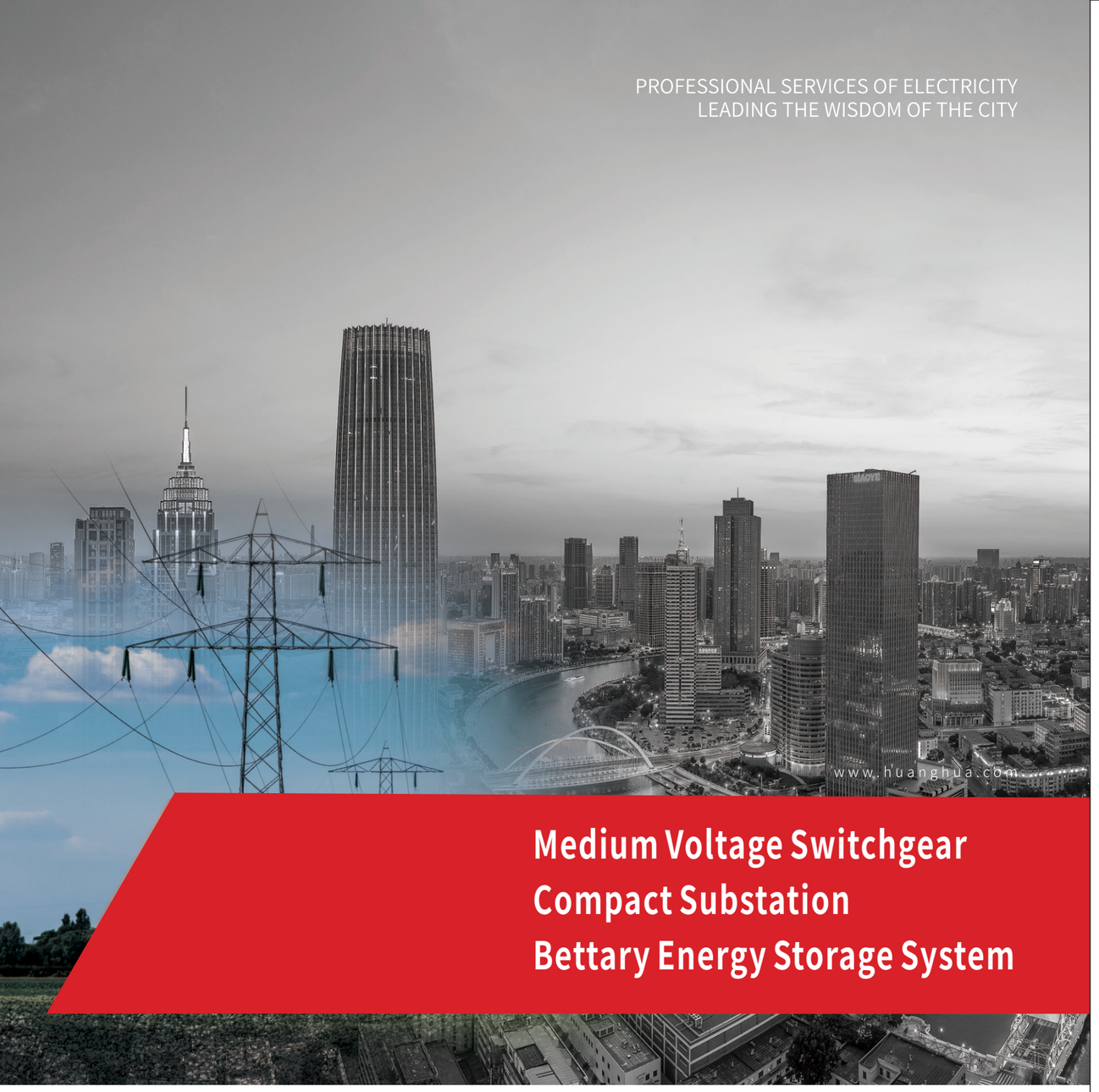


Medium Voltage Switchgear
Compact Substation
Bettary Energy Storage System

Huanghua Group
Since 1980

CNHK

Huanghua Group Co.,Ltd

Company Address:

