

FRAKO Kondensatoren- und Anlagenbau



80 *Years* FRAKO 1928-2008

It's all about saving your money!



FRAKO



Made in Germany



Confidence in the future



In 1928, when “Frankfurter Kondensatoren” was founded, FRAKO soon made a name for itself in the field of capacitors. FRAKO Kondensatoren was already focusing on what the market demanded right at the start.

It all began with block mica capacitors which were soon superseded by wound paper capacitors. Such was the demand that a more rational manufacturing process was required. Along with this, came a greater demand for increased life expectancy, reduced power loss and the need for greater operational safety. However, this went hand in hand with higher costs for materials in the development laboratory. New forms of insulation, coatings and metal films were continually under test with the windings vacuum dried to maximize their efficiency for a wide range of applications.

FRAKO not only produced wound paper capacitors but also motor capacitors and radio interference suppression capacitors and the legendary FRAKO electrolytic capacitors for use in a countless number of electronic devices to make the FRAKO name known throughout the world.

Once it was clear the production of consumer electronics would be concentrated in Asia, FRAKO focused exclusively on power capacitors and especially those for power factor correction. This specialization made it possible for us to gather a highly specialized body of experience in manufacturing and application know-how at an early stage.

Today FRAKO is synonymous with high-quality power factor correction capacitors with an above-average life expectancy, low power loss, extreme load characteristics and exceptional operational reliability. In all its eighty years, FRAKO still has a strong leading edge over all others in power capacitors. With a combination of self-healing, segmented capacitor film and integrated mechanical overpressure disconnectors, FRAKO is again successful in greatly increasing the operational safety of capacitors.

The capacitors are marketed in three series throughout the world. They form the basis for FRAKO power factor correction equipment, the largest group, in saving energy and improving power voltage quality. Much is spoken of energy efficiency; FRAKO equipment can now put this into practice quickly and easily.

Documenting the energy use of a company to maximize energy use, FRAKO now offers a third generation of Energy Management Systems. These units and software clearly and easily show the energy use within a company for allocating costs and identifying energy savings.

Be confident in the future and in our experience and application know-how of voltage quality, energy optimization and documentation.

Peter Herbst
Managing Director





Spezialfabrik sämtlicher
Kondensatoren für die Elektro- und Rundfunktechnik

Elektrolytische und statische Kon-
densatoren für die Rundfunktechnik



**FRAKO Kondensatoren-
und Apparatebau W. Melke**
TENINGEN / BADEN



Growth of the Company



1928 „Frankfurter Kondensatoren GmbH“
founded in Frankfurt

1932 Relocation to Teningen. Manufacture of wound paper capacitors for the postal industry and radio technology. Electrolytic capacitors and OEM power supplies then introduced.

1949 Beginning of high-voltage capacitance production. Manufacture of fluorescent lamp capacitors and power capacitors (then known as phase modifier capacitors).

1957 With the introduction of the new automatically controlled power factor correction systems see a considerable expansion of the production plant. These well-known "components" soon become standard in industrial electrical equipment.

1975 Power factor control relays are developed and produced. The electronic FRAKO power factor control relay takes the place of the mechanical control relays of the time. Now both central components – relays and power capacitors – come from one and the same source.

1984 The beginning of a new capacitor technology, the FRAKO LKI power capacitor as an MKP version with an overpressure disconnecter.

1992 FRAKO launches the first integrated Energy Management System. Power factor correction, power supply quality, maximum optimization and energy metering are recorded centrally and displayed using a visualization program.

1995 FRAKO Kondensatoren und Anlagenbau, becomes a subsidiary of Berliner Elektro Holding. FRAKO certified to ISO 9001.

1997 first applications with Active Filter for electrical compensation of harmonic levels.

1998 Dynamic correction systems with thyristor switches successfully introduced into large-scale industry.

1999 FRAKO launches the LKT onto the market: a "dry" high-performance capacitor with maximum operational reliability. This new LKT replaces the liquid impregnated LKI capacitor. Certification to ISO 14001.

2000 Baugatz/Hoppe merges with FRAKO. Together with AGLK, acquired from Moeller Engineering, FRAKO increases its market lead in power quality to optimize power consumption and improve the quality of current.

2002 FRAKO C module: the universal solution for virtually all switchgear systems. The compact C module replaces many different module types.

2004 Launch of the modular EMIS® EM system: with Ethernet port and interfaces for external devices.

2005 FRAKO-Kondensatoren- und Anlagenbau sets course for further expansion and a new production hall for the manufacture of capacitors is inaugurated. A new sales organization is established and sales regions reorganized. Acquisition of FRAKO by BET, a subsidiary of AdCapital AG.

