



# TYPE APPROVAL CERTIFICATE

N. **ELE165021CS**

This is to certify that the product below is found to be in compliance with the applicable requirements of the RINA Type Approval system.

<i>Description</i>	<b>Circuit breaker</b>
<i>Type</i>	<b>Tmax XT Series: XT1, XT2, XT3, XT4, XT5, XT6, XT7</b>
<i>Applicant</i>	<b>ABB S.p.A – ABB Sace Division Via Pescaria 5 24123 Bergamo Italy</b>
<i>Manufacturer</i>	<b>ABB S.p.A. – ABB Sace Division Via Enrico Fermi, 14 03100 Frosinone Italy</b>
<i>Testing Standards</i>	<b>RINA Rules for the Classification of Ships, Pt. C, Ch. 2, Sec. 8</b>

Issued in **Genova** on **April 22, 2021**

This certificate is valid until **April 22, 2026**

**RINA Services S.p.A.**

*Luigi Benedetti*





# TYPE APPROVAL CERTIFICATE

## N. ELE165021CS

### Product Description

#### • Circuit Breaker type Tmax XT1

Version	XT1B			XT1C			XT1N			XT1S			XT1H		
Rated current In [A]	16-160			16-160			16-160			16-160			16-160		
Release type	TMD														
Voltage Ue V ac	230	440	690	230	440	690	230	440	690	230	440	690	230	440	690
Icu [kA]	25	15	3	40	25	4	65	36	6	85	50	8	100	65	10
Ics [kA] % Icu	100	75	100	100	50	100	75	50	75	75	50	50	75	50	50
Frequency [Hz]	50-60														
T amb [°C]	40														
Voltage V dc	250(*)	500(**)	250(*)	500(**)	250(*)	500(**)	250(*)	500(**)	250(*)	500(**)	250(*)	500(**)	250(*)	500(**)	250(*)
Icu [kA]	18	18	25	25	36	36	50	50	70	70	70	70	70	70	70
Ics [kA] % Icu	100	100	100	100	100	100	100	100	100	100	100	100	75	75	75

(\*) 2P in series ; (\*\*) 3P in series

#### • Circuit Breaker type Tmax XT2

Version	XT2N			XT2S			XT2H			XT2L			XT2V		
Rated current In [A]	20-160			20-160			20-160			20-160			20-160		
Release type	TMA, TMD, MF, MA Ekip LSI, Ekip I, Ekip LSI, Ekip LSI, Ekip G LSI, Ekip N LSI, Ekip M-LIU														
Voltage Ue V ac	240	440	690	240	440	690	240	440	690	240	440	690	240	440	690
Icu [kA]	65	36	10	85	50	12	100	65	15	150	100	18	200	150	20
Ics [kA] % Icu	100	100	100	100	100	100	100	100	100	100	100	75	100	100	75
Frequency [Hz]	50-60														
T amb [°C]	40														
Voltage V dc	250(*)	500(**)	250(*)	500(**)	250(*)	500(**)	250(*)	500(**)	250(*)	500(**)	250(*)	500(**)	250(*)	500(**)	250(*)
Icu [kA]	36	36	50	50	70	70	85	85	100	100	100	100	100	100	100
Ics [kA] % Icu	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100

(\*) 2P in series; (\*\*) 3P in series

#### • Circuit Breaker type Tmax XT3

Version	XT3C			XT3N			XT3S		
Rated current In [A]	100 A to 200 A with release MA								
Release type	60 A to 250 A with release TMD , TMG								
Voltage Ue [Vac]	240	440	690	240	440	690	240	440	690
Icu [kA]	40	20	4	50	25	5	85	40	6
Ics [kA]	30	15	3	37.5	19	3	42.5	20	3
Frequency [Hz]	50-60								
T amb [°C]	40								
Voltage V dc				250 (*)	500 (**)	250 (*)	500 (**)		
Icu [kA]				36	36	50	50		
Ics [kA] % Icu				36	36	38	38		





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### • Circuit Breaker type Tmax XT4