2, 6, 8, Huashan North Road, Liushi Town, Yueqing City, Wenzhou City, Zhejiang Province. P.R.China.

http://www.huanghua.com

Email:wm@huanghua.com

Tel: + 86 15757780357

CNHK
沈特变 SHSTB CBC

THE SUN RISE
THE ORIENT AND SHINES CNHK

Huanghua Group Co., Ltd.,(abbreviated as CNHK) founded in 1980, is a international high-tech enterprise and a joint designated production enterprise of the Ministry of Energy in China. For over 40 years,We have always been committed to providing users with cost-effective complete sets of switch equipment and automation solutions for Power transmission, Power transformation and Power distribution systems according to different needs.

CNHK was successively identified as a grid connected enterprise by the State Economic and Trade Commission,and is an excellent supplier of State Grid Corporation of China. For along time, the company has established close partnerships with power companies in various countries. The "CNHK" brand's complete sets of switchgear, transformer, substation in Globle market.









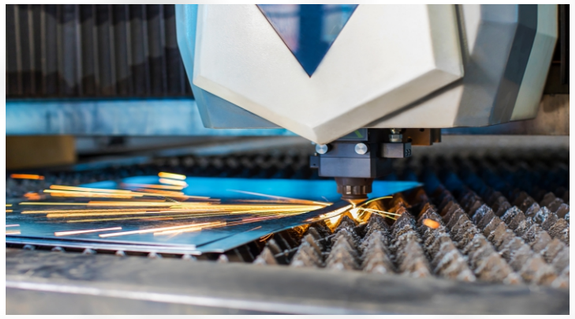
Since



CNHK









ISO9001 Quality Management System Certificate



QUALITY MANAGEMENT SYSTEM CERTIFICATE

Certificate No. 00123Q34911R5M/3302

We hereby certify that

Huanghua Group Co., Ltd.

Business Registration Number: 91330283145553460F

Registered Address: No. 2, 6, and 8, Huashan North Road ,Liushi Town, Yueqing City, Wenzhou City, Zhejiang Province, China

Operating Address:

Address①: No. 2, 6, and 8, Huashan North Road ,Liushi Town, Yueqing City, Wenzhou City, Zhejiang Province, China

Address②: Leyixia Village, Liushi Town, Yueqing City, Wenzhou City, Zhejiang Province, China (within Shenjiang Valve Company)

by reason of its

Quality Management System

has been awarded this certificate for compliance with the standard

ISO 9001:2015

The Quality Management System Applies in the following area:

Design, Production Management Activies of 40.5kV and Below High Switch Appliance(Including High-Voltage Prefabricated Substationand Land Matching Electrical Elements, Outdoor Communication Cabinet, Design, Production and After-sales Service of Low-voltage Switchgear Within the Scope of Qualification, Design and After-sales Service of Power Transformer Products (Operation Address ①)Production of Power Transformer Products (Operating Address ②)

Certified since: November 10, 2008 Valid from: July 3, 2023 Valid until: July 24, 2026

After a surveillance cycle, the certificate is valid only when used together with an Acceptance Notice of Surveillance Audit issued by CQC. Please access www.cqc.com.cn for checking validity of the certificate.

This certificate and its relevant information can query in the website of Certification and Accreditation Administration of the People's Republic of China (www.cnca.gov.cn).

CHINA QUALITY CERTIFICATION CENTRE

Section 9, No.188, Nanshiluon(the South Fourth Ring Road) Xilu(West Road), Beijing 100070, China

http://www.cqc.com.cn

A 0044756 2022年版



ENVIRONMENTAL MANAGEMENT SYSTEM CERTIFICATE

Certificate No. 00121E32568R5M/3302

We hereby certify that

Huanghua Group Co., Ltd.

