3382 Inconsistent PCS Software Versions**.

Added **2.8.4 3384 AC Startup Conditions Not Met**.

Added **2.7.27 3651 LCC Output Overcurrent**.

Added **2.7.28 3652 Inconsistent Software Version of Drive and Auxiliary Power Module**.

Added **2.7.29 3653 Inconsistent LCC Software Version**.

Updated **2.2.11 3172 Balancing Module Soft-Start Circuit Abnormal**.

Updated **2.3.5 3229 BMU Communication Failure**.

Updated **2.4.9 3308 Battery RCD Protection Triggered**.

Updated **2.3.8 3353 Total Voltage of Battery Rack and Total Cell Voltage Inconsistent**.

Updated **2.3.12 3357 Balancing Module Software Versions Inconsistent**.

Updated **2.3.18 3363 Balancing Module Communication Failure**.

Updated **2.5.13 3412 DCDC Bus Port Undervoltage**.

Updated **2.7.6 3605 LTMS Communication Abnormal**.

Updated **2.7.12 3622 Compressor Low Superheat Degree**.

Updated **2.7.21 3642 Compressor Overcurrent Alarm**.

Updated **2.8.11 3886 Combustible Gas Detector Communication Failed**.

Updated **2.8.20 3895 Devices Connected and System Configuration Inconsistent**.

Updated **2.8.25 3902 Inconsistent Display Module Software Versions**.

Updated **2.8.30 3908 Component End of Life**.

Updated **2.8.31 3909 TRSD Communication Abnormal**.

Updated **2.8.32 3910 Auxiliary Power Meter Communication Abnormal**.

Updated **2.8.33 3911 Display Module Communication Failure**.

Issue 02 (2025-01-10)

Added **2.4.12 3311 RPCB SPD Faulty**.

Added **2.4.14 3313 Auxiliary Power Abnormal**.

Added **2.5 Power System (DCDC)**.

Added **2.6.30 3530 PCS AC Resonance**.

Added **2.6.31 3531 PCS Derated**.

Added **2.7.26 3650 Insufficient Cooling Capacity**.

Added **2.8.30 3908 Component End of Life**.

Updated **2.1 Battery Pack (PACK)**.

Updated **2.2 Battery Pack (Balancing Module)**.

Updated **2.3 RCM (BCU)**.

Updated **2.4 RCM (RPCB)**.

Updated **2.6 Power System (PCS)**.

Updated **2.7 Temperature Control System**.

Updated **2.8 ESU**.

Issue 01 (2024-09-30)

This issue is the first official release.

Contents

1 Description of Alarm Reference

Item	Description
Alarm ID	Indicates the ID of an alarm. Unique identifier of an alarm in one product.
Alarm Name	Indicates the name of an alarm. In the same product, alarm names and alarm IDs correspond to each other, which clearly and accurately reflect the meaning of alarms.
Alarm Severity	Alarm severities are defined as follows: ● Major: The device is faulty or the external environment is abnormal. As a result, the output power decreases or the device stops feeding to the grid. ● Minor: Some components of the device are faulty but the device can still connect to the grid and generate power. ● Warning: The device functions normally, but its output power decreases or some authorization functions fail due to external factors.
Alarm Type	Alarms are classified according to their contents. For example, the alarms of the environment system include alarms related to temperature, humidity, and door status.
Clearance Category	● ADAC: After the fault is rectified, this alarm is automatically cleared. ● ADMC: This alarm needs to be manually cleared after the fault is rectified.
Introduced Since	Indicates the software version in which the alarm is added.
Impact on the System	Impact on the system or services after an alarm is generated.
Possible Cause	Indicates the possible cause of the alarm, including the cause ID and cause description.
Suggestion	Indicates the procedure for handling the alarm.

2 Alarm Reference

2.1 Battery Pack (PACK)

2.1.1 3100 Battery Pack and External Power Connected Abnormally

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3100	Battery Pack and External Power Connected Abnormally	Major	Environmental alarm	ADAC	LUNA2000B V200R024C00

Impact on the System

The ESS cannot work properly.

Possible Cause and Solution

Reason ID	No.	Possible Cause	Suggestion
1	1	The battery pack copper bar experiences overtemperature.	1.Check that the ESS is not charged and does not discharge. Wait for 30 minutes and check whether the alarm is cleared. 2.If the alarm persists, power off the ESS by referring to the user manual. 3.Wait for 5 minutes, wear protective equipment, take protective measures, open the front panel of the battery pack, and check whether the positive and negative copper bars are loose. If they are loose, tighten the screws. 4.After checking that the screws are tightened, start the ESS on the user interface. 5.If the alarm persists, export logs and contact technical support.
2	1	The battery pack copper bar experiences overtemperature.	1.Check that the ESS is not charged and does not discharge. Wait for 30 minutes and check whether the alarm is cleared. 2.If the alarm persists, power off the ESS by referring to the user manual. 3.Wait for 5 minutes, wear protective equipment, take protective measures, open the front panel of the battery pack, and check whether the positive and negative copper bars are loose. If they are loose, tighten the screws. 4.After checking that the screws are tightened, start the ESS on the user interface. 5.If the alarm persists, export logs and contact technical support.

2.1.2 3101 Battery Pack Lifespan Reached

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3101	Battery Pack Lifespan Reached	Major	Equipment alarm	ADAC	LUNA2000B V200R024C00

Impact on the System

The ESS cannot work properly.

Possible Cause and Solution

Rea son ID	No.	Possible Cause	Suggestion
1	1	The battery pack has reached the end of its lifespan.	1.Check whether an alarm indicating abnormal battery sampling is generated. If yes, handle the alarm by referring to the alarm handling suggestions. 2.If no, export logs and contact technical support. 3.If the battery pack has reached the end of its lifespan, contact a local recycling agency to dispose of it in compliance with local laws and regulations as well as applicable standards.

2.1.3 3102 Battery Pack Overvoltage

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3102	Battery Pack Overvoltage	Major	Equipm ent alarm	ADAC	LUNA2000B V200R024C00

Impact on the System

The ESS cannot work properly.

Possible Cause and Solution

Reason ID	No.	Possible Cause	Suggestion
1	1	The voltage of the battery pack or its cells is too high.	1.Check that the ESS is not charged and check whether an alarm indicating abnormal battery sampling is generated. If yes, handle the alarm by referring to the alarm handling suggestions. 2.If no alarm indicating abnormal battery sampling is generated, wait for 5 minutes and check whether the alarm is cleared. 3.If the alarm persists, export logs and contact technical support.
2	1	The voltage of the battery pack or its cells is too high.	1.Check that the ESS is not charged and check whether an alarm indicating abnormal battery sampling is generated. If yes, handle the alarm by referring to the alarm handling suggestions. 2.If no alarm indicating abnormal battery sampling is generated, wait for 5 minutes and check whether the alarm is cleared. 3.If the alarm persists, export logs and contact technical support.
3	1	The voltage of the battery pack or its cells is too high.	1.Check that the ESS is not charged and check whether an alarm indicating abnormal battery sampling is generated. If yes, handle the alarm by referring to the alarm handling suggestions. 2.If no alarm indicating abnormal battery sampling is generated, wait for 5 minutes and check whether the alarm is cleared. 3.If the alarm persists, export logs and contact technical support.
4	1	The voltage of the battery pack or its cells is too high.	1.Check that the ESS is not charged and check whether an alarm indicating abnormal battery sampling is generated. If yes, handle the alarm by referring to the alarm handling suggestions. 2.If no alarm indicating abnormal battery sampling is generated, wait for 5 minutes and check whether the alarm is cleared. 3.If the alarm persists, export logs and contact technical support.

Reason ID	No.	Possible Cause	Suggestion
5	1	The voltage of the battery pack or its cells is too high.	1.Check that the ESS is not charged and check whether an alarm indicating abnormal battery sampling is generated. If yes, handle the alarm by referring to the alarm handling suggestions. 2.If no alarm indicating abnormal battery sampling is generated, wait for 5 minutes and check whether the alarm is cleared. 3.If the alarm persists, export logs and contact technical support.

2.1.4 3103 Battery Pack Undervoltage

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3103	Battery Pack Undervoltage	Major	Equipment alarm	ADAC	LUNA2000B V200R024C00

Impact on the System

The ESS cannot work properly.

Possible Cause and Solution

Rea son ID	No.	Possible Cause	Suggestion
1	1	1.The voltage of the battery pack or its cells is too low. 2.The battery pack has been stored for extended periods of time when off-grid. 3.The battery pack has been idle for a long time after grid connection.	1.Check that the ESS does not discharge and check whether an alarm indicating abnormal battery sampling is generated. If yes, handle the alarm by referring to the alarm handling suggestions. 2.If no alarm indicating abnormal battery sampling is generated, wait for 5 minutes and check whether the alarm is cleared. 3.If the alarm persists, connect to the power grid and charge the ESS within 48 hours. 4.If the alarm persists after the ESS is charged for 1 hour, export logs and contact technical support.
2	1	1.The voltage of the battery pack or its cells is too low. 2.The battery pack has been stored for extended periods of time when off-grid. 3.The battery pack has been idle for a long time after grid connection.	1.Check that the ESS does not discharge and check whether an alarm indicating abnormal battery sampling is generated. If yes, handle the alarm by referring to the alarm handling suggestions. 2.If no alarm indicating abnormal battery sampling is generated, wait for 5 minutes and check whether the alarm is cleared. 3.If the alarm persists, connect to the power grid and charge the ESS within 48 hours. 4.If the alarm persists after the ESS is charged for 1 hour, export logs and contact technical support.

Rea son ID	No.	Possible Cause	Suggestion
3	1	1.The voltage of the battery pack or its cells is too low. 2.The battery pack has been stored for extended periods of time when off-grid. 3.The battery pack has been idle for a long time after grid connection.	1.Check that the ESS does not discharge and check whether an alarm indicating abnormal battery sampling is generated. If yes, handle the alarm by referring to the alarm handling suggestions. 2.If no alarm indicating abnormal battery sampling is generated, wait for 5 minutes and check whether the alarm is cleared. 3.If the alarm persists, connect to the power grid and charge the ESS within 48 hours. 4.If the alarm persists after the ESS is charged for 1 hour, export logs and contact technical support.
4	1	1.The voltage of the battery pack or its cells is too low. 2.The battery pack has been stored for extended periods of time when off-grid. 3.The battery pack has been idle for a long time after grid connection.	1.Check that the ESS does not discharge and check whether an alarm indicating abnormal battery sampling is generated. If yes, handle the alarm by referring to the alarm handling suggestions. 2.If no alarm indicating abnormal battery sampling is generated, wait for 5 minutes and check whether the alarm is cleared. 3.If the alarm persists, connect to the power grid and charge the ESS within 48 hours. 4.If the alarm persists after the ESS is charged for 1 hour, export logs and contact technical support.
5	1	1.The voltage of the battery pack or its cells is too low. 2.The battery pack has been stored for extended periods of time when off-grid. 3.The battery pack has been idle for a long time after grid connection.	1.Check that the ESS does not discharge and check whether an alarm indicating abnormal battery sampling is generated. If yes, handle the alarm by referring to the alarm handling suggestions. 2.If no alarm indicating abnormal battery sampling is generated, wait for 5 minutes and check whether the alarm is cleared. 3.If the alarm persists, connect to the power grid and charge the ESS within 48 hours. 4.If the alarm persists after the ESS is charged for 1 hour, export logs and contact technical support.

2.1.5 3104 Battery Overcurrent Protection

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3104	Battery Overcurrent Protection	Major	Equipment alarm	ADMC	LUNA2000B V200R024C00

Impact on the System

The ESS cannot work properly.

Possible Cause and Solution

Reason ID	No.	Possible Cause	Suggestion
1	1	The battery pack current exceeds the maximum operating current for a long time due to a system current limiting failure.	1.Check whether the power and communications cables of the ESS are correctly connected. 2.If the cables are correctly connected, clear the alarm and start the ESS on the user interface. 3.If cables are incorrectly connected, correct the cable connection according to the user manual and repeat step 2. 4.If the alarm persists, export logs and contact technical support.
2	1	The battery pack current exceeds the maximum operating current for a long time due to a system current limiting failure.	1.Check whether the power and communications cables of the ESS are correctly connected. 2.If the cables are correctly connected, clear the alarm and start the ESS on the user interface. 3.If cables are incorrectly connected, correct the cable connection according to the user manual and repeat step 2. 4.If the alarm persists, export logs and contact technical support.

2.1.6 3105 Battery Pack Overtemperature

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3105	Battery Pack Overtemperature	Major	Equipment alarm	ADAC	LUNA2000B V200R024C00

Impact on the System

The ESS cannot work properly.

Possible Cause and Solution

Reason ID	No.	Possible Cause	Suggestion
1	1	The Liquid Thermal Management System (LTMS) is faulty.	1.Check that the ESS is not charged and does not discharge. Wait for 30 minutes and check whether the alarm is cleared. 2.If the alarm persists, check whether an alarm is generated for the LTMS. If yes, handle the alarm by referring to the alarm handling suggestions.
	2	The battery cell NTC is faulty, causing overtemperature.	1.Check that the ESS has been powered off by referring to the user manual. 2.Wear protective clothing and take protective measures. Open the front panel of the battery pack, remove the NTC terminal, and check whether the NTC impedance is normal. 3.After checking that the NTC impedance is normal, start the ESS on the user interface. 4.If the alarm persists, export logs and contact technical support.
2	1	The LTMS is faulty.	1.Check that the ESS is not charged and does not discharge. Wait for 30 minutes and check whether the alarm is cleared. 2.If the alarm persists, check whether an alarm is generated for the LTMS. If yes, handle the alarm by referring to the alarm handling suggestions.

Rea son ID	No.	Possible Cause	Suggestion
	2	The battery cell NTC is faulty, causing overtemperature.	1.Check that the ESS has been powered off by referring to the user manual. 2.Wear protective clothing and take protective measures. Open the front panel of the battery pack, remove the NTC terminal, and check whether the NTC impedance is normal. 3.After checking that the NTC impedance is normal, start the ESS on the user interface. 4.If the alarm persists, export logs and contact technical support.

2.1.7 3106 Battery Pack Undertemperature

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3106	Battery Pack Undertemperature	Major	Equipment alarm	ADAC	LUNA2000B V200R024C00

Impact on the System

The ESS cannot work properly.

Possible Cause and Solution

Rea son ID	No.	Possible Cause	Suggestion
1	1	The ambient temperature is too low, reaching the charge undertemperature protection threshold.	1.Check whether an alarm is generated for the LTMS. If yes, handle the alarm by referring to the alarm handling suggestions. 2.After checking that the LTMS is normal, check that the LTMS works in heating mode on the user interface. Wait for more than 4 hours and check whether the undertemperature protection alarm is cleared. 3.If the alarm persists, export logs and contact technical support.
2	1	The ambient temperature is too low, which triggers discharge protection.	1.Check whether an alarm is generated for the LTMS. If yes, handle the alarm by referring to the alarm handling suggestions. 2.After checking that the LTMS is normal, check that the LTMS works in heating mode on the user interface. Wait for more than 6 hours and check whether the undertemperature protection alarm is cleared. 3.If the alarm persists, export logs and contact technical support.
3	1	The ambient temperature is too low, which triggers charge protection.	1.Check whether an alarm is generated for the LTMS. If yes, handle the alarm by referring to the alarm handling suggestions. 2.After checking that the LTMS is normal, check that the LTMS works in heating mode on the user interface. Wait for more than 4 hours and check whether the undertemperature protection alarm is cleared. 3.If the alarm persists, export logs and contact technical support.
4	1	The ambient temperature is too low, which triggers discharge protection.	1.Check whether an alarm is generated for the LTMS. If yes, handle the alarm by referring to the alarm handling suggestions. 2.After checking that the LTMS is normal, check that the LTMS works in heating mode on the user interface. Wait for more than 6 hours and check whether the undertemperature protection alarm is cleared. 3.If the alarm persists, export logs and contact technical support.

2.1.8 3107 Battery Pack Locked

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3107	Battery Pack Locked	Major	Equipment alarm	ADMC	LUNA2000B V200R024C00

Impact on the System

The ESS cannot work properly.

Possible Cause and Solution

Reason ID	No.	Possible Cause	Suggestion
1	1	The copper bar torque does not meet requirements.	1.Check that the ESS is not charged and does not discharge and clear the alarm on the user interface. 2.Power off the ESS by referring to the user manual. 3.Wait for 5 minutes, wear protective equipment, take protective measures, open the front panel of the battery pack, and check whether the positive and negative copper bars are loose. If they are loose, tighten the screws. 4.After checking that the screws are tightened, start the ESS on the user interface and check whether the alarm is generated again after 24 hours.

Rea son ID	No.	Possible Cause	Suggestion
	2	The LTMS does not run properly.	1.Check that the ESS is not charged and does not discharge and clear the alarm on the user interface. 2.Check whether an alarm is generated for the LTMS. If yes, handle the alarm by referring to the alarm handling suggestions. 3.If no, wait for 5 minutes, start the ESS on the user interface, and check whether the alarm is generated again after 24 hours. 4.If the alarm persists, export logs and contact technical support.
2	1	The LTMS does not run properly.	1.Check that the ESS is not charged and does not discharge and clear the alarm on the user interface. 2.Check whether an alarm is generated for the LTMS. If yes, handle the alarm by referring to the alarm handling suggestions. 3.If no, wait for 5 minutes, start the ESS on the user interface, and check whether the alarm is generated again after 24 hours. 4.If the alarm persists, export logs and contact technical support.
3	1	The battery pack has triggered the same undervoltage fault multiple times.	1.Check that the ESS does not discharge. Clear the alarm on the user interface and check whether the alarm is generated again 10 minutes later. 2.If the alarm persists, connect to the power grid and charge the ESS within 48 hours. 3.Clear the alarm and start the ESS on the user interface to start charging. 4.If the alarm persists after the ESS is charged for 1 hour, export logs and contact technical support.

Rea son ID	No.	Possible Cause	Suggestion
4	1	The battery pack has triggered the same overvoltage fault multiple times.	1.Check that the ESS is not charged, clear the alarm on the user interface, wait for 10 minutes, and check whether the alarm is generated again. 2.If the alarm persists, shut down the ESS on the user interface. 3.Wait for 5 minutes. 4.Start the ESS and clear the alarm on the user interface. 5.If the alarm persists, export logs and contact technical support.
5	1	The battery pack has triggered the same overcurrent fault multiple times.	1.Check that the ESS is not charged and does not discharge, clear the alarm on the user interface, wait for 10 minutes, and check whether the alarm is generated again. 2.If the alarm persists, shut down the ESS on the user interface. 3.Wait for 5 minutes. 4.Start the ESS and clear the alarm on the user interface. 5.If the alarm persists, export logs and contact technical support.
6	1	The cell voltage in the battery pack is too high.	1.Check that the battery rack is not charged and does not discharge, wait for 5 minutes, and check whether the alarm is generated again. 2.If the alarm is generated again, confirm on the user interface that the battery rack has been shut down. 3.Wait for 5 minutes. 4.Clear the alarm on the user interface and start the battery rack. 5.If the alarm persists, export logs and contact technical support.

Rea son ID	No.	Possible Cause	Suggestion
7	1	1.The voltage of the battery pack or its cells is too low. 2.The battery pack has been stored for extended periods of time when off-grid. 3.The battery pack has been idle for a long time after grid connection.	1.Power off the ESS by referring to the user manual, remove the battery pack, and use a charger to charge the battery pack by referring to the charge guide. 2.Reinstall the battery pack after charging. After the ESS is powered on, clear the alarm on the user interface and check whether the alarm persists. 3.If the alarm persists, export logs and contact technical support.
8	1	The LTMS is faulty.	1.Check that the ESS is not charged and does not discharge. 2.Check whether an alarm is generated for the LTMS. If yes, handle the alarm by referring to the alarm handling suggestions. 3.After confirming that the LTMS is normal, clear the alarm on the user interface.
	2	The battery cell NTC is faulty, causing overtemperature.	1.Check that the ESS has been powered off by referring to the user manual. 2.Wear protective clothing and take protective measures. Open the front panel of the battery pack, remove the NTC terminal, and check whether the NTC impedance is normal. 3.After checking that the NTC impedance is normal, clear the alarm and start the ESS on the user interface. 4.If the alarm persists, export logs and contact technical support.

Rea son ID	No.	Possible Cause	Suggestion
9	1	The ambient temperature is too low, which triggers charge protection.	1.Check whether an alarm is generated for the LTMS. If yes, handle the alarm by referring to the alarm handling suggestions. 2.After confirming that the LTMS is normal, clear the alarm on the user interface. Check that the LTMS works in heating mode. Monitor the battery temperature for more than 20 hours to check whether it slowly rises. 3.If the alarm persists, export logs and contact technical support.
10	1	The ambient temperature is too low, which triggers discharge protection.	1.Check whether an alarm is generated for the LTMS. If yes, handle the alarm by referring to the alarm handling suggestions. 2.After confirming that the LTMS is normal, clear the alarm on the user interface. Check that the LTMS works in heating mode. Monitor the battery temperature for more than 6 hours to check whether it slowly rises. 3.If the alarm persists, export logs and contact technical support.

2.1.9 3108 Battery Faulty

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3108	Battery Faulty	Major	Equipment alarm	ADAC	LUNA2000B V200R024C00

Impact on the System

The ESS cannot work properly.

Possible Cause and Solution

Rea son ID	No.	Possible Cause	Suggestion
1	1	A major fault has occurred on the battery pack.	Export logs and contact technical support.
2	1	A major fault has occurred on the battery pack.	Export logs and contact technical support.
3	1	A major fault has occurred on the battery pack.	Export logs and contact technical support.
4	1	The battery pack experiences overtemperature, which may cause thermal runaway.	1.Observe the system remotely for 30 minutes to check whether other exceptions (such as abnormal battery voltage, battery temperature, and combustible gas concentration) occur. During the remote observation, do not approach the ESS or open the ESS cabin doors. 2.If no exception is found during the 30-minute remote observation, send trained personnel to the site and observe the system for 30 minutes from a safe distance. If there is smoke or fire, evacuate onsite personnel as soon as possible, and call the fire emergency service. 3.If no fault is found during the 30-minute remote observation and 30-minute onsite observation, export logs and contact technical support.

2.1.10 3109 Battery Pack SOH Low

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3109	Battery Pack SOH Low	Warning	Equipment alarm	ADMC	LUNA2000B V200R024C00

Impact on the System

The ESS works properly, and the battery pack may approach the end of its lifespan.

Possible Cause and Solution

Reason ID	No.	Possible Cause	Suggestion
1	1	The battery pack SOH is low.	1. Check whether an alarm indicating abnormal battery sampling is generated. If yes, handle the alarm by referring to the alarm handling suggestions. 2. If no, contact technical support to check the battery pack SOH. 3. If the battery pack SOH reaches the low alarm threshold, enable the SOH calibration function. 4. After the calibration is complete, clear the alarm on the user interface. 5. If the alarm persists, the battery pack SOH is low. Pay attention to the operating status and replace the battery pack in advance.

2.1.11 3112 Power Connection Sampling of Battery Pack Abnormal

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3112	Power Connection Sampling of Battery Pack Abnormal	Major	Equipment alarm	ADMC	LUNA2000B V200R024C00

Impact on the System

The ESS cannot work properly.

Possible Cause and Solution

Rea son ID	No.	Possible Cause	Suggestion
1	1	A major fault has occurred on the internal circuit of the BMU.	1.Power off the ESS by referring to the user manual. 2.Wear protective equipment, take protective measures, open the front panel of the battery pack, and replace the faulty BMU. 3.Wait for 5 minutes, clear the alarm on the user interface, and start the ESS. 4.If the alarm persists, export logs and contact technical support.

2.1.12 3113 Battery Pack Configuration Data Abnormal

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3113	Battery Pack Configuration Data Abnormal	Major	Equipment alarm	ADMC	LUNA2000B V200R024C00

Impact on the System

The ESS cannot work properly.

Possible Cause and Solution

Reason ID	No.	Possible Cause	Suggestion
1	1	The differentiated data and backup data of each BMU are inconsistent or some data is corrupted.	1.If the BCU has been replaced, replace it on the "Device Replacement" page of the SmartLogger WebUI. 2.If only the BMU or battery pack is replaced or no spare part is replaced, check the SN on the battery pack label and connect to the FusionSolar app beside the ESS. 3.On the alarm screen of the app, tap "Proceed" to go to the SN confirming screen and select the SN displayed on the battery pack label. If the SN is not the one displayed on the battery pack label, data errors may occur and safety risks may occur during system running. 4.After the SN is confirmed, the device automatically synchronizes data and restarts.
2	1	The differentiated data and backup data on each BMU are corrupted.	1.If the BMU and BCU have been replaced, replace them on the "Device Replacement" page of the SmartLogger WebUI. 2.If the alarm persists, export logs and contact technical support.

2.1.13 3114 Battery Pack and System Specifications Mismatched

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3114	Battery Pack and System Specifications Mismatched	Major	Equipment alarm	ADAC	LUNA2000B V200R024C00

Impact on the System

The ESS cannot work properly.

Possible Cause and Solution

Reason ID	No.	Possible Cause	Suggestion
1	1	1.The versions of the rack controller and battery packs are inconsistent. 2.The update fails. 3.The battery pack has been replaced.	1.The battery pack model is incompatible with the system. Replace the battery pack with the original one. 2.If the alarm persists, export logs and contact technical support.

2.1.14 3115 Cell Temperature Rises Abnormally

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3115	Cell Temperature Rises Abnormally	Major	Equipment alarm	ADMC	LUNA2000B V200R024C00

Impact on the System

The ESS cannot work properly.

Possible Cause and Solution

Reason ID	No.	Possible Cause	Suggestion
1	1	The battery pack has thermal runaway risks.	1.Observe the system remotely for 30 minutes to check whether other exceptions (such as abnormal battery voltage, battery temperature, and combustible gas concentration) occur. During the remote observation, do not approach the ESS or open the ESS cabin doors.
			2.If no exception is found during the 30-minute remote observation, send trained personnel to the site and observe the system for 30 minutes from a safe distance. If there is smoke or fire, evacuate onsite personnel as soon as possible, and call the fire emergency service.
			3.If no fault is found during the 30-minute remote observation and 30-minute onsite observation, clear the alarm and power on the system again.

2.1.15 3116 PACK Thermal Runaway

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3116	Pack Thermal Runaway	Major	Equipment alarm	ADAC	LUNA2000B V200R024C00

Impact on the System

The ESS cannot work properly.

Possible Cause and Solution

Reason ID	No.	Possible Cause	Suggestion
1	1	The battery pack has thermal runaway risks.	1.Observe the system remotely for 30 minutes to check whether other exceptions (such as abnormal battery voltage, battery temperature, and combustible gas concentration) occur. During the remote observation, do not approach the ESS or open the ESS cabin doors.
			2.If no exception is found during the 30-minute remote observation, send trained personnel to the site and observe the system for 30 minutes from a safe distance. If there is smoke or fire, evacuate onsite personnel as soon as possible, call the fire emergency service, and provide firefighters with related product information, including the battery pack type, ESS capacity, and battery pack location.
			3.Do not enter the affected building or equipment area under any circumstances, and do not open the ESS cabin doors. Isolate and monitor the site. Keep irrelevant personnel away from the site.
			4.After calling the fire emergency service, remotely power off the peripheral devices (such as the Smart Transformer Station, Smart PCS, auxiliary power supply devices, and combiner box power supply) while ensuring your own safety.
			5.After the fire is extinguished, the site must be handled by professionals in accordance with local laws and regulations. Do not open the ESS cabin doors without permission.

2.1.16 3117 Battery Pack Charging Failed

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3117	Battery Pack Charging Failed	Major	Communications alarm	ADMC	LUNA2000B V200R024C00

Impact on the System

The ESS cannot work properly.

Possible Cause and Solution

Reason ID	No.	Possible Cause	Suggestion
1	1	Charging fails.	1.Power off the ESS by referring to the user manual. 2.Wait for 5 minutes and check whether cables to the ESS are correctly connected by referring to the user manual. 3.After checking that the cable connection is normal, clear the alarm and start the ESS on the user interface. 4.If the alarm persists, export logs and contact technical support.

2.2 Battery Pack (Balancing Module)

2.2.1 3161 Balancing Module Overcurrent Protection

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3161	Balancing Module Overcurrent Protection	Minor	Equipment alarm	ADAC	LUNA2000B V200R024C00

Impact on the System

The balancing module stops working, but the system is charged and discharges normally.

Possible Cause and Solution

Reason ID	No.	Possible Cause	Suggestion
1	1	Overload or a short circuit occurs.	1. If the alarm is automatically cleared after a short period of time and the system recovers, the module may be overloaded for a short period of time. In this case, no manual intervention is required. 2. If overcurrent protection alarm persists, reset the rack on the user interface. After the system restarts, check whether the alarm is cleared. 3. If the alarm persists, replace the balancing module by referring to the maintenance manual. 4. If the alarm persists, export logs and contact technical support.

