Certificate No:
TAE00004SB

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Circuit Breaker

with type designation(s)
INFINITUS

Issued to
ABB S.P.A. - ABB Sace Division
Frosinone, FR, Italy

is found to comply with
DNV 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.
Rated voltage (V) DC 1000
Rated current (A) 2500

Issued at **Hamburg** on **2023-05-30**
This Certificate is valid until **2028-05-29**.
DNV local unit: **Italy/Malta CMC**

Approval Engineer: **Harald Amberger**

for **DNV**

Marta Alonso Pontes
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.

LEGAL DISCLAIMER: Unless otherwise stated in the applicable contract with the holder of this document, or following from mandatory law, the liability of DNV AS, its parent companies and their subsidiaries as well as their officers, directors and employees ("DNV") arising from or in connection with the services rendered for the purpose of the issuance of this document or reliance thereon, whether in contract or in tort (including negligence), shall be limited to direct losses and under any circumstance be limited to 300,000 USD.

Product description

SACE INFINITUS 25 solid state circuit breaker

Ratings		INFINITUS I25LS /10 1P2I	INFINITUS I25LH /10 1P2I	INFINITUS I25LV /10 1P2I
Current I_u (40°C)	A	800	800	800
	A	1000	1000	1000
	A	1250	1250	1250
	A	1600	1600	1600
	A	2000	2000	2000
	A	2500	2500	2500
Operational voltage U_e	V	1000 DC		
Insulation voltage U_i	V	1250		
Impulse withstand voltage U_{imp}	kV	12		
Utilization category		A		
Short-time withstand current I_{cw} (0,5s)	kA	3	3	3
Ultimate Short-Circuit Breaking Cap. I_{cu} (τ=2ms)	kA	100	100	100
Service Short-Circuit Breaking Cap. I_{cs} (τ=2ms)	kA	100	100	100
Icu/dt	A/µs	<80	<100	No limit
Further ratings acc. manufacturer documentation.				

Application/Limitation

Location Classes:
Temperature: B, Humidity: B, Vibration: A, EMC: A,

Operating instruction of the manufacturer to be observed

Type Approval documentation

Tests carried out

IEC 60947-2, vibration test, dry heat test, damp heat test, cold test and EMC test.

Marking of product

Acc. IEC 60947-2 subclause 5.2

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.

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