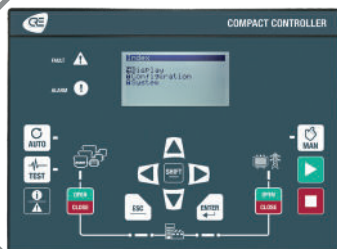




# PARALLELING SOLUTIONS



**Innovation**  
for  
better  
**control**





# PARALLELING SOLUTIONS

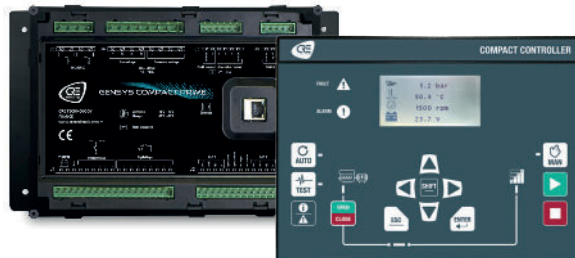
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## GENERATOR PARALLELING & MANAGEMENT

### GENSYS COMPACT PRIME

The GENSYS COMPACT PRIME is one controller of a complete range for Energy sources and power plant management : Generators, Mains, Photovoltaic, Batteries storage, Tie breakers. It is a panel-mounted generator controller fit for standby application. This controller is optimized for its ease of use. Installation and configuration for up to 32 generators (parallel mode). The **GENSYS COMPACT PRIME** offers a fully compatible module with all speed governors, AVR's and J1939 communication with electronic engines. Isolated speed and AVR outputs and 3 isolated communication ports: 2 for CANbus, 1 for Ethernet. It includes all necessary functions:

- Up to 32 generators in parallel, manual or automatic generator control.
- kW & kVAR load sharing control, Dead busbar management.
- Automatic frequency & phase synchronisation (differential frequency meter + synchroscope available on screen). Voltage synchronization.
- Engine parameters and electrical parameters controlled and displayed.



AVAILABLE IN CORE BASE DIN RAIL MOUNTED VERSION & SWITCHBOARD MOUNTED VERSION WITH DISPLAY



### GENSYS COMPACT MAINS

The GENSYS COMPACT MAINS is used on standalone generator in mains paralleling application. It offers flexibility and time saving thanks to its simple wiring, and easy programming. This controller is one controller of a complete range for Energy sources and power plant management: Generators, Mains, Photovoltaic, Batteries storage, Tie breakers. The **GENSYS COMPACT MAINS** offers a fully compatible module with all speed governors and AVR's and J1939 communication with electronic engines. Isolated speed and AVR outputs and 3 isolated communication ports: 2 for CANbus, 1 for Ethernet. It includes all necessary functions:

- Manual or automatic generator control
- Automatic start/stop depending on mains failure or external request
- kW peak Shaving or kW base load mains paralleling with PF control
- Automatic frequency & phase synchronisation (differential frequency meter + synchroscope available on screen). Voltage synchronization.
- Engine parameters and electrical parameters controlled and displayed.



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## MAINS PARALLELING & TIE BREAKER MANAGEMENT

### MASTER COMPACT RANGE & BTB COMPACT

The **MASTER COMPACT** & **MASTER COMPACT 1B** are two controllers of a complete range for Energy sources and power plant management: Generators, Mains, Photovoltaic, Batteries storage, Tie breakers. Those 2 controllers made to manage generator power plants from 1 to 32 generators in parallel with mains. The **MASTER COMPACT** is suitable for applications with 2 circuit-breakers (Bus and mains) while the **MASTER COMPACT 1B** is suitable for applications with 1 circuit-breaker (no breaker on Bus). **MASTER COMPACT** range offers flexibility and time saving thanks to its simple wiring and easy programming.

The **BTB COMPACT** is made to manage bus tie-breaker applications up to 32 bus tie-breaker. It operates in combination with GENSYS COMPACT PRIME (for generators) and MASTER COMPACT/MASTER COMPACT 1B (for mains) modules. It offers flexibility and time saving thanks to its simple wiring and easy programming.



