



中国船级社  
CHINA CLASSIFICATION SOCIETY

证书编号/Certificate No.  
SW22PTB00022\_02

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

ABB Electrification Sweden AB

地址/Address

Motorgrand 20, SE-721 61 Vasteras, Sweden

产品名称/Product

接触器  
Contactor

附加标志/Notations

无/Nil.

认可标准/Approval Standard

- IEC 60947-4-1-2018《低压开关设备和控制设备 第4-1部分:接触器和电动机起动器 机电式接触器和电动机起动器》  
IEC 60947-4-1-2018 Low-voltage switchgear and controlgear. Part 4-1: Contactors and motor-starters. Electromechanical contactors and motor-starters
- 中国船级社《钢质海船入级规范》(2022)及其变更通告 第4篇第1、3章  
Chapter 1 and 3, Part Four of China Classification Society Rules for the Classification of Sea-going Steel Ships 2022 and its Change Notices

用于/Intended for

船舶/Ships

证书有效期至/ This Certificate is valid until 2026年10月06日/ Oct. 06, 2026

发证机构/ Issued by 中国船级社 斯德哥尔摩办事处  
CCS Stockholm Office

签发日期/ Date 2023年06月21日  
Jun. 21, 2023

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:P023-57843531

**产品明细/Product Description**

接触器/Contactor (M0001)

名称/Name	属性（值）/Value	单位/Unit
型号/Type	AF serials	
额定绝缘电压 (Ui) /Rated Insulated Voltage	See Additional Pages	
额定频率/Rated Frequency	See Additional Pages	
额定工作电压/Rated Operational Voltage	See Additional Pages	
额定电流/Rated Current	See Additional Pages	

**批准的图纸/Approved Drawings**

图纸批准号/ Drawings Approval No. : NP20PPP00157, NP23PPP00938

**产品认可试验报告/ Approval Test Report**

试验报告编号/ Test Report No. : Refer to 2CMT2020-005897\_list of documents\_revA

试验报告日期/ Test Report Date : 2022-11-02

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

按规范只认可不进行产品检验的产品/The product approved only in term of the rules:

认可后的产品检验由制造厂按本社批准的产品检验计划进行检验，经检验合格后由制造厂签发合格证明，并连同该产品的本社认可证书复印件一并交付用户，制造厂对产品符合公约、法规、本社规范和本社认可的标准规定负责。After approval, product inspection should be carried out by the Manufacturer in accordance with the product inspection scheme approved by the Society. Upon satisfactory inspection, and the Quality Certificate issued by the Manufacturer should be provided to the purchaser together with the copy of the approval certificate issued by the Society. The manufacturer should take responsibility for the product being in compliance with the convention, statutory regulation, the Society rules and the standard accepted by the Society.

**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

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.

本证书由原型式认可证书（No. SW21PTB00015\_02）换新并替代原证书。

This certificate is renewed from and supersedes the previous Type Approval Certificate No. SW21PTB00015\_02.

**中国船级社斯德哥尔摩办事处**

**CCS Stockholm Office**

注：本证书含有附页，共4页

Note: The certificate is attached with additional 4 page(s)

# Technical data for AF-contactors

Contactor type		AF116-30 / AF116-40			
Rated insulation voltage (U <sub>i</sub> )	V	1000			
Rated Frequency	Hz	50/60			
Rated thermal current (I <sub>th</sub> )	A	160			
Utilization category		AC-3			AC-1
Ambient temperature	°C	-	60	60	40
Rated operational voltage (U <sub>e</sub> )	V	-	690	440	690
Rated operational current (I <sub>e</sub> )	A	-	65	116	160

Contactor type		AF140-30/ AF140-40			
Rated insulation voltage (U <sub>i</sub> )	V	1000			
Rated Frequency	Hz	50/60			
Rated thermal current (I <sub>th</sub> )	A	200			
Utilization category		AC-3			AC-1
Ambient temperature	°C	-	60	60	40
Rated operational voltage (U <sub>e</sub> )	V	-	690	440	690
Rated operational current (I <sub>e</sub> )	A	-	80	140	200

