

Introduction Gencontroller C6200



SELCO is introducing
the integrated synchronizing
and load sharing unit C6200



C6200 is a generator controller comprising auto synchronizing, load sharing and versatile interfacing to speed governors and AVRs in one single unit.

C6200 has been developed to complement the various solutions for synchronizing and load sharing available from the SELCO T-Line product range.

Moreover, the C6200 is built on a state-of-the-art technology platform introduced with the SELCO SIGMA system, offering a variety of additional features and possible interfacing to external control.

Simple installation and easy configuration are the SELCO qualities on which C6200 are based.

Features and Functionality

C6200 is designed for installation in electrical switch board panels. The sturdy aluminium casing furnishes clear LED indication and easy accessible connection terminals.

C6200 offers the following functionality:

- Automatic synchronizing
- Load sharing (active/reactive)
- Detection of reverse power
- Detection of excitation loss
- Programmable I/O
- ROCOF relay
- Vector shift relay
- Frequency monitoring
- Direct control of electronic speed governors and AVRs

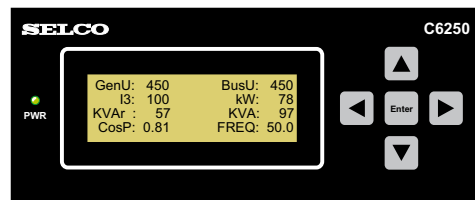


The functionality integrated in the C6200 offers an alternative to combining several units of the SELCO T-Line range, e.g. T2000, T2100, T4000, T4400, T4500, T4800, T4900 and T7900.

C6200 is also equipped with a built-in synchroscope convenient in service and commissioning situations.

The C6200 furthermore provides various interface options such as MODBUS for external PC and PLC control and 10 user configurable digital and analogue inputs and outputs that can be set for designated extended functionality.

C6200 is compatible with the S6500 user interface module of the SIGMA system, and the dedicated C6250 display unit is available as optional extra.



Applications

The C6200 is a cost effective solution for grid-parallel generator operation. The unit is well suitable for use in:

- Co-generation applications including peak shaving or base load operation in heavy energy consuming industries, like oil refineries, petrochemical refineries, steel mills, mines, cement factories, food processing, etc.
- Back-up power systems where down-time is critical for safety or economic reasons, like in hospitals, airports, cable ways, energy generation and distribution, processing of food and pharmaceutical products, storage of food and pharmaceutical products, etc.
- Container enclosure gen-sets offered by rental companies for temporary use.



C6200 Features

Speed Control, Voltage Control

C6200 can control speed governors and automatic voltage regulators (AVR) by speed/ voltage up/down pulses, analogue voltage and current signals and pulse width modulated signals PWM.



Synchronizing

C6200 is equipped with a built-in synchroscope for manual or semi-automatic synchronization, convenient for service and commissioning situations.

Automatic synchronization is a standard function of C6200. It is possible to synchronize complete bus bar sections to each other.

Voltage Matching and Frequency Control

C6200 can control both voltage and frequency of the generator.

Active Load (kW) Sharing

Control of parallel operation of generators. The unit can run in parallel with other generators controlled by SELCO C6200, SIGMA, T4400, T4800 or B6000 load sharing units.

Reactive (kVAr) load sharing

Reactive load sharing between generators controlled by SELCO C6200, SIGMA or T4900 units.

Generator Protection

Reverse Power Protection and loss of excitation protection are standard features of C6200.

For grid parallel operation a vector shift or ROCOF protection can be activated.





Load Depending Start and Stop

C6200 offers 8 programmable inputs and outputs. The outputs can be programmed to load depending start and stop functions.

In case the load of the running gensets increases above a predefined limit, the next available generator will be started. In case the load drops below a predefined limit, the next generator will be stopped. The specific generator priority is given by external selector switch on inputs 1-4.

Operation of Generators Running in Parallel with the Grid

Active Load (kW) Control

During grid parallel operation the load of the generators can be controlled without additional equipment. Both peak shaving and base load of the generator are possible. In peak shaving mode load depending start and stop is also available.

Reactive Load (kVAr) Control

C6200 offers power factor control. During grid parallel operation the power factor of the generator can be kept constant.

The C6200 includes predefined import/export load control schemes that can be activated/deactivated from the programmable inputs, so generators that sometimes run island mode and sometimes in parallel with the grid can easily be controlled with almost no additional wiring.



Analogue Outputs

Two analogue outputs are available and can be configured as measurement transducer outputs. Any of the measurements can be connected to these outputs.

RS485 Modbus Communication

The C6200 includes RS485 Modbus interface, enabling external control by PC or PLC systems.