Version	XT4N			XT4S			XT4H			XT4L			XT4V		
Rated current In [A]	32-250			32-250			32-250			32-250			32-250		
Release type	TMA, TMD, MA Ekip LS/I, Ekip I, Ekip LSI, Ekip LSIG, Ekip G LS/I, Ekip N LS/I, Ekip M-LIU														
Voltage [V]	230	440	690	230	440	690	230	440	690	230	440	690	240	440	690
Icu [kA]	65	36	10	85	50	12	100	65	15	150	100	20	200	150	25
Ics [kA] % Icu	100	100	100	100	100	100	100	100	100	100	100	100	100	100	75
Frequency [Hz]	50-60 Hz														
T amb [°C]	40°C														
Voltage V dc	250(*)	500(*)	250(*)	500(*)	250(*)	500(*)	250(*)	500(*)	250(*)	500(*)	250(*)	500(*)	250(*)	500(*)	250(*)
Icu [kA]	36	36	50	50	70	70	85	85	100	100	100	100	100	100	100
Ics [kA] % Icu	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100

(\*) 2P in series

### • Circuit Breaker type Tmax XT7 / S H L and XT7M / S H L

Version	XT7S				XT7H				XT7L			
Rated current In [A] Ith	800 / 1000 / 1250 / 1600											
Release type	Ekip DIP LS/I, Ekip DIP LIG, Ekip DIP M-I, EKIP G-LS/I											
Voltage [V] Ue	220	380	440	690	220	380	440	690	220	380	440	690
	240	400			240	400			240	400		
		415				415				415		
Icu [kA]	85	50	50	30	100	70	65	42	200	120	100	50
Ics [kA] % Icu	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	75%
Icw [kA] 1 sec	20											
Frequency [Hz]	50-60 Hz											
T amb [°C]	40°C											

Rated service short circuit breaking capacity (Ics)  
 Rated ultimate short circuit breaking capacity (Icu)  
 Rated short-time withstand current (Icw)

For T ambient = 45°C, thermal – magnetic release must be derated in accordance with the following table:

XT1			XT2			XT3			XT4		
In [A]	MIN [A]	MAX [A]	In [A]	MIN [A]	MAX [A]	In [A]	MIN [A]	MAX [A]	In [A]	MIN [A]	MAX [A]
50	33,9	48,4	20	13,5	19,3	63	43	61	25	17	24
63	42,7	61	25	16,8	24,0	80	54	77	32	22	31
80	54,2	77	32	21,6	30,8	100	68	97	40	27	39
100	67,8	97	40	27,0	38,5	125	85	121	50	34	48
125	84,7	121	50	33,7	48,2	160	108	155	63	43	61
160	108,4	155	63	42,5	60,7	200	136	194	80	54	77
			80	54,0	77,1	250	169	242	100	68	97
			100	67,5	96,4				125	85	121
			125	84,3	120,5				160	108	155
			160	107,9	154,2				200	136	194
									225	152	218
									250	169	242





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**Reference documents (21-06 2017):**

SACE Tmax XT Technical catalogue: doc. n. 1SDC210033D0202

**CB test Certificate:** SE-72324A1/M1, SE-70707A1, CN31818, SE-71130A1**Reference documents (29/11/2018):**

SACE Tmax XT Technical catalogue: PRELIMINARY - 06/2018

**CB test Certificates:**

IEC 60947-2:2016 : SE-90445 (12.04.2018); SE-90444 (12.04.2018)

Certificate of conformity: IEC 60947-2: (2016) and IEC 60947-2 (2017) : docs. n. IT18.113 and IT18.114 (2018.04.18);

**Test Reports:**

IEC 60947-2:2016 docs. n. 1806441STO-001\_(2018.03.27); doc. n. 1806443STO-001\_(2018.03.27)

Climatic tests docs. LBRP 16568\_00 rev. 0. (2018.06.08); LBRP 16569\_00 rev. 0 (2018.05.28); LBRS 16920\_00 rev.0, (25.07.2018)

Electromagnetic compatibility:

IEC 60947-2 Annex J and F: doc. 200019647UDI-EMC (15.02.2018)

IEC 60947-2 Annex N: doc. 200019647UDI-EMVa (19.02.2018)

