

# Control Technology from EIRICH

One-stop solutions - from the concept development stage up to commissioning



# Control technology from EIRICH: A one-stop solution for all your needs

Control technology from EIRICH covers every stage involved in the automation of material processing systems using operationally reliable hardware and innovative software.

**EIRICH offers you the following, all from a single source:**

- **Concept development**
- **Hardware engineering**
- **Electrical cabinet production**
- **Software development**
- **Inhouse testing in the EIRICH test center**
- **Training of your personnel before the commissioning stage**
- **Commissioning by EIRICH Service**

## **The advantages to you**

- A single contact for everything to do with control systems, from initial concept development up to commissioning - and beyond
- Individual control solutions custom-tailored to your specific requirements with the level of automation of your choosing
- A quick and flexible response to your wishes and changes

## **Make the most of our experience and expertise.**

Along the road to an increasingly networked and digital future, there is a never ending stream of new requirements to be addressed under familiar catch-phrases such as Industry 4.0, IoT, smart factory, big data.

What we offer you in this regard is future-proof control technology to make you ideally equipped for trouble-free production processes with your single machine or preparation system.



*A small selection of our customers:*

*Knauf, Baunit, VARTA, Compo,  
Buderus, RHI, Bosch, TMD ...*





**Intelligent control systems – from the single machine to the complex system**



# Quality right from the start: Engineering for control and operation concepts

## For us, the customer and his requirements are always the number one priority!

With no compromises and from the very start. We therefore design your control system as a system which is custom-tailored to your specific needs and requirements. It is also of importance to us that your operating and maintenance staff are also fully satisfied later on.

After all, a control system can only be considered genuinely good if you and your employees are really convinced by it in terms of design and operability!

## The advantages to you

- We work with you to develop the control and operation concept that is right for you - from a service-proven standard to a high-end solution
- Easy and clear operability of the machine or system
- Practical handling when maintenance or repair work needs to be carried out, e.g. thanks to the right choice of components and local operator panels
- Satisfied and motivated maintenance and operating staff who are able to identify with the control system of the machine or system.

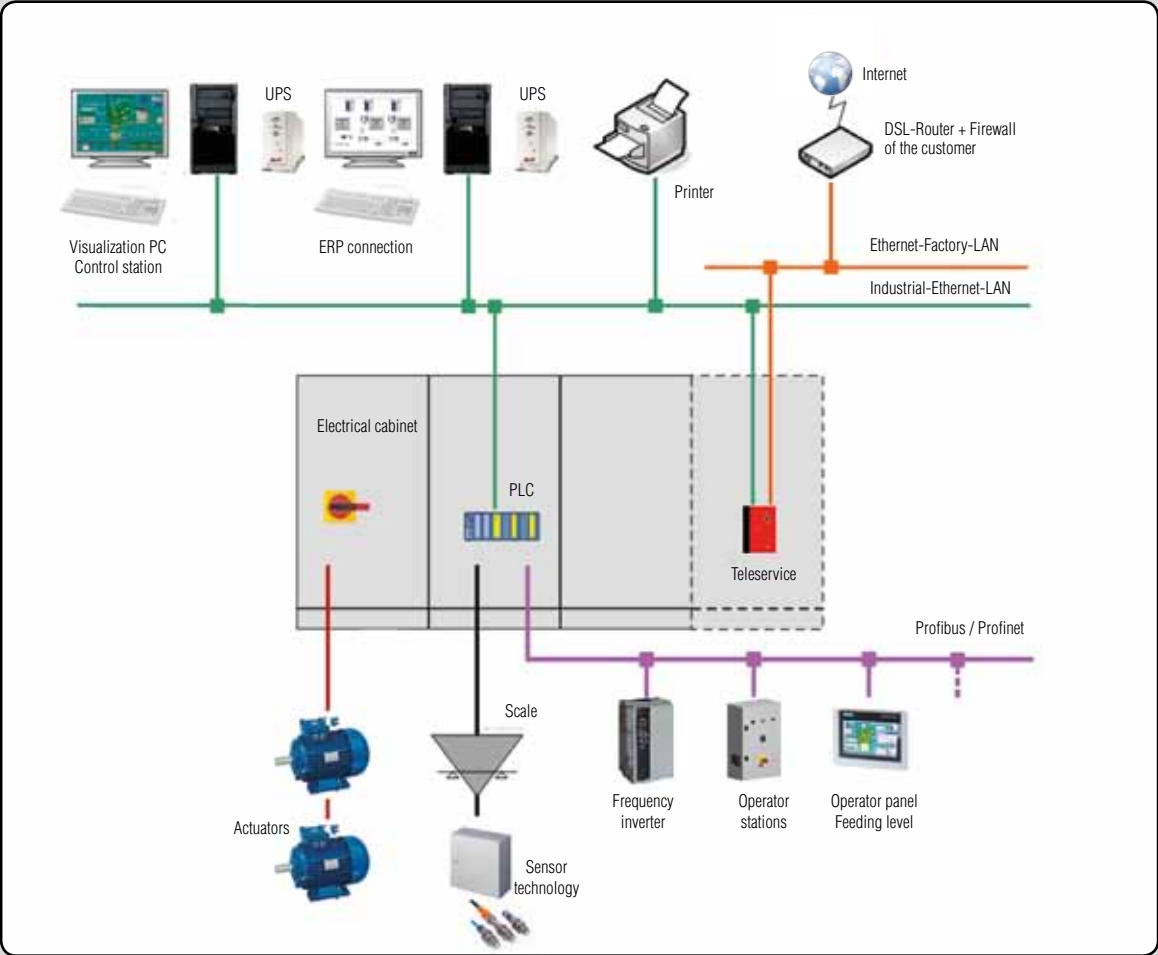
*Whether it be a process visualization system, standard operator controls or mobile operating units - the HMI concept is always the right one for your system!*







