

CATALOG

SACE® Tmax® XT UL/CSA

Low voltage molded case circuit breakers
UL489 and CSA CS22.2 Standards
for the NEMA market



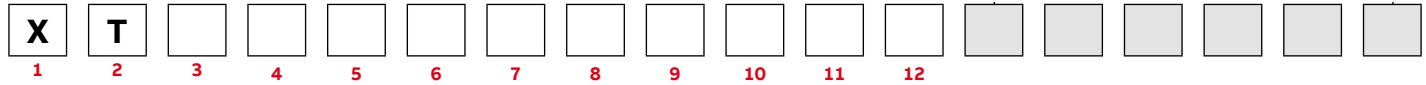
Break new ground

- Data and connectivity
- Ease of use and installation
- Performance and protection
- Safety and reliability

XT1-XT7

U.S. ordering code construction

- See page 8/6-8/7 for remaining descriptions -



1 & 2: Version XT	3: Frame 1 2 3 4 5 6 7
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4 Interrupting ratings – 480 V AC*

Digits	XT1	XT2	XT3	XT4	XT5	XT6	XT7
N	25	25	25	25	35	35	-
S	35	35	35	35	50	50	50
H	65	65	-	65	65	65	65
L	-	100	-	100	100	-	100
V	-	150	-	150	150	-	-
X	-	200	-	200	200	-	-

*For additional information, please refer to pages 2/2-2/14.

5: Standard
UL & IEC

- U UL 80%
- Q UL 100%
- C UL 80% + CCC
- D UL 100% + CCC
- E IEC only
- 5 IEC 50°C

6: Number of poles

- 2 2 Poles
- 3 3 Poles
- 4 4 P 100%
- N 4P 50% (IEC only)

7, 8, 9: Amp frame

XT1-4		XT5-7	
Digits	Amps	Digits	Amps
010	10 A	25A	250 A (XT5)
015	15 A	30A	300 A (XT5)
020	20 A	32A	320 A (XT5 IEC ²)
025	25 A	40A	400 A (XT5)
030	30 A	50B	500 A (XT5)
035	35 A	60B	600 A (XT5)
040	40 A	600	600 A (XT6)
045	45 A	60C	600 A (XT7)
050	50 A	63B	630 A (XT5 IEC ²)
060	60 A	630	630 A (XT6 IEC ²)
070	70 A	800	800 A (XT6)
080	80 A	80C	800 A (XT7)
090	90 A	1K0	1000 A (XT6 IEC ²)
100	100 A	10D	1000 A (XT7)
110	110 A	12E	1200 A/1250 A (XT7)
125	125 A	16F	1600 A (XT7 IEC ²)
150	150 A		
175	175 A		
200	200 A		
225	225 A		
250	250 A		

²IEC only.

10: Trip unit

A TMF	J Ekip DIP I	S Ekip Touch Measuring LSI
B TMA/TMD	K Ekip DIP M-I	T Ekip Hi-Touch LSI
C Ekip DIP LIG	L Ekip DIP M-LIU	U Ekip Hi-Touch LSI
D MCS	M MA (MCP)	W Ekip M Touch LRIU
E Ekip DIP LS/I	N TMG	X Ekip G Dip LS/I
F Ekip DIP LSI	P Ekip Touch LSI	Y Ekip G Touch LSI
G Ekip DIP LSI	Q Ekip Touch LSI	Z Ekip G Hi-Touch LSI
H Ekip DIP E-LSIG	R Ekip Touch Measuring LSI	

11: Line side termination (top)

