



- power in control



**POWER & CONTROL TECHNOLOGY: ENGINE & GENSET OEMS**

## In Stock & Ready To Ship

DEIF guarantees immediate and reliable delivery performance for projects of all sizes making us an ideal partner for OEMs both locally and internationally.

On top, DEIF's advanced and more basic controller systems have been designed with flexibility and versatility in view, giving genset builders and engine manufacturers a range of options that enable them to meet all types of application requests.

## Engine Manufacturers

- J-1939 compatible
- DEIF develops flexible platforms for integrating motor data
- Optional engine performance views

## Genset Builders

- Compatible with all engine and alternator brands
- Complete product portfolio
- Market-leading delivery and response time

*The crucial difference between us and the competition is quality. When you buy genset controllers, the whole DEIF organisation stands behind the product.*

*Choosing DEIF, you raise the bar and provide your buyers with more reliable hardware.*



Hans Christian Clausen  
Product Manager  
hcc@deif.com

## Factory Output Will Benefit From:

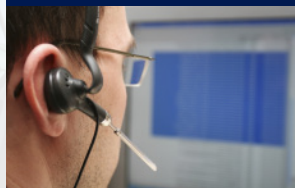
### Reliable Hardware



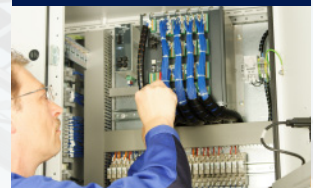
### Record Delivery Time



### 24/7 Support



### Plug & Play



## DEIF Switchboard Equipment



## Serial Production

- ✓ Controller sizes for all genset designs
- ✓ Complete operational unit test at factory with DEIF Emulation
- ✓ Market-leading quality boosts factory output performance

# Engine Manufacturer & Genset Builder Solutions

DEIF's Comprehensive Product Line Meets All Types of Application Requests

## A Complete Controller Range

From Basic to Complex Quality Solutions



### Operational Interface

- ✓ Additional Operator Panel – user-interface
- ✓ User-friendly HMI
- ✓ Password-protected setup

### Reliability/Robustness

- ✓ Wide temperature range, operational down to  $-40^{\circ}\text{C}$
- ✓ HALT and vibration-tested for environment, operation and transport
- ✓ Extended warranty



### **Power in Control**

The following pages features a case study for an application that successfully runs DEIF units and solutions.

DEIF has become a preferred control solution supplier to some of the biggest operators in the market, not just because of our innovative, safe and reliable technology but because of our commitment in guiding you through all phases of your project, from specification to installation or configuration. DEIF's flexible product platform covers the full range of application possibilities.

Most customers are able to install and commission our standard products working from data sheets only. But in cases of doubt, DEIF's far-reaching network of sales and competence centres, distributors, customer care teams, and technical support teams is available to assist you and ensure you invest in and implement the best controller for your application.

DEIF realises how space is always in demand. Saving you time and cost, our standard controllers require limited room for mounting and installation in switchboard cabinets.

Basic installation information can be found in the product quick start guide, and application setup is made easy with DEIF's Utility Software.

For greater detail, we refer you to the product installation instructions, just as you are invited to attend training courses on how to install and operate DEIF's standard controllers.

# Engine & Genset OEMs Case Study

*DEIF has developed and adapted its AGC 100 and AGC 200 platforms to suit OEM needs exactly...*

In India, DEIF has built a strong working relationship with Sterling Generators, one of the subcontinent's largest genset builders. Assembling gensets with some of the biggest engine producers in India, Sterling also has substantial exports to the Middle East and Africa.

The company's main plant at Silvassa is the biggest of its kind in Asia, with both DTA and EOU units. In-house facilities include Fabrication, Assembly, Powder Coating Plant, Acoustic Enclosure Manufacturing, Control Panel Manufacturing Unit and Test Banks. With a strong service and spare parts network across the country, Sterling Generators provides timely after sales support to all their customers.



DEIF has become Sterling's preferred supplier not just because of the quality of our product range but because of reliable delivery performance and our ability to develop and customise controller products to precise specifications.

Developed for applications requiring reliable power supplies, DEIF's AGC 100 non-sync controllers offer a powerful processor and significant memory capacity. Vibration-tested and evaluated with HALT test, the sturdy controller unit offers reliable performance even under extreme conditions.

Cost-efficient and intelligent, the versatile AGC 100 series is highly suitable for Automatic Mains Failure (AMF) and stand alone (island mode) applications.