Rea son ID	No.	Possible Cause	Suggestion
2	1	Overload or a short circuit occurs.	1. If the alarm is automatically cleared after a short period of time and the system recovers, the module may be overloaded for a short period of time. In this case, no manual intervention is required. 2. If overcurrent protection alarm persists, reset the rack on the user interface. After the system restarts, check whether the alarm is cleared. 3. If the alarm persists, replace the balancing module by referring to the maintenance manual. 4. If the alarm persists, export logs and contact technical support.
3	1	Overload or a short circuit occurs.	1. If the alarm is automatically cleared after a short period of time and the system recovers, the module may be overloaded for a short period of time. In this case, no manual intervention is required. 2. If overcurrent protection alarm persists, reset the rack on the user interface. After the system restarts, check whether the alarm is cleared. 3. If the alarm persists, replace the balancing module by referring to the maintenance manual. 4. If the alarm persists, export logs and contact technical support.
4	1	Overload or a short circuit occurs.	1. If the alarm is automatically cleared after a short period of time and the system recovers, the module may be overloaded for a short period of time. In this case, no manual intervention is required. 2. If overcurrent protection alarm persists, reset the rack on the user interface. After the system restarts, check whether the alarm is cleared. 3. If the alarm persists, replace the balancing module by referring to the maintenance manual. 4. If the alarm persists, export logs and contact technical support.

2.2.2 3162 Balancing Module Internal Error

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3162	Balancing Module Internal Error	Minor	Equipment alarm	ADAC	LUNA2000B V200R024C00

Impact on the System

The balancing module stops working, but the system is charged and discharges normally.

Possible Cause and Solution

Reason ID	No.	Possible Cause	Suggestion
1	1	The communication circuit is not properly connected or the communication circuit components are damaged.	1. If the alarm is automatically cleared after a short period of time and the system recovers, the communication may be abnormal for a short period of time. In this case, no manual intervention is required. 2. If the alarm persists, reset the rack on the user interface. After the system restarts, check whether the alarm is cleared. 3. If the alarm persists, replace the balancing module by referring to the maintenance manual. 4. If the alarm persists, export logs and contact technical support.

Rea son ID	No.	Possible Cause	Suggestion
2	1	The communication circuit is not properly connected or the communication circuit components are damaged.	1. If the alarm is automatically cleared after a short period of time and the system recovers, the communication may be abnormal for a short period of time. In this case, no manual intervention is required. 2. If the alarm persists, reset the rack on the user interface. After the system restarts, check whether the alarm is cleared. 3. If the alarm persists, replace the balancing module by referring to the maintenance manual. 4. If the alarm persists, export logs and contact technical support.
3	1	The communication circuit is not properly connected or the communication circuit components are damaged.	1. If the alarm is automatically cleared after a short period of time and the system recovers, the communication may be abnormal for a short period of time. In this case, no manual intervention is required. 2. If the alarm persists, reset the rack on the user interface. After the system restarts, check whether the alarm is cleared. 3. If the alarm persists, replace the balancing module by referring to the maintenance manual. 4. If the alarm persists, export logs and contact technical support.
4	1	The board hardware circuit is damaged.	1. If the alarm is automatically cleared after a short period of time and the system recovers, no manual intervention is required. 2. If the alarm persists, reset the rack on the user interface. After the system restarts, check whether the alarm is cleared. 3. If the alarm persists, replace the balancing module by referring to the maintenance manual. 4. If the alarm persists, export logs and contact technical support.

Rea son ID	No.	Possible Cause	Suggestion
5	1	Overcurrent occurs on the bus side.	1. If the alarm is automatically cleared after a short period of time and the system recovers, no manual intervention is required. 2. If the alarm persists, reset the rack on the user interface. After the system restarts, check whether the alarm is cleared. 3. If the alarm persists, replace the balancing module by referring to the maintenance manual. 4. If the alarm persists, export logs and contact technical support.
6	1	The EEPROM is faulty or the I2C communication is abnormal.	1. If the alarm is automatically cleared after a short period of time and the system recovers, no manual intervention is required. 2. If the alarm persists, reset the rack on the user interface. After the system restarts, check whether the alarm is cleared. 3. If the alarm persists, replace the balancing module by referring to the maintenance manual. 4. If the alarm persists, export logs and contact technical support.
7	1	The EEPROM is faulty or the I2C communication is abnormal.	1. If the alarm is automatically cleared after a short period of time and the system recovers, no manual intervention is required. 2. If the alarm persists, reset the rack on the user interface. After the system restarts, check whether the alarm is cleared. 3. If the alarm persists, replace the balancing module by referring to the maintenance manual. 4. If the alarm persists, export logs and contact technical support.

Rea son ID	No.	Possible Cause	Suggestion
8	1	The temperature sampling circuit is damaged.	1. If the alarm is automatically cleared after a short period of time and the system recovers, no manual intervention is required. 2. If the alarm persists, reset the rack on the user interface. After the system restarts, check whether the alarm is cleared. 3. If the alarm persists, replace the balancing module by referring to the maintenance manual. 4. If the alarm persists, export logs and contact technical support.
9	1	The temperature sampling circuit is damaged.	1. If the alarm is automatically cleared after a short period of time and the system recovers, no manual intervention is required. 2. If the alarm persists, reset the rack on the user interface. After the system restarts, check whether the alarm is cleared. 3. If the alarm persists, replace the balancing module by referring to the maintenance manual. 4. If the alarm persists, export logs and contact technical support.
10	1	The MCU on the battery side is abnormal.	1. If the alarm is automatically cleared after a short period of time and the system recovers, the MCU may be abnormal for a short period of time. In this case, no manual intervention is required. 2. If the alarm persists, reset the rack on the user interface. After the system restarts, check whether the alarm is cleared. 3. If the alarm persists, replace the balancing module by referring to the maintenance manual. 4. If the alarm persists, export logs and contact technical support.

Reason ID	No.	Possible Cause	Suggestion
11	1	The MCU on the bus side is abnormal.	1. If the alarm is automatically cleared after a short period of time and the system recovers, the MCU may be abnormal for a short period of time. In this case, no manual intervention is required. 2. If the alarm persists, reset the rack on the user interface. After the system restarts, check whether the alarm is cleared. 3. If the alarm persists, replace the balancing module by referring to the maintenance manual. 4. If the alarm persists, export logs and contact technical support.
12	1	The lightning current causes the SPD to trip.	1. If the alarm is automatically cleared after a short period of time and the system recovers, no manual intervention is required. 2. If the alarm persists, reset the rack on the user interface. After the system restarts, check whether the alarm is cleared. 3. If the alarm persists, replace the balancing module by referring to the maintenance manual. 4. If the alarm persists, export logs and contact technical support.

2.2.3 3163 Balancing Module Bus Voltage Abnormal

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3163	Balancing Module Bus Voltage Abnormal	Minor	Equipment alarm	ADAC	LUNA2000B V200R024C00

Impact on the System

The balancing module stops working, but the system is charged and discharges normally.

Possible Cause and Solution

Rea son ID	No.	Possible Cause	Suggestion
1	1	The voltage control loop in the discharging state is out of control.	1. If the alarm is automatically cleared after a short period of time and the system recovers, the bus voltage may be abnormal for a short period of time. In this case, no manual intervention is required. 2. If the alarm persists, reset the rack on the user interface. After the system restarts, check whether the alarm is cleared. 3. If the alarm persists, replace the balancing module by referring to the maintenance manual. 4. If the alarm persists, export logs and contact technical support.
2	1	The bus voltage control loop is out of control.	1. If the alarm is automatically cleared after a short period of time and the system recovers, the bus voltage may be abnormal for a short period of time. In this case, no manual intervention is required. 2. If the alarm persists, reset the rack on the user interface. After the system restarts, check whether the alarm is cleared. 3. If the alarm persists, replace the balancing module by referring to the maintenance manual. 4. If the alarm persists, export logs and contact technical support.
	2	Cables on the bus side are not connected or BCU scheduling is abnormal.	1. Power off the ESS by referring to the user manual. Check whether the balancing bus cable is securely connected. If yes, power on the ESS again. 2. If the alarm persists, replace the balancing module by referring to the maintenance manual. 3. If the alarm persists, export logs and contact technical support.

Rea son ID	No.	Possible Cause	Suggestion
3	1	The bus voltage control loop is out of control.	1. If the alarm is automatically cleared after a short period of time and the system recovers, the bus voltage may be abnormal for a short period of time. In this case, no manual intervention is required.
			2. If the alarm persists, reset the rack on the user interface. After the system restarts, check whether the alarm is cleared.
			3. If the alarm persists, replace the balancing module by referring to the maintenance manual.
			4. If the alarm persists, export logs and contact technical support.

2.2.4 3164 Balancing Module Battery Voltage Abnormal

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3164	Balancing Module Battery Voltage Abnormal	Minor	Equipment alarm	ADAC	LUNA2000B V200R024C00

Impact on the System

The balancing module stops working, but the system is charged and discharges normally.

Possible Cause and Solution

Rea son ID	No.	Possible Cause	Suggestion
1	1	The PACK voltage is too high.	1. Check whether a battery pack overvoltage alarm is generated. If yes, clear the overvoltage alarm by referring to the handling suggestions. 2. If no, reset the rack on the user interface. After the system restarts, check whether the alarm is cleared. 3. If the alarm persists, replace the balancing module by referring to the maintenance manual. 4. If the alarm persists, export logs and contact technical support.
2	1	The PACK voltage is too low.	1. Check whether a battery pack undervoltage alarm is generated. If yes, clear the undervoltage alarm by referring to the handling suggestions. 2. If no, reset the rack on the user interface. After the system restarts, check whether the alarm is cleared. 3. If the alarm persists, replace the balancing module by referring to the maintenance manual. 4. If the alarm persists, export logs and contact technical support.

2.2.5 3165 Overtemperature Protection Inside Balancing Module

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3165	Overtemperature Protection Inside Balancing Module	Minor	Equipment alarm	ADAC	LUNA2000B V200R024C00

Impact on the System

The balancing module stops working, but the system is charged and discharges normally.

Possible Cause and Solution

Rea son ID	No.	Possible Cause	Suggestion
1	1	The output is overloaded, a component is abnormal (MOS short-circuited), or the ambient temperature is too high.	1. If the alarm is automatically cleared after a short period of time and the system recovers, the temperature inside the cabinet may be too high for a short period of time. In this case, no manual intervention is required. 2. If the alarm persists, reset the rack on the user interface. After the system restarts, check whether the alarm is cleared. 3. If the alarm persists, replace the balancing module by referring to the maintenance manual. 4. If the alarm persists, export logs and contact technical support.
2	1	The output is overloaded, a component is abnormal (MOS short-circuited), or the ambient temperature is too high.	1. If the alarm is automatically cleared after a short period of time and the system recovers, the temperature inside the cabinet may be too high for a short period of time. In this case, no manual intervention is required. 2. If the alarm persists, reset the rack on the user interface. After the system restarts, check whether the alarm is cleared. 3. If the alarm persists, replace the balancing module by referring to the maintenance manual. 4. If the alarm persists, export logs and contact technical support.

2.2.6 3166 MCU Overtemperature Protection on the Battery Side of the Balancing Module

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3166	MCU Overtemperature Protection on the Battery Side of the Balancing Module	Minor	Equipment alarm	ADMC	LUNA2000B V200R024C00

Impact on the System

The balancing module stops working, but the system is charged and discharges normally.

Possible Cause and Solution

Reason ID	No.	Possible Cause	Suggestion
1	1	The MCU is short-circuited.	1. Reset the rack on the user interface. After the system restarts, check whether the alarm is cleared. 2. If the alarm persists, replace the balancing module by referring to the maintenance manual. 3. If the alarm persists, export logs and contact technical support.

2.2.7 3167 Overtemperature Protection for the Wiring Terminal of the Balancing Module

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3167	Overtemperature Protection for the Wiring Terminal of the Balancing Module	Minor	Equipment alarm	ADAC	LUNA2000B V200R024C00

Impact on the System

The balancing module stops working, but the system is charged and discharges normally.

Possible Cause and Solution

Reason ID	No.	Possible Cause	Suggestion
1	1	The bus port is not properly connected.	1. Power off the ESS by referring to the user manual. Check whether the balancing bus cable is securely connected. If yes, power on the ESS again. 2. If the alarm persists, replace the balancing module by referring to the maintenance manual. 3. If the alarm persists, export logs and contact technical support.
2	1	The battery port is not properly connected.	1. Power off the ESS by referring to the user manual. Disassemble the balancing module. Check whether the balancing bus cable is securely connected. If yes, power on the ESS again. 2. If the alarm persists, replace the balancing module by referring to the maintenance manual. 3. If the alarm persists, export logs and contact technical support.

2.2.8 3169 Balancing Module Bus Soft-Start Failed

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3169	Balancing Module Bus Soft-Start Failed	Minor	Equipment alarm	ADAC	LUNA2000B V200R024C00

Impact on the System

The balancing module stops working, but the system is charged and discharges normally.

Possible Cause and Solution

Reason ID	No.	Possible Cause	Suggestion
1	1	Exceptions, such as soft-start with load, occur.	1. Power off the ESS by referring to the user manual. Check whether the balancing bus cable is intact and securely connected. If yes, power on the ESS again. 2. If the alarm persists, replace the balancing module by referring to the maintenance manual. 3. If the alarm persists, export logs and contact technical support.

2.2.9 3170 Balancing Module Version Mismatch

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3170	Balancing Module Version Mismatch	Minor	Equipment alarm	ADMC	LUNA2000B V200R024C00

Impact on the System

The balancing module stops working, but the system is charged and discharges normally.

Possible Cause and Solution

Rea son ID	No.	Possible Cause	Suggestion
1	1	An error occurs during software loading.	1. Obtain the matching version and perform an update. 2. If the alarm persists, replace the balancing module by referring to the maintenance manual. 3. If the alarm persists, export logs and contact technical support.

2.2.10 3171 Balancing Module Address Pairing Timeout

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Cleara nce Catego ry	Introduced Since
3171	Balancing Module Address Pairing Timeout	Minor	Equipm ent alarm	ADAC	LUNA2000B V200R024C00

Impact on the System

The balancing module stops working, but the system is charged and discharges normally.

Possible Cause and Solution

Rea son ID	No.	Possible Cause	Suggestion
1	1	Failed to save the address.	1. If the alarm is automatically cleared after a short period of time and the system recovers, the communication may be abnormal for a short period of time. In this case, no manual intervention is required. 2. If the alarm persists, reset the rack on the user interface. After the system restarts, check whether the alarm is cleared. 3. If the alarm persists, replace the balancing module by referring to the maintenance manual. 4. If the alarm persists, export logs and contact technical support.

2.2.11 3172 Balancing Module Soft-Start Circuit Abnormal

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3172	Balancing Module Soft-Start Circuit Abnormal	Minor	Equipment alarm	ADMC	LUNA2000B V200R024C00

Impact on the System

The balancing module stops working, but the system is charged and discharges normally.

Possible Cause and Solution

Reason ID	No.	Possible Cause	Suggestion
1	1	The soft-start circuit is abnormal.	1. Reset the rack on the user interface. After the system restarts, check whether the alarm is cleared. 2. If the alarm persists, replace the balancing module by referring to the maintenance manual. 3. If the alarm persists, export logs and contact technical support.

2.2.12 3173 Balancing Module Abnormal

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3173	Balancing Module Abnormal	Minor	Equipment alarm	ADMC	LUNA2000B V200R024C00

Impact on the System

The balancing module stops working, but the system is charged and discharges normally.

Possible Cause and Solution

Reason ID	No.	Possible Cause	Suggestion
1	1	The auxiliary power circuit is abnormal.	1. Reset the rack on the user interface. After the system restarts, check whether the alarm is cleared. 2. If the alarm persists, replace the balancing module by referring to the maintenance manual. 3. If the alarm persists, export logs and contact technical support.

Rea son ID	No.	Possible Cause	Suggestion
2	1	The auxiliary power circuit is abnormal.	1. Reset the rack on the user interface. After the system restarts, check whether the alarm is cleared. 2. If the alarm persists, replace the balancing module by referring to the maintenance manual. 3. If the alarm persists, export logs and contact technical support.
3	1	The auxiliary power circuit is abnormal.	1. Reset the rack on the user interface. After the system restarts, check whether the alarm is cleared. 2. If the alarm persists, replace the balancing module by referring to the maintenance manual. 3. If the alarm persists, export logs and contact technical support.
4	1	Electromagnetic interference or a memory access exception occurs.	1. Reset the rack on the user interface. After the system restarts, check whether the alarm is cleared. 2. If the alarm persists, replace the balancing module by referring to the maintenance manual. 3. If the alarm persists, export logs and contact technical support.
5	1	Electromagnetic interference or a memory access exception occurs.	1. Reset the rack on the user interface. After the system restarts, check whether the alarm is cleared. 2. If the alarm persists, replace the balancing module by referring to the maintenance manual. 3. If the alarm persists, export logs and contact technical support.
6	1	The MOS tube on the bus side is short-circuited.	1. Reset the rack on the user interface. After the system restarts, check whether the alarm is cleared. 2. If the alarm persists, replace the balancing module by referring to the maintenance manual. 3. If the alarm persists, export logs and contact technical support.

Rea son ID	No.	Possible Cause	Suggestion
7	1	The MOS tube on the battery side is short-circuited.	1. Reset the rack on the user interface. After the system restarts, check whether the alarm is cleared. 2. If the alarm persists, replace the balancing module by referring to the maintenance manual. 3. If the alarm persists, export logs and contact technical support.
8	1	The relay control loop fails or relay adhesion exists.	1. Reset the rack on the user interface. After the system restarts, check whether the alarm is cleared. 2. If the alarm persists, replace the balancing module by referring to the maintenance manual. 3. If the alarm persists, export logs and contact technical support.
9	1	Open circuit: The relay control loop fails. Short circuit: A high current causes shutdown and then adhesion.	1. Reset the rack on the user interface. After the system restarts, check whether the alarm is cleared. 2. If the alarm persists, replace the balancing module by referring to the maintenance manual. 3. If the alarm persists, export logs and contact technical support.
11	1	The voltage control loop in the discharging state is out of control.	1. Reset the rack on the user interface. After the system restarts, check whether the alarm is cleared. 2. If the alarm persists, replace the balancing module by referring to the maintenance manual. 3. If the alarm persists, export logs and contact technical support.
14	1	The MCU is damaged or the sampling circuit is abnormal.	1. Reset the rack on the user interface. After the system restarts, check whether the alarm is cleared. 2. If the alarm persists, replace the balancing module by referring to the maintenance manual. 3. If the alarm persists, export logs and contact technical support.

Rea son ID	No.	Possible Cause	Suggestion
16	1	The board is short-circuited.	1. Reset the rack on the user interface. After the system restarts, check whether the alarm is cleared. 2. If the alarm persists, replace the balancing module by referring to the maintenance manual. 3. If the alarm persists, export logs and contact technical support.
17	1	The interrupt task is blocked or the task times out.	1. Reset the rack on the user interface. After the system restarts, check whether the alarm is cleared. 2. If the alarm persists, replace the balancing module by referring to the maintenance manual. 3. If the alarm persists, export logs and contact technical support.
18	1	Electromagnetic interference or a memory access exception occurs.	1. Reset the rack on the user interface. After the system restarts, check whether the alarm is cleared. 2. If the alarm persists, replace the balancing module by referring to the maintenance manual. 3. If the alarm persists, export logs and contact technical support.
19	1	Electromagnetic interference or a memory access exception occurs.	1. Reset the rack on the user interface. After the system restarts, check whether the alarm is cleared. 2. If the alarm persists, replace the balancing module by referring to the maintenance manual. 3. If the alarm persists, export logs and contact technical support.
20	1	The communication link is interfered.	1. Reset the rack on the user interface. After the system restarts, check whether the alarm is cleared. 2. If the alarm persists, replace the balancing module by referring to the maintenance manual. 3. If the alarm persists, export logs and contact technical support.

2.2.13 3174 Balancing Module Overcurrent Fault

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3174	Balancing Module Overcurrent Fault	Minor	Equipment alarm	ADMC	LUNA2000B V200R024C00

Impact on the System

The balancing module stops working, but the system is charged and discharges normally.

Possible Cause and Solution

Reason ID	No.	Possible Cause	Suggestion
1	1	Overload or a short circuit occurs.	1. Reset the rack on the user interface. After the system restarts, check whether the alarm is cleared. 2. If the alarm persists, replace the balancing module by referring to the maintenance manual. 3. If the alarm persists, export logs and contact technical support.
2	1	Overload or a short circuit occurs.	1. Reset the rack on the user interface. After the system restarts, check whether the alarm is cleared. 2. If the alarm persists, replace the balancing module by referring to the maintenance manual. 3. If the alarm persists, export logs and contact technical support.

Rea son ID	No.	Possible Cause	Suggestion
3	1	Overload or a short circuit occurs.	1. Reset the rack on the user interface. After the system restarts, check whether the alarm is cleared. 2. If the alarm persists, replace the balancing module by referring to the maintenance manual. 3. If the alarm persists, export logs and contact technical support.
4	1	Overload or a short circuit occurs.	1. Reset the rack on the user interface. After the system restarts, check whether the alarm is cleared. 2. If the alarm persists, replace the balancing module by referring to the maintenance manual. 3. If the alarm persists, export logs and contact technical support.

2.3 RCM (BCU)

2.3.1 3222 BMU Internal Short Circuit

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3222	BMU Internal Short Circuit	Major	Equipment alarm	ADAC	LUNA2000B V200R024C00

Impact on the System

The system can be charged and discharge normally when a minor fault occurs on the BMU. In case of a serious fault, the battery rack shuts down.

Possible Causes and Procedure

Rea son ID	No.	Possible Cause	Suggestion
1	1	The pins are short-circuited due to foreign objects inside the BMU.	1. Replace the BMU, run the new BMU, and check whether the alarm persists. 2. If the alarm persists after the BMU is replaced, replace the battery pack.
2	1	The pins are short-circuited due to foreign objects inside the BMU.	1. Replace the BMU, run the new BMU, and check whether the alarm persists. 2. If the alarm persists after the BMU is replaced, replace the battery pack.
3	1	The pins are short-circuited due to foreign objects inside the BMU.	1. Replace the BMU, run the new BMU, and check whether the alarm persists. 2. If the alarm persists after the BMU is replaced, export logs and contact technical support.
4	1	The pins are short-circuited due to foreign objects inside the BMU.	1. Replace the BMU, run the new BMU, and check whether the alarm persists. 2. If the alarm persists after the BMU is replaced, replace the fuse temperature sampling cable harness. 3. If the alarm persists after the fuse temperature sampling cable harness connected to the J3 connector (4-pin) on the BMU is replaced, replace the battery pack.
5	1	The pins are short-circuited due to foreign objects inside the BMU.	1. Replace the BMU, run the new BMU, and check whether the alarm persists. 2. If the alarm persists after the BMU is replaced, replace the positive and negative busbar temperature sampling cable harnesses connected to the J3 connector (4-pin) on the BMU. 3. If the alarm persists after the positive and negative busbar temperature sampling cable harnesses are replaced, replace the battery pack.

2.3.2 3223 BMU Sampling Cable Disconnected

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3223	BMU Sampling Cable Disconnected	Major	Equipment alarm	ADAC	LUNA2000B V200R024C00

Impact on the System

The battery rack shuts down.

Possible Causes and Procedure

Reason ID	No.	Possible Cause	Suggestion
1	1	The FPC connector is loose, the cable is disconnected, or the BMU is faulty.	1. Remove and reinstall the FPC connector to the BMU and check whether the alarm persists. If yes, replace the BMU. 2. If the alarm persists after the BMU is replaced, replace the battery pack. 3. If the alarm persists, export logs and contact technical support.
2	1	The FPC connector is loose, the cable is disconnected, or the BMU is faulty.	1. Remove and reinstall the FPC connector to the BMU and check whether the alarm persists. If yes, replace the BMU. 2. If the alarm persists, export logs and contact technical support.
3	1	The FPC connector is loose, the cell temperature sampling cable is disconnected, or the BMU is faulty.	1. Remove and reinstall the FPC connector to the BMU and check whether the alarm persists. If yes, replace the BMU. 2. If the alarm persists after the BMU is replaced, replace the battery pack. 3. If the alarm persists, export logs and contact technical support.

Rea son ID	No.	Possible Cause	Suggestion
4	1	The BMU is faulty.	1. Replace the BMU, run the new BMU, and check whether the alarm persists. 2. If the alarm persists after the BMU is replaced, export logs and contact technical support.
5	1	The battery pack fuse temperature detection NTC is faulty, the temperature sampling cable is disconnected, the battery pack fuse temperature detection connector is loose, or the BMU is faulty.	1. Remove and reinstall the J3 connector (4-pin) to the BMU and check whether the alarm persists. If yes, replace the BMU. 2. If the alarm persists after the BMU is replaced, replace the fuse temperature sampling cable harness. 3. If the alarm persists after the fuse temperature sampling cable harness connected to the J3 connector (4-pin) on the BMU is replaced, replace the battery pack.
6	1	The positive and negative busbar temperature detection NTC is faulty, the temperature sampling cables are disconnected, the positive and negative busbar temperature detection connector is loose, or the BMU is faulty.	1. Remove and reinstall the J3 connector (4-pin) to the BMU and check whether the alarm persists. If yes, replace the BMU. 2. If the alarm persists after the BMU is replaced, replace the positive and negative busbar temperature sampling cable harnesses connected to the J3 connector (4-pin) on the BMU. 3. If the alarm persists after the positive and negative busbar temperature sampling cable harnesses are replaced, replace the battery pack.

2.3.3 3224 BMU Faulty

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3224	BMU Faulty	Major	Equipment alarm	ADAC	LUNA2000B V200R024C00

Impact on the System

The system can be charged and discharge normally when a minor fault occurs on the BMU. In case of a serious fault, the battery rack shuts down.

Possible Causes and Procedure

Reason ID	No.	Possible Cause	Suggestion
1	1	The EEPROM of the BMU is faulty.	1. Replace the BMU, run the new BMU, and check whether the alarm persists. 2. If the alarm persists after the BMU is replaced, export logs and contact technical support.
2	1	An internal fault has occurred in the BMU.	1. Replace the BMU, run the new BMU, and check whether the alarm persists. 2. If the alarm persists after the BMU is replaced, export logs and contact technical support.
3	1	An internal fault has occurred in the BMU.	1. Replace the BMU, run the new BMU, and check whether the alarm persists. 2. If the alarm persists after the BMU is replaced, export logs and contact technical support.
4	1	An internal fault has occurred in the BMU.	1. Replace the BMU, run the new BMU, and check whether the alarm persists. 2. If the alarm persists after the BMU is replaced, export logs and contact technical support.

Rea son ID	No.	Possible Cause	Suggestion
5	1	An internal fault has occurred in the BMU.	1. Replace the BMU, run the new BMU, and check whether the alarm persists. 2. If the alarm persists after the BMU is replaced, export logs and contact technical support.
6	1	An internal fault has occurred in the BMU.	1. Replace the BMU, run the new BMU, and check whether the alarm persists. 2. If the alarm persists after the BMU is replaced, export logs and contact technical support.
7	1	An internal fault has occurred in the BMU.	1. Replace the BMU, run the new BMU, and check whether the alarm persists. 2. If the alarm persists after the BMU is replaced, export logs and contact technical support.
8	1	An internal fault has occurred in the BMU.	1. Replace the BMU, run the new BMU, and check whether the alarm persists. 2. If the alarm persists after the BMU is replaced, export logs and contact technical support.
9	1	An internal fault has occurred in the BMU.	1. Replace the BMU, run the new BMU, and check whether the alarm persists. 2. If the alarm persists after the BMU is replaced, export logs and contact technical support.
10	1	The BMU detects that the MOS of the balancing circuit is faulty.	1. Replace the BMU, run the new BMU, and check whether the alarm persists. 2. If the alarm persists after the BMU is replaced, export logs and contact technical support.

2.3.4 3226 Disconnection Between BMUs

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3226	Disconnection Between BMUs	Minor	Equipment alarm	ADAC	LUNA2000B V200R024C00

Impact on the System

The system can be charged and discharge normally. If the alarm spreads, the battery rack may shut down.

Possible Causes and Procedure

Reason ID	No.	Possible Cause	Suggestion
1	1	The communication is disconnected or a BMU is faulty.	1. Check whether the BMU communications cable is loose, disconnected, or incorrectly connected. If yes, reconnect the cable. 2. If the alarm persists, export logs and contact technical support.

2.3.5 3229 BMU Communication Failure

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3229	BMU Communication Failure	Major	Communications alarm	ADAC	LUNA2000B V200R024C00

Impact on the System

The battery rack shuts down.

Possible Causes and Procedure

Reason ID	No.	Possible Cause	Suggestion
1	1	1. The communications cable is not properly connected. 2. The communication failed because the BMU is faulty.	1. Check whether the communications cable between the COM-IN/COM-OUT port on the pack and the CON_IN/CON_OUT port on the RCM is loose, disconnected, or incorrectly connected. If yes, rectify the fault. 2. If the alarm persists, replace the BMU.

2.3.6 3351 Inconsistent BCU Software Versions

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3351	Inconsistent BCU Software Versions	Minor	Equipment alarm	ADAC	LUNA2000B V200R024C00

Impact on the System

The system can be charged and discharge normally, but some value-added features may be unavailable.

Possible Causes and Procedure

Rea son ID	No.	Possible Cause	Suggestion
1	1	The software version of the BCU is inconsistent with the system software package.	1. If the component version is inconsistent with the system software package version due to a manual update failure, the system running is not affected. You are advised to perform the update at a proper time. 2. If the version is inconsistent with the system software package version due to component replacement, perform a manual update. 3. If the update fails for several times, contact technical support.

2.3.7 3352 Abnormal Total Voltage of Battery Rack

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3352	Abnormal Total Voltage of Battery Rack	Major	Equipment alarm	ADMC	LUNA2000B V200R024C00

Impact on the System

The battery rack shuts down.