**Based on everyday practice –  
tailored to your requirements**



# Electrical cabinet production: Inhouse production and service-proven components

## The electrical cabinet is the „central unit“ in every modern electrotechnical system or production facility

This is why EIRICH decided at a very early stage to make its own electrical cabinets inhouse. Given the increasing complexity of the machines and systems and increasing requirements in terms of the design and function of the electrical cabinets, this has certainly proved to have been the right decision.

Electrical cabinets “made by EIRICH” are therefore a key part of the supply scope.

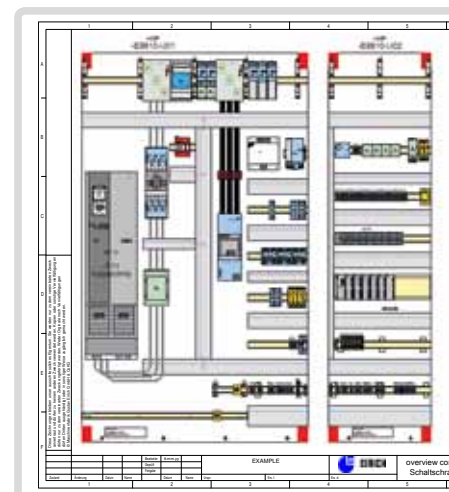
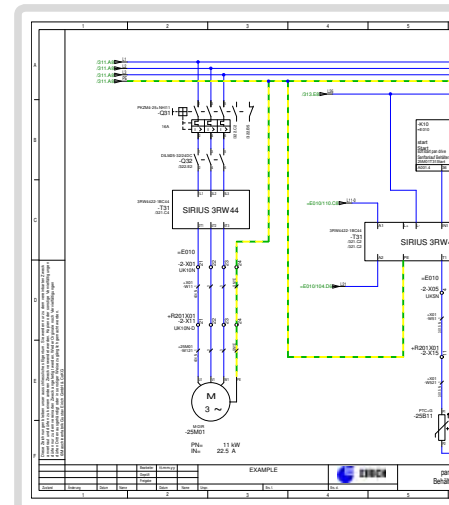
## The advantages to you

- Competent assembly and installation of the components from a single source
- Use of service-proven components from top-name manufacturers for high operational availability
- Quick replacement in the event of servicing being required
- Prompt and flexible response to requests for changes.

