

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

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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
Ekip Trip Unit + optional 24VDC Bell Alarm	Touch + Power Controller ⁽¹⁾	Y	Z	1
	Hi-Touch	-	2	3
	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
	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	-	-	-
Combos	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

SACE Emax 2 configured circuit breaker/ switch disconnector 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

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	-	-
Combos	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	-	-
	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

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

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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