



CERTIFICATE NUMBER  
EFFECTIVE DATE  
EXPIRY DATE  
ABS TECHNICAL OFFICE

21-2170912-PDA  
15-Oct-2021  
14-Oct-2026  
Genoa Engineering Department

# CERTIFICATE OF Product Design Assessment

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

## **ABB S.P.A. - ABB SACE DIVISION**

located at

**ACCOUNTING SERVICES, VIA L. LAMA, 33, SESTO S. GIOVANNI  
(MI), Italy, 20099**

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:**             **Tmax XT1, XT2, XT3, XT4, XT5, XT6 and XT7 (UL 489 Version)**  
**Endorsements:**  
**Tier:**                **2 - PDA Issued**

This Product Design Assessment (PDA) Certificate remains valid until 14/Oct/2026 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

*G. Barbini*

Giorgio Barbini, 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)

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**Tier: 2 - PDA Issued**

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**Product:** Circuit Breaker  
**Model:** Tmax XT1, XT2, XT3, XT4, XT5, XT6 and XT7 (UL 489 Version)  
**Endorsements:**

**Intended Service:**  
Circuit Breakers for installation in electrical switchboards and panels for marine and offshore installations.

**Description:**  
Low Voltage Moulded Case Circuit Breakers with electronic and thermal-magnetic release.

**Rating:**  
Rated Service Voltage 240 - 480 - 600Y/347 - 600 Vac  
Rated Frequency 50 - 60 Hz  
Rated Current 125 - 225 - 250 - 400 - 600 - 800 - 1000 - 1200 A  
(Refer to the attachment for details about interrupting ratings).

**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.

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

**Notes/Drawing/Documentation:**  
Technical Catalog Tmax XT UL-CSA No 1SDC210200D0206 Ed 2021-04  
XT1 UL-Certificate of Compliance No 20130509-E93565 dated 2020-MAY-18  
XT3 UL-Certificate of Compliance No 20130514-E93565 dated 2020-MAY-18  
XT2 UL-Certificate of Compliance No 20190125-E93565 dated 2020-MAY-18  
XT5 UL-Certificate of Compliance No 20190613-E93565 dated 2020-MAY-18  
XT4 UL-Certificate of Compliance No 20190201-E93565 dated 2020-MAY-18  
XT6 UL-Certificate of Compliance No 20190713-E93565 dated 2020-MAY-18  
XT7 UL-Certificate of Compliance No 20190530-E93565 dated 2020-MAY-18  
UL File No E93565 dated 2019-06-03 Test Records No1 through No8 for XT5  
UL File No E93565 dated 2019-07-02 Test Records No1 through No4 for XT6  
UL File No E93565 dated 2019-02-01 Test Records No1 through No8 for XT7  
UL Functional Safety Report dated 2018-12-20 for XT7  
(Refer to the attachment for the list of all the ABB Test Reports LBRP)

**Terms of Validity:**  
This Product Design Assessment (PDA) Certificate remains valid until 14/Oct/2026 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

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**STANDARDS**

**ABS Rules:**

2021 Rules for Marine Vessels Rules: 1-1-4/7.7, 1-1-A3, 1-1-A4, 4-8-3/1.3, 4-8-3/1.7, 4-8-3/5.3.3

2021 Rules for Conditions of Classification, Part 1 – Offshore Units and Structures: 1-1-4/9.7, 1-1-A2 and 1-1-A3, 6-1-7/13.1

2021 Facilities on Offshore Installations: 1-1-4/9.7, 1-1-A2 and 1-1-A3, 3-6/11.3.3

**National:**

UL 489 Ed.13 (2019-04-22)

**International:**

NA

**Government:**

NA

**EUMED:**

NA

**OTHERS:**

NA

**Applicant: ABB S.P.A. - ABB SACE DIVISION (836124)**  
**Attachment to Certificate No.21-2170912-PDA**  
**dated 15 October 2021 expiring on 14 October 2026**

<b>UL 489</b>			<b>XT1</b>		
Frame Size	[A]		125		
Rated service voltage	(AC) 50-60 Hz	[V]	600Y/347		
	(DC)	[V]	500		
Interrupting ratings			N	S	H
240 V (AC)	[kA]		50	65	100
480 V (AC)	[kA]		25	35	65
600Y/347 V (AC)	[kA]		18	22	25
250 V (DC) 2 poles			35	42	50
500 V (DC) 4 poles			35	50	50

<b>UL 489</b>			<b>XT2</b>					
Frame Size	[A]		125					
Rated service voltage	(AC) 50-60 Hz	[V]	600					
	(DC)	[V]	500					
Interrupting ratings			N	S	H	L	V	X
240 V (AC)	[kA]		65	100	150	200	200	200
480 V (AC)	[kA]		25	35	65	100	150	200
600 V (AC)	[kA]		18	22	25	35	42	42
250 V (DC) 2 poles			35	50	65	75	85	85
500 V (DC) 3 poles			35	50	65	75	85	85

<b>UL 489</b>			<b>XT3</b>	
Frame Size	[A]		225	
Rated service voltage	(AC) 50-60 Hz	[V]	600Y/347	
	(DC)	[V]	500	
Interrupting ratings			N	S
240 V (AC)	[kA]		50	65
480 V (AC)	[kA]		25	35
600Y/347 V (AC)	[kA]		10	10
250V (DC) 2 poles			25	35
500V (DC) 3 poles			25	35

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<b>UL 489</b>			<b>XT4</b>					
Frame Size	[A]		250					
Rated service voltage	(AC) 50-60 Hz	[V]	600					
	(DC)	[V]	600					
Interrupting ratings			N	S	H	L	V	X
240 V (AC)	[kA]		65	100	150	200	200	200
480 V (AC)	[kA]		25	35	65	100	150	200
600 V (AC)	[kA]		18	22	25	50	65	100
250 V (DC) 2 poles			35	42	50	85	100	100
600 V (DC) 3 poles			35	50	65	75	85	85

<b>UL 489</b>			<b>XT5</b>					
Frame Size	[A]		400-600					
Rated service voltage	(AC) 50-60 Hz	[V]	600					
	(DC)	[V]	600					
Interrupting ratings			N	S	H	L	V	X
240 V (AC)	[kA]		65	100	150	200	200	200
480 V (AC)	[kA]		35	50	65	100	150	200
600 V (AC)	[kA]		18	25	35	65	100	100
500 V (DC) 2 poles			25	35	50	70	100	100
600 V (DC) 3 poles			16	25	35	50	70	70

<b>UL 489</b>			<b>XT6</b>		
Frame Size	[A]		800		
Rated service voltage	(AC) 50-60 Hz	[V]	600		
	(DC)	[V]	600		
Interrupting ratings			N	S	H
240 V (AC)	[kA]		65	100	200
480 V (AC)	[kA]		35	50	65
600 V (AC)	[kA]		20	25	35
250 V (DC) 2 poles			35	50	70
500 V (DC) 2 poles			35	35	50
600 V (DC) 3 poles			20	20	35

<b>UL 489</b>			<b>XT7 – XT7 M</b>		
Frame Size	[A]		800-1000-1200		
Rated service voltage	(AC) 50-60 Hz	[V]	600		
Interrupting ratings			S	H	L
240 V (AC)	[kA]		65	100	200
480 V (AC)	[kA]		50	65	100
600Y/347 V (AC)			25	50	65