



| | |
|----------------------|--------------------------------|
| CERTIFICATE NUMBER | 24-0067794-PDA |
| EFFECTIVE DATE | 10-Oct-2024 |
| EXPIRY DATE | 09-Oct-2029 |
| ABS TECHNICAL OFFICE | Hamburg Engineering Department |

CERTIFICATE OF Product Design Assessment

This is to certify that a representative of this Bureau did, at the request of

SCHNEIDER ELECTRIC INDUSTRIES SAS

located at

**31 RUE PIERRE MENDES FRANCE, EYBENS, , GRENOBLE
CEDEX 9, France, 38050**

assess design plans and data for the below listed product. This assessment is a representation by the Bureau as to the degree of compliance the design exhibits with applicable sections of the Rules. This assessment does not waive unit certification or classification procedures required by ABS Rules for products to be installed in ABS classed vessels or facilities. This certificate, by itself, does not reflect that the product is Type Approved. The scope and limitations of this assessment are detailed on the pages attached to this certificate.

Product: **Circuit Breaker**
Model: **Masterpact NT**
Endorsements:
Tier: **2 - PDA Issued**

This Product Design Assessment (PDA) Certificate remains valid until 09/Oct/2029 or until the Rules and/or Standards used in the assessment are revised or until there is a design modification warranting design reassessment (whichever occurs first).

Acceptance of product is limited to the "Intended Service" details prescribed in the certificate and as per applicable Rules and Standards.

This Certificate is valid for installation of the listed product on ABS units which exist or are under contract for construction on or previous to the effective date of the ABS Rules and standards applied at the time of PDA issuance. Use of the Product for non-ABS units is subject to agreement between the manufacturer and intended client.

| |
|---|
| American Bureau Of Shipping |
| |
| Efstratios Maliatsos, Engineer/Consultant |

NOTE: This certificate evidences compliance with one or more of the Rules, Guides, standards or other criteria of ABS or a statutory, industrial or manufacturer's standards. It is issued solely for the use of ABS, its committees, its clients or other authorized entities. Any significant changes to the aforementioned product without approval from ABS will result in this certificate becoming null and void. This certificate is governed by ABS Rules 1-1-A3/5.9 Terms and Conditions of the Request for Product Type Approval and Agreement (2010)

SCHNEIDER ELECTRIC INDUSTRIES SAS

31 RUE PIERRE MENDES FRANCE, EYBENS

GRENOBLE CEDEX 9

France 38050

Telephone: +33 (0)6 47 44 63 60

Fax:

Email: michael.mary@se.com

Web: www.se.com

Tier: 2 - PDA Issued

Product: **Circuit Breaker**

Model: **Masterpact NT**

Endorsements:

Intended Service:

Electrical Installation protection in low voltage circuits.

Description:

Low Voltage Air Circuit Breaker and Switch-disconnector with suffix H1, H2, or L1 (for Circuit-Breaker) and with suffix HA (for Switch-disconnector), fixed or withdrawable type, 3 and 4 poles, suitable for isolation.

Masterpact NT circuit-breakers are equipped with Trip Units Micrologic 2.0A – 5.0A – 6.0A – 7.0A - 2.0E – 5.0E – 6.0E - 5.0P – 6.0P – 7.0P - 5.0H – 6.0H – 7.0H

STRUCTURE OF DESIGNATION

NT 08 H1

I II III

I - Indicates the breaker line.

II - Indicates the max current rating (x100).

III - Indicates the performance levels.

H1, H2 : Indicates Heavy duty types for Circuit Breaker.

L1 : Indicates current Limiting type for Circuit Breaker.

HA : Indicates Heavy duty types for Switch-disconnector

Rating:

Circuit Breaker ratings

Max Continuous Current Ratings: 630 A to 1600 A (H1 & H2 types) and 630 A to 1000 A (L1 type)

Rated Insulation Voltage: 1000 V a.c.

Max Rated Operational Voltage: 690 V a.c.

Rated Frequency: 50-60 Hz

(Refer to the attachment for details about breaking and making capacities)

Switch Disconnector ratings

Switch-disconnector NT06/08/10/12/16 HA

Rates Current Ie AC23A: 630A, 800A, 1000A,1250A,1600A

Rated operational voltage Ue: 690V

Service Restriction:

- Unit Certification is not required for this product.

- If the manufacturer or purchaser's request an ABS Certificate for compliance with a specification or standard, the specification or standard, including inspection standards and tolerances, must be clearly defined.

- The scope of Type Approval is to comply with MSC.1/Circ.1221 dated 11 December 2006.

- Product is approved for installation in general power distribution zone.

Comments:

1. The Manufacturer has provided a declaration about the control of, or the lack of Asbestos in this product.

2. Micrologic Trip units type A, E, P, and H have been assigned with a Category I systems classification in accordance with 4-9-3/7.1 of the Marine Vessels Rules Ed.2019. Accordingly, the following documentation as detailed in 4-9-3/Table 2 is to be kept by the manufacturer and is to be available to ABS upon request:

i) Final Test Reports;

SCHNEIDER ELECTRIC INDUSTRIES SAS

31 RUE PIERRE MENDES FRANCE, EYBENS

GRENOBLE CEDEX 9

France 38050

Telephone: +33 (0)6 47 44 63 60

Fax:

Email: michael.mary@se.com

Web: www.se.com

Tier: 2 - PDA Issued

- ii) Factory Acceptance Test Reports;
- iii) details of any modification of program contents and data and changes of version.

