Saving your money

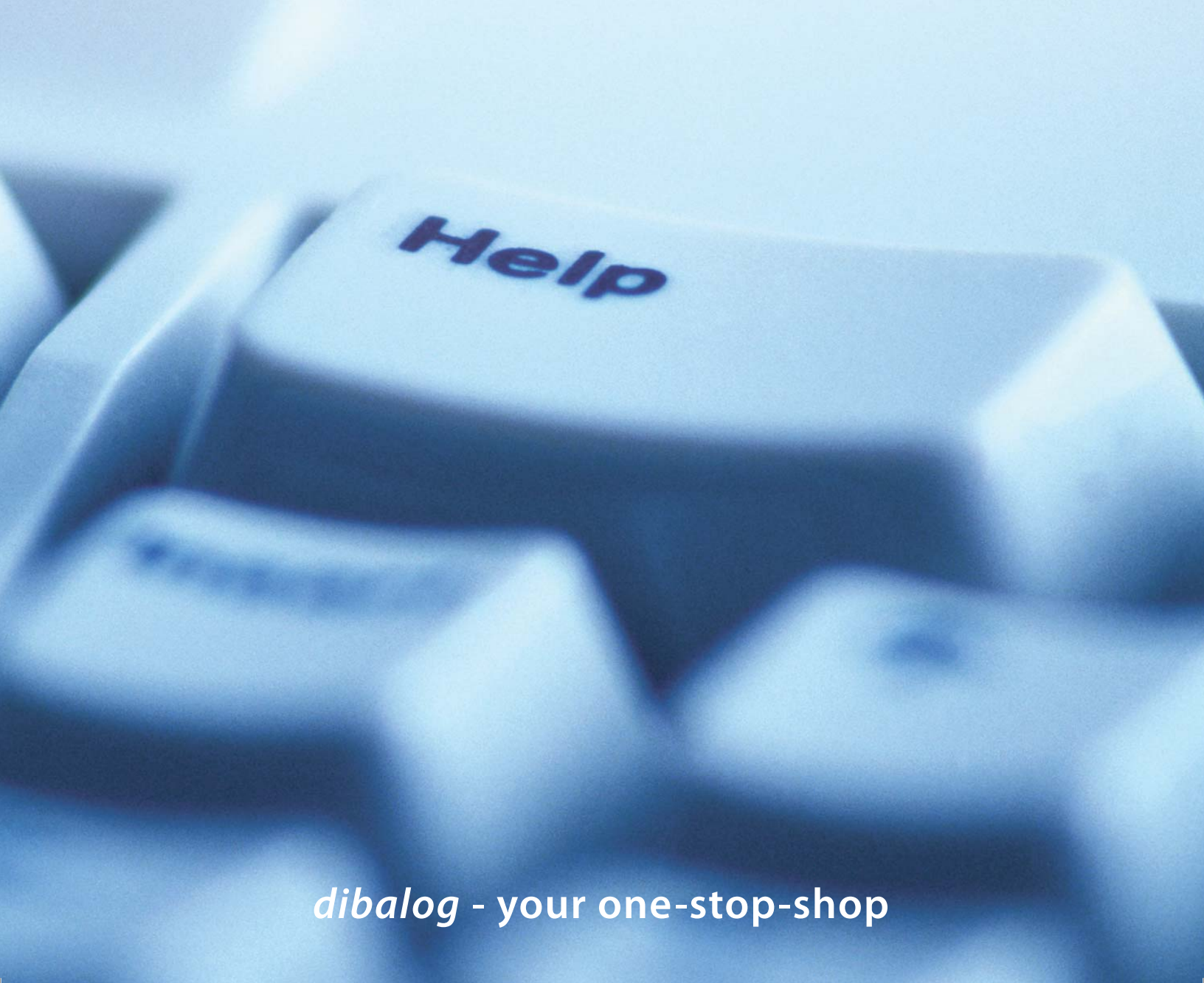
Worlwide market leader for
energy optimization systems

dibalog

USA Inc. | North America Inc. | GmbH

EOS / EAS 4.000 Energy Optimization and Operating Data Logging

Economize successfully with the right system



dibalog - your one-stop-shop

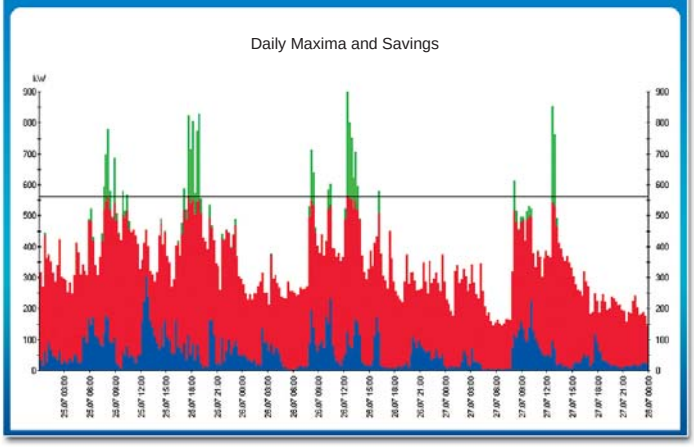
dibalog - Saving your money

ENERGY OPTIMIZATION SYSTEM EOS:
SAVE ENERGY COSTS UP TO 40% !

