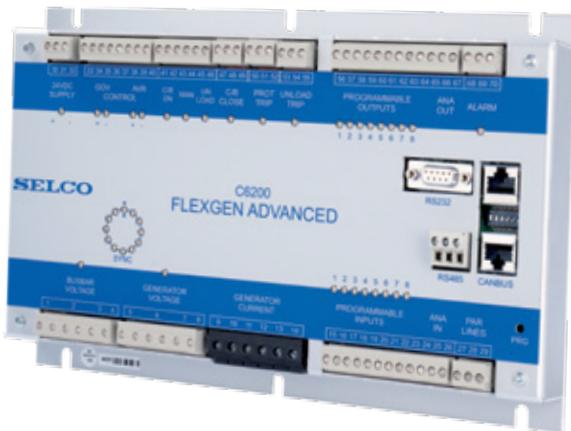


# C6200 FLEXGEN SERIES

## 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.

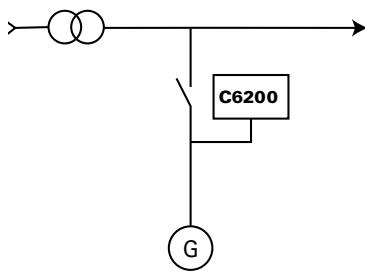
There are two versions available, Basic and Advanced.

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.

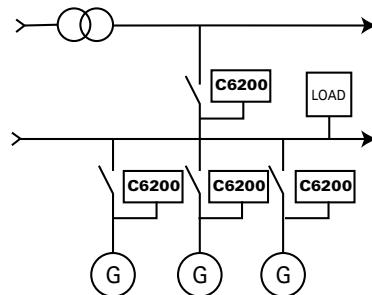
Both models include MODBUS RTU interface enabling integration with equipment from other manufacturers, for example, control and monitoring from PC with a graphic SCADA interface. FlexGen is type-approved by major marine classification societies and can be used for marine power management systems.

### Simplified Circuit Diagram

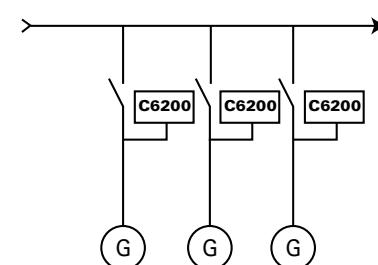
Grid Parallel



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

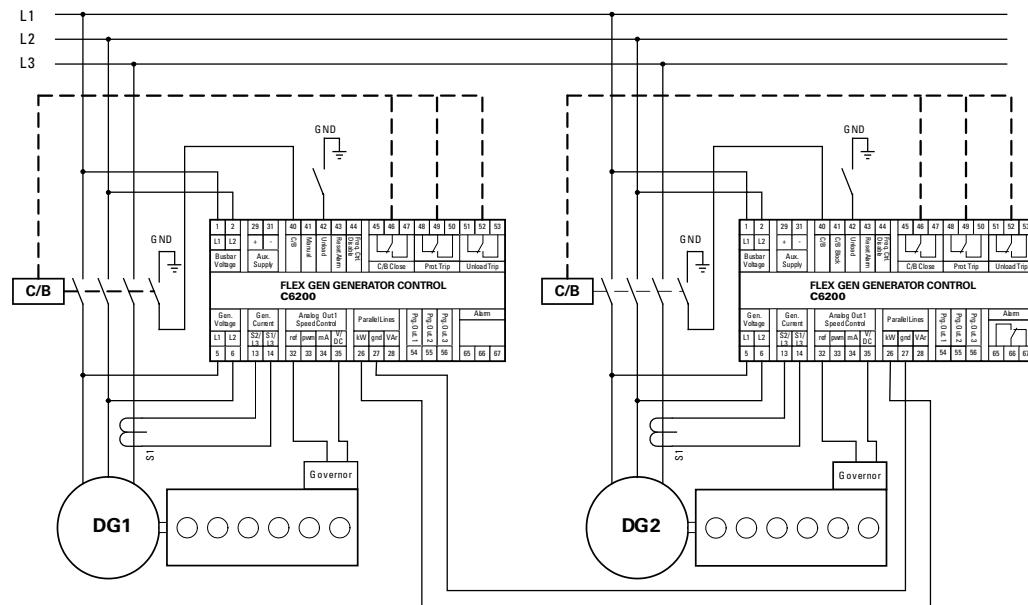
### Features & Benefits

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

### Specifications

<b>Auxiliary Supply</b>	10 Vdc to 36 Vdc (24 Vdc-58%/+50%)
<b>Generator Voltage</b>	63 V-690 V
<b>Generator Rated Frequency</b>	50 Hz/60 Hz
<b>C/T Secondary Current</b>	5 A
<b>Consumption</b>	7 W
<b>Burden C/T Input</b>	0.4 VA at $I_N$
<b>Ambient Temp Range</b>	-20°C to +70°C
<b>Vibration</b>	IEC 60068-2-6
<b>Humidity</b>	IEC 60068-2-30
<b>EMC</b>	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
<b>Relay Contacts</b>	230 Vac/2 A & 30 Vdc/2 A
<b>External Communication</b>	MODBUS RTU
<b>Enclosure</b>	IP20
<b>Weight</b>	1,5 Kg
<b>Dimensions</b>	<b>H</b> 182 mm (7.2"); <b>W</b> 282 mm (11.1"); <b>D</b> 50 mm (2.0")

### Wiring Diagram



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