Certificate number: 49777/B0 BV
File number: ACE02/131/6
Product code: 2633H

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

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TYPE APPROVAL CERTIFICATE

This certificate is issued to

SCHNEIDER ELECTRIC INDUSTRIES SAS - ELECTROPOLE 38EQI

EYBENS - FRANCE

for the type of product

CIRCUIT BREAKERS (LOW VOLTAGE)

Motor circuit breaker TeSys GV4P, GV4PE, GV4PEM, GV4L & GV4LE.

Requirements:
Bureau Veritas Rules for the Classification of Steel Ships
EC Code: 34
IEC 60947-1: 2007 +A1: 2010 + A2: 2014.
IEC 60947-2: 2016 + A1:2019
IEC 60947-4-1: 2018
IEC 60947-5-1: 2016

This certificate is issued to attest that Bureau Veritas Marine & Offshore did undertake the relevant approval procedures for the product identified above which was found to comply with the relevant requirements mentioned above.

This certificate will expire on: 10 Sep 2030

For Bureau Veritas Marine & Offshore,
At BV LYON, on 10 Sep 2025,
Michaël Vavro

This certificate was created electronically and is valid without signature

THE SCHEDULE OF APPROVAL

1. PRODUCT DESCRIPTION :

Low voltage circuit breakers for Marine applications.

1.1 - Approval's range:

Motor Circuit Breaker TeSys GV4L, GV4LE, GV4P, GV4PE and GV4PEM.

Rated short-circuit capacity (according to IEC 60947-2) :

			GV4L...B, GV4LE...B	GV4L...N, GV4LE...N	GV4L...S, GV4LE...S
In			2-115A	2-115A	2-115A
220/240V	Icu	kA	50	100	120
	Ics	%	100	100	100
380/415V	Icu	kA	25	50	100
	Ics	%	100	100	100
440V	Icu	kA	20	50	70
	Ics	%	100	100	100
500V	Icu	kA	10	25	30
	Ics	%	100	100	100
525V	Icu	kA	-	15	18
	Ics	%	-	100	100
660/690V	Icu	kA	-	8	10
	Ics	%	-	25	25

			GV4P...B, GV4PE...B, GV4PEM...B	GV4P...N, GV4PE...N, GV4PEM...N	GV4P...S, GV4PE...S, GV4PEM...S
In			2-115A	2-115A	2-115A
230/240V	Icu	kA	50	100	120
	Ics	%	100	100	100
400/415V	Icu	kA	25	50	100
	Ics	%	100	100	100
440V	Icu	kA	20	50	70
	Ics	%	100	100	100
500V	Icu	kA	10	25	30
	Ics	%	100	100	100
525V	Icu	kA	-	15	18
	Ics	%	-	100	100
660/690V	Icu	kA	-	8	10
	Ics	%	-	25	25

AC1-AC3 performances (according to IEC 60947-4-1) :

GV4P/PE/PEM	AC1	AC3	
Ith	Ie at 690V	Ie at 415V	Ie at 690V
2A	2A	2A	2A
3,5A	3,5A	3,5A	3,5A
7A	7A	7A	7A
12,5A	12,5A	12,5A	12,5A
25A	25A	25A	25A
50A	50A	50A	50A
80A	80A	80A	80A
115A	115A	100A	80A

Structure of Designation:

Examples: GV4P02N, GV4PE02N, GV4PEM02N

GV4P E M 02 N 6
I II III IV V VI

I	II	III	IV	V	VI
Type	Actuation Means	Trip Unit basic or advanced	Rating	Breaking Capacity at 415Vac	Terminal
GV4P= Electronic Thermal-magnetic Motor circuit Breaker	- : Rotary Handle E : Toggle	- : electronic basic M : electronic advanced	02 : 2A 03 : 3.5A 07 : 7A 12 : 12.5A 25 : 25A 50 : 50A 80 : 80A 115 : 115A	B : 25KA N : 50KA S : 100KA	- = Everlink terminal 6 = crimp lug terminal

Examples: GV4L02N, GV4LE02N

GV4L E - 02 N 6
I II III IV V VI

I	II	III	IV	V	VI
Type	Actuation Means	Trip Unit basic or advanced	Rating	Breaking Capacity at 415Vac	Terminal
GV4L= Magnetic Motor circuit Breaker	- : Rotary Handle E : Toggle	- : magnetic	02 : 2A 03 : 3.5A 07 : 7A 12 : 12.5A 25 : 25A 50 : 50A 80 : 80A 115 : 115A	B : 25KA N : 50KA S : 100KA	- = Everlink terminal 6 = crimp lug terminal

1.2 - Accessories:
OF/SD auxiliary contact
- rated operational voltage Ue (V): AC 24 to 690V / DC 24 to 250V
- rated operational curent Ie (V): AC: 0.11-5A / DC: 0.03-2.5A

MN undervoltage release
- rated control circuit voltage Uc (V): AC 24 to 480V / DC 24 to 125V

MX shunt trip
- rated control circuit voltage Uc (V): AC 24 to 480V / DC 24 to 125V

SDX Contact module: GV4ADM1111
- rated operational voltage Ue (V): AC 110 to 240V / DC 24 to 250V.
- rated operational current Ie (V): AC: 3-1,5A / DC: 2-0,11A.

