

# MASTER 2.0

### **Application Note**



# "MASTER 2.0 without power plant breaker"



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#### **NOTE**



Read this entire manual and all other publications pertaining to the work to be performed before installing, operating, or servicing this equipment. Apply all plant and safety instructions and precautions. Failure to follow instructions can cause personal injury and/or property damage.

Motors, turbines and any other type of generator must be equipped with protections (overspeed, high temperature, low pressure...) depending on the power plant.

Any changes of the normal use of the equipment can cause human and material damage.

For further information, please contact your CRE Technology distributor or the After-Sales Service Team.

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 provide specific trainings on our products and softwares.



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#### **INFORMATION**

You can download the most up-to-date version of this documentation and different other documentations relating to CRE technology products on our Web site <a href="http://www.cretechnology.com">http://www.cretechnology.com</a>.

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## Technical documentation history

Date	Version	Comments	
Feb. 2014	А	v4.66	Creation.

You can download the most up-to-date version of this documentation and different other documentations relating to this product on our Web site: <a href="http://www.cretechnology.com">http://www.cretechnology.com</a>.

#### Documentations available on CRE technology Web site:

- ❖ A53 Z0 9 0020 x-EN is the GENSYS 2.0 technical documentation. This documentation is generally used for product integration.
- ❖ A53 Z0 9 0031 x-EN is the translation help tool to download a CUSTOM language file.
- ❖ A53 Z0 9 0020 x-EN is the Complete variable list with labels, units and limits in English, in PDF format. This documentation is generally used as reference during the integration phase.
- ❖ A53 Z0 9 0030 x- is the Complete variable list with labels, units and limits in all languages, in EXCEL WORKBOOK format. This documentation is generally used as reference during the installation phase. It is generally called "EXCEL FILE".

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Contact your CRE Technology distributor for course training.

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#### 1 OVERVIEW

In order to answer to different topologies used around the world, the "MASTER 2.0 without power plant breaker "function has been implemented from v4.66 software version.

In this configuration:

- The MASTER 2.0 control only the Mains breaker.
- The MASTER 2.0 can only be used in permanent or no break change over mode.
- All other MASTER 2.0 functions are available.

The following picture describes the connection of the power plant.

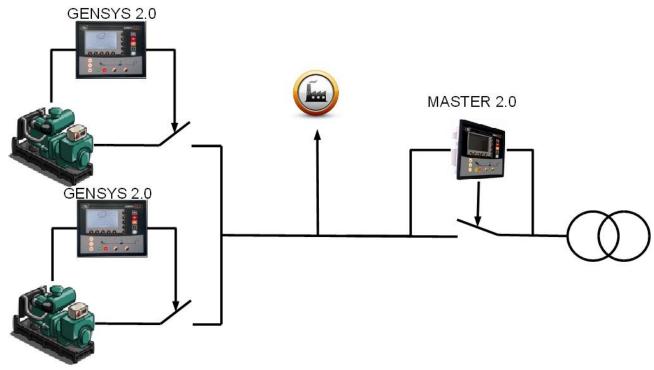


FIGURE 1 - POWER PLANT CONFIGURATION

Note: From GENSYS 2.0 point of view, nothing changes. The behavior of GENSYS 2.0 module is identical if they are managed by a MASTER 2.0 or a MASTER 2.0 without power plant breaker.

It means in particular, that in manual/test mode, GENSYS 2.0 will be in load sharing mode. As a consequence, no cosphi regulation will be done.

#### 2.1 SOFTWARE CONFIGURATION

In order to configure the MASTER 2.0 into MASTER 2.0 without power plant breaker mode set E4084 parameter to 1. Internal configuration will be done automatically by the MASTER 2.0. This parameter is available in the "Power plant" configuration menu in level 2.

The table below lists the parameters that are useful.

Parameter [var.num]	Possible value	Comment
Nbr of Breaker [E4084]	2 (Default)	MASTER 2.0 is configured to control both Mains and bus breakers.
[[4004]	1	MASTER 2.0 is configured to control only Mains breaker.
Mains parallel	1	Permanent mode
[E1148]	2	No break change over mode

TABLE 1-USEFULL PARAMETERS

The following table shows the restriction on some parameters because of this specific configuration.

Parameter [var.num]	Set value	Comment
Break Ma Fault [E1846]	1	Select the Mains breaker to open upon a "Mains electrical fault".
CT mains open [E4123]	0	Open Mains breaker immediately on Mains electrical fault.
Close gen ext. [E2336]	0	Inhibition of remote close generator button.
Open gen. ext. [E2337]	0	Inhibition of remote open generator button.
Min No. GE // [E4000]	1 or greater	This parameter has to be equal to 1 or greater in MASTER 2.0 without power plant breaker mode.
All protections, digital inputs or virtual inputs	х	"Generator Electrical Fault" and "Help + Generator Electrical Fault" are forbidden.

TABLE 2- RESTRICTION PARAMETERS



#### **WARNING**

All protections, digital inputs and virtual inputs can't be set to "Generator Electrical Fault" or "Help + Generator Electrical Fault". In case of wrong setting, the function is set by default to "Soft Shut Down".

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#### 2.2 SPECIFIC WIRING

As the MASTER 2.0 doesn't control power plant breaker:

- The power plant breaker feedback (J2) must be unconnected.
- The power plant breaker command (E4/E5/E6) must be unconnected.

All others connections depend on the application and MASTER 2.0 configuration.

Note: The power plant breaker led is still on even if power plant breaker feedback is unconnected.

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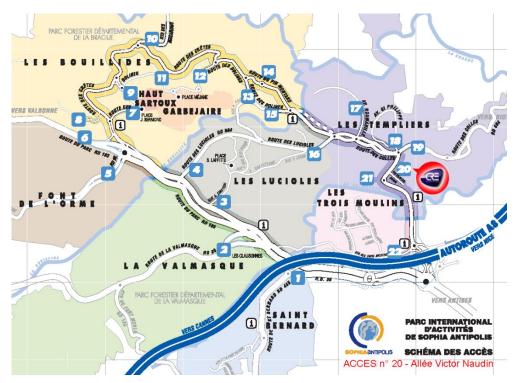


FIGURE 2 - ACCESS TO CRE TECHNOLOGY

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