

Instructions for ordering

SACE Emax 2 configured circuit breaker/ switch disconnect order code breakdown

Emax 2 circuit breaker order code explanation

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|-----|---|---|---|----|----|----|----|----|----|----|----|----|----|----|
| Z | 2 | H | F | UJ | A | E | 4 | 8 | N | B | E | A | A | O | Q | C | E | A |
| 1 | 2 | 3 | 4 | 5&6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |

1 - Emax 2 Prefix

| | |
|---|-----------------------------------|
| Z | Standard AC version |
| L | Triple Certification (UL/IEC/CCC) |
| M | ML Naval version (IEC) |
| 9 | 800 - 900VAC version (IEC) |

2 - Frame

| | E1.2 | E2.2 | E4.2 | E6.2 | E6.2/f |
|--------------|------|------|------|------|--------|
| 3p | 1 | 2 | 4 | 6 | - |
| 4p - N Left | A | B | C | D | E |
| 4p - N Right | F | G | H | J | K |

3 - Short Circuit Rating / Version

| | B | C | N | S | H | V | L | X |
|------------------|----|----|-------------------|-------------------|-----------------------|-----------------------|---|-----|
| kA @ 508V AC | 42 | - | 50 | 65 | 85 | 100 | - | - |
| UL kA @ 635V AC | 42 | - | 50 ⁽¹⁾ | 65 ⁽¹⁾ | 85 | 85/100 ⁽⁴⁾ | - | - |
| IEC kA @ 440V AC | 42 | 50 | 66 | 85 | 100 | 150 | - | 150 |
| IEC kA @ 690V AC | 42 | 42 | 66 ⁽²⁾ | 66 | 85/100 ⁽³⁾ | 100 | - | 100 |

1) E1.2N = 42kA

2) E1.2N = 50kA

3) E2.2H and E4.2H = 85kA / E6.2H = 100kA

4) E2.V and E4.2V = 85kA / E6.2V = 100kA

4 - Frame Rating [A]

| UL | A | B | C | D | E | F | G | H | Z | J | K | L |
|-----|-----|-----|-----|------|------|------|------|------|------|------|------|------|
| | 250 | 400 | 800 | 1200 | 1600 | 2000 | 2500 | 3200 | 3600 | 4000 | 5000 | 6000 |
| IEC | M | N | P | Q | R | S | T | U | V | W | X | Y |
| | 250 | 630 | 800 | 1000 | 1250 | 1600 | 2000 | 2500 | 3200 | 4000 | 5000 | 6300 |

5 & 6 - Rating Plug [A]

| Switch | 00 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
|-----------|-----|-----|-----|-----|-----|-----|------|------|------|------|------|------|------|------|------|------|
| UL | UA | UB | UC | UD | UE | UF | UG | UH | UJ | UK | UL | UN | UQ | UR | US | UT |
| | 100 | 200 | 250 | 400 | 600 | 800 | 1000 | 1200 | 1600 | 2000 | 2500 | 3200 | 3600 | 4000 | 5000 | 6000 |
| IEC | EA | EB | EC | ED | EE | EF | EG | EH | EJ | EK | EL | EN | ER | ES | ET | - |
| | 100 | 200 | 250 | 400 | 630 | 800 | 1000 | 1250 | 1600 | 2000 | 2500 | 3200 | 4000 | 5000 | 6300 | - |
| IEC L-Off | LA | LB | LC | LD | LE | LF | LG | LH | LJ | LK | LL | LN | LR | LS | LT | - |
| | 100 | 200 | 250 | 400 | 630 | 800 | 1000 | 1250 | 1600 | 2000 | 2500 | 3200 | 4000 | 5000 | 6300 | - |
| IEC RC | RA | RB | RC | RD | RE | RF | RH | RK | RN | RR | - | - | - | - | - | - |
| | 100 | 200 | 250 | 400 | 630 | 800 | 1250 | 2000 | 3200 | 4000 | - | - | - | - | - | - |

