CATALOG

# SACE Tmax XT

## Low voltage molded case circuit-breakers



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**Break new ground**

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

# SACE Tmax XT automatic circuit-breakers for alternating current (AC) distribution






| **Size** | | | **XT1** | | | | | **XT2** | | | | | **XT3** | | | **XT4** | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Rated uninterrupted current** | [A] | | 160 | | | | | 160 | | | | | 250 | | | 160 / 250 | | | | |
| Poles | [No.] | | 3, 4 | | | | | 3, 4 | | | | | 3, 4 | | | 3, 4 | | | | |
| Rated service voltage, **Ue** (AC) 50-60Hz | [V] | | 690 | | | | | 690 | | | | | 690 | | | 690 | | | | |
| Rated insulation voltage, **Ui** | [V] | | 800 | | | | | 1000 | | | | | 800 | | | 1000 | | | | |
| Rated impulse withstand voltage, **Uimp** | [kV] | | 8 | | | | | 8 | | | | | 8 | | | 8 | | | | |
| Versions | | | Fixed, Plug-in(1) | | | | | Fixed, Withdrawable, Plug-in | | | | | Fixed, Plug-in | | | Fixed, Withdrawable, Plug-in | | | | |
| Max supply voltage on bottom side (F, P, W) | [V] | | 690 | | | | | ≤ 480 | | | | | 690 | | | ≤ 600 | | | | |
| **Breaking capacities according to IEC 60947-2** | | **B** | **C** | **N** | **S** | **H** | **N** | **S** | **H** | **L** | **V** | **N** | **S** | **N** | **S** | **H** | **L** | **V** | **X** | |
| **Rated ultimate short-circuit breaking capacity, Icu** | | | | | | | | | | | | | | | | | | | | |
| Icu @ 220-230-240V 50-60Hz (AC) | [kA] | 25 | 40 | 65 | 85 | 100 | 65 | 85 | 100 | 150 | 200 | 50 | 85 | 65 | 85 | 100 | 150 | 200 | 200 | |
| Icu @ 380V 50-60Hz (AC) | [kA] | 18 | 25 | 36 | 50 | 70 | 36 | 50 | 70 | 120 | 150 | 36 | 50 | 36 | 50 | 70 | 120 | 150 | 200 | |
| Icu @ 415V 50-60Hz (AC) | [kA] | 18 | 25 | 36 | 50 | 70 | 36 | 50 | 70 | 120 | 150 | 36 | 50 | 36 | 50 | 70 | 120 | 150 | 200 | |
| Icu @ 440V 50-60Hz (AC) | [kA] | 15 | 25 | 36 | 50 | 65 | 36 | 50 | 65 | 100 | 150 | 25 | 40 | 36 | 50 | 65 | 100 | 150 | 200 | |
| Icu @ 500V 50-60Hz (AC) | [kA] | 8 | 18 | 30 | 36 | 50 | 30 | 36 | 50 | 60 | 70 | 20 | 30 | 30 | 36 | 50 | 60 | 85 | 100 | |
| Icu @ 525V 50-60Hz (AC) | [kA] | 6 | 8 | 22 | 35 | 35 | 20 | 25 | 30 | 36 | 50 | 13 | 20 | 20 | 25 | 45 | 50 | 70 | 100 | |
| Icu @ 690V 50-60Hz (AC) | [kA] | 3 | 4 | 6 | 8 | 10 | 10 | 12 | 15 | 18 | 20 | 5 | 6 | 10 | 12 | 15 | 20 | 50(2) | 100 | |
| **Rated service short-circuit breaking capacity, Ics** | | | | | | | | | | | | | | | | | | | | |
| Ics @ 220-230-240V 50-60Hz (AC) | [kA] | 100% | 100% | 75% (50) | 75% | 75% | 100% | 100% | 100% | 100% | 100% | 75% | 50% | 100% | 100% | 100% | 100% | 100% | 100% | |
| Ics @ 380V 50-60Hz (AC) | [kA] | 100% | 100% | 100% | 100% | 75% | 100% | 100% | 100% | 100% | 100% | 75% | 50% (27) | 100% | 100% | 100% | 100% | 100% | 100% | |
| Ics @ 415V 50-60Hz (AC) | [kA] | 100% | 100% | 100% | 75% | 50% (37.5) | 100% | 100% | 100% | 100% | 100% | 75% | 50% (27) | 100% | 100% | 100% | 100% | 100% | 100% | |
