



Marine & Offshore

Certificate number: 49263/B2 BV

File number: AP1

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)

Air Circuit breaker Masterpact MTZ series.

Unprotected Circuit breaker Masterpact MTZ series.

Requirements:

Bureau Veritas Rules for the Classification of Steel Ships & Offshore Units.

EC Code: 41.

IEC 60947-1:2007 (ed.5) + A1:2010 + A2:2014

IEC 60947-2:2016 (ed.5)

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: 11 Jun 2025

For Bureau Veritas Marine & Offshore,

At BV LYON, on 02 May 2023,

Florian Aulen

This certificate was created electronically and is valid without signature



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.veristarm.com/veristarnb/jsp/viewPublicPdfTypepec.jsp?id=qxrgaevfvz>

BV Mod. Ad.E 530 June 2017

This certificate consists of 5 page(s)

THE SCHEDULE OF APPROVAL

1. PRODUCT DESCRIPTION :

The **MASTERPACT MTZ1-MTZ2-MTZ3 series**, equipped with Micrologic X control units: 2.0X, 5.0X, 6.0 X, are air circuit breakers for Marine and Offshore applications.

The **MASTERPACT MTZ2-MTZ3 series**, are Unprotected circuit breakers for Marine and Offshore applications.

1.1 - Specifications:

Number of poles	3-4
Rated insulation voltage, U_i (V)	1000
Impulse withstand voltage, U_{imp} (kV)	12
Rated frequency (Hz)	50-60

1.2 - Approval range for air circuit breakers:

	Type	In	selectivity categories	Ue	Icu	Ics	Icw	
							1s	3s
MTZ1	H1	630A - 1600A	cat. B	220/415/440V 525V 690V	42kA	42kA	42kA	-
	H2	630A - 1600A	cat. B	220/415/440V 525V 690V	50kA 42kA 42kA	50kA 42kA 42kA	42kA	-
	H3	630A - 1600A	cat. B	220/415/440V	66kA	50kA	50kA	30kA
	L1	630A - 1000A	cat. A	220/415V 440V 525V	150kA 130kA 100kA	150kA 130kA 100kA	-	-
MTZ2	N1	800A - 2000A	cat. B	220/415/440V 525V 690V	42kA	42kA	42kA	22kA
	N2	800A - 2500A	cat. B	220/415/440V 525V 690V	50kA	50kA	50kA	-
	H1	800A - 2000A	cat. B	220/415/440V 525V 690V	66kA	66kA	66kA	36kA
		2500 - 4000A		220/415/440V 525V 690V	66kA	66kA	66kA	66kA
	H1b	800A - 4000A	cat. B	220/415/440V 525V 690V	85kA	85kA	85kA	-
	H2	800A - 1600A	cat. B	220/415/440V 525V 690V	100kA 85kA 85kA	100kA 85kA 85kA	85kA	50kA
		2000 - 4000A		220/415/440V 525V 690V	100kA 85kA 85kA	100kA 85kA 85kA	85kA	75kA
	H2V	800 - 4000A	cat. B	220/415/440V	100kA	100kA	100kA	75kA
	H3	2000 - 4000A	cat. B	220/415/440V 525V 690V	150kA 130kA 100kA	150kA 130kA 100kA	65kA	65kA
	L1	800A - 2000A	cat. B	220/415/440V 525V 690V	150kA 130kA 100kA	150kA 130kA 100kA	30kA	30kA
MTZ3	H1	4000A - 6300A	cat. B	220/415/440V 525V 690V	100kA	100kA	100kA	100kA
	H2	4000A - 6300A	cat. B	220/415/440V 525V 690V	150kA 130kA 100kA	150kA 130kA 100kA	100kA	100kA

1.3 - Approval range for unprotected circuit breakers*:

	Type	In	selectivity categories	Ue	Icu	Ics	Icw	
							1s	3s
MTZ2	HA	800A - 2000A	cat. B	220/440V 500/525V 660/690V	66kA	66kA	66kA	36kA
		2500 - 4000A		220/440V 500/525V 660/690V			66kA	66kA
	HF	800A - 4000A	cat. B	220/440V 500/525V 660/690V	85kA	85kA	85kA	75kA
	HH	2000A - 4000A	cat. B	220/440V	100kA	100kA	100kA	75kA
MTZ3	HA	4000A - 6300A	cat. B	220/440V 500/525V 660/690V	85kA	85kA	85kA	85kA

* with external protection relay and shunt trip; maximum delay of short-circuit protection: 400ms

For more detailed technical information see the manufacturer datasheet or catalogue.

2. DOCUMENTS AND DRAWINGS :

Specification ref. QGH4603200, rev. 04, dated 28 Nov 2019.

Specification ref. QGH7277800, rev. 02, dated 26 Nov 2019.

Catalog 2020 ref. LVPED216026EN, dated Dec 2019.