IACS Standard: doc. 200019647UDI-EMCb (15.02.2018); IACS Standard: doc. 200019647UDI-EMCd (15.02.2018)

Mechanical tests: Inclination doc. LBRP 16918\_00 rev. 0 (25.06.2018); Inclination doc. LBRP 16918/01 rev. 0 (25.06.2018)

Vibrations doc. LBRP 16917\_00 rev. 0 (13.09.2018); Vibrations doc. LBRP 16917/01 rev. 0 (13.09.2018)

**Certificate update: 01/09/2020****Circuit Breaker type Tmax XT5 / N\_S\_H\_L and XT5 / V\_X**

Rated Uninterrupted current, <b>In</b>	A	<b>250, 320, 400, 500, 630</b>					
Poles		3, 4					
Rated service Voltage, <b>Ue</b>	AC 60Hz	240 to 690					
	DC	250 to 750					
Rated insulation voltage, <b>Ui</b>	V	1000					
Rated impulse withstand voltage, <b>Uimp</b>	kV	8					
Version		Fixed, Withdrawable, Plug-in					
Breaking capacities (IEC 60947-2)		<b>N</b>	<b>S</b>	<b>H</b>	<b>L</b>	<b>V</b>	<b>X</b>
Rated ultimate short-circuit breaking capacity, <b>Icu AC</b>		<b>Icu</b>					
<b>Icu @ Ue 220-230-240 Vac 50 / 60 Hz</b>	kA	<b>70</b>	<b>85</b>	<b>100</b>	<b>150</b>	<b>200</b>	<b>200</b>
<b>Icu @ Ue 380 Vac</b>	kA	<b>36</b>	<b>50</b>	<b>70</b>	<b>120</b>	<b>200</b>	<b>200</b>
<b>Icu @ Ue 415 Vac</b>	kA	<b>36</b>	<b>50</b>	<b>70</b>	<b>120</b>	<b>200</b>	<b>200</b>
<b>Icu @ Ue 440 Vac</b>	kA	<b>36</b>	<b>50</b>	<b>65</b>	<b>100</b>	<b>180</b>	<b>200</b>
<b>Icu @ Ue 500 Vac</b>	kA	<b>25</b>	<b>30</b>	<b>50</b>	<b>85</b>	<b>150</b>	<b>150</b>
<b>Icu @ Ue 525 Vac</b>	kA	<b>25</b>	<b>30</b>	<b>50</b>	<b>85</b>	<b>100</b>	<b>120</b>
<b>Icu @ Ue 690 Vac</b>	kA	<b>20</b>	<b>25</b>	<b>40</b>	<b>70</b>	<b>80</b>	<b>100</b>
Rated service short-circuit breaking capacity, <b>Ics AC</b>	kA	<b>Ics = % of Icu</b>					
<b>Ics @ Ue 220-230-240 AC 50 / 60 Hz</b>	kA	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>
<b>Ics @ Ue 380 Vac</b>	kA	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>
<b>Ics @ Ue 415 Vac</b>	kA	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>
<b>Ics @ Ue 440 Vac</b>	kA	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>
<b>Ics @ Ue 500 Vac</b>	kA	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>
<b>Ics @ Ue 525 Vac</b>	kA	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>
<b>Ics @ Ue 690 Vac</b>	kA	<b>100%</b>	<b>100%</b>	<b>75%</b>	<b>50%</b>	<b>50%</b>	<b>50%</b>
<b>Ics @ Ue 690 Vac up to In = 500A</b>	kA	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>
Ref. ambient temperature	40 °C						
Utilization Category	A (In > 500A), B (In ≤ 500A)						
Rated short-time withstand current ( <b>Icw</b> ) Cat. B	6 kA (1 sec) for XT5 630 frames up to In=500A; 5 kA (1 sec) for XT5 400 frames						
Suitable for Insulation	Yes						
Trip units for power distribution	TMD / TMA; Ekip Dip ; Ekip Touch						
Trip units for motor protection	MF / MA; Ekip Dip Ekip Touch						
Trip units for generator protection	TMG; Ekip Dip; Ekip Touch						

