



中国船级社  
CHINA CLASSIFICATION SOCIETY

证书编号/Certificate No.  
SH23PTB00005

型式认可证书  
CERTIFICATE OF TYPE APPROVAL

兹证明本证书所述制造厂具备按照下列标准的要求生产本证书所列产品的能力和条件。

This is to certify that the manufacturer stated in the certificate meets the requirements of the standards listed below and is available with the ability and conditions to produce the products described in the certificate.

制造厂/Manufacturer

苏州英威腾电力电子有限公司  
INVT POWER ELECTRONICS (SUZHOU) CO., LTD.

地址/Address

苏州高新区科技城昆仑山路1号  
1# Kunlun Mountain Road, Science & Technology Town, Gaoxin District, Suzhou, Jiangsu, China

产品名称/Product

变频器  
Frequency Converter

附加标志/Notations

无/Nil.

认可标准/Approval Standard

- 中国船级社《钢质海船入级规范》（2023）及其变更通告 第4篇第3章  
Chapter 3, Part Four of China Classification Society Rules for Classification of Sea-Going Steel Ships 2023 and its Change Notices
- 中国船级社《钢质海船入级规范》（2023）及其变更通告 第8篇第15章  
Chapter 15, Part Eight of China Classification Society Rules for Classification of Sea-going Steel Ships 2023 and its Change Notices

用于/Intended for

船舶/Ships

证书有效期至/This Certificate is valid until 2025年03月01日/ Mar. 01, 2025

发证机构/Issued by 中国船级社上海分社  
CCS Shanghai Branch

签发日期/Date 2024年01月30日  
Jan. 30, 2024

本证书根据中国船级社规范和相关规定签发。所有证书页为一个整体，必须同时使用。纸质证书每页均须由本社盖章方为有效，电子证书含数字签名方为有效，本证书复印件无效。任何单位和个人不应摘录或节选本证书的部分内容。有关方对所持证书的真实性有疑问时，可以向本社检验机构咨询。This Certificate is issued pursuant to the Rules of the Society and related regulation. All pages of the certificate are taken as a whole and are used simultaneously. No paper certificate page is valid without bearing the stamp of the Society, no electronic certificates is valid without the digital signature, and no copied form of the certificate is regarded as valid. Any part of the certificate is not to be extracted or abridged by any unit or individual in any form. Related parties who are doubted about the authenticity of the certificate may inquire of the Society or its offices.



Form No: T01.

联系方式/Contact Us, 见本社官方网站/See official web site of the Society (<http://www.ccs.org.cn>)

UTN:P023-28011729

**产品明细/Product Description****变频器/Frequency Converter (M0001)**

名称/Name	属性(值)/Value	单位/Unit
型号/Type	详见附页 See Additional Page	
额定输入电压/Rated Input Voltage	详见附页 See Additional Page	
额定输入电流/Rated Input Current	详见附页 See Additional Page	
额定输出电压/Rated Output Voltage	详见附页 See Additional Page	
额定输出电流/Rated Output Current	详见附页 See Additional Page	
频率/Frequency	详见附页 See Additional Page	
额定输出功率/Rated Output Power	详见附页 See Additional Page	
外壳防护等级/Degree of Protection of Enclosure	IP00	
冷却方式/Cooling Method	水冷 Water-cooling	

**批准的图纸/Approved Drawings**

图纸批准号/ Drawings Approval No. : SH22PPP20714

**产品认可试验报告/ Approval Test Report**

试验报告编号/ Test Report No. : 23IAS01P08D32-33649

试验报告日期/ Test Report Date : 2024-01-25

试验单位/ Laboratory: 上海电器设备检测所有限公司 Shanghai Testing &amp; Inspection Institute for Electrical Equipment Co. Ltd.

试验单位地址/ Test Address: 上海市武宁路505号 № 505 Wuning Road, Shanghai, China

**认可后的产品检验方式/ Method of Product Inspection after Approval**

按规范认可后应进行产品检验的产品/The product should be inspected in term of the rules:

认可后的产品检验应由本社验船师根据本社规范规定按批准的产品检验计划进行检验, 经检验合格后由本社颁发船用产品证书。

After approval, product inspection should be carried out by the Surveyor of the Society in accordance with the approved product inspection scheme, and the Marine Product Certificate will be issued by the Society upon satisfactory inspection.

**认可保持条件/ Maintenance Requirements of Approval**

1. 型式认可后, 如果产品及其重要零部件的设计、所用材料或制造方法有所改变, 且影响到产品的主要特性、特征; 或产品的性能指标有所更改, 且超过认可的范围, 则有关图纸和文件应经检验机构审批。并在检验机构认为必要时, 经本社检验人员见证有关试验和进行检查, 其结果应能证实仍符合认可条件。

After type approval, if there are changes to the design, materials used or manufacturing method of the product and important components and such changes affect major characteristics and properties of the product, or property indexes of the product are changed and exceed the scope of approval, related drawings and documents are to be examined and approved by the concerned survey office. Where deemed necessary by the survey office, the surveyor to the Society will go to witness relevant tests and conduct inspection and the results should be able to demonstrate compliance with the approval conditions.

2. 工厂的质量管理体系应保持有效运行, 并且与认可时一致。如果质量管理体系发生改变, 应经原体系认证机构审核并报本社批准。

The quality management system of the factory shall be ensure effective operation, and shall be the same as the situation of approval. If there are any changes to the quality management system, auditing of the original certification organization for quality management system and the society's approval shall be obtained.