Possible Causes and Procedure

Rea son ID	No.	Possible Cause	Suggestion
1	1	The detected total voltage of the battery rack is incorrect.	1. Clear the alarm on the user interface. 2. Check whether the number of battery packs configured on the user interface is consistent with the number of battery packs installed onsite. 3. If the alarm 3373-1 "Battery Pack Sampling Abnormal" is generated, handle it first. 4. If the alarm persists, export logs and contact technical support.

2.3.8 3353 Total Voltage of Battery Rack and Total Cell Voltage Inconsistent

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3353	Total Voltage of Battery Rack and Total Cell Voltage Inconsistent	Major	Equipment alarm	ADMC	LUNA2000B V200R024C00

Impact on the System

The battery rack shuts down.

Possible Causes and Procedure

Rea son ID	No.	Possible Cause	Suggestion
1	1	The detected total voltage of the battery rack is incorrect.	1. If the alarm 3373-1 "Battery Pack Sampling Abnormal", 3360 "RPCB Communication Failure", or 3307-14 "RPCB Abnormal" is generated, handle it first.
			2. If not, check whether the number of battery packs installed in the rack is correct.
			3. After the check is complete, clear the alarm on the user interface.
			4. If the alarm persists, export logs and contact technical support.

2.3.9 3354 Battery Pack Mixed Use Failed

Attribute

Alarm ID	Alarm Name	Alarm Severit y	Alarm Type	Cleara nce Catego ry	Introduced Since
3354	Battery Pack Mixed Use Failed	Major	Equipm ent alarm	ADAC	LUNA2000B V200R024C00

Impact on the System

The battery rack shuts down.

Possible Causes and Procedure

Rea son ID	No.	Possible Cause	Suggestion
1	1	Different models of battery packs are used together.	Replace battery packs to ensure that all battery packs are of the same model. If the alarm persists, export logs and contact technical support.

2.3.10 3355 BCU Chip Overtemperature

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3355	BCU Chip Overtemperature	Minor	Equipment alarm	ADAC	LUNA2000B V200R024C00

Impact on the System

The system can be charged and discharge normally. Continuous overtemperature may cause the battery rack to shut down.

Possible Causes and Procedure

Reason ID	No.	Possible Cause	Suggestion
1	1	The internal circuit is faulty.	1. Reset the system on the user interface. If the alarm is cleared, no further action is required. 2. If the alarm persists, replace the BCU. (If the BCU cannot be replaced independently, replace the RCM.) If the alarm persists, export logs and contact technical support.

2.3.11 3356 BCU Internal Exception

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3356	BCU Internal Exception	Major	Equipment alarm	ADAC	LUNA2000B V200R024C00

Impact on the System

The system can be charged and discharge normally when a minor fault occurs on the BCU. In case of a serious fault, the battery rack shuts down.

Possible Cause and Solution

Rea son ID	No.	Possible Cause	Suggestion
1	1	The internal power supply circuit is faulty.	1. Reset the system on the user interface. If the alarm is cleared, no further action is required. 2. If the alarm persists, replace the BCU. (If the BCU cannot be replaced independently, replace the RCM.)
2	1	The internal power supply circuit is faulty.	1. Reset the system on the user interface. If the alarm is cleared, no further action is required. 2. If the alarm persists, replace the BCU. (If the BCU cannot be replaced independently, replace the RCM.)
3	1	The internal sampling circuit is faulty.	1. Reset the system on the user interface. If the alarm is cleared, no further action is required. 2. If the alarm persists, replace the BCU. (If the BCU cannot be replaced independently, replace the RCM.)
4	1	The internal sampling circuit is faulty.	1. Reset the system on the user interface. If the alarm is cleared, no further action is required. 2. If the alarm persists, replace the BCU. (If the BCU cannot be replaced independently, replace the RCM.)
5	1	The chip or program is faulty.	1. Reset the system on the user interface. If the alarm is cleared, no further action is required. 2. If the alarm persists, update the ESS software to the latest version on the user interface. If the alarm is cleared after the update, no further action is required. 3. If the alarm persists after the software update, replace the BCU. (If the BCU cannot be replaced independently, replace the RCM.)

2.3.12 3357 Balancing Module Software Versions Inconsistent

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3357	Balancing Module Software Versions Inconsistent	Minor	Equipment alarm	ADAC	LUNA2000B V200R024C00

Impact on the System

The system can be charged and discharge normally, but some value-added features may be unavailable.

Possible Causes and Procedure

Reason ID	No.	Possible Cause	Suggestion
1	1	The software version of the balancing module is inconsistent with the system software package.	1. If the component version is inconsistent with the system software package version due to a manual update failure, the system running is not affected. You are advised to perform the update at a proper time. 2. If the version is inconsistent with the system software package version due to component replacement, perform a manual update. 3. If the update fails for several times, contact technical support.

2.3.13 3358 BCU Auxiliary Power Abnormal

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3358	BCU Auxiliary Power Abnormal	Major	Equipment alarm	ADMC	LUNA2000B V200R024C00

Impact on the System

The sensor power supply is abnormal. If multiple power supplies are abnormal at the same time, the battery rack may shut down.

Possible Cause and Solution

Reason ID	No.	Possible Cause	Suggestion
1	1	1. The power supply circuit is faulty. 2. A short circuit has occurred due to a sensor fault.	1. Remove the connector from the COM2/12 V port (all sensors are disconnected), reset or restart the BCU, and check whether the alarm is cleared. 2. If the alarm persists, replace the BCU. 3. If the alarm is cleared, connect the cable harnesses and sensors one by one to locate the faulty cable harness or sensor. Replace the faulty cable harness or sensor (T/H sensor or CO sensor).
2	1	1. The power supply circuit is faulty. 2. A short circuit has occurred due to a sensor fault.	1. Remove the connectors from the COM1/12V port and COM3/12V port (all sensors are disconnected), reset or restart the BCU, and check whether the alarm is cleared. 2. If the alarm persists, replace the BCU. (If the BCU cannot be replaced independently, replace the RCM.) 3. If the alarm is cleared, connect the cable harnesses and sensors one by one to locate the faulty cable harness or sensor. Replace the faulty cable harness or sensor (T/H sensor or CO sensor).

Rea son ID	No.	Possible Cause	Suggestion
3	1	1. The power supply circuit is faulty. 2. A short circuit has occurred due to an alarm beacon fault.	1. Check whether the alarm beacon is faulty. If yes, replace the alarm beacon. If not, replace the BCU.
4	1	1. The power supply circuit is faulty.2. An external short circuit has occurred.	1. Check whether an external short circuit has occurred. If yes, rectify the short circuit. If not, replace the BCU.
5	1	1. The power cable harness is not properly connected. 2. The BCU or RCM is faulty.	1. Power off the ESS by referring to the user manual. Remove the BAT+ or BAT– cable on the RCM panel and reinstall it, and then power on the ESS by referring to the user manual. After the RCM is reset, check whether the alarm is cleared. 2. If the alarm persists, remove the BCU and check whether the power cable harness is properly connected to the DC_IN port on the rear panel of the BCU. If not, remove and reinstall the power cable harness. 3. If the alarm persists, replace the BCU. 4. If the alarm persists, replace the RCM.

2.3.14 3359 BCU Memory Abnormal

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3359	BCU Memory Abnormal	Minor	Equipment alarm	ADAC	LUNA2000B V200R024C00

Impact on the System

The system can be charged and discharge normally, but data such as alarms and performance data cannot be recorded.

Possible Causes and Procedure

Rea son ID	No.	Possible Cause	Suggestion
1	1	1. The storage space is insufficient 2. The memory is faulty.	Replace the BCU. (If the BCU cannot be replaced independently, replace the RCM.) If the alarm persists, export logs and contact technical support.
2	1	The EEPROM of the BCU is faulty.	Replace the BCU. (If the BCU cannot be replaced independently, replace the RCM.) If the alarm persists, export logs and contact technical support.

2.3.15 3360 RPCB Communication Failure

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3360	RPCB Communication Failure	Major	Communications alarm	ADAC	LUNA2000B V200R024C00

Impact on the System

The battery rack shuts down.

Possible Cause and Solution

Rea son ID	No.	Possible Cause	Suggestion
1	1	The communications cable is disconnected.	1. Power off the ESS by referring to the user manual. 2. Check whether the wiring terminal between the RPCB and the BCU is loose, disconnected, or incorrectly connected. 3. If the alarm persists, replace the RCM. 4. If the alarm persists, export logs and contact technical support.

2.3.16 3361 DCDC Communication Failure

Attribute

Alarm ID	Alarm Name	Alarm Severit y	Alarm Type	Cleara nce Catego ry	Introduced Since
3361	DCDC Communication Failure	Major	Commu nicatio ns alarm	ADAC	LUNA2000B V200R024C00

Impact on the System

The battery rack shuts down.

Possible Cause and Solution

Rea son ID	No.	Possible Cause	Suggestion
1	1	The communications cable is disconnected.	Check whether the cable connections of the DCDC,PCS communication port and the CON4 port of the RCM are loose, disconnected, or incorrectly connected. If yes, reconnect the cables. If not, export logs and contact technical support.

2.3.17 3362 PCS Communication Failure

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3362	PCS Communication Failure	Major	Communications alarm	ADAC	LUNA2000B V200R024C00

Possible Cause and Solution

Reason ID	No.	Possible Cause	Suggestion
1	1	The communications cable is disconnected.	Check whether the cable connections of the PCS communication port, J9 communication port of RPCB, and the CON3 and CON4 ports of the RCM are loose, disconnected, or incorrectly connected. If yes, reconnect the cables. If not, contact technical support.
2	1	The communications cable is disconnected.	Check whether the cable connections of the PCS communication port and the CON3 port of the RCM are loose, disconnected, or incorrectly connected. If yes, reconnect the cables. If not, export logs and contact technical support.

2.3.18 3363 Balancing Module Communication Failure

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3363	Balancing Module Communication Failure	Minor	Communications alarm	ADAC	LUNA2000B V200R024C00

Impact on the System

The system can be charged and discharge normally, but active balancing stops.

Possible Cause and Solution

Rea son ID	No.	Possible Cause	Suggestion
1	1	The communications cable is disconnected.	1. Check whether the communications cable between the COM-IN/COM-OUT port on the pack where the balancing module is located and the CON_IN/CON_OUT port on the RCM is loose, disconnected, or incorrectly connected. If yes, rectify the fault. 2. Check whether the cables between all packs in the rack are loose, disconnected, or incorrectly connected. If yes, reconnect the cables. 3. Check whether the screws on the front panel of the pack are tightened to a torque of 1.6 N·m. 4. After the fault is rectified, click "Activate balancing module" on the user interface. Wait for 1 minute and check whether the alarm is automatically cleared. 5. If the alarm persists, export logs and contact technical support.

2.3.19 3369 ESS SOH Calibration

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3369	ESS SOH Calibration	Warning	Equipment alarm	ADAC	LUNA2000B V200R024C00

Impact on the System

During the calibration, the ESS cannot respond to normal power scheduling.

Possible Causes and Procedure

Rea son ID	No.	Possible Cause	Suggestion
1	1	ESS SOH calibration is in progress.	1. The SOH calibration in the ESS is in progress. During the calibration, the end-of-charge/discharge SOC settings will be overridden to preferentially charge the battery rack to the full capacity during the charge process and preferentially discharge the full capacity of the battery rack during the discharge process. Then, the battery capacity will be calculated. The charge and discharge response will be affected during the calibration.
			2. If you do not want to affect the charge and discharge functions, disable "Automatic SOH calibration" and enable it at a proper time.
			3. During SOH calibration, you are advised to wait for 30 to 60 minutes after the system is fully charged and after the discharge is complete if you want to manually send a switching command.
2	1	SOH calibration has not been performed for the ESS for a long time.	1. The SOH calibration in the ESS will be performed recently. During the calibration, the end-of-charge/discharge SOC settings will be overridden to preferentially charge the battery rack to the full capacity during the charge process and preferentially discharge the full capacity of the battery rack during the discharge process. Then, the battery capacity will be calculated. The charge and discharge response will be affected during the calibration.
			2. If you do not want to affect the charge and discharge functions, disable "Automatic SOH calibration" and enable it at a proper time.
			3. During SOH calibration, you are advised to wait for 30 to 60 minutes after the system is fully charged and after the discharge is complete if you want to manually send a switching command.

2.3.20 3371 Battery Rack Voltage Exceeding Threshold

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3371	Battery Rack Voltage Exceeding Threshold	Major	Equipment alarm	ADAC	LUNA2000B V200R024C00

Impact on the System

When the threshold is slightly exceeded, charge/discharge stops. When the threshold is seriously exceeded, the battery rack shuts down.

Possible Cause and Solution

Reason ID	No.	Possible Cause	Suggestion
1	1	The detected total voltage of the battery rack is high.	1. Check that the ESS is not charged. Wait for 30 minutes and check whether the alarm is cleared. 2. If the alarm persists, shut down the ESS on the user interface. 3. Wait for 5 minutes. 4. Start the ESS on the user interface. 5. If the alarm persists, handle the battery pack and cell overvoltage alarms first. 6. If the alarm persists, export logs and contact technical support.
2	1	The detected total voltage of the battery rack is too high.	1. Check that the ESS is not charged. Wait for 30 minutes and check whether the alarm is cleared. 2. If the alarm persists, shut down the ESS on the user interface. 3. Wait for 5 minutes. 4. Start the ESS on the user interface. 5. If the alarm persists, handle the battery pack and cell overvoltage alarms first. 6. If the alarm persists, contact technical support.

Rea son ID	No.	Possible Cause	Suggestion
3	1	The detected total voltage of the battery rack is far too high.	1. Check that the ESS is not charged. Wait for 30 minutes and check whether the alarm is cleared. 2. If the alarm persists, shut down the ESS on the user interface. 3. Wait for 5 minutes. 4. Start the ESS on the user interface. 5. If the alarm persists, handle the battery pack and cell overvoltage alarms first. 6. If the alarm persists, contact technical support.
4	1	Battery Rack Undervoltage 1	1. Check that the ESS does not discharge. Wait for 30 minutes and check whether the alarm is cleared. 2. If the alarm persists, connect to the power grid and charge the ESS within 48 hours. 3. If the alarm persists after the batteries are charged for 1 hour, contact technical support.
5	1	Battery Rack Undervoltage 2	1. Check that the ESS does not discharge. Wait for 30 minutes and check whether the alarm is cleared. 2. If the alarm persists, connect to the power grid and charge the ESS within 48 hours. 3. If the alarm persists after the batteries are charged for 1 hour, contact technical support.
6	1	Battery Rack Undervoltage 3	1. Check that the ESS does not discharge. Wait for 30 minutes and check whether the alarm is cleared. 2. If the alarm persists, connect to the power grid and charge the ESS within 48 hours. 3. If the alarm persists after the batteries are charged for 1 hour, contact technical support.

2.3.21 3373 Battery Pack Sampling Abnormal

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3373	Battery Pack Sampling Abnormal	Major	Equipment alarm	ADMC	LUNA2000B V200R024C00

Impact on the System

The battery rack shuts down.

Possible Causes and Procedure

Reason ID	No.	Possible Cause	Suggestion
1	1	The internal circuit or cable harness of the BMU is faulty.	1. Replace the BMU and clear the alarm on the alarm management interface. 2. If the alarm persists, export logs and contact technical support.
2	1	The internal circuit or cable harness of the BMU is faulty.	1. Replace the BMU and clear the alarm on the alarm management interface. 2. If the alarm persists, export logs and contact technical support.
3	1	The internal circuit or cable harness of the BMU is faulty.	1. Check whether the interconnection terminal of the BMU is loose. 2. If the alarm persists, replace the BMU and clear the alarm on the alarm management interface. 3. If the alarm persists, export logs and contact technical support.
4	1	The internal circuit or cable harness of the BMU is faulty.	1. Check whether the interconnection terminal of the BMU is loose. 2. If the alarm persists, replace the BMU and clear the alarm on the alarm management interface. 3. If the alarm persists, export logs and contact technical support.

Rea son ID	No.	Possible Cause	Suggestion
5	1	An NTC open circuit or short circuit fault occurs inside the BMU.	1. Check whether the interconnection terminal of the BMU is loose. 2. If the alarm persists, replace the BMU and clear the alarm on the alarm management interface. 3. If the alarm persists, export logs and contact technical support.

2.3.22 3375 Battery Voltage Inconsistent

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3375	Battery Voltage Inconsistent	Major	Equipment alarm	ADAC	LUNA2000B V200R024C00

Impact on the System

The battery rack may shut down.

Possible Causes and Procedure

Rea son ID	No.	Possible Cause	Suggestion
1	1	1. The cell inconsistency is severe or passive balancing fails. 2. A battery pack is replaced in the battery rack, but the balancing is not complete.	1. If a battery pack is replaced, the alarm is automatically cleared after the balancing is complete. 2. Check whether the balancing module is faulty. If yes, rectify the fault according to the handling suggestions. 3. Restart the ESS. If the alarm persists, export logs and contact technical support.

Rea son ID	No.	Possible Cause	Suggestion
2	1	1. The cell inconsistency is severe or passive balancing fails. 2. A battery pack is replaced in the battery rack, but the balancing is not complete.	1. If a battery pack is replaced, the alarm is automatically cleared after the balancing is complete. 2. Check whether the balancing module is faulty. If yes, rectify the fault according to the handling suggestions. 3. Restart the ESS. If the alarm persists, export logs and contact technical support.
3	1	1. The cell inconsistency is severe or passive balancing fails. 2. A battery pack is replaced in the battery rack, but the balancing is not complete.	Restart the ESS. If the alarm persists, export logs and contact technical support.
4	1	1. The cell inconsistency is severe or passive balancing fails. 2. A battery pack is replaced in the battery rack, but the balancing is not complete.	1. If a battery pack is replaced, the alarm is automatically cleared after the balancing is complete. 2. Check whether the balancing module is faulty. If yes, rectify the fault according to the handling suggestions. 3. Restart the ESS. If the alarm persists, export logs and contact technical support.
5	1	1. The cell inconsistency is severe or passive balancing fails. 2. A battery pack is replaced in the battery rack, but the balancing is not complete.	1. If a battery pack is replaced, the alarm is automatically cleared after the balancing is complete. 2. Check whether the balancing module is faulty. If yes, rectify the fault according to the handling suggestions. 3. Restart the ESS. If the alarm persists, export logs and contact technical support.

Rea son ID	No.	Possible Cause	Suggestion
6	1	1. The cell inconsistency is severe or passive balancing fails. 2. A battery pack is replaced in the battery rack, but the balancing is not complete.	Restart the ESS. If the alarm persists, export logs and contact technical support.
7	1	1. The battery pack inconsistency is severe. 2. The battery pack balancing module is faulty. 3. A battery pack is replaced in the battery rack, but the balancing is not complete.	1. If a battery pack is replaced, the alarm is automatically cleared after the balancing is complete. 2. Check whether the balancing module is faulty. If yes, rectify the fault according to the handling suggestions. 3. Restart the ESS. If the alarm persists, export logs and contact technical support.
8	1	1. The battery pack inconsistency is severe. 2. The battery pack balancing module is faulty. 3. A battery pack is replaced in the battery rack, but the balancing is not complete.	1. If a battery pack is replaced, the alarm is automatically cleared after the balancing is complete. 2. Check whether the balancing module is faulty. If yes, rectify the fault according to the handling suggestions. 3. Restart the ESS. If the alarm persists, export logs and contact technical support.
9	1	1. The battery pack inconsistency is severe. 2. The battery pack balancing module is faulty 3. A battery pack is replaced in the battery rack, but the balancing is not complete.	Restart the ESS. If the alarm persists, export logs and contact technical support.

Rea son ID	No.	Possible Cause	Suggestion
10	1	1. The battery pack inconsistency is severe. 2. The battery pack balancing module is faulty. 3. A battery pack is replaced in the battery rack, but the balancing is not complete.	1. If a battery pack is replaced, the alarm is automatically cleared after the balancing is complete. 2. Check whether the balancing module is faulty. If yes, rectify the fault according to the handling suggestions. 3. Restart the ESS. If the alarm persists, export logs and contact technical support.
11	1	1. The battery pack inconsistency is severe. 2. The battery pack balancing module is faulty. 3. A battery pack is replaced in the battery rack, but the balancing is not complete.	1. If a battery pack is replaced, the alarm is automatically cleared after the balancing is complete. 2. Check whether the balancing module is faulty. If yes, rectify the fault according to the handling suggestions. 3. Restart the ESS. If the alarm persists, export logs and contact technical support.
12	1	1. The battery pack inconsistency is severe. 2. The battery pack balancing module is faulty. 3. A battery pack is replaced in the battery rack, but the balancing is not complete.	Restart the ESS. If the alarm persists, export logs and contact technical support.

2.3.23 3376 Battery Temperature Inconsistent

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3376	Battery Temperature Inconsistent	Major	Equipment alarm	ADAC	LUNA2000B V200R024C00

Impact on the System

When the temperature deviation is minor, charge/discharge stops. If the deviation is severe, the battery rack shuts down.

Possible Causes and Procedure

Reason ID	No.	Possible Cause	Suggestion
1	1	1. The cell inconsistency is severe. 2. The cell temperature sampling is abnormal.	1. Wait for 30 minutes and check whether the alarm is cleared. 2. If the alarm persists, handle the LTMS and BMU temperature sampling exception alarms first. 3. If the alarm persists, export logs and contact technical support.
2	1	1. The cell inconsistency is severe. 2. The cell temperature sampling is abnormal.	1. Wait for 30 minutes and check whether the alarm is cleared. 2. If the alarm persists, handle the LTMS and BMU temperature sampling exception alarms first. 3. If the alarm persists, export logs and contact technical support.
3	1	1. The cell inconsistency is severe. 2. The cell temperature sampling is abnormal.	1. Wait for 30 minutes and check whether the alarm is cleared. 2. If the alarm persists, handle the LTMS and BMU temperature sampling exception alarms first. 3. If the alarm persists, export logs and contact technical support.

Rea son ID	No.	Possible Cause	Suggestion
4	1	1. The cell inconsistency is severe. 2. The cell temperature sampling is abnormal.	1. Wait for 30 minutes and check whether the alarm is cleared. 2. If the alarm persists, handle the LTMS and BMU temperature sampling exception alarms first. 3. If the alarm persists, export logs and contact technical support.
5	1	1. The cell inconsistency is severe. 2. The cell temperature sampling is abnormal.	1. Wait for 30 minutes and check whether the alarm is cleared. 2. If the alarm persists, handle the LTMS and BMU temperature sampling exception alarms first. 3. If the alarm persists, export logs and contact technical support.
6	1	1. The cell inconsistency is severe. 2. The cell temperature sampling is abnormal.	1. Wait for 30 minutes and check whether the alarm is cleared. 2. If the alarm persists, handle the LTMS and BMU temperature sampling exception alarms first. 3. If the alarm persists, export logs and contact technical support.

2.4 RCM (RPCB)

2.4.1 3300 RPCB Voltage Abnormal

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3300	RPCB Voltage Abnormal	Major	Equipment alarm	ADAC	LUNA2000B V200R024C00

Impact on the System

The system is shut down.

Possible Cause and Solution

Rea son ID	No.	Possible Cause	Suggestion
1	1	Overvoltage occurs on the battery.	1. Ensure that the ESS is shut down. 2. After 5 minutes, start the ESS on the user interface and check whether the alarm is cleared. 3. If the alarm persists, export logs and contact technical support.
2	1	Undervoltage occurs on the battery.	1. Ensure that the ESS is shut down. 2. Check whether the RCM has a disconnector. If not, skip this step. If there is a disconnector, check whether it is turned on. If not, turn it on. 3. After 5 minutes, start the ESS on the user interface and check whether the alarm is cleared. 4. If the alarm persists, connect to the power grid and charge the ESS within 48 hours. 5. If the alarm persists after the ESS is charged for 1 hour, export logs and contact technical support.
3	1	1. The bus or battery voltage sampling circuit fails. 2. The sampling is interfered or the calculation is abnormal.	1. Power off the ESS by referring to the user manual. Remove the BAT+ or BAT– cable on the RCM panel, wait for 5 minutes, and then power on the ESS by referring to the user manual. After the RCM restarts, check whether the alarm is cleared. 2. If the alarm persists, replace the RCM by referring to the maintenance manual. 3. If the alarm persists, export logs and contact technical support.

2.4.2 3301 RPCB Port Short-Circuited

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3301	RPCB Port Short-Circuited	Major	Equipment alarm	ADAC	LUNA2000B V200R024C00

Impact on the System

The system is shut down.

Possible Cause and Solution

Reason ID	No.	Possible Cause	Suggestion
1	1	The PCS/DCDC is damaged or short-circuited, or the RCM is short-circuited.	1. Power off the ESS by referring to the user manual, remove the BAT+ or BAT– cable on the RCM panel, and remove the power cables between the RCM and the PCS. 2. Use a multimeter to check whether the removed positive and negative power cables are short-circuited. If yes, replace them. 3. Use a multimeter to check whether the BUS +/– terminals on the right of the RCM are short-circuited. If yes, replace the RCM by referring to the maintenance manual. 4. Use a multimeter to check whether the output BUS+/– terminals of the PCS are short-circuited. If yes, replace the PCS by referring to the maintenance manual. 5. If the alarm persists, export logs and contact technical support.

Rea son ID	No.	Possible Cause	Suggestion
2	1	The PCS/DCDC is damaged or short-circuited, or the RCM is short-circuited.	1. Power off the ESS by referring to the user manual, and remove the BAT+ or BAT– cable on the RCM panel. 2. Use a multimeter to check whether the BAT +/– terminals of the RCM are short-circuited. If yes, replace the RCM by referring to the maintenance manual. 3. If the alarm persists, export logs and contact technical support.

2.4.3 3302 Internal RPCB Temperature Abnormal

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3302	Internal RPCB Temperature Abnormal	Major	Equipment alarm	ADAC	LUNA2000B V200R024C00

Impact on the System

The system is shut down.

Possible Cause and Solution

Rea son ID	No.	Possible Cause	Suggestion
1	1	The output is overloaded.	1. Check whether output overcurrent protection or an overcurrent fault occurs in the ESS. The overtemperature alarm is automatically cleared after the system temperature is restored to the normal range. 2. If the alarm persists, replace the RCM by referring to the maintenance manual. 3. If the alarm persists, export logs and contact technical support.

Rea son ID	No.	Possible Cause	Suggestion
2	1	The heat dissipation fan is faulty.	1. Check whether output overcurrent protection or an overcurrent fault occurs in the ESS. The overtemperature alarm is automatically cleared after the system temperature is restored to the normal range. 2. If the alarm persists, replace the RCM by referring to the maintenance manual. 3. If the alarm persists, export logs and contact technical support.
3	1	The wiring terminal on the bus side is improperly connected.	1. Power off the ESS by referring to the user manual. Check whether the BUS+/– power terminals on the right of the RCM are securely connected. If the terminals are loose, secure them. 2. Power on the ESS by referring to the user manual. After the RCM restarts, check whether the alarm is cleared. 3. If the alarm persists, replace the RCM by referring to the maintenance manual. 4. If the alarm persists, export logs and contact technical support.
4	1	The wiring terminal on the battery side is improperly connected.	1. Power off the ESS by referring to the user manual. Check whether the BAT+/– power terminals on the right of the RCM are securely connected. If the terminals are loose, secure them. 2. Power on the ESS by referring to the user manual. After the RCM restarts, check whether the alarm is cleared. 3. If the alarm persists, replace the RCM by referring to the maintenance manual. 4. If the alarm persists, export logs and contact technical support.
5	1	The output is overloaded. The heat dissipation fan is faulty.	1. Check whether output overcurrent protection or an overcurrent fault occurs in the ESS. The overtemperature alarm is automatically cleared after the system temperature is restored to the normal range. 2. If the alarm persists, replace the RCM by referring to the maintenance manual. 3. If the alarm persists, export logs and contact technical support.

Rea son ID	No.	Possible Cause	Suggestion
6	1	The NTC sensor is short-circuited or open-circuited.	1. Power off the ESS by referring to the user manual. Remove the BAT+ or BAT– cable on the RCM panel, wait for 5 minutes, and then power on the ESS by referring to the user manual. After the RCM restarts, check whether the alarm is cleared. 2. If the alarm persists, replace the RCM by referring to the maintenance manual. 3. If the alarm persists, export logs and contact technical support.

2.4.4 3303 RPCB Overcurrent Fault

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3303	RPCB Overcurrent Fault	Major	Equipment alarm	ADMC	LUNA2000B V200R024C00

Impact on the System

The system is shut down.

Possible Cause and Solution

Rea son ID	No.	Possible Cause	Suggestion
1	1	Overload occurs during battery charging or discharging.	1. Arrange manual site visits to check whether the devices and power cables are normal. 2. If no exception occurs, wait for 5 minutes and clear the alarm on the user interface. 3. If the alarm persists, export logs and contact technical support.

Rea son ID	No.	Possible Cause	Suggestion
2	1	Overload occurs during battery discharging.	1. Check whether the devices and power cables are normal. 2. If no exception occurs, wait for 5 minutes and clear the alarm on the user interface. 3. If the alarm persists, export logs and contact technical support.
3	1	Overload occurs during battery charging.	1. Check whether the devices and power cables are normal. 2. If no exception occurs, wait for 5 minutes and clear the alarm on the user interface. 3. If the alarm persists, export logs and contact technical support.

2.4.5 3304 Battery-Side ISO Insulation Detection Abnormal

Attribute

Alarm ID	Alarm Name	Alarm Severit y	Alarm Type	Cleara nce Catego ry	Introduced Since
3304	Battery-Side ISO Insulation Detection Abnormal	Major	Equipm ent alarm	ADAC	LUNA2000B V200R024C00

Impact on the System

The system is shut down.