With **EOS 4.000** you can easily save money on electrical costs by **reducing your peak demand.**

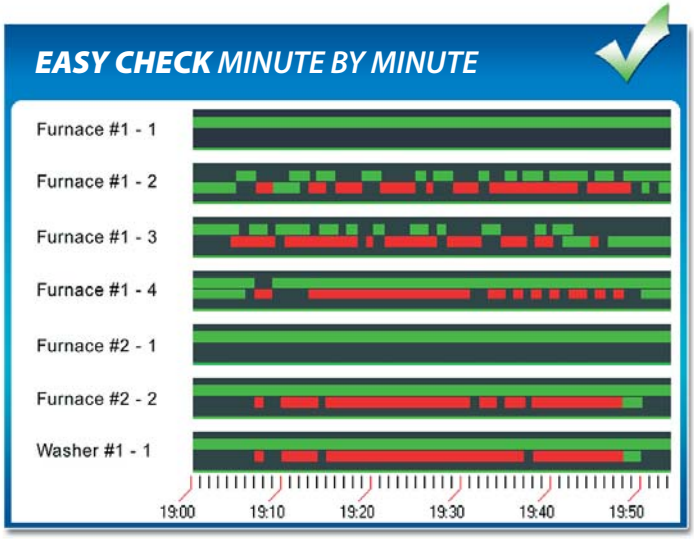
WHAT IS PEAK DEMAND?
The peak demand (kW) is measured over a certain time period (e.g. 15 min.) and is **always** part of your energy bill in distribution and supply. The highest average peak over a monthly period, caused by many furnaces running on high power at the same time, is billed monthly. You see: 15 minutes in a month can make up to 40% of your total electric energy bill! Make sure to contact your supplier for incentives for demand saving systems!

CLEAR DISPLAY OF DAILY SAVINGS



Detailed graphics show your load and peak savings (green).

EASY CHECK MINUTE BY MINUTE



The switching actuations keep you always informed about all consumer regulations - per minute. Evaluation of furnace load costs is also possible.

Crucial for the system's success in heat treatment is, that it has no influence on quality and negligible influence on cycle time (max 3-5% delay at most), as it works intelligently, extremely quickly and regulates during ramp, which is **generally not a critical part of the heating cycle and does not effect your quality.**

WHO WE ARE:
dibalog is the largest manufacturer of energy optimization systems in the world with over 1,000 installed systems including over 300 in heat treating plants. Take a look at our reference list. We are a German based company with subsidiaries in Canada and the USA. **We have developed, manufactured, distributed and installed systems for more than 25 years. All products are designed and produced in Germany, by dibalog GmbH. Experience and quality, you can rely on!**

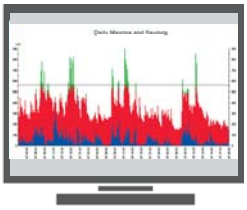
WHO CAN USE EOS?
If your equipment contains electrically heated or cooled devices (furnaces, air conditioning, washers, quenches, etc. **of any brand**), you can use **EOS**, without changing your existing controllers.

HOW DOES IT WORK?
dibalog delivers hardware modules with built in software, which are directly installed in the existing control panels of all connected equipment. Intelligently managed by the *dibalog* central unit, the modules control the switching devices (contactor, SCR, VRT) for the heating/cooling as needed, in order to avoid expensive demand overlaps, caused by too many silmutaneously running devices.

DIBALOG CENTRAL UNIT

FAST. INTELLIGENT. SAVING.
Comes with:
Linux OS | Ethernet | Internal database | Web Visualization

EOS 4.000 SAMPLE SETUP FOR HEAT TREATMENT SHOPS:



VPN remote access
via internet (on demand)

Intranet
Internal network
(TCP-IP/ethernet)

1 PLATFORM, 2 SYSTEMS:
***dibalog* central unit**
EOS stand-alone or combined
with EAS functions

TCP/IP

Web visualization and configuration
Alarm forwarding via SMS, email or by phone/ voicemail with acknowledgment function

Further modules depending on system type

Fieldbus

ERS-module
Interface module,
ethernet < > fieldbus

Intranet

Connection alarm relay

Pulses from central utility measurement

***dibalog* fieldbus**

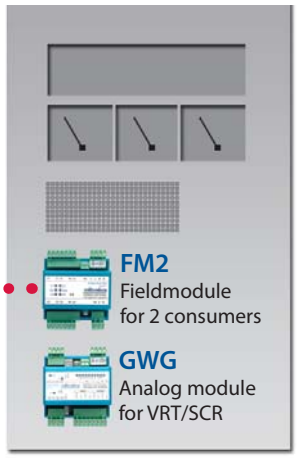
2. fieldbus (on demand)

