

# numerical protection systems

## Main applications :

- Electric utilities for generation, distribution and transmission
- Switchgear assemblers
- Contractors and consultants



BE1-951

## BE1-951 Overcurrent Protection System

Multifunction programmable numerical protection for sub-stations and feeders.

Provides directional and non-directional overcurrent protection with voltage protection too. Incredible value in a single package.



BE1-GPS100

## BE1-GPS100 Generator Protection System

Multifunction programmable numerical relay that offers a comprehensive mix of protective functions to detect generator faults and abnormal operating conditions along with metering and control. Suitable for any generator size and cogeneration applications. Well suited to Distributed Generation.



BE1-CDS220

## BE1-CDS220 Differential Protection System

Multifunction numerical relay that provide percentage restrained differential protection along with overcurrent, breaker failure, control, metering and communications. Perfect for low impedance current differential protection applications including motors, generators, transformer and bus protection. Digital Signal Processing offers unprecedented flexibility, security and performance.



BE1-851

## BE1-851 Overcurrent Protection System

Multifunction programmable numerical protection suitable for any non-directional applications such as feeders, generators, cogeneration and transformer back-up. Thousands of units installed today worldwide.

## BE1-1051 Overcurrent Protection System

Multifunction programmable numerical protection for sub-stations and feeders. Also offers control, metering, reports and Dual Ethernet (UCA2) communication. Breathtaking package and big brother to the well recognized 851 and 951.

BE1-1051

## BE1-MMS100 Multifunction Metering System

Microprocessor based, multi-function revenue-accurate power metering system. The BE1-MMS100 is ideal for use by utility,



BE1-MMS100

industrial , commercial and institutional customers for feeder monitoring and automation, tenant sub-billing, budgetary cost allocation and outage detection.



# digital excitation

# control systems

## Main applications :

- New : synchronous generator and motor manufacturers, gen-set assemblers
- Retrofit / Upgrade : power plants, hydro stations, turbines, marine/offshore generator applications, system integrators and switchgear assemblers

DECS-15



## DECS15 Digital Excitation Control System

The industry's favorite microprocessor based controller works with shunt, PMG and auxiliary windings type generators and motors. Over 5000 units in operation today worldwide.



## DECS100 Digital Excitation Controller

A high powered, low cost microprocessor based excitation control system. Ideally suited for brushless generators up to 5MW. Perfect for paralleled generators or generators linked to the utility grid. Destined for distributed generation, cogeneration and peak shaving applications. 0.25% regulation over the full voltage and temperature. Communications port for PC setup.

DECS-100







## DECS200 Digital Excitation Control System

This device is suitable for virtually any size of brushless generator and motor requiring 15A<sub>dc</sub> continuous excitation. All the functionality necessary to limit, control and protect a generator from operating outside its capability. Optional feature for tracking & transfer between

DECS200 units for critical applications requiring redundant control. 0.25% regulation over the full voltage and temperature. Numerous communications options. Basler Electric offers a wide range of pre-engineered DECS200 panels and mounting plate solutions to meet the most stringent specifications. Tailored solutions are also available for the whole DECS family.



DECS300

## DECS300 Digital Excitation Control System

This device is suitable for any size of generator and motor with slip-ring or brushless excitation. DECS300 provides output control signals to control the firing of an external power bridge. DECS300 has been installed on generators up to 800MW. The DECS300 system offers the flexibility, functionality and programmability

to compete with any numerical controller. Numerous communication options.

Basler Electric offers a wide range of pre-engineered DECS300 panels and mounting plate solutions to meet the most stringent specifications. Basler Electric has experience with many different power bridges (transistor, half-wave thyristor and full-wave thyristor) and offers the latest technology in the fully enclosed versions.