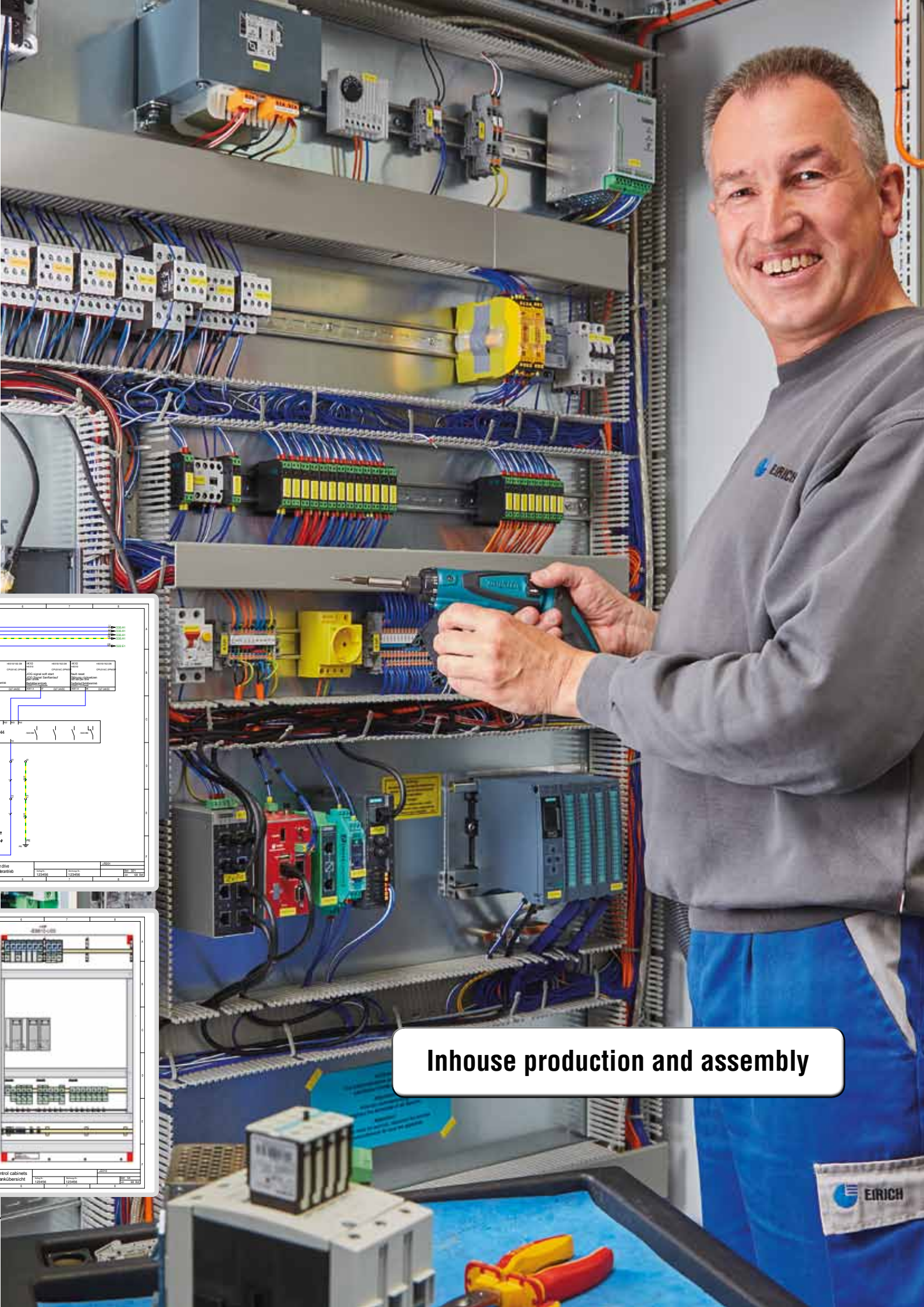


*We install nothing but high-quality components from top-name  
manufacturers (no exotic or cheap components)*

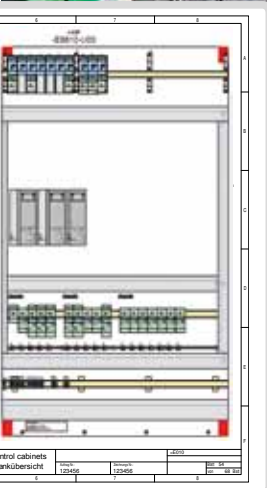
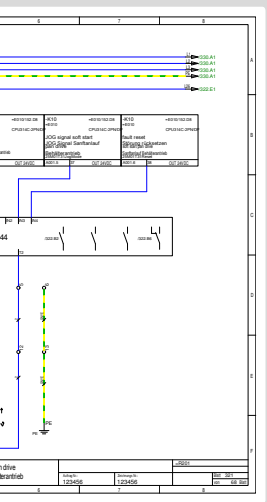
**Siemens, Rittal, Danfoss, Eaton ...**







**Inhouse production and assembly**



# Software from EIRICH

## – modular and tailored to your industry

### **The software is the core element of all control systems.**

We therefore require the highest standards for the software which has to be modular and structured in terms of configuration and feature consistent commentation.

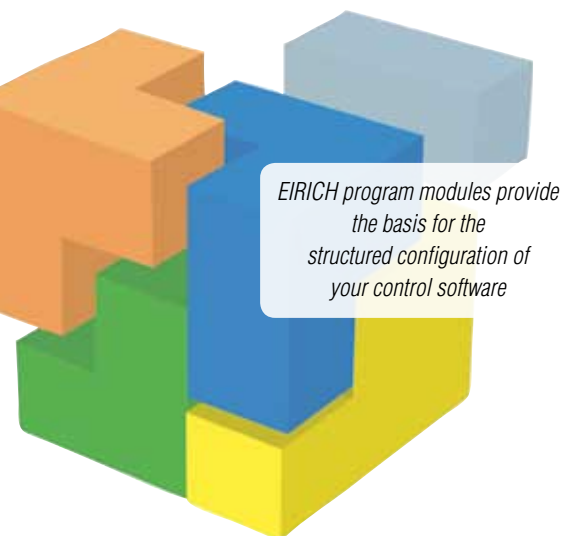
The software functions from EIRICH incorporate the wealth of experience gained from many years of working in practice in the field of mixing and batching technology.

And that is always tailored to the specific requirements of your industry such as building materials, foundries, fertilizers, batteries and much more.

In addition to our standard PLCs (Siemens) and visualization systems (Procon-Win), we also supply other systems as well on request (e.g. Allen Bradley PLCs, visualization systems such as WinCC or Zenon).

### **The advantages to you**

- Modular, structured configuration makes lighter work of maintenance tasks carried out by your service staff and makes it easier to connect up to systems provided by the customer
- The software ensures that your machine or system operates to optimum effect
- We supply you with software functions which are always the state-of-the-art for the industry and process.



