



## TaiKai Switchgear

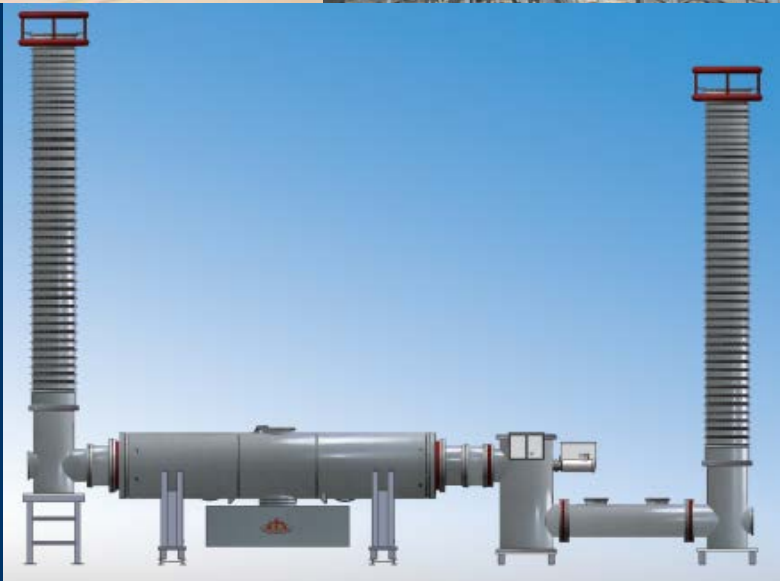


**“Without getting to top of  
Mt. Tai, can't see the world”  
the Confucius, 450 B.C.**

**April 2024**

**[www.taikai-usa.com](http://www.taikai-usa.com)**

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# Quick Facts

- Taikai Switchgear is part of TaiKai Group
- Founded in 1980 as municipal owned and privatized in 2002
- **Privately owned by employees**
- No. of employees: ,300+ of 13,300 TaiKai Group
- Revenue in 2022: US\$ 530 M of 3 Billions
- Average order production time: < 6 Months (ARO)
- GIS units delivered by 2023: **38,000+ Bays**
- CB Units delivered by 2023: **26,600 pieces**
- The Capacity: up to 1100kV GIS , 800KV CB, +-1100KV DC switches

# TaiKai - Breaker from Mt. Tai

TaiKai: Breaker( **Kai** Guan in CN) from Mt. **Tai**

Mt. Tai, also called Tai-Shan

The historic & religious mountain

UNESCO World Heritage Site

The Confucius Sayings

The No. 1 Mountain in China Culture



## Top 5 China HV Switchgear Manufacturers

Based on the **2014 China Electrical Equipment Industry Yearbook** published 2015.02

	Manufacturer	Sales
1	TaiKai	US\$1.14 Billions
2	XD Group	US\$1.12 billions
3	Pinggao Switchgear	US\$1.11 billions
4	XuJi Group	US\$774 Millions
5	Henan ShenYuan	US\$626 Millions



