



Marine &amp; Offshore

Certificate number: 54207/A0 BV

File number: ACE2/8/45

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**  
 Grenoble Cedex 09 - FRANCE

*for the type of product*  
**CIRCUIT BREAKERS (LOW VOLTAGE)**  
 EasyPact MVS N type and MVS H type

### Requirements:

Bureau Veritas Rules for the Classification of Steel Ships  
 IEC 60947-1 (2007)+AMD1 (2010)+AMD2 (2014)  
 IEC 60947-2 (2016)

EC Code: 31/41

*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: 30 Nov 2023**

**For Bureau Veritas Marine & Offshore,**

At BV LYON, on 30 Nov 2018,

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.

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BV Mod. Ad.E 530 June 2017

This certificate consists of 3 page(s)

## THE SCHEDULE OF APPROVAL

### **1. PRODUCT DESCRIPTION :**

Circuit-breakers **EasyPact MVS N type and MVS H type** are air circuit-breakers equipped with trip system: 2.0 - 5.0 - 5.0A - 5.0V - 6.0 - 6.0A - 6.0V.

#### **1.1 - Circuit breakers EasyPact MVS N type 400 to 1600A:**

		<b>MVS04N</b>	<b>MVS06N</b>	<b>MVS08N</b>	<b>MVS10N</b>	<b>MVS12N</b>	<b>MVS16N</b>
Rated current	In	400A	630A	800A	1000A	1250A	1600A
Poles		3 & 4 Poles					
Rated operational voltage	Ue	220/440V					
Rated insulation voltage	Ui	1000V					
Rated impulse withstand voltage	Uimp	12kV					
Rated frequency		50/60 Hz					
Ultimate breaking capacity	Icu	50kA					
Rated service breaking capacity	Ics	50kA					
Rated short-time withstand current	Icw	35kA / 1s					
Utilization category		B					

#### **1.2 - Circuit breakers EasyPact MVS H type 630 to 2000A:**

		<b>MVS06H</b>	<b>MVS08H</b>	<b>MVS10H</b>	<b>MVS12H</b>	<b>MVS16H</b>	<b>MVS20H</b>
Rated current	In	630A	800A	1000A	1250A	1600A	2000A
Poles		3 & 4 Poles					
Rated operational voltage	Ue	220/440/690V					
Rated insulation voltage	Ui	1000V					
Rated impulse withstand voltage	Uimp	12kV					
Rated frequency		50/60 Hz					
Ultimate breaking capacity	Icu	65kA at 220/440V 50kA at 690V					
Rated service breaking capacity	Ics	65kA at 220/440V 50kA at 690V					
Rated short-time withstand current	Icw	65kA / 1s at 220/440V 50kA / 1s at 690V					
Utilization category		B					

		<b>MVS25H</b>	<b>MVS32H</b>	<b>MVS40H</b>
Rated current	In	2500A	3200A	4000A
Poles		3 & 4 Poles		
Rated operational voltage	Ue	220/440/690V		
Rated insulation voltage	Ui	1000V		
Rated impulse withstand voltage	Uimp	12kV		
Rated frequency		50/60 Hz		
Ultimate breaking capacity	Icu	65kA at 220/440V 50kA at 690V		
Rated service breaking capacity	Ics	65kA at 220/440V 50kA at 690V		
Rated short-time withstand current	Icw	65kA / 1s at 220/440V 50kA / 1s at 690V		
Utilization category		B		

**1.3 - Control Units Micrologic:**

Control Unit type	Protection
2.0 (Basic type)	Basis protection : - long-time - instantaneous
5.0 (Basic type)	Selective protection : - long-time
5.0A (« Current » measurement)	- short-time - instantaneous
5.0V (« Current » and « Voltage » measurement)	
6.0 (Basic type)	Selective + Earth-fault protection : - long-time
6.0A (« Current » measurement)	- short-time - instantaneous
6.0V (« Current » and « Voltage » measurement)	- earth-fault

**2. DOCUMENTS AND DRAWINGS :**

- MVS04-16N-NA - Descriptive File, dated June 2018
- MVS06-40H-HA - Descriptive File, dated June 2018

**3. TEST REPORTS :****LCIE:**

- CB Scheme certificate ref. FR\_702991, dated 30 May 2018
- CB Scheme certificate ref. FR\_702999, dated 30 May 2018
- Tests report ref. 1811990002, dated 15 May 2018
- Tests report ref. 1811990004, dated 15 May 2018

**Zhejiang Fangyuan Test Group Co. Ltd.:**

- Environmental test report ref. 1811990005, dated 25 May 2018
- Environmental test report ref. 1811990006, dated 24 May 2018

**4. APPLICATION / LIMITATION :**

- 4.1 - BUREAU VERITAS Rules and Regulations for the Classification of Steel Ships.
- 4.3 - BUREAU VERITAS Environmental Category, **EC Code: 31/41.**

**5. PRODUCTION SURVEY REQUIREMENTS :**

- 5.1 - The circuit-breakers **EasyPact series** 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 SHANGHAI POWER DISTRIBUTION ELEC. APP. CO LTD**  
**833 Kang Qiao Lu Pu Dong**  
**201315 SHANGHAI**  
**CHINA**

**6. MARKING OF PRODUCT :**

- 6.1 - Trade name.
- 6.2 - Date of manufacture and serial number.
- 6.3 - Equipment type or model identification under which it was type-tested

**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 \*\*\*