**Industry-specific software**

**Data management**

**ERP · PDA · reports**

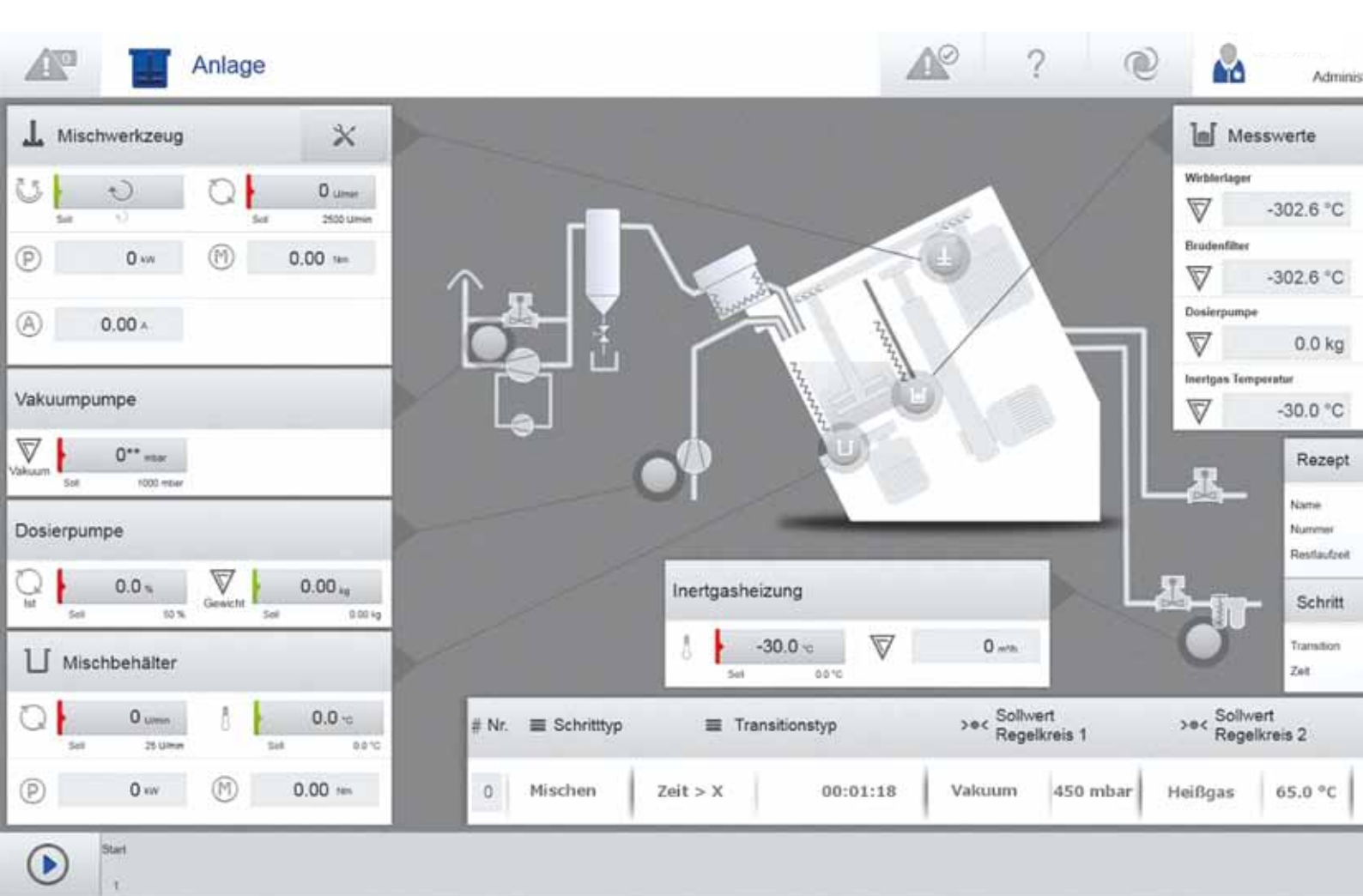
**Condition Monitoring**

**Teleservice**

**Mixing / Batching technology**

**Customer-specific software**

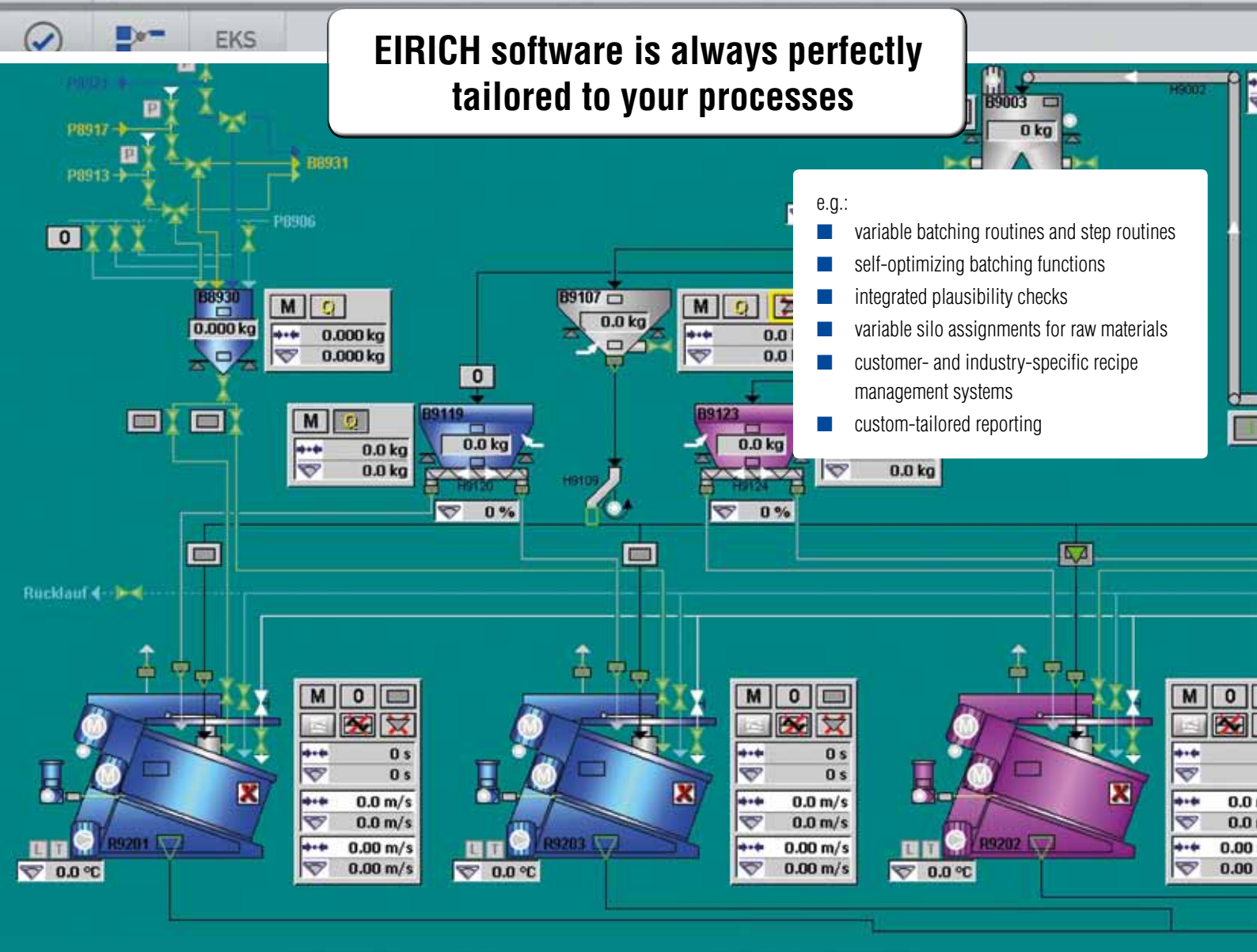




**EIRICH software is always perfectly tailored to your processes**

e.g.:

- variable batching routines and step routines
- self-optimizing batching functions
- integrated plausibility checks
- variable silo assignments for raw materials
- customer- and industry-specific recipe management systems
- custom-tailored reporting



# Prior to delivery: Your control system is tested in the EIRICH test center

## We leave nothing to chance here:

Prior to delivery, your control center is subjected to a very thorough inspection in our specially equipped test center. To do so, the complete control system is set up and wired up in the test center.

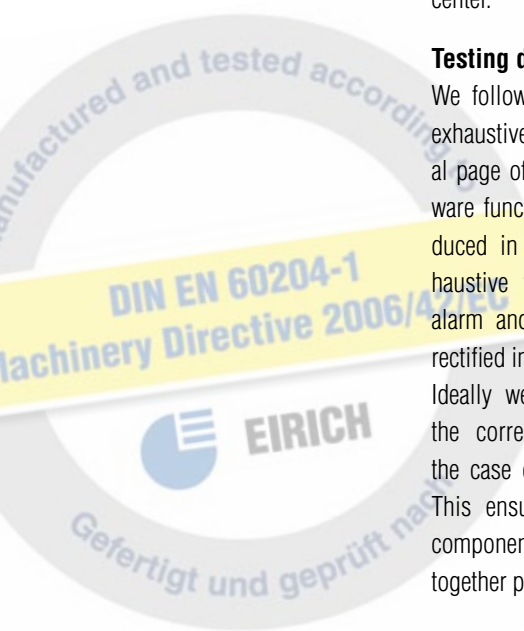
## Testing down to the last detail

We follow this up by subjecting the hardware to exhaustive testing - on the basis of each individual page of the circuit diagrams. Similarly, the software functions and the operational routines reproduced in the program are also subjected to exhaustive testing, right down to each individual alarm and its effects on the process. Errors are rectified immediately.

Ideally we test the control system together with the corresponding machine or system, e.g. in the case of single machines or modular systems. This ensures that the electrical and mechanical components have been comprehensively tested together prior to delivery.

## The advantages to you

- „Plug and Play“ tested hardware and software ensures that commissioning times are kept as short as possible on site – and cuts out-expensive on-site testing
- For us, thorough testing and documentation of conformity with the standards and directives to be complied with goes without saying
- It is possible for preacceptances of the control systems and control functions to be undertaken by your operating personnel at our test center. Any requests for changes which arise in the process can be implemented quickly and easily and will have been completed by the commissioning stage.