2. <u>DOCUMENTS AND DRAWINGS</u> :
- Product description / Specifications:
  Catalogue 2017 Motor circuit breakers TeSys - document Ref: GVLVCATESGV_EN dated 27 Feb 2017
  Instruction sheet TeSys GV4L - document Ref: EAV91197-02 dated Jun. 2017
  Instruction sheet TeSys GV4P - document Ref: EAV91200-01 dated Jun. 2017
  CB Scheme Certification file IEC60947-2 - Motor Circuit-breaker TeSys GV4L-GV4LE rev B, dated 06 Apr. 2017
  CB Scheme Certification file IEC60947-2 & IEC60947-4-1 - Motor Circuit-breaker TeSys GV4P-GV4PE-GV4PEM, rev C, dated 06 Apr. 2017

3. TEST REPORTS :

- GV4L-LE :Test report 147409-700319, dated 15/06/2017.
- GV4L-LE :Test report 147409-705360, dated 15/06/2017.
- GV4L-LE :Test report 147409-705360/A1, dated 05/12/2017.
- GV4P-PE :Test report 148931-704462, dated 16/06/2017.
- GV4P-PE :Test report 148931-704484, dated 16/06/2017.
- GV4P-PE & GV4L-LE:Test report 148931-705364, dated 27/06/2017.
- GV4P-PE & GV4L-LE:Test report 148931-705365, dated 16/06/2017.
- GV4P-PE-PEM: Test report 148933-704742, dated 05/12/2017.
- GV4L-LE & GV4P-PE-PEM: Test report 148933-709107, dated 05/12/2017.
- GV4ADM1111: Test Report: ATR18-0076 dated 06 July.2017 ~ 30 July 2017.
- IECEE CB Scheme - Ref. Certif. No. FR_700995 - Tesys GV4L, GV4LE, GV4P, GV4PE, dated 29 Jun. 2017.
- IECEE CB Scheme - Ref. Certif. No. FR_701006/M1 - Tesys GV4L, GV4LE, GV4P, GV4PE, GV4PEM dated 06 Dec. 2017.
- IECEE CB Scheme - Ref. Certif. No. FR_701006 - Tesys GV4L, GV4LE, GV4P, GV4PE, dated 29 Jun.2017.
- IECEE CB Scheme - Ref. Certif. No. 00901-CB2018CQC-079992, GV4ADM1111 dated 06 Oct.2017.
- IECEE CB Scheme - Ref. Certif. No. FR_717811 - GV4AE11, dated 19 Oct 2023.
- IECEE CB Scheme - Ref. Certif. No. CN43622-M1 - GV4ADM1111, dated 05 Jan 2023.
- IECEE CB Scheme - Ref. Certif. No. FR_713464/M1, dated 19 Oct 2023.
- Test report No. 00901-CB2018CQC-079992-M1, dated 25 Oct 2022.
- Test report No. 23119Y90040, dated 16 Oct 2023.
- Test report No. 2111996011, dated 28 Feb 2022.
- Test report No. 2111996011A, dated 28 Feb 2022.
- Test report No. 2111996011-M1, dated 16 Oct 2023.
- Test report No. 2111996011A-M1, dated 16 Oct 2023.
- CB Test Tesys GV4L, GV4LE, GV4P, GV4PE, Ref: FR700995, dated 29/06/2017.
- CB Test Tesys GV4L, GV4LE, GV4P, GV4PE, Ref: FR701006, dated 29/06/2017.
- Climatic test report TeSys GV4 PE, Ref: 201607376_008, dated 23/03/2017.
- Climatic test report No. ATR18-0076, dated 30 Jul 2018.
- Mechanical test report TeSys GV4 PE, Ref: 201607376_010, dated 08/02/2017.
- Mechanical test report TeSys GV4 PE, Ref: 201607376_022, dated 08/02/2017.
- Climatic test report No. ATR18-0076, dated 30 Jul 2018.
- EMC test report No. 22119E90004, dated 09 Aug 2022.
- EMC test report No. SPEC24AB6120_V1, dated 03 Jan 2025.

4. APPLICATION / LIMITATION :

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

4.2 - Equipment covered by this Type Approval certificate has been tested according to requirements of IACS UR E10 rev 9.

4.3 - BUREAU VERITAS Environmental Category, EC Code: 34

4.4 - Standards IEC 60947-1:2014, IEC 60947-2:2019, IEC 60947-4-1:2018 and IEC 60947-5-1:2016 used for the conformity assessment process resulting in the issuance of this certifcate, were not the latest available version of the standards at the time of certificate issuance.

5. PRODUCTION SURVEY REQUIREMENTS :

5.1 - The above products are to be supplied by **SCHNEIDER ELECTRIC INDUSTRIES SAS - ELECTROPOLE 38EQI** in compliance with the type described in this certificate.

5.2 - This type of product is within the category HBV of Bureau Veritas Rule Note NR320 and as such does not require a BV product certificate.

5.3 - **SCHNEIDER ELECTRIC INDUSTRIES SAS - ELECTROPOLE 38EQI** has to make the necessary arrangements to have its works recognised by Bureau Veritas in compliance with the requirements of NR320 for HBV products.

5.4 - For information, **SCHNEIDER ELECTRIC INDUSTRIES SAS - ELECTROPOLE 38EQI** has declared to Bureau Veritas the following production site:

Schneider Electric Industries Polska Sp. z o.o.
ul. Mostowa 19
32-332 BUKOWNO
POLAND

6. MARKING OF PRODUCT :

- According to IEC 60947 specifications.

7. <u>OTHERS</u>:

7.1 - It is **SCHNEIDER ELECTRIC INDUSTRIES SAS - ELECTROPOLE 38EQI's** responsibility to inform shipbuilders or their sub-contractors of the proper methods of fitting, use and general maintenance of the approved equipment and the conditions of this approval.

7.2 - This certificate supersedes the Type Approval Certificate N° 49777/A0 BV issued by the Society.

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