7 - Fixed/Drawout and Terminal connections

| | | | | | | | |
|-------------------------------------------------------|--------------------------------------|------------------------|--------------------------------|--------------------------------------|----------------------------------|---------------------------------------------------|--------------------------------------------------|
| Drawout (less cradle) A | | | | | | | |
| Fixed (std. terminals) B⁽¹⁾ | | | | | | | |
| Fixed (alt. terminals) Upper Terminals | | | | | | | |
| Lower Terminals | Horiz. Rear(HR)⁽²⁾ | Vert. Rear (VR) | Front (F)⁽⁷⁾ | Ext. Front (EF)⁽⁷⁾ | FCCUAL Lugs⁽⁷⁾ | Horiz. Rear Spread (SHR)^{(6) (7)} | Vert. Rear Spread (SVR)^{(6) (7)} |
| Horiz. Rear (HR)^{(2) C⁽³⁾} | | D | E | F | G | - | - |
| Vert. Rear (VR) | H | J ⁽⁴⁾ | K | L | M | - | - |
| Front (F)⁽⁷⁾ | N | P | Q ⁽⁵⁾ | R | S | - | - |
| Ext. Front (EF)⁽⁷⁾ | T | U | V | W | X | - | - |
| FCCUAL Lugs^{(3) (7)} | 2 | 3 | 4 | 5 | 6 | - | - |
| Horiz. Rear Spread (SHR)^{(6) (7)} | - | - | - | - | - | 7 | |
| Vert. Rear Spread (SVR)^{(6) (7)} | - | - | - | - | - | - | 8 |

1) Standard terminals: E1=F / E2.2 - E6.2 = HR with exception of E4.2 3200 & 3600, and E6.2 6000A which are VR

2) Not available for E4.2 3200, 3600A and E6.2 6000A

3) Available for E1.2 only (IEC version)

4) Not available for E4.2 3200, 3600A and E6.2 6000A

5) Available for E2.2 - E6.2 (IEC versions)

6) Available for E2.2 and E4.2 (IEC version)

7) Not UL Listed

Instructions for ordering

SACE Emax 2 configured circuit breaker/ switch disconnect order code breakdown

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|-----|---|---|---|----|----|----|----|----|----|----|----|----|----|----|
| Z | 2 | H | F | UJ | A | E | 4 | 8 | N | B | E | A | A | O | Q | C | E | A |
| 1 | 2 | 3 | 4 | 5&6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |

8 - Ekip Trip Unit

| | | | | |
|---------------------------------------------------|----------------------------------------------|----|-----|------|
| Switch Disconnecter | 0 | | | |
| | Protection Functions | LI | LSI | LSIG |
| | DIP | A | B | C |
| | Touch | D | E | F |
| | Touch + Power Controller ⁽¹⁾ | G | H | I |
| | Hi-Touch | - | J | K |
| Ekip Trip Unit + Standard 250V Bell Alarm | Hi-Touch + Power Controller ⁽¹⁾ | - | L | M |
| | G Touch | - | - | N |
| | G Touch + Power Controller ⁽¹⁾ | - | - | P |
| | G Hi-Touch | - | - | Q |
| | G Hi-Touch + Power Controller ⁽¹⁾ | - | - | R |
| | DIP | S | T | U |
| | Touch | V | W | X |
| | Touch + Power Controller ⁽¹⁾ | Y | Z | 1 |
| | Hi-Touch | - | 2 | 3 |
| Ekip Trip Unit + optional 24VDC Bell Alarm | Hi-Touch + Power Controller ⁽¹⁾ | - | 4 | 5 |
| | G Touch | - | - | 6 |
| | G Touch + Power Controller ⁽¹⁾ | - | - | 7 |
| | G Hi-Touch | - | - | 8 |
| | G Hi-Touch + Power Controller ⁽¹⁾ | - | - | 9 |

1) Ekip Power Controller requires the use of Ekip Measuring or Measuring Pro modules

9 - Auxiliary Power Supply (Ekip Supply) and Measuring Package

| | | | |
|------------------------------------------------|------|--------------------|---------------|
| | None | 0 | - |
| | - | Measuring Package* | 1% Accuracy** |
| | - | 1 | 2 |
| 24V - 48V DC Supply | 3 | 4 | 5 |
| 110 -240V AC/DC Supply | 6 | 7 | 8 |
| Top Supply | - | A | B |
| External Mtg Cables | - | C | D |
| Top Supply + 24V DC Supply | - | E | F |
| Top Supply + 110-240V AC/DC Supply | - | G | H |
| Ext. Mtg cables + 24V DC Supply | - | J | K |
| Ext. Mtg cables + 110-240V AC/DC Supply | - | L | M |

* Available for Ekip Touch trip units. Provided by default with all the other versions.