DECS-300

# genset control

# and protection

## Main applications :

- Generator-set assemblers
- diesel/gas engine manufacturers,
- engine service shops, system
- integrators and switchgear
- assemblers



DGC-500

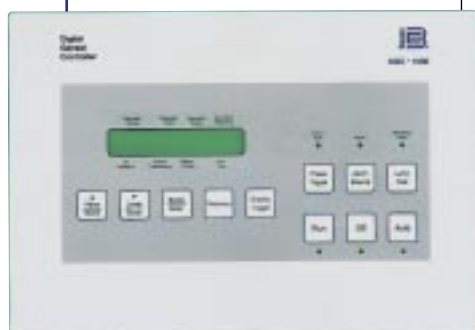
## DGC500 Digital Genset Controller

It offers a microprocessor based integrated alternative for the control and monitoring of small to medium sized gensets. It features :

- Controls engine starting and stopping
- Engine and generator protection (alarms and pre-alarms)
- Programmable inputs & outputs
- Displays 18 engine/generator parameters
- UL/CSA Certified
- NFPA110 Approval for North America.

## DGC1000 Digital Genset Controller

This device is suitable for small to medium sized genset control & monitoring and provides similar functions to the DGC500 with two-way communication possibilities. UL/CSA and NFPA110 Approval for North America.



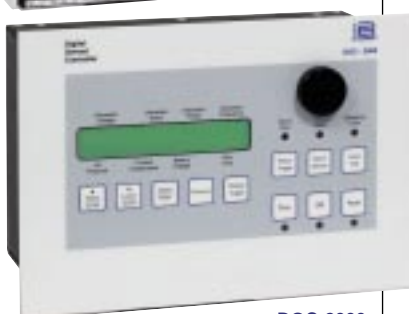
DGC-1000

## BE3-GPR Generator Protective Relay

It offers multiple protective features in a single affordable package :

- High accuracy
- Reliability
- Repeatability
- Display relay setpoints
- Front panel programmability
- True RMS sensing
- Isolated current inputs.

BE3-GPR



DGC-2000

## DGC2000 Digital Genset Controller

This device is suitable for small to medium sized genset control & monitoring and also provides Modbus communication. Perfectly suited to gensets used in the construction industry.



BE3-27/59

## BE3 RELAYS BE3 Series monitoring relays

Their applications go from motor to auto-transfer devices going through generator, distribution, transformer and process control devices.



RDP-110

## RDP-110 Remote Display Panel

In conjunction with the DGC family, it provides remote annunciation of the emergency standby generator system as per NFPA110 requirements for critical applications.



ENGEN-100

## ENGEN100/200 Engine Generator Controller

Integrated genset controller contained in a single, easy to install package and which provides :

- Microprocessor-based digital speed governor
- Engine start/stop control
- Engine protection
- Voltage regulation
- Unique package offering unbeatable value for money.

AVC-63-12



AVC-63-4

## AVC 63-12 Analogue Excitation Controller

Suitable for controlling the output of brushless excited synchronous generators up to 5 MW. Replaces many older Basler Electric products (SR, SSR) and can replace many others too.

## AVC 63-4 Voltage Regulator

Designed for use on 50/60 Hz brushless generators. An industry standard product. Tens of thousands are regulating today in all parts of the world.



# worldwide support network

Recognizing the demand for a local sales organization and technical support, Basler Electric has established a representative and authorized distributor network around the globe. We also have a team of Technical Support Specialists available 24 hours a day every day of the year. Basler Electric hold a large stock of products for rapid shipment in their facilities in USA and Europe, plus the

Distributors in key locations in over 30 countries.

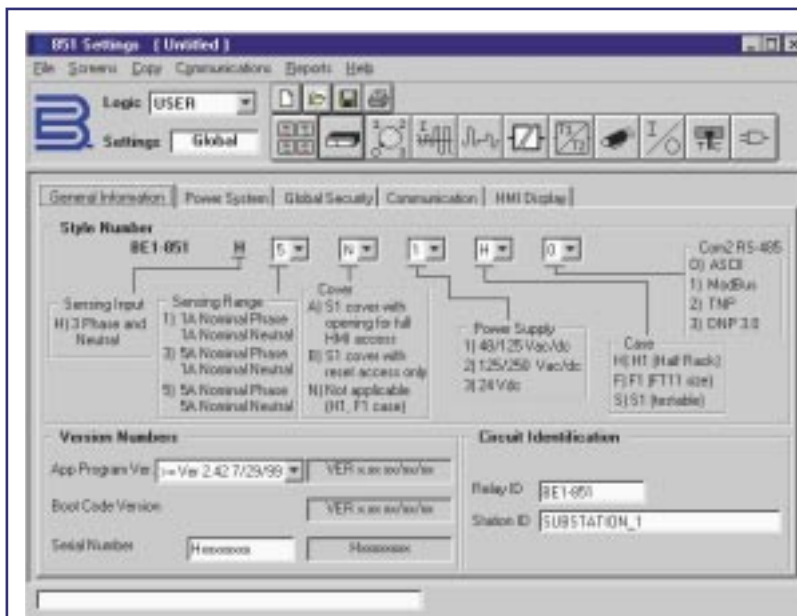
Basler Electric also has a team of experienced field service engineers ready to travel anytime on-site to help with diagnosis, troubleshooting and tuning. Basler Electric is also proud of its multicultural staff and its dedication to satisfy customers by delivering quality products and services.