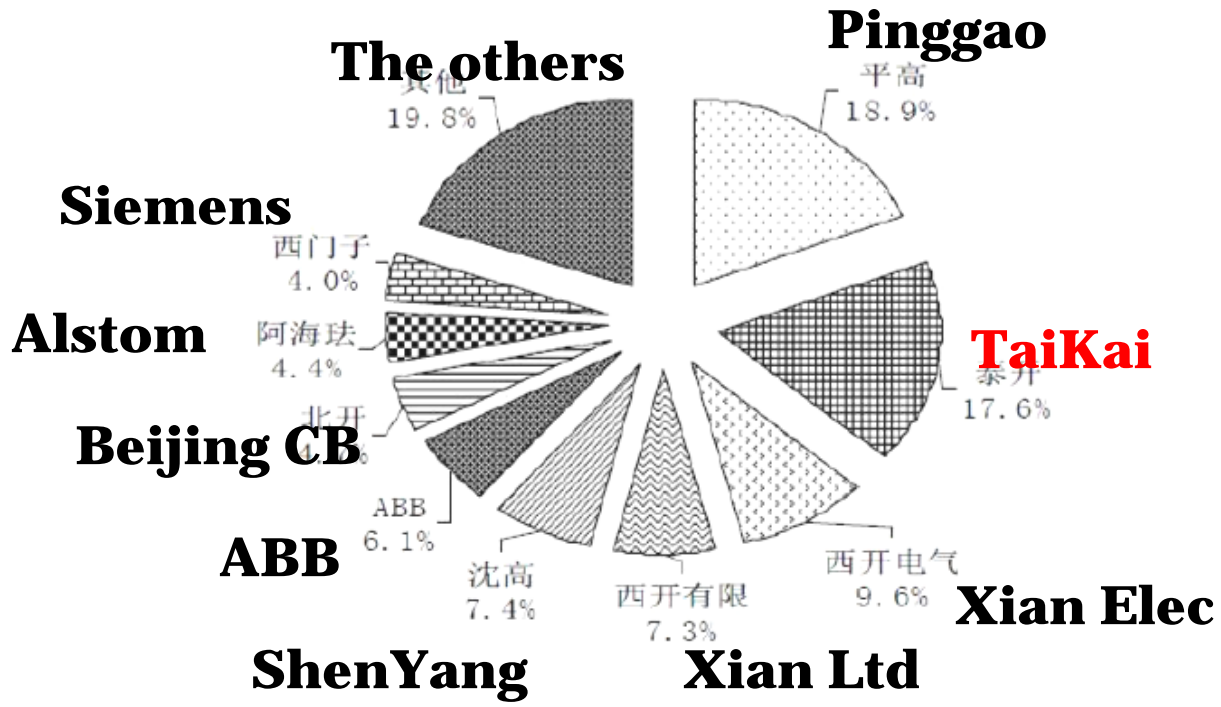
表5 2013年高压开关产值前5位企业

序号	企业名称	高压开关产值 (亿元)
1	泰开电气集团有限公司	73.95
2	西安西电开关电气有限公司	72.92
3	平高集团有限公司	72.65
4	许继集团有限公司	50.36
5	河南森源集团有限公司	40.71





# Market Position – 2011 sales to SGCC



Published by Pinggao initial stock issuing report

# Product Line

- GIS up to 1100KV
- Circuit Breakers up to 800KV
- Compact GIS up to 145KV
- Vacuum Breaker up to 40.5KV
- Disconnectors up to 1100KV
- MetalClad Switchgear
- Power Capacitors, STATCOM



# Gas Insulated Switchgear – ZF16 & ZF10



**ZF16-1100**



**ZF16-800**



**ZF16-550**



**ZF16-252**

Product Name	Unit	Annual output	Lead Time (month)	Qty in Service
126/72.5kV	Bay	2,500	2	21,117
252kV	Bay	1,300	2	10,821
330kV	Bay	500	2	166
420kV	Bay	360	3	30
550kV	Bay	360	3	917
800kV	Bay	120	3	1
1100kV	Design & type test completed			



**ZF10-145**



**ZF10-126**

Note: ZF16 and ZF10 are approved & registered model numbers per China standard JB/T 8754