** Available for Ekip Touch and Ekip G Touch trip units. Provided by default with all the other versions.

10 - Communication Modules

| | | | | | | | |
|--------------------|----------------------|----------------------|------------------------|------------------------|-------------------------|-------------------------|-----------|
| None | 0 | - | - | - | - | - | - |
| Single | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| | Modbus RS-485 | Modbus TCP/IP | Profibus | Profinet | DeviceNet | EtherNet/IP | IEC 61850 |
| Combos | A | B | C | D | E | F | - |
| | RS-485 + TCP/IP | TCP/IP + Profibus | Profibus + Profinet | Profinet + DeviceNet | DeviceNet + EtherNet/IP | EtherNet/IP + IEC 61850 | - |
| | G | H | J | K | L | - | - |
| | RS-485 + Profibus | TCP/IP + Profinet | Profibus + DeviceNet | Profinet + EtherNet/IP | DeviceNet + IEC 61850 | - | - |
| | M | N | P | Q | - | - | - |
| | RS-485 + Profinet | TCP/IP + DeviceNet | Profibus + EtherNet/IP | Profinet + IEC 61850 | - | - | - |
| | R | S | T | - | - | - | - |
| | RS-485 + DeviceNet | TCP/IP + EtherNet/IP | Profibus + IEC 61850 | - | - | - | - |
| | U | V | - | - | - | - | - |
| | RS-485 + EtherNet/IP | TCP/IP + IEC 61850 | - | - | - | - | - |
| | W | - | - | - | - | - | - |
| RS-485 + IEC 61850 | - | - | - | - | - | - | |

Note: not valid with Ekip Dip or Switch Disconnectors

Instructions for ordering

SACE Emax 2 configured circuit breaker/ switch disconnecter order code breakdown

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|-----|---|---|---|----|----|----|----|----|----|----|----|----|----|----|
| Z | 2 | H | F | UJ | A | E | 4 | 8 | N | B | E | A | A | O | Q | C | E | A |
| ↑ | ↑ | ↑ | ↑ | ↑ | ↑ | ↑ | ↑ | ↑ | ↑ | ↑ | ↑ | ↑ | ↑ | ↑ | ↑ | ↑ | ↑ | ↑ |
| 1 | 2 | 3 | 4 | 5&6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |

11 - Redundant Communications and Additional Ekip Modules

| | | | | | | | |
|-----------------------|-----------------------------------------------|--------------------------------------------------|-----------------------------------------------------|----------------------------------------------|-----------------------------------|-------------|-----------|
| None | 0 | - | - | - | - | - | - |
| Redundant Com. | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| | Modbus RS-485 | Modbus TCP/IP | Profibus | Profinet | DeviceNet | EtherNet/IP | IEC 61850 |
| Other Modules | A | B | C | Q | W | - | - |
| | Ekip Link | Synchrocheck | Signalling 2K-1 | Ekip Com Hub | Signalling 3T-1 | - | - |
| | D | E | F | R | X | - | - |
| | Redundant Com + Ekip Link | Redundant Com + Synchrocheck | Redundant Com + Signalling 2K | Redundant Com + Ekip Com Hub | Redundant Com + Signalling 3T-1 | - | - |
| | G | H | J | S | Y | - | - |
| | Ekip Link + Synchrocheck | Synchrocheck + Signalling 2K | Signalling 2K-1 + Signalling 2K-2 | Ekip Link + Ekip Com Hub | Ekip Link + Ekip 3T-1 | - | - |
| Combos | K | L | M | V | Z | - | - |
| | Ekip Link + Synchrocheck + Signalling 2K | Synchrocheck + Signalling 2K-1 + Signalling 2K-2 | Signalling 2K-1 + Signalling 2K-2 + Signalling 2K-3 | Ekip Com Hub + Signalling 3T | Synchrocheck + Ekip 3T-1 | - | - |
| | N | T | U | 9 | 1 | - | - |
| | Ekip Link + Signalling 2K-1 | Synchrocheck + Ekip Com Hub | Signalling 2K-1 + Ekip Com Hub | Ekip Com Hub + Signalling 2K + Signalling 3T | Signalling 2K-1 + Signalling 3T-1 | - | - |
| | P | | | | | | |
| | Ekip Link + Signalling 2K-1 + Signalling 2K-2 | | | | | | |

