DNV·GL

Certificate No:
TAE000018A

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Motor Starter

with type designation(s)
3RA21 & 3RA22

Issued to
Siemens AG GWA
Amberg, Germany

is found to comply with
DNV GL rules for classification – Ships and offshore units

Application :

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

Rated Voltage (V)	**690**
Rated Current (A)	**Up to 73 (AC3/400V)**
Frequency (Hz)	**50/60**

This Certificate is valid until **2021-08-02**.

Issued at **Hamburg** on **2016-08-03**

for **DNV GL**

DNV GL local station: **Augsburg**

Approval Engineer: **Harald Amberger**

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

3RA21… Load feeders, direct-on-line-starters **3RA22… Load feeders, reversing starters** **Ratings**			
Complete units, each consist of circuit breaker 3RV2[1] and contactor 3RT2[2]			
Type	3RA2.1	3RA2.2	3RA213 3RA215
Size	S00	S1	S2
Max. current $I_{n\ max}$	16A	32A	73A
Operational voltage U_e	690V		
Insulation voltage U_i	690V		
Impulse withstands voltage U_{imp}	6kV		
Frequency (Hz)	50/60Hz		
Trip class (CLASS)	10		
[1] DNV GL Certificate No: TAE000014N [2] DNV GL Certificate No: TAE000016X Further ratings according manufacturer documentation			

Accessories; Basic types	
3RA1921-1…	Link Module between Circuit breaker and Contactor Size 00, screw terminals
3RA2921-1…	Link Module between Circuit breaker and Contactor Size 0, screw terminals
3RA2931-1…	Link Module between Circuit breaker and Contactor Size 2, screw terminals
3RA2911-2…	Link Module between Circuit breaker and Contactor Size 00, spring terminals
3RA2921-2…	Link Module between Circuit breaker and Contactor Size 0, spring terminals
3RA2922-1A…	Mounting rail adapter Size S00, S0
3RA2932-1A…	Mounting rail adapter Size S2
3RA2911-1C…	Spacer module
8US1251-5DS10	Fastbus Adapter Direct Starter, Size S00, screw terminals
8US1251-5NT10	Fastbus Adapter Direct Starter, Size S0, screw terminals
8US12.1-6MT10	Fastbus Adapter Direct Starter, Size S2, screw terminals
8US1251-5DT11	Fastbus Adapter Direct Starter, Size S00, spring terminals
8US1251-5NT11	Fastbus Adapter Direct Starter, Size S0, spring terminals
8US1250-5A…	Support for Reversing Starter
8US1998-1.A10	Vibration & Shock Kit.

Ratings and mounting locations according manufacturer documentation.

Application/Limitation

Location Classes:
Temperature: D, Humidity: B, Vibration: A, Enclosure: IP20

For installation inside switchboards/ enclosures onboard ships and offshore units.
With Uimp=6kV; Overvoltage category II applies for applications in IT systems > 600 V.

Type Approval documentation

Tests carried out

IEC 60947-4-1, cold, dry heat, damp heat, vibration, flame retardancy

Marking of product

Manucfacturers label containing data and manufacturers type number.

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 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 2 years.

END OF CERTIFICATE