

**TYPE APPROVAL CERTIFICATE****This is to certify:****That the Contactor**

with type designation(s)

**Contactors A9, A12, A16, A26, A30, A40, A50, A63, A75.,**

Issued to

**ABB France****CHASSIEU Cedex, France**

is found to comply with

**DNV GL rules for classification – Ships and offshore units****Application :****For installations inside switchboard/enclosures onboard ships and offshore units.****Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV GL.**

| <b>Type</b>   | <b>Rated Voltage<br/>(V)</b> | <b>Rated Current<br/>(A)</b> | <b>Frequency<br/>(Hz)</b> |
|---|------------------------------|------------------------------|---------------------------|
| <b>Contactors A9, A12, A16, A26, A30, A40,<br/>A50, A63, A75.</b> | <b>690</b>                   | <b>7 - 46 (AC-3)</b>         | <b>50 / 60</b>            |

This Certificate is valid until **2020-12-31**.Issued at **Høvik** on **2015-12-28**for **DNV GL**DNV GL local station: **Marseille**Approval Engineer: **Nicolay Horn**

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**Marit Laumann**  
**Head of Section**

This Certificate is subject to terms and conditions overleaf. Any significant change in design or construction may render this Certificate invalid. The validity date relates to the Type Approval Certificate and not to the approval of equipment/systems installed.

## Name and place of manufacturer

ABB France  
Chassieu, France

ABB Xinhui Low voltage Switchgear Co. Ltd  
Guangdong, China

ABB Ltd  
Bangalore 560058, India

## Product description

Contactors for use up to 690 volt.

| Poles                     | 3 or 4         |
|---------------------------|----------------|
| Max. Current              | see list below |
| Frequency                 | 50 or 60 Hz    |
| Coil voltage              | Various        |
| Insulating medium         | Air            |
| Rated Insulation Voltage  | 690 V          |
| Impulse withstand voltage | 8 kV           |
| Rated Making current      | 10 x Ie (AC-3) |
| Rated Breaking current    | 8 x Ie (AC-3)  |
| Rated Withstand current   | see list below |

List of current and power ratings for 690 volt. See manufacturers catalogue for current and power ratings for lower voltages.

| Type | Nom. Current AC-1,<br>at 690V<br>t ≤ 55°C | Nom. Current<br>AC-3, at 690V<br>t ≤ 55°C | Withstand<br>current*, 1s<br>t = 40°C | Max power at<br>690V<br>t ≤ 55°C |
|------|---|---|---------------------------------------|----------------------------------|
| A 9  | 22 A                                      | 7 A                                       | 250 A                                 | 5.5 kW                           |
| A 12 | 25 A                                      | 9 A                                       | 280 A                                 | 7.5 kW                           |
| A 16 | 27 A                                      | 10 A                                      | 300 A                                 | 9 kW                             |
| A 26 | 40 A                                      | 17 A                                      | 400 A                                 | 15 kW                            |
| A 30 | 55 A                                      | 21 A                                      | 600 A                                 | 18.5 kW                          |
| A 40 | 60 A                                      | 25 A                                      | 600 A                                 | 22 kW                            |
| A 50 | 85 A                                      | 35 A                                      | 1000 A                                | 30 kW                            |
| A 63 | 95 A                                      | 43 A                                      | 1000 A                                | 37 kW                            |
| A 75 | 105 A                                     | 46 A                                      | 1000 A                                | 40 kW                            |

\*Withstand current must be derated by 5% as DNV rules state max ambient temp of 45°C onboard ships not 40°C as stated by IEC. Separate case-by case approval is needed in each case to use the figures as listed.

## Application/Limitation

For installations inside switchboard/enclosures onboard ships and offshore units.

## Type Approval documentation

Technical info:  
Manufacture's catalogue 1SBC 100122 C0202.

Job Id: **262.1-003109-3**  
Certificate No: **TAE00000TX**

**Test reports:**

CB test certificate FR602227A dated 2010-11-26. Test report no. 101630-603377A issued 2010-11-15 .

Witnessed by DNV: ABB Control Test no. 16998

## **Tests carried out**

Type tests according to IEC 60947-4-1.

Other tests: Insulation, power supply variation, inclination, vibration, damp heat, dry heat, high voltage.

## **Marking of product**

Manufacturers type - standard reference - ratings

## **Periodical assessment**

The scope of the periodical assessment is to verify that the conditions stipulated for the Type approval is complied with and that no alterations are made to the product design or choice of materials.

The main elements of the assessment are:

- Inspection on factory samples, selected at random from the production line (where practicable)
- Results from Production Sample Tests (PST) and Routines (RT) checked (if not available tests according to PST and RT to be carried out)
- Review of type approval documentation
- Review of possible change in design, materials and performance
- Ensuring traceability between manufacturer's product type marking and Type Approval Certificate.

Assessment to be performed at least every second year.

END OF CERTIFICATE