Notes/Drawing/Documentation:

Drawing No. Ratings and Short Circuit Characteristics

LCIE IECEE CB SCHEME CERTIFICATE No.FR_705826 dated 12/06/2019

LCIE IECEE CB SCHEME CERTIFICATE No.FR653266C dated 2015-05-18

LCIE IECEE CB SCHEME CERTIFICATE No.FR653266A dated 2015-05-18

LCIE IECEE CB SCHEME CERTIFICATE No.FR653266B dated 2015-05-18

LCIE TEST REPORT No.1911990003 dated 2019-05-16

catalogue, NT-NW catalogue 2023

TR_2266490.0501_NT EMC IACS E10rev8

TR_2266478.01_NT-NW_Dry heat IACS E10rev8

CoC IEC 60947-2, CoC FR_710011_NT-H1-H2-L1_MTT_SSPA_2020-12-23

TR IEC 60947-2, TR_2011990020_NT-H1-H2-L1_MTT_SSPA_2020-10-26

CoC IEC 60947-3, CoC FR_716061_NT-HA_SW_SSPA-MTT_2022-12-06

TR IEC 60947-3, TR_22119Y90042_NT-HA_SW_SSPA-MTT_2022-11-24

Terms of Validity:

This Product Design Assessment (PDA) Certificate remains valid until 09/Oct/2029 or until the Rules and/or Standards used in the assessment are revised or until there is a design modification warranting design reassessment (whichever occurs first).

Acceptance of product is limited to the "Intended Service" details prescribed in the certificate and as per applicable Rules and Standards.

This Certificate is valid for installation of the listed product on ABS units which exist or are under contract for construction on or previous to the effective date of the ABS Rules and standards applied at the time of PDA issuance. Use of the Product for non-ABS units is subject to agreement between the manufacturer and intended client.

STANDARDS

ABS Rules:

2024 Marine Vessels Rules: 1-1-4/7.7, 1-1-A3, 1-1-A4, 4-8-3/5.3.3

2024 Mobile Offshore Unit Rules: 1-1-4/9.7, 1-1-A2, 1-1-A3, 6-1-7/13.1

National:

NA

International:

Circuit Breaker: IEC 60947-2 Ed.5.1 (A1: 2019) in conjunction with IEC 60947-1 Ed. 5.2 (A2:2014)

Switch Disconnector: IEC 60947-3 Ed. 4.0 (2020) in conjunction with IEC 60947-1 Ed. 6.0 (2020)

Government:

NA

EUMED:

NA

SCHNEIDER ELECTRIC INDUSTRIES SAS

31 RUE PIERRE MENDES FRANCE, EYBENS

GRENOBLE CEDEX 9

France 38050

Telephone: +33 (0)6 47 44 63 60

Fax:

Email: michael.mary@se.com

Web: www.se.com

Tier: 2 - PDA Issued

OTHERS:

IACS UR E10 Rev.9, Aug. 2023

**SCHNEIDER ELECTRIC INDUSTRIES SAS (232819),
 31 RUE PIERRE MENDES FRANCE, EYBENS , GRENOBLE CEDEX 9, FRANCE, 38050
 24-0067794-PDA (MASTERPACT NT)
 ISSUE DATE: 10-OCT-2024
 EXPIRTION DATE: 09-OCT-2029**

CIRCUIT-BREAKER : IEC 60947-2 ELECTRICAL CHARACTERISTICS

| | | |
|---------------------------|-------------|---------|
| Number of poles | | 3 - 4 |
| Rated insulation voltage | Ui (V) | 1000 |
| Impulse withstand voltage | Uimp (kV) | 12 |
| Frequency | f (Hz) | 50 - 60 |
| Degree of pollution | IEC 60947-1 | 3 |
| Suitability for isolation | IEC 60947-1 | Yes |

| | Type | In | selectivity categories | Ue | Icu | Ics | Icw |
|-----------|-----------|--------------|------------------------|------------------------------|----------------------------|----------------------------|---------|
| NT | H1 | 630A - 1600A | cat. B | 220/415/440V 525V 690V | 42 kA | 42 kA | 42kA-1s |
| | H2 | 630A - 1600A | cat. B | 220/415/440V 525V 690V | 50 kA 42 kA 42 kA | 50 kA 42 kA 42 kA | 42kA-1s |
| | L1 | 630A - 1000A | cat. A | 220/415V 440V 525V | 150 kA 130 kA 100 kA | 150 kA 130 kA 100 kA | N/A |

SWITCH-DISCONNECTOR : IEC 60947-3 ELECTRICAL CHARACTERISTICS

| | | |
|---------------------------|-------------|---------|
| Number of poles | | 3 - 4 |
| Rated insulation voltage | Ui (V) | 1000 |
| Impulse withstand voltage | Uimp (kV) | 12 |
| Frequency | f (Hz) | 50 - 60 |
| Degree of pollution | IEC 60947-1 | 3 |
| Suitability for isolation | IEC 60947-1 | Yes |

| | Type | Ith | Ie AC23A | Ue | Icm | Icw |
|-----------|-----------|-------|----------|------|-------|---------|
| NT | HA | 630A | 630A | 690V | 75 kA | 36kA-1s |
| | | 800A | 800A | | | |
| | | 1000A | 1000A | | | |
| | | 1250A | 1250A | | | |
| | | 1600A | 1600A | | | |