Rated service short circuit breaking capacity (**Ics**)Rated ultimate short circuit breaking capacity (**Icu**)Rated short-time withstand current (**Icw**)



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Rated ultimate short-circuit breaking capacity, Icu DC		N	S	H	L	V	X
Icu@ Ue 250Vdc (2 poles in series)	kA	25	35	50	70	85	100
Icu@ Ue 500Vdc (2 poles in series)	kA	25	35	50	70	85	100
Icu@ Ue 750Vdc (3 poles in series)	kA					85	100
Rated service short-circuit breaking capacity, Ics DC	kA						
Ics@ Ue 250Vdc (2P in series)	kA	100%	100%	100%	100%	100%	100%
Ics@ Ue 500Vdc (2P in series)	kA	100%	100%	100%	100%	100%	100%
Ics@ Ue 750Vdc (3P in series)	kA					100%	100%
Trip Unit	TMD / TMA ; TMG						

### Test reports / Certificates:

*Intertek Semco* test report n. 1817203STO-001 (10 April, 2020) acc. to IEC 60947-2:2016  
*Intertek Semco* CB Test Certificate SE-101368 (09 June, 2020) acc. to IEC 60947-2:2016  
*Intertek Semco* CB Test Certificate SE-101370 (09 June, 2020) acc. to IEC 60947-2:2016  
*Intertek Semco* CB Test Certificate SE-101369A1 (24 June, 2020) acc. to IEC 60947-2:2016  
*Intertek Semco* CB Test Certificate SE-101371A1 (24 June, 2020) acc. to IEC 60947-2:2016  
*UL International Italia* test report n. 19-4788844257-1-1-0-EMC (2019.03.29) acc. to IEC 60947-2:2016  
*UL International Italia* test report n. 19-4788844257-2-1-0-EMC (2019.03.29) acc. to IEC 60947-2:2016  
*UL International Italia* test report n. 19-4788844257-3-1-0-EMC (2019.03.29) acc. to IEC 60947-2:2016  
*UL International Italia* test report n. 19-4788844257-4-1-0-EMC (2019.03.29) acc. to IEC 60947-2:2016  
*UL International Italia* test report n. 19-4788923674-2-1-0-EMC (2019.03.29) acc. to LR/RINA/DNV/ABS/BV  
*UL International Italia* test report n. 19-4788923674-3-1-0-EMC (2019.03.29) acc. to LR/RINA/DNV/ABS/BV  
*UL International Italia* test report n. Rel19-4788844257-1-0-EMC (2019.03.29) acc. to IEC 60947-2:2016  
*UL International Italia* test report n. Rel19-4788923674-1-0-EMC (2019.03.29) acc. to IEC 60947-2:2016  
*Intertek Italia* test report n. 200026776UDI-EMC (2020.07.09) Acc to IEC 60092-504:2016 (1 to 6 GHz immunity)  
*ABB SACE Division test report* (Climatic) n. LBRP18334/00 rev.0, LBRP18335/00 rev.0, LBRP18336/00 rev.0, LBRP18337/00 rev.0  
*ABB SACE Division test report* (Vib + Shock) n. LBRP18338/00 rev.0, LBRP18338/01 rev.0, LBRP18339/00 rev.0, LBRP18339/01 rev.0  
LBRP 18340/00 rev.0, LBRP18340/01 rev.0, LBRP18341/00 rev.0, LBRP18341/01 rev.0, LBRP18342/00 rev.0, LBRP18343 rev.0, LBRP18344/00 rev.0

For T ambient = 45°C thermal-magnetic release must be derated in accordance with the following table:

XT1			XT2			XT3			XT4			XT5		
In [A]	MIN [A]	MAX [A]	In [A]	MIN [A]	MAX [A]	In [A]	MIN [A]	MAX [A]	In [A]	MIN [A]	MAX [A]	In [A]	MIN [A]	MAX [A]
50	33,9	48,4	20	13,5	19,3	63	43	61	25	17	24	320	215	310
63	42,7	61	25	16,8	24	80	54	77	32	22	31	400	275	390
80	54,2	77	32	21,6	30,8	100	68	97	40	27	39	500	340	485
100	67,8	97	40	27	38,5	125	85	121	50	34	48	630	430	625
125	84,7	121	50	33,7	48,2	160	108	155	63	43	61			
160	108,4	155	63	42,5	60,7	200	136	194	80	54	77			
			80	54	77,1	250	169	242	100	68	97			
			100	67,5	96,4				125	85	121			
			125	84,3	120,5				160	108	155			
			160	107,9	154,2				200	136	194			
									225	152	218			
									250	169	242			

### Note:

This certificate annuls and replaces the previous n. ELE226620CS issued on September 01, 2020





# TYPE APPROVAL CERTIFICATE

## N. ELE165021CS

Certificate update: 22/04/2021

• **Circuit Breaker type Tmax XT6/ N \_S\_ H\_**

Rated Operational current, <b>In</b>	A	<b>600, 630, 800, 1000</b>		
Poles		<b>3, 4</b>		
Rated service Voltage, <b>Ue</b> AC 50 - 60Hz	V	<b>690</b>		
Rated insulation voltage, <b>Ui</b>	V	<b>1000</b>		
Rated impulse withstand voltage, <b>Uimp</b>	kV	<b>8</b>		
Version		Fixed, Withdrawable.		
Breaking capacities (IEC 60947-2)		<b>N</b>	<b>S</b>	<b>H</b>
Rated ultimate short-circuit breaking capacity, <b>Icu AC</b>		<b>Icu</b>		
<b>Icu @ Ue 220, 230, 240 Vac</b>	kA	<b>70</b>	<b>85</b>	<b>100</b>
<b>Icu @ Ue 380, 400, 415 Vac</b>	kA	<b>36</b>	<b>50</b>	<b>70</b>
<b>Icu @ Ue 440 Vac</b>	kA	<b>30</b>	<b>45</b>	<b>50</b>
<b>Icu @ Ue 500 , 525 Vac</b>	kA	<b>25</b>	<b>35</b>	<b>50</b>
<b>Icu @ Ue 660, 690 Vac</b>	kA	<b>20</b>	<b>22</b>	<b>25</b>
Rated service short-circuit breaking capacity, <b>Ics AC</b>		<b>Ics= % of Icu</b>		
<b>Icu @ Ue 220, 230, 240 Vac</b>	kA	<b>100%</b>	<b>100%</b>	<b>100%</b>
<b>Icu @ Ue 380, 400, 415 Vac</b>	kA	<b>100%</b>	<b>100%</b>	<b>100%</b>
<b>Icu @ Ue 440 Vac</b>	kA	<b>100%</b>	<b>100%</b>	<b>100%</b>
<b>Icu @ Ue 500, 525 Vac</b>	kA	<b>100%</b>	<b>100%</b>	<b>100%</b>
<b>Icu @ Ue 660, 690 Vac</b>	kA	<b>100%</b>	<b>100%</b>	<b>100%</b>
Ref. ambient temperature		<b>40 °C</b>		
Selectivity Category		<b>A (In = 1000 A), B (In =600, 630, 800A)</b>		
Rated short-time withstand current (Icw)		<b>10 kA / Is Cat. B</b>		
Suitable for Insulation		<b>Yes</b>		
Trip units for power distribution		<b>TMA; Ekip Dip LSIG; LIG; LS-I</b>		
Trip units for motor protection		<b>Ekip M DIP I; Ekip M DIP LIU</b>		
Trip units for generator protection		<b>Ekip G Dip LS-I</b>		