# Hybrid GIS ZHW - Compact & modular design



**ZF16-550 HGIS**



**ZF16-252 HGIS**



**ZHW-72.5**



**ZHW-126**



# Circuit Breakers – LW30 & TKD

- Dead Tank CB up to 800KV



**800KV**



**550KV**



**362KV**



**262KV to**



**72.5KV**



- Live Bank CB up to 550KV
- LW30 series per IEC/GB
- TKDT series per ANSI/IEEE

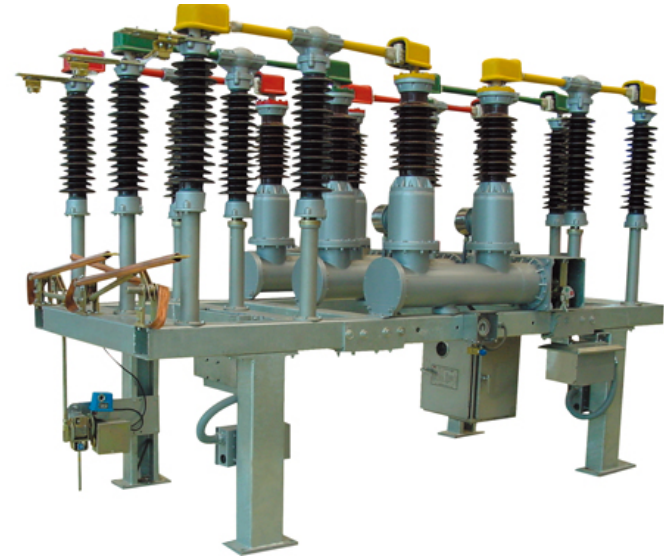


# Compact GIS – ZCW Series Patented

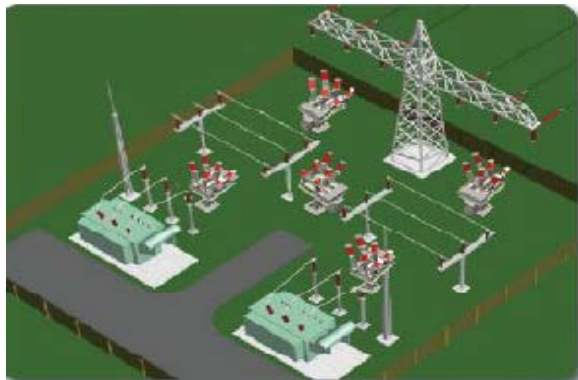
## Hybrid Compact Switchgear Assembly



- ZCW -72.5/126 KV



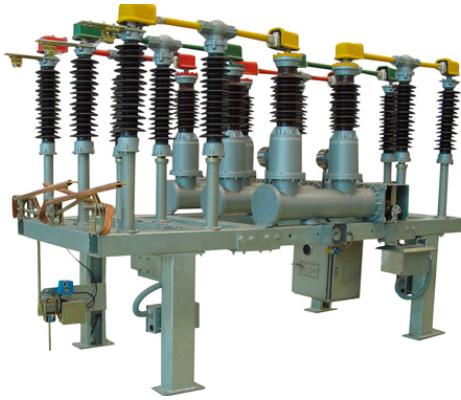
- ZCW 10 – 40.5KV



