



Company- and energy management systems

Worldwide market leader for energy optimization systems



EOS / EAS 4.000 Energy Optimization and Operating Data Logging

Economize successfully with the right system



Help

dibalog - your one-stop-shop

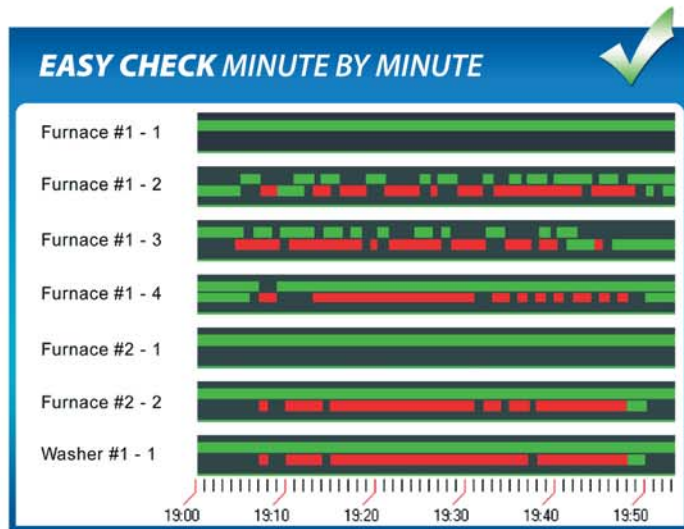
dibalog - Saving your money

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!**

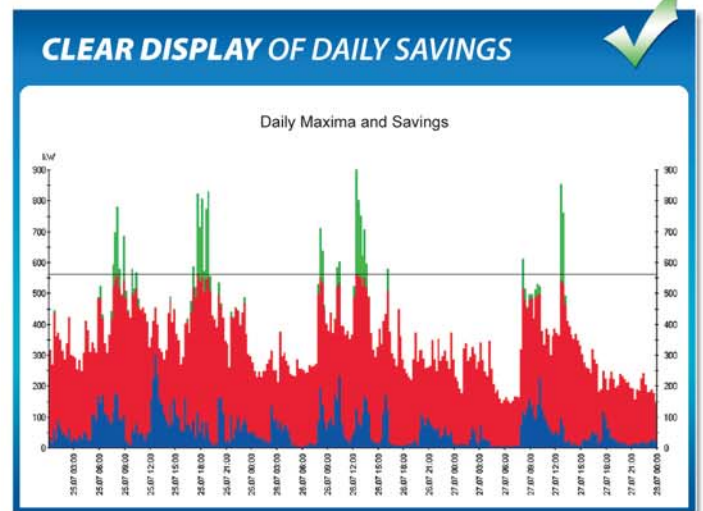


The switching actuations keep you always informed about all consumer regulations - per minute. Evaluation of furnace load costs is also possible.

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!



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

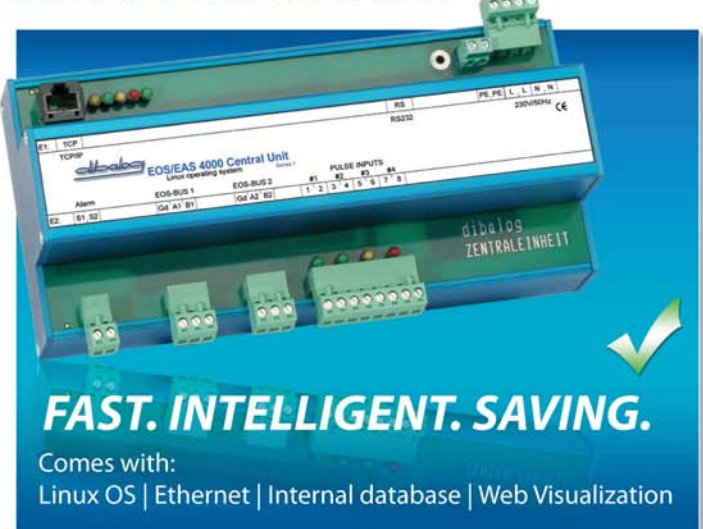
WHO CAN USE EOS?

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 **and without special software interfaces!**

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 simultaneously running devices.

