



● Introduction

Cold resistant cables are specifically designed to withstand extreme cold temperatures while maintaining their electrical performance and mechanical integrity. These cables are commonly used in environments where temperatures drop below freezing, such as cold storage facilities, outdoor installations in polar regions, and refrigerated warehouses. They are engineered with materials that can withstand low temperatures without becoming brittle or losing their flexibility, ensuring reliable operation even in harsh winter conditions.

● Application

Cold resistant cables find a wide range of applications in industries and environments where exposure to cold temperatures is a concern. Some common applications include:
 Cold Storage Facilities: Used for power distribution and lighting in refrigerated warehouses and cold storage units.
 Outdoor Installations: Suitable for outdoor lighting, power distribution, and communication systems in regions with cold climates.
 Polar Regions: Essential for infrastructure development and operations in polar regions, including power generation, telecommunications, and industrial facilities.
 Refrigeration Units: Used for connecting motors, compressors, and other equipment in refrigeration units and cold chambers.
 Cold Climate Construction: Employed in construction projects in cold climates for temporary power supply and heating systems.

● Advantages

Flexibility: Cold resistant cables maintain their flexibility even at low temperatures with grade of -30°C, -40°C and -50°C.
 Durability: Engineered with materials that resist brittleness and cracking in cold conditions, ensuring long-term reliability and mechanical integrity.
 Electrical Performance: Designed to maintain electrical conductivity and insulation properties at low temperatures, preventing voltage drop and electrical faults.
 Weather Resistance: The outer sheath of cold resistant cables provides protection against moisture, snow, and ice, making them suitable for outdoor use in cold climates.
 Safety: Manufactured according to international standards, cold resistant cables undergo rigorous testing to ensure compliance with safety regulations, reducing the risk of electrical hazards in cold environments.

● Construction

Conductor:
 Material: copper or aluminum, chosen for its excellent electrical conductivity.
 Stranding: Fine or extra-fine stranding to enhance flexibility and resistance to bending fatigue.
 Insulation: XLPE (Cross-Linked Polyethylene).
 Sheath: PVC (Polyvinyl Chloride)

● Construction

Armor (if applicable):
 In some cases, cold resistant cables may be armored with steel wire or tape to provide additional mechanical protection, particularly for outdoor or industrial applications.
 Additional Features:
 Fillers: Fillers or bedding materials may be included to enhance cable roundness and mechanical stability.
 Tapes: Semi-conductive or insulating tapes may be applied to the conductor or insulation layers to improve electrical performance.

● Specification

-IEC 60092-360: Electrical Installations in Ships, Part 360: Insulating and Sheathing Materials for Shipboard and Offshore Units, Power, Control, and Instrumentation Cables.
 -IEC 60227: Polyvinyl Chloride Insulated Cables of Rated Voltages up to and Including 450/750 V.
 -IEC 60245: Rubber Insulated Cables, Rated Voltages Up to and Including 450/750 V.
 *** This is customized product and can be designed according to customers' request.

● Eastful Cable Lab



We have CNAS Accredited Facility to assure conformity assessment services with a focus on quality, expertise, and customer satisfaction. CNAS has international mutual recognition among IAF, ILAC, APLAC and PAC.

● Accreditation

We meet the requirements of ISO9001, ISO14001, ISO45001 and ISO50001 and our cables have certificate of CCC, RoHS, CASC, UL, cUL, TÜV Rhineland and CCS.



● National Green Factory



Our facility has been awarded of National Green Factory by Ministry of Industry and Information Technology of China. We are committed to the development of high-end, intelligent and green manufacturing industry.

*The overall energy consumption level of green factories is better than the energy efficiency benchmark level.

● Technical Parameters

Temperature Grade	Rated Voltage	No. of Wires	Nominal Cross Section Area	Remarks
	kV		mm ²	
Below -30°C Below -40°C Below -50°C	0.6/1	1	1.5~630	Optional with Flame-retardant properties
	1.8/3	3		
		3+1		
		3+2		
		4+1		
		5		
	6/6	1	10~630	Optional with Flame-retardant properties
	6/10			
	8.7/10			
	8.7/15			
26/35	3			
0.45/0.75	2~61	0.75~10	Optional with Flame-retardant properties	
0.45/0.75	4~61	0.75~10	Optional with Flame-retardant properties	
0.45/0.75	4~61	0.75~10	Optional with Flame-retardant properties	