- F** F front terminals, no lugs installed
- A** FC Cu Terminals for Cu cables (saddle clamps)
- B** FC CuAl Terminals for CuAl cables, 14–1/0 AWG, 110 A-125 (XT1, XT2)
- C** FC CuAl Terminals for CuAl cables, 14–1/0 AWG, 110 A, control tap included (XT2)
- D** KIT FC CuAl 10–2/0 AWG (XT1, XT2)
- E** KIT FC CuAl 10–2/0 AWG control tap included (XT1, XT2)
- G** FC CuAl Terminals for CuAl cables, 14–1/0 AWG, 100 A (XT3, XT4)
- H** FC CuAl Terminals for CuAl cables, 14–1/0 AWG, 100 A, control tap included (XT3, XT4)
- J** KIT FC CuAl 4 AWG–300 kcmil, 225A (XT3, XT4)
- K** FC CuAl Terminals for CuAl cables, 4 AWG–300 kcmil, 225 A, control tap included (XT3, XT4)
- L** FC CuAl Terminals for CuAl Cables, 3/0 AWG–350 kcmil, 250 A (XT4)
- M** FC CuAl Terminals for CuAl Cables, 3/0 AWG–350 kcmil, 250 A, control tap included (XT4)
- Z** MC Multi-cable terminals for Cu (6x14–2 AWG)
- 1** EF Extended front terminals
- 2** ES Extended spread terminals
- 3** FB Terminals for flexible busbar
- 4** R Rear terminals
- 6** Plug-in kit (must also use 6 for load side)
- 7** Withdrawable kit (must also use 7 for the load side) (XT2, XT4)
- 8** FC CuAl 1x4/0 AWG–500 kcmil (XT5)
- 9** FCCuAl 1x6 AWG–350 kcmil (XT5)
- N** FC CuAl 2x2/0 AWG–500 kcmil (XT5)
- P** KIT FCCuAl 1x500 kcmil control tap included (XT5)
- Q** KIT FCCuAl 1x350 kcmil control tap included (XT5)
- R** KIT FCCuAl 2x500 kcmil control tap included (XT5, XT6)
- S** KIT FCCuAl 500–750 kcmil (XT5)
- O** KIT FCCuAl 500–750 kcmil control tap included (XT5)
- T** FC CuAl 2x250–500 kcmil (XT6)
- U** FC CuAl 3x2/0 AWG–400 kcmil (XT6)
- V** FC CuAl 3x400 kcmil control tap included (XT6)
- W** FC CuAl 4x4/0 AWG–500 kcmil
- X** FC CuAl 3x500–750 kcmil
- Y** LSC for ReliaGear NeXT power panelboard

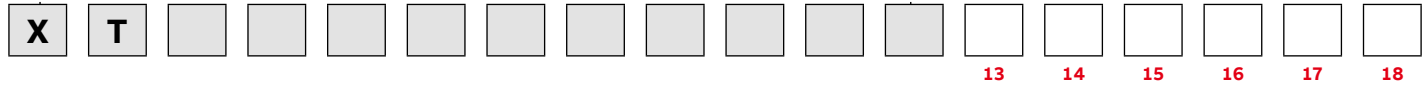
12: Load side termination (bottom)

- F** F front terminals, no lugs installed
- A** FC Cu Terminals for Cu cables (saddle clamps)
- B** FC CuAl Terminals for CuAl cables, 14–1/0 AWG, 110 A-125 (XT1, XT2)
- C** FC CuAl Terminals for CuAl cables, 14–1/0 AWG, 110 A, control tap included (XT2)
- D** KIT FC CuAl 10–2/0 AWG (XT1, XT2)
- E** KIT FC CuAl 10–2/0 AWG control tap included (XT1, XT2)
- G** FC CuAl Terminals for CuAl cables, 14–1/0 AWG, 100 A (XT3, XT4)
- H** FC CuAl Terminals for CuAl cables, 14–1/0 AWG, 100 A, control tap included (XT3, XT4)
- J** KIT FC CuAl 4 AWG–300 kcmil, 225A (XT3, XT4)
- K** FC CuAl Terminals for CuAl cables, 4 AWG–300 kcmil, 225 A, control tap included (XT3, XT4)
- L** FC CuAl Terminals for CuAl Cables, 3/0 AWG–350 kcmil, 250 A (XT4)
- M** FC CuAl Terminals for CuAl Cables, 3/0 AWG–350 kcmil, 250 A, control tap included (XT4)
- Z** MC Multi-cable terminals for Cu (6x14–2 AWG)
- 1** EF Extended front terminals
- 2** ES Extended spread terminals
- 3** FB Terminals for flexible busbar
- 4** R Rear terminals
- 6** Plug-in kit (must also use 6 for load side)
- 7** Withdrawable kit (must also use 7 for the line side) (XT2, XT4)
- 8** FC CuAl 1x250–500 kcmil (XT5)
- 9** FC CuAl 1x6 AWG–350 kcmil (XT5)
- N** FC CuAl 2x2/0 AWG–500 kcmil (XT5)
- P** KIT FCCuAl 1x500 kcmil control tap included (XT5)
- Q** KIT FCCuAl 1x350 kcmil control tap included (XT5)
- R** KIT FCCuAl 2x500 kcmil control tap included (XT5, XT6)
- S** KIT FCCuAl 500–750 kcmil (XT5)
- O** KIT FCCuAl 500–750 kcmil control tap included (XT5)
- T** FC CuAl 2x250–500 kcmil (XT6)
- U** FC CuAl 3x2/0 AWG–400 kcmil (XT6)
- V** FC CuAl 3x400 kcmil control tap included (XT6)
- W** FC CuAl 4x4/0 AWG–500 kcmil
- X** FC CuAl 3x500–750 kcmil

XT1-XT7

U.S. ordering code construction (cont.)