Contactor type		AF146-30			
Rated insulation voltage (U <sub>i</sub> )	V	1000			
Rated Frequency	Hz	50/60			
Rated thermal current (I <sub>th</sub> )	A	225			
Utilization category		AC-3			AC-1
Ambient temperature	°C	60	60	60	40
Rated operational voltage (U <sub>e</sub> )	V	1000	690	440	1000
Rated operational current (I <sub>e</sub> )	A	60	93	146	225

Contactor type		AF190-30 / AF190-40			
Rated insulation voltage (U <sub>i</sub> )	V	1000			
Rated Frequency	Hz	50/60			
Rated thermal current (I <sub>th</sub> )	A	275			
Utilization category		AC-3			AC-1
Ambient temperature	°C	60	60	60	40
Rated operational voltage (U <sub>e</sub> )	V	1000	690	440	1000
Rated operational current (I <sub>e</sub> )	A	85	135	190	275

Contactor type		AF205-30 / AF205-40			
Rated insulation voltage (U <sub>i</sub> )	V	1000			
Rated Frequency	Hz	50/60			
Rated thermal current (I <sub>th</sub> )	A	350			
Utilization category		AC-3			AC-1
Ambient temperature	°C	60	60	60	40
Rated operational voltage (U <sub>e</sub> )	V	1000	690	440	1000
Rated operational current (I <sub>e</sub> )	A	100	165	205	350

Contactor type		AF265-30 / AF265-40			
Rated insulation voltage (U <sub>i</sub> )	V	1000			
Rated Frequency	Hz	50/60			
Rated thermal current (I <sub>th</sub> )	A	400			
Utilization category		AC-3			AC-1
Ambient temperature	°C	60	60	60	40
Rated operational voltage (U <sub>e</sub> )	V	1000	690	440	1000
Rated operational current (I <sub>e</sub> )	A	113	250	265	400

Contactor type		AF305-30 / AF305-40				
Rated insulation voltage (U <sub>i</sub> )	V	1000				
Rated Frequency	Hz	50/60				
Rated thermal current (I <sub>th</sub> )	A	500				
Utilization category		AC-3			AC-1	
Ambient temperature	°C	60	60	60	40	40
Rated operational voltage (U <sub>e</sub> )	V	1000	690	440	1000	690
Rated operational current (I <sub>e</sub> )	A	131	290	305	375	500

Contactor type		AF370-30 / AF370-40				
Rated insulation voltage (U <sub>i</sub> )	V	1000				
Rated Frequency	Hz	50/60				
Rated thermal current (I <sub>th</sub> )	A	600				
Utilization category		AC-3			AC-1	
Ambient temperature	°C	60	60	60	40	40
Rated operational voltage (U <sub>e</sub> )	V	1000	690	440	1000	690
Rated operational current (I <sub>e</sub> )	A	141	315	370	400	600

Contactor type		AF400-30			
Rated insulation voltage (U <sub>i</sub> )	V	1000			
Rated Frequency	Hz	50/60			
Rated thermal current (I <sub>th</sub> )	A	600			
Utilization category		AC-3			AC-1
Ambient temperature	°C	55	55	55	40
Rated operational voltage (U <sub>e</sub> )	V	1000	690	500	1000
Rated operational current (I <sub>e</sub> )	A	155	350	400	600

Contactor type		AF460-30			
Rated insulation voltage (U <sub>i</sub> )	V	1000			
Rated Frequency	Hz	50/60			
Rated thermal current (I <sub>th</sub> )	A	700			
Utilization category		AC-3			AC-1
Ambient temperature	°C	55	55	55	40
Rated operational voltage (U <sub>e</sub> )	V	1000	690	500	1000
Rated operational current (I <sub>e</sub> )	A	200	400	460	700

Contactor type		AF580-30			
Rated insulation voltage (U <sub>i</sub> )	V	1000			
Rated Frequency	Hz	50/60			
Rated thermal current (I <sub>th</sub> )	A	800			
Utilization category		AC-3			AC-1
Ambient temperature	°C	55	55	55	40
Rated operational voltage (U <sub>e</sub> )	V	1000	690	500	1000
Rated operational current (I <sub>e</sub> )	A	250	500	580	800