Business Registration Number: 91330283145553460F

No. 2, 6, and 8, Huashan North Road ,Liushi Town, Yueqing City, Wenzhou City, Zhejiang Province, China

by reason of its

Environmental Management System

has been awarded this certificate for compliance with the standard

ISO 14001:2015

The Environmental Management System Applies in the following area:

Design, Production of 40.5kV and Below High Switch Appliance(Including High-Voltage Prefabricated Substationand) and Matching Electrical Elements, Outdoor Communication Cabinet, Low-voltage Switchgear Sets Within the Qualification Scope and Related Management Activities

Certified since: August 9, 2006 Valid from: July 3, 2023 Valid until: July 9, 2024

After a surveillance cycle, the certificate is valid only when used together with an Acceptance Notice of Surveillance Audit issued by CQC. Please access www.cqc.com.cn for checking validity of the certificate.

This certificate and its relevant information can query in the website of Certification and Accreditation Administration of the People's Republic of China (www.cnca.gov.cn).

CHINA QUALITY CERTIFICATION CENTRE

Section 9, No.188, Nanshiluon(the South Fourth Ring Road) Xilu(West Road), Beijing 100070, China

http://www.cqc.com.cn



OCCUPATIONAL HEALTH AND SAFETY MANAGEMENT SYSTEM CERTIFICATE

Certificate No. 00123S31965R3M/3302

We hereby certify that

Huanghua Group Co., Ltd.

Business Registration Number: 91330283145553460F

No. 2, 6, and 8, Huashan North Road, Liushi Town, Yueqing City, Wenzhou City, Zhejiang Province, China

has been awarded this certificate for compliance with the standard

ISO 45001:2018

The Occupational Health and Safety Management applies in the following area:

Design, Production of 40.5kV and Below High Switch Appliance(Including High-Voltage Prefabricated Substationand) and Matching Electrical Elements, Outdoor Communication Cabinet, Low-voltage Switchgear Sets Within the Qualification Scope and Related Management Activities

Certified since: December 19, 2014 Valid from: July 3, 2023 Valid until: July 19, 2026

After a surveillance cycle, the certificate is valid only when used together with an Acceptance Notice of Surveillance Audit issued by CQC. Please access www.cqc.com.cn for checking validity of the certificate.

This certificate and its relevant information can query in the website of Certification and Accreditation Administration of the People's Republic of China (www.cnca.gov.cn).

CHINA QUALITY CERTIFICATION CENTRE

Section 9, No.188, Nanshiluon(the South Fourth Ring Road) Xilu(West Road), Beijing 100070, China

http://www.cqc.com.cn



▲ Headquarter and Plant of Switchgear: 9622m²



▲ Plant for Transformer： 7500m²

Co-operated Projects



Wenzhou Airport Project



Three Gorges Hydroelectric Power Station Project



Qinghai-Tibet Railway Project



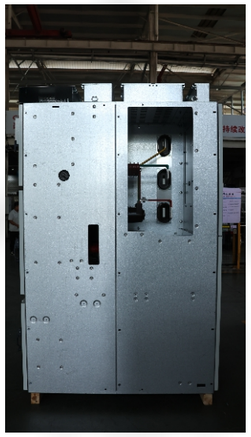
China Resources Power Yiliang ZhangGuanying 40MW Composite Photovoltaic Project

CNHK

DEVELOP INTELLIGENT ELECTRICAL PRODUCTS



Our company is a professional switchgear solutions provider. Huanghua makes all kinds of metal clad Air insulated switchgears, Gas insulated switchgears, Outdoor and indoor Solid insulated ring main units, compact substations from 3.3kV up to 40.5kV. Completely complied with IEC / BS / DV / GB / EN / CE Standard.



TYPE TESTS

Our Medium Voltage Switchgears have been conducted Type tests successfully at TUV ‘s accredited laboratory in China.



ROUTIN TESTS

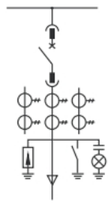
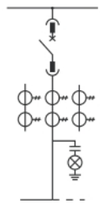
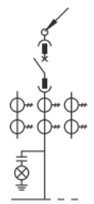
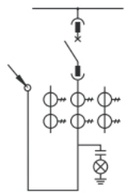
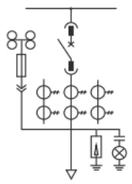
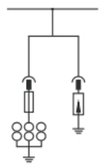
Each Medium Voltage Switchgear need be performed the routine tests according to International Electrotechnical Commission IEC62271-200. and released after pass all of the test items.