| Ics @ 440V 50-60Hz (AC) | [kA] | 75% | 50% | 50% | 50% | 50% | 100% | 100% | 100% | 100% | 100% | 75% | 50% | 100% | 100% | 100% | 100% | 100% | 100% | |
| Ics @ 500V 50-60Hz (AC) | [kA] | 100% | 50% | 50% | 50% | 50% | 100% | 100% | 100% | 100% | 100% | 75% | 50% | 100% | 100% | 100% | 100% | 100% | 100% | |
| Ics @ 525V 50-60Hz (AC) | [kA] | 100% | 100% | 50% | 50% | 50% | 100% | 100% | 100% | 100% | 100% | 75% | 50% | 100% | 100% | 100% | 100% | 100% | 100% | |
| Ics @ 690V 50-60Hz (AC) | [kA] | 100% | 100% | 75% (5) | 50% (5) | 50% | 100% | 100% | 100% | 75% (15) | 75% | 50% (3) | 50% | 100% | 100% | 100% | 100% | 100%(3) | 100%(3) | |
| **Rated short-circuit making capacity, Icm** | | | | | | | | | | | | | | | | | | | | |
| Icm @ 220-230-240V 50-60Hz (AC) | [kA] | 52.5 | 84 | 143 | 187 | 220 | 143 | 187 | 220 | 330 | 440 | 110 | 187 | 143 | 187 | 220 | 330 | 440 | 440 | |
| Icm @ 380V 50-60Hz (AC) | [kA] | 36 | 52.5 | 75.6 | 110 | 154 | 75.6 | 110 | 154 | 264 | 330 | 75.6 | 110 | 75.6 | 110 | 154 | 264 | 330 | 440 | |
| Icm @ 415V 50-60Hz (AC) | [kA] | 36 | 52.5 | 75.6 | 110 | 154 | 75.6 | 110 | 154 | 264 | 330 | 75.6 | 110 | 75.6 | 110 | 154 | 264 | 330 | 440 | |
| Icm @ 440V 50-60Hz (AC) | [kA] | 30 | 52.5 | 75.6 | 110 | 143 | 75.6 | 110 | 143 | 220 | 330 | 52.5 | 84 | 75.6 | 110 | 143 | 220 | 330 | 440 | |
| Icm @ 500V 50-60Hz (AC) | [kA] | 13.6 | 36 | 63 | 75.6 | 110 | 63 | 75.6 | 110 | 132 | 154 | 40 | 63 | 63 | 75.6 | 110 | 132 | 187 | 220 | |
| Icm @ 525V 50-60Hz (AC) | [kA] | 9 | 13.6 | 46.2 | 73.5 | 73.5 | 40 | 52.5 | 63 | 75.6 | 110 | 26 | 40 | 40 | 52.5 | 94.5 | 110 | 154 | 220 | |
| Icm @ 690V 50-60Hz (AC) | [kA] | 4.26 | 5.88 | 9 | 13.6 | 17 | 17 | 24 | 30 | 36 | 40 | 7.5 | 9 | 17 | 24 | 30 | 40 | 110 | 220 | |
| **Breaking capacities according to NEMA-AB1** | | | | | | | | | | | | | | | | | | | | |
| @ 240V 50-60Hz (AC) | [kA] | 25 | 40 | 65 | 85 | 100 | 65 | 85 | 100 | 150 | 200 | 50 | 85 | 65 | 85 | 100 | 150 | 200 | 200 | |
| @ 480V 50-60Hz (AC) | [kA] | 8 | 18 | 30 | 36 | 65 | 30 | 36 | 65 | 100 | 150 | 25 | 35 | 30 | 36 | 65 | 100 | 150 | 100 | |
| Utilization Category (IEC 60947-2) | | | | A | | | | | A | | | | A | | | A | | | | |
| Icw | [kA] | | | - | | | | | - | | | | - | | | - | | | | |
| Reference Standard | | | | IEC 60947-2 | | | | | IEC 60947-2 | | | | IEC 60947-2 | | | IEC 60947-2 | | | | |
| Insulation behaviour | | | | ✔ | | | | | ✔ | | | | ✔ | | | ✔ | | | | |
| Mounted on DIN rail | | | | DIN EN 50022 | | | | | DIN EN 50022 | | | | DIN EN 50022 | | | DIN EN 50022 | | | | |
| Mechanical life | [No. Operations] | | | 25,000 | | | | | 25,000 | | | | 25,000 | | | 25,000 | | | | |
| | [No. Hourly operations] | | | 240 | | | | | 240 | | | | 240 | | | 240 | | | | |
| Electrical life @ 415 V (AC) | [No. Operations] | | | 8,000 | | | | | 8,000 | | | | 8,000 | | | 8,000 | | 10,000 | | |
| | [No. Hourly operations] | | | 120 | | | | | 120 | | | | 120 | | | 120 | | | | |

