Marine & Offshore

Certificate number: TA 59417/A0 EU-MR BV
File number: ACE2/131/5
Product code: EUMR35

This certificate is not valid when presented without the full attached Design Evaluation Attestation

www.veristar.com

EUROPEAN UNION RECOGNISED ORGANISATION (EU RO)
MUTUAL RECOGNITION
TYPE APPROVAL CERTIFICATE

In accordance with Article 10.1 of EU Regulation 391/2009

This certificate is issued to

SCHNEIDER ELECTRIC INDUSTRIE SAS - ELECTROPOLE 38EQI

31 RUE PIERRE MENDES FRANCE
38320 EYBENS
FRANCE

for the type of product

CIRCUIT BREAKERS WITH ELECTRONIC DEVICES

Motor circuit breaker TeSys GV4P, GV4PE and GV4PEM

Requirements:
EU RO Terms and Conditions
EU RO Mutual Recognition Procedure for Type Approval
EU RO Mutual Recognition Technical Requirements - Circuit Breakers with Electronic Devices - Version 0.1 - 01 Apr 2016
Bureau Veritas Guidance Note NI596 DT R06 E - Jan 2018
IEC 60947-2: 2006 +A1: 2009 +A2: 2013
IEC 60947-4-1: 2009 +A1: 2012
IEC 60947-1: 2007 +A1: 2010 + A2: 2014
IACS UR E10 Rev.6.

This is to certify to the manufacturer named above, that the Product referred to herein has been inspected for the manufacturer, pursuant to the relevant requirements of the European Union Recognized Organisation Mutual Recognition Procedure, required by Article 10.1 of EU Regulation 391/2009, and has been found in accordance with those requirements.

This certificate will expire on: 30 Jul 2024

For Bureau Veritas Marine & Offshore,
At BV LYON, on 14 Oct 2019,
Florian Aulen

BUREAU VERITAS MARINE & OFFSHORE INTERNATIONAL REGISTER

DESIGN EVALUATION

The design evaluation scheme was satisfactorily completed for the concerned product. The following design evaluation attestation gives necessary details and forms part of this certificate:

Attestation number : DE 49776/A0 EU-MR BV
Issued on : 30 Jul 2019
Expires on : 30 Jul 2024

PRODUCTION QUALITY ASSURANCE

The following places of manufacture have been assessed in compliance with the production quality assurance scheme:

Assessment number	Expires on	Place of manufacture
PQA/00161/A.0	30 Jul 2024	Schneider Electric Industries Polska Sp. z o.o. (BUKOWNO - POLAND)

***** END OF PAGE *****

Marine & Offshore

Attestation number: DE 49776/A0 EU-MR BV
File number: ACE2/131/5
Product code: EUMR35

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

ATTESTATION OF DESIGN EVALUATION

This attestation is issued to

SCHNEIDER ELECTRIC INDUSTRIE SAS - ELECTROPOLE 38EQI

31 RUE PIERRE MENDES FRANCE
38320 EYBENS
FRANCE

for the type of product

CIRCUIT BREAKERS WITH ELECTRONIC DEVICES

Motor circuit breaker TeSys GV4P, GV4PE and GV4PEM

Requirements:
EU RO Terms and Conditions
EU RO Mutual Recognition Procedure for Type Approval
EU RO Mutual Recognition Technical Requirements - Circuit Breakers with Electronic Devices - Version 0.1 - 01 Apr 2016
Bureau Veritas Guidance Note NI596 DT R06 E - Jan 2018
IEC 60947-2: 2006 +A1: 2009 +A2: 2013
IEC 60947-4-1: 2009 +A1: 2012
IEC 60947-1: 2007 +A1: 2010 + A2: 2014
IACS UR E10 Rev.6.

This is to attest that Bureau Veritas Marine & Offshore did undertake the relevant design evaluation procedure for the product identified above which was found to comply with the applicable design evaluation requirements mentioned above.

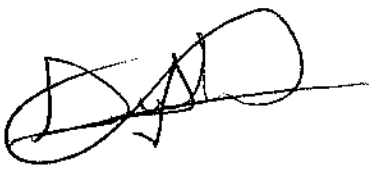
This attestation is an intermediate document issued within the scope of a type approval procedure and does not constitute by itself a type approval document. The relevant type approval procedure needs to be satisfactorily completed where a type approval certificate is required for the placing of the product(s) on board vessels to be classed with Bureau Veritas Marine & Offshore.

This attestation will expire on: 30 Jul 2024

For Bureau Veritas Marine & Offshore,

At BV LYON, on 30 Jul 2019,

Florian Aulen



1. PRODUCT DESCRIPTION :

Low voltage motor circuit-breakers for Marine and Offshore applications.