See page 8/4-8/5 for descriptions



<p>13 & 14: Internal accessories</p> <p>00 None</p> <p>Shunt trip, open</p> <p>A0 (SOR-C) 12 V DC (XT1-XT4)</p> <p>B0 (SOR-C) 24-30 V AC/DC (XT1-XT4)</p> <p>C0 (SOR-C) 48-60 V AC/DC (XT1-XT4)</p> <p>D0 (SOR-C) 110-127 V AC/110-125 V DC (XT1-XT4)</p> <p>E0 (SOR-C) 220-240 V AC/220-250 V DC (XT1-XT4)</p> <p>F0 (SOR-C) 380-440 V AC (XT1-XT4)</p> <p>G0 (SOR-C) 480-525 V AC (XT1-XT4)</p> <p>A0 (YO-C) 12 V DC (XT5, XT6)</p> <p>B0 (YO-C) 24-60 V AC/DC (XT5, XT6)</p> <p>D0 (YO-C) 110-240 V AC, 110-250 V DC (XT5, XT6)</p> <p>F0 (YO-C) 380-440 V AC (XT5, XT6)</p> <p>G0 (YO-C) 480-525 V AC (XT5, XT6)</p> <p>A0 (YO) 24 V AC/DC (XT7)</p> <p>B0 (YO) 48 V AC/DC (XT7)</p> <p>C0 (YO) 60 V AC/DC (XT7)</p> <p>D0 (YO) 110-120 V AC/DC (XT7)</p> <p>E0 (YO) 120-127 V AC/DC (XT7)</p> <p>F0 (YO) 220-240 V AC/DC (XT7)</p> <p>G0 (YO) 240-250 V AC/DC (XT7)</p> <p>H0 (YO) 380-400 V AC (XT7)</p> <p>I0 (YO) 415-440 V AC (XT7)</p> <p>J0 (YO) 480-500 V AC (XT7)</p> <p>Undervoltage release</p> <p>10 (UVR-C) 24-30 V AC/DC (XT1-XT4)</p> <p>20 (UVR-C) 48 V AC/DC (XT1-XT4)</p> <p>30 (UVR-C) 60 V AC/DC (XT1-XT4)</p> <p>40 (UVR-C) 110-127 V AC 110-125 V DC (XT1-XT4)</p> <p>50 (UVR-C) 220-240 V AC 220-250 V DC (XT1-XT4)</p> <p>60 (UVR-C) 380-440 V AC (XT1-XT4)</p> <p>70 (UVR-C) 480-525 V AC (XT1-XT4)</p> <p>80 (YU-C) 12 V DC (XT5, XT6)</p> <p>10 (YU-C) 24-30 V AC/DC (XT5, XT6)</p> <p>20 (YU-C) 48-60 V AC/DC (XT5, XT6)</p> <p>40 (YU-C) 110-127 V AC 110-125 V DC (XT5, XT6)</p> <p>50 (YU-C) 220-240 V AC 220-250 V DC (XT5, XT6)</p> <p>60 (YU-C) 380-440 V AC (XT5, XT6)</p> <p>70 (YU-C) 480-525 V AC (XT5, XT6)</p> <p>10 (YU) 24 V AC/DC (XT7)</p>	<p>20 (YU) 48 V AC/DC (XT7)</p> <p>30 (YU) 60 V AC/DC (XT7)</p> <p>40 (YU) 110-120 V AC/DC (XT7)</p> <p>K0 (YU) 120-127 V AC/DC (XT7)</p> <p>50 (YU) 220-240 V AC/DC (XT7)</p> <p>80 (YU) 240-250 V AC/DC (XT7)</p> <p>60 (YU) 380-400 V AC (XT7)</p> <p>90 (YU) 415-440 V AC (XT7)</p> <p>70 (YU) 480-500 V AC (XT7)</p> <p>Signaling</p> <p>C0 EKIP signaling 1K-1 (XT5)</p> <p>E0 EKIP maintenance module (XT5)</p> <p>L0 Ekip supply 24-48 V DC (XT7)</p> <p>M0 Ekip supply 110-240 V AC/DC (XT7)</p> <p>N0 1 x Ekip signaling 2k-1 + supply 24-48 V DC (XT7)</p> <p>P0 1 x Ekip signaling 2k-1 + supply 110-240 V AC/DC (XT7)</p> <p>Q0 2 x Ekip signaling 2k-1 + supply 24-48 V DC (XT7)</p> <p>R0 2 x Ekip signaling 2k-1 + supply 110-240 V AC/DC (XT7)</p> <p>S0 1 x Ekip signaling 3T-1 + supply 24-48 V DC (XT7)</p> <p>T0 1 x Ekip signaling 3T-1 + supply 110-240 V AC/DC (XT7)</p> <p>U0 2 x Ekip signaling 3T-1 + supply 24-48 V DC (XT7)</p> <p>V0 2 x Ekip signaling 3T-1 + supply 110-240 V AC/DC (XT7)</p> <p>W0 