- 2000+ installations worldwide !



# Product Line: 34.5KV Wind App



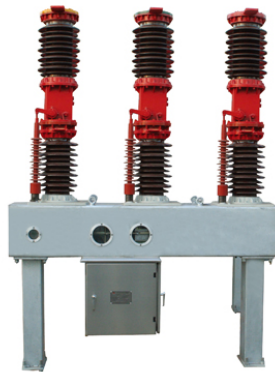
**SF6 ZCW10-40.5G**  
**(Hybrid Compact Switchgear Assembly)**



**ZCW10-40.5H**  
**/ZHW10-40.5**



**TKDV-38 Vacuum**



**Vacuum ZW17- 40.5**



**SF6 LW8-35KV**



# Mobile Substations with Compact GIS



- HV GIS:

ZF10 /  
ZCW10/  
ZHW10

up to  
220KV

- LV:

XGN



- 110KV/10.5KV 20MVA, 40KA



- 69KV/13.8KV 20MVA, 40KA

# Metal Clad Switchgears

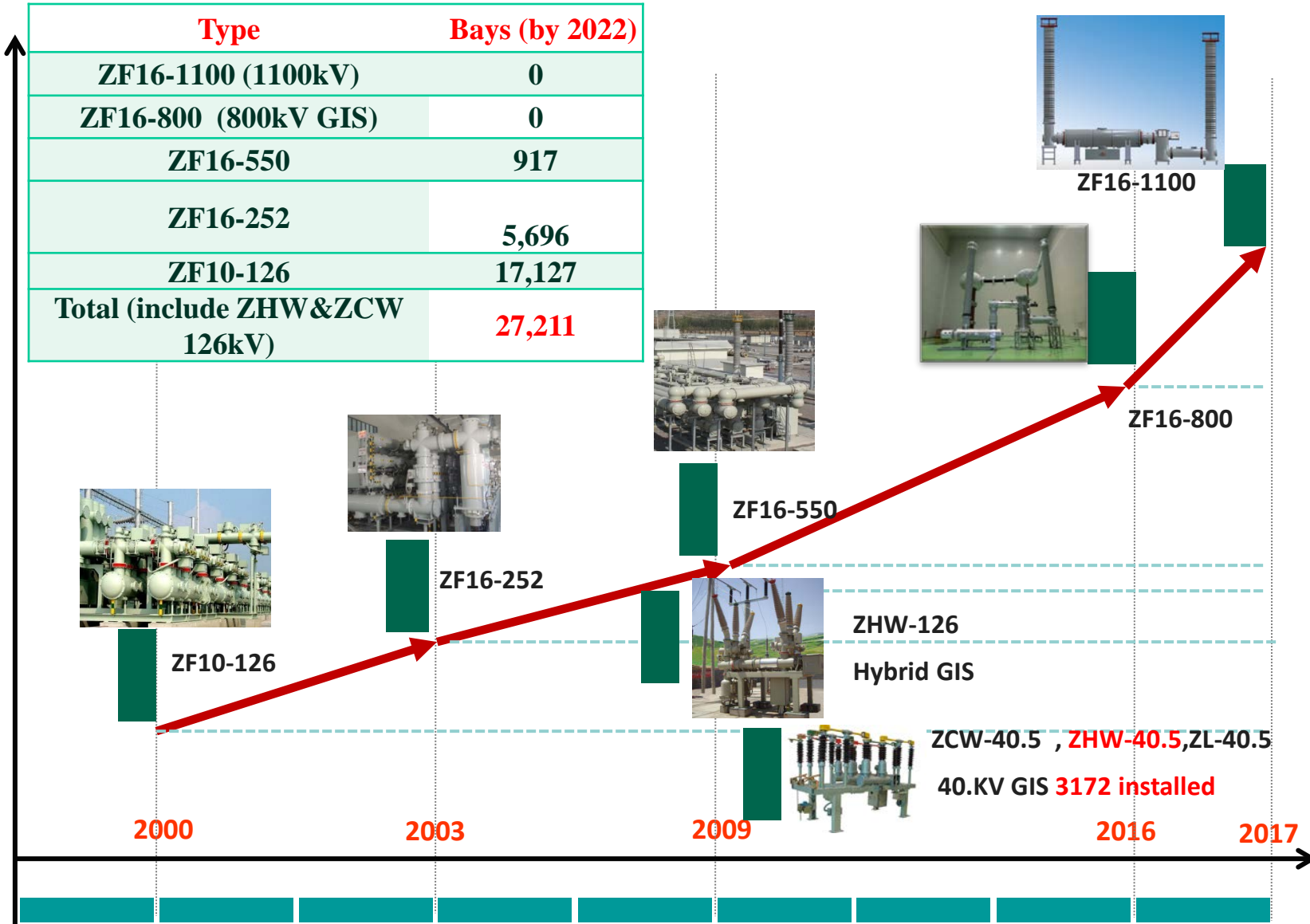
- KYN Series – Vacuum/SF6
- SF6 XGN Series



