

**GENSETS
SOLUTIONS**

parallelizing

Generating sets and mains paralleling units are at the heart of CRE Technology expertise. The company is world renowned for its “all-in-one” products designed to cover the maximum of functions and the most various applications possible. This specific expertise is instilled in our basic and advanced units.

Whether on a marine, commercial, military or on an offshore platform project, our range of paralleling modules can fulfill any specifications or requirements.



www.cretechnology.com



GENSYS 2.0 LT

All-in-one genset control
and paralleling unit

GENSYS 2.0 LT is a control unit designed for generator electrical panels. It combines all necessary functions:

- Three phase mains failure
- Engine start/stop and protection
- Alternator control and protection
- Mechanical parameters display
- Electrical parameters display
- Genset synchronization
- Load sharing and kW control
- Load sharing and kVAR control

GENSYS 2.0 LT is configurable via its front panel or via a PC with CRE Config Software. The unit has analog load sharing lines and is compatible with all types of analog load sharing modules.

GENSYS 2.0

All-in-one genset control
and paralleling unit with integrated PLC

Designed for generator electrical panels the GENSYS 2.0 is a control unit which combines all necessary functions. It has analog load sharing lines and is compatible with all types of analog load sharing modules.

GENSYS 2.0 is configurable via its front panel or via a PC with CRE Config software. It has an embedded web site which is password protected. It is a real PLC unit where equations and sequences can be programmed directly by the user with text editor software or Easy PLC software.

Extension modules can be added on the CAN bus. This extends the inputs/outputs up to 128 digital inputs, 64 digital outputs, 44 analog inputs and 32 analog outputs.



FEATURES

- Several power plant possibilities:
Multi-control HMI / HMI redundancy
I/O flexibility
Internal logic sequences,
programmable by equations
Multi-function graphic display
5 isolated serial ports
J1939 communications
Fully compatible with
all speed governors and AVR



FEATURES

- I/O flexibility
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RDM 2.0 GENSYS 2.0 CORE

Remote display module and core unit
for all-in-one genset control and paralleling unit

The kit RDM 2.0 and GENSYS 2.0 CORE has the same properties as the GENSYS 2.0 and allows several power plant possibilities. It is an extendable system that can be optimized to your space facility.

The display shows mechanical and electronical parameters for intuitive operation and users can switch screens, set password, change setpoints and view history record.

MASTER 2.0

All-in-one mains paralleling unit with integrated PLC

Master 2.0 is a power plant controller for gensets in parallel with one or several mains.

This includes all necessary functions:

- Several mains management
- Three phase mains failure detection
- Electrical protection
- Electrical parameters display
- Manual and automatic paralleling with mains (frequency, phase and voltage)
- kW power management with several modes
- No break change over with load transfer
- Permanent paralleling in base load
- Permanent paralleling in peak shaving mode
- Power factor control when paralleling with mains.
- Dyn11 capabilities (HV phase compensation)

Master 2.0 also has analog load sharing lines and is compatible with all type of analog load sharing modules.



FEATURES

All types of digital or analog sensors:

K and J thermocouples, PT 100,

Ω , 0-20 A, 0-10 V_{DC}

Embedded PLC

Extended communication ports

Supply: 8-38 V_{DC}

Dimensions: 260x160x90mm

GENSYS MARINE

All-in-one paralleling unit for marine applications: PMS



The GENSYS Marine controller is a microprocessor based unit dedicated to marine genset control panels. This module combines all necessary features.

FEATURES

Fully compatible with all speed governors and AVRs

4 serial ports: RS232, RS485, 2 CAN bus

Large, multi-function graphic screen

Internal logic sequences, programmable by equations

Predefined sequences dedicated to marine applications

Embedded web site

Marine certifications



FEATURES

5 isolated serial ports
I/O flexibility

New multi-function graphic display
Internal logic sequences, programmable by equations

Fully compatible with all speed governors and AVRs

J1939 communications

Marine functions

GENSYS 2.0 MARINE

All-in-one paralleling unit for marine applications: PMS

The GENSYS 2.0 Marine is a control unit designed for marine generator switchboards panels.