Note 1: Communication, Synchrocheck, 2K, 3T, and Ekip Link are not compatible with Switch Disconnectors

Note 2: Ekip Touch or greater trip unit is required for Communication, Ekip 2K, Ekip 3T, and Synchrocheck modules

Note 3: Redundant Com will match communication module selected in digit 10

12 - Auxiliary Contacts (AUX) and Additional Signaling (4K)

| | | | |
|--------------------------------------------------|---|--------------------|-------------------------|
| None | 0 | - | - |
| | - | 4 AUX (4Q) 400V(3) | 4 AUX (2Q+2Q) 24 & 400V |
| | - | A | C |
| 6 AUX (6Q) 400V⁽¹⁾ | D | E | G |
| 6 AUX (6Q) 24V⁽¹⁾ | H | J | L |
| 6 AUX (3Q+3Q) 400 & 24V⁽¹⁾ | M | N | Q |
| 4K Signaling⁽¹⁾⁽²⁾ | - | R | T |

(1) Not compatible with E1.2

(2) Not compatible with Ekip Dip or Switch disconnectors

(3) Provided as standard for all circuit breakers

Note: Options O, D, H and M are for use with switch disconnectors only

13 - Remote Reset (YR), 2nd Bell Alarm (S51/2) and Ready to Close Contacts (RTC)

| | | | | | | | | | | | |
|-----------------------|---|---|--------------|---------------|---------------|---------------------------|-----------------------------|--|--|--|--|
| None | 0 | | | | | | | | | | |
| | - | | YR 24V AC/DC | YR 110V AC/DC | YR 220V AC/DC | S51/2 250V ⁽¹⁾ | S51/2 24V DC ⁽¹⁾ | | | | |
| | - | A | B | C | P | Q | | | | | |
| RTC 24VDC | D | E | F | G | R | S | | | | | |
| RTC 250V AC/DC | H | J | K | L | T | U | | | | | |

(1) Not compatible with E1.2

14 - Closing Coil (YC) and Redundant Closing Coil (YC2)

| | | | | | | | | | | | |
|-----------------|-----------|-----------|-----------|-----------|----------------|----------------|----------------|----------------|-------------|-------------|-------------|
| None | 0 | | | | | | | | | | |
| | 24V AC/DC | 30V AC/DC | 48V AC/DC | 60V AC/DC | 110-120V AC/DC | 120-127V AC/DC | 220-240V AC/DC | 240-250V AC/DC | 380-400V AC | 415-440V AC | 480-500V AC |
| YC | A | B | C | D | E | F | G | H | K | L | M |
| YC + YC2 | N | P | Q | R | S | T | U | V | X | Y | Z |

Note: YC2 will have the same control voltage as YC1

15 - Opening Coil (YO)

| | | | | | | | | | | | |
|-------------|-----------|-----------|-----------|-----------|----------------|----------------|----------------|----------------|-------------|-------------|-------------|
| None | 0 | | | | | | | | | | |
| | 24V AC/DC | 30V AC/DC | 48V AC/DC | 60V AC/DC | 110-120V AC/DC | 120-127V AC/DC | 220-240V AC/DC | 240-250V AC/DC | 380-400V AC | 415-440V AC | 480-500V AC |
| YO | A | B | C | D | E | F | G | H | K | L | M |

16 - Undervoltage Release (UVR) or Redundant Opening Coil (YO2)

| | | | | | | | | | | | |
|-----------------|-----------|-----------|-----------|-----------|----------------|----------------|----------------|----------------|-------------|-------------|-------------|
| None | 0 | | | | | | | | | | |
| | 24V AC/DC | 30V AC/DC | 48V AC/DC | 60V AC/DC | 110-120V AC/DC | 120-127V AC/DC | 220-240V AC/DC | 240-250V AC/DC | 380-400V AC | 415-440V AC | 480-500V AC |
| UVR | A | B | C | D | E | F | G | H | K | L | M |
| YO2 only | N | P | Q | R | S | T | U | V | X | Y | Z |

Instructions for ordering

SACE Emax 2 configured circuit breaker/ switch disconnect order code breakdown

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|-----|---|---|---|----|----|----|----|----|----|----|----|----|----|----|
| Z | 2 | H | F | UJ | A | E | 4 | 8 | N | B | E | A | A | O | Q | C | E | A |
| 1 | 2 | 3 | 4 | 5&6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |

17 - Spring Charging Motor (M) and Ekip Com Actuator

| | | | | | | |
|----------------------------------------------------------------------------------|-----------------|-----------------|-------------------|-------------------|----------------|-------------------------------|
| None | 0 | | | | | |
| Ekip Com Actuator | 1 | | | | | |
| | 24-30V AC/DC | 48-60V AC/DC | 100-130V AC/DC | 220-250V AC/DC | 380-415V AC | 440-480V AC ⁽¹⁾ |
| M with standard aux. for status indication of springs | 2 | 3 | 4 | 5 | 7 | 8 |
| M with 24V DC aux. contacts for status indication of springs | A | B | C | D | F | G |
| M with standard aux. for status indication of springs + Ekip Com Actuator | H | J | K | L | N | P |
| M with 24V DC aux. contacts for status indication of springs + Ekip Com Actuator | Q | R | S | T | U | V |

Note: Standard aux = E1.2 = 250V / E2.2 - E6.2 = 400V
(1) not compatible with E1.2

18 - Push Button Locking Options

| | | | | | | | | |
|--------------------------------------------------------------|--------------------------|-------------------|-------------------|-------------------|--------------------------------|-----------|-----------|---|
| None | 0 | | | | | | | |
| | Push Button Covers (PBC) | | | | Padlock in Open Position (PLC) | | | |
| | PBC Special Key | PBC Padlock (4mm) | PBC Padlock (7mm) | PBC Padlock (8mm) | PLC (4mm) | PLC (7mm) | PLC (8mm) | |
| | 2 | 3 | 4 | 5 | 6 | 7 | 8 | |
| Key Lock in Open Position - Different Keys (KLC-D) | A | D | E | F | G | H | J | K |
| Key Lock in Open Position - Same Keys (KLC-S) ⁽¹⁾ | B | L | M | N | P | Q | R | S |
| Key Lock in Open Position - Kirk Key provisions (KLA) | C | T | I | V | W | X | Y | Z |

(1) Standard key for Same Key option is #20005. Locks for #20006 - 20009 are available for order as loose accessories.
Note: Key lock options for Castell and Ronis/Profalux are available for order as loose accessories.

19 - Racking Lock Options (1st lock) and Factory Test Report

| None | X | Keylock in racked in/ out - Same Keys (KLP-S) ⁽¹⁾ | Keylock in racked in/ out - Different Keys (KLP-D) ⁽¹⁾ | Keylock in racked in/ out - Kirk/Ronis/ Profulaux provisions (KLP-A) ⁽¹⁾ | Keylock in racked in/ out - Castell provisions (KLP-A) ⁽²⁾ |
|----------------------------------------------------|---|--------------------------------------------------------------------|-------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------|
| | - | A | B | C | D |
| Padlock in racked in/out position (PLP) | E | F | G | H | J |
| Factory Test Report | K | M | N | P | Q |
| PLP + Factory Test Report | R | S | T | U | V |

(1) Standard key for Same Key option is #20005. Locks for #20006 - 20009 are available for order as loose accessories.

(2) Two Castell adapters cannot be used at once, but can be used in either position with another type of lock.

20 - 2nd Racking Lock Options, Mechanical Operations Counter (MOC) and Extended Warranty's

| None | X | Keylock in racked in/ out - Same Keys (KLP-S) ⁽¹⁾ | Keylock in racked in/ out - Different Keys (KLP-D) ⁽¹⁾ | Keylock in racked in/ out - Kirk/Ronis/ Profulaux provisions (KLP-A) ⁽¹⁾ | Keylock in racked in/ out - Castell provisions (KLP-A) ⁽²⁾ |
|------------------------------------------------|---|--------------------------------------------------------------------|-------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------|
| | | B | C | D | E |
| Mechanical Operations Counter (MOC) | A | F | G | H | J |
| 2 Year Extended Warranty | 2 | N | R | U | Y |
| 4 Year Extended Warranty | 4 | P | S | V | Z |
| 5 Year Extended Warranty | 5 | Q | T | W | 6 |
| Additional Combinations | | | | | |
| MOC + 2 Year Extended Warranty | K | 7 | - | - | - |
| MOC + 4 Year Extended Warranty | L | 8 | - | - | - |
| MOC + 5 Year Extended Warranty | M | 9 | - | - | - |

Note: for additional combinations please contact your local ABB sales person