Rated ultimate short-circuit breaking capacity, <b>Icu DC</b>		<b>N</b>	<b>S</b>	<b>H</b>
<b>Icu@ Ue 250 Vdc (2 poles in series)</b>	kA	<b>35</b>	<b>50</b>	<b>70</b>
<b>Icu@ Ue 500 Vdc (2 poles in series)</b>	kA	<b>20</b>	<b>35</b>	<b>50</b>
<b>Icu@ Ue 750 Vdc (3 poles in series)</b>	kA	<b>18</b>	<b>24</b>	<b>36</b>
Rated service short-circuit breaking capacity, <b>Ics DC</b>				
<b>Ics@ Ue 250Vdc (2P in series)</b>	kA	<b>100%</b>	<b>50%</b>	<b>50%</b>
<b>Ics@ Ue 500Vdc (2P in series)</b>	kA	<b>100%</b>	<b>50%</b>	<b>50%</b>
<b>Ics@ Ue 750Vdc (3P in series)</b>	kA	<b>100%</b>	<b>75%</b>	<b>50%</b>
Trip Units		<b>TMA</b>		

**XT6 TMA Rated current according to ambient temperature**

T. amb (°C)	10		20		30		40		45		50		60		70	
In [A]	min	max	min	max	min	max	min	max	min	max	min	max	min	max	min	max
630	560	700	470	670	450	645	440	630	430	615	420	605	375	580	335	555
800	770	960	635	910	600	860	560	800	545	780	530	760	455	700	385	640

**Certificate and Test Reports**

CQC CB Test Certificate n. CN50672 \_ IEC60947-2:2016 (Jul.14.2020)  
 CQC Test report n. 00901-CB2019CQC-087756 \_ IEC60947-2:2016 (2020.05.28)  
 ABB Test report n. LBRP18355\_00\_inclination (XT6 EKIP LS-I) (2019.11.26);  
 ABB Test report n. LBRP18749\_00\_vibration (XT6 EKIP DIP LSIG W) (2021.02.05)  
 ABB Test report n. LBRP18750\_00\_shock (XT6 W EKIP DIP LSIG) (2021.02.08)  
 ABB Test report n. LBRP19307\_00\_climatic (XT6 EKIP DIP LS-I) (2020.09.22)  
 UL International Italia Test report n. 19-4788844257-4-1-0-EMC\_XT6\_4P\_Ekip Dip LS\_I  
 UL International Italia Test report n. 19-4788844257-5-1-0-EMC\_XT6\_4P\_Ekip Dip LSIG  
 UL International Italia Test report n. 19-4788923674-4-1-0-EMC\_XT6\_4P\_Ekip Dip LS\_I  
 UL International Italia Test report n. 19-4788923674-5-1-0-EMC\_XT6\_4P\_Ekip Dip LSIG  
 INTERTEK Test report n. 200026776UDI-EMC (immunity 1 to 6 GHz)





# TYPE APPROVAL CERTIFICATE

## N. ELE165021CS

### Circuit Breakers type Tmax XT4/ N\_S\_H\_L\_V\_X

3, 4 poles; Service voltage  $U_e = 690V$ ; Rated insulation voltage  $U_i = 1000V$ ; Rated input withstand voltage  $U_{imp} = 8kV$

Version	XT4N			XT4S			XT4H			XT4L			XT4V			XT4X		
Rated current $I_n$ [A]	16-250			16-250			16-250			16-250			16-250			16-250		
Trip units	TMA, TMD, MA, Ekip LS/I, Ekip I, Ekip LSI, Ekip LSIG, Ekip G LS/I, Ekip N LS/I, Ekip M-LIU, Ekip DIP, Ekip Touch, Ekip M DIP, Ekip M Touch, Ekip HI-Touch, Ekip G DIP, Ekip G Touch																	
Voltage [Vac]	240	440	690	240	440	690	240	440	690	240	440	690	240	440	690	240	440	690
$I_{cu}$ [kA]	65	36	10	85	50	12	100	65	15	150	100	20	200	150	50(*)	200	200	100
$I_{cs}$ [kA] % $I_{cu}$	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100(**)	100	100	100(**)
Selectivity Cat.	A			A			A			A			A			A		
Frequency [Hz]	50-60 Hz																	
$I_{cm}$ [kA]	143	75.6	17	187	105	24	220	143	30	330	220	40	440	330	52.5	440	440	440
$T_{amb}$ [°C]	40°C																	