Ekip CI + supply 24-48 V DC (XT7)</p> <p>X0 Ekip CI + supply 110-240 V AC/DC (XT7)</p> <p>Auxiliary contacts</p> <p>0A AUX-C 1Q+1SY 250 V AC/DC (XT1-XT6)</p> <p>0B AUX-C 2Q+1SY 250 V AC/DC (XT1-XT6)</p> <p>0C AUX-C 3Q+1SY 250 V AC/DC (XT2-XT6)</p> <p>0D AUX-C 3Q+2SY 250 V AC/DC (XT2, XT4)</p> <p>0E AUX-C 2Q+2SY+1 551 250 V AC/DC (XT2, XT4)</p> <p>0F AUX-C 1 551 250 V AC/DC (XT2, XT4, XT5, XT6)</p> <p>0G AUX-C 1Q+1SY 24 V DC (XT1-XT6)</p> <p>0H AUX-C 3Q+1SY 24 V DC (XT2-XT6)</p> <p>0J AUX-C 1 551 24 V DC (XT2, XT4, XT5, XT6)</p> <p>0K AUX-C 1Q+1SY 400 V AC (XT2, XT4, XT5)</p> <p>0L AUX-C 2Q 400 V AC (XT2, XT4, XT5)</p> <p>Z0 AUX-C 3Q L 250 V AC (XT1-XT4)</p> <p>0I AUX-C 1Q + 1SY L 250 V AC/DC (XT5)</p> <p>0M AUX-C 1Q + 1SY L 24 V DC (XT5)</p>	<p>0N AUX-C 1S52 250 V AC/DC (XT5, XT6)</p> <p>0P AUX-C 1S52 24 V DC (XT5, XT6)</p> <p>0A AUX 4Q 400 V AC (XT7)</p> <p>0B AUX 4Q 24 V DC (XT7)</p> <p>0C AUX 2Q 400 V AC + 2Q 24 V DC (XT7)</p> <p>0D AUX 1S52 24 V DC (XT7)</p> <p>0E AUX 1S52 250 V AC (XT7)</p> <p>0F AUX 1SY 24 V DC (XT7)</p> <p>0G AUX 1SY 400 V AC (XT7)</p> <p>0H S51 250 V AC (XT7)</p> <p>0I S51 24 V DC (XT7)</p> <p>Ekip COMs</p> <p>01 Ethernet (XT2, XT4, XT5)</p> <p>02 Hub (XT2, XT4, XT5)</p> <p>03 IEC61850 (XT2, XT4, XT5)</p> <p>04 Modbus RTU/STA Modbus RTU (XT2, XT4, XT5)</p> <p>05 Modbus TCP/STA Modbus TCP (XT2, XT4, XT5)</p> <p>04 STA Modbus RTU (XT2, XT4, XT5)</p> <p>05 STA Modbus TCP (XT2, XT4, XT5)</p> <p>06 Profinet (XT2, XT4, XT5)</p> <p>07 Ekip Link (XT2, XT4, XT5)</p> <p>08 OPC UA (XT5)</p> <p>09 Open ADR (XT5)</p> <p>Y0 Modbus RTU + supply 24-48 V DC (XT7)</p> <p>Z0 Modbus TCP + supply 24-48 V DC (XT7)</p> <p>0J Profibus + supply 24-48 V DC (XT7)</p> <p>0K Profinet + supply 24-48 V DC (XT7)</p> <p>0L Devicenet + supply 24-48 V DC (XT7)</p> <p>0M Ethernet/IP + supply 24-48 V DC (XT7)</p> <p>0N IEC61850 + supply 24-48 V DC (XT7)</p> <p>0P Ekip Link + supply 24-48 V DC (XT7)</p> <p>0Q Hub + supply 24-48 V DC (XT7)</p> <p>0R Modbus RTU + supply 110-240 V AC/DC (XT7)</p> <p>0S Modbus TCP + supply 110-240 V AC/DC (XT7)</p> <p>0T Profibus + supply 110-240 V AC/DC (XT7)</p> <p>0U Profinet + supply 110-240 V AC/DC (XT7)</p> <p>0V Devicenet + supply 110-240 V AC/DC (XT7)</p> <p>0W Ethernet/IP + supply 110-240 V AC/DC (XT7)</p> <p>0X IEC61850 + supply 110-240 V AC/DC (XT7)</p> <p>0Y Ekip Link + supply 110-240 V AC/DC (XT7)</p> <p>0Z Hub + supply 110-240 V AC/DC (XT7)</p> <p>01 Ekip Syncrocheck + supply 24-48 V DC (XT7)</p> <p>02 Ekip Syncrocheck + supply 110-240 V AC/DC (XT7)</p>
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Note: Additional combination available through the Tmax XT configurator.