Datalogging modules EAS (optional)

Fieldbus

Further modules
depending on system type

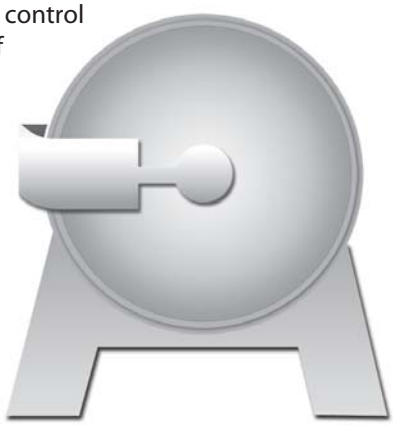
FM2 modules can also be used as alarm module (2 potential free alarm relays)

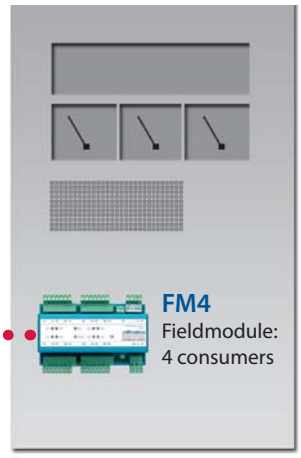


FM2
Fieldmodule
for 2 consumers

GWG
Analog module
for VRT/SCR

FM2 / FM4 and GWG modules will be installed in the control panel of most kinds of **VRT/SCR controlled furnaces, quenches, washers, coolers, etc.**





FM4
Fieldmodule:
4 consumers

FM2 / FM4 modules will be installed with toroids in the control panel of **most kinds of contactor controlled furnaces, quenches, washers, coolers, etc.**

All *dibalog* modules can be used worldwide - **with all existing AC voltages.**

Operating datalogging system EAS 4.000

EAS 4.000 SAMPLE SETUP:

Use EAS modules combined with EOS or stand-alone with EAS central unit

Fieldbus to central unit

UIML
Current-voltage-measuring module, 4 analog inputs; analog data logging 0-10V, (0)4-20mA, 0-2V and connection of MUM-modules

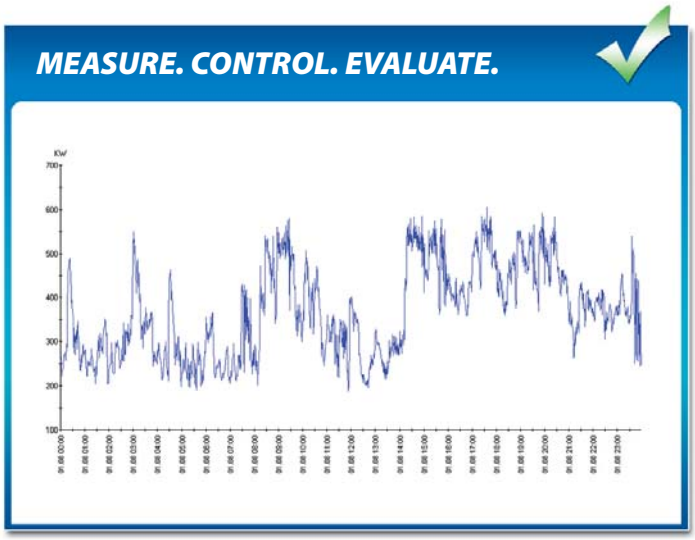
MUM
Multi-transducer module, up to 4 multi inputs; modules come with power supply unit; manage up to 4 galvanically isolated transducers, customized, configured and intended for thermocouples, current, voltage and other signals.

ZML
Counter module, 4 pulse inputs; digital data logging high/low for production time + failure reports, pulse counting for quantity entries

IML10
Analog module;
analog data logging in particular for heater monitoring for transformers 1/5A direct connection

TML
Temperature measuring module in combination with *dibalog* temperature sensors type TSL for monitoring of motors or cooling systems, etc.

Further modules
depending on system type



EAS provides your quality management with all needed production data, available as chart and evaluation

OPERATING DATALOGGING SYSTEM EAS 4.000

EOS can easily be upgraded to include datalogging (all types of production data - such as electrical consumption, temperature, run time, etc.). This is an important tool for quality management, can help control costs, and can help save money by improving production efficiency.

Due to the modular nature of the system, it can be **customized to your exact needs.** Easily expand your EOS-system for EAS by simply adding appropriate modules, or use it as a stand-alone system with it's own EAS central unit.

All *dibalog* modules can be used worldwide - **with all existing AC voltages.**

dibalog advises you not only with competence and expertise but also provides you a "one-stop-shop" for national and international companies with enormous savings potential for you. Are you interested? Please do not hesitate to contact me (*info@dibalog.com*) or visit *www.dibalog.com* to find our representative for your area.

Gunther Braus (President, CEO)

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