Protokoll		Stücknachweis nach IEC 61439-1:2012-06	
Auftragsnr.:			<b>EIRICH</b>
Order no.:			
Kennwort:		Anschrift:	Maschinenfabrik Gustav Eirich GmbH & Co KG Waldürmer Str. 50 D-74736 Hardheim + 49 6283 51-0
Zeichnungsnr.:		Telefon:	
Drawing no.:		Internet:	<a href="http://www.eirich.com">http://www.eirich.com</a>
Maschine Nr.:			
Machine no.:			
Maschinen Type:			
Machine type:			
Baujahr:			
Year of construction:			
<b>3. ELEKTRISCHE FUNKTIONSPRÜFUNG MIT NENNSPANNUNG</b>			
3.1	Funktion der Not-Aus / Not-Halt-Einrichtungen	<input type="checkbox"/>	<input type="checkbox"/>
3.2	Sicherheitsfunktionen und Ausrüstung	<input type="checkbox"/>	<input type="checkbox"/>
3.3	Vor-Ort-Betrieb	<input type="checkbox"/>	<input type="checkbox"/>
3.4	Handbetrieb	<input type="checkbox"/>	<input type="checkbox"/>
3.5	Automatikbetrieb	<input type="checkbox"/>	<input type="checkbox"/>
3.6	Auslösglieder überprüft und eingestellt	<input type="checkbox"/>	<input type="checkbox"/>
3.7	Messverstärker eingestellt / Parameter dokumentiert	<input type="checkbox"/>	<input type="checkbox"/>







**Put through a thorough inspection:  
Your EIRICH control system**



# Fit for the start of production: Training of your operating staff

In addition to the detailed inspection and testing of your control system, the EIRICH test center also offers a further service: Intensive training of your operating staff on the “live object” - a unique opportunity that our customers rarely fail to take up.

This enables your staff to get to know the configuration of the control system and the way it works, to familiarize themselves with the operating functions and to clarify any questions. It provides the ideal basis for a successful start to production.

## The advantages to you

- Your operating staff have become familiar with the functions of the control system even before commissioning
- The required instruction phase on site can be considerably shortened
- Equipment parameters and recipes can be entered in advance and are already available at the commissioning stage
- Individual requirements can be determined and taken into account prior to commissioning.







**Your operating staff:  
Well prepared for the tasks ahead**



# Standards and directives: EIRICH control systems conform

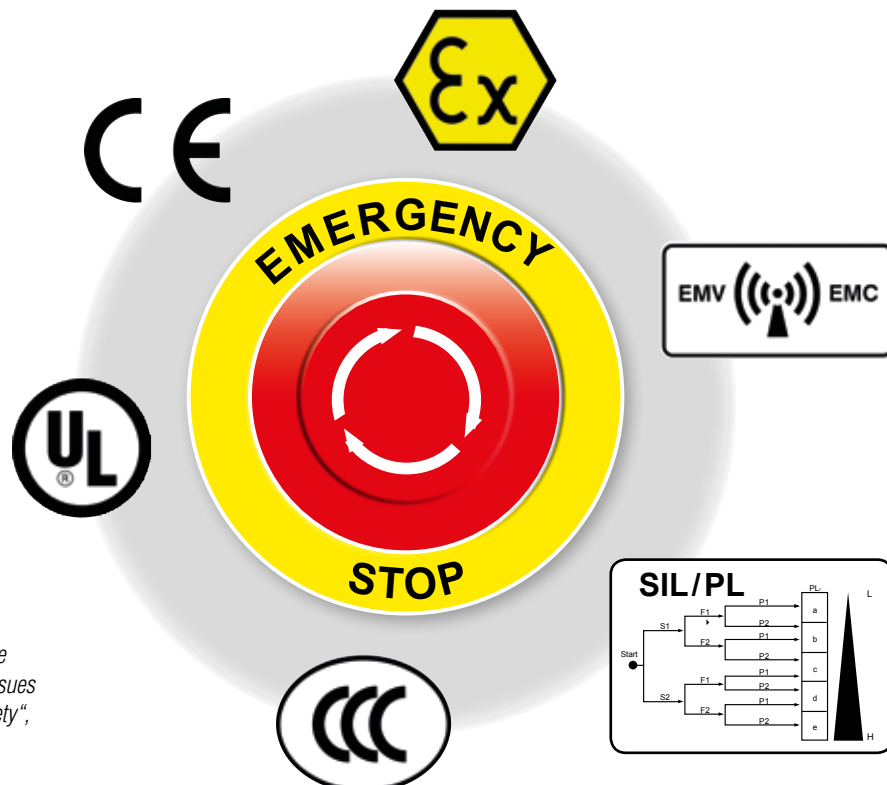
The scope of the relevant standards and directives is increasing all the time. And as the operating company, you have to fulfill legal requirements. In order to design and construct control systems so that they comply with standards, it is necessary not only to be familiar with the applicable rules and regulations, but to apply them correctly as well. We have the required expertise to do so.

This applies not just to the European directives, e.g. the directives on low voltage, EMC, ATEX and machinery Directives and the requirements associated with them (declarations of conformity, declarations of incorporation, risk assessments), but to the standards in non-European countries as well (e.g. TR certificates in Russia or CCC in China).

This also applies to standards concerned with the design of the electrical equipment for the machines and systems. The important issue of “functional safety” is also a top priority for us, to ensure that you are always on the safe side here too.