This Power Management System unit combines all necessary functions:

- Engine start/stop and protection
- Alternator control and protection
- Mechanical parameters display
- Electrical parameters display
- Genset synchronization
- Load sharing and kW control
- Load sharing and kVAR control
- Breaker control
- Synchronization with shore
- kW and kVAR Load/Unload Management
- Tie breaker control
- Modbus TCP

GENSYS 2.0 Marine is configurable via its front panel or via a PC with CRE Config software.

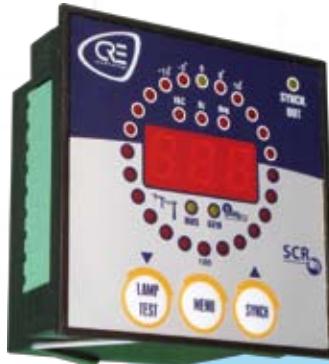
SCR

Synch check relay

The SCR is a microprocessor controlled synchroscope with programmable synch check relay in a DIN72 front panel mounted package. It monitors the voltage and frequency of two independent power networks as well as the instantaneous phase angle between them.

Measured parameters are displayed on the 3 digit digital display. The 24 LED circular synchroscope displays the phase angle between the 2 networks. The synchroscope display is only activated if both network voltages are within the set limits.

The SCR is mainly used in manual genset synchronization applications for synchronization checking between a genset and the genset busbar or between the genset busbar and the mains.



FEATURES

Basic unit
Front panel configurable
50/60 Hz compatibility
24 led circular synchroscope
Programmable ΔV , Δf , $\Delta\theta$
DC supply range: 9.0 to 33.0 V_{dc}
Dimensions: 72x72x52 mm



FEATURES

Led synchronoscope:
phase, frequency and voltage
differences and safety relay
Manual and automatic modes
Dimensions : 160x96x68mm

C2S

Auto synchronizer and safety column

This second generation of microprocessor module combines all the visualization and control functions needed to couple a generator to a bus bar manually: display of the phase, frequency and voltage differences, a safety relay which monitors these three parameters and indicates the status of the installation.

This new version does not need an external DC power supply. Indeed, the C2S is energized with the busbar. The reduced size allows the use of DIN92 format tools.



DUOGEN

Two gensets controlled by a single unit

DUOGEN is a microprocessor based module which controls two generators.

DUOGEN carries out manual and auto synchronization, isochronous load sharing or droop load sharing.

DUOGEN is a cost effective solution for a fast commissioning.

FEATURES

- Manual and auto synchronization
- 50 / 60 Hz compatibility
- Digital input for auto synchronization
- Sync check relay
- 'Load shedding' output relay
- Isochronous kW sharing controls
- Constant voltage kVAR sharing controls
- Reverse power protections

UNIGEN FAMILY

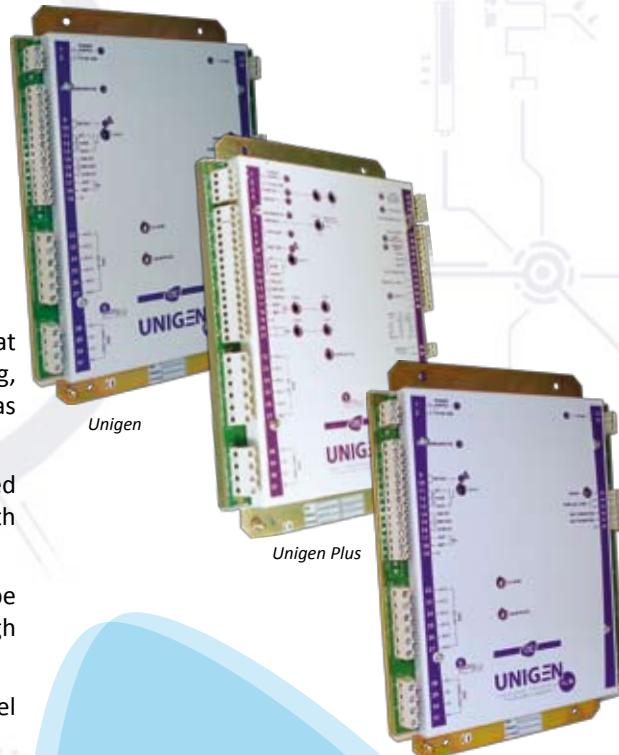
Manual/Auto synchroniser and load sharing module