2006 The production of Energy Management Systems and devices moves to new production facilities. New plant and streamlined logistics prepare the company for anticipated growth in Energy Information Management.

2007 To help increase the manufacture of capacitors, the production hall for equipment and systems is completely renovated and equipped with new manufacturing logistics facilities to thus boost the economic competitiveness of the company.

2008 FRAKO launches segmented film power capacitors to greatly improve the operational safety of capacitors.



C E R T I F I C A T E

DQS GmbH

Deutsche Gesellschaft zur Zertifizierung von Managementsystemen

hereby certifies that the company



FRAKO Kondensatoren- und Anlagenbau GmbH

Tscheulinstraße 21a
D-79331 Teningen

for the scope

Development, production and sales of power factor correction equipments and energy management systems
which save energy, improve network quality and advance environmental protection.

has implemented and maintains a

Quality and Environmental Management System.

Audits, documented in a report, have verified that this
management system fulfills the requirements of the following standards:

DIN EN ISO 9001 : 2000

December 2000 edition

EN ISO 14001 : 2004

November 2004 edition

This certificate is valid until 2009-10-27

Certificate Registration No. 001410 QM UM

Frankfurt am Main 2006-10-28

Ass. iur. M. Drechsel

Dipl.-Ing. S. Heinloth

MANAGING DIRECTORS



D-60433 Frankfurt am Main, August-Schanz-Straße 21



Maximum quality in all domains



Applying this philosophy, we supply Power Factor Correction Systems, Power Factor Correction Capacitors, Active Filters and Energy Management Systems. Our products ensure our customers can record, analyze and display their energy consumption; increase their company's energy efficiency, optimize current quality and thus reduce their energy costs. These are the domains in which FRAKO clearly demonstrates its competence and leadership.

As a systems provider, we ensure that every component is of the highest quality and functionality and also guarantee the high efficiency and life expectancy of our equipment and systems.

ISO 9001 and ISO 14001 quality certification demonstrate that we meet the highest standards in all areas: advisory services, commitment to and implementation of customer requirements for products and services, product quality, availability and delivery deadlines as well as to responding to any complaints.

Environmental protection is also of primary concern to us. We reflect this in our products, our company and the way we deal with our partners.





Individual advice and engineering



Over 120 employees and partners around the world are dedicated to fulfilling the needs of our customers. Our strengths include flexible production, collective team spirit, motivation and a highly skilled staff.

The development of practical, future-oriented and safe products are challenges we face every day. Especially important to us are the individual advice, customer training, service/maintenance packages and engineering we offer our customers.

Guiding principles:



Exemplary management is decisive for implementing our corporate philosophy. Management at all executive levels is committed to carrying out its day-to-day business while fulfilling all its legal obligations.

There is no place in our company for less than the highest quality in both our products and the services we provide. These are of crucial importance. Reliability, deadlines and transparency are just as important as in-house company procedures with every department being both supplier and customer to every other.

The criteria of environmental compatibility, reliability and quality are our primary aims in the development, manufacture and application of our products and processes.