## The advantages to you

- Comprehensive consulting: Our professional team will be glad to advise you on all questions relating to standards and directives
- With an EIRICH control system you can always be sure that it conforms with the standards and directives.



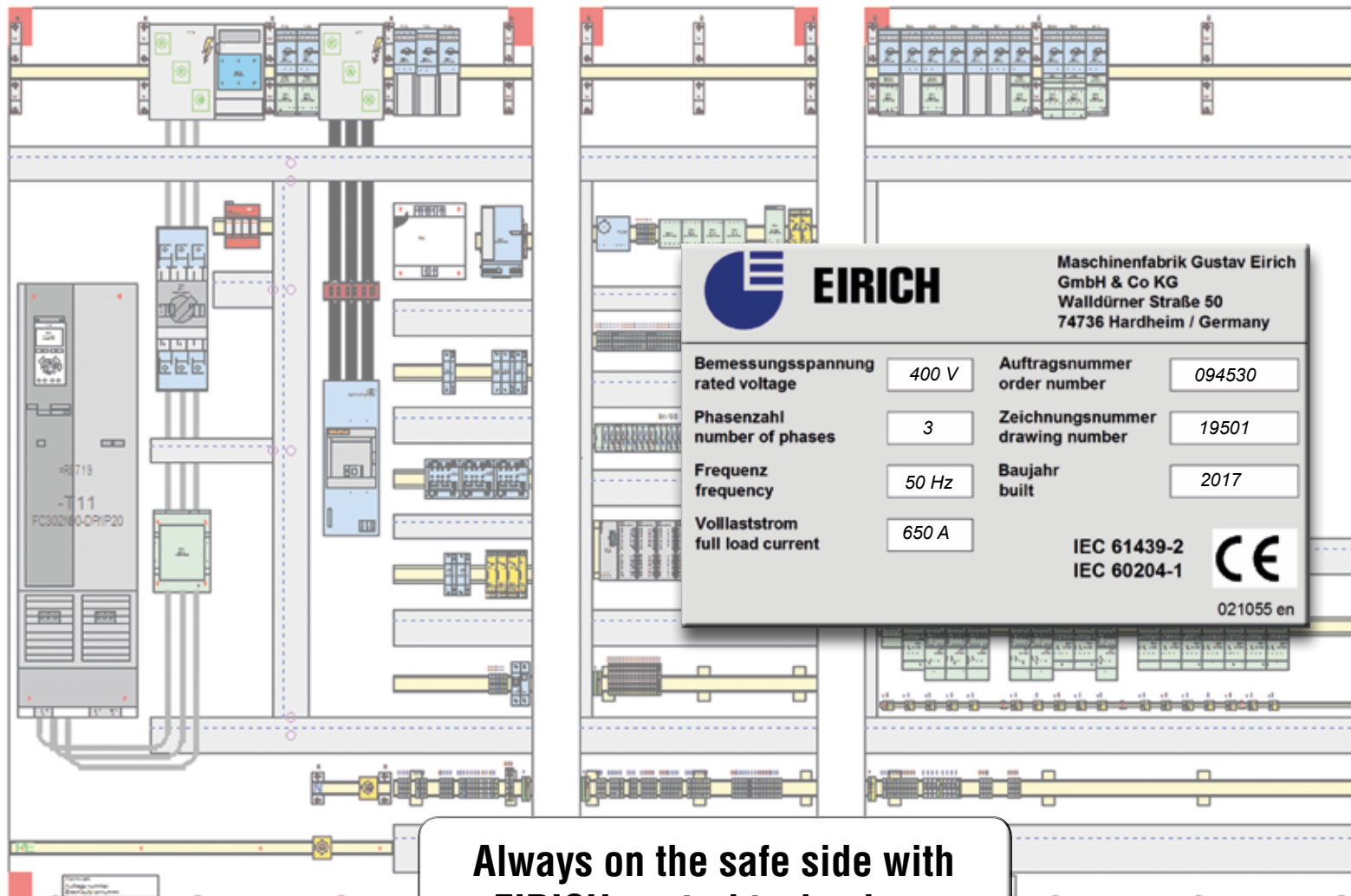
*Many terms and requirements are centered around the important issues of “standards, directives and safety”, and we know them!*



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+MP  
-E8610-U02

+MP  
-E8610-U03



**Always on the safe side with  
EIRICH control technology**



# Detailed documentation with long-term archiving

The requirements to be met by the technical documentation of machines and systems are increasing all the time. This is partly because the laws, standards and directives increasingly require ever more comprehensive and detailed documentation.

## “Good” documentation has benefits

For you as an operating company, “good” documentation offers plenty of benefits, e.g. when it comes to finding faults quickly or identifying the required replacement parts. We therefore place a particularly high priority on detailed documentation when it comes to control technology.

We produce a comprehensive instruction handbook for your control system, in which the individual control functions are described in detail using text and illustrations. We also take account of your special requirements here, e.g. in terms of multiple languages or the integration of your identification system.

