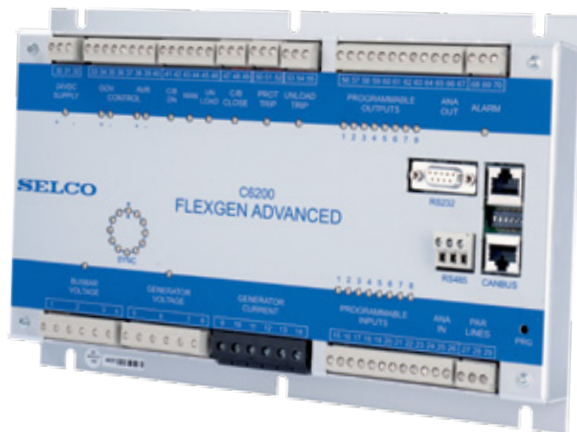


C6200 FLEXGEN SERIES

Generator Control



Description

FlexGen controllers are intended for paralleling of generators with each other or with the grid. One FlexGen controller is installed for each generator in the installation and handles all electrical control.

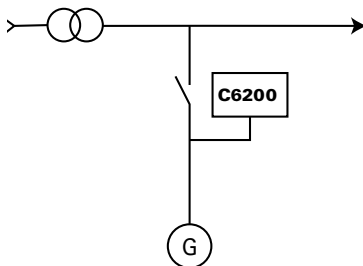
There are two versions available, Basic and Advanced.

Both versions include basic functions such as autosynchronizing, frequency control, active load sharing, dead bus monitoring and reverse power protection. In addition the FlexGen Advanced contains reactive load sharing, voltage matching, power factor control, grid-parallel operation control, and protection against excitation loss, RoCoF (df/dt), and vector shift. FlexGen Advanced also contains over-current and short-circuit protection and power management features like preferential load trip, load depending start/stop and large consumer control.

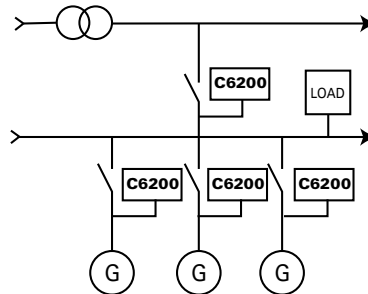
Both models include MODBUS RTU interface enabling integration with equipment from other manufacturers, for example, control and monitoring from PC with a graphic SCADA interface. FlexGen is type-approved by major marine classification societies and can be used for marine power management systems.

Simplified Circuit Diagram

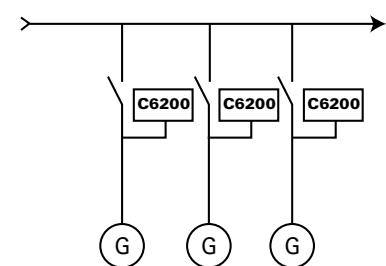
Grid Parallel



Grid Parallel with Local Bus



Island Mode



Ordering Information

ORDERING NUMBER	MODEL NAME
C6200.0060	FlexGen Basic
C6200.0100	FlexGen Advanced

ACCESSORIES	REQUIREMENT
C6500	Recommended

Accessories



C6500 FlexGen UI User Interface Module
Provides indication of measurements, alarms, alarm log and configuration of the generator module.

The user interface is designed for mounting in the switch panel door. It furnishes a large back-lit display showing all electrical measurements and control parameters.

- User interface unit for any FlexGen controller
- Separate LEDs provide clear indication
- Valuable alarm log
- Onsite configuration capability
- Connects through the RS232 serial link

FlexGen Technical Data

FEATURES	BASIC	ADVANCED
3-phase true RMS measurement	●	●
Frequency control	●	●
Automatic synchronization	●	●
Active load sharing	●	●
Voltage control/Voltage matching		●
Reactive load sharing		●
Reverse power protection	●	●
Excitation loss protection		●
RoCoF protection (df/dt)		●
Vector shift protection		●
Overcurrent (I >) and Overload protection (P >)		●
Short-circuit protection (I >>)		●
Overvoltage (U >)	●	●
Undervoltage (U <)	●	●
Overfrequency (F >)	●	●
Underfrequency (F <)	●	●
Dead bus monitoring /Black-out limiter	●	●
External circuit-breaker trip		●
Engine error trip		●
Preferential load trip (PM)		●
Load depending start/stop (PM)		●
Large consumer control (PM)		●
Dynamic grid-parallel operation control		●
Analog I/O		●
MODBUS RTU (RS485 interface)	●	●

Features & Benefits

FEATURES	BENEFITS
3-phase true RMS measurement	Reliable measurement, high noise immunity
Analog outputs for speed and voltage control	Fits most electronic governors and ECUs
PWM outputs for speed and voltage control	Compatible with e.g. CAT and Woodward
Pulse outputs for speed and voltage control	Compatible with conventional governors, motorized potentiometers and some ECUs
10 programmable Inputs and outputs	Flexible configuration for a wide range of applications such as marine PMS, on site power or grid parallel applications
Type-approved by marine classification societies	Approved for marine power management

Specifications

Auxiliary Supply	10 Vdc to 36 Vdc (24 Vdc-58%/+50%)
Generator Voltage	63 V-690 V
Generator Rated Frequency	50 Hz/60 Hz
C/T Secondary Current	5 A
Consumption	7 W
Burden C/T Input	0.4 VA at I_N
Ambient Temp Range	-20°C to +70°C
Vibration	IEC 60068-2-6
Humidity	IEC 60068-2-30
EMC	IEC 61000-4-3:2006, IEC 61000-4-6:2004, IEC 61000-4-5:2005, IACS E10:2006 Test No.15, CISPR 16-1:1999, CISPR 16-2:2002
Relay Contacts	230 Vac/2 A & 30 Vdc/2 A
External Communication	MODBUS RTU
Enclosure	IP20
Weight	1,5 Kg
Dimensions	H 182 mm (7.2"); W 282 mm (11.1"); D 50 mm (2.0")

Wiring Diagram