- Certified for marine & nuclear applications
- 16,400 units Capacity ( 132,000 m<sup>2</sup> shop )

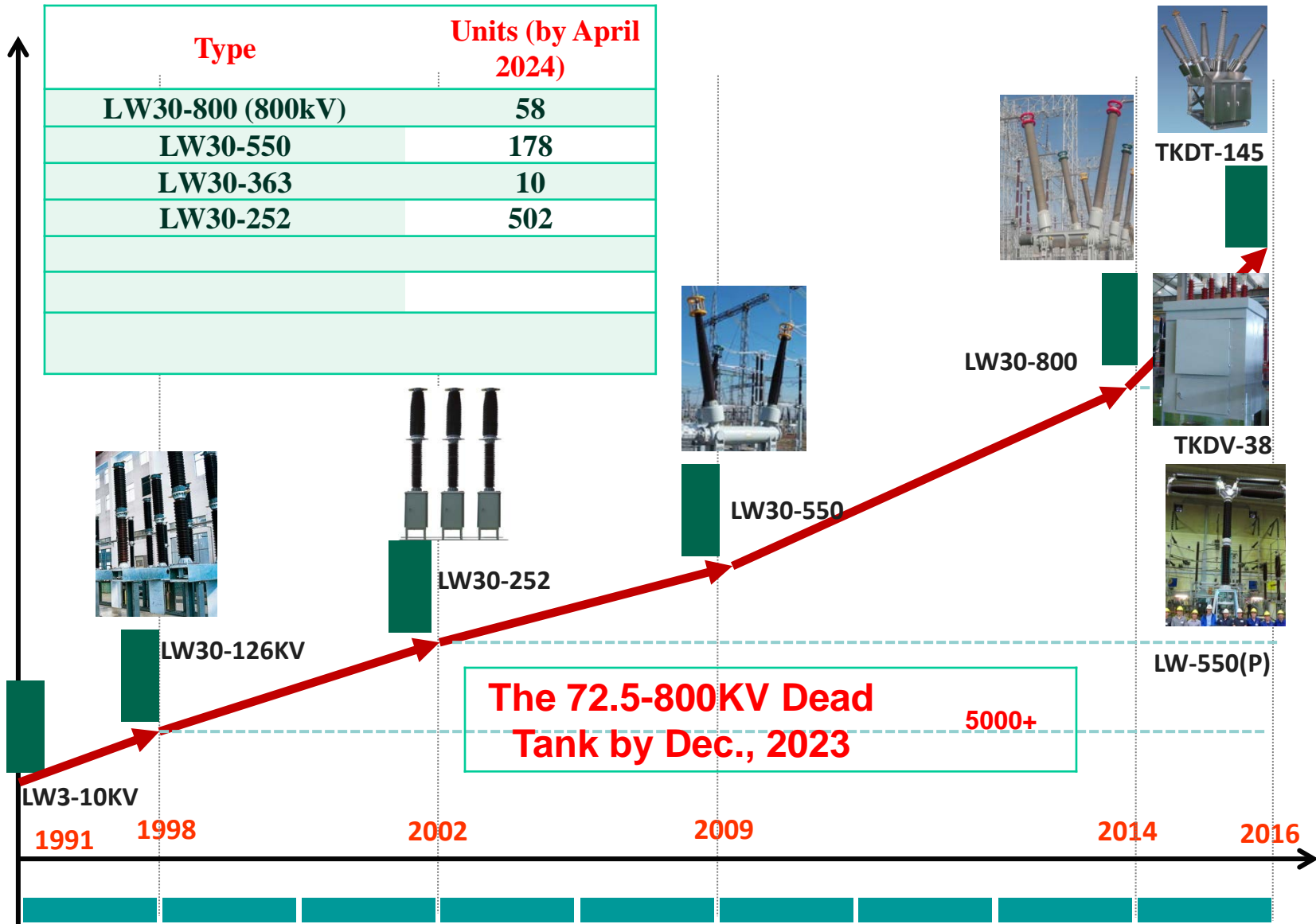
# TaiKai GIS History: ZF10, ZF16, etc

Type	Bays (by 2022)
ZF16-1100 (1100kV)	0
ZF16-800 (800kV GIS)	0
ZF16-550	917
ZF16-252	5,696
ZF10-126	17,127
<b>Total (include ZHW&amp;ZCW 126kV)</b>	<b>27,211</b>





# TaiKai CB History: LW30, etc



# Disconnecter/Blades for AC & DC

GW7F series at 750KV, 1000KV substation



750KV



1000KV

ZGW series for HVDC up to 1100KV HVDC



500KV HVDC



800KV HVDC



1100KV HVDC





# Taikai Main Campus

- 280 Acres ( 1,367 yard x 1,000 yards)





# Taikai HV Switchgear Campus



# The State-of-the-Art Facility

- 126KV GIS: 350 bays per Month plus
- 252KV GIS: 150 bays per month Plus
- 550KV GIS: 30 bays per month





# Testing Hall

- 3600 KV, 360 KJ Impulse Generator





## Maintain excellent QA record with growth

ISO9001-2018



ISO14001-2015

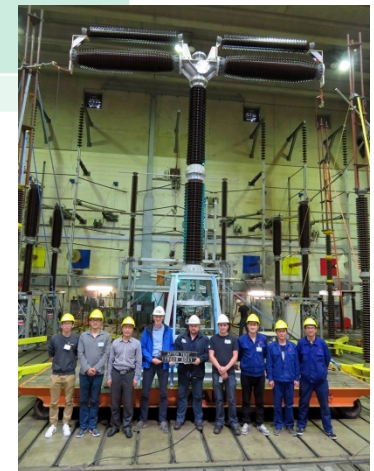


OHSAS18001-2015



Type Testing at the KEMA Lab

Product Type	Product	Year	note
GIS	ZF16 363KV , 5000A, 50KA.	2016	passed
GIS	ZF16 252KV , 4000A, 50KA.	2011	passed
GIS	ZF16 145KV , 3150A, 40KA. Breaker	2009	Passed
GIS	ZF16 145KV , 3150A, 40KA.	2014	passed
Dead Tank CB	LW30( TKD) - 550KV ,5000A, 50KA	2014	passed
Dead Tank CB	LW30( TDK) - 800KV ,6300A, 63KA	2015	passed
GIS	ZF16 550KV, 6300A,63KA	2016	passed
GIS	ZF 16 1100KV 8000A, 63KA	2017	Certified by XIHARI
Dead Tank CB	TKD1 - 145KV 3150A, 40KA	2017	Passed
Live Tank CB	LW30 550KV 63KA	2017	Passed



# Come & Visit – Tai’An City, ShanDong

- 2 Hr Train from Beijing
- 3:30 Train from Shanghai

**At top of Mt. Tai,  
you see the world**





## OPEN TO THE WORLD



<https://www.youtube.com/watch?v=E2rYMVjKl9U>

## We Really Appreciate Your Time



Something Built in China Long Time Ago Still Stands

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