Voltage $U_e$ [Vdc]	250		500		250		500		250		500		250		500		500		750	
	2P Series		2P Series		2P Series		2P Series		2P Series		2P Series		2P Series		2P Series		3P Series			
$I_{cu}$ [kA]	36	36	50	50	70	70	85	85	100	100	100	100	100	100	100	100	100	100	100	70
$I_{cs}$ [kA] % $I_{cu}$	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Trip units	TMD /TMA																			

(\*) For  $I_n \leq 32A$ ,  $I_{cu} = 25kA$  /  $I_{cs} = 20kA$

(\*\*)  $I_{cs} = 100\%$   $I_{cu}$  up to 250A with EF, ES and rear terminals,  $I_{cs} = 25kA$  when any other terminals are used and  $I_n > 200A$

#### Certificates and test reports:

Intertek CB Test Certificate \_ IEC 60947-2:2016\_ n. SE-102367 (16.09.2020)

Intertek Test Report \_ IEC 60947-2:2016\_ n. 2021273STO-001(30.07.2020)

Lovag Test Reports:

n. 1479 (2019.04.01)\_EN 60947-2: 2017; n. 1480 (2019/04/04) EN 60947-2: 2017

ABB Test Reports:

LBRP 17282/00 (2018.11.22), LBRP 17283/00 (2018.11.14), LBRP 17284/00 (2019.06.06),

LBRP 17284/01 (2019.06.07), LBRP 17287/00 (2018.11.19), LBRP 17288/00 (2018.12.21),

LBRP 17289/00 (2019.06.06), LBRP 17289/01 (2019.06.07),

Shanghai Testing & inspection Institute for Electrical Equipment Test Reports:

ATR18-0160-2 (2019.01.08)\_ GB/T 14048.2-2008;





# TYPE APPROVAL CERTIFICATE

## N. ELE165021CS

### Circuit Breaker type Tmax XT2

3, 4 poles; Service voltage  $U_e = 690V$ ; Rated insulation voltage  $U_i = 1000V$ ; Rated input withstand voltage  $U_{imp} = 8kV$

Version	XT2N			XT2S			XT2H			XT2L			XT2V		
Rated current $I_n$ [A]	20-160			20-160			20-160			20-160			20-160		
Trip units	TMA, TMD, MA, Ekip LS/I, Ekip I, Ekip LSI, Ekip LSIG, Ekip G LS/I, Ekip N LS/I, Ekip M-LIU, Ekip DIP, Ekip Touch, Ekip M DIP, Ekip M Touch, Ekip HI-Touch, Ekip G DIP, Ekip G Touch														
Voltage $U_e$ Vac	240	440	690	240	440	690	240	440	690	240	440	690	240	440	690
$I_{cu}$ [kA]	65	36	10	85	50	12	100	65	15	150	100	18	200	150	20
$I_{cs}$ [kA] % $I_{cu}$	100	100	100	100	100	100	100	100	100	100	100	75	100	100	75
Frequency [Hz]	50-60														
$T_{amb}$ [°C]	40														
Voltage $U_e$ Vdc	250(*)	500(**)		250(*)	500(**)		250(*)	500(**)		250(*)	500(**)		250(*)	500(**)	
$I_{cu}$ [kA]	36	36		50	50		70	70		85	85		100	100	
$I_{cs}$ [kA] % $I_{cu}$	100	100		100	100		100	100		100	100		100	100	
Trip units	TMD / TMA TMG														

(\*) 2P in series; (\*\*) 3P in series

#### Certificates and test reports:

Lovag Test Reports:

n. 1477 (2019.04.04)\_EN 60947-2: 2017; n. 1478 (2019/04/05)\_EN 60947-2: 2017

ABB Test Reports:

LBRP 17264/00 (2018.11.19), LBRP 17265/00 (2018.11.19), LBRP 17266/00 (2018.11.19), LBRP 17267/00 (2018.12.21), LBRP 17269/00 (2019.01.25), LBRP 17270/00 (2019.01.25), LBRP 17270/01 (2019.01.29)

Shanghai Testing & inspection Institute for Electrical Equipment Test Reports:

ATR18-0160-1 (2019.01.08)\_ GB/T 14048.2-2008;

#### Note:

This certificate annuls and replaces the previous n. ELE226620CS001 issued on September 07, 2020