(1) XT1 plug-in In max=125A (2) In<32A Icu=25kA/Ics=20kA, with magnetic trip unit only and In≤52A/Icu=Ics=5kA
(3) Ics=100% Icu up to 250 A with EF, ES, Rear and external FC CuAl (2x...) terminal. When any other terminals are used and load >200A Icu=25%

# SACE Tmax XT automatic circuit-breakers for alternating current (AC) distribution






| **Size** | | | **XT1** | **XT2** | **XT3** | **XT4** |
|---|---|---|---|---|---|---|
| **Dimensions** | | | | | | |
| Fixed | 3 poles | [mm] | 76.2 x 70 x 130 | 90 x 82.5 x 130 | 105 x 70 x 150 | 105 x 82.5 x 160 |
| (Width x Depth x Height) | 4 poles | [mm] | 101.6 x 70 x 130 | 120 x 82.5 x 130 | 140 x 70 x 150 | 140 x 82.5 x 160 |
| **Trip units for power distribution** | | | | | | |
| TMD/TMA | | | | ■ | | ■ |
| TMD/TMF | | | ■ | | ■ | |
| 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 | | | | ■ | | ■ |
| **Interchangeable trip units** | | | | ✔ | | ✔ |
| **Weight** | | | | | | |
| Fixed | 3/4 poles | [kg] | 1.1 / 1.4 | 1.2 / 1.6 | 1.7 / 2.1 | 2.5 / 3.5 |
| Plug in (EF terminals) | 3/4 poles | [kg] | 2.21 / 2.82 | 2.54 / 3.27 | 3.24 / 4.1 | 4.19 / 5.52 |
| Withdrawable (EF terminals) | 3/4 poles | [kg] | | 3.32 / 4.04 | | 5 / 6.76 |