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## HYBRID RANGE

### PV COMPACT

The **PV COMPACT** is one controller of a complete range for Energy sources and power plant management: Generators, main, Photovoltaic, Batteries storage, Tie breakers. It controls photovoltaic inverters in grid-connected applications and/or one/several generators and/or batteries storage. The **PV COMPACT** offers flexibility and time saving thanks to its simple wiring and easy programming. The **PV COMPACT** is configurable from its front panel display, from i4Gen HMI, or through the free i4Gen Suite PC software.



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### BAT COMPACT

The **BAT COMPACT** is one controller of a complete range for Energy sources and power plant management: Generators, main, Photovoltaic, Batteries storage, Tie breakers. It controls batteries inverters in grid-connected applications with one or several photovoltaics inverters, and one or several generators. The **BAT COMPACT** offers flexibility and time saving thanks to its simple wiring and easy programming. The **BAT COMPACT** is configurable from its front panel display, from i4Gen HMI, or through the free i4Gen Suite PC software.



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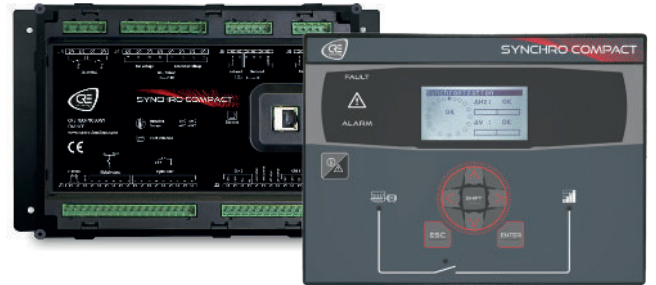
## SYNCHRONIZING - PROTECTION CONTROLLERS

### SYNCHRO COMPACT

The **SYNCHRO COMPACT** is a synchronizing unit with dead bus bar management working in both manual and automatic mode. The **SYNCHRO COMPACT** offers the following single features: F/V/Phase, synchronisation, frequency and voltage protections.

The **SYNCHRO COMPACT** offers flexibility and time saving thanks to its simple wiring, and easy engineering & programming.

The **SYNCHRO COMPACT** is a new generator controller available in both switchboard panel mounted version with display, or core base DIN rail mounted version. The **SYNCHRO COMPACT** is also compatible with **i4Gen** touchscreen color display. The module is configurable from its front panel display, remote touchscreen, or through the **i4Gen Suite** software.



AVAILABLE IN CORE BASE DIN RAIL MOUNTED VERSION & SWITCHBOARD MOUNTED VERSION WITH DISPLAY



## ASSOCIATED MULTI-TOUCHSCREEN RANGE

### I4GEN COLOR TOUCHSCREEN HMI

The **i4Gen** is a range of multi-touch screen color display developed for harsh environment and industrial areas providing access to all controller's data for control, measurement and configuration. Thanks to **ZOHO Assist** application (available for PC or mobile phone), it is possible to access remotely to the **i4Gen** for support, remote control and monitoring. (A remote access with up to 10000 **i4Gen** units). Emails sending on configurable events: 10 different email addresses are available.

- The **i4Gen** touchscreen and color display range (7, 10 and 15 inches) is available for the **COMPACT** controllers.
- **i4Gen** offers configuration, control, monitoring and logging (parameters, measures, events) of **COMPACT** controllers.
- **i4Gen** display can be duplicated on computer locally by LAN or remotely by internet or GPRS
- Thanks to its **WIFI** function, **i4Gen** offers also the capability of remote service and support by connecting your smartphone in connection sharing.