1.1 - Approval's range:

Motor Circuit Breaker TeSys GV4P, GV4PE and GV4PEM

Rated short-circuit capacity :

			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 :

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

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: 0.05-2.5A

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

- AC15 rated operational voltage Ue (V): AC 110 to 240V / DC 24 to 250V.
- DC13 rated operational current Ie (V): AC: 3-1,5A / DC: 2-0,11A.

1.3 - ASIC:

Electronic trip unit have an ASIC (Application Specific Integrated Circuit) which ensures the basic protections of GV4P, named "ASIC ARGA". Reference and version of the ASIC: AAV73222 rev.02.

2. DOCUMENTS AND DRAWINGS :

- Product description / Specifications:

Catalogue 2017 Motor circuit breakers TeSys - document Ref: GVLVCATESGV_EN dated 27 Feb 2017
Instruction sheet TeSys GV4P - document Ref: EAV91200-01 dated Jun. 2017
CB Scheme Certification file IEC60947-2 & IEC60947-4-1 - Motor Circuit-breaker TeSys GV4P-GV4PE-GV4PEM, rev C, dated 06 Apr. 2017

- Accreditation certificate of Test laboratories:

LCIE Fontenay-Aux-Roses: COFRAC Accreditation certificate N°1-0311 rev. 5
LCIE SUD-EST - Moirans: COFRAC Accreditation certificate N°1-1633 rev. 7
SCHNEIDER ELECTRIC INDUSTRIES SAS - F_LAB VOLTA: COFRAC Accreditation certificate N°1-0140 rev. 8
CLAB, Shanghai Branch, Schneider Electric (China) Co., Ltd: Registration N° CNAS L2977

- QM-certificates according to ISO 9001:

ISO 9001:2008 Master Certificate No 195538-UK, issued by Bureau Veritas Certification
ISO 9001:2008 Sub-Certificate No. 195538-117-UK, issued by Bureau Veritas Certification
ISO 9001:2008 Sub-Certificate No. CNBJ195538-3-UK, issued by Bureau Veritas Certification

3. TEST REPORTS :

- IECEE CB Scheme - Ref. Certif. No. FR_701006/M1 - Tesys GV4L, GV4LE, GV4P, GV4PE, GV4PEM dated 06/12/ 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
- IECEE CB Scheme - Ref. Certif. No. FR_700995 - Tesys GV4L, GV4LE, GV4P, GV4PE, dated 29 Jun. 2017
- GV4P-PE: Test report 148931-704484, dated 16/06/2017
- GV4P-PE & GV4L-LE: Test report 148931-705364, dated 27/06/2017
- IECEE CB Scheme - Ref. Certif. No. FR_701006 - Tesys GV4L, GV4LE, GV4P, GV4PE, dated 29/06/2017
- GV4P-PE: Test report 148931-704462, dated 16/06/2017
- GV4P-PE & GV4L-LE: Test report 148931-705365, dated 16/06/2017
- IECEE CB Scheme - Ref. Certif. No. CN43622 dated 11/06/2018
- GV4ADM1111: Test Report 00901-CB2018CQC-079992 dated 28/05/2018
- Climatic test report - Ref. 201607376_008 dated 23/03/2017
- Mechanical test report (vibrations) - Ref. 201607376_010 dated 19/01/ 2017
- Mechanical test report (inclination) - Ref. 201607376_022 dated 23/02/ 2017
- EMC test report - Ref. 141595-685214-A Version 02 dated 26/07/2016
- EMC test report - Ref. 141595-687374-A Version 02 dated 10/08/2016
- EMC test report - Ref. 201600615_002 dated 07/07/2016
- EMC test report - Ref. 201607376_017 dated 30/04/2019.

4. APPLICATION / LIMITATION :

4.1 - As per requirements stated on front page of this document. In particular, application limitations and specifications on intended use apply as defined in paragraphs 1.b and 1.c of the applicable EU RO Mutual Recognition Technical Requirements.
4.2 - Circuit breakers and accessories covered by this certificate do not require any external power supply.
4.3 - **SCHNEIDER ELECTRIC INDUSTRIES SAS** must inform Bureau Veritas of any modifications of this design, which must receive additional approval where such changes may affect compliance with the requirements or the prescribed conditions for use of the product.

5. PRODUCTION SURVEY REQUIREMENTS :

5.1 - **SCHNEIDER ELECTRIC INDUSTRIES SAS** must comply with the EU RO Production Quality Assurance procedure in order to finalise the EU RO Mutual Recognition Type Approval procedure.

5.2 - **SCHNEIDER ELECTRIC INDUSTRIES SAS** has declared to Bureau Veritas that the type of product described in this certificate may be manufactured at the following production sites:

SCHNEIDER ELECTRIC POLSKA Sp z.o.o
ul. Mostowa 19
32-332 Bukowno, Malopolska
POLAND

6. MARKING OF PRODUCT :
According to IEC 60947-2 and IEC 60947-4-1.

7. OTHERS:
It is **SCHNEIDER ELECTRIC INDUSTRIES SAS** 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 ATTESTATION *****