Working with Sterling, DEIF has also adapted its AGC 200 platforms to suit Sterling's requirements exactly in a specially branded Sterling controller series.

Designed with innovative technology, reliable and easy to operate, the AGC 200 integrates all necessary functions for superior protection and control of your genset. Application possibilities range from single gensets to complex power plants.

# Sterling Generators: Silvassa, India

Targetting the Asia and the Far East Markets

## Data

- ✓ Sterling Generators is one of the biggest genset builders in Asia
- ✓ Sterling generator sets range from 250 to 3000 KVA
- ✓ Display parameter setup (multi-language)
- ✓ Monitoring of electronic or non-electronic engines (J1939)
- ✓ Genset/Busbar control & protection
- ✓ Auto start or Automatic Mains Failure (AMF) applications

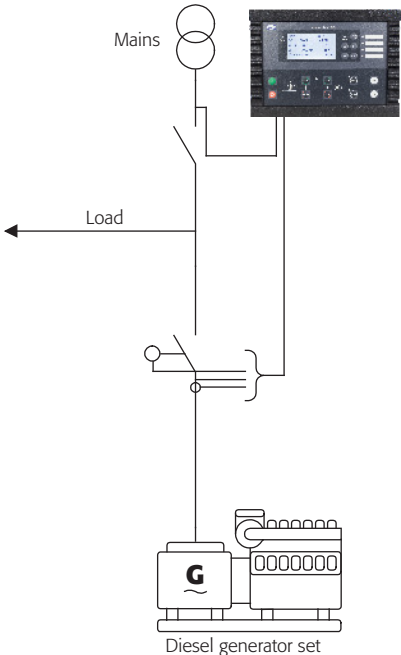
## Product



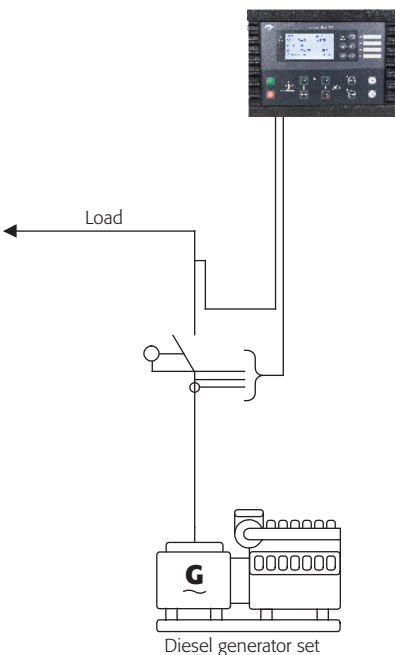
Automatic Genset Controller, AGC 100

## Diagram From Case

### Automatic Mains Failure



### Island operation







DEIF Diesel Control Technology's award-winning and innovative controllers are some of the most comprehensive on the market today, ranging from cost-effective single and advanced multi-function controller platforms to units suitable for innovative, engineered Power Management System solutions.

As a rule, DEIF's control concepts eliminate the need for external controllers and are user-friendly alternatives to standard controllers.

Working with DEIF, you benefit from the advantages of collaborating with one qualified supplier.

We also offer outstanding product quality, expert support engineers for standard support, consultant application engineers to check specifications, and project managers ready to assume responsibility for turnkey power management solutions.

# Compact Genset Controller, CGC 200

Basic Quality Unit for OEMs & Standby Applications



The Compact Genset Controller (CGC 200) is a cost-competitive but high-quality controller range for standby applications.

The microprocessor-based control units have been created to meet the requirements of the OEM industry and feature manual or auto start, protection and control of engines and gensets.

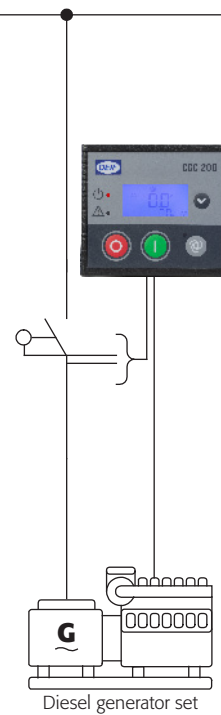
The CGC modules monitor engine speed, frequency, voltage, and engine running hours, as well as warning and shutdown status of the engine or genset.

The controller is a highly versatile product with both fixed and flexible user-configurable inputs and outputs, enabling users to adapt the unit for a wide range of applications.