SOLUTION

We provide designation and upgradation of solutions for our clients with competitive cost Type tested Sulfur hexafluoride(SF6) Gas-insulated Switchgear



01	02	03	04	05	06
					
Receiving, Feeding	Communication	Overheaded incoming feeder	Overheaded incoming and outgoing feeder	Cable incoming feeder + PT	Voltage measurement + surge arrester

SWITCHGEAR TYPES:

Our company produce four series of MV Switchgears:

1. KYN Series: Air- insulated Switchgear
2. HRM Series: Sulfur hexafluoride(SF6) Gas- insulated Switchgear
3. HEI Series: Sulfur hexafluoride(SF6) free Gas-insulated Switchgear
4. HSI Series: Solid insulated Switchgear

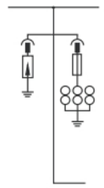
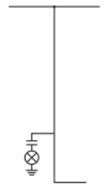
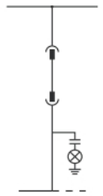
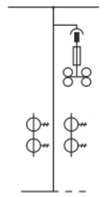
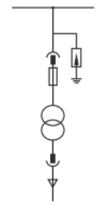
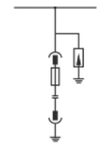






Rated voltage (U_r)	24kV
Number of phases	Three
Rated insulation level	Range I, series I
- Lightning impulse withstand voltage(U_p)	180kV (peak value)
- Power frequency withstand voltage (U_d)	94kV (RMS value)
Rated frequency (f_r)	50Hz
Rated normal current (I_r) of main circuit	630A
Rated short-time withstand current (I_k) of main circuit	20kA
Rated duration of short-circuit (t_k)	4s
Rated short-time withstand current (I_{ke}) of earthing switch	17.3kA
Rated duration of short-circuit (t_{ke}) earthing circuit	2s
Rated peak withstand current (I_p) of main circuit	50kA
Rated peak withstand current (I_{pe}) earthing circuit	43.3kA
Rated short-circuit breaking current	20kA
Degree of protection of switchgear	IP4X
Degree of protection of gas tank	IP67
Rated functional SF_6 gas pressure	0.03-0.05MPa
Maximum functional SF_6 gas pressure for insulation	0.05MPa
Minimum functional SF_6 gas pressure for insulation	0.03MPa



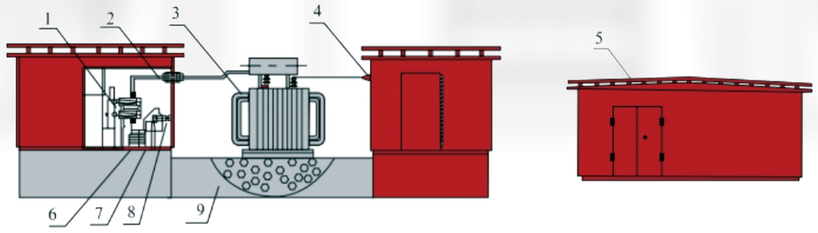
07	08	09	10	11	12
					
Voltage measurement +surge arrester+busbar	Busbar	Disconnection+ communication	Measurement + communication	Transformer	Capacitor panel

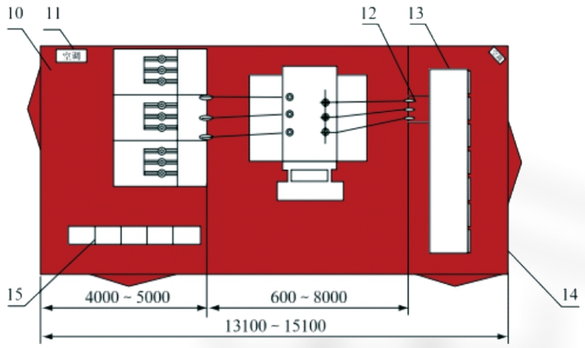
Medium Voltage Outdoor Compact Substation

CNHK

Main Features

1. Turnkey and integrated unit
2. Easy Installation only concrete base and power cable
3. Oil type and cast resin dry type transformer for option
4. Forced air condition or air ventilation for choose
5. Zinc coated basement for anti-corrosion
6. Outdoor housing made of 2mm thick zinc coated steel sheet
7. Electrical spray painting
8. Compact size for easy transportation
9. Ready for connection
10. Stable quality
11. Various solutions for choose