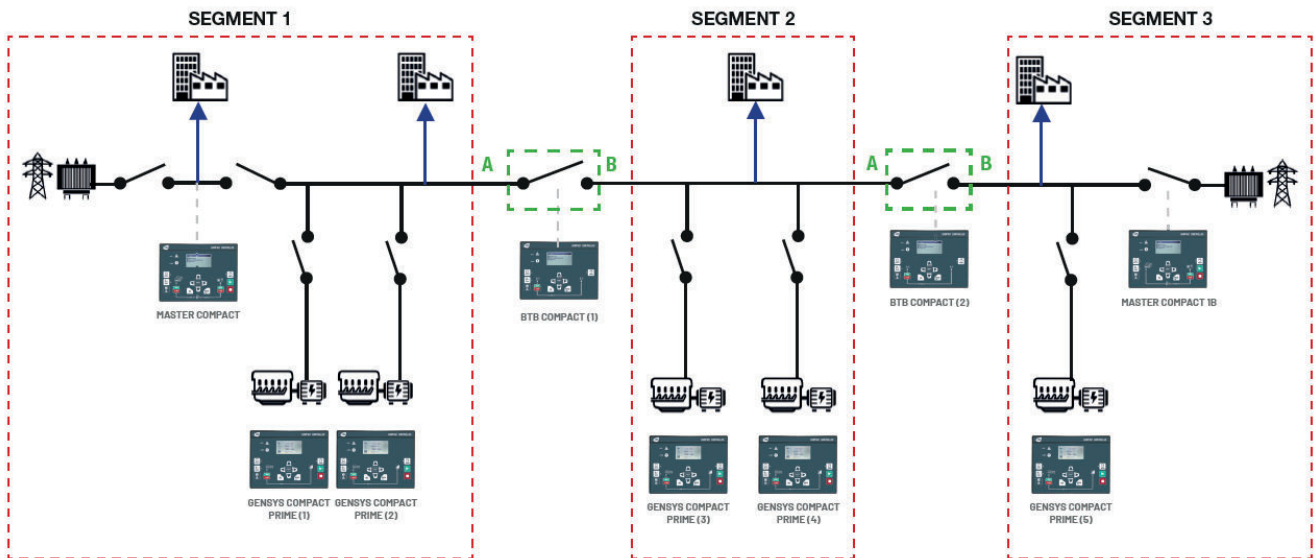
**NEW:** In addition to its very advanced functions, the **i4Gen** now offers you the display of the single-line diagram of your complete power plant, as well as the production curves of each source. The **i4Gen** is compatible with all the **CRE TECHNOLOGY** controllers.



AVAILABLE IN 7", 10" & 15"



### APPLICATION EXAMPLE WITH MULTI BTB COMPACT AND MULTI MASTER COMPACT AND MULTI GENSYS COMPACT PRIME, AND PARAMETERS CONFIGURATION FOR EACH MODULE:

