

Low Voltage Cable Market to Surpass \$278.7 Billion by 2032, Fueled by Energy Demand & Infrastructure Growth

□ *From Solar Grids to Smart Cities: Low Voltage Cable Market Booms at 5.9% CAGR Through 2032* □

WILMINGTON, DE, UNITED STATES, July 7, 2025 /EINPresswire.com/ --

□ Low Voltage Cable Industry Overview

According to a report by Allied Market Research, the global [low voltage cable market](#) size was valued at \$158.9 billion in 2022 and is projected to reach \$278.7 billion by 2032, growing at a CAGR of 5.9% from 2023 to 2032. These cables, typically rated for use up to 1,000 volts, are critical for power distribution, telecommunications, and energy infrastructure in both urban and industrial environments.

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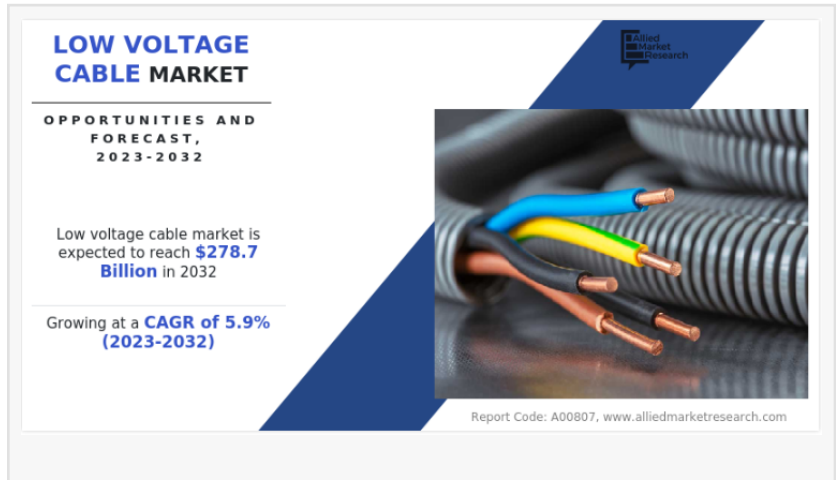
Global low voltage cable market to reach \$278.7 Bn by 2032, driven by infrastructure upgrades, renewable energy, and rising power consumption.”

Allied Market Research

As global power consumption grows and cities embrace smart infrastructure, low voltage cables play an essential role in enabling safe, efficient, and high-capacity electrical systems.

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□ What Are Low Voltage Cables?

Low voltage cables, also referred to as structured cabling or network wiring, are used to transmit power and signals where voltage does not exceed 1 kilovolt. Their applications span:

Power transmission in residential and commercial buildings

Telecommunications & data networks

Security & surveillance systems

Renewable energy installations (e.g., solar PV)

Audio-visual and HVAC systems

Due to their versatility and safety, they are crucial in supporting digitalization and electrification across sectors.

□ Market Drivers

□□ 1. Infrastructure Growth & Urbanization

As urban populations increase, the need for reliable electricity distribution intensifies. Low voltage cables are embedded in nearly every new construction—whether it's a housing complex, office tower, or shopping mall.

□□ 2. Surge in Renewable Energy Adoption

The renewable energy sector, especially solar PV systems, is one of the fastest-growing end uses for low voltage cables. These cables are vital in connecting solar panels to inverters, and in distributing energy across [battery storage systems](#) and grids.

□ 3. Smart Cities and Electrification Trends

Global transitions toward smart cities, electric vehicles, and IoT-enabled infrastructure are boosting demand for intelligent and efficient power cables.

□ Market Segmentation Insights

□ By Installation Type: Underground Leads

The underground segment dominates the market and is growing at a CAGR of 5.9%. These installations offer aesthetic, safety, and weatherproof advantages, particularly in urban and high-density areas. Materials like PE and PVC are commonly used for insulation to prevent moisture and physical damage.

□□ By End Use: Renewable Energy at the Forefront

The renewable energy segment accounts for the largest market share, contributing around 40%

of global revenue. From solar power to wind farms, low voltage cables are critical to clean energy infrastructure.

In solar PV, they connect the modules, inverters, and batteries.

In wind farms, they distribute power to substations or battery storage.

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□ By Voltage: 901 V to 1200 V Segment Dominates

Cables rated for 901V to 1200V represent over one-third of market share, growing at a CAGR of 6.2%. These are ideal for heavy-duty applications that demand high efficiency and electrical strength.

Advanced insulation materials like XLPE (cross-linked polyethylene) and EPR (ethylene propylene rubber) are preferred for these cables due to their high dielectric strength and durability.

□ By Material: Copper Stays King

Copper-based low voltage cables lead the market, driven by their superior conductivity, flexibility, and corrosion resistance. This segment is projected to grow at a CAGR of 6.0% over the forecast period. Despite higher costs than aluminum, copper cables remain preferred for mission-critical installations.

□ Regional Outlook

□ Asia-Pacific: Market Powerhouse

The Asia-Pacific region leads the global low voltage cable market and will continue to grow rapidly due to:

Massive urbanization and infrastructure expansion in China, India, and Indonesia

Strong construction growth in smart buildings, residential complexes, and industrial zones

High renewable energy investments in solar and wind power

□ Other Noteworthy Regions

North America: Infrastructure modernization and [EV charging stations](#) are key growth areas.

Europe: Focus on green building codes and smart grid technologies.

LAMEA: Growth driven by power distribution expansion in emerging economies.

□ Competitive Landscape

Key players in the global low voltage cable market include:

Prysmian S.p.A.

Nexans S.A.

Sumitomo Electric Industries, Ltd.

NKT A/S

TE Connectivity

Polycab India Ltd.

Belden Inc.

ABB

Bahra Electric

KEI Industries Limited

These firms are investing in sustainable materials, fire-retardant insulation, and smart cable systems to meet evolving industry demands.

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□ Future Outlook

As the global economy leans into sustainable infrastructure, renewable energy, and urban digital transformation, the low voltage cable market is expected to play a foundational role. With a projected valuation of \$278.7 billion by 2032, the industry presents vast opportunities in:

Green construction projects

Grid modernization

Industrial automation

Telecom and 5G rollouts

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