Possible Cause and Solution

Rea son ID	No.	Possible Cause	Suggestion
1	1	The battery side is short-circuited to the ground, or the battery is in a humid environment and the insulation between the circuit and ground is poor.	1. Power off the ESS by referring to the user manual. Check whether the PE cable of the device is correctly connected according to the maintenance manual. 2. Check whether the system enclosure and PE cable are damaged. If they are damaged, replace them. 3. Power on the ESS by referring to the user manual. After the RCM restarts, check whether the alarm is cleared. 4. If the alarm persists, export logs and contact technical support.

2.4.6 3305 RPCB Power Loop Abnormal

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3305	RPCB Power Loop Abnormal	Major	Equipment alarm	ADAC	LUNA2000B V200R024C00

Impact on the System

The system is shut down.

Possible Cause and Solution

Rea son ID	No.	Possible Cause	Suggestion
1	1	The battery input is in reverse polarity.	1. Power off the ESS by referring to the user manual. Check that the BAT+ and BAT– cables of the RCM are correctly connected by referring to the maintenance manual.
			2. Power on the ESS by referring to the user manual. After the RCM restarts, check whether the alarm is cleared.
			3. If the alarm persists, export logs and contact technical support.
2	1	The cables on the bus side are connected in reverse polarity.	1. Power off the ESS by referring to the user manual. Check that the BUS+ and BUS– cables of the RCM are correctly connected by referring to the maintenance manual.
			2. Power on the ESS by referring to the user manual. After the RCM restarts, check whether the alarm is cleared.
			3. If the alarm persists, export logs and contact technical support.
3	1	Overload, a short circuit, or a bus voltage detection failure occurs.	1. Power off the ESS by referring to the user manual.
			2. Use a multimeter to check whether the positive and negative power cables on the RCM bus side are short-circuited. If yes, replace the power cables.
			3. Use a multimeter to check whether the BUS +/– terminals on the right of the RCM are short-circuited. If yes, replace the RCM by referring to the maintenance manual.
			4. After steps 2 and 3 are complete, power on the ESS by referring to the user manual. After the RCM restarts, check whether the alarm is cleared.
			5. If the alarm persists, export logs and contact technical support.
3	2	The communication is abnormal or the parameters delivered by the BCU are invalid.	1. Power off the ESS and then power on the ESS by referring to the user manual. After the RCM restarts, check whether the alarm is cleared.
			2. If the alarm persists, replace the RCM by referring to the maintenance manual.
			3. If the alarm persists, export logs and contact technical support.

2.4.7 3306 RPCB Version Mismatch

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3306	RPCB Version Mismatch	Major	Equipment alarm	ADAC	LUNA2000B V200R024C00

Impact on the System

The system is shut down.

Possible Cause and Solution

Reason ID	No.	Possible Cause	Suggestion
1	1	The software version is incompatible with the hardware version, or an incorrect software version is loaded.	1. Check the RCM model and SN, obtain the latest software version through the service hotline, and perform the upgrade again on the user interface. 2. If the alarm persists, export logs and contact technical support.

2.4.8 3307 RPCB Abnormal

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3307	RPCB Abnormal	Major	Equipment alarm	ADAC	LUNA2000B V200R024C00

Impact on the System

The system is shut down.

Possible Cause and Solution

Rea son ID	No.	Possible Cause	Suggestion
1	1	The contactor is damaged or stuck.	1. Shut down the ESS on the user interface. After 5 minutes, start the ESS on the user interface and check whether the alarm is cleared. 2. If the alarm persists, shut down the ESS on the user interface, replace the corresponding RPCB. After the replacement, restart the system and check whether the alarm is cleared. 3. If the alarm persists, contact technical support.
2	1	The contactor is damaged.	1. Shut down the ESS on the user interface. After 5 minutes, start the ESS on the user interface and check whether the alarm is cleared. 2. If the alarm persists, shut down the ESS on the user interface and replace the corresponding RPCB. Restart the system and check whether the alarm is cleared. 3. If the alarm persists, contact technical support.
3	1	The contactor is damaged or the cable connection is abnormal.	1. Shut down the ESS on the user interface. After 5 minutes, start the ESS on the user interface and check whether the alarm is cleared. 2. If the alarm persists, shut down the ESS on the user interface and replace the corresponding RPCB. Restart the system and check whether the alarm is cleared. 3. If the alarm persists, contact technical support.

Rea son ID	No.	Possible Cause	Suggestion
4	1	Both the AC and DC auxiliary power supplies are faulty.	1. Shut down the ESS on the user interface. After 5 minutes, start the ESS on the user interface and check whether the alarm is cleared. 2. If the alarm persists, shut down the ESS on the user interface and replace the corresponding RPCB. Restart the system and check whether the alarm is cleared. 3. If the alarm persists, contact technical support.
5	1	The auxiliary power is faulty.	1. Shut down the ESS on the user interface. After 5 minutes, start the ESS on the user interface and check whether the alarm is cleared. 2. If the alarm persists, shut down the ESS on the user interface and replace the corresponding RPCB. Restart the system and check whether the alarm is cleared. 3. If the alarm persists, contact technical support.
6	1	Multiple soft-start faults occur.	1. Shut down the ESS on the user interface. After 5 minutes, start the ESS on the user interface and check whether the alarm is cleared. 2. If the alarm persists, shut down the ESS on the user interface and replace the corresponding RPCB. Restart the system and check whether the alarm is cleared. 3. If the alarm persists, contact technical support.
7	1	The MCU is damaged or the sampling circuit is abnormal.	1. Shut down the ESS on the user interface. After 5 minutes, start the ESS on the user interface and check whether the alarm is cleared. 2. If the alarm persists, shut down the ESS on the user interface and replace the corresponding RPCB. Restart the system and check whether the alarm is cleared. 3. If the alarm persists, contact technical support.

Rea son ID	No.	Possible Cause	Suggestion
8	1	The MCU is damaged or the sampling circuit is abnormal.	1. Shut down the ESS on the user interface. After 5 minutes, start the ESS on the user interface and check whether the alarm is cleared. 2. If the alarm persists, shut down the ESS on the user interface and replace the corresponding RPCB. Restart the system and check whether the alarm is cleared. 3. If the alarm persists, contact technical support.
9	1	The MCU is damaged.	1. Shut down the ESS on the user interface. After 5 minutes, start the ESS on the user interface and check whether the alarm is cleared. 2. If the alarm persists, shut down the ESS on the user interface and replace the corresponding RPCB. Restart the system and check whether the alarm is cleared. 3. If the alarm persists, contact technical support.
10	1	The EEPROM is faulty.	1. Shut down the ESS on the user interface. After 5 minutes, start the ESS on the user interface and check whether the alarm is cleared. 2. If the alarm persists, shut down the ESS on the user interface and replace the corresponding RPCB. Restart the system and check whether the alarm is cleared. 3. If the alarm persists, contact technical support.
11	1	The RCD circuit is abnormal.	1. Shut down the ESS on the user interface. After 5 minutes, start the ESS on the user interface and check whether the alarm is cleared. 2. If the alarm persists, shut down the ESS on the user interface and replace the corresponding RPCB. Restart the system and check whether the alarm is cleared. 3. If the alarm persists, contact technical support.

Rea son ID	No.	Possible Cause	Suggestion
12	1	The auxiliary power is faulty.	1. Shut down the ESS on the user interface. After 5 minutes, start the ESS on the user interface and check whether the alarm is cleared. 2. If the alarm persists, shut down the ESS on the user interface and replace the corresponding RPCB. Restart the system and check whether the alarm is cleared. 3. If the alarm persists, contact technical support.
13	1	The black start button is stuck.	1. Shut down the ESS on the user interface. After 5 minutes, start the ESS on the user interface and check whether the alarm is cleared. 2. If the alarm persists, shut down the ESS on the user interface and replace the corresponding RPCB. Restart the system and check whether the alarm is cleared. 3. If the alarm persists, contact technical support.
15	1	The interrupt usage is too high.	1. Shut down the ESS on the user interface. After 5 minutes, start the ESS on the user interface and check whether the alarm is cleared. 2. If the alarm persists, shut down the ESS on the user interface and replace the corresponding RPCB. Restart the system and check whether the alarm is cleared. 3. If the alarm persists, contact technical support.
16	1	The chip is abnormal.	1. Shut down the ESS on the user interface. After 5 minutes, start the ESS on the user interface and check whether the alarm is cleared. 2. If the alarm persists, shut down the ESS on the user interface and replace the corresponding RPCB. Restart the system and check whether the alarm is cleared. 3. If the alarm persists, contact technical support.

Rea son ID	No.	Possible Cause	Suggestion
17	1	EEPROM read data is abnormal or damaged.	1. Shut down the ESS on the user interface. After 5 minutes, start the ESS on the user interface and check whether the alarm is cleared. 2. If the alarm persists, shut down the ESS on the user interface and replace the corresponding RPCB. Restart the system and check whether the alarm is cleared. 3. If the alarm persists, contact technical support.
18	1	EEPROM read data is abnormal or damaged.	1. Shut down the ESS on the user interface. After 5 minutes, start the ESS on the user interface and check whether the alarm is cleared. 2. If the alarm persists, shut down the ESS on the user interface and replace the corresponding RPCB. Restart the system and check whether the alarm is cleared. 3. If the alarm persists, contact technical support.
19	1	Current sampling is abnormal.	1. Shut down the ESS on the user interface. After 5 minutes, start the ESS on the user interface and check whether the alarm is cleared. 2. If the alarm persists, shut down the ESS on the user interface and replace the corresponding RPCB. Restart the system and check whether the alarm is cleared. 3. If the alarm persists, contact technical support.

2.4.9 3308 Battery RCD Protection Triggered

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3308	Battery RCD Protection Triggered	Major	Equipment alarm	ADMC	LUNA2000B V200R024C00

Impact on the System

The system is shut down.

Possible Cause and Solution

Rea son ID	No.	Possible Cause	Suggestion
1	1	The ground insulation resistance on the battery side decreases during device operation.	1. Arrange manual site visits. Power off the ESS by referring to the user manual. 2. Check whether battery leakage occurs and whether the PE cable of the ESS is correctly connected as required in the user manual. Check whether the enclosure of the ESS and the PE cable are damaged. If yes, replace them. 3. Power on the ESS by referring to the user manual. After the RCM restarts, check whether the alarm is cleared. 4. If the alarm persists, export logs and contact technical support.

2.4.10 3309 RPCB Overcurrent Protection Triggered

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3309	RPCB Overcurrent Protection Triggered	Major	Equipm ent alarm	ADAC	LUNA2000B V200R024C00

Impact on the System

The system is shut down.

Possible Cause and Solution

Rea son ID	No.	Possible Cause	Suggestion
1	1	Overload occurs during battery discharging.	1. Shut down the ESS on the user interface. 2. After 5 minutes, start the ESS on the user interface and check whether the alarm is cleared. 3. If the alarm persists, export logs and contact technical support.
2	1	Overload occurs during battery charging.	1. Shut down the ESS on the user interface. 2. After 5 minutes, start the ESS on the user interface and check whether the alarm is cleared. 3. If the alarm persists, export logs and contact technical support.

2.4.11 3310 RPCB Fan Alarm

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3310	RPCB Fan Alarm	Minor	Equipment alarm	ADAC	LUNA2000B V200R024C00

Impact on the System

The system can be charged and discharge normally.

Possible Causes and Procedure

Rea son ID	No.	Possible Cause	Suggestion
1	1	The fan is damaged or the cable connection is abnormal.	1. If the system does not have other faults and can run properly, ignore this alarm. 2. If the fault affects the use of the system, replace the RCM by referring to the maintenance manual. Then, check whether the alarm is cleared. 3. If the alarm persists, export logs and contact technical support.

2.4.12 3311 RPCB SPD Faulty

Attribute

Alarm ID	Alarm Name	Alarm Severit y	Alarm Type	Cleara nce Catego ry	Introduced Since
3311	RPCB SPD Faulty	Minor	Equipm ent alarm	ADAC	LUNA2000B V200R024C00

Impact on the System

The surge protection function of the RPCB fails, which does not affect the charging and discharging of the system but may cause lightning strikes.

Possible Causes and Procedure

Rea son ID	No.	Possible Cause	Suggestion
1	1	The SPD is faulty.	1. Power off the ESS and then power on the ESS by referring to the user manual. After the RCM restarts, check whether the alarm is cleared. 2. If the alarm persists, replace the RCM by referring to the maintenance manual. 3. If the alarm persists, export logs and contact technical support.

2.4.13 3312 Battery-Side ISO Insulation Detection Alarm

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3312	Battery-Side ISO Insulation Detection Alarm	Minor	Equipment alarm	ADAC	LUNA2000B V200R024C00

Impact on the System

The system can be charged and discharge normally.

Possible Causes and Procedure

Reason ID	No.	Possible Cause	Suggestion
1	1	The PE cable on the battery side is improperly insulated.	1. Power off the ESS by referring to the user manual. Check whether the PE cable of the device is correctly connected according to the maintenance manual.
			2. Check whether the system enclosure and PE cable are damaged. If they are damaged, replace them.
			3. Power on the ESS by referring to the user manual. After the RCM restarts, check whether the alarm is cleared.
			4. If the alarm persists, export logs and contact technical support.

2.4.14 3313 Auxiliary Power Abnormal

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3313	Auxiliary Power Abnormal	Minor	Equipment alarm	ADAC	LUNA2000B V200R024C00

Impact on the System

The auxiliary power supply on the DC or AC side fails, which may affect system charging and discharging.

Possible Cause and Solution

Reason ID	No.	Possible Cause	Suggestion
1	1	The AC auxiliary power experiences undervoltage.	1. Power off the ESS by referring to the user manual. Remove the BAT+ or BAT– cable on the RCM panel, check whether the AC power cable is loose, and reinstall the BAT+ or BAT– cable. Then power on the ESS by referring to the user manual. After the RCM restarts, check whether the alarm is cleared. 2. If the alarm persists, export logs and contact technical support.
2	1	The DC auxiliary power experiences undervoltage.	1. Power off the ESS by referring to the user manual. Check whether the DC power cable is loose. If there is a disconnector, ensure that the disconnector is turned on. Then power on the ESS by referring to the user manual. After the RCM restarts, check whether the alarm is cleared. 2. If the alarm persists, export logs and contact technical support.

Rea son ID	No.	Possible Cause	Suggestion
3	1	Output undervoltage occurs on the 12V OUT port of the RCM.	1. Power off the ESS by referring to the user manual. Remove the BAT+ or BAT– cable on the RCM panel and reinstall it, and then power on the ESS by referring to the user manual. After the RCM restarts, check whether the alarm is cleared. 2. If the alarm persists, export logs and contact technical support.

2.4.15 3314 RPCB Overcurrent Alarm

Attribute

Alarm ID	Alarm Name	Alarm Severit y	Alarm Type	Cleara nce Catego ry	Introduced Since
3314	RPCB Overcurrent Alarm	Minor	Equipm ent alarm	ADAC	LUNA2000B V200R024C00

Impact on the System

The charge and discharge are forbidden.

Possible Cause and Solution

Rea son ID	No.	Possible Cause	Suggestion
1	1	Overload occurs during battery charging.	1. Shut down the ESS on the user interface. 2. After 5 minutes, start the ESS on the user interface and check whether the alarm is cleared. 3. If the alarm persists, export logs and contact technical support.

Rea son ID	No.	Possible Cause	Suggestion
2	1	Overload occurs during battery discharging.	1. Shut down the ESS on the user interface. 2. After 5 minutes, start the ESS on the user interface and check whether the alarm is cleared. 3. If the alarm persists, export logs and contact technical support.

2.5 Power System (DCDC)

2.5.1 3400 DCDC Protection

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3400	DCDC Protection	Major	Equipment alarm	ADAC	LUNA2000B V200R024C00

Impact on the System

The system may be derated. When the fault is serious, the system shuts down.

Possible Cause and Solution

Rea son ID	No.	Possible Cause	Suggestion
1	1	An exception occurs in the module.	1. After the alarm is cleared, the device automatically recovers. 2. If the alarm persists, power off the ESS by referring to the user manual. 3. After 5 minutes, power on the ESS by referring to the user manual. If the alarm persists, export logs and contact technical support.

Rea son ID	No.	Possible Cause	Suggestion
2	1	1. The PCS DC bus port is abnormal. 2. The bus port of the module is abnormal.	1. Check whether an overcurrent alarm is generated for the PCS. 2. If yes, handle the PCS overcurrent alarm. 3. If not, power off the ESS by referring to the user manual. After 5 minutes, power on the ESS by referring to the user manual. If the alarm persists, export logs and contact technical support.
3	1	1. The RCM bus port is abnormal. 2. The battery port of the module is abnormal.	1. Check whether an overcurrent alarm is generated for the RCM. 2. If yes, handle the RCM overcurrent alarm. 3. If not, power off the ESS by referring to the user manual. After 5 minutes, power on the ESS by referring to the user manual. If the alarm persists, export logs and contact technical support.
4	1	1. AC port overvoltage occurs. 2. PCS DC bus overvoltage occurs. 3. The module bus voltage control is abnormal.	1. Check whether the power grid voltage is within the allowed range. If not, contact the local power operator. 2. Check whether a DC bus overvoltage alarm is generated for the PCS. 3. If yes, handle the PCS DC bus overvoltage alarm. 4. If not, power off the ESS by referring to the user manual. After 5 minutes, power on the ESS by referring to the user manual. If the alarm persists, export logs and contact technical support.
5	1	1. The PCS DC bus voltage is abnormal. 2. The module bus voltage control is abnormal.	1. Check whether the power grid voltage is within the allowed range. If not, contact the local power operator. 2. Check whether a DC bus undervoltage alarm is generated for the PCS. 3. If yes, handle the PCS DC bus undervoltage alarm. 4. If not, power off the ESS by referring to the user manual. After 5 minutes, power on the ESS by referring to the user manual. If the alarm persists, export logs and contact technical support.

Rea son ID	No.	Possible Cause	Suggestion
6	1	The CAN communications cable between the DCDC and BCU is loose or damaged.	1. Power off the ESS by referring to the user manual. Check whether the communications port on the DCDC is securely connected and whether the CON4 communications port on the BCU is securely connected. 2. After 5 minutes, power on the ESS by referring to the user manual. 3. If the alarm persists, export logs and contact technical support.
7	1	The communications link or PCS CAN is abnormal.	1. Power off the ESS by referring to the user manual. Check whether the communications port on the DCDC is securely connected and whether the communications port on the PCS is securely connected. 2. After 5 minutes, power on the ESS by referring to the user manual. 3. If the alarm persists, export logs and contact technical support.
8	1	The battery pack voltage is too high.	1. After the alarm is cleared, the device automatically recovers. 2. If the alarm persists, power off the ESS by referring to the user manual. 3. After 5 minutes, power on the ESS by referring to the user manual. 4. If the alarm persists, export logs and contact technical support.
9	1	The battery pack voltage is too low.	1. Check whether an undervoltage alarm is generated for the battery pack or RCM. 2. If yes, handle the pack or RCM undervoltage alarm. 3. If not, power off the ESS by referring to the user manual. 4. After 5 minutes, power on the ESS by referring to the user manual. 5. If the alarm persists, export logs and contact technical support.

Rea son ID	No.	Possible Cause	Suggestion
10	1	1. The RCM bus port is abnormal. 2. The battery port of the module is abnormal.	1. Check whether an overcurrent alarm is generated for the RCM. 2. If yes, handle the RCM overcurrent alarm. 3. If not, power off the ESS by referring to the user manual. After 5 minutes, power on the ESS by referring to the user manual. If the alarm persists, export logs and contact technical support.
11	1	An exception occurs in the module.	1. After the alarm is cleared, the device automatically recovers. 2. If the alarm persists, power off the ESS by referring to the user manual. 3. After 5 minutes, power on the ESS by referring to the user manual. If the alarm persists, export logs and contact technical support.

2.5.2 3401 DCDC Faulty

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3401	DCDC Faulty	Major	Equipment alarm	ADAC	LUNA2000B V200R024C00

Impact on the System

The system shuts down.

Possible Cause and Solution

Rea son ID	No.	Possible Cause	Suggestion
1	1	The drive circuit is faulty or the bridge IGBT is faulty.	1. Power off the ESS by referring to the user manual. 2. After 5 minutes, power on the ESS by referring to the user manual. 3. If the alarm persists, export logs and contact technical support.
2	1	The control system or chip is faulty.	1. Power off the ESS by referring to the user manual. 2. After 5 minutes, power on the ESS by referring to the user manual. 3. If the alarm persists, export logs and contact technical support.
3	1	The auxiliary power circuit does not work properly.	1. Power off the ESS by referring to the user manual. 2. After 5 minutes, power on the ESS by referring to the user manual. 3. If the alarm persists, export logs and contact technical support.
4	1	The sampling link is abnormal.	1. Power off the ESS by referring to the user manual. 2. After 5 minutes, power on the ESS by referring to the user manual. 3. If the alarm persists, export logs and contact technical support.
5	1	The EEPROM is faulty or the I2C communication is abnormal.	1. Power off the ESS by referring to the user manual. 2. After 5 minutes, power on the ESS by referring to the user manual. 3. If the alarm persists, export logs and contact technical support.
6	1	The IGBT module is faulty.	1. Power off the ESS by referring to the user manual. 2. After 5 minutes, power on the ESS by referring to the user manual. 3. If the alarm persists, export logs and contact technical support.

Rea son ID	No.	Possible Cause	Suggestion
7	1	1. The voltage on the battery side or bus side goes beyond the module startup range. 2. The number of battery packs and battery overvoltage/ undervoltage protection threshold are not received from the monitoring module. 3. The module relay is not closed. 4. The voltage on the bus side cannot be increased during startup on the battery side.	1. Power off the ESS by referring to the user manual. 2. After 5 minutes, power on the ESS by referring to the user manual. If the alarm persists, export logs and contact technical support.
8	1	1. The fan is faulty. 2. The fan drive circuit is faulty. 3. The fan feedback signal is abnormal.	1. Power off the ESS by referring to the user manual. 2. After 5 minutes, power on the ESS by referring to the user manual. 3. If the alarm persists, export logs and contact technical support.
9	1	The chip driver fails to be initialized.	1. Power off the ESS by referring to the user manual.Constants 2. After 5 minutes, power on the ESS by referring to the user manual. 3. If the alarm persists, export logs and contact technical support.
10	1	The relay is disconnected abnormally during operation.	1. Power off the ESS by referring to the user manual. 2. After 5 minutes, power on the ESS by referring to the user manual. 3. If the alarm persists, export logs and contact technical support.

2.5.3 3402 Overvoltage Protection for DCDC Bus Port

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3402	Overvoltage Protection for DCDC Bus Port	Major	Equipment alarm	ADAC	LUNA2000B V200R024C00

Impact on the System

The system shuts down.

Possible Cause and Solution

Reason ID	No.	Possible Cause	Suggestion
1	1	1. AC port overvoltage occurs. 2. PCS DC bus overvoltage occurs. 3. The module bus voltage control is abnormal.	1. Check whether the power grid voltage is within the allowed range. If not, contact the local power operator. 2. Check whether a DC bus overvoltage alarm is generated for the PCS. 3. If yes, handle the PCS DC bus overvoltage alarm. 4. If not, power off the ESS by referring to the user manual. After 5 minutes, power on the ESS by referring to the user manual. If the alarm persists, export logs and contact technical support.

2.5.4 3403 DCDC Overhumidity Protection

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3403	DCDC Overhumidity Protection	Major	Equipment alarm	ADAC	LUNA2000B V200R024C00

Impact on the System

The system shuts down.

Possible Cause and Solution

Reason ID	No.	Possible Cause	Suggestion
1	1	The ambient humidity is high.	1. After the alarm is cleared, the device automatically recovers. 2. If the alarm persists, power off the ESS by referring to the user manual. 3. After 5 minutes, power on the ESS by referring to the user manual. If the alarm persists, export logs and contact technical support.

2.5.5 3404 DCDC Overtemperature Protection

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3404	DCDC Overtemperature Protection	Major	Equipment alarm	ADAC	LUNA2000B V200R024C00

Impact on the System

The system shuts down.

Possible Cause and Solution

Rea son ID	No.	Possible Cause	Suggestion
1	1	1. The LTMS is abnormal. 2. The heat dissipation of the inductor inside the module is abnormal.	1. Check whether an alarm is generated for the LTMS. 2. If yes, handle the LTMS alarm. 3. If not, power off the ESS by referring to the user manual. After 5 minutes, power on the ESS by referring to the user manual. If the alarm persists, export logs and contact technical support.
2	1	1. The LTMS is abnormal. 2. The screws on the copper bar inside the module are not tightened or the heat dissipation is abnormal.	1. Check whether an alarm is generated for the LTMS. 2. If yes, handle the LTMS alarm. 3. If not, power off the ESS by referring to the user manual. After 5 minutes, power on the ESS by referring to the user manual. If the alarm persists, export logs and contact technical support.
3	1	1. The LTMS is abnormal. 2. The heat dissipation of the IGBT inside the module is abnormal.	1. Check whether an alarm is generated for the LTMS. 2. If yes, handle the LTMS alarm. 3. If not, power off the ESS by referring to the user manual. After 5 minutes, power on the ESS by referring to the user manual. If the alarm persists, export logs and contact technical support.
4	1	The LTMS is abnormal.	1. Check whether an alarm is generated for the LTMS. 2. If yes, handle the LTMS alarm. 3. If not, power off the ESS by referring to the user manual. After 5 minutes, power on the ESS by referring to the user manual. If the alarm persists, export logs and contact technical support.

Rea son ID	No.	Possible Cause	Suggestion
5	1	1. The LTMS is abnormal. 2. The heat dissipation inside the module is abnormal.	1. Check whether an alarm is generated for the LTMS. 2. If yes, handle the LTMS alarm. 3. If not, power off the ESS by referring to the user manual. After 5 minutes, power on the ESS by referring to the user manual. If the alarm persists, export logs and contact technical support.
6	1	1. The LTMS is abnormal. 2. The heat dissipation of the through-current terminal inside the module is abnormal.	1. Check whether an alarm is generated for the LTMS. 2. If yes, handle the LTMS alarm. 3. If not, power off the ESS by referring to the user manual. After 5 minutes, power on the ESS by referring to the user manual. If the alarm persists, export logs and contact technical support.
7	1	1. The LTMS is abnormal. 2. The oxidized relay contact causes contact resistance increase, which consequently leads to overtemperature.	1. Check whether an alarm is generated for the LTMS. 2. If yes, handle the LTMS alarm. 3. If not, power off the ESS by referring to the user manual. After 5 minutes, power on the ESS by referring to the user manual. If the alarm persists, export logs and contact technical support.

2.5.6 3405 DCDC Undertemperature Protection

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Cleara nce Catego ry	Introduced Since
3405	DCDC Undertemperature Protection	Major	Equipm ent alarm	ADAC	LUNA2000B V200R024C00

Impact on the System

The system shuts down.

Possible Cause and Solution

Rea son ID	No.	Possible Cause	Suggestion
1	1	The ambient temperature is too low.	1. Check whether the ambient temperature is too low. 2. If the ambient temperature is normal, contact technical support.

2.5.7 3406 Overtemperature Protection for DCDC Bus Terminal

Attribute

Alarm ID	Alarm Name	Alarm Severit y	Alarm Type	Cleara nce Catego ry	Introduced Since
3406	Overtemperature Protection for DCDC Bus Terminal	Major	Equipm ent alarm	ADAC	LUNA2000B V200R024C00

Impact on the System

The system shuts down.

Possible Cause and Solution

Reason ID	No.	Possible Cause	Suggestion
1	1	1. The DC connector on the bus side is not properly inserted. 2. The LTMS is abnormal. 3. The screws on the copper bar inside the module are not tightened or the heat dissipation is abnormal.	1. Check whether the DC connector is not properly inserted by referring to the user manual. 2. Check whether an alarm is generated for the LTMS. 3. If yes, handle the LTMS alarm. 4. If not, power off the ESS by referring to the user manual. After 5 minutes, power on the ESS by referring to the user manual. If the alarm persists, export logs and contact technical support.

2.5.8 3407 Overtemperature Protection for DCDC Battery Terminal

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3407	Overtemperature Protection for DCDC Battery Terminal	Major	Equipment alarm	ADAC	LUNA2000B V200R024C00

Impact on the System

The system shuts down.

Possible Cause and Solution

Rea son ID	No.	Possible Cause	Suggestion
1	1	1. The DC connector on the battery side is not properly inserted. 2. The LTMS is abnormal. 3. The screws on the copper bar inside the module are not tightened or the heat dissipation is abnormal.	1. Check whether the DC connector is not properly inserted by referring to the user manual. 2. Check whether an alarm is generated for the LTMS. 3. If yes, handle the LTMS alarm. 4. If not, power off the ESS by referring to the user manual. After 5 minutes, power on the ESS by referring to the user manual. If the alarm persists, export logs and contact technical support.

2.5.9 3408 DCDC Liquid Cooling Abnormal

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3408	DCDC Liquid Cooling Abnormal	Major	Equipment alarm	ADAC	LUNA2000B V200R024C00

Impact on the System

The system shuts down.

Possible Causes and Procedure

Rea son ID	No.	Possible Cause	Suggestion
1	1	1. The ambient temperature is high. 2. The LTMS is abnormal.	1. Check whether the ambient temperature is beyond the range specified in the user manual, and check whether there are heat sources around or whether the heat dissipation vents are blocked.Constants 2. Check whether an alarm is generated for the LTMS. 3. If yes, handle the LTMS alarm. 4. If not, power off the ESS by referring to the user manual. After 5 minutes, power on the ESS by referring to the user manual. If the alarm persists, export logs and contact technical support.

