News Release
Nov 11, 2020
GS Yuasa Corporation

GS Yuasa Launches 10kVA, 20kVA Three-phase Interconnected Power Storage System “Three-phase LINE BACK Meister”

GS Yuasa Corporation (Tokyo Stock Exchange: 6674; “GS Yuasa”) today announced that it has launched a new three-phase interconnected power storage system called “Three-phase LINE BACK Meister” with a rated output of 10kVA and 20kVA.

The Three-phase LINE BACK Meister is equipped with LIM50EL series industrial-use lithium-ion batteries, and can be used for a variety of different purposes including reducing electricity costs through peak-cutting and self-consumption of renewable energy, as well as providing back-up electricity to specific loads during emergencies. The system also can be used in a wide range of applications including virtual power plants (VPPs)*1 and can also be linked with electric vehicle chargers.

GS Yuasa will continue to respond to diverse needs such as effective utilization of renewable energy and enhancement of business continuity and disaster response capabilities through sales of the Three-phase LINE BACK Meister and other power storage systems.

[Features]

1. Achieved industry’s highest efficiency*2 of 96.5%
   The product achieved electricity conversion efficiency of 95.0% (maximum electricity conversion efficiency of 96.5%) by using full SiC-FET*3 for electricity conversion system.

2. Standard installation of system parallel-off charge function
   The system can be isolated from the power grid allowing the use of electricity generated from solar cells alone to directly charge lithium-ion batteries, which enables development of self-consumption systems that utilize renewable energy to the maximum extent.

3. Superior silent performance
   High frequency sounds generated during operation have been reduced through setting of switching frequency*4.

4. Designed with high durability and ease of maintenance in mind
   The main components are made of highly durable materials and can withstand 15 years of use*5. The structural design also takes into account ease of maintenance and replacement of consumable parts to ensure long-term worry-free usage.

5. Highly user-friendly touch panel

Intuitive operation using the touch panel enables operation mode setting, charge/discharge setting, and visual confirmation of operational status.

6. Solar cell power charging operation mode

The product has a surplus electricity charge function, where it charges the storage batteries with surplus electricity when the power generated by solar cells is greater than power usage. This is discharged during periods of high electricity demand, enabling waste-free usage of generated power.

7. Self-consumption operation mode

Setting the product to self-consumption operation mode facilitates the building of a system that does not feed back into the power grid.

8. Power load backup

The product enables backup of power loads to maintain operation of necessary facilities such as pumps, air-conditioners, and elevators*6 during emergencies.

*1 Integrated control of many small-scale power generators and power demand reduction systems as if they were a single power plant.

*2 Among three-phase interconnected power storage systems (10kVA/20kVA classes) for industrial use in Japan (based on GS Yuasa data).

*3 Compound semiconductor material composed of silicon (Si) and carbon (C) and switching device with limited power loss.

*4 Except during independent operation.

*5 Periodic maintenance and replacement of consumable parts is required.

*6 Contact GS Yuasa for information regarding specifications for connected loads.

[Overview]

1. Three-phase LINE BACK Meister

Interconnected operation output	Three-phase 3 wire 202V, 10kVA/20kVA
Independent operation output*7	Three-phase 3 wire 202V, 10kVA/20kVA Single-phase 2 wire 101V, 1.5kVA
DC voltage range (V)	0 - 650
External dimensions (mm)*8	W 600 × D 800 × H 1,900

*7 As the product features an internal interconnected/independent operation switching circuit, it can supply power to specific loads both in emergency and normal situations.

*8 Excluding the storage battery section. Height (H) does not include channel base.

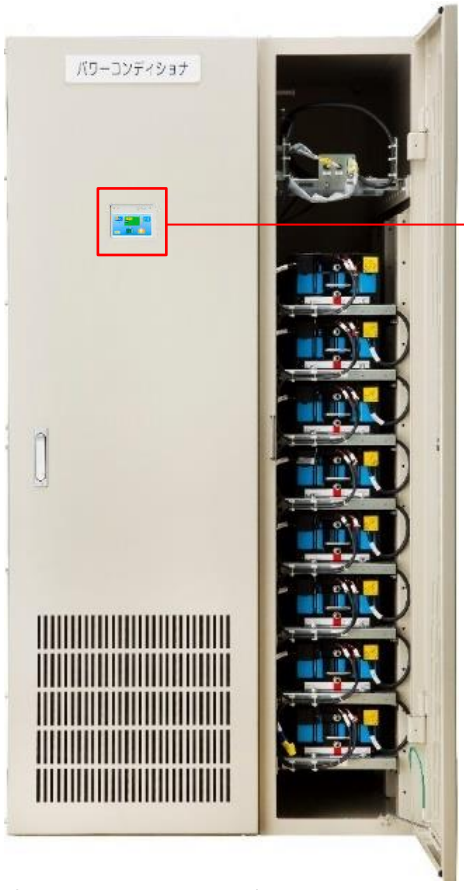
2. Industrial-use lithium-ion battery LIM50EL series

Number of cells per series		60	72	96
Storage battery capacity (kWh)	Parallel 1 row	11.0*9	13.2*9	17.6
	Parallel 2 rows	22.1	26.5	35.3
	Parallel 3 rows	33.1	39.8	53.0
External dimensions (mm)*10	Parallel 1 row	W 400 × D 800 × H 1,900		
	Parallel 2 rows	W 680 × D 800 × H 1,900		
	Parallel 3 rows	W 960 × D 800 × H 1,900		

*9 In the case of 20kVA power conditioners, there are limitations on continuous charging and discharging. Contact GS Yuasa for details.

*10 External dimensions of the storage battery cabinet. Height (H) does not include channel base.

1. Three-phase LINE BACK Meister (when storage battery capacity is 17.6kWh)



Power conditioner cabinet (W 600mm)

Storage battery cabinet (W 400mm)

Touch panel

2. Industrial-use lithium-ion battery LIM50EL series (12 cell module)

3. System configuration example