



Certificate No:
TAE00004AU

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Circuit Breaker Disconnecting Switch

with type designation(s)
3WL10, 3VA27 Accessories (3VW9/8UD), Guide frame (3VW8)

Issued to

Siemens AG
REGENSBURG, Germany

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) 690

Rated current (A) 1250 (3WL10), 1600 (3VA27)

Issued at **Hamburg** on **2021-10-15**

This Certificate is valid until **2026-10-14**.

DNV local station: **Augsburg**

for **DNV**

Approval Engineer: **Harald Amberger**

Arne Schaarmann
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.



Form code: TA 251

Revision: 2021-03

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Ratings		Air Circuit Breaker		
Type		3WL10		
Operating voltage U_e	V	690		
Insulation voltage U_i	V	1000		
Impulse withstand voltage U_{imp}	kV	12		
Frequency	Hz	50/60		
Number of poles		3/4		
Type of release		Electronic		
Method of installation		Fixed and withdrawable		
Utilization category		B		
Current I_n (40°C)	A	630A (400A ¹) up to 1250A		
Breaking Class		B	N	S
Ultimate Short-Circuit Breaking Capacity I_{cu}				
AC400/440V	kA	42	55 ²	66 ²
AC500/525V	kA	42	50	50
AC690V	kA	--	42	50
Service Short-Circuit Breaking Capacity I_{cs}		$I_{cs} = I_{cu}$		
Making Capacity I_{cm}				
AC400/440V	kA	88	121	145
AC500/525V	kA	88	105	105
AC690V	kA	--	88	105
Short-time withstand current I_{cw}				
1s, 690V	kA	42	42	50
3s, 690V	kA	24	24	36
¹ 400A with rating plug, ² $I_{cs} = 50kA$				

Type of release:

With rotary coding switches: ETU320, ETU350, ETU360

With display: ETU650, ETU660

Technical data disconnecting switch (to IEC 60947-3):

Type	3WL10**-2AA		3WL10**-3AA
Number of poles	3, 4		
Rated operation voltage AC (V)	690		
Rated operational current (A) In (40°C)	630A (400A ¹) up to 1250A		
Rated Frequency Hz	50/60		
Rated making capacity(kA) Icm	88	105	
Rated permissible short-time current Icw (1s kA)	42	50	
Utilization Category	AC-22A, AC-23A		
¹ 400A with rating plug			

Ratings	Moulded Case Circuit Breaker			
Type	3VA27			
Operating voltage U _e	V	690		
Insulation voltage U _i	V	1000		
Impulse withstand voltage U _{imp}	kV	8		
Frequency	Hz	50/60		
Number of poles	3/4			
Type of release	Electronic			
Method of installation	Fixed and withdrawable			
Utilization category	B			
Current I _n (40°C)	A	800A (400A, 630A ¹) up to 1600A		
Breaking Class		M	H	C
Ultimate Short-Circuit Breaking Capacity I _{cu}				
AC230V kA		100	150	200
AC415V kA		55	85	100
AC440V kA		55	85	100
AC500V kA		36	55	85 ²
AC690V kA		25	36	50 ³
Service Short-Circuit Breaking Capacity I _{cs}		I _{cs} = I _{cu}		
Making Capacity I _{cm}				
AC440V kA		121	187	220
AC500V kA		75,6	121	187
AC690V kA		52,5	75,6	105
Short-time withstand current I _{cw}				
(1s, 690V) kA		20	20	20
¹ 400A or 630A with rating plug, ² I _{cs} = 63,75kA, ³ I _{cs} = 37,5kA				

Type of release:

With rotary coding switches: ETU320, ETU350, ETU360

With display: ETU650, ETU660

Technical data disconnecting switch (to IEC 60947-3):

Type	3VA27-*AA
Number of poles	3, 4
Rated operation voltage AC (V)	690
Rated operational current (A) I_n (40°C)	800 - 1600
Rated Frequency Hz	50/60
Rated making capacity(kA) I_{cm}	40
Rated permissible short-time current I_{cw} (1s kA)	20
Utilization Category	AC-23A AC-22A

Application/Limitation

Location Classes:

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

Trip relays: Communication port for monitoring purpose only.

Operating instruction of the manufacturer to be observed

Type Approval documentation

Tests carried out

IEC 60947-2 including Annex H, IEC 60947-3, vibration test, dry heat test, damp heat test, cold test and EMC test.

Marking of product

Acc. IEC 60947-1 subclause 5.1

Name and place of manufacturer

OEZ s.r.o. / Siemens AG
Sedivska 339, 56151 Letohrad
Czech Republic

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