



Marine &amp; Offshore

Certificate number: 49777/A0 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 INDUSTRIE 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

IEC 60947-2:2006 +A1:2009 +A2:2013

IEC 60947-4-1:2009 +A1:2012

IEC 60947-1: 2007 +A1: 2010 + A2: 2014.

*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: 22 Mar 2024**

**For Bureau Veritas Marine & Offshore,**

At BV LYON, on 22 Mar 2019,

Florian Aulen



This certificate remains valid until the date stated above, unless cancelled or revoked, provided the conditions indicated in the subsequent page(s) are complied with and the product remains satisfactory in service. This certificate will not be valid if the applicant makes any changes or modifications to the approved product, which have not been notified to, and agreed in writing with Bureau Veritas Marine & Offshore. Should the specified regulations or standards be amended during the validity of this certificate, the product(s) is/are to be re-approved prior to it/they being placed on board vessels to which the amended regulations or standards apply. This certificate is issued within the scope of the General Conditions of Bureau Veritas Marine & Offshore available on the internet site www.veristar.com. Any Person not a party to the contract pursuant to which this document is delivered may not assert a claim against Bureau Veritas Marine & Offshore for any liability arising out of errors or omissions which may be contained in said document, or for errors of judgement, fault or negligence committed by personnel of the Society or of its Agents in establishment or issuance of this document, and in connection with any activities for which it may provide.

The electronic version is available at: <http://www.veristarp.com/veristarnb/jsp/viewPublicPdfTypepec.jsp?id=wa8l4x5bko>

BV Mod. Ad.E 530 June 2017

This certificate consists of 4 page(s)

## THE SCHEDULE OF APPROVAL

### 1. PRODUCT DESCRIPTION :

Low voltage circuit breakers for Marine and offshore 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	B : 25KA	- = Everlink terminal  6 = crimp lug terminal
			03 : 3.5A	N : 50KA	
			07 : 7A	S : 100KA	
			12 : 12.5A		
			25 : 25A		
			50 : 50A		
			80 : 80A		
		115 : 115A			

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	B : 25KA	- = Everlink terminal  6 = crimp lug terminal
			03 : 3.5A	N : 50KA	
			07 : 7A	S : 100KA	
			12 : 12.5A		
			25 : 25A		
			50 : 50A		
			80 : 80A		
		115 : 115A			

**1.2 - Accessories:****OF/SD auxiliary contact**

- rated operational voltage Ue (V): AC 24 to 690V / DC 24 to 250V
- rated operational current 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. DOCUMENTS AND DRAWINGS :**

- 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.
- 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.
- 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.

**4. APPLICATION / LIMITATION :**

According to BV Rules for the Classification of Steel Ships and IEC 60947-2.

**5. PRODUCTION SURVEY REQUIREMENTS :**

5.1 - The above products are to be supplied by **Schneider Electric Industries SAS** 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** 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** has declared to Bureau Veritas the following production site(s):

**Schneider Electric Industries Polska Sp.Z.o.o**

**ul. Mostowa 17,  
32-332 BUKOWNO,  
POLAND.**

**6. MARKING OF PRODUCT :**

- According to IEC 60947 specifications.

**7. OTHERS:**

- It is **SCHNEIDER ELECTRIC INDUSTRIES SAS'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.

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