## **Basler Electric Int'l Group Partial Reference List :**

ABB  
 Alconza  
 Alstom  
 Ansaldo  
 AVK  
 BHEL  
 Bokuk  
 Caterpillar  
 FG Wilson  
 General Electric Power Management  
 Genco EEC  
 GMI  
 Hitachi  
 Hitzinger  
 Hyundai  
 Indar  
 Jeumont  
 MAN  
 Marathon Electric Company  
 Marelli Motori  
 Meidensha  
 Mitsubishi  
 Moteurs Leroy Somer  
 Nishishiba  
 Otto Bartholdi AG  
 Peebles Electrical Machines  
 Siemens  
 Teco Machinery  
 Toshiba International  
 Toyo Denki Power Systems  
 Wärtsilä NSD







## BESTCOMS

BESTCOMS is our graphical user interface available in 16-bit and 32-bit versions for the latest MS Windows® applications.

To ease the difficulty of setting up these complex devices, BESTCOMS is provided free of charge with the products.

This intuitive, point and click tool makes the process of creating files easy and reduces the learning curve.

BESTCOMS is a common platform for all our numerical devices. BESTCOMS allows the user to create and edit files,

download COMTRADE oscillography files and viewing BESTWave files. One major advantage is the possibility to setup files without being connected to the hardware.



These settings can be exported, e-mailed and transferred for rapid sharing of knowledge.

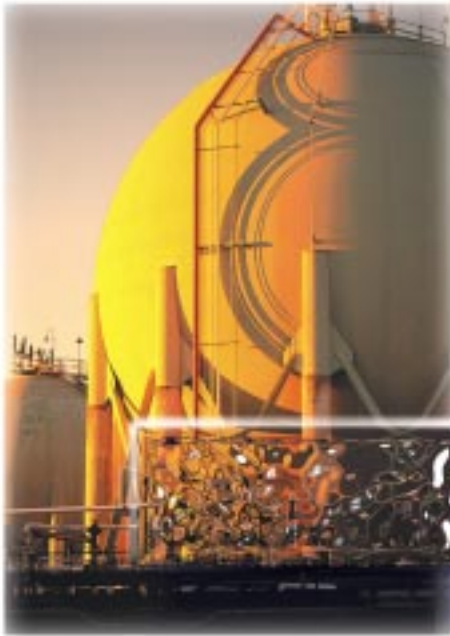
For the DECS family of devices BESTCOMS also includes the famous PID stability program which can save hours of simulation. Step responses and summary screens allow to optimize settings via a PC. Also, users can save the unit settings in a PC file which saves setup time when configuring multiple units to the same settings.

A friendly-tool to help you get the most of the latest technology from Basler Electric.



# **Basler Electric**

## **Power generation control and protection**







Basler Electric continues to lead the way in innovation in the power generation industry. This has been the case for over 60 years now. Of the 1500 employees worldwide, over 200 are dedicated to R&D, Engineering and Quality.

Basler Electric were pioneers in digital regulation (US Patent 5,294,879) for industrial generators in the 1990s and since has developed a family of controllers which boasts the fifth generation of micro-processor based excitation system.

The Basler Electric name and symbol are recognized for the robust, reliable, state-of-the-art voltage regulators and accessories, synchronizers, static excitation equipment and protective relays. Its reputation is based on a solid technology and quality standards that meet or exceed international standards.

Basler Electric benefits from focusing engineering and development resources on our key applications: regulation, generator/motor system control, power protection and system design.

# state-of-the-art technology

