



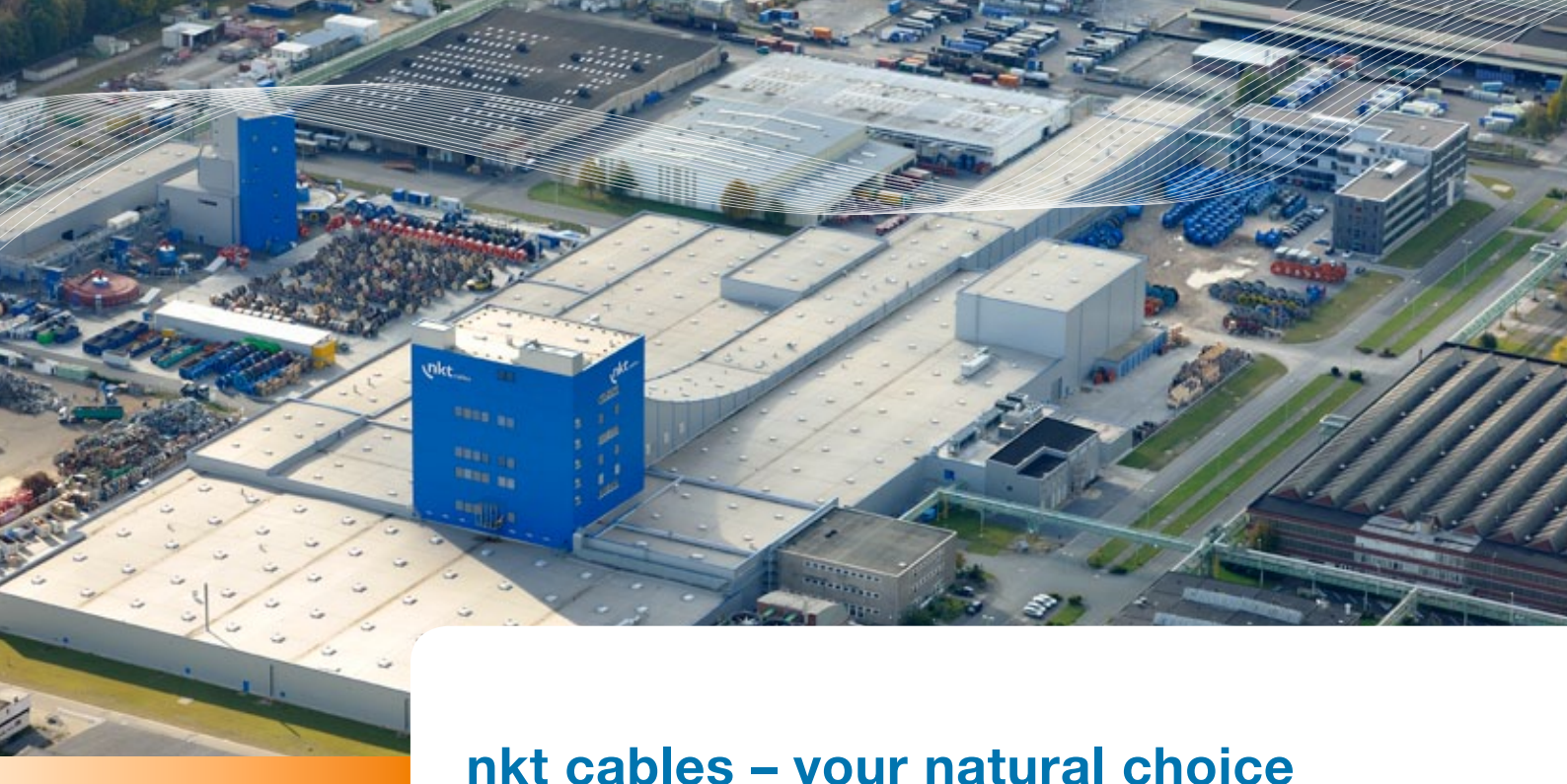
Member of the NKT Group

VALCAP[®] Monitoring Solutions for power cable systems



Completing the picture

www.nktcables.com



nkt cables – your natural choice

nkt cables is a global front-line supplier to the energy sector and as such **nkt cables** develops, manufactures and markets high-quality cables and solutions for power grid infrastructure, construction sites, railways and the automotive industry. **nkt cables** supplies creative, high-tech and sustainable products.

nkt cables' manufacturing plants are among the most modern, flexible and cost-effective facilities worldwide. At **nkt cables** we work tirelessly to reduce our carbon footprint; neutral production and waste prevention are high priorities. **nkt cables** invests heavily to ensure that the company maintains leading-edge capability.

