

5 good reasons

to review and improve your
power control systems in the
Oil & Gas sector



Controllers, Drives and Automation

Decarbonisation and innovation in thermal processes

The oil and gas industry now offers great opportunities to decarbonise and optimise thermal processes.

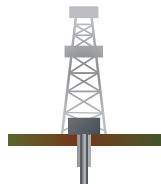
New technologies for electric heating improve efficiency and reduce environmental impact, overcoming many of the traditional challenges.

CD Automation develops SCR thyristor units, temperature controllers and control software for precise and reliable management of thermal processes.

Our solutions help companies electrify industrial processes, reducing energy consumption, simplifying plant management and improving power quality.

Thanks to our experience, we support the industry in its transition to more sustainable, efficient and technologically advanced processes.

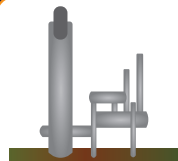
Optimisation of transformation processes based on electric heating



Downhole



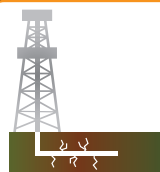
Offshore



Enhanced Oil
Recovery



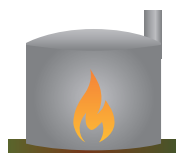
Onshore



Hydraulic
fracturing



Midstream



Downstream LNG

Challenges in Oil & Gas thermal processes

Power

In Oil & Gas plant processes, electric heaters must be able to deliver all the power necessary to ensure that temperature control requirements are always met.

Accuracy

Systems must reach the required temperature in the shortest possible time, minimising energy consumption.

Safety

Accurate control of the heaters is essential to ensure that processes are always safe.

Flexibility

During commissioning, unexpected application requirements may arise, such as changes to the initial requirements. The presence of modular and flexible components in the control panel allows the plant to be quickly adapted to new requirements.



1

Service: efficient maintenance

In large oil and gas plants, power units can reach values between 200 and 2000A.

In traditional systems, maintenance and component replacement can be complex and require significant time and expense.

The **new generation of units**, designed with **modular and easily removable components**, simplify every intervention, reduce downtime and allow the plant to remain efficient at all times.

This modularity also allows **individual modules to be upgraded or replaced** without having to intervene on the entire control panel, ensuring **operational continuity and maximum reliability**.

With CD Automation, service is not just maintenance, but a strategic element for the intelligent and safe management of thermal processes.



2

Maintenance: remote access

Physical access to facilities often involves **costly travel and downtime**. Today, remote access solutions make it possible to **manage temperature control systems quickly and securely**.

Through secure systems, it is possible to check the status of components, monitor critical variables and resolve any malfunctions in real time, without the need to physically visit the site.

This approach reduces operating costs and allows for timely intervention, increasing process reliability and continuity.

For CD Automation, remote maintenance is a tool for **efficiency and safety**, designed to ensure complete, rapid and reliable control even on complex systems.



A large, stylized yellow number 3 is positioned on the left side of the image, partially overlapping the background photo of an electrical cabinet. The number has a slight 3D effect with a shadow.

Cabinet: space optimization

In traditional systems, cabinets can be bulky and difficult to manage. Power units with **integrated fuses** reduce the space occupied by up to 50%, making the **panel more compact** and tidy.

Multi-zone solutions also allow each resistor to be connected directly to the unit output, reducing the number of wires and simplifying wiring. This makes it possible to monitor more variables than with analogue retransmission-based systems, improving process management and safety. CD Automation develops cabinets designed to be **functional, flexible and easy to install**, optimising space and making systems more efficient and tidy.

