

Asahi Kasei FDK Energy Device Co., Ltd.

Contact Us Text Size S M L Japanese

Q Search

Home

What Is LIC?

AFEC's Technology

Product Information

Application Examples

Corporate Information

Home > What Is LIC? > Application Fields

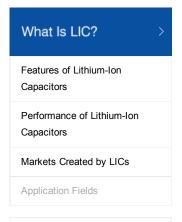
Application Fields

Rapidly expanding practical use of Lithium-ion capacitors (LICs)

Lithium-ion capacitors (LICs) offer high capacity and good power performance; accordingly, their practical use should be considered for more diverse markets. In particular, they can be applied in automotive/railway/industrial applications and in combined applications with green energy offering new efficient and reliable energy solutions. The typical applications of LICs are as follows.

Load-leveling market Power regeneration and power assistance market Backup market

Main power supply market



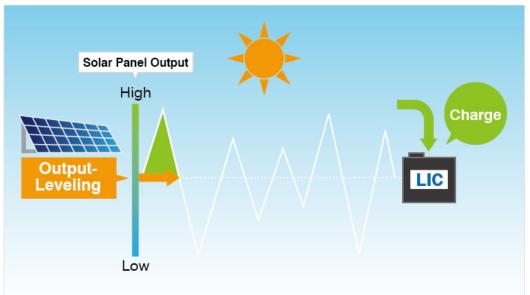




Load-leveling market

Power generation through promising forms of natural energy, including solar power and wind power, is not yet stable because their power generation capacity fluctuates considerably. Therefore, energy storage devices, which can mitigate these fluctuations, are essential to reduce waste in energy generation. LICs offer better performance in smoothing short-period fluctuations than other similar devices. Accordingly, using LICs we can utilize green energy more efficiently

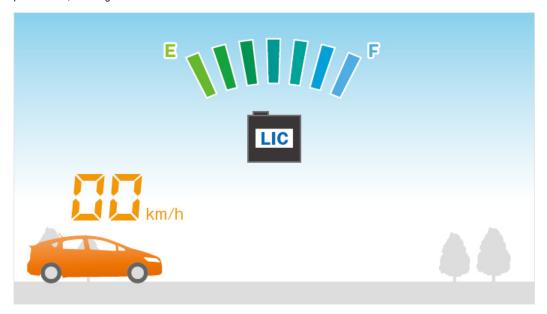




Power regeneration and power assistance market



Cars, trains, and other industrial vehicles attempt to regenerate, store, and reuse their deceleration energy to save energy and provide a power supply. To achieve this goal, energy storage devices are required that can charge and discharge quickly and offer long life spans even after repeated use. LICs are particularly suitable for use in electricity storage systems designed for effective power regeneration, because they offer high power density, good input/output performance, and long life



Backup market

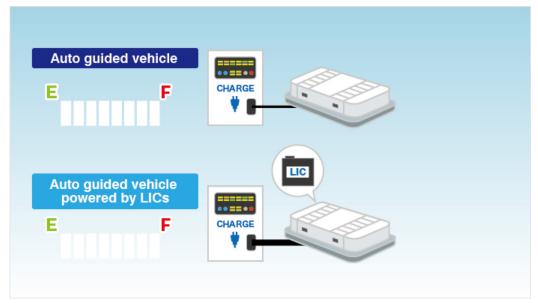
The functions of factories, data centers, and medical facilities, among other institutions, rely on electricity. With enhancements in functionality, the risk of serious damage or loss caused by unstable electricity supply following disasters is increasing. To ensure successful management and operation, the backup function offered by energy storage devices has become of great importance to ensure a stable electricity supply. LICs do not deteriorate in response to the application of voltage and offer both high output energy and high capacity. Thus, they can supply electricity instantaneously while avoiding malfunction



Main power supply market

In the market of industrial vehicles and machines, there is demand for batteries with reduced charge times, which can also decrease workability and improve battery life. An energy storage device that can improve the workability by reducing charge time and the cost of maintenance is highly anticipated. LICs exhibit good input and output performance and offer long life even after repeated use; accordingly, they could contribute to the desired reduction in charge time and maintenance costs





What Is LIC?

Features of Lithium-Ion Capacitors Performance of Lithium-Ion Capacitors

Markets Created by LICs Application Fields AFEC's Technology

Cell technology

Module technology

Production technology

Product Information ECM015PR Series ECM045SR Series

Application Examples

Corporate Information

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