Contactor type		AF750-30				
Rated insulation voltage (U <sub>i</sub> )	V	1000				
Rated Frequency	Hz	50/60				
Rated thermal current (I <sub>th</sub> )	A	1050				
Utilization category		AC-3			AC-1	
Ambient temperature	°C	55	55	55	40	40
Rated operational voltage (U <sub>e</sub> )	V	1000	690	500	1000	690
Rated operational current (I <sub>e</sub> )	A	300	650	750	1000	1050

<b>Contactor type</b>		<b>AF1250-30</b>			
Rated insulation voltage (U <sub>i</sub> )	<b>V</b>	1000			
Rated Frequency	<b>Hz</b>	50/60			
Rated thermal current (I <sub>th</sub> )	<b>A</b>	1260			
Utilization category		-			AC-1
Ambient temperature	<b>°C</b>	-	-	-	40
Rated operational voltage (U <sub>e</sub> )	<b>V</b>	-	-	-	1000
Rated operational current (I <sub>e</sub> )	<b>A</b>	-	-	-	1260

<b>Contactor type</b>		<b>AF1350-30</b>			
Rated insulation voltage (U <sub>i</sub> )	<b>V</b>	1000			
Rated Frequency	<b>Hz</b>	50/60			
Rated thermal current (I <sub>th</sub> )	<b>A</b>	1350			
Utilization category		AC-3			AC-1
Ambient temperature	<b>°C</b>	55	55	55	40
Rated operational voltage (U <sub>e</sub> )	<b>V</b>	1000	690	440	1000
Rated operational current (I <sub>e</sub> )	<b>A</b>	375	800	860	1350

<b>Contactor type</b>		<b>AF1650-30</b>			
Rated insulation voltage (U <sub>i</sub> )	<b>V</b>	1000			
Rated Frequency	<b>Hz</b>	50/60			
Rated thermal current (I <sub>th</sub> )	<b>A</b>	1650			
Utilization category		AC-3			AC-1
Ambient temperature	<b>°C</b>	55	55	55	40
Rated operational voltage (U <sub>e</sub> )	<b>V</b>	1000	690	440	1000
Rated operational current (I <sub>e</sub> )	<b>A</b>	400	970	1060	1650

<b>Contactor type</b>		<b>AF2050-30</b>			
Rated insulation voltage (U <sub>i</sub> )	<b>V</b>	1000			
Rated Frequency	<b>Hz</b>	50/60			
Rated thermal current (I <sub>th</sub> )	<b>A</b>	2050			
Utilization category		AC-3			AC-1
Ambient temperature	<b>°C</b>	55	55	55	40
Rated operational voltage (U <sub>e</sub> )	<b>V</b>	1000	690	440	1000
Rated operational current (I <sub>e</sub> )	<b>A</b>	425	970	1060	2050

<b>Contactor type</b>		<b>AF2650-30</b>			
Rated insulation voltage (U <sub>i</sub> )	<b>V</b>	1000			
Rated Frequency	<b>Hz</b>	50/60			
Rated thermal current (I <sub>th</sub> )	<b>A</b>	2650			
Utilization category		-			AC-1
Ambient temperature	<b>°C</b>	-	-	-	40
Rated operational voltage (U <sub>e</sub> )	<b>V</b>	-	-	-	1000
Rated operational current (I <sub>e</sub> )	<b>A</b>	-	-	-	2650

<b>Contactor type</b>		<b>AF2850-30</b>			
Rated insulation voltage (U <sub>i</sub> )	<b>V</b>	1000			
Rated Frequency	<b>Hz</b>	50/60			
Rated thermal current (I <sub>th</sub> )	<b>A</b>	2650			
Utilization category		-			AC-1
Ambient temperature	<b>°C</b>	-	-	-	40
Rated operational voltage (U <sub>e</sub> )	<b>V</b>	-	-	-	1000
Rated operational current (I <sub>e</sub> )	<b>A</b>	-	-	-	2850

.....End of Certificate.....