LS Materials

LS ULTRACAPACITOR

Additional Applications

March. 2023

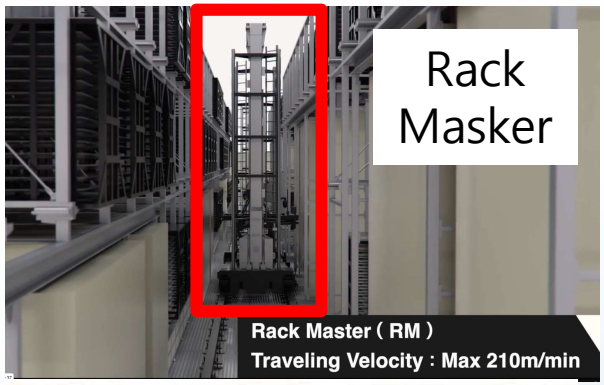
AGVs

In Clean room for Semiconductor or Display lines

1. Rack Master or Stocker

1) Equipment: Rack master for Display Panel
2) The purpose of using Ultracapacitor
   - Saving electricity cost by using regenerative energy
3) Equipped ultracapacitor
   - 4 ~ 20 parallel of 403V 4F modules
     (the number of parallel is depending on the size of the Rack)

403V 4F module



2. OHT (Overhead Hoist Transfer)

1) Equipment: Moving semiconductor Foup
2) The purpose of using Ultracapacitor
   - Saving electricity cost by using regenerative energy
     by replacing electrolytic capacitor to ultracapacitor
     (saved around 15%)
3) Equipped ultracapacitor
   - Few series of 3V 100F cells (size is important)

100F cell

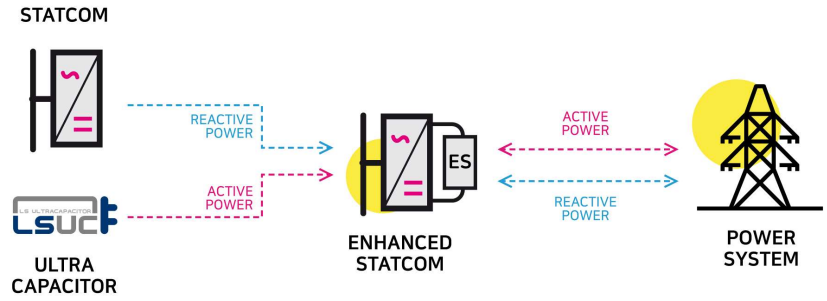
Enhanced STATCOM

LS Materials

Inertia improvement for power grid for renewable energy source by supplying active power

◆ Concept:

- Renewable energy such as wind & solar power has low inertia compared to the conventional energy such as fossil & nuclear
- To cover this weakness of renewable energy source, the necessity of energy storage to supply active power is getting increased
- Ultracapacitor is the best energy storage device for active power due to its great power density



Recommended module

LSUM 051R3C 0166F EA

LSUM 108R0C 0083F YD3P

※ STATCOM: Static Synchronous Compensator
※ Active power: actual power which is really transferred to the load
※ Reactive power: the imaginary (non-real) power

Portable Medical Equipment

LS Materials

Improving safety and power quality by ultracapacitor's high power

◆ Customers : Europe, Korea

◆ Purpose :

- Supplying high power to mobile medical equipment such as portable X-ray for on-site examination
- Ensuring safety of medical applications, vital for patients

◆ Advantages :

- Reducing maintenance fee (Longer longevity than conventional battery)
- Minimizing the size of the portable equipment

Recommended products

22Φ, 33Φ, 35Φ Series Cell