

Optimised and safe installations – a key solution for your electricity losses

Quality **improvements** are necessary
in each and every **industry system**

Think energy

 **Iskra**®
Iskra MIS

From your problems...

Why are **unsafe electrical installations** potential threat to your industrial equipment?



Unsafe installations

Do you know that **high currents** can harm your **installations** and **equipment**?

High currents represent **continuous risk** for your equipment if your installations are not designed to prevent it. Overvoltages and short currents present **danger not** only for installations but also for equipment connected to them. Different disturbances that transmit through the air or electrical network jeopardise electronic devices.



High load switching protection

Do you know that **high load switching** causes **interruptions** in your electrical network?

Electricity interruptions in industrial processes are **problematic** and can cause a **company lower income**. For switching loads of big capacity special switching devices are needed. Various needs and requirements for electric motor control and efficient measurement of electric energy as well as high quality analysis of electric network occur.

Instability of automated industrial processes

Do you know that installations for industrial processes should meet **the highest standards** to ensure reliable production process?

The need for **automation** of industrial plants in order to **rationalize** production processes is **constantly growing**. The most recent standards and qualification of the staff at accredited institutions are required for designing and implementation of electrical installations.



Use secure installations ●

for **reliability** of your equipment.

Protect your electrical installation from high overloads and short circuits with moulded case circuit breakers. They offer reliable protection at electric energy input in buildings. Motor protection switches and overload relays are indispensable for the protection of your motors. They **prevent high costs** for the replacement of a motor and production failure. Install EMC filters and motor capacitors to prevent the influence of electromagnetic and other disturbances on a network.

Control your equipment ●

to prevent **stoppages** and **breakdowns**.

Our products **ensure complete safety** and **efficient control** of different electric motors. Ensure rational start-up of your electric motors with digital soft starters that offer **the best solutions** in this field. **Cheaper** electromechanical starters with extremely long life span, which are built in compact housings resistant to different external influences, are also available. Use energy meters and analysers to create a system for electric energy control, measurement and transmission.

Automate processes ●

to **increase performance** of your **electrical installation** and **equipment**.

We offer you **automation** of individual parts of production, transport paths and complete processes which help you decrease your costs and increase your productivity. Automation helps to perform repeated works **faster, better, cheaper**. The switching cabinets and installations are **indispensable** for industrial automation, electrification of business premises, dwellings, trading centres and warehouses. **High quality** of switching cabinets and installations enable **safe, reliable** work and good rest in your free time.

Thermal overload relays

- protective devices for the safety of the motor during operation and for its durability
- overload protection of motors with operational currents from 0.11 to 800 A
- a scale for setting the motor operational current
- a double trip lever enables sensibility to phase failure



Motor protection switches

- motor protection is provided by thermal-magnetic protection elements incorporated in the motor protection switch
- automatic switch-off with thermal or magnetic release
- on/off buttons position unequivocally indicates switching position of main circuit contacts
- control with under-voltage or shunt release
- for motor currents up to 32 A
- a wide range of accessories



MCCBs

- MCCBs are designed to protect all installation system against thermal heating and short-circuit
- thermal-magnetic and electronic protection
- breaking capacity up to 70 kA
- manual, rotary or motorised versions
- wide range of internal and external accessories



Contactors

- highly efficient contactors for switching electric motors and other resistive, inductive and capacitive loads
- a wide variety of snap-on auxiliary switch blocks and accessories
- many combinations with NO and NC contacts
- versions with all main or all auxiliary contacts
- high electrical and mechanical endurance
- AC or DC coil voltages with low consumption
- high contact reliability at low voltages
- rated currents up to 1000 A



Contactor combinations

- motor starters are used for start-up, overload protection and switch of electric motors
- standard and individual motor starters are available
- high reliability
- high switching capability
- small required place for mounting
- simple and fast assembly

... To our solutions.

You can increase your productivity up to **15%** with **high quality** installations



Network analyzers



- permanent power supply quality analyses
- internal flash memory can store weekly reports up to 7 years and 170,000 network anomalies
- over 160 measuring parameters (U, I, P, Q, S, E, PF, PA, MD, THD, Har, Flik...)
- high accuracy class 0.2
- 2 independent communication ports (Ethernet, USB, RS485/RS232, Modbus TCP, Modbus RTU, DNP3)



Capacitor duty contactors



- capacitor duty contactors are designed for switching capacitor loads
- saves costs of expensive replacement
- reduce watt losses during »on« condition, save energy
- switching of capacitor banks in parallel without de-rating
- less maintenance and downtime
- no risk of dangerous voltage



Soft starters



- a motor soft starter is a device used with AC electric motors to temporarily reduce the load and torque in the powertrain of the motor during startup
- multifunction keypad and LCD display
- fully programmable inputs and outputs
- elimination of inrush currents



EMC filters



- filters and capacitors are used for eliminating radiofrequency and radio magnetic interferences
- in addition to radiofrequency interferences they also protect devices against dangerous interferences from electrical network
- they are extremely reliable since capacity remains unchanged during their life span



Power and induction heating capacitors



- they reduce an electricity bill and discharge electricity network
- small losses, economic and reliable operation
- low voltage power capacitors are used for compensation of reactive energy of induction users of industrial voltage up to 660 V
- high voltage power capacitors improve power factor in electric networks and industrial plants
- induction heating capacitors compensate reactive energy and enable operation of induction furnaces

Your **safety** and your **benefits** are our main goal.

Iskra MIS has solutions to assist you in coping with electricity losses in your electricity network.

Take the first step. **Be efficient.**



Choose pure **quality**. Get pure **power**.

You can **minimize the interruptions, overloadings and short-circuits** in your **electricity network** with help of our experts and our **environmentally friendly and safe installations**.



With our **assistance and modern planning** of your installations you can **minimize the damages and over-warming** of the network.



Together, we can enable **continuous, safe, environmentally friendly and automated** functioning of your factories and devices.



Use our solutions for your **benefits.**

- lower consumption and cost for energy products
- automatic remote readout of consumption of all energy products
- fast energy analysis and forecasts
- supervision of electric energy quality
- simple and low-cost system installation, integration and introduction
- decrease of costs by informing a user in real time and possibility for immediate action
- faster correction of failures by means of analysis and location of failure in network
- inspection of consumption and detection of losses in network together with the possibility of eliminating reasons for losses

Make the **smart** move.
Contact us.



Iskra[®]
Iskra MIS

Iskra MIS, d. d.

Ljubljanska c. 24a, SI-4000 Kranj, Slovenia
T: + 386 4 23 72 112, F: + 386 4 23 72 129

www.iskra-mis.si