2.5.10 3409 DCDC Versions Mismatched

Attribute

Alarm ID	Alarm Name	Alarm Severit y	Alarm Type	Cleara nce Catego ry	Introduced Since
3409	DCDC Versions Mismatched	Major	Equipm ent alarm	ADAC	LUNA2000B V200R024C00

Impact on the System

The system shuts down.

Possible Causes and Procedure

Rea son ID	No.	Possible Cause	Suggestion
1	1	The board hardware version is incorrect.	1. Obtain the latest version and perform an update. 2. If the update fails for three consecutive times, export logs and contact technical support.

2.5.11 3410 DCDC NTC Faulty

Attribute

Alarm ID	Alarm Name	Alarm Severit y	Alarm Type	Cleara nce Catego ry	Introduced Since
3410	DCDC NTC Faulty	Major	Equipm ent alarm	ADAC	LUNA2000B V200R024C00

Impact on the System

The system shuts down.

Possible Causes and Procedure

Rea son ID	No.	Possible Cause	Suggestion
1	1	1. The NTC sensor is short-circuited due to a fault. 2. The NTC sensor is open-circuited due to poor connection.	1. Power off the ESS by referring to the user manual. 2. After 5 minutes, power on the ESS by referring to the user manual. 3. If the alarm persists, export logs and contact technical support.

2.5.12 3411 DCDC DSP_EPO Faulty

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3411	DCDC DSP_EPO Faulty	Major	Equipment alarm	ADAC	LUNA2000B V200R024C00

Impact on the System

The system shuts down.

Possible Cause and Solution

Reason ID	No.	Possible Cause	Suggestion
1	1	The FAST I/O self-test is abnormal.	1. Power off the ESS by referring to the user manual. Check whether the communications port on the DCDC is securely connected and whether the CON4 communications port on the RCM is securely connected. 2. After 5 minutes, power on the ESS by referring to the user manual. Reset the system on the user interface. 3. If the alarm persists, export logs and contact technical support.

2.5.13 3412 DCDC Bus Port Undervoltage

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3412	DCDC Bus Port Undervoltage	Major	Equipment alarm	ADAC	LUNA2000B V200R024C00

Impact on the System

The system shuts down.

Possible Cause and Solution

Rea son ID	No.	Possible Cause	Suggestion
1	1	1. The PCS DC bus port is abnormal. 2. The bus port of the module is abnormal.	1. Check whether an overcurrent alarm is generated for the PCS. 2. If yes, handle the PCS overcurrent alarm. 3. If not, power off the ESS by referring to the user manual. After 5 minutes, power on the ESS by referring to the user manual. If the alarm persists, export logs and contact technical support.

2.5.14 3413 DCDC Bus Overvoltage

Attribute

Alarm ID	Alarm Name	Alarm Severit y	Alarm Type	Cleara nce Catego ry	Introduced Since
3413	DCDC Bus Overvoltage	Major	Equipm ent alarm	ADAC	LUNA2000B V200R024C00

Impact on the System

The system shuts down.

Possible Cause and Solution

Rea son ID	No.	Possible Cause	Suggestion
1	1	The voltage regulation is abnormal or external overvoltage occurs.	1. Check whether the power grid voltage is within the allowed range. If not, contact the local power operator. 2. Check whether a DC bus overvoltage alarm is generated for the PCS. 3. If yes, handle the PCS DC bus overvoltage alarm. 4. If not, power off the ESS by referring to the user manual. After 5 minutes, power on the ESS by referring to the user manual. If the alarm persists, export logs and contact technical support.

2.6 Power System (PCS)

2.6.1 3500 PCS DC Overvoltage

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3500	PCS DC Overvoltage	Major	Equipment alarm	ADAC	LUNA2000B V200R024C00

Impact on the System

The PCS is shut down.

Possible Cause and Solution

Rea son ID	No.	Possible Cause	Suggestion
1	1	The DC bus voltage of the device exceeds the upper threshold.	1.Power off the ESS by referring to the user manual. 2.After 5 minutes, power on the ESS by referring to the user manual. 3.If the alarm persists, export logs and contact technical support.

2.6.2 3501 PCS DC Bus in Reverse Polarity

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3501	PCS DC Bus in Reverse Polarity	Major	Equipment alarm	ADAC	LUNA2000B V200R024C00

Impact on the System

The ESS is shut down.

Possible Cause and Solution

Rea son ID	No.	Possible Cause	Suggestion
1	1	The DC bus is connected in reverse polarity.	1.Power off the ESS by referring to the user manual. 2.Check whether the DC bus is connected in reverse polarity. If yes, adjust the DC polarities. If not, export logs and contact technical support.

2.6.3 3503 PCS Grid Phase Wire Short-Circuited to PE

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3503	PCS Grid Phase Wire Short-Circuited to PE	Major	Equipment alarm	ADAC	LUNA2000B V200R024C00

Impact on the System

The PCS is shut down.

Possible Cause and Solution

Reason ID	No.	Possible Cause	Suggestion
1	1	The phase wire is short-circuited to PE or its impedance to PE is low.	1.Power off the ESS by referring to the user manual. 2.Turn off the secondary circuit breaker of the transformer. 3.Use a megohmmeter to measure the impedance between the AC side and the ground. If the impedance is abnormal (for example, lower than 100 kΩ), rectify the fault. If the impedance is normal, contact technical support.

2.6.4 3504 PCS Grid Failed

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3504	PCS Grid Failed	Major	Environmental alarm	ADAC	LUNA2000B V200R024C00

Impact on the System

The PCS is shut down.

Possible Cause and Solution

Rea son ID	No.	Possible Cause	Suggestion
1	1	1.The power grid experiences an outage. 2.The AC circuit is disconnected or the AC circuit breaker is off.	1.Use a multimeter to check whether the AC voltage meets the power grid standard. 2.Use a multimeter to check whether the AC circuit is disconnected or the AC circuit breaker is off.

2.6.5 3505 PCS Grid Undervoltage

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3505	PCS Grid Undervoltage	Major	Environ mental alarm	ADAC	LUNA2000B V200R024C00

Impact on the System

The PCS is shut down.

Possible Cause and Solution

Rea son ID	No.	Possible Cause	Suggestion
1	1	The grid voltage is below the lower threshold or the low voltage has lasted for more than the value specified for low voltage ride-through (LVRT).	1.If the power grid is abnormal temporarily, the device automatically recovers after detecting that the power grid becomes normal. 2.Check whether the power grid voltage is within the allowed range. If not, contact the local power operator. If yes, modify the power grid undervoltage protection threshold after obtaining the consent of the local power operator. 3.Check whether the peak voltage of the power grid is too low. If the fault occurs frequently and persists, contact the local power operator. 4.If the alarm persists, contact technical support.

2.6.6 3506 PCS Grid Overvoltage

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3506	PCS Grid Overvoltage	Major	Environmental alarm	ADAC	LUNA2000B V200R024C00

Impact on the System

The PCS is shut down.

Possible Cause and Solution

Rea son ID	No.	Possible Cause	Suggestion
1	1	The grid voltage exceeds the higher threshold or the high voltage has lasted for more than the value specified for high voltage ride-through (HVRT).	1.If the power grid is abnormal temporarily, the device automatically recovers after detecting that the power grid becomes normal. 2.Check whether the power grid voltage is within the allowed range. If not, contact the local power operator. If yes, modify the power grid overvoltage protection threshold after obtaining the consent of the local power operator. 3.Check whether the peak voltage of the power grid is too high. If the fault occurs frequently and persists, contact the local power operator. 4.If the alarm persists, contact technical support.

2.6.7 3507 PCS Grid Voltage Imbalanced

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3507	PCS Grid Voltage Imbalanced	Major	Environ mental alarm	ADAC	LUNA2000B V200R024C00

Impact on the System

The PCS is shut down.

Possible Cause and Solution

Rea son ID	No.	Possible Cause	Suggestion
1	1	The difference between grid phase voltages exceeds the upper threshold.	1.If the power grid is abnormal temporarily, the device automatically recovers after detecting that the power grid becomes normal. 2.Check whether the power grid voltage is within the allowed range. If not, contact the local power operator. If yes, modify the power grid imbalance protection threshold after obtaining the consent of the local power operator. 3.Check whether the peak voltage of the power grid is too high. If the fault occurs frequently and persists, contact the local power operator. 4.If the alarm persists, contact technical support.

2.6.8 3508 PCS Grid Overfrequency

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3508	PCS Grid Overfrequency	Major	Environmental alarm	ADAC	LUNA2000B V200R024C00

Impact on the System

The PCS is shut down.

Possible Causes and Procedure

Rea son ID	No.	Possible Cause	Suggestion
1	1	Power grid exception: The actual grid frequency is lower than the local power grid standard.	1.If the power grid is abnormal temporarily, the device automatically recovers after detecting that the power grid becomes normal. 2.Check whether the power grid frequency is within the allowed range. If not, contact the local power operator. If yes, modify the power grid frequency protection threshold after obtaining the consent of the local power operator. 3.If the alarm persists, export logs and contact technical support.

2.6.9 3509 PCS Grid Underfrequency

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3509	PCS Grid Underfrequency	Major	Environ mental alarm	ADAC	LUNA2000B V200R024C00

Impact on the System

The PCS is shut down.

Possible Cause and Solution

Rea son ID	No.	Possible Cause	Suggestion
1	1	Power grid exception: The actual grid frequency is lower than the local power grid standard.	1.If the power grid is abnormal temporarily, the device automatically recovers after detecting that the power grid becomes normal. 2.Check whether the power grid frequency is within the allowed range. If not, contact the local power operator. If yes, modify the power grid frequency protection threshold after obtaining the consent of the local power operator. 3.If the alarm persists, export logs and contact technical support.

2.6.10 3510 PCS Grid Frequency Unstable

Attribute

Alarm ID	Alarm Name	Alarm Severit y	Alarm Type	Cleara nce Catego ry	Introduced Since
3510	PCS Grid Frequency Unstable	Major	Environ mental alarm	ADAC	LUNA2000B V200R024C00

Impact on the System

The PCS is shut down.

Possible Causes and Procedure

Rea son ID	No.	Possible Cause	Suggestion
1	1	Power grid exception: The actual grid frequency change rate does not comply with the local power grid standard.	1.If the power grid is abnormal temporarily, the device automatically recovers after detecting that the power grid becomes normal. 2.Check whether the power grid frequency is within the allowed range. If not, contact the local power operator. 3.If the alarm persists, export logs and contact technical support.

2.6.11 3511 PCS AC Overcurrent

Attribute

Alarm ID	Alarm Name	Alarm Severit y	Alarm Type	Cleara nce Catego ry	Introduced Since
3511	PCS AC Overcurrent	Major	Equipm ent alarm	ADAC	LUNA2000B V200R024C00

Impact on the System

The PCS is shut down.

Possible Causes and Procedure

Reason ID	No.	Possible Cause	Suggestion
1	1	The grid experiences a dramatic voltage drop or is short-circuited. As a result, the transient AC current of the device exceeds the upper threshold and triggers protection.	1.After the alarm is cleared, the device automatically recovers. 2.If the alarm persists and affects the operation of the plant, export logs and contact technical support.

2.6.12 3512 PCS DC Component Overhigh

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3512	PCS DC Component Overhigh	Major	Equipment alarm	ADAC	LUNA2000B V200R024C00

Impact on the System

The PCS is shut down.

Possible Causes and Procedure

Reason ID	No.	Possible Cause	Suggestion
1	1	The DC component in the AC current exceeds the upper threshold.	1.After the alarm is cleared, the device automatically recovers. 2.If the alarm persists and affects the operation of the plant, export logs and contact technical support.

Rea son ID	No.	Possible Cause	Suggestion
2	1	The DC component in the AC voltage exceeds the upper threshold.	1.After the alarm is cleared, the device automatically recovers. 2.If the alarm persists and affects the operation of the plant, export logs and contact technical support.

2.6.13 3513 Reverse Phase Sequence on PCS AC Side

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3513	Reverse Phase Sequence on PCS AC Side	Major	Environmental alarm	ADAC	LUNA2000B V200R024C00

Impact on the System

The PCS is shut down.

Possible Cause and Solution

Rea son ID	No.	Possible Cause	Suggestion
1	1	The phase sequence of lines A, B, and C on the AC side is reversed.	Check whether lines A, B, and C to the AC port of the ESS and to the transformer port are properly connected by referring to the user manual.

2.6.14 3514 PCS Residual Current Abnormal

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3514	PCS Residual Current Abnormal	Major	Environmental alarm	ADAC	LUNA2000B V200R024C00

Impact on the System

The PCS is shut down.

Possible Cause and Solution

Reason ID	No.	Possible Cause	Suggestion
1	1	The ground insulation resistance decreases during device operation.	1. The external circuit may be abnormal temporarily. The device will automatically recover after the fault is rectified. 2. If the alarm persists, use a megohmmeter to check whether the DC-side resistance values of the positive and negative poles to the ground are less than the grid standard values. If yes, rectify the fault. If not, contact technical support.

2.6.15 3515 PCS Grounding Abnormal

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3515	PCS Grounding Abnormal	Major	Environmental alarm	ADAC	LUNA2000B V200R024C00

Impact on the System

The PCS is shut down.

Possible Cause and Solution

Rea son ID	No.	Possible Cause	Suggestion
1	1	1.The neutral wire or PE cable is not connected. 2.The output mode set on the user interface is inconsistent with the actual cable connection mode.	1.Power off the ESS by referring to the user manual. 2.Check whether the PE cable is properly connected. 3.If the PCS is connected to the TN power grid, check whether the neutral wire is properly connected. 4.Power on the ESS by referring to the user manual. Check whether the output mode set on the user interface is consistent with the actual cable connection mode. If they are inconsistent, change the output mode on the user interface to the actual cable connection mode. If they are consistent but the alarm persists and affects the operation of the plant, export logs and contact technical support.

2.6.16 3516 Low PCS Insulation Resistance

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3516	Low PCS Insulation Resistance	Major	Environ mental alarm	ADAC	LUNA2000B V200R024C00

Impact on the System

The ESS is shut down.

Possible Cause and Solution

Reason ID	No.	Possible Cause	Suggestion
1	1	1.The DC side is short-circuited to the ground. 2.The device is in a humid environment and the insulation between the circuit and ground is poor.	1.Set the insulation resistance protection threshold on the user interface to the minimum value by referring to the power grid standard. 2.Power off the ESS by referring to the user manual. 3.Check that the PE cable of the device is correctly connected. 4.Use a megohmmeter to check the common-mode impedance between the system and PE cable. If a short circuit occurs, rectify the fault. If no short circuit occurs but the alarm persists and affects the operation of the plant, export logs and contact technical support.

2.6.17 3517 PCS Temperature High

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3517	PCS Temperature High	Major	Equipment alarm	ADAC	LUNA2000B V200R024C00

Impact on the System

The PCS is shut down.

Possible Cause and Solution

Reason ID	No.	Possible Cause	Suggestion
1	1	1.The ambient temperature is too high. 2.The device is faulty.	1.Check whether an alarm is generated for the LTMS. 2.If yes, handle the alarm. 3.If not, power off the ESS by referring to the user manual. After 5 minutes, power on the ESS by referring to the user manual. If the alarm persists, export logs and contact technical support.

2.6.18 3518 PCS Abnormal

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3518	PCS Abnormal	Major	Equipment alarm	ADAC	LUNA2000B V200R024C00

Impact on the System

The PCS is shut down.

Possible Cause and Solution

Reason ID	No.	Possible Cause	Suggestion
1	1	A major fault has occurred on a circuit inside the device.	1.Power off the ESS by referring to the user manual. 2.After 5 minutes, power on the ESS by referring to the user manual. 3.If the alarm persists, export logs and contact technical support.

Rea son ID	No.	Possible Cause	Suggestion
2	1	A major fault has occurred on a circuit inside the device.	1.Power off the ESS by referring to the user manual. 2.After 5 minutes, power on the ESS by referring to the user manual. 3.If the alarm persists, export logs and contact technical support.
3	1	A major fault has occurred on a circuit inside the device.	1.Power off the ESS by referring to the user manual. 2.After 5 minutes, power on the ESS by referring to the user manual. 3.If the alarm persists, export logs and contact technical support.
4	1	A major fault has occurred on a circuit inside the device.	1.Power off the ESS by referring to the user manual. 2.After 5 minutes, power on the ESS by referring to the user manual. 3.If the alarm persists, export logs and contact technical support.
5	1	A major fault has occurred on a circuit inside the device.	1.Power off the ESS by referring to the user manual. 2.After 5 minutes, power on the ESS by referring to the user manual. 3.If the alarm persists, export logs and contact technical support.
6	1	A major fault has occurred on a circuit inside the device.	1.Power off the ESS by referring to the user manual. 2.After 5 minutes, power on the ESS by referring to the user manual. 3.If the alarm persists, export logs and contact technical support.
7	1	A major fault has occurred on a circuit inside the device.	1.Power off the ESS by referring to the user manual. 2.After 5 minutes, power on the ESS by referring to the user manual. 3.If the alarm persists, export logs and contact technical support.

Rea son ID	No.	Possible Cause	Suggestion
8	1	A major fault has occurred on a circuit inside the device.	1.Power off the ESS by referring to the user manual. 2.After 5 minutes, power on the ESS by referring to the user manual. 3.If the alarm persists, export logs and contact technical support.
9	1	A major fault has occurred on a circuit inside the device.	1.Power off the ESS by referring to the user manual. 2.After 5 minutes, power on the ESS by referring to the user manual. 3.If the alarm persists, export logs and contact technical support.
10	1	A major fault has occurred on a circuit inside the device.	1.Power off the ESS by referring to the user manual. 2.After 5 minutes, power on the ESS by referring to the user manual. 3.If the alarm persists, export logs and contact technical support.
11	1	A major fault has occurred on a circuit inside the device.	1.Power off the ESS by referring to the user manual. 2.After 5 minutes, power on the ESS by referring to the user manual. 3.If the alarm persists, export logs and contact technical support.
12	1	The precharge circuit is abnormal, or the common DC bus is short-circuited.	1.Power off the ESS by referring to the user manual. 2.Use a multimeter to check whether the common DC bus is short-circuited. 3.If not, power on the ESS by referring to the user manual. 4.If the alarm persists and affects the operation of the plant, export logs and contact technical support.
13	1	The current of the balanced bridge exceeds the maximum operating current.	1.After the alarm is cleared, the device automatically recovers. 2.If the alarm persists and affects the operation of the plant, export logs and contact technical support.

Rea son ID	No.	Possible Cause	Suggestion
14	1	A major fault has occurred on a circuit inside the device.	1.Power off the ESS by referring to the user manual. 2.After 5 minutes, power on the ESS by referring to the user manual. 3.If the alarm persists, export logs and contact technical support.

2.6.19 3519 PCS Update Failed or Versions Mismatched

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3519	PCS Update Failed or Versions Mismatched	Major	Equipment alarm	ADAC	LUNA2000B V200R024C00

Impact on the System

The PCS is shut down.

Possible Cause and Solution

Rea son ID	No.	Possible Cause	Suggestion
1	1	The update fails.	1.Perform the update again. 2.If the update fails for three consecutive times, export logs and contact technical support.
2	1	The update fails.	1.Perform the update again. 2.If the update fails for three consecutive times, export logs and contact technical support.

Rea son ID	No.	Possible Cause	Suggestion
3	1	The communications protocol version is incorrect.	1.Perform the update again. 2.If the update fails for three consecutive times, export logs and contact technical support.

2.6.20 3520 PCS Internal Fan Abnormal

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3520	PCS Internal Fan Abnormal	Major	Equipment alarm	ADAC	LUNA2000B V200R024C00

Impact on the System

The PCS may be derated.

Possible Cause and Solution

Rea son ID	No.	Possible Cause	Suggestion
1	1	The internal fan is short-circuited, the power supply is insufficient, or the fan is damaged.	1.Power off the ESS by referring to the user manual. 2.After 5 minutes, power on the ESS by referring to the user manual. 3.If the alarm persists, export logs and contact technical support.
2	1	The internal fan is short-circuited, the power supply is insufficient, or the fan is damaged.	1.Power off the ESS by referring to the user manual. 2.After 5 minutes, power on the ESS by referring to the user manual. 3.If the alarm persists, export logs and contact technical support.

Rea son ID	No.	Possible Cause	Suggestion
3	1	The internal fan is short-circuited, the power supply is insufficient, or the fan is damaged.	1.Power off the ESS by referring to the user manual. 2.After 5 minutes, power on the ESS by referring to the user manual. 3.If the alarm persists, export logs and contact technical support.

2.6.21 3521 PCS AC Terminal Temperature Abnormal

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3521	PCS AC Terminal Temperature Abnormal	Major	Equipm ent alarm	ADAC	LUNA2000B V200R024C00

Impact on the System

The PCS is shut down.

Possible Cause and Solution

Rea son ID	No.	Possible Cause	Suggestion
1	1	1.The AC power cable is not of the recommended specifications or is oxidized. 2.The OT/OD terminal of the AC power cable is not crimped as required. 3.The fastening torque of the AC terminal does not meet the requirement.	1.Power off the ESS by referring to the user manual. 2.Check whether the cables meet the specifications by referring to the user manual. 3.Check whether the OT/OD terminal is crimped as required by referring to the user manual. 4.Check whether the fastening torque of wiring terminals meets the requirement by referring to the user manual. 5.Power on the ESS by referring to the user manual. If the alarm persists, export logs and contact technical support.

2.6.22 3522 PCS DC Terminal Temperature Abnormal

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3522	PCS DC Terminal Temperature Abnormal	Major	Equipment alarm	ADAC	LUNA2000B V200R024C00

Impact on the System

The ESS is shut down.

Possible Cause and Solution

Rea son ID	No.	Possible Cause	Suggestion
1	1	1.The DC power cable is not of the recommended specifications or is oxidized. 2.The DC connector is not properly inserted. 3.The OT/OD terminals of the DC cable are not crimped as required, or the fastening torque of the wiring terminals on the DC side does not meet the requirement.	1.Power off the ESS by referring to the user manual. 2.Check whether the DC connector is not properly inserted by referring to the user manual. 3.Power on the ESS by referring to the user manual. If the alarm persists, export logs and contact technical support.

2.6.23 3523 PCS Black Start Failed

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3523	PCS Black Start Failed	Major	Equipment alarm	ADAC	LUNA2000B V200R024C00

Impact on the System

The PCS is shut down.

Possible Cause and Solution

Rea son ID	No.	Possible Cause	Suggestion
1	1	1.The grid codes configured on PCSs are inconsistent. 2.The external load is abnormal or the power cable is not properly connected.	1.Shut down the ESS on the user interface. 2.Check whether the grid codes configured on all PCSs are consistent on the user interface. 3.If the grid codes are different, correctly set the grid code to an identical value on all PCSs and perform black start again. 4.If the grid codes are the same, perform the following steps: (1) Power off the ESS by referring to the user manual. (2) Check whether the external load power is lower than the current system output power. It is recommended that black start be performed without loads. (3) Check whether the power cable is correctly connected by referring to the user manual. (4) After the check is complete, perform black start again. (5) If the alarm persists, export logs and contact technical support.

2.6.24 3524 Incorrect Black Start Instruction Sequence of PCS

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3524	Incorrect Black Start Instruction Sequence of PCS	Major	Equipment alarm	ADAC	LUNA2000B V200R024C00

Impact on the System

The PCS is shut down.

Possible Cause and Solution

Rea son ID	No.	Possible Cause	Suggestion
1	1	The black start instructions are incorrect.	1.Power off the ESS by referring to the user manual. 2.After 5 minutes, power on the ESS by referring to the user manual. 3.If the alarm persists, export logs and contact technical support.

2.6.25 3525 PCS Fuse Broken

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3525	PCS Fuse Broken	Major	Equipment alarm	ADAC	LUNA2000B V200R024C00

Impact on the System

The ESS is shut down.

Possible Cause and Solution

Rea son ID	No.	Possible Cause	Suggestion
1	1	The internal circuit of the device is faulty.	Export logs and contact technical support.

2.6.26 3526 PCS Fuse Self-Check Abnormal

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3526	PCS Fuse Self-Check Abnormal	Major	Equipment alarm	ADAC	LUNA2000B V200R024C00

Impact on the System

The PCS is shut down.

Possible Cause and Solution

Reason ID	No.	Possible Cause	Suggestion
1	1	The internal circuit of the device is faulty.	1.After the alarm is cleared, the device automatically recovers. 2.If the alarm persists and affects the operation of the plant, export logs and contact technical support.

2.6.27 3527 PCS FAST I/O Self-Test Abnormal

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3527	PCS FAST I/O Self-Test Abnormal	Major	Equipment alarm	ADAC	LUNA2000B V200R024C00

Impact on the System

The ESS is shut down.

Possible Cause and Solution

Rea son ID	No.	Possible Cause	Suggestion
1	1	The rapid shutdown cable between the PCS and the ESS is not properly connected.	1.Power off the ESS by referring to the user manual and check whether the communications port is securely connected. 2.After 5 minutes, power on the ESS by referring to the user manual. 3.If the alarm persists, export logs and contact technical support.

2.6.28 3528 PCS DC Bus Short-Circuited

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3528	PCS DC Bus Short-Circuited	Major	Equipm ent alarm	ADAC	LUNA2000B V200R024C00

Impact on the System

The ESS is shut down.

Possible Cause and Solution

Rea son ID	No.	Possible Cause	Suggestion
1	1	The PCS DC bus is short-circuited.	1.Power off the ESS by referring to the user manual and check whether a PCS DC short circuit occurs. 2.If a short circuit occurs, rectify the fault. After the fault is rectified, power on the system again. 3.If the line is normal, export logs and contact technical support.

2.6.29 3529 PCS Relay Overtemperature

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3529	PCS Relay Overtemperature	Major	Communications alarm	ADAC	LUNA2000B V200R024C00

Impact on the System

The PCS is derated and may shut down in severe cases.

Possible Cause and Solution

Reason ID	No.	Possible Cause	Suggestion
1	1	The oxidized relay contact causes contact resistance increase, which consequently leads to overtemperature.	1.Check whether no grid scheduling instruction is received in on-grid scenarios or whether the PCS output power is greater than the load power in off-grid scenarios. If yes, shut down and start the PCS by referring to step 2.If not, no further action is required. 2.Shut down the ESS on the user interface. After 5 minutes, start the ESS. 3.If the alarm persists after the restart, export logs and contact technical support.

2.6.30 3530 PCS AC Resonance

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3530	PCS AC Resonance	Major	Environmental alarm	ADAC	LUNA2000B V200R024C00

Impact on the System

The system is powered off.

Possible Cause and Solution

Rea son ID	No.	Possible Cause	Suggestion
1	1	Resonance occurs between the external device and the current device.	Turn off the AC circuit breaker in the power distribution cabinet. If the RCM has a DC disconnector, you also need to turn off the DC disconnector. Collect the information about the distance between the ESS and inverter (if any) and the grid connection point, number of parallel-connected devices, device models, and logs (all devices connected to the same grid connection point), and contact technical support.

2.6.31 3531 PCS Derated

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3531	PCS Derated	Major	Equipment alarm	ADAC	LUNA2000B V200R024C00

Impact on the System

The PCS is derated.

Possible Cause and Solution

Rea son ID	No.	Possible Cause	Suggestion
1	1	1.The AC power cable is not of the recommended specifications or is oxidized. 2.The OT/OD terminal of the AC power cable is not crimped as required. 3.The fastening torque of the AC terminal does not meet the requirement.	1.Power off the ESS by referring to the user manual. 2.Check whether the cables meet the specifications by referring to the user manual. 3.Check whether the OT/OD terminal is crimped as required by referring to the user manual. 4.Check whether the fastening torque of wiring terminals meets the requirement by referring to the user manual. 5.Turn on the AC circuit breaker of the RCM and then the AC circuit breaker of the power distribution cabinet. If the alarm persists, export logs and contact technical support.
2	1	1.The DC connector is oxidized. 2.The DC connector is not properly inserted. 3.The OT/OD terminal of the internal DC power cable or the NTC sensor cable is loosely connected.	1.Power off the ESS by referring to the user manual. 2.Check whether the DC connector is not properly inserted by referring to the user manual. 3.Turn on the AC circuit breaker of the RCM and then the AC circuit breaker of the power distribution cabinet. If the alarm persists, export logs and contact technical support.
3	1	The internal copper bar and NTC are loosely connected.	Export logs and contact technical support.
4	1	Resonance occurs between the external device and the current device.	Collect the information about the distance between the ESS and inverter (if any) and the grid connection point, number of parallel-connected devices, device models, and logs (all devices connected to the same grid connection point), and contact technical support.

2.6.32 3532 PCS Startup Abnormal

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3532	PCS Startup Abnormal	Major	Equipment alarm	ADAC	LUNA2000B V200R024C00

Impact on the System

The PCS is shut down.

Possible Cause and Solution

Reason ID	No.	Possible Cause	Suggestion
1	1	The working mode is not supported.	1. If the ESS SOC is less than the array end-of-discharge SOC, adjust the array end-of-discharge SOC to a value less than the ESS SOC and start the device again. After the device is started successfully, restore the array end-of-discharge SOC to the original value. 2. If the alarm persists, set the working mode to PQ and restart the device. After the device is started successfully, charge the ESS and restore the working mode to the original value when the ESS SOC is greater than the array end-of-discharge SOC. 3. If the alarm persists, export logs and contact technical support.
2	1	The grid THDu value is too large.	1. If the alarm occurs occasionally, the power grid may be abnormal temporarily. The device automatically recovers after detecting that the power grid becomes normal. 2. If the alarm occurs frequently, check whether the grid THDu value is within the normal range. If not, contact the local power operator. 3. If the alarm persists, export logs and contact technical support.

