

THE GLOBAL LEADING MANUFACTURER OF CABLE ACCESSORIES SINCE 1958



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Introduction

60 years sustainable innovation

Brief Introduction

Development History

Industry Status

Company Profile



Changlan Electric Technology Co., Ltd, which was established in 1958, witnessed and participated in the high-speed development of China in the past 60 years. Based on advanced technology, high quality products and reliable services, Changlan contributed to the construction of numerous major national projects, power transmission projects and railway transportation projects in China.

Adhering to the ideal of contributing to motherland by setting up great enterprises,we dedicated to the localization of Chine cable accessories. With 60 years of continuous innovation on cable jointing technology, Changlan as a cable accessories manufacturer has developed from China leading to world top. In 2015, Xiamen \pm 320kV XLPE flexible HVDC power transmission project, with the highest voltage level and the biggest transmission capacity at that time, was put into normal operation. In this project, \pm 320kV XLPE HVDC cable accessories were supplied and installed by Changlan, which symbolized the cable jointing technology of Changlan's self-developed HV, EHV XLPE DC cable accessories reached international advanced level.











Since 1958

To stand steadily on the world stage and win the respect of the world, Chinese manufacturers must diligently strive for technology development and master core technology through independent innovation, instead of relying on imitation and copying.

> ----- Zhengyuan Yu Chairman of Changlan

> > Rubber Molding Workshop





From Excellent To Outstanding



Built the biggest

Provide cable accessory in Beijing Olympic Venue and guaranteed the power supply of Beijing Olympic Games, and awarded by the committee.

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2008

Renamed as Changlan Electric Technology Co.,Ltd.

2011

Self-developed ± 320kV XLPE DC cable accessories was put into normal operation in Xiamen ± 320kV XLPE flexible HVDC power transmission project, which was with the highest voltage level and the biggest transmission capacity at that time.

2015

In Zhuhai power repair project, Changlan replaced 186 sets of 220kV cable accessories in 14 days with onetime-passed delivery test that created a miracle in cable accessories installation history.

2016

Listed on SME Shenzhen. Stock code:002879.

2017





From Domestic Front-runner to Global Leader









Since 1996, the 110kV, 220kV, 500kV and ±320kV series of cable accessories based on our core technology have been successfully developed and put into operation successively. The smooth operations in China national projects meant our technology reached international advanced level. As the first Chinese cable accessories manufacturer who broke foreign monopoly and realized localization, Changlan helped to save large cost for Chinese power construction and escorted national energy security.



220kV Composite Termination at Yunnan Malutang Project





ond Phase of The Beijing-Tibet Railway 110kV Power Distribution Proje











Participated in The Formulation of

National and Industrial Standards

Patents

Vational-Leve or Provincialevel New Products

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Production & Innovation

Responsibility drives us forward

Core Products

Research & Development Smart Manufacturing

Global Business



1~500kV Cable Termination

66-500kV Porcelain Outdoor



Plug-in Termination

C 长缆科技 Changlan

Changlan is a cable accessories manufacturer with complete series of products. Products range from 1kV to 500kV DC AC cable accessories and matching products.

EHV and HV Cabl Accessory porcelain termination, composite termination, assembly type GIS termination, plug-in type GIS termination, premolded termination, insulation joint and straight joint, branch joint and plug-in type joint etc.





HV and EHV Joint

HV and EHV Branch Joint

DC±525kV Porcelain Outdoor Termination

MV and LV pre-molded indoor and outdoor termination, cold shrink indoor and outdoor termination, cold shrink cable joint, branch joint, MV and LV heat shrink indoor and outdoor termination, heat shrink cable joint, branch joint, protective sleeve etc., terminations and joints for electrified railway, cable accessories for special cable.

10-35kV



Main Body of Cold Shrink



Core Products





Side Pressure Monitoring System



Intelligent Cross Link Box



Intelligent Outdoor Termination with Oil Leve monitoring





Intelligent product Acknowledging the operation status of cable line through real time monitoring cable grounding circulation, induced voltage, termination oil level etc; Alarming for abnormal monitored parameters; Alarming for box opening, vibrating, inclining, smoking etc and photographing; Helping maintenance personnel to timely find the cable failure area, illegal cutting, destruction etc. and ensuring the safe and stable power cable supply.



cable branch box, ring main unit, fuse cabinet, outdoor ring main unit and other LV, HV switchgear equipments.

Cable Laying Tools cable hauling machine, cable stands, cable tractor, cable roller, mechanical crimping tools, electric hydraulic crimping tools



CLDFW1-12 Outdoor HV AC branch box



CLDFW1-40.5 Outdoor HVAC Branch box



Cable Roller



Cable Calibration Machine



CLDFW15-12 T630-20 Outdoor RMU



CLDFW15-40.5 T630-20 Outdoor RMU





Cable Hauling Machine



Design













Improving Core Technology Of Chinese Cable Accessory To World Top Level

Manufacture

Changlan Technology R&D center is the first system, ZL-1200(±1200kV 20mA) DC test power supply lab,10kV~35kV MV and LV testing lab, electrical room, micro-test room, physical and chemical China. laboratory, chemical research laboratory, chemical analysis room, measurement room. The R&D center is equipped with hundreds of testing devices, such as American MSR800-4800 completed testing equipment for power frequency series resonance

comprehensive testing and researching center of device, Swiss Haefely CTTS600-130 cable testing terminal cable accessories in China. It is a combination for HV system, XZL-1800/2×300 completed testing equipment testing, material performance testing, nondestructive for power frequency series resonance system, CDYexamination, chemical analysis and process 2800kV/280kJ impulse voltage generator, CDYHperformance testing. There are 500kV EHV testing 2400kV/240kJ impulse voltage generator, XYG-22507/3X lab,220kV HV testing lab,66~138kV HV testing X-ray real-time imaging detection equipment etc. Up to 500kV DC AC cable accessories tests can be done here. performance laboratory, mechanical laboratory, Changlan is one of few factories which has the ability to environmental laboratory, non-destructive testing accomplish type test for up to 500kV cable accessories in