The brand-new state-of-the-art factory in Cologne is an example of this commitment. Being among the most modern factories in the world, it is at the forefront of technological developments.

nkt cables is part of NKT Holding A/S, which is listed on the Danish Stock Exchange. NKT Holding owns a number of companies, which are active in different industries, and has production facilities on four continents.



→ f2c in Cologne



→ Turntable at f2c, Cologne



VALCAP® Monitoring Solutions for power cable systems

VALCAP® monitoring solutions help to redefine grid load and safety limits, allowing a more efficient use of available resources, longer grid operating life and better safety. By continuously monitoring power cable conditions these systems immediately reveal problems occurring at any point of the cable installation and help you to handle upcoming critical situations.

VALCAP® systems are used to:

- Monitor thermal conditions along the cable installation
- Calculate cable ampacity in real-time
- Determine the real environmental conditions in the surroundings of cables
- Detect and locate electrical cable faults
- Detect and locate mechanical cable damage

Integrated hardware and software solutions from **nkt cables** combined with this innovative monitoring technology help to protect and optimize your grid. Utilizing the full potential of your cable ampacity as well as fast and reliable failure location will save time and money.

nkt cables thinks in solutions and delivers to meet your needs. As a full-solution supplier, **nkt cables** offers its customers individual solutions, systems planning, service contracts, cables, accessories and overhead lines. The hardware and software solutions perfectly integrate into your existing grid infrastructure and are compatible with all current grid control systems (e.g. SCADA).



→ Monitoring station



→ Monitoring system



VALCAP® systems offer solutions for the future

nkt cables offers two different VALCAP® systems:

Load Management:

- Thermal overload monitoring of power cables
- Condition monitoring of conductor temperature
- Real-time ampacity evaluation based on current environmental conditions

Security Management:

- Mechanical disturbance monitoring of power cables including AIS data for vessel identification
- Real-time fault location for electrical and mechanical faults
- Prewarning system for fault prevention

Your Benefits for Load Management:

- Increases usable capacity
- Saves lifetime of assets
- Reveals unforeseen hotspots
- Prevents blackouts
- Reduces risk of failure
- Mitigates service risk on system lifetime
- Supports engineering and maintenance tasks

Your Benefits for Security Management:

- Identifies and prevents cable damages
- Decreases maintenance costs
- Decreases insurance fees
- Supports in getting authority approvals

References and application areas

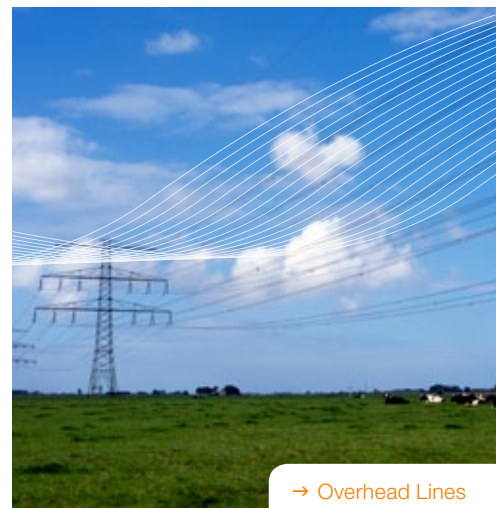
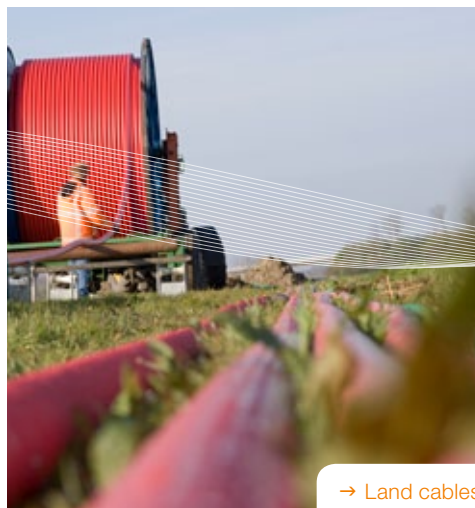
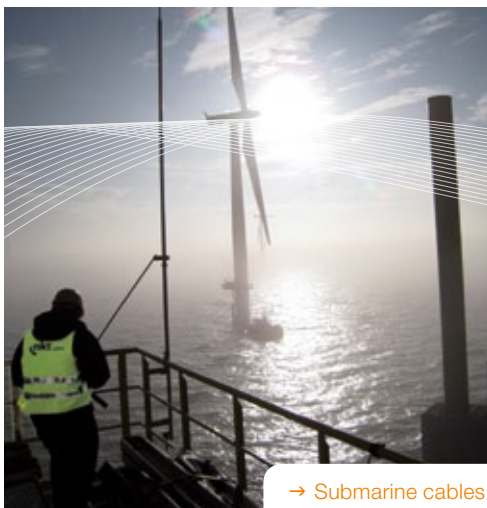
References

