



Cooper Power systemCooper

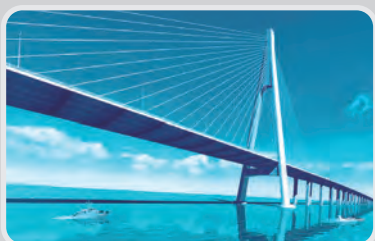
Cooper Edison™

CEG: Generator Circuit Breaker.

 **COOPER** Power Systems



Company and Division Introduction



COOPER INDUSTRIES

Cooper Industries is a diversified global cross-industry manufacturer with 180 years history. Cooper founded in 1833 and holds its headquarter in Houston, Texas. Cooper has more than 100 manufacturing facilities in 23 countries as of 2011, and employs more than 30,000 people throughout the world. The company has seven operating divisions in the areas of power, industrial equipment, full-automation equipment, electronic products, tools and hardware.

COOPER CHINA

In the beginning of 1990s, Cooper entered Chinese market by setting local manufacturers and developing its multi-faceted business. Cooper pioneer the introduction of American standard power transformer products and promoted its power transformer solutions for the reform of power network. From the very first moment of the establishment of its Asia-Pacific located in Shanghai, Cooper has been expended into regions in China like Zhejiang, Guangdong, Shanxi, Henan, and Taiwan by building many factories and employing more than 8000 persons. And offices are set up in Guangzhou, Chengdu, Hong Kong, Singapore and Philippines. Currently, the Chinese market has been the most important target in the whole world for Cooper Industries. Cooper will accelerate its pace in the development in China, serving the local market and promoting the development of the whole industry.

Cooper (Ningbo) Electric Co., Ltd

Cooper (Ningbo) Electric Co., Ltd (Cooper Ningbo) is a joint venture of Cooper Industries, which is situated at the side of Grand Hangzhou Bay Bridge. Cooper (Ningbo), as a joint venture of Cooper Industries, belongs to Cooper Power System. We supply the products of switchgear, vacuum circuit breaker, contactor, intelligent power solutions, high and low voltage components, and related services. We also supply the economic, effective and reliable power distribution security in the following field, domestic and international power system, transformer substations, industrial and business unit, petrochemical, metallurgical, railway, etc. And all of these are based on the Cooper global R&D and sales platform, our advanced manufacturing technology and mode, complete production line and reliable power solution.

Cooper Edison™ Generator Circuit Breaker.

Overview

Overview

CEG, Vacuum circuit breaker special for Generator switching, is a new-generation dedicated medium voltage switch equipment developed by Thomas Edison R&D Center of Cooper. It can be widely used in thermal power plants, hydropower plant, biological power plant and other applications.

There is special characteristics of generator circuit, special requirements are detail described in IEEE/GB/IEC standards, CEG has passed type test in authorized test laboratory according to GB14824 and ANSI C37.013 requirements.



Feature

Long-times life cycles

Embedded insulation technology and Modular spring mechanism are applied in CEG, key components, such as Main shaft, spring, damper, are purchased from the worldwide, mechanical life time of CEG is 10,000times.

Strong breaking capability.

8cycles at rated short circuit current, 50cycles at rated load, DC components 82%, Rated peak withstand current up to 140kA.

Easy maintenance

Both withdrawable and fix trolley design, fit with typical switchgears in the market, Easily maintenance for customers and operators.

High reliability

CEG has passed the full type test according to the special IEEE/GB standards for Generator switching, guarantee the safety for end users.



Edison™ Series CEG product design standard

Standards and specification

- IEEE Std C37. 013-1997 IEEE Standard for AC High-Voltage Generator Circuit Breakers Rated on a Symmetrical current basis
- GB/T 14824-2008 High voltage generator circuit breaker
- DL/T 427-1991 Indoor generator circuit breaker order technical specification



Type test

- CEG has passed full type test in authority test lab.

Environment management system

- CEG generator breaker strictly meets the requirement of ISO14001:2004 environment management system, and certificated by 3rd authority organization.
- Product manufacture procedure focus on the energy consume, raw material consume, scrap recycling to protect the environments



CEG 车间照片

Quality guarantee system

Circuit breaker Production line according to IEC standard.

- CEG generator breaker production line is an automatic line proved & designed by professional suppliers, it is the top advanced lever in the worldwide.
- Each parameter of CEG is been tested by mechanical characteristic measure equipment which are imported from Germany. In addition, fitting test is also mandarin required to ensure no problem will not happen from customers' side.



CEG 断路器耐压测试工位

Cooper Edison™ Generator Circuit Breaker.

