



Marine & Offshore

Certificate number: 22951/B1 BV

File number: ACE2/162/2

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 type EZC100 and EZC250

Requirements:

Bureau Veritas Rules for the Classification of Steel Ships
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: 10 Sep 2023

For Bureau Veritas Marine & Offshore,

At BV LYON, on 17 Dec 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:

EasyPact is a moulded case circuit-breakers with the following current ratings: 15A, 16A, 20A, 25A, 30A, 32A, 40A, 45A, 50A, 60A, 63A, 75A, 80A, 100A and 250A.

1.1 - Circuit-breakers ECZ100:

- Rated Insulation Voltage:	Ui = 690V
- Maximum rated operational voltage:	Ue = 550V
- Rated impulse withstand voltage:	Uimp = 6kV
- Rated Frequency	50 – 60Hz
- Utilization Category:	A

Type		ECZ100B	EZC100F	EZC100N		EZC100H	
Number of poles		3P	3P	1P	3P, 4P	1P	2P, 3P, 4P
Nominal current (A)		15, 16, 20, 25, 30, 32, 40, 45, 50, 60	15, 16, 20, 25, 30, 32, 40, 45, 50, 60, 63, 75, 80, 100				
Icu (kA)	110-130V AC	10	25	25	25	50	100
	220-240V AC	10	25	18	25	25	50 (2P) 100 (3P, 4P)
	380V AC	7.5	10	2.5	18	5	30
	400/415V AC	7.5	10	2.5	15	5	30
	440V AC	5	7.5	-	10	-	20
	550V AC	2.5	5	-	5	-	10
	120V DC (1P)	-	5	5	5	10	10
	250V DC (2P)	-	5	-	5	-	10
Ics (kA)	110-400V	25% Icu	50% Icu	50% Icu	50% Icu	50% Icu	50% Icu
	415-550V						25% Icu

1.2 - Circuit-breakers ECZ250:

- Rated Insulation Voltage:	Ui = 690V
- Maximum rated operational voltage:	Ue = 550V
- Rated impulse withstand voltage:	Uimp = 6kV
- Rated Frequency	50 – 60Hz
- Utilization Category:	A

Type		EZC250F	EZC250N	EZC250H
Number of poles		3P	3P	2P, 3P
Nominal current (A)		100, 125, 160, 175, 200, 225, 250		
230V AC	Icu (kA)	25	50	85
	Ics (kA)	13	25	43
400V AC	Icu (kA)	18	25	36
	Ics (kA)	9	13	18

2. DOCUMENTS AND DRAWINGS:

In accordance with the manufacturer's drawings and documents, at latest and at any subsequent issue endorsed by Bureau Veritas:

2.1 - Schneider Electric Marine Certification file EasyPact 100-250 dated April 2007 and revised March 2010.

2.2 - Schneider Electric Catalogue 2008 EasyPact EZC100 to 400A Ref LVPED208003EN.

Nb: This above list can be revised to show changes to drawings and documents issue status.

Before changes can be implemented, new drawings and documents must be provided to Bureau Veritas for review and acceptance. The new documents and drawings list will be stamped and endorsed accordingly.

3. TEST REPORTS:**China Quality Certification Centre:**

- CB Scheme certificate ref. CN41125, dated 01 Sep 2017 (for EZC100)
- CB Scheme certificate ref. CN40639, dated 03 Aug 2017 (for EZC250)

Shanghai Testing & Inspection Institute for Electrical Equipment Co. Ltd.:

- Environmental test report N° ATR18-0035 dated 04/06/2018 (for EZC100)
- Environmental test report N° 1811990018 dated 30/05/2018 (for EZC250)

4. APPLICATION / LIMITATION:

- 4.1 - BUREAU VERITAS Rules for the Classification of Steel Ships.
- 4.2 - Approval valid for ships intended to be granted with the following additional class notations: **AUT-UMS, AUT-CCS, AUT-PORT and AUT-IMS.**
- 4.3 - BUREAU VERITAS Environmental Category, **EC Code: 31/41.**
- 4.4 - The equipment fulfils the EMC requirements for installation in General Power Distribution Zones.

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 sites:

For ECZ100

SCHNEIDER ELECTRIC THAILAND Co. Ltd.
540 Soi 9 Bangpoo Industrial Estate
Sukhumvit Road, Muang
10280 Samutprakam
THAILAND

For ECZ250

FUJI ELECTRIC DALIAN CO. (FEDAC)
No.3 The Third Street of Northeast Dalian
Economic & Technical Development Zone
Dalian 116600
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:

- 7.1 - 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.
- 7.2 - This certificate supersedes the Type Approval Certificate No. 22951/A0 BV issued on 22 Sep 2010. by the Society

*** END OF CERTIFICATE ***