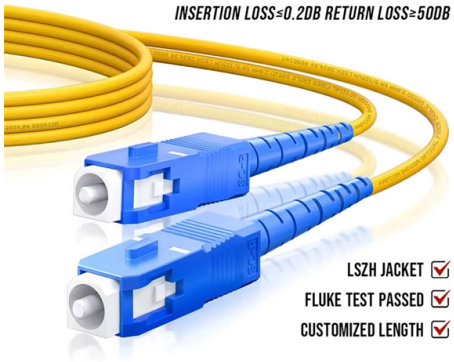
Finland s Complete High and Low Voltage Complete Equipment



Overview

Electricity networks The high-voltage transmission networks operate on a voltage of 110 kilovolts, the distribution networks on 20, 10, 1 or 0.4 kilovolts.

Key Takeaways

Finland's electricity network uses a combination of high-voltage transmission lines, medium- and low-voltage distribution networks, substations, and switchboards to deliver power efficiently from generation sources to consumers.

High-

Voltage TransmissionFinland's main grid operates at 400 kV, 220 kV, and 110 kV, enabling long-distance electricity transmission with minimal losses. The high-voltage network is primarily managed by Fingrid Oyj and includes overhead lines, with some underground cables in urban areas. At the end of 2021, Finland had approximately 5,200 km of 400 kV lines, 1,400 km of 220 kV lines, and 14,750 km of 110 kV lines, along with 330 km of 110 kV underground cables.

High-voltage substations convert these voltages to medium levels for regional distribution.

Medium- and Low-

© 2026 FD SOLUCIONES OPTICAL SYSTEMS - All rights reserved

Voltage Distribution

Regional networks distribute electricity at 20 kV (medium voltage), which is further stepped down to 400 V (low voltage) for residential and commercial use. Distribution substations, which can be installed on poles, in separate structures, or in building basements, manage this voltage conversion and ensure safe delivery to end users. Low-voltage switchboards then distribute electricity within buildings and industrial facilities.

Substations and Switchboards

Substations are critical junctions where power lines of different voltages are connected. Companies like VEO Electrification provide modular substation solutions for medium and high-voltage networks up to 400 kV, offering intelligent control, protection, and distribution systems. Alfen Elkamo specializes in medium- and low-voltage switchboards, transformer substations, and related systems, supporting industrial, building, and infrastructure sectors, including renewable energy integration such as solar and wind power.

Industrial and Renewable Integration

Modern Finnish electrical equipment supports renewable energy sources and energy storage systems. Alfen Elkamo, for example, has delivered solar transformer substations for Finland's largest solar power plant, integrating solar and wind energy into the grid. Electrical engineering firms like Alten Finland provide design and automation services for electricity distribution, telecommunication, safety systems, and industrial electrification.

SummaryFinland's complete high and low voltage equipment ecosystem includes: High-voltage transmission lines (110–400 kV) and substations for long-distance power deliveryMedium-voltage distribution networks (20 kV) for regional supplyLow-voltage networks (400 V) for residential and commercial useSwitchboards and transformer substations for voltage conversion and distributionModular and intelligent substation solutions for safety, efficiency, and renewable energy integration This integrated system ensures reliable, safe, and sustainable electricity delivery across Finland while supporting industrial, commercial, and residential needs.

© 2026 FD SOLUCIONES OPTICAL SYSTEMS - All rights reserved

Article Content

Electricity networks

The high-voltage transmission networks operate on a voltage of 110 kilovolts, the distribution networks on 20, 10, 1 or 0.4 kilovolts. The lowest voltages of up to 1

Home | Alfen Elkamo

Our products comprise medium-voltage and low-voltage switchboards and related systems for electricity distribution by industries and energy utilities. Transformer

Electricity grids and power lines

The electricity distribution network consists of medium-voltage overhead lines and underground cables, typically 20 000 volts (V), distribution transformers and low

Electricity system of Finland

Fingrid is responsible for the functionality and maintenance of Finland''s main grid. The main grid is the high-voltage meshed backbone network to which major power plants, factories and distribution

Mains electricity by country

This is an overview of mains electricity by country, with a focus on listing the regional differences in plug and socket types, nominal supply voltages, and AC

Telia''s cutting-edge data center in Finland powered by ABB''s high ...

Quality targets for the project tender were set high, and ABB''s indispensable power sys-tems ensured that it could maximize redun-dancy, improve safety, and deliver a scalable, energy-efficient data

Fingrid''s electricity transmission network

Fingrid is responsible for maintaining Finland''s main grid. The main grid includes all the 400 kV, 220 kV and 110 kV high-voltage lines and substations in meshed operation.

Electrical works in Finland

For the construction of electrical appliances and delivery of them onto the market, the requirements of the EU''s Low Voltage Directive (LVD) and EMC Directive apply.

SP High Voltage

The company is specialized in design, installation, maintenance, supervision and consultation of high voltage cabling, cable jointing and cable terminating projects up to 400 kV.

© 2026 FD SOLUCIONES OPTICAL SYSTEMS - All rights reserved

What is high voltage and low voltage complete set

Want to fully understand what high and low voltage complete sets of equipment are and want to explore the differences between the two? This article will interpret them from multiple aspects

Electrical Installations Certification | SGS Finland

Electrical installations certification from SGS – helps you comply with national and international standards and ensure the reliable operation of your facilities.

Analysis of complete sets of high and low voltage electrical equipment ...

In the future, electrical complete sets of equipment will develop towards intelligence and have high economic efficiency. Firstly, while reducing manufacturing costs, the performance of

The Development Trends of Complete High and Low Voltage

Low and high voltage complete electrical equipment refers to the combination of electrical components including circuit breakers, isolating switches, load switches, fuses, voltage transformers, current

High and Low Voltage Complete Sets of Equipment

Integrated high and low voltage complete sets of equipment providing comprehensive power distribution solutions for industrial, commercial and energy systems.

High and low voltage complete sets of equipment

PRODUCTS High and low voltage complete sets of equipment You are here Home> Products> List

High and Low Voltage Complete Equipment Manufacturer, ring Main

China · Juchen Electrical Technology Co., Ltd. Specializes in the production of all kinds of high and low voltage complete sets of equipment, high and low voltage electrical components, box-type

Expert partner for industrial electrification services

Industrial construction services We offer industrial construction services as comprehensive turnkey deliveries. Thanks to our international networks and

High And Low Voltage Power Equipment Manufacturers, Factory

Enecell, a reliable manufacturer of high and low voltage power equipment, offers prefabricated substations, switchgear, and more for diverse applications. Factory Direct & Fast Shipping.

© 2026 FD SOLUCIONES OPTICAL SYSTEMS - All rights reserved

Contact Us

Continue your research online:

Website: https://fdsoluciones.es
Technical inquiry: https://fdsoluciones.es/project-enquiry.html

This document is for preliminary research. Verify specifications against current standards, product documentation and project requirements.

© 2026 FD SOLUCIONES OPTICAL SYSTEMS - All rights reserved