



中国船级社
CHINA CLASSIFICATION SOCIETY

证书编号/Certificate No.
DB20PTB00098

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

Furuno Electric Co., Ltd.

地址/Address

9-52 Ashihara-cho, Nishinomiya City, Hyogo, Japan
9-52 Ashihara-cho, Nishinomiya City, Hyogo, Japan

产品名称/Product

雷达设备
Radar Equipment

认可标准/Approval Standard

1. 中华人民共和国海事局《国内海洋渔船法定检验技术规则》2019第11篇第2章
Chapter 2, Part 11 of P.R. China MSA Technical Regulations for the Statutory Surveys of Domestic Fishing Vessel (2019)
2. IEC 60945:2002/COR1:2008《船用航行和无线电通信设备及系统-通用要求-试验方法和试验结果的要求》
IEC 60945:2002/COR1:2008 Maritime Navigation and Radiocommunication Equipment and Systems - General Requirements - Methods of Testing and Required Test Results
3. ITU-R M.1177-4建议书《测量雷达系统无用发射的方法》
Recommendation ITU-R M.1177-4 Techniques for measurement of unwanted emissions of radar systems

用于/Intended for

Domestic Fishing Vessels;
Inland-river Fishing Vessels;
Ocean Fishing Vessels: Not in compliance with IMO/SOLAS performance standards or China MSA statutory rules for ocean fishing vessels, and it's intended for the installation on board the vessels while not enforced to provide by Flag Administration.

证书有效期至/This Certificate is valid until 2024年09月02日/Sep. 02,2024

发证机构 中国船级社大阪分社
Issued by CCS Osaka Branch

签发日期 2020年09月26日
Date Sep. 26,2020

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。任何单位和个人均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:P020-99687025

产品明细/Product Description

雷达设备/Radar Equipment (M0001)

名称/Name	属性 (值) /Value	单位/Unit
型号/Type	DRS4D-NXT	
系统组成/System Component	Radar Sensor: RSB-135-115; Multi Function Display (TZTL12F/15F); Network HUB (HUB-101).	
峰值功率/Peak of Output Power	25	W
天线长度/Length of Antenna	24	inch
软件版本号/Software Version	0359360-01.**	
工作频率/Operating Frequency	9410±30	MHz
最小操作显示区直径/Minimum Operation Display Area Diameter	TZTL12F: 144 TZTL15F: 168	mm
额定电压/Rated Voltage	12~24	V
罗经安全距离/Compass Safe Distance	0.55 (Standard Compass) 0.30 (Steering Compass)	m
性能监测器型号/Performance Monitor Type	Nil.	
是否集成电子标绘 (EPA) 功能/Whether Electric Plotting Aid Function Be Integrated Into The Radar Equipment	No	
是否集成自动目标跟踪 (ATA) 功能/Whether Automatic Tracking Aid Function Be Integrated Into The Radar Equipment	No	
是否集成自动雷达标绘 (ARPA) 功能/Whether Automatic Radar Plotting Aid Function Be Integrated Into The Radar Equipment	No	
是否具有海图显示功能/Whether Include Chart Display Function	No	

雷达设备/Radar Equipment (M0002)

名称/Name	属性 (值) /Value	单位/Unit
型号/Type	DRS6A_X-Class	
系统组成/System Component	Antenna Unit: RSB-134-112; Radiator Unit: XN10/12/13A; Multi Function Display (TZTL12F/15F); Network HUB (HUB-101).	
峰值功率/Peak of Output Power	6	kW
天线长度/Length of Antenna	3.4/4/6	ft
软件版本号/Software Version	0359355-01.**	
工作频率/Operating Frequency	9410±30	MHz
最小操作显示区直径/Minimum Operation Display Area Diameter	TZTL12F: 144 TZTL15F: 168	mm
额定电压/Rated Voltage	24	V
罗经安全距离/Compass Safe Distance	1.40 (Standard Compass) 0.90 (Steering Compass)	m
性能监测器型号/Performance Monitor Type	Nil.	
是否集成电子标绘 (EPA) 功能/Whether Electric Plotting Aid Function Be Integrated Into The Radar Equipment	No	
是否集成自动目标跟踪 (ATA) 功能/Whether Automatic Tracking Aid Function Be Integrated Into The Radar Equipment	No	
是否集成自动雷达标绘 (ARPA) 功能/Whether Automatic Radar Plotting Aid Function Be Integrated Into The Radar Equipment	No	
是否具有海图显示功能/Whether Include Chart Display Function	No	



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雷达设备/Radar Equipment (M0003)