4

Commissioning: management of unforeseen events

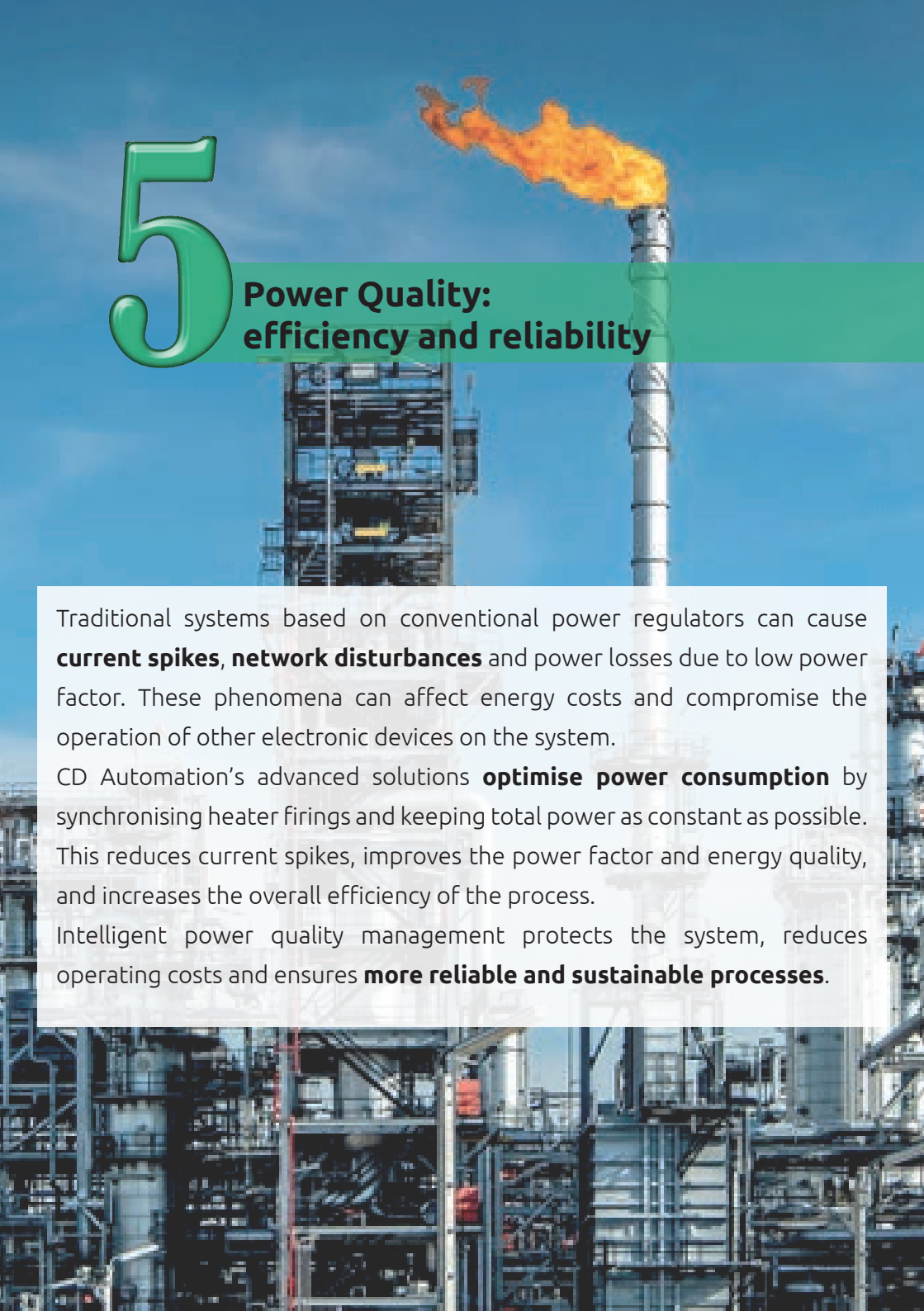
During commissioning, even the most detailed projects can encounter unforeseen requirements during the design phase.

Functional changes, updates to requirements or different operating conditions may require **rapid adjustments**.

Having **flexible power controllers**, supported by **remote assistance functions** and **qualified technical support**, allows you to intervene promptly, resolving unexpected events and extra requests without compromising the start-up time of the plant.

This flexibility allows operators to adapt the system to actual needs, ensuring compliance with design specifications and operational continuity.

With CD Automation, commissioning becomes **faster, safer and more effective**, turning unexpected events into opportunities for optimisation.



5

Power Quality: efficiency and reliability

Traditional systems based on conventional power regulators can cause **current spikes, network disturbances** and power losses due to low power factor. These phenomena can affect energy costs and compromise the operation of other electronic devices on the system.

CD Automation's advanced solutions **optimise power consumption** by synchronising heater firings and keeping total power as constant as possible. This reduces current spikes, improves the power factor and energy quality, and increases the overall efficiency of the process.

Intelligent power quality management protects the system, reduces operating costs and ensures **more reliable and sustainable processes**.

CD Automation solutions for Oil & Gas

CD Automation supports the Oil & Gas industry with state-of-the-art power controllers for managing electric heaters..

The **REVO S** and **REVO C** families guarantee efficiency, reliability and connectivity in thermal processes, improving power quality and simplifying plant electrification.

REVO S is the ideal choice for open-loop applications: stable, compact and certified up to 700A, it maintains the required setting even in the presence of network fluctuations.

REVO C, more advanced and versatile, offers single-phase and three-phase control, current limiting functions, soft start and industrial connectivity. Perfect for complex applications and intelligent energy management.



Product type	Actuator works in open loop	Power controller maintains the required set by compensating for mains voltage fluctuations
CE approval	Yes	Yes
cUL us or UL approval	Option until 700A	Option: cUL us up to 700A, UL from 800A to 2100A
Max Voltage	480, 600 ND 690V	480, 600 and 690V
Short Circuit Current 100kA	Yes	Yes
Bluetooth & smartphone App	No	Option
Ideal with Diesel generators		Yes, with Soft Start 1-3PH
Load Diagnostics	Yes	Yes
Digital Input and Zero Crossing	Yes	Yes
Analog Input and Burst Firing	Option, settable in the factory	Yes, settable from PC or Keypad
Ramp and start in phase angle	No	Yes, settable from PC or Keypad
Control of inductive loads or primary loads	No	Yes, 1-3PH with current limit and phase angle firing
Local operator panel	No	Option
Configurator software PC for remote assistance and analysis	No	Yes
Modbus RTU	No	Standard
Profibus, Profinet, Ethernet IP	No	Option
Retransmission	No	Option
Bake Out	No	Yes (1-3PH)



CD Automation is leading the Oil & Gas industry into a new era of efficiency, safety and sustainability.

The **REVO S** and **REVO C** families of solutions ensure more stable and connected processes, improving power quality and simplifying plant electrification.

Modular units and **remote assistance** **reduce component replacement times** and **enable rapid intervention** in the event of malfunctions, ensuring operational continuity.

With CD Automation, power control becomes a concrete tool for **optimising consumption, maintenance and performance in the oil and gas industry.**



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