DNV·GL

Certificate No:
TAE000018K

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Contactor

with type designation(s)
ESB24, ESB40, ESB63

Issued to
ABB Stotz-Kontakt GmbH
HEIDELBERG, Germany

is found to comply with
DNV GL rules for classification – Ships, offshore units, and high speed and light craft

Application :

Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV GL.

Rated Voltage (V)	**400**
Rated Current (A)	**9 - 30 (400 V/ AC3)**
Frequency (Hz)	**50 - 60**

This Certificate is valid until **2022-03-19**.

Issued at **Hamburg** on **2017-03-20**
DNV GL local station: **Augsburg** for **DNV GL**

Approval Engineer: **Thomas Hartmann**

Duy Nam Le
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.

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Product description

Contactor type: ESB24, ESB40 and ESB63

Main contacts:

Type designation	AC1 230 V I_e (A)	AC1 400 V I_e (A)	AC3 230 V P (kW)	AC3 400 V P (kW)
ESB 24	24	24	2,2	4
ESB 40	40	40	5,5	11
ESB 63	63	63	8	15

Rated operational voltage U_e: 230/ 400V AC
Rated insulation voltage U_i: 500 V

Auxiliary contacts (type EH 04):
- Conventional free air current I_{th}: 6 A
- rated operational voltage U_e: up to 500 V AC

Coil systems:
- Rated control voltage U_c: 8 V AC/DC up to 415 V AC/DC
- Type of coil: DC, with a built-in rectifier.

The contactor can be used in conjunction with programmable logic controller

Application/Limitation

Temperature class: D (-25 to 70°C)
Humidity class: A (up to 96% humidity)
Vibration class: A (5-100 Hz)

If several contactors are mounted adjacently in a switchboard, a distance piece EBS DIS must be attached to every third contactor in the row.

Type Approval documentation

Tests carried out

Type tests according to IEC 60947-4-1 Sequence I, II, III, IV and V. Power supply variations, Inclination test, Vibration test, Insulation resistance test, Damp heat test, Dry heat test, Low temperature test and high voltage test.

Marking of product

ABB Stotz – Type designation – Rated voltage – Breaking capacity.

Periodical assessment

The scope of the periodical assessment is to verify that the conditions stipulated for the Type approval are 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 Routine Tests (RT) checked (if not available tests according to 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.

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Periodical assessment is to be performed after 2 years and after 3.5 years. A renewal assessment will be performed at renewal of the certificate.

END OF CERTIFICATE