3. TEST REPORTS :**LCIE:**

- Tests report ref. 143620-690532-A, dated 03 Feb 2017.
- Tests report ref. 141610-685260-C, dated 17 Feb 2017.
- Tests report ref. 145188-694373-C dated 02 Jan 2017.
- Tests reports ref. 141610-685260-C dated 17 Feb 2017.
- Tests reports ref. 143619-690528-A dated 03 Feb 2017.

Volta:

- Tests report ref. 201504917_082, dated 25 Jan 2017.
- Tests report ref. 20154917_105_v1, dated 12 Jan 2017.
- Tests report ref. 20154917_108_v1, dated 12 Jan 2017.
- Tests report ref. 20154917_099_v2, dated 12 Jan 2017.
- Tests report ref. 20154917_110_v1, dated 12 Jan 2017.
- Tests report ref. 20154917_084, dated 25 Jan 2017.
- Tests report ref. 201605195_011, dated 25 Apr 2017.
- Tests report ref. 201605195_013, dated 21 Feb 2017.
- Tests report ref. 201605195_017, dated 03 Mar 2017.
- Tests report ref. 201605195_051, dated 07 Feb 2017.

ENVIRONNE"TECH:

- Test report ref. RENV-ENN-16-400870-3/A, dated 08 Dec 2016.
- Test report ref. RENV-ENN-16-400870-4/A, dated 08 Dec 2016.

For B0 version:**LCIE:**

- CB Scheme certificate ref. FR_706272, dated 08 Jul 2019.
- Tests report ref. 157394-733097-A, dated 04 Jun 2019.
- CB Scheme certificate ref. FR_706286, dated 08 Jul 2019.
- Tests report ref. 157394-733098-A, dated 04 Jun 2019.
- CB Scheme certificate ref. FR_706311, dated 10 Jul 2019.
- Tests report ref. 157394-733099-A, dated 04 Jun 2019.
- CB Scheme certificate ref. FR_706636, dated 27 Aug 2019.
- CB Scheme certificate ref. FR_706637, dated 27 Aug 2019.
- Tests report ref. 157394-733101-A, dated 30 Jul 2019.
- CB Scheme certificate ref. FR_706646, dated 27 Aug 2019.
- Tests report ref. 157394-733103-A, dated 30 Jul 2019.
- CB Scheme certificate ref. FR_706648, dated 27 Aug 2019.
- Tests report ref. 157394-733104-A, dated 30 Jul 2019.
- CB Scheme certificate ref. FR_706295, dated 09 Jul 2019.
- CB Scheme certificate ref. FR_706297, dated 09 Jul 2019.
- Tests report ref. 157394-733100-A, dated 04 Jun 2019.
- CB Scheme certificate ref. FR_706292, dated 09 Jul 2019.
- Tests report ref. 157394-733106-A, dated 04 Jun 2019.
- CB Scheme certificate ref. FR_706948, dated 30 Sep 2019.
- CB Scheme certificate ref. FR_707770, dated 16 Jan 2020.
- CB Scheme certificate ref. FR_707849, dated 31 Jan 2020.
- Tests report ref. 161635-737436-A, dated 13 Dec 2019.
- CB Scheme certificate ref. FR_707955, dated 20 Mar 2020.

Zhejiang Fangyuan Test Group Co., LTD.:

- Tests report ref. 1911990001, dated 29 Jul 2019.
- Tests report ref. 1911990009, dated 18 Feb 2020.
- Tests report ref. 1911990017, dated 16 Dec 2019.
- Tests report ref. 1911990018, dated 09 Jan 2020.
- Tests report ref. 1911990019, dated 17 Jan 2020.

4. APPLICATION / LIMITATION :

- 4.1 - BUREAU VERITAS Rules and Regulations for the Classification of Steel Ships and Offshore Units.
- 4.2 - BUREAU VERITAS Environmental Category, **EC Code: 41.**
- 4.3 - The equipment fulfils the EMC requirements for installation in General Power Distribution Zones.
- 4.4 - Activating the Bluetooth or Zigbee functions are not allowed.

5. PRODUCTION SURVEY REQUIREMENTS :

5.1 - The above products are to be supplied by **SCHNEIDER ELECTRIC INDUSTRIE 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 INDUSTRIE 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 INDUSTRIE SAS - ELECTROPOLE 38EQI** has declared to Bureau Veritas the following production sites:

**SCHNEIDER ELECTRIC FRANCE - MASTERTECH
70 RUE DE LA GRANGE BATIE
ZONE INDUSTRIELLE CENTR' ALP
38430 MOIRANS
FRANCE**

**SCHNEIDER ELECTRIC ALPES
Voie Isaac Newton
ZI Alpespace
73800 Francin
FRANCE**

**SCHNEIDER SHANGHAI POWER DISTRIBUTION ELEC. APP. CO, LTD
833 Kang Qiao Lu Pu Dong
201315 SHANGHAI
CHINA**

**SCHNEIDER ELECTRIC INDIA PVT. LTD.
Survey No.215
Gagillapur Village, Medak Road
Rangareddy District
500043 HYDERABAD
INDIA**

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 INDUSTRIE 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 No. 49263/B1 BV issued on 03 Aug 2022. by the Society.

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