UNIGEN is used on generator sets that require synchronising, load sharing, load and unload management as well as paralleling features.

UNIGEN PLUS and UNIGEN can be used to parallel up to 8 gensets together with CAN bus communication.

UNIGEN PLUS and UNIGEN ILS can be used to parallel without limit through parallel lines (0-3V)

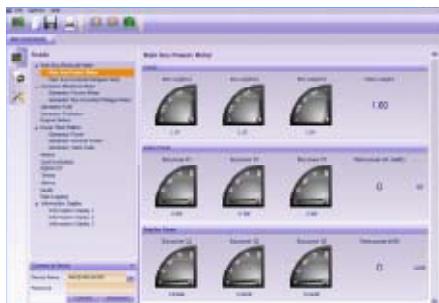
UNIGEN PLUS can also be used to parallel a single gensest with the mains.



FEATURES

- Compatible with all AVR and speed governors
- Compatible with CAT PWM 500Hz
- Direct replacement for Barber Colman products
- Super Droop function
- No computer needed
- CAN bus "plug and play"

cre softwares



CRE CONFIG

Configuration software

CRE Technology developed a new PC software which allows you to connect to multiple GENSYS Family modules.

This user-friendly software allows you to control, configure and monitor your power plant in real-time.

You will then have access to the software interface, which is composed of three parts:

- SCADA mode
- Configuration mode
- System Mode

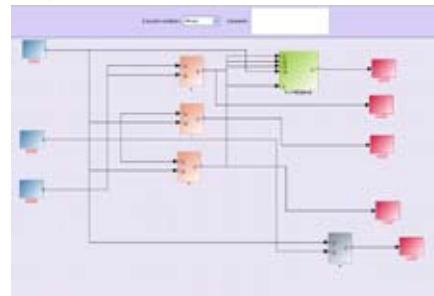
CRE Config software allows you to configure and monitor up to 14 modules.

EASY PLC

Program and customize your internal logical sequences

CRE's Easy PLC is a logic editor which provides graphical interface to program PLC equations. The tool is able to generate CRE propriety equations for CRE's products such as GENSYS 2.0 family.

Easy PLC simplifies the process of writing propriety equations thanks to a user-friendly graphic environment. That includes many sheets in which the user can create inputs and outputs equations through «operators».



contact us

CRE TECHNOLOGY

130, allée Charles-Victor Naudin
Zone des Templiers • Sophia Antipolis
06410 BIOT • FRANCE

Tel: +33 (0) 492 38 86 82 • Fax: +33 (0) 492 38 86 83
info@cretechnology.com • www.cretechnology.com

after sales
service

All CRE Technology products are delivered with one year warranty, and if necessary we will be happy to come on site for product commissioning or troubleshooting. The company also provides specific trainings on our products and softwares.

Our team of dedicated engineers will help you on the field or over the phone from Monday to Friday between 8 am to 8 pm nonstop (GMT+1):

on: +33 492 38 86 86
or on +33 619 35 07 78
outside office hours

Benefit from
our experience

Thanks to a 30 year experience in the paralleling system and energy control, CRE Technology continues to develop solutions to meet market increasing expectations.

Our engineers develop high technological solutions combining reliability, modularity and intuitivity. They also can customize our products as you wish.

come and join
cre team

We are currently seeking partners to represent our range of products worldwide.

Joining our team represents a great opportunity to grow and develop your business, selling, promoting and supporting our products.