2.7 Temperature Control System

2.7.1 3600 Power loss alarm

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3600	Power loss alarm	Major	Equipment alarm	ADAC	LUNA2000B V200R024C00

Impact on the System

The LTMS shuts down.

Possible Cause and Solution

Reason ID	No.	Possible Cause	Suggestion
1	1	The power supply to the LTMS is abnormal.	1. Use a voltmeter to check whether the power supply to the LTMS is normal. 2. If the power supply is abnormal, locate the cause and resume the power supply. 3. If the fault persists, check for other causes. If all possible causes have been ruled out, contact technical support.

2.7.2 3601 Power voltage abnormal

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3601	Power voltage abnormal	Major	Equipment alarm	ADAC	LUNA2000B V200R024C00

Impact on the System

The system cannot be charged or discharge, and the LTMS shuts down.

Possible Cause and Solution

Reason ID	No.	Possible Cause	Suggestion
1	1	The power supply voltage exceeds the upper threshold.	1. Use a voltmeter to check whether the power supply to the LTMS is normal. 2. If the power supply is abnormal, locate the cause and resume the power supply.
1	2	The corresponding power detection device is faulty.	1. Replace the auxiliary power module by referring to the maintenance manual. 2. If the alarm persists, export logs and contact technical support.
2	1	The power supply voltage is below the lower threshold.	1. Use a voltmeter to check whether the power supply to the LTMS is normal. 2. If the power supply is abnormal, locate the cause and resume the power supply.
2	2	The corresponding power detection device is faulty.	1. Replace the auxiliary power module by referring to the maintenance manual. 2. If the alarm persists, export logs and contact technical support.

2.7.3 3602 Power frequency abnormal

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3602	Power frequency abnormal	Warning	Equipment alarm	ADAC	LUNA2000B V200R024C00

Impact on the System

The system can be charged and discharge normally, but the system reliability may be affected.

Possible Cause and Solution

Reason ID	No.	Possible Cause	Suggestion
1	1	The power supply frequency is below the lower threshold.	1. Check whether the power supply frequency of the LTMS is normal on the user interface. 2. If the power supply is abnormal, locate the cause and resume the power supply.
	2	The corresponding power detection device is faulty.	1. Replace the component by referring to the corresponding replacement guide in the maintenance manual. 2. If the fault persists, check for other causes. If all possible causes have been ruled out, contact technical support.
2	1	The power supply frequency exceeds the upper threshold.	1. Check whether the power supply frequency of the LTMS is normal on the user interface. 2. If the power supply is abnormal, locate the cause and resume the power supply.
	2	The corresponding power detection device is faulty.	1. Replace the component by referring to the corresponding replacement guide in the maintenance manual. 2. If the fault persists, check for other causes. If all possible causes have been ruled out, contact technical support.

2.7.4 3603 Outdoor temperature sensor fault

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3603	Outdoor temperature sensor fault	Major	Equipment alarm	ADAC	LUNA2000B V200R024C00

Impact on the System

The system can be charged and discharge normally, but the outdoor temperature cannot be detected. The system may fail to respond to the heat dissipation requirements on the power side in a timely manner.

Possible Cause and Solution

Reason ID	No.	Possible Cause	Suggestion
1	1	The cable to the temperature sensor is loose or damaged.	1. Power off the ESS by referring to the user manual. 2. Check whether the cable to the temperature sensor is disconnected or broken. If the cable is disconnected or broken, reconnect the sensor connector.
	2	The temperature sensor is faulty.	1. Replace the temperature sensor by referring to the maintenance manual. 2. If the alarm persists, export logs and contact technical support.

2.7.5 3604 Outdoor low temperature alarm

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3604	Outdoor low temperature alarm	Minor	Environmental alarm	ADAC	LUNA2000B V200R024C00

Impact on the System

The system can be charged and discharge normally, but the LTMS may fail to run properly.

Possible Cause and Solution

Reason ID	No.	Possible Cause	Suggestion
1	1	The outdoor temperature is too low.	Use the device within the nominal temperature range.

2.7.6 3605 LTMS Communication Abnormal

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3605	LTMS Communication Abnormal	Major	Communications alarm	ADAC	LUNA2000B V200R024C00

Impact on the System

The system can be charged and discharge normally, but the LTMS may fail to run properly.

Possible Cause and Solution

Rea son ID	No.	Possible Cause	Suggestion
1	1	The power supply to the LTMS is abnormal.	1. Use a voltmeter to check whether the power supply to the LTMS is normal. 2. If the power supply is abnormal, locate the cause and resume the power supply.
1	3	The cable to the LTMS is loose or damaged.	1. Power off the ESS by referring to the user manual. 2. Check whether the wiring terminals of the FE_1 or FE_2 port on the LCC and the LAN3 port on the BCU are loose, disconnected, or incorrectly connected. If yes, reconnect them. 3. If the alarm persists, export logs and contact technical support.

2.7.7 3606 LTMS expiration alarm

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3606	LTMS expiration alarm	Warning	Equipment alarm	ADAC	LUNA2000B V200R024C00

Impact on the System

The system can be charged and discharge normally, but the LTMS may fail to run properly.

Possible Cause and Solution

Rea son ID	No.	Possible Cause	Suggestion
1	1	The system time is incorrectly set.	1. Check whether the time of the ESS is consistent with the local time on the user interface. If they are inconsistent, set the time on the user interface to the local time. 2. If the alarm persists, export logs and contact technical support.
	2	The service time of the LTMS exceeds the threshold.	1. Replace the LTMS and liquid cooling pipes by referring to the maintenance manual. 2. If the alarm persists, export logs and contact technical support.

2.7.8 3608 Certificate about to expire

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3608	Certificate about to expire	Minor	Equipm ent alarm	ADAC	LUNA2000B V200R024C00

Impact on the System

The system can be charged and discharge normally, but the certificate-related functions are restricted.

Possible Causes and Procedure

Rea son ID	No.	Possible Cause	Suggestion
1	1	The northbound communication certificate is about to expire or the system time is incorrectly set.	1. Check whether the time of the ESS is consistent with the local time on the user interface. If they are inconsistent, set the time on the user interface to the local time. 2. Otherwise, apply for a new certificate from the CA and update the certificate. 3. If the alarm persists, export logs and contact technical support.

2.7.9 3609 Certificate has expired

Attribute

Alarm ID	Alarm Name	Alarm Severit y	Alarm Type	Cleara nce Catego ry	Introduced Since
3609	Certificate has expired	Minor	Equipm ent alarm	ADAC	LUNA2000B V200R024C00

Impact on the System

The system can be charged and discharge normally, but the certificate-related functions are restricted.

Possible Causes and Procedure

Rea son ID	No.	Possible Cause	Suggestion
1	1	The northbound communication certificate has expired or the system time is incorrectly set.	1. Check whether the time of the ESS is consistent with the local time on the user interface. If they are inconsistent, set the time on the user interface to the local time. 2. Otherwise, apply for a new certificate from the CA and update the certificate. 3. If the alarm persists, export logs and contact technical support.

2.7.10 3620 Compressor discharge high pressure alarm

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3620	Compressor discharge high pressure alarm	Major	Equipment alarm	ADAC	LUNA2000B V200R024C00

Impact on the System

The system can be charged and discharge normally, but the compressor cannot run properly.

Possible Cause and Solution

Reason ID	No.	Possible Cause	Suggestion
1	1	The air filter or outdoor heat exchanger is dirty or blocked.	1. Check whether the air filter is dirty or blocked. If yes, clean it up or replace it. 2. Check whether the outdoor heat exchanger is dirty or blocked. If yes, clean it up.
1	2	The outdoor fan is abnormal.	1. Check whether a fan alarm is generated on the user interface. 2. If a fan alarm is generated, rectify the fault by referring to the suggestions related to the fan first.
1	3	The data reported from the pressure sensor is abnormal.	1. Check whether a water pump alarm is generated on the user interface. 2. If a water pump alarm is generated, rectify the fault by referring to the suggestions related to the water pump first. 3. If the alarm persists, check whether a multi-way valve alarm is generated on the user interface. 4. If a multi-way valve alarm is generated, rectify the fault by referring to the suggestions related to the multi-way valve first.

Rea son ID	No.	Possible Cause	Suggestion
1	4	The temperature of water supplied to the condenser is too high or the water supply is insufficient.	1. If the alarm persists, export logs and contact technical support.
1	6	The data reported from the pressure sensor is abnormal.	1. Power off the ESS by referring to the user manual. 2. Check whether the cable to the pressure sensor is disconnected or broken. If the cable is disconnected or broken, reconnect the sensor connector. 3. If the fault persists, replace the LTMS by referring to the maintenance manual. 4. If the alarm persists, export logs and contact technical support.

2.7.11 3621 Compressor suction low pressure alarm

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3621	Compressor suction low pressure alarm	Major	Equipment alarm	ADAC	LUNA2000B V200R024C00

Impact on the System

The system can be charged and discharge normally, but the compressor cannot run properly.

Possible Cause and Solution

Reason ID	No.	Possible Cause	Suggestion
1	2	The refrigerant leaks.	1. Use a halogen detector to check whether a leakage occurs in a refrigerant pipe of the LTMS. 2. If a leakage occurs, replace the corresponding component by referring to the maintenance manual. 3. Charge refrigerant by referring to the refrigerant charging guide in the maintenance manual.
1	4	The data reported from the pressure sensor is abnormal.	1. Power off the ESS by referring to the user manual. 2. Check whether the cable to the pressure sensor is disconnected or broken. If the cable is disconnected or broken, reconnect the sensor connector.
1	5	The EEV is faulty.	1. Check whether the cable to the EEV is disconnected or broken. If the cable is disconnected or broken, reconnect the EEV connector. 2. If the alarm persists, replace the LTMS by referring to the maintenance manual. 3. If the alarm persists, export logs and contact technical support.
2	1	The data reported from the pressure sensor is abnormal.	1. Power off the ESS by referring to the user manual. 2. Check whether the cable to the pressure sensor is disconnected or broken. If the cable is disconnected or broken, reconnect the sensor connector.
	2	The refrigerant leaks.	1. Use a halogen detector to check whether a leakage occurs in a refrigerant pipe of the LTMS. 2. If a leakage occurs, replace the corresponding component by referring to the maintenance manual. 3. Charge refrigerant by referring to the refrigerant charging guide in the maintenance manual.

Rea son ID	No.	Possible Cause	Suggestion
	3	The EEV is faulty.	1. Power off the ESS by referring to the user manual.
			2. Check whether the cable to the EEV is disconnected or broken. If the cable is disconnected or broken, reconnect the EEV connector.
			3. If the alarm persists, replace the LTMS by referring to the maintenance manual.
			4. If the alarm persists, export logs and contact technical support.

2.7.12 3622 Compressor Low Superheat Degree

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3622	Compressor Low Superheat Degree	Major	Equipm ent alarm	ADAC	LUNA2000B V200R024C00

Impact on the System

The compressor cannot run properly.

Possible Cause and Solution

Rea son ID	No.	Possible Cause	Suggestion
1	1	The data reported from the pressure and temperature sensor is abnormal.	1. Power off the ESS by referring to the user manual.
			2. Check whether the cable to the pressure and temperature sensor is disconnected or broken. If the cable is disconnected or broken, reconnect the connector of the pressure and temperature sensor.

Rea son ID	No.	Possible Cause	Suggestion
	4	There is insufficient coolant.	1. Check whether a "Water Tank Low Liquid Level" alarm is generated. If yes, handle the alarm first. If no, go to the next step. 2. Power off the ESS by referring to the user manual. 3. Check whether a leakage occurs in the LTMS or a pipe. 4. If a leakage occurs, replace the corresponding component or pipe by referring to the maintenance manual. 5. Fill coolant into the coolant refill tank by referring to the corresponding guide in the maintenance manual.
	6	The EEV is faulty.	1. Check whether the cable to the EEV is disconnected or broken. If the cable is disconnected or broken, reconnect the EEV connector. 2. If the alarm persists, replace the LTMS by referring to the maintenance manual. 3. If the alarm persists, export logs and contact technical support.

2.7.13 3623 Compressor discharge pressure sensor fault

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3623	Compressor discharge pressure sensor fault	Major	Equipment alarm	ADAC	LUNA2000B V200R024C00

Impact on the System

The discharge pressure cannot be properly monitored, and the compressor may not run properly.

Possible Cause and Solution

Rea son ID	No.	Possible Cause	Suggestion
1	1	The cable to the pressure sensor is loose or damaged.	1. Power off the ESS by referring to the user manual. 2. Check whether the cable to the pressure sensor is disconnected or broken. If the cable is disconnected or broken, reconnect the sensor connector.
1	3	The pressure and temperature sensor is faulty.	1. Replace the LTMS by referring to the corresponding replacement guide in the maintenance manual. 2. If the alarm persists, export logs and contact technical support.

2.7.14 3624 Condenser outlet pressure sensor fault

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3624	Condenser outlet pressure sensor fault	Minor	Equipment alarm	ADAC	LUNA2000B V200R024C00

Impact on the System

The condenser outlet pressure cannot be properly monitored.

Possible Cause and Solution

Rea son ID	No.	Possible Cause	Suggestion
1	1	The cable to the pressure sensor is loose or damaged.	1. Power off the ESS by referring to the user manual. 2. Check whether the cable to the pressure sensor is disconnected or broken. If the cable is disconnected or broken, reconnect the sensor connector.

Rea son ID	No.	Possible Cause	Suggestion
1	3	The pressure and temperature sensor is faulty.	1. Replace the LTMS by referring to the maintenance manual. 2. If the alarm persists, export logs and contact technical support.

2.7.15 3625 Condenser outlet temperature sensor fault

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3625	Condenser outlet temperature sensor fault	Minor	Equipment alarm	ADAC	LUNA2000B V200R024C00

Impact on the System

The system can be charged and discharge normally, but the suction pressure cannot be detected properly. The compressor cannot run properly.

Possible Cause and Solution

Rea son ID	No.	Possible Cause	Suggestion
1	1	The cable to the pressure sensor is loose or damaged.	1. Power off the ESS by referring to the user manual. 2. Check whether the cable to the pressure sensor is disconnected or broken. If the cable is disconnected or broken, reconnect the sensor connector.
1	3	The pressure and temperature sensor is faulty.	1. Replace the LTMS by referring to the maintenance manual. 2. If the alarm persists, export logs and contact technical support.

2.7.16 3626 Compressor suction pressure sensor fault

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3626	Compressor suction pressure sensor fault	Major	Equipment alarm	ADAC	LUNA2000B V200R024C00

Impact on the System

The system can be charged and discharge normally, but the suction pressure cannot be detected properly. The compressor cannot run properly.

Possible Causes and Procedure

Reason ID	No.	Possible Cause	Suggestion
1	1	The cable to the pressure sensor is loose or damaged.	1. Power off the ESS by referring to the user manual. 2. Check whether the cable to the pressure sensor is disconnected or broken. If the cable is disconnected or broken, reconnect the sensor connector.
1	3	The pressure and temperature sensor is faulty.	1. Replace the LTMS by referring to the maintenance manual. 2. If the alarm persists, export logs and contact technical support.

2.7.17 3627 Compressor suction temperature sensor fault

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3627	Compressor suction temperature sensor fault	Major	Equipment alarm	ADAC	LUNA2000B V200R024C00

Impact on the System

The suction temperature cannot be properly monitored, and the compressor may not run properly.

Possible Cause and Solution

Reason ID	No.	Possible Cause	Suggestion
1	1	The cable to the temperature sensor is loose or damaged.	1. Power off the ESS by referring to the user manual. 2. Check whether the cable to the temperature sensor is disconnected or broken. If the cable is disconnected or broken, reconnect the sensor connector.
1	3	The pressure and temperature sensor is faulty.	1. Replace the LTMS by referring to the maintenance manual. 2. If the alarm persists, export logs and contact technical support.

2.7.18 3628 Dehumidifying temperature sensor fault

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3628	Dehumidifying temperature sensor fault	Minor	Equipment alarm	ADAC	LUNA2000B V200R024C00

Impact on the System

The system can be charged and discharge normally, but the dehumidifying evaporator outlet temperature cannot be detected. Dehumidifying may fail.

Possible Cause and Solution

Reason ID	No.	Possible Cause	Suggestion
1	1	The cable to the temperature sensor is loose or damaged.	1. Power off the ESS by referring to the user manual. 2. Check whether the cable to the temperature sensor is disconnected or broken. If the cable is disconnected or broken, reconnect the sensor connector.
	2	The temperature sensor is faulty.	1. Replace the LTMS by referring to the maintenance manual. 2. If the alarm persists, export logs and contact technical support.

2.7.19 3640 Compressor drive alarm

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3640	Compressor drive alarm	Major	Equipment alarm	ADAC	LUNA2000B V200R024C00

Impact on the System

The system can be charged and discharge normally, but the compressor cannot run properly.

Possible Cause and Solution

Reason ID	No.	Possible Cause	Suggestion
1	2	The compressor drive is faulty.	Replace the drive by referring to the corresponding replacement guide in the maintenance manual.
1	4	The compressor is faulty.	1. Replace the LTMS by referring to the maintenance manual. 2. If the alarm persists, export logs and contact technical support.

2.7.20 3641 Compressor drive output abnormal

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3641	Compressor drive output abnormal	Major	Equipment alarm	ADAC	LUNA2000B V200R024C00

Impact on the System

The system can be charged and discharge normally, but the compressor cannot run properly.

Possible Cause and Solution

Reason ID	No.	Possible Cause	Suggestion
1	1	The cable to the compressor drive is loose or damaged.	1. Power off the ESS by referring to the user manual. 2. Check whether the cable to the drive is disconnected or broken. If the cable is disconnected or broken, reconnect the cable.
1	2	The compressor drive is faulty.	Replace the drive by referring to the corresponding replacement guide in the maintenance manual.
1	4	The compressor is faulty.	1. Replace the LTMS by referring to the maintenance manual. 2. If the alarm persists, export logs and contact technical support.

2.7.21 3642 Compressor Overcurrent Alarm

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3642	Compressor Overcurrent Alarm	Major	Equipment alarm	ADAC	LUNA2000B V200R024C00

Impact on the System

The system can be charged and discharge normally, but the compressor cannot run properly.

Possible Cause and Solution

Rea son ID	No.	Possible Cause	Suggestion
1	1	The air filter or outdoor heat exchanger is dirty or blocked.	1. Check whether the air filter is dirty or blocked. If yes, clean it up or replace it. 2. Check whether the outdoor heat exchanger is dirty or blocked. If yes, clean it up.
1	2	The outdoor fan is abnormal.	1. Check whether a fan alarm is generated on the user interface. 2. If a fan alarm is generated, rectify the fault by referring to the suggestions related to the fan first.
1	3	The power supply voltage exceeds the upper threshold.	1. Use a voltmeter to check whether the power supply to the LTMS is normal. 2. If the power supply is abnormal, locate the cause and resume the power supply.
1	4	The refrigerant is overfilled.	1. Withdraw an appropriate amount of the refrigerant in the system by referring to the maintenance manual.
1	6	The compressor is faulty.	1. Replace the LTMS by referring to the maintenance manual. 2. If the alarm persists, export logs and contact technical support.

2.7.22 3643 Compressor drive communication abnormal

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3643	Compressor drive communication abnormal	Major	Equipment alarm	ADAC	LUNA2000B V200R024C00

Impact on the System

The system can be charged and discharge normally, but the compressor cannot run properly.

Possible Cause and Solution

Reason ID	No.	Possible Cause	Suggestion
1	2	The cable to the compressor drive is loose or damaged.	Check whether the cable to the drive is disconnected or broken. If the cable is disconnected or broken, reconnect the cable.
	3	The compressor drive is absent.	1. Power off the ESS by referring to the user manual. 2. Check whether the drive is in position. If not, reconnect the drive.
	4	The compressor drive is faulty.	1. Replace the drive by referring to the corresponding replacement guide in the maintenance manual. 2. If the alarm persists, export logs and contact technical support.

2.7.23 3644 High discharge temperature alarm

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3644	High discharge temperature alarm	Major	Equipment alarm	ADAC	LUNA2000B V200R024C00

Impact on the System

The system can be charged and discharge normally, but the compressor cannot run properly.

Possible Cause and Solution

Rea son ID	No.	Possible Cause	Suggestion
1	1	The air filter or outdoor heat exchanger is dirty or blocked.	1. Check whether the air filter is dirty or blocked. If yes, clean it up or replace it. 2. Check whether the outdoor heat exchanger is dirty or blocked. If yes, clean it up.
	2	The outdoor temperature is too high.	1. Check whether the device is used within the nominal temperature range.
	3	The outdoor fan is abnormal.	1. Check whether a fan alarm is generated on the user interface. 2. If a fan alarm is generated, rectify the fault by referring to the suggestions related to the fan first.
	4	The temperature of water supplied to the condenser is too high or the water supply is insufficient.	1. Check whether a water pump alarm is generated on the user interface. 2. If a water pump alarm is generated, rectify the fault by referring to the suggestions related to the water pump first. 3. If the fault persists, check whether a multi-way valve alarm is generated on the user interface. 4. If a multi-way valve alarm is generated, rectify the fault by referring to the suggestions related to the multi-way valve first.
	5	Refrigerant leaks.	1. Use a halogen detector to check whether a leakage occurs in a refrigerant pipe of the LTMS. 2. If a leakage occurs, replace the corresponding component by referring to the maintenance manual. 3. Charge refrigerant by referring to the refrigerant charging guide in the maintenance manual.

Rea son ID	No.	Possible Cause	Suggestion
	7	The data reported from the discharge temperature sensor is abnormal.	1. Power off the ESS by referring to the user manual. 2. Check whether the cable to the temperature sensor is disconnected or broken. If the cable is disconnected or broken, reconnect the sensor connector. 3. Replace the LTMS by referring to the maintenance manual. 4. If the alarm persists, export logs and contact technical support.

2.7.24 3645 Compressor discharge temperature sensor fault

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3645	Compressor discharge temperature sensor fault	Major	Equipment alarm	ADAC	LUNA2000B V200R024C00

Impact on the System

The system can be charged and discharge normally, but the discharge temperature cannot be detected properly. The compressor cannot run properly.

Possible Causes and Procedure

Rea son ID	No.	Possible Cause	Suggestion
1	1	The cable to the temperature sensor is loose or damaged.	1. Power off the ESS by referring to the user manual. 2. Check whether the cable to the temperature sensor is disconnected or broken. If the cable is disconnected or broken, reconnect the sensor connector.

Rea son ID	No.	Possible Cause	Suggestion
1	3	The pressure and temperature sensor is faulty.	1. Replace the LTMS by referring to the maintenance manual. 2. If the alarm persists, export logs and contact technical support.

2.7.25 3646 Insufficient Refrigerant

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3646	Insufficient Refrigerant	Major	Equipment alarm	ADAC	LUNA2000B V200R024C00

Impact on the System

The system can be charged and discharge normally, but the cooling capacity may be insufficient.

Possible Cause and Solution

Rea son ID	No.	Possible Cause	Suggestion
1	1	Refrigerant leaks.	1. Use a halogen detector to check whether a leakage occurs in a refrigerant pipe of the LTMS. 2. If a leakage occurs, replace the corresponding component by referring to the maintenance manual. 3. Charge refrigerant by referring to the refrigerant charging guide in the maintenance manual. 4. If the alarm persists, export logs and contact technical support.

2.7.26 3650 Insufficient Cooling Capacity

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3650	Insufficient Cooling Capacity	Warning	Equipment alarm	ADMC	LUNA2000B V200R024C00

Impact on the System

The system can be charged and discharge normally, but the cooling capacity is insufficient.

Possible Causes and Procedure

Reason ID	No.	Possible Cause	Suggestion
1	1	Refrigerant leaks.	1. Use a halogen detector to check whether a leakage occurs in a refrigerant pipe of the LTMS. 2. If a leakage occurs, replace the LTMS by referring to the maintenance manual. 3. Charge refrigerant by referring to the refrigerant charging guide in the maintenance manual.
	2	Multi-way valve sealing fails.	1. Replace the LTMS by referring to the maintenance manual. 2. If the alarm persists, export logs and contact technical support.

2.7.27 3651 LCC Output Overcurrent

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3651	LCC Output Overcurrent	Major	Equipment alarm	ADAC	LUNA2000B V200R024C00

Impact on the System

The system can be charged and discharge normally, but the LTMS may fail to run properly.

Possible Causes and Procedure

Reason ID	No.	Possible Cause	Suggestion
1	1	The external cables to the LCC are faulty.	1. Check whether the system reports any alarm related to the water pressure sensor, high pressure sensor, or suction pressure sensor. 2. Power off the ESS by referring to the user manual. 3. If an alarm is reported for the water pressure sensor, high pressure sensor, or suction pressure sensor, check the cables to the water pressure sensor, high pressure sensor, and suction pressure sensor in sequence. If any cables are damaged or short-circuited, reconnect them. 4. If no pressure sensor alarm is reported, check the cables to the electronic expansion valve, electric heater contactor, oil heating belt, and coolant refilling solenoid valve in sequence. If any cables are damaged or short-circuited, reconnect them. 5. Power on the system, wait for 5 minutes, and check whether the alarm is generated. If the alarm persists, check for other possible causes.

Rea son ID	No.	Possible Cause	Suggestion
	2	The external load of the LCC is abnormal.	1. If an alarm is reported for the water pressure sensor, high pressure sensor, or suction pressure sensor, disconnect the connectors of the water pressure sensor, high pressure sensor, and suction pressure sensor in sequence. Power on the system, wait for 5 minutes, and check whether the alarm is generated. If not, replace the corresponding pressure sensor by referring to the maintenance manual. 2. If no alarm is reported for the water pressure sensor, high pressure sensor, or suction pressure sensor, disconnect the cables to the electronic expansion valve connector, electric heater contactor, oil heating belt connector, and coolant refilling solenoid valve connector in sequence. Power on the system, wait for 5 minutes, and check whether the alarm is generated. If the alarm is not generated, replace the corresponding component by referring to the maintenance manual.
	3	The LCC is faulty.	1. Replace the LCC by referring to the maintenance manual. 2. If the alarm persists, export logs and contact technical support.

2.7.28 3652 Inconsistent Software Version of Drive and Auxiliary Power Module

Attribute

Alarm ID	Alarm Name	Alarm Severit y	Alarm Type	Cleara nce Catego ry	Introduced Since
3652	Inconsistent Software Version of Drive and Auxiliary Power Module	Minor	Equipm ent alarm	ADAC	LUNA2000B V200R024C00

Impact on the System

The system can be charged and discharge normally, but some value-added features may be unavailable.

Possible Causes and Procedure

Rea son ID	No.	Possible Cause	Suggestion
1	1	The software version of the drive and auxiliary power module is inconsistent.	1. If the component version is inconsistent with the system software package version due to a manual update failure, the system running is not affected. You are advised to perform the update at a proper time. 2. If the version is inconsistent with the system software package version due to component replacement, perform a manual update. 3. If the update fails for several times, contact technical support.

2.7.29 3653 Inconsistent LCC Software Version

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3653	Inconsistent LCC Software Version	Minor	Equipment alarm	ADAC	LUNA2000B V200R024C00

Impact on the System

The system can be charged and discharge normally, but some value-added features may be unavailable.

Possible Causes and Procedure

Rea son ID	No.	Possible Cause	Suggestion
1	1	The LCC software is inconsistent.	1. If the component version is inconsistent with the system software package version due to a manual update failure, the system running is not affected. You are advised to perform the update at a proper time. 2. If the version is inconsistent with the system software package version due to component replacement, perform a manual update. 3. If the update fails for several times, contact technical support.

2.7.30 3655 Auxiliary power abnormal

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3655	Auxiliary power abnormal	Major	Equipment alarm	ADAC	LUNA2000B V200R024C00

Impact on the System

The system shuts down, and the LTMS shuts down.

Possible Causes and Procedure

Rea son ID	No.	Possible Cause	Suggestion
1	1	The cable to the auxiliary power supply is loose or damaged.	1. Power off the ESS by referring to the user manual. 2. Check whether the cable to the auxiliary power supply is disconnected or broken. If the cable is disconnected or broken, reconnect the connector of the auxiliary power supply.

Rea son ID	No.	Possible Cause	Suggestion
	2	The auxiliary power supply is faulty.	1. Replace the drive and auxiliary power module by referring to the corresponding replacement guide in the maintenance manual. 2. If the alarm persists, export logs and contact technical support.

2.7.31 3660 Outdoor cooling module blocked

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3660	Outdoor cooling module blocked	Major	Equipment alarm	ADAC	LUNA2000B V200R024C00

Impact on the System

The system can be charged and discharge normally, but the air volume may be insufficient.

Possible Causes and Procedure

Rea son ID	No.	Possible Cause	Suggestion
1	1	The air filter or outdoor heat exchanger is dirty or blocked.	1. Check whether the air filter is dirty or blocked. If yes, clean it up or replace it. 2. Check whether the outdoor heat exchanger is dirty or blocked. If yes, clean it up. 3. If the alarm persists, export logs and contact technical support.

2.7.32 3661 Outdoor heat exchanger temperature sensor fault

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3661	Outdoor heat exchanger temperature sensor fault	Minor	Equipment alarm	ADAC	LUNA2000B V200R024C00

Impact on the System

The system can be charged and discharge normally, but the temperature of the outdoor heat exchanger cannot be detected.