# SACE Tmax XT automatic circuit-breakers for alternating current (AC) distribution






| **Size** | | | **XT5** | | | | | | **XT6**[1] | | | **XT7** | | | **XT7 M** | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Rated uninterrupted current** | [A] | | 400 / 630 | | | | | | 800 / 1000 [6] | | | 800 / 1000 / 1250 / 1600 | | | 800 / 1000 / 1250 / 1600 | | |
| Poles | [No.] | | 3. 4 | | | | | | 3. 4 | | | 3. 4 | | | 3. 4 | | |
| Rated service voltage. **Ue** (AC) 50-60Hz | [V] | | 690 | | | | | | 690 | | | 690 | | | 690 | | |
| Rated insulation voltage. **Ui** | [V] | | 1000 | | | | | | 1000 | | | 1000 | | | 1000 | | |
| Rated impulse withstand voltage. **Uimp** | [kV] | | 8 | | | | | | 8 | | | 8 | | | 8 | | |
| Versions | | | Fixed. Withdrawable. Plug-in[5] | | | | | | Fixed. Withdrawable | | | Fixed. Withdrawable | | | Fixed. Withdrawable | | |
| Max supply voltage on bottom side (F. P. W) | [V] | | 690 | | | | | | 690 | | | 690 | | | 690 | | |
| **Breaking capacities according to IEC 60947-2** | | **N** | **S** | **H** | **L** | **V** | **X** | | **N** | **S** | **H** | **S** | **H** | **L** | **S** | **H** | **L** |
| **Rated ultimate short-circuit breaking capacity. Icu** | | | | | | | | | | | | | | | | | |
| Icu @ 220-230-240V 50-60Hz (AC) | [kA] | 70 | 85 | 100 | 150 | 200 | 200 | | 70 | 85 | 100 | 85 | 100 | 200 | 85 | 100 | 200 |
| Icu @ 380V 50-60Hz (AC) | [kA] | 36 | 50 | 70 | 120 | 200 | 200 | | 36 | 50 | 70 | 50 | 70 | 120 | 50 | 70 | 120 |
| Icu @ 415V 50-60Hz (AC) | [kA] | 36 | 50 | 70 | 120 | 200 | 200 | | 36 | 50 | 70 | 50 | 70 | 120 | 50 | 70 | 120 |
| Icu @ 440V 50-60Hz (AC) | [kA] | 36 | 50 | 65 | 100 | 180 | 200 | | 30 | 45 | 50 | 50 | 65 | 100 | 50 | 65 | 100 |
| Icu @ 500V 50-60Hz (AC) | [kA] | 25 | 30 | 50 | 85 | 150 | 150 | | 25 | 35 | 50 | 45 | 50 | 85 | 45 | 50 | 85 |
| Icu @ 525V 50-60Hz (AC) | [kA] | 25 | 30 | 50 | 85 | 100 | 120 | | 25 | 35 | 50 | 45 | 50 | 65 | 45 | 50 | 65 |
| Icu @ 690V 50-60Hz (AC) | [kA] | 20 | 25 | 40 | 70 | 80 | 100 | | 20 | 22 | 25 | 30 | 42 | 50 | 30 | 42 | 50 |
| **Rated service short-circuit breaking capacity. Ics** | | | | | | | | | | | | | | | | | |
| Ics @ 220-230-240V 50-60Hz (AC) | [kA] | 100% | 100% | 100% | 100% | 100% | 100% | | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Ics @ 380V 50-60Hz (AC) | [kA] | 100% | 100% | 100% | 100% | 100% | 100% | | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Ics @ 415V 50-60Hz (AC) | [kA] | 100% | 100% | 100% | 100% | 100% | 100% | | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Ics @ 440V 50-60Hz (AC) | [kA] | 100% | 100% | 100% | 100% | 100% | 100% | | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Ics @ 500V 50-60Hz (AC) | [kA] | 100% | 100% | 100% | 100% | 100% | 100% | | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Ics @ 525V 50-60Hz (AC) | [kA] | 100% | 100% | 100% | 100% | 100% | 100% | | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Ics @ 690V 50-60Hz (AC) | [kA] | 100% | 100% | 100%[2] | 100%[3] | 100%[3] | 100%[3] | | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| **Rated short-circuit making capacity. Icm** | | | | | | | | | | | | | | | | | |
| Icm @ 220-230-240V 50-60Hz (AC) | [kA] | 154 | 187 | 220 | 330 | 440 | 440 | | 154 | 187 | 220 | 187 | 220 | 440 | 187 | 220 | 440 |
| Icm @ 380V 50-60Hz (AC) | [kA] | 75.6 | 110 | 154 | 264 | 440 | 440 | | 75.6 | 110 | 154 | 110 | 154 | 264 | 110 | 154 | 264 |
| Icm @ 415V 50-60Hz (AC) | [kA] | 75.6 | 110 | 154 | 264 | 440 | 440 | | 75.6 | 110 | 154 | 110 | 154 | 264 | 110 | 154 | 264 |
| Icm @ 440V 50-60Hz (AC) | [kA] | 75.6 | 110 | 143 | 220 | 396 | 440 | | 63 | 94.5 | 110 | 110 | 143 | 220 | 110 | 143 | 220 |
| Icm @ 500V 50-60Hz (AC) | [kA] | 52.5 | 63 | 110 | 187 | 330 | 330 | | 52.5 | 73.5 | 110 | 94.5 | 110 | 187 | 94.5 | 110 | 187 |
| Icm @ 525V 50-60Hz (AC) | [kA] | 52.5 | 63 | 110 | 187 | 220 | 264 | | 52.5 | 73.5 | 110 | 94.5 | 110 | 143 | 94.5 | 110 | 143 |
| Icm @ 690V 50-60Hz (AC) | [kA] | 40 | 52.5 | 84 | 154 | 176 | 220 | | 40 | 46.2 | 52.5 | 63 | 88.2 | 110 | 63 | 88.2 | 110 |
| **Breaking capacities according to NEMA-AB1** | | | | | | | | | | | | | | | | | |
| @ 240V 50-60Hz (AC) | [kA] | | | | | | | | | | | | | | | | |
| @ 480V 50-60Hz (AC) | [kA] | | | | | | | | | | | | | | | | |
| Utilization Category (IEC 60947-2) | | | A (up to 630A). B (up to 500A) [4] | | | | | | A (up to 1000A) - B (800A) [4] | | | B | | | B | | |
| Icw (1 sec) | [kA] | | 6 | | | | | | 10 | | | 20 | | | 20 | | |
| Reference Standard | | | IEC 60947-2 | | | | | | IEC 60947-2 | | | IEC 60947-2 | | | IEC 60947-2 | | |
| Insulation behaviour | | | ✔ | | | | | | ✔ | | | ✔ | | | ✔ | | |
| Mounted on DIN rail | | | - | | | | | | - | | | - | | | - | | |
| Mechanical life | [No. operations] | | 20,000 | | | | | | 20,000 | | | 10,000 | | | 20,000 | | |
| | [No. hourly operations] | | 120 | | | | | | 120 | | | 60 | | | 60 | | |
| Electrical life @ 415 V (AC) | [No. operations] | | 7,000 (400A) - 5,000 (630A) | | | | | | 5,000 | | | 3,000 | | | 3,000 | | |
| | [No. hourly operations] | | 60 | | | | | | 60 | | | 60 | | | 60 | | |

