



Lloyd's  
Register

## Type Approval Certificate

*This is to certify that the undernoted product(s) has/have been tested with satisfactory results in accordance with the relevant requirements of the Lloyd's Register Type Approval System.*

This certificate is issued to:

**PRODUCER**

**ABB AB, Control Products**

**PLACE OF  
PRODUCTION**

**Motorgränd 20  
SE-721 61 Västerås  
Sweden**

**ABB Xinhui Low Voltage  
Switchgear Co Ltd  
Jinguzhou Industrial  
Development Zone  
Xinhui, Guangdong 529100  
China**

**DESCRIPTION**

**Three - pole contactors**

**TYPE**

**AF**

AF116-30	AF205-30
AF140-30	AF265-30
AF146-30	AF305-30
AF190-30	AF370-30

Including the following voltage codes:

Code 11: Us = 20-60V d.c./24-60V a.c.

Code 12: Us = 48-130V a.c./d.c.

Code 13: Us = 100-250V a.c./d.c.

Code 14: Us = 250-500V a.c./d.c.

Code 33: Us = 100-250V a.c./d.c. PLC-control

Code 34: Us = 250-500V a.c./d.c. PLC-control

**APPLICATION**

Marine environmental in categories ENV1; ENV2 and ENV3 as defined in LR Test Specification No.1, 2002 where the Test Specification is satisfactory for the intended operation.

**Certificate No.**

**14/70011**

**Issue Date**

**30 October 2014**

**Expiry Date**

**29 October 2019**

**Sheet**

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Lloyd's Register EMEA

Strandvejen 104A, DK-2900 Hellerup Denmark

  
Jacob Munk Plum  
Copenhagen Tech. Support Office

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#### ADDITIONAL TESTS

Low Temperature Test to -15°C-16 hrs  
Dry Heat Test: +55°C/+70°C – 16hrs/2hrs  
Vibration Test 2

#### STANDARD

LR Marine Rules and Regulation for the Classification of Ships Part 6,  
Chapters 1 and 2, as applicable  
IEC60947-4-1:2009+A1  
IEC 60695-11-5: Flammability

#### Rating

Frequency: 50/60Hz

	Utilization/Volt	Ie	Amb temp.
AF116-30	AC-3:	-	-
	AC-3: 690V	65A	60
	AC-3: 440V	116A	60
	AC-1: 690V	160A	40
AF140-30	AC-3:		
	AC-3: 690V	80A	60
	AC-3: 440V	140A	60
	AC-1: 690V	200A	40
AF146-30	AC-3: 1000	60A	60
	AC-3: 690V	93A	60
	AC-3: 440V	146A	60
	AC-1: 1000V	225A	40
AF190-30	AC-3: 1000	85A	60
	AC-3: 690V	135A	60
	AC-3: 440V	190A	60
	AC-1: 1000V	250A	40
AF205-30	AC-3: 1000	100A	60
	AC-3: 690V	165A	60
	AC-3: 440V	205A	60
	AC-1: 1000V	275A	40
AF265-30	AC-3: 1000	100A	60
	AC-3: 690V	250A	60
	AC-3: 440V	265A	60
	AC-1: 1000V	350A	40
AF305-30	AC-3: 1000	100A	60

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	AC-3: 690V	290A	60
	AC-3: 440V	305A	60
	AC-1: 1000V	375A	40
AF370-30	AC-3: 1000	100A	60
	AC-3: 690V	315A	60
	AC-3: 440V	370A	60
	AC-1: 1000V	400A	40

#### OTHER CONDITIONS

Test of software is restricted to functions tested to verify correct operation during Type Approval testing. Where equipment includes programmable electronic systems parts of LR Rules for the Classification of Ships are applicable e.g. "Programmable electronic Systems" of Part 6, Chapter 1, Section 1.19 of LR Rules are applicable.

Ventilation arrangement is to be arranged as per manufacturer's recommendation.

*"This Certificate is not valid for equipment, the design, ratings or operating parameters of which have been varied from the specimen tested. The manufacturer should notify Lloyd's Register EMEA of any modification or changes to the equipment in order to obtain a valid certificate."*

*The Design Appraisal Document No.TA14/70011 and its supplementary Type Approval Terms and Conditions form part of this Certificate.*

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