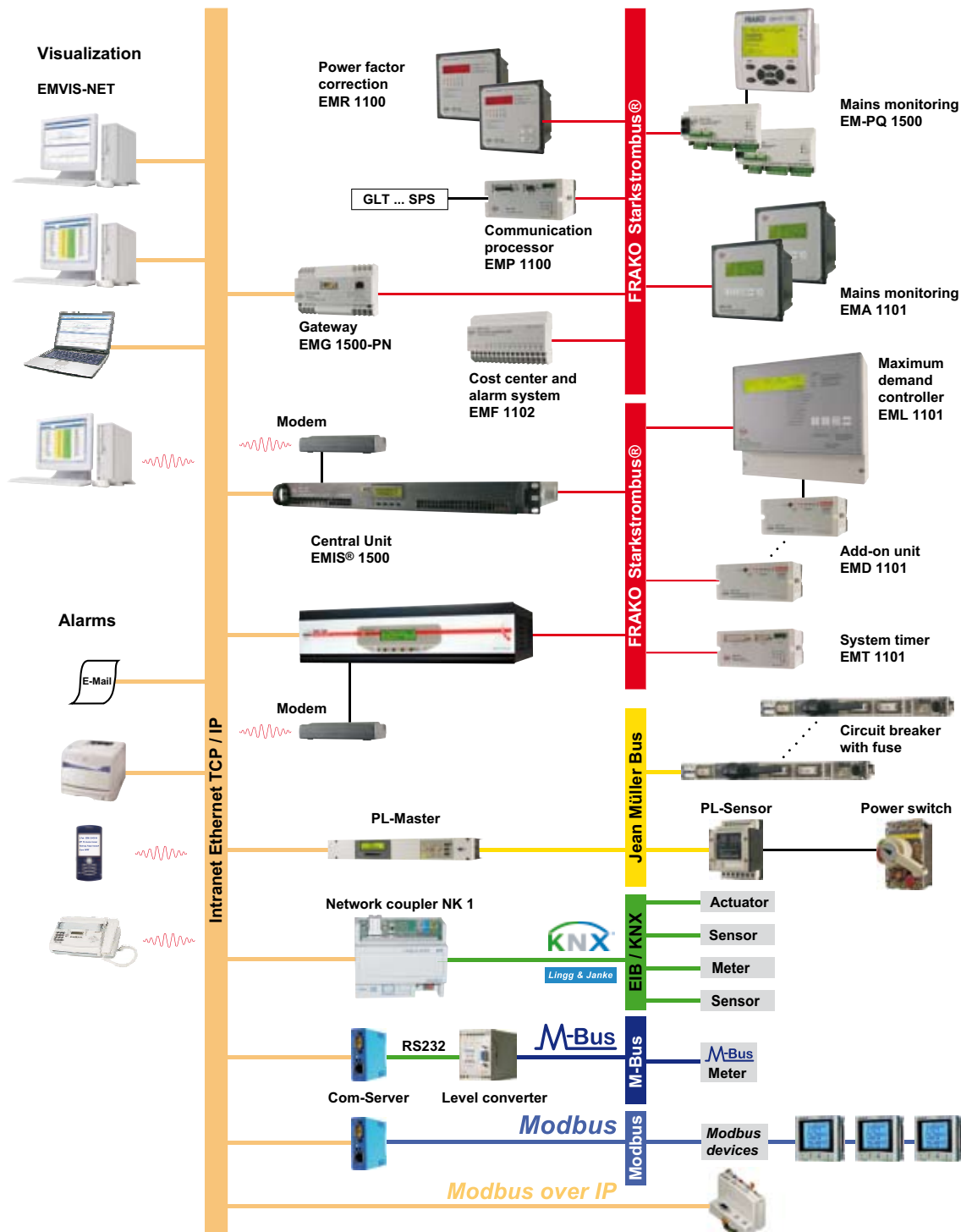
Because we are critically aware of the economical and rational use of energy in the manufacture of our products and their application, we continuously monitor energy consumption and emissions using our own Energy Management System.

All members of FRAKO contribute to its success in terms of their experience, loyalty and motivation. We provide training, coaching and channels of information to ensure they can carry out their responsibilities to the full.

It is the job of every member of the company to face new challenges and to strive to find the best solutions to them.



Complete system solutions from a single source



Energy Information Systems help every company to reduce costs and achieve energy efficiency.

Intelligent solutions optimize energy costs by analyzing and documenting energy consumption, by maximum demand controlling and by monitoring the mains power supply.



Using

Power Factor Correction

Systems improves the power supply and increases the quality of the power network which ultimately reduces power losses and lowers reactive power costs.

Poor quality of the mains power supply is often the reason for disruptions to the power supply.

Harmonics filters ensure

- corruption-free voltage and improved quality of the power supply
- savings with no power failures and production downtimes
- reduction in CO₂ emissions
- lower energy costs



FRAKO offers the complete service package for maximum efficiency and availability:

- Commissioning plant and systems
- Service, repair and maintenance
- Service contracts
- Hotline





Reference list of customers



AMMANN

Badisches  Pressehaus



Bodycote
outsourcing for industry

COMMERZBANK 



FORTÉ
Wärmebehandlung GmbH



hansgrohe
AXOR | PHÄRO



HENKELL & SÖHNLEIN
Goldkettensäge K&S Maschinen



GESUNDHEIT NORD
KLINIKUM BREMEN-MITTE



 **Messe Freiburg**

RUAG
Aerospace Defence Technology

SIEMENS



TIMKEN



 **ALBERT-LUDWIGS-
UNIVERSITÄT FREIBURG**

**universitäts
klinikum bonn**



Bayer

MOELLER 

ABB

DAIMLER

EAT•N

PTB



Products



Power Factor Correction

- ☐ Power Factor Correction Capacitors for rated voltages from 300 V up to 36 kV
- ☐ Power Factor Correction Systems in Sheet Steel Cabinets
- ☐ Capacitor Switching Modules for Switchgear Manufacturing
- ☐ Components, Accessories