3. 认可证书有效期内, 如果出现可能导致本社取消认可的情况, 工厂应及时采取有效的纠正措施。

Within the validity of the approval certificate, if cases occur that may cause the Society to withdraw the approval, the manufacturer should take corrective actions in a prompt and effective manner.

4. 在认可证书有效期内, 本社检验人员可在未经事先通知的情况下对工厂的产品制造过程进行审核, 以验证产品的生产是否符合业经本社批准的图纸和文件。工厂应予以配合。

Within the validity of the approval certificate, the surveyor to the Society may pay unannounced audit to the manufacturing process of the product in order to confirm whether it is in compliance with the drawings and documents approved by the Society. The factory should provide an active cooperation and necessary for the surveyor.

#### **备注/Remarks**

本社已审核了产品厂无石棉声明，但本社的审核不免除产品厂按照合同关系向订货方保证产品无石棉的责任。  
The declaration of asbestos-free submitted by manufacturer has been reviewed by the Society.  
However, liability of the manufacturer to guarantee the products are asbestos-free to purchaser under contract will not be exempted.

本证书基于原型式认可证书 (No. SH22PTB00068) 变更，原证书保持有效。  
This Certificate is modified from the previous Type Approval Certificate No. SH22PTB00068, the previous certificate remains valid.

**中国船级社上海分社**  
**CCS Shanghai Branch**

注：本证书含有附页，共2页  
Note: The certificate is attached with additional 2 page(s)

## 1 产品名称/Product Name: 整流单元/Rectifier Unit

产品型号/Type: GD880-61-2000-6-LC

额定输入电压/Rated Input Voltage: AC. 500V~690V

额定输入频率/Rated Input Frequency: 47Hz~63Hz

额定输出电压/Rated Output Voltage: DC. 675V~932V

额定输出电流/Rated Output Current: 2000A

额定输出功率/Rated Output Power: 2283kW

## 2 产品名称/Product Name: 逆变单元/Inverter Unit

产品型号/Type: GD880-51-0410-6-LC

额定输入电压/Rated Input Voltage: DC. 700V~1035V

额定输出电压/Rated Output Voltage: AC. 0V~725V

额定输出频率/Rated Output Frequency: 0Hz~400Hz

额定输出电流/Rated Output Current: 410A

额定功率/Rated Power: 400kW

## 3 产品名称/Product Name: 逆变单元/Inverter Unit

产品型号/Type: GD880-51-0530-6-LC

额定输入电压/Rated Input Voltage: DC. 700V~1035V

额定输出电压/Rated Output Voltage: AC. 0V~725V

额定输出频率/Rated Output Frequency: 0Hz~400Hz

额定输出电流/Rated Output Current: 530A

额定功率/Rated Power: 500kW

## 4 产品名称/Product Name: 逆变单元/Inverter Unit

产品型号/Type: GD880-51-0600-6-LC

额定输入电压/Rated Input Voltage: DC. 700V~1035V

额定输出电压/Rated Output Voltage: AC. 0V~725V

额定输出频率/Rated Output Frequency: 0Hz~400Hz

额定输出电流/Rated Output Current: 600A

额定功率/Rated Power: 560kW

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- 5 产品名称/Product Name: 逆变单元/Inverter Unit  
产品型号/Type: GD880-51-0650-6-LC  
额定输入电压/Rated Input Voltage: DC. 700V~1035V  
额定输出电压/Rated Output Voltage: AC. 0V~725V  
额定输出频率/Rated Output Frequency: 0Hz~400Hz  
额定输出电流/Rated Output Current: 650A  
额定功率/Rated Power: 630kW
- 6 产品名称/Product Name: 变频器单元/Frequency Converter Unit  
产品型号/Type: GD880-11-0340-6-LC  
额定输入电压/Rated Input Voltage: AC. 500V~690V  
额定输入频率/Rated Input Frequency: 47Hz~63Hz  
额定输出电压/Rated Output Voltage: AC. 0V~720V  
额定输出电流/Rated Output Current: 340A  
额定输出频率/Rated Output Frequency: 0Hz~400Hz  
额定功率/Rated Power: 315kW
- 7 产品名称/Product Name: 变频器单元/Frequency Converter Unit  
产品型号/Type: GD880-11-0410-6-LC  
额定输入电压/Rated Input Voltage: AC. 500V~690V  
额定输入频率/Rated Input Frequency: 47Hz~63Hz  
额定输出电压/Rated Output Voltage: AC. 0V~720V  
额定输出电流/Rated Output Current: 410A  
额定输出频率/Rated Output Frequency: 0Hz~400Hz  
额定功率/Rated Power: 400kW
- 8 产品名称/Product Name: 变频器单元/Frequency Converter Unit  
产品型号/Type: GD880-11-0530-6-LC  
额定输入电压/Rated Input Voltage: AC. 500V~690V  
额定输入频率/Rated Input Frequency: 47Hz~63Hz  
额定输出电压/Rated Output Voltage: AC. 0V~720V  
额定输出电流/Rated Output Current: 530A  
额定输出频率/Rated Output Frequency: 0Hz~400Hz  
额定功率/Rated Power: 500kW