Quality guarantee system

Each CEG has passed running in test by Automatic running-in equipment, faulty can be found and removed by the process to ensure the quality. Each CEG has passed the mandarin system test in production process, and been approved by quality department after strictly inspection, quality and the history of the products can be guaranteed and found if necessary, meet the requirement of ISO9001:2008.



CEG 断路器磨合测试工位

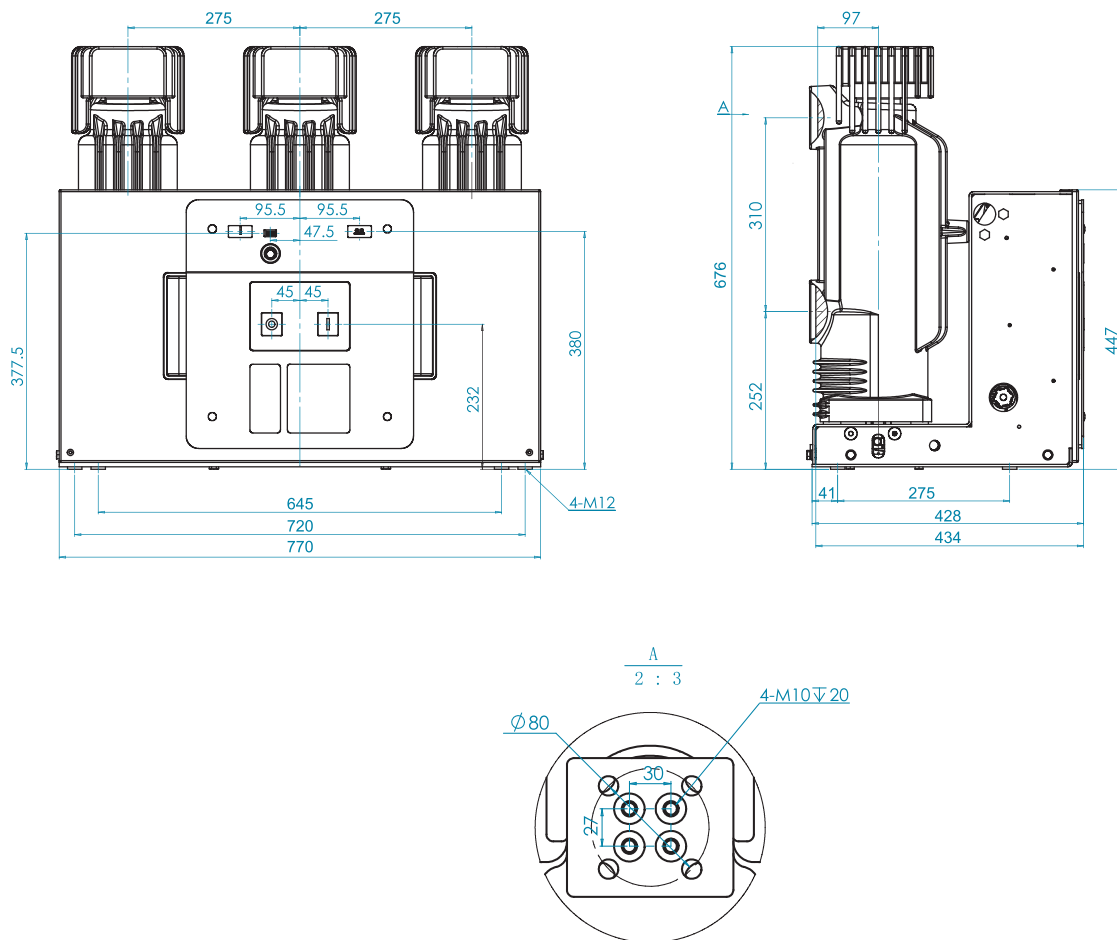


CEG 断路器机械特性测试工位

CEG Technical Parameters

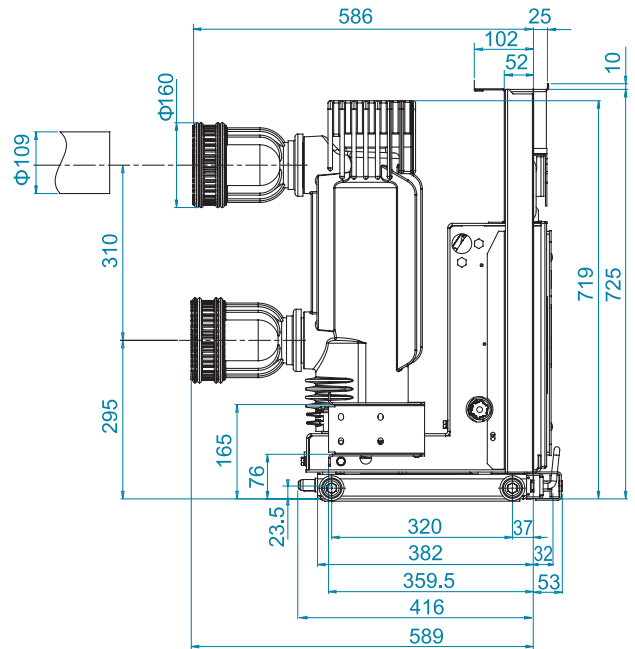
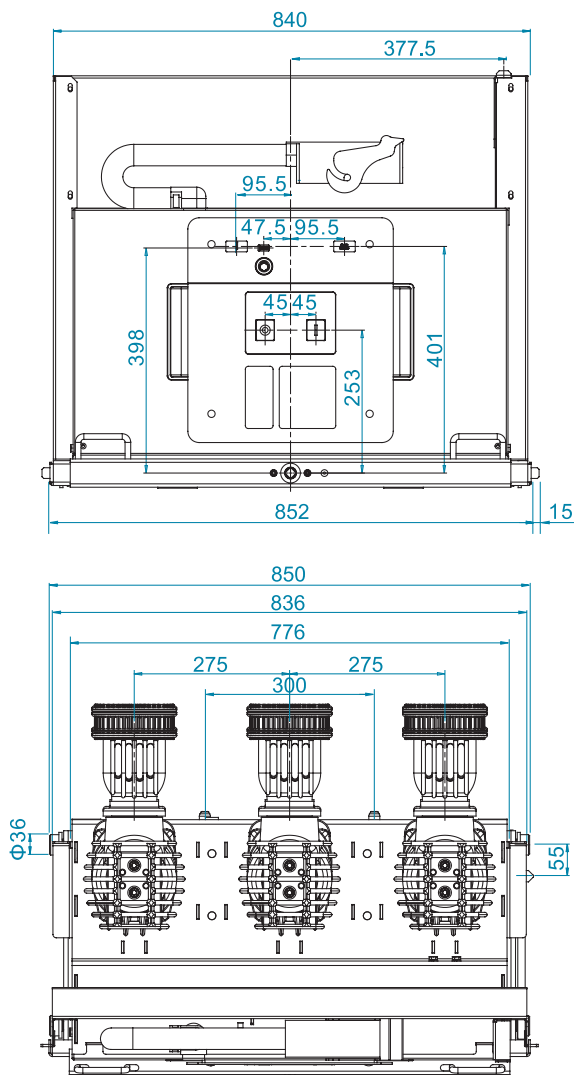
Performance Parameters		
Rated Voltage	kV	12
1min Rated Power Frequency Withstand Voltage	kV	42/50
Rated Impulse Withstand Voltage	kV	75/85
Rated Frequency	Hz	50/60
Rated Current	A	4000
Rated Short-circuit Breaking Current	kA	50
Rated Short-circuit Making Current	kA	140
Rated Short-circuit Duration Time	s	4
Percentage of D.C component	-	82%
Breaking Number of Rated Short-circuit Current	-	8
Breaking Number of Rated Load Current	-	50
Mechanical life Expectancy	Cycles	10000
Rated Operating Sequence	-	CO-30min-CO

CEG(fix) Outline dimension :