Energy Management

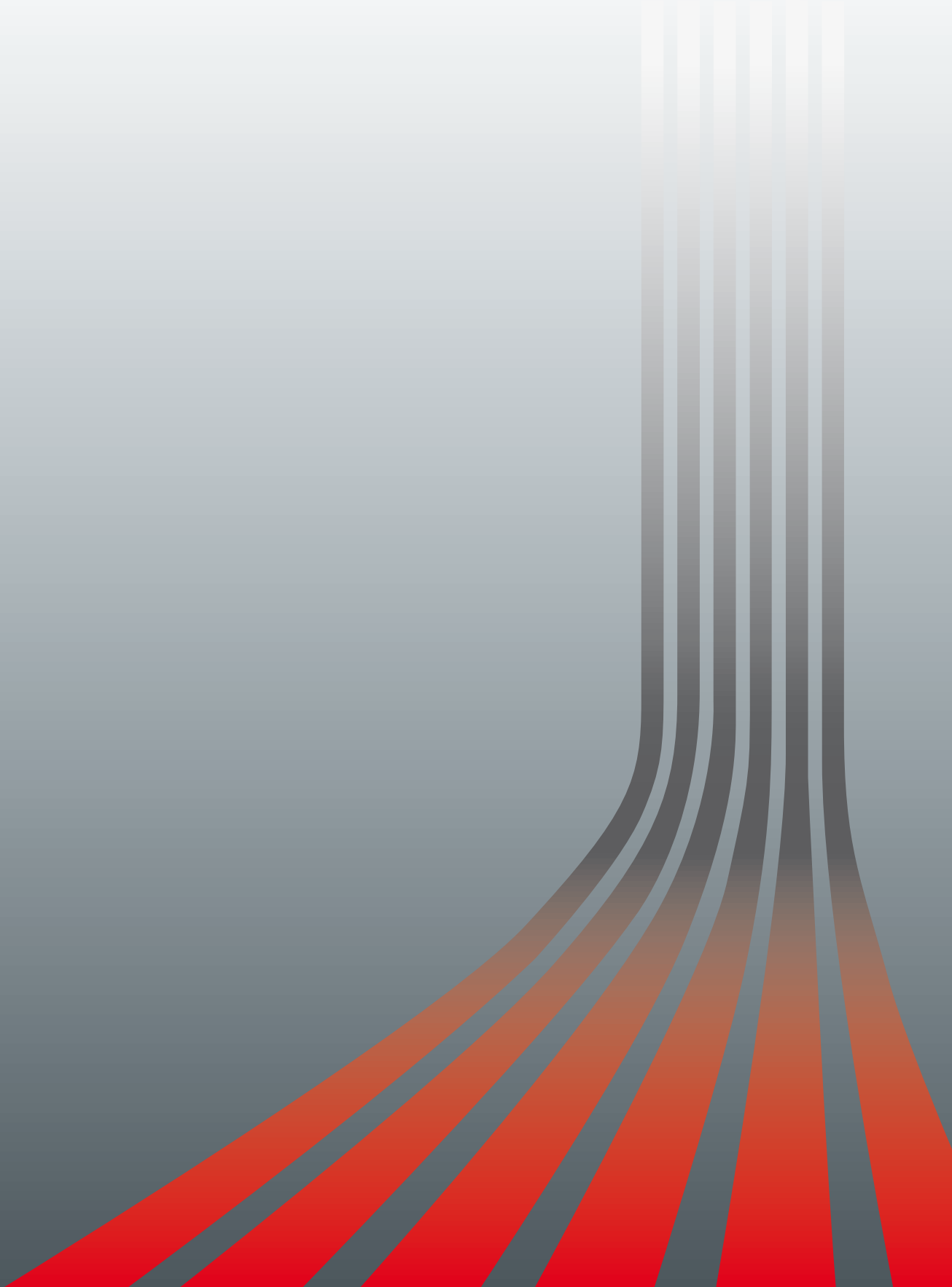
- ☐ Central Data Collector, Alarm Management
- ☐ Maximum Demand Controller
- ☐ Reactive Power Control Relays
- ☐ Cost Center Allocation
- ☐ Mains Monitoring, Visualization
- ☐ System Components
- ☐ Software

Power Quality

- ☐ Passive Harmonic Filters
- ☐ Active Harmonic Filters
- ☐ Dynamic Power Factor Correction Systems
- ☐ Mains Monitoring

Service

- ☐ Mains Measurements
- ☐ Mains Analysis
- ☐ Commissioning
- ☐ Project Planning
- ☐ Service, Repair, Maintenance
- ☐ Hotline



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