Possible Cause and Solution

Reason ID	No.	Possible Cause	Suggestion
1	1	The cable to the temperature sensor is loose or damaged.	1. Power off the ESS by referring to the user manual. 2. Check whether the cable to the temperature sensor is disconnected or broken. If the cable is disconnected or broken, reconnect the sensor connector.
	2	The temperature sensor is faulty.	1. Replace the temperature sensor by referring to the maintenance manual. 2. If the alarm persists, export logs and contact technical support.

2.7.33 3665 Fan fault

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3665	Fan fault	Major	Equipment alarm	ADAC	LUNA2000B V200R024C00

Impact on the System

The system can be charged and discharge normally, but the air volume cannot be controlled.

Possible Cause and Solution

Reason ID	No.	Possible Cause	Suggestion
1	1	The cable to the fan is loose or damaged.	1. Power off the ESS by referring to the user manual. 2. Check whether the cable to the fan is disconnected or broken. If the cable is disconnected or broken, reconnect the fan connector.
	2	The fan is faulty.	1. Replace the fan by referring to the maintenance manual. 2. If the alarm persists, export logs and contact technical support.
2	1	The power supply to the fan is abnormal.	1. Use a voltmeter to check whether the fan power supply is normal. 2. If the power supply is abnormal, locate the cause and resume the power supply.
	2	The cable to the fan is loose or damaged.	1. Power off the ESS by referring to the user manual. 2. Check whether the cable to the fan is disconnected or broken. If the cable is disconnected or broken, reconnect the fan connector.

Rea son ID	No.	Possible Cause	Suggestion
	3	The fan is faulty.	1. Replace the fan by referring to the maintenance manual. 2. If the alarm persists, export logs and contact technical support.

2.7.34 3666 Fan fault

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3666	Fan fault	Major	Equipment alarm	ADAC	LUNA2000B V200R024C00

Impact on the System

The system can be charged and discharged normally, but the air volume cannot be controlled.

Possible Causes and Procedure

Rea son ID	No.	Possible Cause	Suggestion
1	1	The cable to the fan is not connected properly.	1. Power off the ESS by referring to the user manual. 2. Check whether the cable to the fan is disconnected or broken. If the cable is disconnected or broken, reconnect the fan connector.
	2	The fan is faulty.	1. Replace the fan by referring to the maintenance manual. 2. If the alarm persists, export logs and contact technical support.

Rea son ID	No.	Possible Cause	Suggestion
2	1	The power supply to the fan is abnormal.	1. Use a voltmeter to check whether the fan power supply is normal. 2. If the power supply is abnormal, locate the cause and resume the power supply.
	2	The cable to the fan is not connected properly.	1. Power off the ESS by referring to the user manual. 2. Check whether the cable to the fan is disconnected or broken. If the cable is disconnected or broken, reconnect the fan connector.
	3	The fan is faulty.	1. Replace the fan by referring to the maintenance manual. 2. If the alarm persists, export logs and contact technical support.

2.7.35 3675 Electric heater fault

Attribute

Alarm ID	Alarm Name	Alarm Severit y	Alarm Type	Cleara nce Catego ry	Introduced Since
3675	Electric heater fault	Major	Equipm ent alarm	ADAC	LUNA2000B V200R024C00

Impact on the System

The system can be charged and discharge normally, but the electric heater cannot run properly.

Possible Cause and Solution

Rea son ID	No.	Possible Cause	Suggestion
1	1	The cable to the electric heater is loose or damaged.	1. Power off the ESS by referring to the user manual. 2. Check whether the cable to the electric heater is disconnected or broken. If the cable is disconnected or broken, reconnect the electric heater connector.
1	2	The coolant is insufficient.	1. Check whether a leakage occurs in the LTMS or a pipe. 2. If a leakage occurs, replace the LTMS by referring to the maintenance manual.
1	5	The electric heater is faulty.	1. Replace the LTMS by referring to the maintenance manual. 2. If the alarm persists, export logs and contact technical support.

2.7.36 3676 Electric heater power overvoltage alarm

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3676	Electric heater power overvoltage alarm	Major	Equipment alarm	ADAC	LUNA2000B V200R024C00

Impact on the System

The system can be charged and discharge normally, but the electric heater cannot run properly.

Possible Cause and Solution

Rea son ID	No.	Possible Cause	Suggestion
1	1	The power supply voltage exceeds the upper threshold.	1. Use a voltmeter to check whether the power supply to the LTMS is normal. 2. If the power supply is abnormal, locate the cause and resume the power supply.
	2	The corresponding power detection device is faulty.	1. Replace the auxiliary power module by referring to the maintenance manual. 2. If the alarm persists, export logs and contact technical support.

2.7.37 3680 Power-side supply water temperature sensor fault

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3680	Power-side supply water temperature sensor fault	Major	Equipm ent alarm	ADAC	LUNA2000B V200R024C00

Impact on the System

The system can be charged and discharge normally, but the supply water temperature on the power side cannot be detected normally. The cooling capacity may be insufficient.

Possible Causes and Procedure

Rea son ID	No.	Possible Cause	Suggestion
1	1	The cable to the temperature sensor is loose or damaged.	1. Power off the ESS by referring to the user manual. 2. Check whether the cable to the temperature sensor is disconnected or broken. If the cable is disconnected or broken, reconnect the sensor connector.

Rea son ID	No.	Possible Cause	Suggestion
	2	The temperature sensor is faulty.	1. Replace the LTMS by referring to the maintenance manual. 2. If the alarm persists, export logs and contact technical support.

2.7.38 3681 Power-side return water temperature sensor fault

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3681	Power-side return water temperature sensor fault	Major	Equipment alarm	ADAC	LUNA2000B V200R024C00

Impact on the System

The return water temperature on the power side cannot be monitored.

Possible Cause and Solution

Rea son ID	Cause ID	Possible Causes	Suggestion
1	1	The cable to the temperature sensor is loose or damaged.	1. Power off the ESS by referring to the user manual. 2. Check whether the cable to the temperature sensor is disconnected or broken. If the cable is disconnected or broken, reconnect the sensor connector.
	2	The temperature sensor is faulty.	1. Replace the LTMS by referring to the maintenance manual. 2. If the alarm persists, export logs and contact technical support.

2.7.39 3682 Power-side supply/return water temperature sensor abnormal

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3682	Power-side supply/return water temperature sensor abnormal	Major	Equipment alarm	ADAC	LUNA2000B V200R024C00

mpact on the System

The system can be charged and discharge normally, but the supply/return water temperature on the power side cannot be detected normally. The cooling capacity may be insufficient.

Possible Causes and Procedure

Reason ID	No.	Possible Cause	Suggestion
1	1	The data reported from the power-side supply water temperature sensor is abnormal.	1. Power off the ESS by referring to the user manual. 2. Check whether the cable to the temperature sensor is disconnected or broken. If the cable is disconnected or broken, reconnect the sensor connector.
	2	The data reported from the power-side return water temperature sensor is abnormal.	1. Check whether the cable to the temperature sensor is disconnected or broken. If the cable is disconnected or broken, reconnect the sensor connector. 2. If the fault persists, replace the LTMS by referring to the maintenance manual. 3. If the alarm persists, export logs and contact technical support.

2.7.40 3683 Battery-side supply water temperature sensor fault

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3683	Battery-side supply water temperature sensor fault	Major	Equipment alarm	ADAC	LUNA2000B V200R024C00

Impact on the System

The system can be charged and discharge normally, but the supply water temperature on the battery side cannot be detected. The supply water temperature may be too low.

Possible Causes and Procedure

Reason ID	No.	Possible Cause	Suggestion
1	1	The cable to the temperature sensor is loose or damaged.	1. Power off the ESS by referring to the user manual. 2. Check whether the cable to the temperature sensor is disconnected or broken. If the cable is disconnected or broken, reconnect the sensor connector.
1	2	The temperature sensor is faulty.	1. Replace the LTMS by referring to the maintenance manual. 2. If the alarm persists, export logs and contact technical support.

2.7.41 3684 Battery-side return water temperature sensor fault

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3684	Battery-side return water temperature sensor fault	Major	Equipment alarm	ADAC	LUNA2000B V200R024C00

Impact on the System

The system can be charged and discharge normally, but the return water temperature on the battery side cannot be detected.

Possible Causes and Procedure

Reason ID	No.	Possible Cause	Suggestion
1	1	The cable to the temperature sensor is loose or damaged.	1. Power off the ESS by referring to the user manual. 2. Check whether the cable to the temperature sensor is disconnected or broken. If the cable is disconnected or broken, reconnect the sensor connector.
1	2	The temperature sensor is faulty.	1. Replace the LTMS by referring to the maintenance manual. 2. If the alarm persists, export logs and contact technical support.

2.7.42 3685 Battery-side supply/return water temperature sensor abnormal

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3685	Battery-side supply/return water temperature sensor abnormal	Major	Equipment alarm	ADAC	LUNA2000B V200R024C00

Impact on the System

The supply/return water temperature on the battery side cannot be monitored. The supply water temperature may be high or low.

Possible Cause and Solution

Reason ID	Cause ID	Possible Causes	Suggestion
1	1	The data reported from the battery-side supply water temperature sensor is abnormal.	1. Power off the ESS by referring to the user manual. 2. Check whether the cable to the supply or return water temperature sensor on the battery side is disconnected or broken. If the cable is disconnected or broken, reconnect the sensor connector. 3. If the fault persists, replace the LTMS by referring to the maintenance manual. 4. If the alarm persists, export logs and contact technical support.

2.7.43 3686 Battery-side supply water high temperature alarm

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3686	Battery-side supply water high temperature alarm	Major	Equipment alarm	ADAC	LUNA2000B V200R024C00

Impact on the System

The system shuts down, and the LTMS shuts down.

Possible Cause and Solution

Reason ID	Cause ID	Possible Causes	Suggestion
1	1	The air filter or outdoor heat exchanger is dirty or blocked.	1. Power off the ESS by referring to the user manual. 2. Check whether the air filter or outdoor heat exchanger is dirty or blocked. 3. If the air filter is dirty or blocked, clean it up or replace it. 4. If the outdoor heat exchanger is dirty or blocked, clean it up.
1	2	The data reported from the battery-side supply water temperature sensor is abnormal.	1. Check whether the cables to the temperature sensor, multi-way valve, and water pump are disconnected or broken. If yes, reconnect the corresponding connectors. 2. If the fault persists, replace the LTMS by referring to the maintenance manual. 3. If the alarm persists, export logs and contact technical support.

2.7.44 3687 Battery-side supply water low temperature alarm

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3687	Battery-side supply water low temperature alarm	Major	Equipment alarm	ADAC	LUNA2000B V200R024C00

Impact on the System

The system can be charged and discharge normally, but condensation may occur on the pipe surface.

Possible Cause and Solution

Reason ID	No.	Possible Cause	Suggestion
1	1	The diagnostic mode runtime exceeds the upper limit.	On the user interface, check whether the cooling function in the diagnosis mode is enabled for a long time. If yes, exit the diagnosis mode on the user interface and wait for the water temperature to rise.
1	2	The data reported from the battery-side supply water temperature sensor is abnormal.	1. Power off the ESS by referring to the user manual. 2. Check whether the cable to the temperature sensor is disconnected or broken. If the cable is disconnected or broken, reconnect the sensor connector. 3. If the fault persists, replace the LTMS by referring to the maintenance manual. 4. If the alarm persists, export logs and contact technical support.

2.7.45 3688 Coolant expiration alarm

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3688	Coolant expiration alarm	Major	Equipment alarm	ADAC	LUNA2000B V200R024C00

Impact on the System

The system reliability may be affected.

Possible Cause and Solution

Reason ID	Cause ID	Possible Causes	Suggestion
1	1	The coolant usage duration exceeds the upper limit.	1. Drain coolant according to the coolant drainage process in the maintenance manual. 2. Inject coolant according to the coolant injection process in the maintenance manual. 3. Tap on the user interface to complete the coolant replacement process. 4. If the fault persists, check for other causes. If all possible causes have been ruled out, contact technical support.
2	1	The coolant usage duration exceeds the upper limit.	1. Drain coolant according to the coolant drainage process in the maintenance manual. 2. Inject coolant according to the coolant injection process in the maintenance manual. 3. Tap on the user interface to complete the coolant replacement process. 4. If the fault persists, check for other causes. If all possible causes have been ruled out, contact technical support.

2.7.46 3689 Shutdown due to coolant expiration

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3689	Shutdown due to coolant expiration	Major	Equipment alarm	ADAC	LUNA2000B V200R024C00

Impact on the System

The LTMS shuts down.

Possible Cause and Solution

Reason ID	Cause ID	Possible Causes	Suggestion
1	1	The coolant usage duration exceeds the upper limit.	1. Drain coolant according to the coolant drainage process in the maintenance manual.
			2. Inject coolant according to the coolant injection process in the maintenance manual.
			3. Tap on the user interface to complete the coolant replacement process.
			4. If the fault persists, check for other causes. If all possible causes have been ruled out, contact technical support.

2.7.47 3690 Coolant replacement not completed

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3690	Coolant replacement not completed	Major	Equipment alarm	ADAC	LUNA2000B V200R024C00

Impact on the System

The LTMS cannot start.

Possible Cause and Solution

Rea son ID	Cause ID	Possible Causes	Suggestion
1	1	Coolant replacement is not completed.	1. Check the coolant replacement status on the user interface. 2. Fill coolant into the LTMS or drain coolant from the LTMS based on the coolant replacement status by following the coolant injection/drainage process in the maintenance manual. 3. If the fault persists, check for other causes. If all possible causes have been ruled out, contact technical support.

2.7.48 3705 Water pump power supply abnormal

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3705	Water pump power supply abnormal	Major	Equipm ent alarm	ADAC	LUNA2000B V200R024C00

Impact on the System

The system can be charged and discharge normally, but the LTMS may fail to work properly.

Possible Causes and Procedure

Rea son ID	No.	Possible Cause	Suggestion
1	1	The power supply to the water pump is abnormal.	1. Use a voltmeter to check whether the power supply to the water pump is normal. 2. If the power supply is abnormal, locate the cause and resume the power supply.
	2	The cable to the water pump is loose or damaged.	1. Power off the ESS by referring to the user manual. 2. Check whether the cable to the water pump is disconnected or broken. If the cable is disconnected or broken, reconnect the pump cable connector. 3. If the alarm persists, export logs and contact technical support.

2.7.49 3706 Water pump function abnormal

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3706	Water pump function abnormal	Major	Equipm ent alarm	ADAC	LUNA2000B V200R024C00

Impact on the System

The system can be charged and discharge normally, but the LTMS may fail to work properly.

Possible Cause and Solution

Rea son ID	No.	Possible Cause	Suggestion
1	1	The auxiliary power module is absent.	1. Power off the ESS by referring to the user manual. 2. Check whether the auxiliary power module is in position. If not, reconnect the auxiliary power module.
1	2	The cable to the water pump is loose or damaged.	1. Power off the ESS by referring to the user manual. 2. Check whether the cable to the water pump is disconnected or broken. If the cable is disconnected or broken, reconnect the cable.
1	3	Air is sealed in the water pump.	1. Manually exhaust air by referring to the maintenance manual.
1	4	The water pump is faulty.	1. If the fault persists after the preceding steps, replace the LTMS by referring to the maintenance manual. 2. If the alarm persists, export logs and contact technical support.

2.7.50 3707 Water pump fault

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3707	Water pump fault	Major	Equipment alarm	ADAC	LUNA2000B V200R024C00

Impact on the System

The system can be charged and discharge normally, but the LTMS may fail to work properly.

Possible Causes and Procedure

Reason ID	No.	Possible Cause	Suggestion
1	1	The water pump is faulty.	1. Replace the LTMS by referring to the maintenance manual. 2. If the alarm persists, export logs and contact technical support.
2	1	The water pump is faulty.	1. Replace the LTMS by referring to the maintenance manual. 2. If the alarm persists, export logs and contact technical support.
3	1	The ambient temperature of the water pump is too high.	1. Check whether there are abnormal heat sources around the water pump.
	2	The water pump is faulty.	1. Replace the LTMS by referring to the maintenance manual. 2. If the alarm persists, export logs and contact technical support.

2.7.51 3715 Multi-way valve communication abnormal

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3715	Multi-way valve communication abnormal	Major	Equipment alarm	ADAC	LUNA2000B V200R024C00

Impact on the System

The system can be charged and discharge normally, but the LTMS may fail to run properly.

Possible Causes and Procedure

Reason ID	No.	Possible Cause	Suggestion
1	1	The cable to the multi-way valve is loose or damaged.	1. Power off the ESS by referring to the user manual. 2. Check whether the cable to the multi-way valve is disconnected or broken. If the cable is disconnected or broken, reconnect the multi-way valve connector.
1	3	The multi-way valve is faulty.	1. Replace the LTMS by referring to the maintenance manual. 2. If the alarm persists, export logs and contact technical support.

2.7.52 3716 Multi-way valve power supply abnormal

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3716	Multi-way valve power supply abnormal	Major	Equipment alarm	ADAC	LUNA2000B V200R024C00

Impact on the System

The system can be charged and discharge normally, but the LTMS may fail to run properly.

Possible Causes and Procedure

Reason ID	No.	Possible Cause	Suggestion
1	1	The power supply to the multi-way valve is abnormal.	1. Use a voltmeter to check whether the power supply to the multi-way valve is normal. 2. If the power supply is abnormal, locate the cause and resume the power supply.

Rea son ID	No.	Possible Cause	Suggestion
1	2	The cable to the multi-way valve is loose or damaged.	1. Power off the ESS by referring to the user manual. 2. Check whether the cable to the multi-way valve is disconnected or broken. If the cable is disconnected or broken, reconnect the multi-way valve connector. 3. If the alarm persists, export logs and contact technical support.

2.7.53 3717 The multi-way valve is faulty

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3717	The multi-way valve is faulty	Major	Equipment alarm	ADAC	LUNA2000B V200R024C00

Impact on the System

The system can be charged and discharge normally, but the LTMS may fail to run properly.

Possible Causes and Procedure

Rea son ID	No.	Possible Cause	Suggestion
1	2	The multi-way valve is faulty.	1. Replace the LTMS by referring to the maintenance manual. 2. If the alarm persists, export logs and contact technical support.

Rea son ID	No.	Possible Cause	Suggestion
2	1	The cable to the multi-way valve is loose or damaged.	1. Power off the ESS by referring to the user manual. 2. Check whether the cable to the multi-way valve is disconnected or broken. If the cable is disconnected or broken, reconnect the multi-way valve connector.
	2	The multi-way valve is faulty.	1. Replace the LTMS by referring to the maintenance manual. 2. If the alarm persists, export logs and contact technical support.
3	1	The multi-way valve is faulty.	1. Replace the LTMS by referring to the maintenance manual. 2. If the alarm persists, export logs and contact technical support.
4	1	The multi-way valve is faulty.	1. Replace the LTMS by referring to the maintenance manual. 2. If the alarm persists, export logs and contact technical support.

2.7.54 3725 Water tank low liquid level alarm

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3725	Water tank low liquid level alarm	Major	Equipment alarm	ADAC	LUNA2000B V200R024C00

Impact on the System

The system can be charged and discharge normally, but the coolant may be insufficient.

Possible Cause and Solution

Rea son ID	No.	Possible Cause	Suggestion
1	2	The liquid level sensor is faulty.	1. Power off the ESS by referring to the user manual. 2. Check whether the cable to the liquid level sensor is disconnected or broken. If the cable is disconnected or broken, reconnect the sensor connector. 3. If the alarm persists, replace the LTMS by referring to the maintenance manual.
1	4	Liquid leakage occurs in the system.	1. Check whether a leakage occurs in the LTMS or a pipe. 2. If a leakage occurs, replace the LTMS by referring to the maintenance manual.
1	5	The coolant is insufficient.	1. Fill coolant in the coolant tank until it is higher than the MIN line. For details, see the coolant refilling guide in the maintenance manual. 2. If the alarm persists, export logs and contact technical support.

2.8 ESU

2.8.1 3380 RPCB Software Versions Inconsistent

Attribute

Alarm ID	Alarm Name	Alarm Severit y	Alarm Type	Cleara nce Catego ry	Introduced Since
3380	RPCB Software Versions Inconsistent	Minor	Equipm ent alarm	ADAC	LUNA2000B V200R024C00

Impact on the System

The system can be charged and discharge normally, but some value-added features may be unavailable.

Possible Causes and Procedure

Rea son ID	No.	Possible Cause	Suggestion
1	1	The software version of the RPCB is inconsistent with the system software package.	1. If the component version is inconsistent with the system software package version due to a manual update failure, the system running is not affected. You are advised to perform the update at a proper time. 2. If the version is inconsistent with the system software package version due to component replacement, perform a manual update. 3. If the update fails for several times, contact technical support.

2.8.2 3381 Inconsistent DCDC Software Versions

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3381	Inconsistent DCDC Software Versions	Minor	Equipm ent alarm	ADAC	LUNA2000B V200R024C00

Impact on the System

The system can be charged and discharge normally, but some value-added features may be unavailable.

Possible Causes and Procedure

Reason ID	No.	Possible Cause	Suggestion
1	1	The software version of the DCDC is inconsistent with the system software package.	1. If the component version is inconsistent with the system software package version due to a manual update failure, the system running is not affected. You are advised to perform the update at a proper time. 2. If the version is inconsistent with the system software package version due to component replacement, perform a manual update. 3. If the update fails for several times, contact technical support.

2.8.3 3382 Inconsistent PCS Software Versions

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3382	Inconsistent PCS Software Versions	Minor	Equipment alarm	ADAC	LUNA2000B V200R024C00

Impact on the System

The system can be charged and discharge normally, but some value-added features may be unavailable.

Possible Causes and Procedure

Rea son ID	No.	Possible Cause	Suggestion
1	1	The software version of the PCS is inconsistent with the system software package.	1. If the component version is inconsistent with the system software package version due to a manual update failure, the system running is not affected. You are advised to perform the update at a proper time. 2. If the version is inconsistent with the system software package version due to component replacement, perform a manual update. 3. If the update fails for several times, contact technical support.

2.8.4 3384 AC Startup Conditions Not Met

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3384	AC Startup Conditions Not Met	Major	Environ mental alarm	ADAC	LUNA2000B V200R024C00

Impact on the System

The battery rack shuts down.

Possible Causes and Procedure

Rea son ID	No.	Possible Cause	Suggestion
1	1	The power grid fails or the AC power cable is disconnected.	1. Use a multimeter to check whether the AC voltage meets the power grid standard. 2. Use a multimeter to check whether the AC circuit is disconnected or the AC circuit breaker is off.

Reason ID	No.	Possible Cause	Suggestion
	2	The communications cable is disconnected.	1. Check whether the cables to the PCS communications port, J9 communications port on the RPCB, and CON3 and CON4 ports on the RCM are loose, disconnected, or incorrectly connected. If yes, reconnect the cables. 2. If the cable connections are normal, check whether the PCS power indicator is on. If the indicator is off, check the cable connections on the DC and AC sides of the PCS.
	3	Alarms are generated to prohibit ESS discharge or the SOC is low.	1. Clear the alarms based on the alarm handling suggestions. 2. After the alarms are cleared, if the ESS SOC is low, perform a black start operation on the EMS or SmartLogger to charge the ESS through an external power supply, such as the PV system or genset. 3. If the alarm persists, export logs and contact technical support.

2.8.5 3880 AC SPD Faulty

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3880	AC SPD Faulty	Minor	Equipment alarm	ADAC	LUNA2000B V200R024C00

Impact on the System

The system can be charged and discharge normally, but devices in the cabinet may not be protected against lightning strikes.

Possible Cause and Solution

Reason ID	No.	Possible Cause	Suggestion
1	1	The detection cable is disconnected or the SPD of the RCM is faulty.	1. Check whether the AC SPD signal cable of the RCM is loose and whether the cable connector is exposed. 2. Check whether the AC SPD indicator of the RCM changes its color or is burnt. 3. If the color has changed, replace the AC SPD. 4. If the alarm persists, export logs and contact technical support.

2.8.6 3881 Door Status Alarm

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3881	Door Status Alarm	Minor	Equipment alarm	ADAC	LUNA2000B V200R024C00

Impact on the System

Only the door status sensor generates an alarm, but the system can be charged and discharge normally.

Possible Cause and Solution

Reason ID	No.	Possible Cause	Suggestion
1	1	The ESS doors are open, or the door status sensor is disconnected, faulty, incorrectly installed, or displaced.	1. Check whether the ESS doors are completely closed. If not, close the doors. 2. Check whether the cable to the door status sensor or travel switch is disconnected. If yes, connect the cable properly. 3. Check whether the door status sensor or travel switch is displaced. If yes, move it back to the original position. 4. If not, replace the door status sensor or travel switch. 5. If the alarm persists, export logs and contact technical support.

2.8.7 3882 ESS Door Open

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3882	ESS Door Open	Major	Equipment alarm	ADAC	LUNA2000B V200R024C00

Impact on the System

The system is shut down.

Possible Cause and Solution

Rea son ID	No.	Possible Cause	Suggestion
1	1	The ESS door is open.	1. Check whether the door is completely closed. If not, close the door completely.
			2. Check whether the cable to the door limit switch is disconnected. If yes, connect the cable properly.
			3. Check whether the door status sensor is displaced or the door panel is deformed. If yes, restore it to the original status.
			4. If not, replace the sensor.
			5. If the alarm persists, export logs and contact technical support.

2.8.8 3883 Water Alarm

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3883	Water Alarm	Major	Equipment alarm	ADMC	LUNA2000B V200R024C00

Impact on the System

The system is shut down.

Possible Causes and Procedure

Reason ID	No.	Possible Cause	Suggestion
1	1	Water accumulates in the ESS or the sensor is faulty.	1. Check whether there is water inside the ESS cabinet. If yes, drain the water. 2. If not, replace the water sensor. 3. After the replacement, manually clear the alarm. 4. If the alarm persists, export logs and contact technical support.

2.8.9 3884 Smoke Detector Alarm

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3884	Smoke Detector Alarm	Minor	Equipment alarm	ADMC	LUNA2000B V200R024C00

Impact on the System

Only the smoke detector generates an alarm, but the system can be charged and discharge normally.

Possible Causes and Procedure

Reason ID	No.	Possible Cause	Suggestion
1	1	The humidity inside the cabin is too high, the sensor is dusty, or the cabin is on fire.	1. Observe the system remotely for 30 minutes to check whether other exceptions (such as abnormal battery voltage, battery temperature, and combustible gas concentration) occur. During the remote observation, do not approach the ESS or open the ESS doors. 2. If no exception is found during the 30-minute remote observation, send trained personnel to the site and observe the system for 30 minutes from a safe distance. If there is smoke or fire, evacuate onsite personnel as soon as possible, call the fire emergency service, and provide firefighters with related product information, including the battery pack type, ESS capacity, and battery pack location. 3. If no exception is found during remote observation and onsite observation, open the ESS doors and check and replace the smoke detector.

2.8.10 3885 High Concentration of Combustible Gas

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3885	High Concentration of Combustible Gas	Major	Equipment alarm	ADMC	LUNA2000B V200R024C00

Impact on the System

Gas exhaust is started. The system shuts down when the fault is serious.

Possible Causes and Procedure

Reason ID	No.	Possible Cause	Suggestion
1	1	The gas concentration is high.	1. Observe the system remotely for 30 minutes to check whether other exceptions (such as abnormal battery voltage, battery temperature, and combustible gas concentration) occur. During the remote observation, do not approach the ESS or open the ESS doors.
			2. If no exception is found during the 30-minute remote observation, send trained personnel to the site and observe the system for 30 minutes from a safe distance. If there is smoke or fire, evacuate onsite personnel as soon as possible, call the fire emergency service, and provide firefighters with related product information, including the battery pack type, ESS capacity, and battery pack location.
			3. Do not enter the affected building or equipment area under any circumstances, and do not open the ESS doors. Isolate and monitor the site. Keep irrelevant personnel away from the site.
			4. After calling the fire emergency service, remotely power off the peripheral devices (such as the Smart Transformer Station, Smart PCS, auxiliary power supply devices, and combiner box power supply) while ensuring your own safety.
			5. After the fire is extinguished, the site must be handled by professionals in accordance with local laws and regulations. Do not open the ESS doors without permission.
	2	The detector is faulty.	If no exception is found during remote observation and onsite observation, open the ESS doors and check and replace the combustible gas detector.

Rea son ID	No.	Possible Cause	Suggestion
2	1	The gas concentration is too high.	1. Observe the system remotely for 30 minutes to check whether other exceptions (such as abnormal battery voltage, battery temperature, and combustible gas concentration) occur. During the remote observation, do not approach the ESS or open the ESS doors.
			2. If no exception is found during the 30-minute remote observation, send trained personnel to the site and observe the system for 30 minutes from a safe distance. If there is smoke or fire, evacuate onsite personnel as soon as possible, call the fire emergency service, and provide firefighters with related product information, including the battery pack type, ESS capacity, and battery pack location.
			3. Do not enter the affected building or equipment area under any circumstances, and do not open the ESS doors. Isolate and monitor the site. Keep irrelevant personnel away from the site.
			4. After calling the fire emergency service, remotely power off the peripheral devices (such as the Smart Transformer Station, Smart PCS, auxiliary power supply devices, and combiner box power supply) while ensuring your own safety.
			5. After the fire is extinguished, the site must be handled by professionals in accordance with local laws and regulations. Do not open the ESS doors without permission.
	2	The detector is faulty.	If no exception is found during remote observation and onsite observation, open the ESS doors and check and replace the combustible gas detector.

