

TOSHIBA

Toshiba Rechargeable Battery

SCiB™



6 Features of SCiB™



Long Life

Cycle life of 20,000 times or more



Safety

Low risk of fire or explosion



Low Temperature Operation

Can be used at temperature as low as -30°C



Wide Effective SOC Range

Available SOC range of 0 to 100%



Rapid Recharging

Rechargeable in 6 minutes



High Input & Output

large current for both input and output

SCiB™ cell product line up

2.9Ah

10Ah



High power type

Product Name	2.9Ah cell	10Ah cell
Nominal Capacity	2.9Ah	10Ah
Nominal Voltage	2.4V	2.4V
Output Performance	520W	1800W
Input Performance	410W	1500W
Dimensions	W63 × D14 × H97mm	W116 × D22 × H106mm
Weight	Approx. 150g	Approx. 510g

20Ah

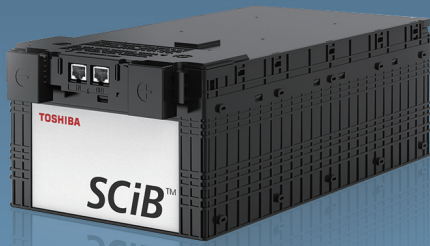
23Ah



High energy type

Product Name	20Ah cell	23Ah cell
Nominal Capacity	20Ah	23Ah
Nominal Voltage	2.3V	2.3V
Output Performance	1200W	1000W
Input Performance	1100W	1000W
Dimensions	W116 × D22 × H106mm	
Weight	Approx. 515g	Approx. 550g

SCiB™ battery system

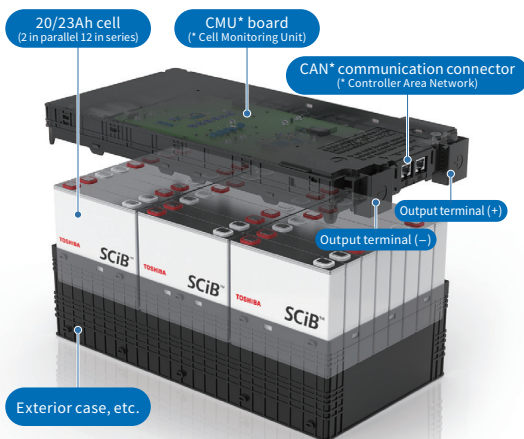


BMU (Battery Management Unit)		
Contactor		
Current sensor		
Service disconnect		
GND control relay		
Current leak sensor		
Termination plug		

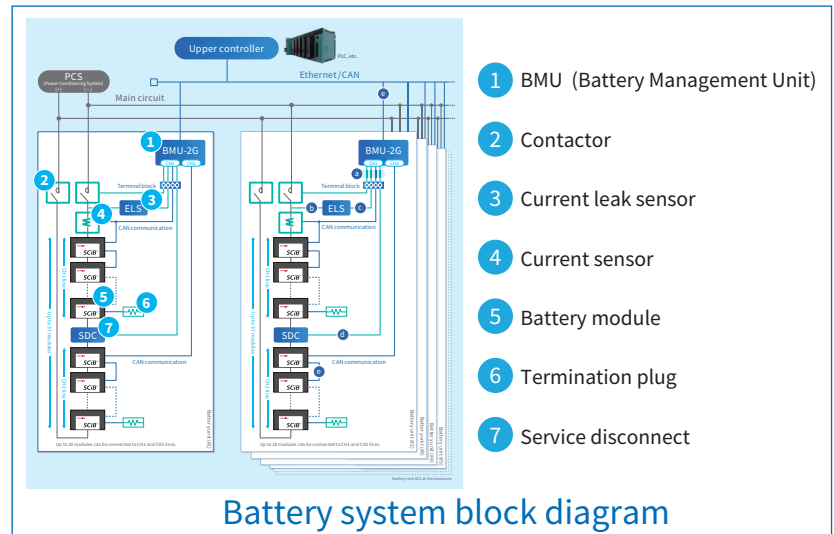
2P12S modules Type3-20 / Type3-23

Battery system components

Battery system outline



Battery module Structure



Battery system block diagram

2P12S modules Type3-20 / Type3-23 specification

Product name	Type3 -20	Type3 -23	Product name	Type3 -20	Type3 -23
Model	FM01202CCA04A	FM01202CCB01A	Dimensions	W190 × D360 × H125 mm	
Nominal capacity	40Ah(1.10kWh)	45Ah(1.24kWh)	Weight	Approx. 14kg	Approx. 15kg
Nominal voltage	27.6V		Ambient temperature	-30 to 45°C	
Maximum charge/ discharge current	160A (continuous), 350A (in-rush current) (Not over 45°C at module temperature)		Ambient humidity	85%RH or less (No condensation)	
Range of battery voltage	18.0 to 32.4V		Major built-in functions	Cell voltage measurement, module temperature measurement, cell balancing*, CAN communication <small>*Function to even differences in voltage among cells connected in series</small>	
Safety Certification	Module level: UN 3480 Cell level: UL 1642/JIS C 8715-2/UN 3480				

Safety Precautions

• Do not use this product for facilities in which there is a risk to human life or a disruption to public functionality if the product fails or malfunctions (nuclear power generator controls, aerospace applications, traffic equipment, life support equipment, safety equipment, and others.) • This product is produced under strict quality controls, however it may malfunction depending on the operating environment and conditions. Please consider countermeasure design (redundancies, failsafe measures, etc.) if using this product in facilities in which failure of the product would be expected to cause a great loss or accident. • The operating environment must be within the range of specifications noted in the catalog and instruction manuals. Using the product outside the specified range may cause injury, are, or some other accident. • Be sure to carefully read the instruction manuals before using this product so that you can use it correctly. • Toshiba is not responsible for any loss related to malfunctions or abnormalities in equipment or devices connected to the product when the product fails or malfunctions, including losses from other secondary repercussions. • The technical information in this document is for the purpose of explaining the typical operations and applications of the product, but not for granting any license or guarantee in regard to intellectual property rights, or any other rights, belonging to third parties or Toshiba. • The product described in this document cannot be used in conjunction with products that are prohibited from production or sale by any rules, regulations, or laws in Japan or overseas. • When exporting this product separately or combined with your equipment, please be sure to satisfy the objective conditions and inform conditions listed in the export control policies, so called Catch All restrictions, which are set by the Ministry of Economy, Trade and Industry of Japan, and the appropriate export procedures must also be taken.

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