

Industrial field: Electric power / energy / environment Business field: Service / maintenance / manufacturing

Deterioration Judgment of Stationary Lead-Acid Batteries

Deterioration of sealed lead-acid batteries can be judged in a short time.

Overview

- By measuring the internal resistance of a sealed lead-acid battery and the voltage between the terminals, the state of deterioration of the battery can be estimated.
- Since the measurement data can be stored in the device, data from multiple batteries can be easily saved and transferred to a computer. With the BT3554-50 series and the Z3210, you can wirelessly send data to your mobile device using Bluetooth® to display and save data, and create reports.
- Since you can observe the trend of the battery data, you can accurately judge the status of the battery.
- It is also possible to measure the battery during charging (live line).



Comparator Function

		Warning		Failure
		Resistance (LOW)	Resistance (MED)	Resistance (HIGH)
Warning	Voltage (HIGH)	PASS	WARNING	FAIL
	Voltage (LOW)	WARNING	WARNING	FAIL

How to use

1. Bring the probes into contact with the battery terminals
2. The internal resistance of the battery and the voltage between the terminals (up to 60 V DC) can be measured at the same time.
3. Measure each battery in the pack cell by cell. The measurement data is recorded in the internal memory.

Notes

1. General maintenance of the lead-acid batteries should be conducted on a regular basis
2. With sealed lead-acid batteries, the internal resistance rises sharply as the deterioration progresses (1.5 to 2 times the initial value), estimating the battery health can be investigated through the trend data.

The pass / fail threshold depends on the battery manufacturer, type, capacity, etc. Internal resistance / terminal voltage of new or non-defective battery. It is necessary to measure in advance

Open-type (liquid-type) lead-acid batteries and alkaline batteries have less change in internal resistance than sealed lead-acid batteries (VRLA: MSE, HSE, etc.). It may be difficult to diagnose the deteriorated state.

Used equipment

- Battery Tester BT3554-50, BT3554-51, BT3554-52
- Wireless Adapter Z3210 (Bluetooth®)
- GENNECT Cross SF4071, SF4072

All information correct as of January, 2021. All specifications are subject to change without notice.