Cooper Edison™ Generator Circuit Breaker.

CEG(withdrawable) Outline dimension :



Marketing Department
Tel: 86-574-63486317
Fax: 86-574-63486919

Switchgear Sales Department
Tel: 86-574-63486388 63486825
Fax: 86-574-63486556 63486526

International Business Department
Tel: 86-574-63486511
Fax: 86-574-63486511

Circuit Breaker Sales Department
Tel: 86-574-63486702 63486905
Fax: 86-574-63486251 63486635

Cooper Power system(Shanghai) Co., Ltd.

Address: 955#, Victory Road, Zhangjiang Hi-Tech East district, Pudong, Shanghai ,201201

Tel: 86-21-28993600

Fax: 86-21-28994254

Website:[www.cooperchina .com](http://www.cooperchina.com)

COOPER CHINA

 **COOPER** Power Systems

 **COOPER** P R Crouse-Hinds

 **COOPER** Lighting

 **COOPER** -

 **COOPER** Bussmann

 **COOPER** Safety

 **COOPER** Wiring Devices

For some technical reasons, the parameters and the picture is for reference, please contact our business department for confirmation.

Cooper (Nningbo) Electric Co., Ltd.

Address: Zhejiang Cixi Development Zone, Hangzhou Wan Zone

Website://[www.cooperningbo .com](http://www.cooperningbo.com)

Tel: 86-574-63716999 63099282

Fax: 86-574-63486919