名称/Name	属性(值)/Value	单位/Unit
型号/Type	DRS12A X-Class	
系统组成/System Component	Antenna Unit: RSB-134-113; Radiator Unit: XN12/13A; Multi Function Display (TZTL12F/15F); Network HUB (HUB-101).	
峰值功率/Peak of Output Power	12	kW
天线长度/Length of Antenna	4/6	ft
软件版本号/Software Version	0359355-01.**	
工作频率/Operating Frequency	9410±30	MHz
最小操作显示区直径/Minimum Operation Display Area Diameter	TZTL12F: 144 TZTL15F: 168	mm
额定电压/Rated Voltage	24	V
罗经安全距离/Compass Safe Distance	1.80 (Standard Compass) 1.15 (Steering Compass)	m
性能监测器型号/Performance Monitor Type	Nil.	
是否集成电子标绘 (EPA) 功能/Whether Electric Plotting Aid Function Be Integrated Into The Radar Equipment	No	
是否集成自动目标跟踪 (ATA) 功能/Whether Automatic Tracking Aid Function Be Integrated Into The Radar Equipment	No	
是否集成自动雷达标绘 (ARPA) 功能/Whether Automatic Radar Plotting Aid Function Be Integrated Into The Radar Equipment	No	
是否具有海图显示功能/Whether Include Chart Display Function	No	

雷达设备/Radar Equipment (M0004)

名称/Name	属性(值)/Value	单位/Unit
型号/Type	DRS25A_X-Class	
系统组成/System Component	Antenna Unit: RSB 134-114, Radiator Unit: XN12/13A; Multi Function Display (TZTL12F/15F); Network HUB (HUB-101).	
峰值功率/Peak of Output Power	25	kW
天线长度/Length of Antenna	4/6	ft
软件版本号/Software Version	0359355-01.**	
工作频率/Operating Frequency	9410±30	MHz
最小操作显示区直径/Minimum Operation Display Area Diameter	TZTL12F: 144 TZTL15F: 168	mm
额定电压/Rated Voltage	24	V
罗经安全距离/Compass Safe Distance	2.10 (Standard Compass) 1.35 (Steering Compass)	m
性能监测器型号/Performance Monitor Type	Nil.	
是否集成电子标绘 (EPA) 功能/Whether Electric Plotting Aid Function Be Integrated Into The Radar Equipment	No	
是否集成自动目标跟踪 (ATA) 功能/Whether Automatic Tracking Aid Function Be Integrated Into The Radar Equipment	No	
是否集成自动雷达标绘 (ARPA) 功能/Whether Automatic Radar Plotting Aid Function Be Integrated Into The Radar Equipment	No	
是否具有海图显示功能/Whether Include Chart Display Function	No	



批准的图纸/Approved Drawings

图纸批准号/Drawings Approval No.: NP15A00197, NP16A02096, NP16A03941, NP17A02246

产品认可试验报告/Approval Test Report

试验报告编号/Test Report No.: MFD8, MFD12
试验报告日期/Test Report Date: 2008-10-31
试验单位/Laboratory: Labotech International Co., Ltd.
试验单位地址/Test Address: 1-16 Fukazu-cho, Nishinomiya-shi, Hyogo 663-8203, Japan

试验报告编号/Test Report No.: DRS (2D, 4D, 4A, 6A, 12A, 25A)
试验报告日期/Test Report Date: 2012-06-13
试验单位/Laboratory: Furuno Electric Co., Ltd.
试验单位地址/Test Address: 1 Tomoe, Bessho-cho, Miki, 673-0443, Japan

试验报告编号/Test Report No.: TZTL12F, TZTL15F
试验报告日期/Test Report Date: 2015-06-04
试验单位/Laboratory: Furuno Electric Co., Ltd.
试验单位地址/Test Address: 1 Tomoe, Bessho-cho, Miki, 673-0443, Japan

试验报告编号/Test Report No.: DB16T00084
试验报告日期/Test Report Date: 2016-10-17
试验单位/Laboratory: Furuno Electric Co., Ltd.
试验单位地址/Test Address: 1 Tomoe, Bessho-cho, Miki, 673-0443, Japan

试验报告编号/Test Report No.: DB17T00020
试验报告日期/Test Report Date: 2017-04-14
试验单位/Laboratory: Furuno Electric Co., Ltd.
试验单位地址/Test Address: 1 Tomoe, Bessho-cho, Miki, 673-0443, Japan

试验报告编号/Test Report No.: DB17T00087
试验报告日期/Test Report Date: 2017-09-22
试验单位/Laboratory: Furuno Electric Co., Ltd.
试验单位地址/Test Address: 1 Tomoe, Bessho-cho, Miki, 673-0443, Japan

试验报告编号/Test Report No.: DB20PTB00098
试验报告日期/Test Report Date: 2020-09-17
试验单位/Laboratory: Furuno Electric Co., Ltd.
试验单位地址/Test Address: 1 Tomoe, Bessho-cho, Miki, 673-0443, Japan

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.

5. 如果属于获得型式认可B 模式证书, 且无需颁发船用产品证书/等效证明文件的情况, 证书获得者应接受本社每年一次的定期审核, 定期审核日为认可证书期满之日对应的每一周年日, 检查工作应在周年日的前后三个月内进行。

If belong to the situation of the product has type approval mode B certificate, and marine product certificate/equivalent document is not necessary, those who have obtained the certificate should be subject to periodical audit every year. The date of periodical audit shall be each anniversary date which corresponds to the date of expiry of the relevant certificate and the periodical audit shall be done within a time span of three months before and after the annual surveillance date.

备注/Remarks

1. 本证书由原型式认可证书 (No. DB17T00087) 变更并替代原证书。

This Certificate is modified from and supersedes the previous Type Approval Certificate No. DB17T00087.

2. 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.

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