## EIRICH identification system

The consistency of the control documentation for the hardware and software is ensured by the EIRICH “EKS” identification system. This enables you as the operating company to immediately identify what is

where in terms of the components of the machine or system with reference to the individual documents such as the circuit diagrams, terminal lists, cable lists and the designations of the electrical components in the electrical cabinet. The EKS identification system is also used in the comments and alarm texts of the PLC software and in the displays in the process visualization system.

## The advantages to you

- With EIRICH documentation you are in a position to find any faults quickly as possible and to identify any replacement parts which are required
- Long-term documentation of all the documentation for your control system at our company using our service-proven EIRICH documentation system. This means that the data for all the components which have been installed, plus the circuit diagrams, terminal plans, cable lists and the software are also available still for many years to come.





Documentation

ACF 232-347-65

Folder 1

Documentation

ACF 232-347-65

Folder 2

Documentation

ACF 232-347-65

Folder 3

Documentation

ACF 232-347-65

Folder 4

Documentation

ACF 232-347-65

EIRICH documentation:  
Clear and comprehensive!

EIRICH

EIRICH

EIRICH

EIRICH

EIRICH

Instruction Handbook



# Instruction Handbook for the Control System

## ABC 6 R05T

Number: AB17/0098765  
Revision: 16948B  
Line number: 008190  
Line type: R05T

Author: PEE-S / LATF  
Status: 2017-03-14  
Revision: REV.0

Status: Translation of the original instruction handbook!



Prior to use, read the instruction handbook!

It is imperative for all persons involved at the operating company's factory with the installation, commissioning, operation, maintenance and repair of the machine / system to read the instruction handbook, especially the safety instructions.

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Stromspannungsversorgung COMPAG

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SEV Abgang Nr. 210

Sicherheitscharakteristik

Sicherheitsschaltung 05001

Netzspannungsversorgung 230V

Stromzufuhr durch D050

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# EIRICH Service: Always close at hand – worldwide

Our global presence with subsidiaries in a whole host of countries (Germany, France, Italy, Russia, Ukraine, Kazakhstan, India, China, Japan, USA, Brazil, South Africa) and a global network of agencies means that we are always very close to our customers – worldwide.

## The advantages to you

- Commissioning and after-sales service for your control system provided by our experienced EIRICH Service
- EIRICH start-up engineers know your control system and its hardware and software functions inside out
- A one-stop solution for all your needs: In the event of a problem, EIRICH service technicians are always quickly on the spot - so there is no need for all the effort of looking for the right contact
- On request, EIRICH can also provide you with instruction and training for your operating staff to parallel commissioning, as “training on the job”
- With the EIRICH teleservice system you can obtain support on request during the commissioning stage and later on during operation (e.g. in case of software updates).



**We are at your service, worldwide:  
Please get in touch – we will be happy to offer advice!  
[customer.support@eirich.de](mailto:customer.support@eirich.de)**





**The  
components  
of spot-on  
service**

Teleservice

Condition Monitoring

Maintenance

Conversion/Modernization

Customer training

Commissioning

System installation

Machine installation

Original parts

Repairs

Rental machines

EIRICH LifeCycle Service

Basic services

## Industrial Mixing and Fine Grinding Technology

### Tradition and innovation since 1863

EIRICH stands worldwide for a comprehensive range of products and services in the field of preparation technology. Its particular focus is on mixing and fine grinding technology, with know-how developed over 150 years of close cooperation with industrial users, universities and research institutions.

Pursuing a corporate philosophy of operating internationally and thereby ensuring close proximity to every customer, the EIRICH Group has secured its place in all the key economic regions of the world.

The focus is on innovative technology for machinery and systems engineering designed to offer solutions for high-standard preparation tasks from a single source.

Applications and process technology with own test centers, a high vertical range of production and comprehensive after-sales service provide the ideal basis for the development of modern and economical processes for a multitude of industries.

**Building materials – Ceramics – Glass – Carbon paste – Battery paste  
Friction linings – Metallurgy – Foundries – Environmental protection**

#### The EIRICH Group worldwide:



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GmbH & Co KG**  
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Phone: +49 6283 51-0  
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E-Mail: [eirich@eirich.de](mailto:eirich@eirich.de)  
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**Eirich France SAS**  
Saint-Priest, France



**Eirich Impianti S.r.l.**  
Mailand, Italy



**OOO Eirich Maschinentchnik**  
Moskau, Russia



**OOO Eirich Maschinentchnik**  
Dnepropetrovsk, Ukraine



**Eirich East Europe GmbH**  
Representative Kazakhstan  
Almaty, Kazakhstan



**Eirich Machines, Inc.**  
Gurnee, IL, USA



**Eirich Industrial Ltda.**  
Jandira S.P., Brazil



**Nippon Eirich Co. Ltd.**  
Nagoya, Japan



**Nippon Eirich Co. Ltd.**  
Australia Branch  
Willawong, Brisbane, Australia



**Eirich East Asia/Pacific**  
Seoul, Republic of Korea



**Eirich Group China Ltd.**  
Shanghai & Beijing, P.R. China  
**Eirich Machinery Jiangyin Co., Ltd.**  
Jiangyin, Jiangsu Province, P.R. China



**Eirich India Pvt. Ltd.**  
Mumbai, India



**H. Birkenmayer (Pty.) Ltd.**  
Isando, Republic of South Africa

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