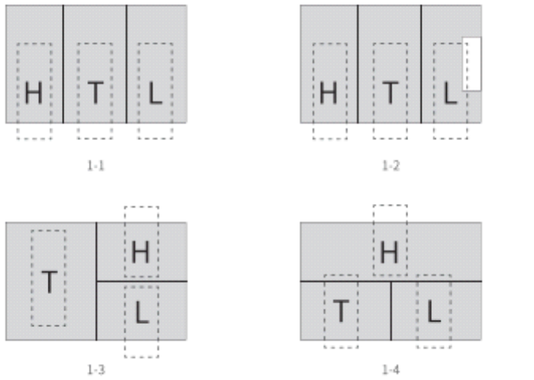




Construction :

1. Circuit breaker
2. HV wall bushing
3. Transformer
4. LV wall bushing
5. Sunshade
6. HV current transformer
7. HV cable plug-in head
8. HV support insulator
9. Compact substation foundation
10. MV compartment
11. Air conditioner
12. LV connecting panel
13. LV switchgear
14. LV Compartment
15. Relay protection panel

Layouts diagrams for compact substations



CNHK



RENEWABLE POWER

It is prefabricated and assembled in the factory as a step-up substation for SOLAR and WIND renewable energy generation. Including step-up transformers, high-voltage vacuum load switch fuse combination appliances, low-voltage switches,internal wiring (cables, busbars, etc.), and other auxiliary equipment.



POWER DISTRIBUTION

In the distribution system, it can be used for ring network distribution systems, as well as dual power or radial end distribution systems. It is a complete set of equipment currently used for the construction and selection of urban and rural substations.



CUSTOM SOLUTION

CNHK also provide a various, reliability, durability and reduced dimensions solutions for customs. Available for up to 40.5kV, 4MVA.

TÜVRheinland®



Indoor and Outdoor Battery Energy Storage System (BESS)

The energy storage system BESS designed by CNHK adopts a lithium iron energy battery, the battery is an energy storage element of the energy storage system, and its performance directly affects the stability of the system.The lithium iron phosphate battery (LFP) used in this energy storage system has the characteristics of high specific energy, longer cycle life, larger charge and discharge magnification, safety and pollution-free and others,It has been widely used in wind power generation, photovoltaic power field, peak cut, frequency modulation, peak modulation, emergency backup power supply and other applications.





- Good Heat Dissipation
- Highly Integrated
- Effective Cost
- Intelligent

- IP54 Can be used outdoors
- All new grade A cell LFP battery
- 6000 times circle life
- On grid/Off grid
- Real-time remote monitoring
- High class of safety with built-in EMS protection

CNHK







Model		YX-ESS215kWh 100kVA	YX-ESS232kWh 100kVA
Battery			
Type		768V280Ah	832V280Ah
Rated Energy		215.04kWh	232kWh
Working Voltage Range		672~864V	728V~936V
BMS Communication		Ethernet/RS485/CAN	Ethernet/RS485/CAN
PCS			
AC Side	AC Rated Power	100kW	
	Max Power	100kW	
	Max Current	150A	
	Rated Voltage	380V	
	Rated Frequency	50/60Hz	
DC Side	Max Input Voltage	950V	936V
	Max Current	140A	
	Battery Voltage Range	650~950V	728~936V
MPPT			
Low Voltage Side	Rated Power	100kW	
	Max Current	320A	
	MPPT Voltage Range	200~650V(320~650V Fully loaded)	
High Voltage Side	Rated Power	100kW	
	Rated Current	100A	
	Voltage Range	350 ~ 1000V	
General Parameters			
Product Dimenstion of the Cabinet		1500*2306*1539mm	1350*2050*1350mm
Ingress Protection		IP54	
Working Temperature		-20 ~ 55℃	
Cooling		Air-cooled	Iquid-cooled
Security Certification		CE/ UN38.3/ RoHS	
Net Weight		3500kg	2500kg