DIBALOG CENTRAL UNIT

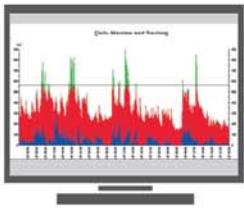


FAST. INTELLIGENT. SAVING.

Comes with:
Linux OS | Ethernet | Internal database | Web Visualization

Energy-Optimization-System EOS 4.000

EOS 4.000 SAMPLE SETUP FOR HEAT TREATMENT SHOPS:



Web visualization and configuration

Alarm forwarding via email optional

VPN remote access via internet (on demand)

Intranet
Internal network (TCP-IP/ethernet)

Intranet

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



Connection alarm relay

Pulses from central utility measurement

dibalog fieldbus

2. fieldbus (on demand)

Datalogging modules EAS (optional)

NEW
Faster, more storage, better regulation and more savings!

Further modules

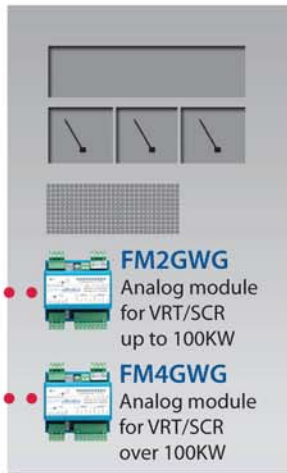
depending on system type

Fieldbus



ERS-module
Interface module, ethernet <-> fieldbus

Fieldbus



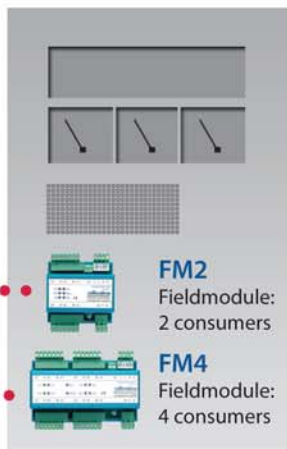
FM2GWG / FM4GWG modules will be installed in the control panel of most kinds of VRT/SCR controlled furnaces, quenches, washers, coolers, etc.



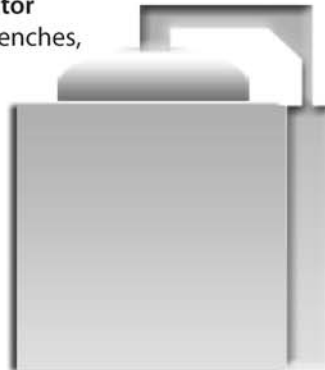
Further modules depending on system type



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



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



BIG? ✓

Connect up to **9,999** consumers

NEW: ✓

Multi-instance for multiple meter supply

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.

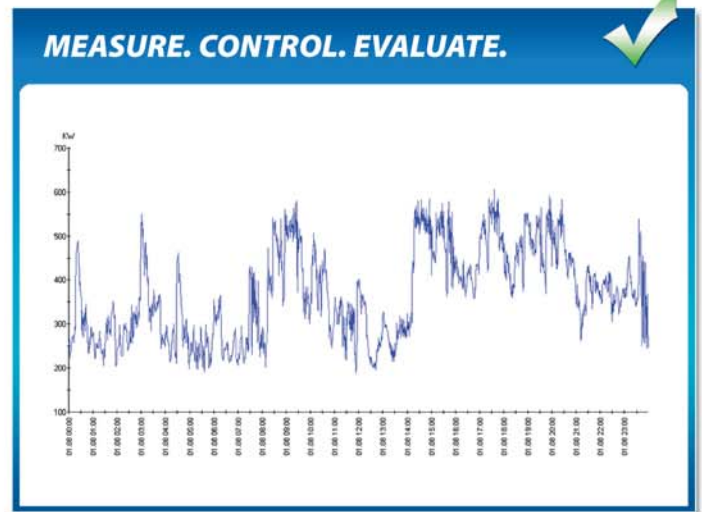
ZML
Counter module, 4 pulse inputs; digital data logging high/low for production time + failure reports, pulse counting for quantity entries

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.

NEW
PM (Power Meter module)
Calculate your costs of electrical energy per load! Power measurement: 24/7 storage of consumption in kWh + preventive maintenance by heating monitoring: get an immediate alarm if your electrical heating is broken or beginning to break.

••••• **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.

QMS?

Connect up to **10,000** measuring points

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.

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