## CGC 200 Features

- ✓ Auto Start and Breaker Control
- ✓ Engine Parameter Monitoring
- ✓ Warning or Shutdown Protections
- ✓ 5 Digital Inputs and 5 Outputs
- ✓ Configurable for Other Applications
- ✓ Configurable with DEIF Utility Software, USW-3
- ✓ Readings: Engine speed, Frequency, Voltage, Engine Running Hours

## CGC 200 Application Example



# Compact Genset Controller, CGC 400

The Cost-competitive Solution With Full Flexibility



The Compact Genset Controller (CGC 400) is a cost-competitive but high-quality controller range for standby applications.

The microprocessor-based control units have been created to meet the requirements of the OEM industry and feature manual or auto start, protection and control of electronic and non-electronic gensets, as well as Automatic Mains Failure.

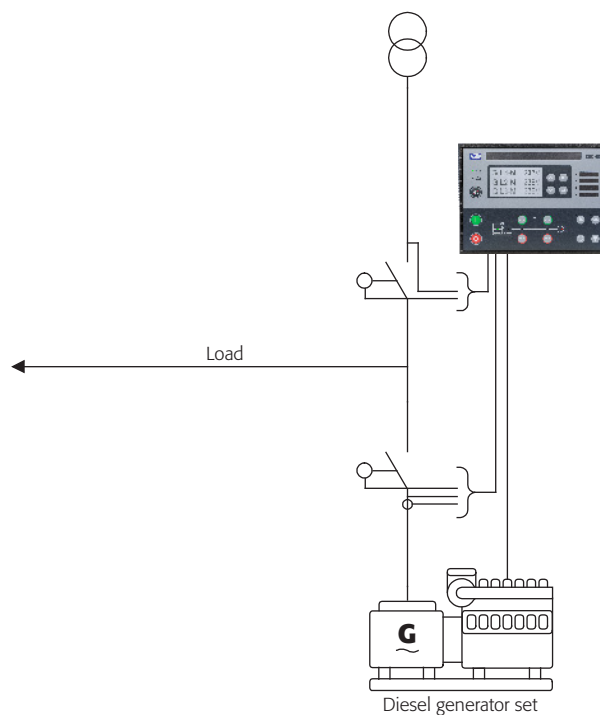
The CGC modules monitor engine speed, frequency, voltage, and engine running hours, as well as warning and shutdown status of the engine or genset.

The controller is a highly versatile product with both fixed and flexible user-configurable inputs and outputs, enabling users to adapt the unit for a wide range of applications.

## CGC 400 Features

- ✓ Auto Start or Automatic Mains Failure Applications
- ✓ Monitoring of Electronic (J1939) or Non-electronic Engines
- ✓ Genset & Busbar Control & Protection
- ✓ Up to 13 digital, 5 analogue inputs and 8 relay outputs
- ✓ Modbus Communication RS485
- ✓ Configurable for Other Applications
- ✓ Configurable with DEIF Utility Software
- ✓ Graphical Display (Multi-language)

## CGC 400 Application Example



# Genset Controller Flat, GC-1F

Complete Diesel Engine Protection & Control



The GC-1F genset controller is a micro-processor based control unit featuring complete functionality in diesel engine protection and control.

The unit contains a 3-phase AC voltage measuring circuit for genset and mains and is equipped with a graphical display presenting all values and alarms.

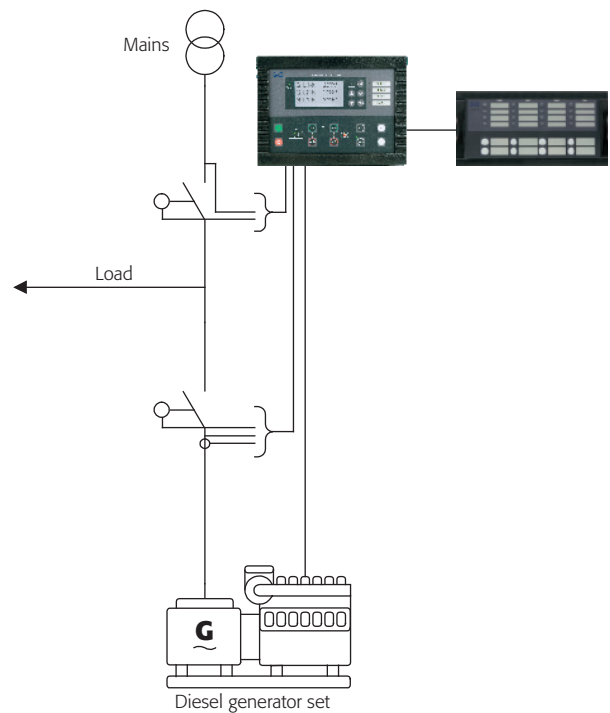
The GC-1F can be supplied with a number of different options, and the robust hardware is suitable for applications ranging from emergency power to power plants. That means costs saved on training and maintenance.

