

**MARINE DIVISION**

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**Certificate number:** 09651/B0 BV

**File number :** ACE 02/014/16

**Product code :** 2634H

*This certificate is not valid when presented without the full attached schedule composed of 7 sections*

## TYPE APPROVAL CERTIFICATE

*as per Bureau Veritas Classification Rules*

*This certificate is issued to*

### ABB ENTRELEC, Control Division Chassieu Factory

Chassieu - FRANCE

*for the type of product*

### CONTACTORS (LOW VOLTAGE)

Type: N22E, N31E, N40E, N44E, N53E, N62E, N71E, N80E.

**Regulations and standards :**

BV Rules for the Classification of Steel Ships.  
IEC 60947-5-1

*This certificate is issued to attest that BUREAU VERITAS did undertake the relevant approval procedures for the product identified above which was found to comply with the relevant requirements of the Regulations and standards mentioned above.*

**This certificate is valid until : 10 Aug 2010**

At Paris la Défense, on : 10 Aug 2005

**For BUREAU VERITAS,**  
By order of the Secretary

Approval office

Local office : BV LYON



**J. BENOIT**



This certificate remains valid until the date stated above, unless cancelled or revoked, provided the conditions indicated in the subsequent page(s) are complied with and the product remains satisfactory in service. This certificate will not be valid if the applicant makes any changes or modifications to the approved product, which have not been notified to, and agreed in writing with BUREAU VERITAS. Should the specified regulations or standards be amended during the validity of this certificate, the product(s) is/are to be re-approved prior to it/they being placed on board vessels to which the amended regulations or standards apply. This certificate is issued within the scope of the General Conditions of BUREAU VERITAS Marine Division. Any Person not a party to the contract pursuant to which this document is delivered may not assert a claim against BUREAU VERITAS for any liability arising out of errors or omissions which may be contained in said document, or for errors of judgement, fault or negligence committed by personnel of the Society or of its Agents in establishment or issuance of this document, and in connection with any activities for which it may provide.

## THE SCHEDULE OF APPROVAL

### 1. PRODUCT DESCRIPTION:

PRODUCT TYPE	Number of poles	Rated Voltage (V)	Maximum Operating Current (A)	Breaking Capacity (A)	Remarks
<b>AUXILIARY CONTACTORS</b>			Thermal t ≤ 40°C	AC -15	Characteristics according to IEC 60947-5-1.
N22E	4	690	16	6/24-127V, 4/230-240V, 3/400-415V, 2/500V, 2/690V.	
N31E	4	690	16	"	
N40E	4	"	"	"	
N44E	8	"	"	"	
N53E					
N62E	8	"	"	"	
N71E	8	"	"	"	
N80E	8	"	"	"	

### ACCESSORIES:

#### 1) - Front mounting

- Auxiliary contact blocks: 1-pole CA 5
- 4-pole-CA 5
- Pneumatic timer block: TP-A.

#### 2) Side mounting

- Auxiliary contact blocks: 2-pole CAL5-11
- Interlock units:
  - . mechanical VM 5
  - . mech. + elec. VE 5

### 2. DOCUMENTS AND DRAWINGS:

Publication N° FRCTL 0107 97 GB [U11 - 97 R].

### 3. TEST REPORTS:

3.1 - ABB Control - Test report N° 16998 of 24.03.98. Society's witnessing to test has been carried out. Kema Registered Quality Nederland B.V. - Test report N° 97.2472.57 issued on June 27, 1997.

3.2 - L.C.I.E. CB test certificate N° FR3022/60007830-502689 dated 30/Apr./2003.

### 4. APPLICATION / LIMITATION:

4.1 - According to BV Rules for the Classification of Steel Ships.

**6. MARKING OF PRODUCT:**

According to IEC 60947-5-1

**7. OTHERS:**

7.1- This approval is given on the understanding that the Society reserves the right to require check tests to be carried out on the units at any time and that **ABB CONTROL, Chassieux - France**, will accept full responsibility for informing shipbuilders, shipowners or their sub-contractors of the proper methods of use and general maintenance of the units and the conditions of this approval.

7.2 - This certificate supersedes the Type Approval Certificate n° 09651/A0 BV issued on 19/09/2000 by the Society.

\*\*\* END OF CERTIFICATE \*\*\*