Material

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Core Technology

Cable Accessory Design Technology



Mold Design And Manufacturing Technology

Epoxy Resin Toughening Technology And Vacuum Forming Technology



Rubber Injection And Molding Technology



Installation Service



Intelligent Online Monitoring Technology For Cable









Selected KEMA Certificates and Patents



ema₹	*	70651901-TCT 05-702188
5 P E C T I C	N REPORT	
	70951901-707 09-702168 Onsrostia Cable Accessory Co. No.223 Tongato Weet Read Changsha, China	. Lid.
minco .	Agreement 70951901-TDT 08-6	8307A
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Smart Manufacturing



Changlan promotes Automation of Production and intelligent quality management by combining intelligent industrial control and production of cable accessories. Meanwhile, involved with cloud computing, big data and Internet of Things, our products become the important components of smart grid and the Internet + because of the intelligent fault detection, real-time feedback data features.



Full-Automatic Epoxy Resin Casting System I



Full-Automatic Epoxy Resin Casting Sys**全自动环**氧树脂浇注系统 I





Warehouse





The high-quality cable jointing technology, products and services of Changlan are widely used in power plants, power grids, ransportation, construction, new energy, marine engineering and other fields. Changlan started its first business aboard bince 1970s. Currently, the market covers Middle East, South American, Africa, Southeast Asia and Europe, for more than 30

Venezuela 115kV Central



Repairing Project

0



Angola Kinaxixi proje





Beijing Olympic Project

0



Beijing Badaling Substation Proje

China State Grid



Wind Power Generation Project



India New Delhi NRRV

220kV Cable Project



Grid Upgrading Project



cation Modific

20kV Cable Project Of Bangladesh Bhol

District 225MW Combined Cycle Power

Plant





Prospection

Overview of the world

Enterprise Culture

> Strategic Planning

Development Opportunity



Corporate Culture





Corporate Tenet Customer oriented reputation first



Core Value Integrity Pragmatism Innovation Promotion





Vision

To be a world leading enterprise with independent innovation which grasps the core advanced technology and enjoys high reputation around the world.

Business Philosophy

Idea renewal Pragmatic innovation Quality orientation Steady development



Experienced After-Sales Service Team

Strategic Planning





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Military Industry

Changlan will integrate global technologies, talents and supply chain resources through capital marketization, development collectivization, market internationalization and other strategies, dedicated to developing wider cooperation opportunities in electric power, transportation, construction, new energy, marine engineering, military industry etc. While ensuring the value of customers, employees, investors, partners, and society as a whole, Changlan accelerates the localization of Chinese EHV cable accessories and comprehensively enhances product competitiveness, service competitiveness and talents competitiveness of Chinese cable accessories in the world.

Maximizing overall value of customers, employees, investors, partners, and society Accelerating the localization of Chinese EHV cable accessories and comprehensively enhancing competitiveness of product,service and talents of Chinese cable accessories in the world.





Development Opportunity





To Create World Tire-one Cable Accessory Industry Group

Since the implementation of the "the Belt and Road"strategy, the world economic globalization and regional economic integration speed up.China continues to promote cross-border cooperation with ASEAN,south Asia,Middle East, North Africa and European countries. The construction of cross-border land, sea and air transportation facilities, cross-border power supply and the cooperation in hydro-power,nuclear power, wind power solar power and other clear, renewable energy brought unprecedented opportunities for Chinese cable accessory industry. Changlan, as a domestic leading manufacture of cable accessories,will participate in the implementation of power construction in the "the Belt and Road" strategy.

To keep up with the national strategy and seize the opportunity for development, Changlan put forward a new strategic concept: on one hand, we will keep the top status in domestic market by some measures. First, Changlan involves new technology and new materials to promote high voltage and extra-high voltage cable accessories. Second, we are exploring other emerging areas including Electric Power Automation Equipment and new energy. Third, domestic marketing outlets will be expand into 150 cities, boosting our market share. On the other hand, we committed to be the world tire-one cable accessories manufacturer by expanding global market , such as Europe, Middle East, Southeast Asia. Meanwhile, we plan to build win-win partnership with other well-known international enterprises by equity acquisitions, asset acquisitions, joint ventures and other cooperation modes. Our goal is to extend Changlan into a tire-one cable accessories group integrating cable accessories manufacture, new materials R&D and production, turn-key solution delivery and industry investment.

Capital Marketization

Development Collectivization

Market Internationalization 60 years of concentration leads to today's Changlan. In the future, Changlan will stick to the enterprise mission of "Connect global cable, Light every family", practicing cooperate value of concentration, profession and moving forward in the tide of the global