Using a modem or AOP-2 (a remote annunciator), you can control or monitor gensets remotely with the RS-485 Modbus.

## GC-1F Features

- ✓ Auto Start or Automatic Mains Failure Applications
- ✓ Monitoring of Electronic or Non-electronic Engines (J1939)
- ✓ Genset/Busbar Control & Protection
- ✓ 8 Digital Inputs, 3 Multi Inputs (digital or analogue) and 8 Relay Outputs
- ✓ Modbus Communication RS485
- ✓ Configurable with DEIF Utility Software
- ✓ Graphical Display (Multi-language)
- ✓ Programmable Logic (M-Logic)
- ✓ Additional Operator Panel (AOP-2)
- ✓ External I/O (option)
- ✓ ATS controller option

## GC-1F Application Example



## GC-1F Type Approvals



# Automatic Genset Controller, AGC 100

Designed for Backup & Emergency Power Applications



Developed for applications where safe and reliable power supplies are critical, DEIF has released a series of non-sync controllers with a powerful processor and significant memory capacity.

Cost-efficient and intelligent, the versatile AGC 100 series features CANbus power management for handling non-synchronised mains and Power Management System applications where multiple gensets supply load.

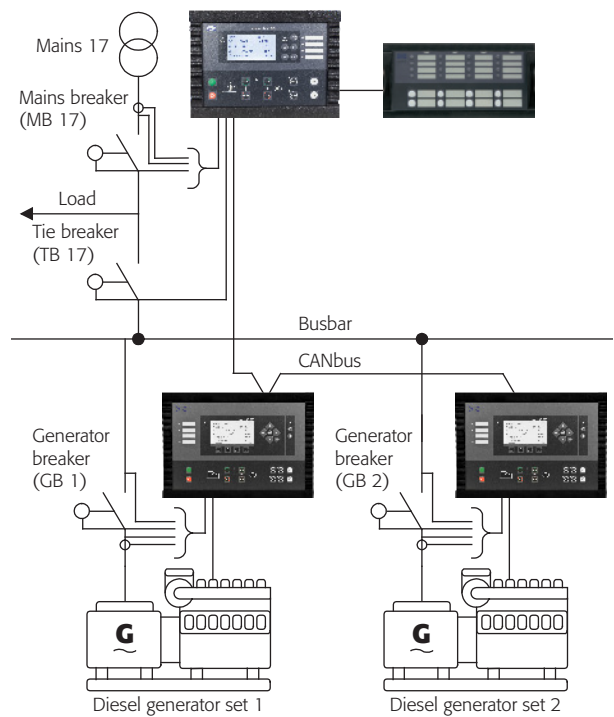
## AGC 100 Options

- AGC 110: engine control
- AGC 111: island control
- AGC 112: island control with generator breaker
- AGC 113: automatic mains failure (AMF)
- AGC 145: non-sync power management
- AGC 146: non-sync power management with tie breaker

## AGC 100 Features

- ✓ Auto Start or Automatic Mains Failure Applications
- ✓ Monitoring of Electronic or Non-electronic Engines (J1939)
- ✓ Genset/Busbar Control & Protection
- ✓ 8 Digital Inputs, 3 Multi-Inputs (digital or analogue) and 8 Relay Outputs
- ✓ Modbus Communication RS485
- ✓ Configurable with DEIF Utility Software
- ✓ Graphical Display (Multi-language)
- ✓ Programmable Logic (M-Logic)
- ✓ Additional Operator Panel (AOP-2)
- ✓ External I/O (option)
- ✓ Display Parameter setup (Multi-language)
- ✓ Non-sync power management
- ✓ Emulation for fast training and I/O test

## AGC 100 Application Example



## AGC 100 Type Approvals



DEIF is a market leader with a proven record of more than 80 years of technological achievement and innovation in engine & genset controls, marine bridge instrumentation, switchboard instrumentation and renewable energy controls.

Our goal is to always bring a competitive edge to our customers' businesses by providing green, safe and reliable product lines with flexible features and first class service and support.

The DEIF Group is committed to maintaining and expanding its position as a trusted global supplier of quality solutions.



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