DNV·GL

Certificate No:
TAE000019J

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Power Switch Board with Bus Bar

with type designation(s)
NXAIR 50kA

Issued to
Siemens AG
Erlangen, 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)	**7.2, 12 & 17,5 kV**
Rated current (A)	**up to 4000**
Rated freq. (Hz)	**50 / 60**

This Certificate is valid until **2021-08-09**.

Issued at **Hamburg** on **2016-08-10**

DNV GL local station: **Augsburg** for **DNV GL**

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

Air-insulated medium-voltage switchgear up to 17.5 kV for 50 kA
Comprised of Circuit-breaker-, Disconnecting-, Metering-, Bus sectionalizer- and Contactor panel

Ratings:				
Rated voltage U_r	kV	7,2	12	17,5
Rated frequency f_r	Hz	50/60		
Rated lightning impulse withstands voltage U_p	kV	60	75	95
Rated power frequency withstands voltage U_d	kV	20 / 32[1]	28 / 42[1]	38
Rated nominal current I_r	A	4000		
Rated short-time withstand current I_k	kA	50		
Rated duration of short circuit t_k	s	3		
Arc fault current I_A	kA	50		
Arc fault duration t_A	s	1		
Loss of service continuity category		LSC 2B		
Partition class		PM		
Internal arc qualification		IAC AFLR 50kA 1s		
Verification of the protection in standard design		IP3XD, IP4X		
Verification of the protection (special design for maritime use)		IP32, IP42		
[1]32 kV or 42 kV optional for GOST standard Further ratings and dimensions acc. manufacturer documentation				

Application/Limitation

Minimum room height:
≥2700mm, pressure relief out of the switchgear room through a gas exhausting duct.
≥3500mm, pressure relief into the switchgear room through absorbers.

Type Approval documentation

Tests carried out

IEC 62271-200: Dielectric tests, measuring of the resistance, temperature-rise tests, short-time- and peak withstand current tests, verification of protection, electromagnetic compatibility tests, verification of making and breaking capacities, mechanical operation tests, internal arc fault tests.
Seismic / vibration test.

Marking of product

Nameplate acc. IEC 62271-200 subclause 5.10

Name and place of manufacturer

SIEMENS Sanayi ve Ticaret A. Ş
IC LMV MS
Gebze Organize Sanayi Böldesi
1000. Cadde, 13. Sokak, No: 1004
41480 Gebze / Kocaelic
TURKEY

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 year.

END OF CERTIFICATE