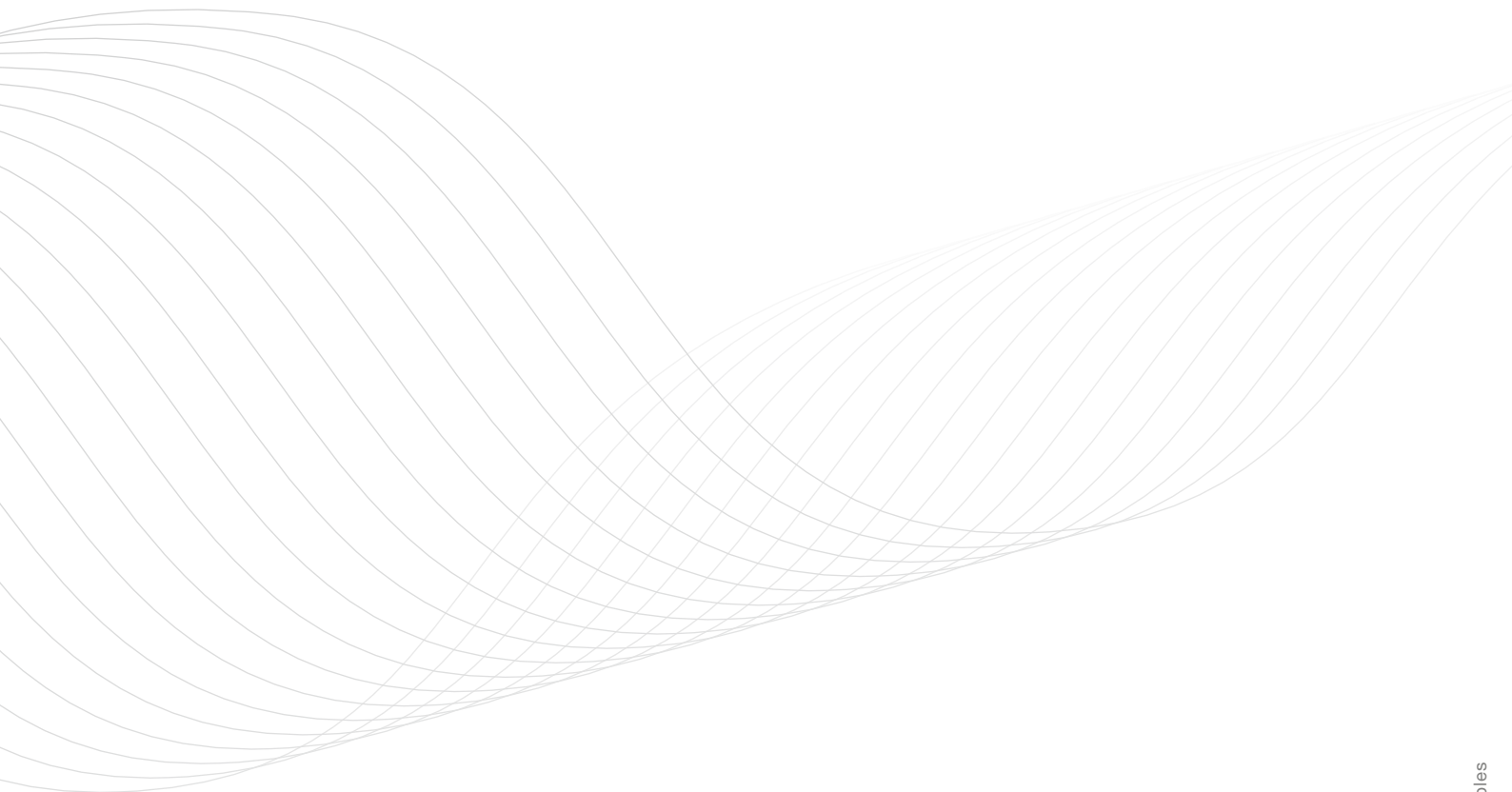
nkt cables has supplied VALCAP® technology for a range of major projects, including the following companies:



Application areas

VALCAP® systems are mostly used for submarine, land cable and overhead line applications, but other areas of usage are also possible.





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