1) An XT7 frame includes a 24-48 V DC Ekip power supply.

* Under development

15: Front accessories

O None	T RHE Variable depth mechanism emergency + early aux contact, opening
A Motor operator 24 V DC	U RHD Standard direct handle + early aux contact, closing
B Motor operator 48–60 V DC	V RHD Emergency direct handle + early aux contact, closing
C Motor operator 110–125 V AC/DC	W RHE Variable depth mechanism, standard + early aux contact, closing
D Motor operator 220–250 V AC/DC	X RHE Variable depth mechanism emergency + early aux contact, closing
E Motor operator 380–440 V AC	Z RHE Variable depth mechanism, emergency
F Motor operator 480–525 V AC	9 RHE Variable depth mechanism + 2 PLL
G PLL Fixed padlock device in open/closed position	1 Motor operator for use with Modbus 24 V DC – MOE-E fast opening
H PLL Fixed padlock device in open position	2 Motor operator for use with Modbus 48–60 V DC – MOE-E fast opening
J PLL Removable padlock device in open position (XT1, XT3)	3 Motor operator for use with Modbus 110–125 V AC/DC – MOE-E fast opening
K FLD Front for locking operating lever mechanism (XT2, XT4)	4 Motor operator for use with Modbus 220–250 V AC/DC – MOE-E fast opening
L RHD Standard direct handle	5 Motor operator for use with Modbus 380–440 V AC – MOE-E fast opening
M RHD Emergency direct handle	6 Motor operator for use with Modbus 480–525 V AC – MOE-E fast opening
Y RHD Standard direct handle + 2 PLL	
N RHE Variable depth mechanism, standard	
P RHE Variable depth mechanism emergency + 2 PLL	
Q RHD Normal direct handle + early Aux contact, opening	
R RHD Emergency direct handle + early Aux contact, opening	
S RHE Variable depth mechanism, standard + early aux contact, opening	

16: Key locks

X None
A Ronis key lock, open position – A type
B Ronis key lock, open position – B type
C Ronis key lock, open position – C type
D Ronis key lock, open position – D type
E Ronis key lock, open position – different keys
F Ronis key lock, open/closed – different keys (not available for motors)
G KLC-A key lock open kirk (XT5 - XT7)
H KLC-A key lock open Ronis 1104 (XT5 - XT7)
J KLC-A key lock open STI (XT5 - XT7)
K KLC-A Castell key lock open (XT5 - XT7)

18: Additional certifications

X None
E Test certificate provided (in English)
F Test certificate provided (in French)
S Test certificate provided (in Spanish)
4 Extended warranty, 4 years
5 Extended warranty, 5 years

17: Advanced functionality

X None	Q ROCOF protection
A Class 1 power & energy metering	R EKIP power controller
G Measuring	S ATS main-tie-main closed license
H Voltages protection	T ATS main-tie-main open license
J Frequency protection	U ATS main-main closed license
K Power protection	V ATS main-main open license
L Adaptive protection	W Synchro reclosing
M Datalogger	X IPS – Interface protection system
N Network analyzer	Y Load shedding – predictive
P Voltages protection advanced	Z Load shedding – adaptive