(1) Not suitable for IT distribution systems > 440Vac (2) Ics = 75% In > 500A (3) Ics = 50% In > 500A (4) Category B: only when equipped with an electronic trip unit

(5) Plug-in/Withdrawable: max In 40°C=600A (6) 1000A only for fixed execution with EF. ES. R and FCCuAl terminals. EF terminals are supplied as standard if no other terminals are ordered

# SACE Tmax XT automatic circuit-breakers for alternating current (AC) distribution






| Size | | | XT5 | XT6[1] | XT7 | XT7 M |
|---|---|---|---|---|---|---|
| **Dimensions** | | | | | | |
| Fixed | 3 poles | [mm] | 140 x 103 x 205 | 210 x 103.5 x 268 | 210 x 166 x 268 | 210 x 178 x 268 |
| (Width x Depth x Height) | 4 poles | [mm] | 186 x 103 x 205 | 280 x 103.5 x 268 | 280 x 166 x 268 | 280 x 178 x 268 |
| **Trip units for power distribution** | | | | | | |
| TMD/TMA | | | ■ | ■ | | |
| TMD/TMF | | | | | | |
| 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 | | | ■ | | ■ | ■ |
| **Interchangeable trip units** | | | ✔ | ✔ | ✔ | ✔ |
| **Weight** | | | | | | |
| Fixed | 3/4 poles | [kg] | 3.25 / 4.15 | 9.5 / 12 | 9.7 / 12.5 | 11 / 14 |
| Plug in (EF terminals) | 3/4 poles | [kg] | 5.15 / 6.65 | | | |
| Withdrawable (EF terminals) | 3/4 poles | [kg] | 5.4 / 6.9 | 12.1 / 15.1 | 29.7 / 39.6 | 32 / 42.6 |

(1) Not suitable for IT distribution systems > 440Vac (2) Ics = 75% In > 500A (3) Ics = 50% In > 500A (4) Category B: only when equipped with an electronic trip unit (5) Plug-in/Withdrawable: max In 40°C=600A (6) 1000A only for fixed execution with EF, ES, R and FCCuAl terminals. EF terminals are supplied as standard if no other terminals are ordered