2.8.11 3886 Combustible Gas Detector Communication Failed

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3886	Combustible Gas Detector Communication Failed	Minor	Equipment alarm	ADAC	LUNA2000B V200R024C00

Impact on the System

The system can be charged and discharge normally, but the CO or H2 gas concentration cannot be detected. When CO or H2 gas accumulates in the cabinet and cannot be exhausted in a timely manner, the system may explode.

Possible Cause and Solution

Reason ID	No.	Possible Cause	Suggestion
1	1	The communications cable is disconnected or the power supply is abnormal.	1. Check whether the harness connector of the combustible gas detector module and the harness connectors of the COM1/12V port on the ESS controller are properly connected. If not, remove and then insert the connectors. 2. Use a multimeter to check whether the communications cable of the device is broken or exposed.
1	3	The sensor is faulty.	1. Replace the sensor. 2. If the alarm persists, export logs and contact technical support.

2.8.12 3887 Combustible Gas Detector Faulty

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3887	Combustible Gas Detector Faulty	Minor	Equipment alarm	ADAC	LUNA2000B V200R024C00

Impact on the System

The system can be charged and discharge normally, but the combustible gas concentration cannot be detected. When combustible gas accumulates in the cabinet and cannot be exhausted in a timely manner, the system may explode.

Possible Cause and Solution

Reason ID	No.	Possible Cause	Suggestion
1	1	The sensor is faulty.	1. Replace the CO or H2 detector and check whether the fault is rectified. 2. If not, contact technical support.

2.8.13 3888 Temperature and Humidity Sensor Communication Failed

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3888	Temperature and Humidity Sensor Communication Failed	Minor	Equipment alarm	ADAC	LUNA2000B V200R024C00

Impact on the System

The system can be charged and discharge normally, but the system temperature and humidity cannot be detected or controlled because the communication with the temperature and humidity sensor fails.

Possible Causes and Procedure

Rea son ID	No.	Possible Cause	Suggestion
1	1	The communications cable is disconnected, the power supply is abnormal, or the sensor is faulty.	1. Check whether the harness connector of the sensor is properly connected. If not, remove and then insert the connector. 2. Use a multimeter to check whether the power supply voltage of the sensor is normal and whether the power cable is broken. 3. If the alarm persists, replace the sensor. 4. If the alarm persists, export logs and contact technical support.

2.8.14 3889 Temperature and Humidity Sensor Faulty

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3889	Temperature and Humidity Sensor Faulty	Minor	Equipment alarm	ADAC	LUNA2000B V200R024C00

Impact on the System

The system can be charged and discharge normally, but the system temperature and humidity cannot be detected or controlled because the temperature and humidity sensor is faulty.

Possible Causes and Procedure

Rea son ID	No.	Possible Cause	Suggestion
1	1	The sensor is faulty.	1. Replace the temperature and humidity sensor and check whether the alarm is cleared. 2. If the alarm persists, export logs and contact technical support.

2.8.15 3890 Heat Detector Alarm

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3890	Heat Detector Alarm	Minor	Equipment alarm	ADMC	LUNA2000B V200R024C00

Impact on the System

Only the heat detector generates an alarm, but the system can be charged and discharge normally.

Possible Causes and Procedure

Rea son ID	No.	Possible Cause	Suggestion
1	1	The cabinet is on fire or the sensor is faulty.	1. Observe the system remotely for 30 minutes to check whether other exceptions (such as abnormal battery voltage, battery temperature, and combustible gas concentration) occur. During the remote observation, do not approach the ESS or open the ESS doors. 2. If no exception is found during the 30-minute remote observation, send trained personnel to the site and observe the system for 30 minutes from a safe distance. If there is smoke or fire, evacuate onsite personnel as soon as possible, call the fire emergency service, and provide firefighters with related product information, including the battery pack type, ESS capacity, and battery pack location. 3. If no exception is found during remote observation and onsite observation, open the ESS doors and check and replace the heat detector.

2.8.16 3891 High Ambient Temperature Inside ESS Cabin

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Cleara nce Catego ry	Introduced Since
3891	High Ambient Temperature Inside ESS Cabin	Minor	Equipm ent alarm	ADAC	LUNA2000B V200R024C00

Impact on the System

The system automatically derates. If the temperature is too high for a long time, the system may be shut down.

Possible Causes and Procedure

Reason ID	No.	Possible Cause	Suggestion
1	1	The LTMS does not work properly or the weather is hot.	1. Check whether an alarm is generated for the LTMS. If yes, handle the alarm first. 2. Check whether the ESS doors are completely closed. If not, close the doors. 3. If the alarm persists, export logs and contact technical support.
2	1	The air conditioner does not work properly or the weather is hot.	1. Check whether an alarm is generated for the air conditioner in the control unit cabin. If yes, handle the alarm first. 2. Check whether the door of the control unit cabin is completely closed. If not, close the door. 3. If the alarm persists, export logs and contact technical support.

2.8.17 3892 EPO Alarm

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3892	EPO Alarm	Major	Equipment alarm	ADMC	LUNA2000B V200R024C00

Impact on the System

The ESS, including the LTMS, shuts down.

Possible Cause and Solution

Reason ID	No.	Possible Cause	Suggestion
1	1	The EPO button is pressed.	1. Rectify the system fault first. 2. After the fault is rectified, rotate the EPO button out. 3. Start the ESS on the user interface.
	2	The feedback cable to the EPO button is disconnected.	1. Check whether the cable to the EPO button is disconnected or whether the cable connector is exposed. 2. If not, use a multimeter to check whether the cable to the EPO button is broken. 3. If the alarm persists, replace the EPO button.

2.8.18 3893 Fire Alarm

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3893	Fire Alarm	Major	Equipment alarm	ADMC	LUNA2000B V200R024C00

Impact on the System

The ESS cabinet and LTMS shut down, and the system cannot run properly.

Possible Cause and Solution

Reason ID	No.	Possible Cause	Suggestion
1	1	The electrical circuit or battery is on fire.	1. If there is smoke or fire, evacuate onsite personnel as soon as possible, and call the fire emergency service. Notify professional firefighters and provide them with relevant product information, including the battery pack type, ESS capacity, and battery pack location. 2. Do not enter the affected building or equipment area under any circumstances, and do not open the ESS doors. Isolate and monitor the site. Keep irrelevant personnel away from the site. 3. After calling the fire emergency service, remotely power off the peripheral devices (such as the Smart Transformer Station, Smart PCS, auxiliary power supply devices, and combiner box power supply) while ensuring your own safety. 4. After the fire is extinguished, the site must be handled by professionals in accordance with local laws and regulations. Do not open the ESS doors without permission.

2.8.19 3894 Exhaust Fan Faulty

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3894	Exhaust Fan Faulty	Minor	Equipment alarm	ADAC	LUNA2000B V200R024C00

Impact on the System

When CO or H_2 gas accumulates in the cabinet, the gas cannot be exhausted in a timely manner. As a result, the system may explode.

Possible Cause and Solution

Rea son ID	No.	Possible Cause	Suggestion
1	1	The fan power input or feedback cable is abnormal.	1. Check whether the power input cable and control cable of the exhaust fan are disconnected or whether the cable connectors are exposed. 2. If yes, reconnect the cables. 3. If not, use a multimeter to check whether the cables are broken.
	2	The fan is faulty.	1. Check whether the fan is damaged or burnt. If yes, replace the fan. 2. If the alarm persists, export logs and contact technical support.

2.8.20 3895 Devices Connected and System Configuration Inconsistent

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3895	Devices Connected and System Configuration Inconsistent	Major	Equipment alarm	ADAC	LUNA2000B V200R024C00

Impact on the System

If the number of some components is inconsistent with the system configuration, the system can be started. If the number of key components is inconsistent with the system configuration, the system cannot be started.

Possible Cause and Solution

Rea son ID	No.	Possible Cause	Suggestion
1	1	The number of battery packs is incorrectly set.	1. Check whether the number of battery packs configured on the user interface is consistent with the number of battery packs installed onsite.
	2	The BMU communication is abnormal or the BMU is faulty.	1. Check whether the communications cable between the COM-IN/COM-OUT port on the pack and the CON_IN/CON_OUT port on the RCM is loose, disconnected, or incorrectly connected. If yes, rectify the cable connection fault. 2. If the alarm persists, export logs and contact technical support.
2	1	The CAN communication of the balancing module is abnormal or the balancing module is faulty.	1. Check whether the communications cable between the COM-IN/COM-OUT port on the pack and the CON_IN/CON_OUT port on the RCM is loose, disconnected, or incorrectly connected. If yes, rectify the cable connection fault. 2. Check whether the number of battery packs configured on the user interface is consistent with the number of battery packs installed onsite. 3. If the alarm persists, export logs and contact technical support.
3	1	The CAN communication of the RPCB is abnormal or the RPCB is faulty.	1. Check whether the communications cable is loose, disconnected, or incorrectly connected. If yes, reconnect the cable. 2. If not, replace the RCM. 3. If the alarm persists, export logs and contact technical support.
4	1	The CAN communication of the DCDC is abnormal or the DCDC is faulty.	1. Check whether the cable between the COM port on the DCDC and the CON4 port on the RCM is loose, disconnected, or incorrectly connected. If yes, reconnect the cable. 2. Check whether the number of configured DCDCs is consistent with the actual number by referring to the component description in the user manual. If not, configure the DCDCs correctly. 3. If the alarm persists, export logs and contact technical support.

Rea son ID	No.	Possible Cause	Suggestion
5	1	The CAN communication of the PCS is abnormal or the PCS is faulty.	1. Check whether the cable between the communications port on the PCS and the CON3 port on the RCM is loose, disconnected, or incorrectly connected. If yes, reconnect the cable. 2. Check whether the number of configured PCSs is consistent with the actual number by referring to the component description in the user manual. If not, configure the PCSs correctly. 3. If the alarm persists, export logs and contact technical support.
6	2	The Ethernet communication of the LCC is abnormal, or the LCC is faulty or missing.	1. Check whether the cable between the FE_1 or FE_2 port on the LCC and the LAN3 port on the BCU is loose, disconnected, or incorrectly connected. If yes, reconnect the cable. 2. Check whether the LCC is powered on. If not, rectify the power supply fault. 3. Check whether the number of configured LCCs is consistent with the actual number by referring to the component description in the user manual. If not, configure the LCCs correctly. 4. If the alarm persists, export logs and contact technical support.
7	1	The Ethernet communication of the LCC is abnormal, or the LCC is faulty or missing.	1. Check whether the cable between the FE_1 or FE_2 port on the LCC and the LAN3 port on the BCU is loose, disconnected, or incorrectly connected. If yes, reconnect the cable. 2. Check whether the LCC is powered on. If not, rectify the power supply fault. 3. Check whether the number of configured LCCs is consistent with the actual number by referring to the component description in the user manual. If not, configure the LCCs correctly. 4. If the alarm persists, export logs and contact technical support.

Rea son ID	No.	Possible Cause	Suggestion
8	1	The RS485 communication of the display module is abnormal or the display module is faulty.	1. Check whether the communications cable between the RS485 port on the display module and the COM3 port on the RCM is loose, disconnected, or incorrectly connected. If yes, reconnect the cable. 2. Check whether the display module is powered on. If not, rectify the power supply fault. 3. Check whether the number of configured display modules is consistent with the actual number by referring to the component description in the user manual. If not, configure the display modules correctly. 4. If the alarm persists, export logs and contact technical support.
9	1	The communication of the fire suppression system is abnormal or the fire suppression system is faulty.	1. Check whether the communications cable between the 485A/485B port on the fire suppression system and the CON5 port on the CMU is loose, disconnected, or incorrectly connected. If yes, reconnect the cable. 2. Check whether the fire suppression system is powered on. If not, rectify the power supply fault. 3. Check whether the number of configured fire suppression systems is consistent with the actual number by referring to the component description in the user manual. If not, configure the fire suppression systems correctly. 4. If the alarm persists, export logs and contact technical support.

Rea son ID	No.	Possible Cause	Suggestion
10	1	The RS485 communication of the temperature and humidity sensor is abnormal or the temperature and humidity sensor is faulty.	1. Check whether the communications cable is loose, disconnected, or incorrectly connected. If yes, reconnect the cable. 2. Check whether the temperature and humidity sensor is powered on. If not, rectify the power supply fault. 3. Check whether the number of configured temperature and humidity sensors is consistent with the actual number by referring to the component description in the user manual. If not, configure the temperature and humidity sensors correctly. 4. If the alarm persists, export logs and contact technical support.
11	1	The combustible gas detector is faulty or the communication is abnormal.	1. Check whether the cable to the COM1/12V or COM2/12V port of the ESS controller is loose, disconnected, or incorrectly connected. If yes, reconnect the cable. 2. Check whether the combustible gas detector is powered on. If not, rectify the power supply fault. 3. Check whether the number of configured combustible gas detectors is consistent with the actual number by referring to the component description in the user manual. If not, configure the combustible gas detectors correctly. 4. If the alarm persists, export logs and contact technical support.

2.8.21 3898 TRSD Abnormal

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3898	TRSD Abnormal	Minor	Equipment alarm	ADAC	LUNA2000B V200R024C00

Impact on the System

The system can be charged and discharge normally when a minor fault occurs in the TRSD. In case of a major fault, the system shuts down.

Possible Causes and Procedure

Reason ID	No.	Possible Cause	Suggestion
1	1	The gas cylinder pressure is low due to leakage.	1. Replace the gas cylinder onsite. 2. If the alarm persists, export logs and contact technical support.
2	1	The flash memory is faulty or the power supply is abnormal.	1. Use a multimeter to check whether the main power supply cable is broken or exposed. If yes, rectify the fault. 2. If the alarm persists, export logs and contact technical support.
3	1	The power-on loop of the lead-acid battery is abnormal.	1. On the BCU app, check whether the TRSD backup power supply is switched on. If not, switch on the backup power supply. Check whether the red button on the battery box in the lower right corner of the ESS is pressed. 2. If the alarm persists, use a multimeter to check whether the lead-acid battery loop has breakpoints or exposed points. If yes, rectify the fault. 3. If not, replace the lead-acid battery. 4. If the alarm persists, export logs and contact technical support.
	2	The power-on loop of the lead-acid battery is abnormal.	1. Use a multimeter to check whether the lead-acid battery loop has breakpoints or exposed points. 2. If yes, rectify the fault. 3. If not, replace the lead-acid battery. 4. If the alarm persists, export logs and contact technical support.
4	1	The cable to the valve is damaged or improperly connected.	1. Use a multimeter to check whether the valve cable is broken or exposed. 2. If yes, rectify the fault. 3. If the alarm persists, export logs and contact technical support.

Rea son ID	No.	Possible Cause	Suggestion
5	1	Undervoltage occurs on the lead-acid battery.	1. Check whether the main power supply is normal and charge the lead-acid battery first. 2. If the alarm persists after the battery is charged for 2 hours, replace the lead-acid battery. 3. If the alarm persists, export logs and contact technical support.
6	1	The cable to the compartment-level solenoid valve is damaged or improperly connected.	1. Use a multimeter to check whether the cable to the compartment-level solenoid valve is broken or exposed. 2. If yes, rectify the fault. 3. If the alarm persists, export logs and contact technical support.
7	1	The cable to the manual call point is damaged or improperly connected.	1. Use a multimeter to check whether the cable to the manual call point is broken or exposed. 2. If yes, rectify the fault. 3. If the alarm persists, export logs and contact technical support.
8	1	The cable to the emergency release/abort button is damaged or improperly connected.	1. Use a multimeter to check whether the cable connected to the emergency release/ abort button is broken or exposed. 2. If yes, rectify the fault. 3. If the alarm persists, export logs and contact technical support.
9	1	The cable to the extinguishant release indicator is damaged or improperly connected.	1. Use a multimeter to check whether the cable to the extinguishant release indicator is broken or exposed. 2. If yes, rectify the fault. 3. If the alarm persists, export logs and contact technical support.
10	1	The cable to the alarm beacon is damaged or improperly connected.	1. Use a multimeter to check whether the cable to the alarm beacon is broken or exposed. 2. If yes, rectify the fault. 3. If the alarm persists, export logs and contact technical support.

Rea son ID	No.	Possible Cause	Suggestion
11	1	The cable to the heat detector is damaged or improperly connected.	1. Check the information about the faulty temperature sensor on the LCD of the fire suppression system. 2. Use a multimeter to check whether the cable to the faulty temperature sensor is broken or exposed. 3. If yes, rectify the fault. 4. If the alarm persists, export logs and contact technical support.
12	1	The cable to the smoke detector is damaged or improperly connected.	1. Check the information about the faulty smoke detector on the LCD of the fire suppression system. 2. Use a multimeter to check whether the cable to the faulty smoke detector is broken or exposed. 3. If yes, rectify the fault. 4. If the alarm persists, export logs and contact technical support.
13	1	The mains supply is unavailable or the power fuse is damaged.	1. If the mains supply is faulty, rectify the fault. 2. If the mains supply is normal but the main power supply fails, check whether the fuse of the power supply is normal and whether the power cable of the TRSD or fire suppression system is securely connected. 3. If the alarm persists, export logs and contact technical support.
14	1	The cable to the master valve of the gas cylinder is improperly connected, or the internal control board communication is abnormal.	1. Use a multimeter to check whether the cable to the master valve of the gas cylinder is broken or exposed. 2. If yes, rectify the fault. 3. If the alarm persists, export logs and contact technical support.

Reason ID	No.	Possible Cause	Suggestion
15	1	The cable to the second bus loop is improperly connected, or the internal control board communication is abnormal.	1. Use a multimeter to check whether the cable to the second bus loop is broken or exposed. 2. If yes, rectify the fault. 3. If the alarm persists, export logs and contact technical support.

2.8.22 3899 TRSD Valve Open

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3899	TRSD Valve Open	Minor	Equipment alarm	ADAC	LUNA2000B V200R024C00

Impact on the System

The association PACK-level fire alarm is triggered.

Possible Cause and Solution

Reason ID	No.	Possible Cause	Suggestion
1	1	The gas cylinder releases extinguishant.	1. Check whether a smoke or fire alarm is generated, and whether the gas cylinder releases extinguishant. 2. If yes, replace the gas cylinder, valve, and pipe components. 3. If not, contact technical support.

2.8.23 3900 High Relative Humidity Inside ESS Cabin

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3900	High Relative Humidity Inside ESS Cabin	Minor	Equipment alarm	ADAC	LUNA2000B V200R024C00

Impact on the System

The system can be charged and discharge normally, but there is a risk of condensation.

Possible Cause and Solution

Reason ID	No.	Possible Cause	Suggestion
1	1	Dehumidification fails.	1. Ensure that the temperature control mode is set to automatic. 2. Check whether the LTMS is normal and whether the ESS doors are completely closed. 3. If the alarm persists, export logs and contact technical support.

2.8.24 3901 Offering Software Update Package Not Backed Up

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3901	Offering Software Update Package Not Backed Up	Warning	Equipment alarm	ADAC	LUNA2000B V200R024C00

Impact on the System

The system can be charged and discharge normally.

Possible Cause and Solution

Rea son ID	No.	Possible Cause	Suggestion
1	1	The software update package is not backed up or the backup package is lost.	Download the latest software update package and perform an update.

2.8.25 3902 Inconsistent Display Module Software Versions

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3902	Inconsistent Display Module Software Versions	Minor	Equipment alarm	ADAC	LUNA2000B V200R024C00

Impact on the System

The system can be charged and discharge normally, but some value-added features may be unavailable.

Possible Causes and Procedure

Rea son ID	No.	Possible Cause	Suggestion
5	1	The software version of the Display Module is inconsistent with the system software package.	1. If the component version is inconsistent with the system software package version due to a manual update failure, the system running is not affected. You are advised to perform the update at a proper time. 2. If the version is inconsistent with the system software package version due to component replacement, perform a manual update. 3. If the update fails for several times, contact technical support.

2.8.26 3903 E-label Board Data Abnormal

Attribute

Alarm ID	Alarm Name	Alarm Severit y	Alarm Type	Cleara nce Catego ry	Introduced Since
3903	E-label Board Data Abnormal	Major	Equipm ent alarm	ADAC	LUNA2000B V200R024C00

Impact on the System

The system is shut down.

Possible Cause and Solution

Reason ID	No.	Possible Cause	Suggestion
1	1	The differentiated data backed up on the ESS controller is inconsistent with that on the e-label board of the system, or some data is damaged.	1. If the ESS controller has been replaced, replace it on the "Device Replacement" page of the SmartLogger WebUI. 2. If only the e-label is replaced or no spare part is replaced, check the ESS SN on the label and connect to the FusionSolar app beside the ESS. 3. On the alarm screen of the app, tap "Proceed" to go to the SN confirming screen and select the SN displayed on the device label. If the SN is not the one displayed on the device label, data errors may occur and safety risks may occur during system running. 4. After the SN is confirmed, the device automatically synchronizes data and restarts. 5. If the alarm persists, contact technical support.
2	1	The differentiated data backed up on the ESS controller and that on the e-label board of the system is damaged.	1. If both the ESS controller and e-label board are replaced, replace them on the "Device Replacement" page of the SmartLogger WebUI. 2. If the alarm persists, contact technical support.
3	1	The cable connection to the e-label board is abnormal, or the e-label board is faulty.	1. Power off the ESS by referring to the user manual. 2. Remove the RCM and reconnect the cable to the e-label board. 3. After the check is complete, reinstall the RCM, and power on the ESS by referring to the user manual. 4. If the alarm persists, export logs and contact technical support.

2.8.27 3904 Certificate About to Expire

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3904	Certificate About to Expire	Minor	Equipment alarm	ADAC	LUNA2000B V200R024C00

Impact on the System

The system can be charged and discharge normally.

Possible Cause and Solution

Reason ID	No.	Possible Cause	Suggestion
1	1	The northbound communication certificate is about to expire or the system time is incorrect.	1. Check whether the time of the ESS is consistent with the local time on the user interface. If not, set the time on the user interface to the local time. If yes, go to the next step. 2. Apply for a new certificate from the CA and update the certificate on the local app. If the alarm persists, contact technical support.
2	1	The certificate used for app communication is about to expire or the system time is incorrect.	1. Check whether the time of the ESS is consistent with the local time on the user interface. If not, set the time on the user interface to the local time. If yes, go to the next step. 2. Apply for a new certificate from the CA and update the certificate on the local app. If the alarm persists, contact technical support.

Rea son ID	No.	Possible Cause	Suggestion
3	1	The southbound communication certificate is about to expire or the system time is incorrect.	1. Check whether the time of the ESS is consistent with the local time on the user interface. If not, set the time on the user interface to the local time. If yes, go to the next step. 2. Apply for a new certificate from the CA and update the certificate on the local app. If the alarm persists, contact technical support.

2.8.28 3905 Certificate Expired

Attribute

Alarm ID	Alarm Name	Alarm Severit y	Alarm Type	Cleara nce Catego ry	Introduced Since
3905	Certificate Expired	Minor	Equipm ent alarm	ADAC	LUNA2000B V200R024C00

Impact on the System

The system can be charged and discharge normally.

Possible Cause and Solution

Rea son ID	No.	Possible Cause	Suggestion
1	1	The northbound communication certificate has expired or the system time is incorrect.	1. Check whether the time of the ESS is consistent with the local time on the user interface. If not, set the time on the user interface to the local time. If yes, go to the next step. 2. Apply for a new certificate from the CA and update the certificate on the local app. If the alarm persists, contact technical support.

Rea son ID	No.	Possible Cause	Suggestion
2	1	The certificate used for app communication has expired or the system time is incorrect.	1. Check whether the time of the ESS is consistent with the local time on the user interface. If not, set the time on the user interface to the local time. If yes, go to the next step. 2. Apply for a new certificate from the CA and update the certificate on the local app. If the alarm persists, contact technical support.
3	1	The southbound communication certificate has expired or the system time is incorrect.	1. Check whether the time of the ESS is consistent with the local time on the user interface. If not, set the time on the user interface to the local time. If yes, go to the next step. 2. Apply for a new certificate from the CA and update the certificate on the local app. If the alarm persists, contact technical support.

2.8.29 3906 Communication with Upper-layer Controller Abnormal

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Cleara nce Catego ry	Introduced Since
3906	Communication with Upper-layer Controller Abnormal	Major	Equipm ent alarm	ADAC	LUNA2000B V200R024C00

mpact on the System

The ESS shuts down because it does not receive scheduling instructions from the upper-layer controller.

Possible Causes and Procedure

Rea son ID	No.	Possible Cause	Suggestion
1	1	The communications cable is incorrectly connected, the network is disconnected, or the upper-layer controller is abnormal.	1. Check whether you can log in to the user interface of the upper-layer controller to determine whether the upper-layer controller is running properly. Troubleshoot the upper-layer controller if it is abnormal.
			2. Check whether the communications cable between the ESS and the upper-layer controller is loose, disconnected, or incorrectly connected. If yes, reconnect the cable.
			3. Check whether other GE or LAN ports of the ESS are incorrectly connected. If yes, reconnect the cables.
			4. Check whether the IP addresses of the ESS and the upper-layer controller are in the same network segment. If not, configure them in the same network segment.
			5. If the alarm persists, export logs and contact technical support.

2.8.30 3908 Component End of Life

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3908	Component End of Life	Warning	Equipment alarm	ADAC	LUNA2000B V200R024C00

Impact on the System

The system is charged and discharges normally.

Possible Cause and Solution

Rea son ID	No.	Possible Cause	Suggestion
1	1	The 10-year service life of a component expires.	1. Replace the sensor (such as the heat detector, smoke detector, combustible gas sensor, or fire alarm horn/strobe) by referring to the maintenance manual. 2. Set "Replace component at end of 10-year life" to "Complete" on the user interface. 3. If the alarm persists, export logs and contact technical support.
	2	The 10-year service life of a component expires.	1. Replace the component by referring to the list of components to be replaced after the 10-year service life expires in the maintenance manual. 2. Set "Replace component at end of 10-year life" to "Complete" on the user interface. 3. If the alarm persists, export logs and contact technical support.
2	1	The 5-year service life of a component expires.	1. Replace the component by referring to the list of components to be replaced after the 5-year service life expires in the maintenance manual. 2. Set "Replace component at end of 5-year life" to "Complete" on the user interface. 3. If the alarm persists, export logs and contact technical support.

2.8.31 3909 TRSD Communication Abnormal

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3909	TRSD Communication Abnormal	Minor	Communications alarm	ADAC	LUNA2000B V200R024C00

Impact on the System

The system can be charged and discharge normally.

Possible Causes and Procedure

Reason ID	No.	Possible Cause	Suggestion
1	1	The communications cable is improperly connected or the module is faulty.	1. Check whether the TRSD is powered on. If not, rectify the power supply fault. 2. Check whether the communications cable between the communications port on the TRSD and the TRSD port on the RCM is loose, disconnected, or incorrectly connected. If yes, reconnect the cable. 3. If the alarm persists, export logs and contact technical support.

2.8.32 3910 Auxiliary Power Meter Communication Abnormal

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3910	Auxiliary Power Meter Communication Abnormal	Minor	Communications alarm	ADAC	LUNA2000B V200R024C00

Impact on the System

The ESS works properly, but the auxiliary power meter data cannot be obtained.

Possible Cause and Solution

Rea son ID	No.	Possible Cause	Suggestion
1	2	The communications cable is improperly connected or the meter is faulty.	1. Remove the RCM. Check whether the communications cable between the RS485 port of the meter and the J10 port of the BCU is loose, disconnected, or incorrectly connected. If yes, reconnect the cable. 2. Check whether the meter is powered on. If not, rectify the power supply fault. 3. If the alarm persists, export logs and contact technical support.

2.8.33 3911 Display Module Communication Failure

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3911	Display Module Communication Failure	Minor	Communications alarm	ADAC	LUNA2000B V200R024C00

Impact on the System

The system can be charged and discharge normally, but the SOC indicator and status indicator on the cabinet door cannot correctly indicate the corresponding status.

Possible Causes and Procedure

Rea son ID	No.	Possible Cause	Suggestion
1	1	The communications cable is disconnected or the display module is faulty.	1. Check whether the communications cable between the RS485 port on the display module and the COM3 port on the RCM is loose, disconnected, or incorrectly connected. If yes, reconnect the cable. 2. Check whether the display module is powered on. If not, rectify the power supply fault. 3. If the alarm persists, export logs and contact technical support.

2.8.34 3912 Startup Authorization Not Obtained

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3912	Startup Authorization Not Obtained	Major	Equipment alarm	ADAC	LUNA2000B V200R024C00

Impact on the System

The ESS is not started.

Possible Cause and Solution

Rea son ID	No.	Possible Cause	Suggestion
1	1	Startup authorization is not obtained for the ESS.	Contact technical support to perform startup authorization.

2.8.35 3913 Fire Extinguishing Agents in TRSD Sprayed

Attribute

Alarm ID	Alarm Name	Alarm Severity	Alarm Type	Clearance Category	Introduced Since
3913	Fire Extinguishing Agents in TRSD Sprayed	Minor	Equipment alarm	ADAC	LUNA2000B V200R024C00

Impact on the System

The association PACK-level fire alarm is triggered.

Possible Cause and Solution

Reason ID	No.	Possible Cause	Suggestion
1	1	The gas cylinder releases extinguishant.	1. Check whether a smoke or fire alarm is generated, and whether the gas cylinder releases extinguishant. 2. If yes, replace the gas cylinder, valve, and pipe components. 3. If not, contact technical support.