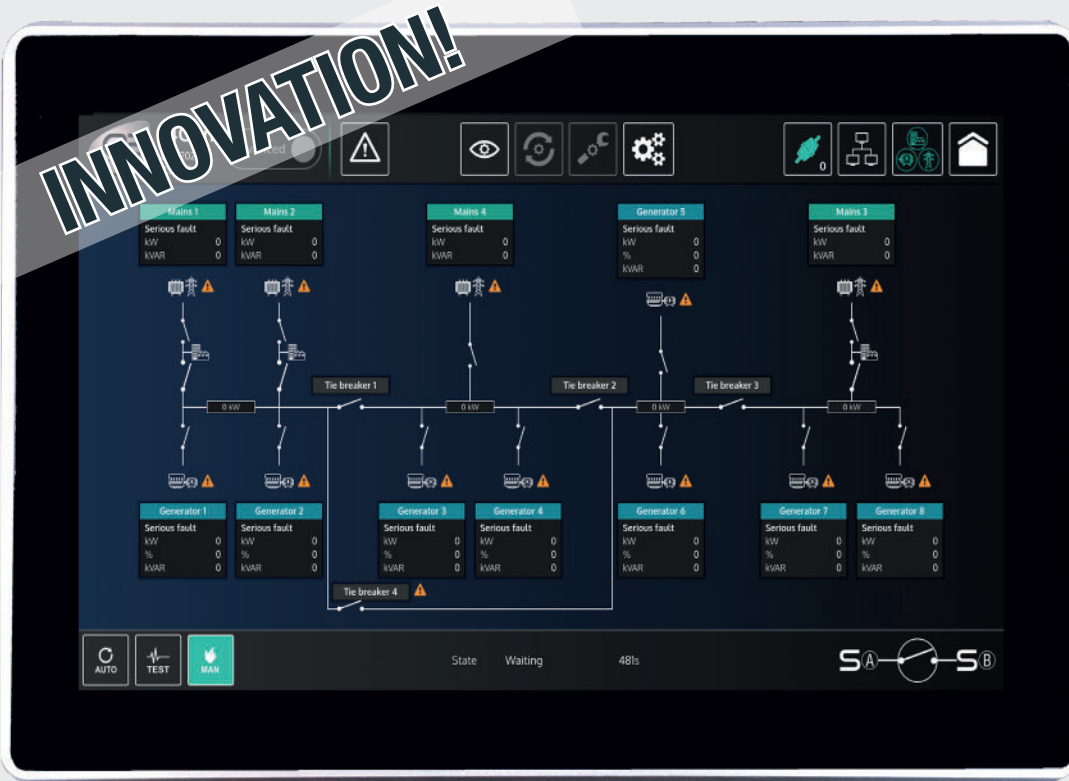


For hybrid power plant, compatible with **PV COMPACT** and **BAT COMPACT**



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## NEW

### SINGLE LINE DIAGRAM & SCADA FEATURES AUTOMATICALLY GENERATED FROM EACH COMPACT CONTROLLER CONFIGURATION

In addition to its very advanced functions, the i4Gen now offers you the display of the single-line diagram of your complete power plant, as well as the production curves of each source.

It allows monitoring and global control just with settings of controllers

## PC SOFTWARE (VISUALIZATION & PROGRAMMING)



## I4GEN SUITE

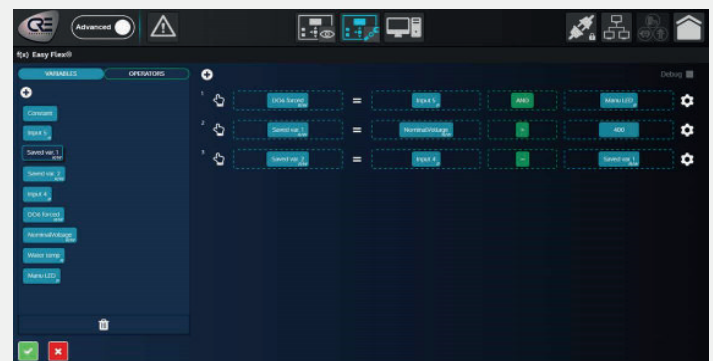
### Configuration software

CRE TECHNOLOGY has developed a new PC software which allows you to connect to all COMPACT modules of a power plant through a HUB. This user-friendly software allows you to configure and monitor all modules of your power plant in real time. Automatic firmware update for i4Gen Suite and controllers are managed. Visit our website to get the firmware, free of charge.

## EASYFLEX

### Program and customize your internal logical sequences

i4Gen Suite offers programming capabilities. It is possible to customize your application by programming specific features with EasyFlex. EasyFlex allow user to write up to 50 lines of equation with 100 users variables, through an intuitive editor, giving the opportunity to fit with any specific application and to extend standard features. Every variables, logic operators and arithmetic operators are available.





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## DEMONSTRATION SUITCASE

### Customer product demonstration & application tests

This test and demonstration cases (built in flight case) is for our **GENSYS COMPACT MAINS** (stand-alone), **GENSYS COMPACT MAINS + i4Gen**, **GENSYS COMPACT MAINS + i4Gen + Simulation + J1939** and also for the **GENSYS 2.0** (stand-alone). Inputs/outputs are wired on switches or lamps. Supply is made with a 230VAC outlet.



GENSYS COMPACT MAINS & i4GEN  
DEMONSTRATION SUITCASE



GENSYS COMPACT MAINS  
DEMONSTRATION SUITCASE



### HOW TO CONTACT OUR AFTER SALES SERVICES TEAM:

- By email: [support@cretechnology.com](mailto:support@cretechnology.com)
- By Skype: [support-cretechnology.com](https://www.skype.com/join/support-cretechnology.com)
- Phone: +33 (0)4 92 38 86 86

[www.cretechnology.com](http://www.cretechnology.com)





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