



# BTB 200

Take a closer look  
and discover **BTB200**,  
controller for Bus Tie  
breaker management



# BTB 200

The BTB200 controller provides the ability to control a bus tie breaker, for applications where it is necessary to divide the common bus during certain operating conditions. A large full colour display presents operating status in a clear easy to view format. Combined with generous input and output capability that means complex sites can be tackled with ease.

- 4.3" Colour TFT display
- 4 Alternative configurations
- Hardware watchdog
- Automatic bus synchronization
- Automatic selection of the synchronisation direction
- Real time clock
- Built-in audible alarm
- Multiple languages available
- Size 244 × 178 × 83 mm (Cut-out 218 × 159 mm)

 <b>18 Digital inputs</b> emergency stop input	 <b>18 Digital outputs</b> [2×3A, 2×10A c/o, 4×500mA(+), 9×280mA(-) and 1×280mA(-) hardware watchdog output]	 <b>7 Analogue inputs</b>
 <b>2 Analogue outputs</b> +/-10V	 <b>AND/OR</b> logic control	 <b>638 Event history log</b> with 638 record data-log
 <b>USB</b>	 <b>RS232</b>	 <b>RS485</b>
 <b>Ethernet connection</b>	 <b>16 Calendars</b> + 4 timers	





# Features

The BTB200 controls all aspects for the closure and opening of a bus Tie Breaker on the common system bus.

It manages the synchronisation between the two separated halves of the bus, based on either an input signal, or on automatic logic, which takes into account the number of gen-sets connected on the bus. Gen-set synchronisation is achieved directly via a connection to SICES Gen-set controllers, or alternatively by using analogue synchronization line. BTB200 measures the current (3ph) flow across the tie breaker by means of current transformers. It is also able to measure the active (kW), apparent (kVA) and reactive power (kVAR) exchanged on the bus, showing the flowing direction on the display and by the LEDs on the front panel. The BTB200 also records the total import or export of energy on the bus using energy counters.

Additional protections for the tie breaker are provided by the BTB200 controller, including: Instantaneous overcurrent (50), Time dependent overcurrent (51), Phase overcurrent with voltage restraint/control (50V/51V).

For complex applications it is possible to connect up to 8× BTB200 controllers for tie breaker management, and additionally up to 16× MC200 controllers for the Mains circuit breakers and operate the system with up to 16× GC600 or up to 24× DST4602Evo controller generating sets.

The BTB200 controller features several different communication options to ensure easy integration with remote monitoring facilities and building management systems.

# Technical details

- Supply voltage: 7–32 Vdc
- Power consumption: about 5 W with LCD Lamp Saving active
- LCD Graphic colour display TFT 4.3" 480 × 272 pixels
- Operating temperature: -25 °C to 60 °C
- Protection degree: IP65 gasket included
- Weight: 1100 g
- High temperature 48hour burn in test on all units with test report



## BTB 200 in action

Major Global cotton producer,  
Pakistan



The textile industry is the mainstay of Pakistan's economy, contributing 57 % to the country's exports, 8.5 % to the GDP of Pakistan. In addition, the sector employs about 45 % of the total labor force in the country. In fact, Pakistan currently ranks fourth among world cotton producers and third among world cotton consumers. The local industry increasingly requires more modern machinery and techniques to compete in an increasingly competitive global industry. Modern production equipment demands high quality electrical supplies to operate correctly and avoid expensive and time consuming process issues

**Rahman Cotton Industries** is focused on the production of Super fine combed/carded yarn from extra long staple cotton. All products are of the highest quality. The cotton mill employees around 1200 employees of the surrounding province. Their production equipment relies on multiple power sources. SICES products were used in the project, which was delivered and commissioned by their authorised partner Hub Engineering.

The systems manages a complex mains feed arrangement which is synchronised with Rahman Cotton Industries own on site power generation equipment. With 3× Feed Transformers (Mains) each controlled by a SICES Mains Controller and with 3× Natural Gas Generators (1 MW), Each under the control of a SICES generator controller and 2× Bus Tie Breakers which are each independently controlled by a dedicated SICES bus tie breaker, the project presented some interesting challenges. The SICES Bus Tie Breaker controller provides the ability to connect the generators to various parts of the load, which are normally isolated from each other, this ability gives greater flexibility with the systems' generators and increases both redundancy and efficiency of the system.

S.I.C.E.S. SRL  
Societa Italiana Costruzioni  
Elettriche Sumirago

Via Molinello 8B  
21040 -Jerago con Orago (VA)  
ITALY

T +39 0331 212941  
F +39 0331 216102

[www.sices.eu](http://www.sices.eu)

[sales@sices.eu](mailto:sales@sices.eu)