

Molded Case Circuit Breakers

Quick reference guide

Line protection

■ S series/2, 3-pole IEC and CE marking conformed types

Frame	30A		50A					
Pole	2	3	2	3	2	3		
Type	SA32C□-CE		SA33C□-CE	SA52C□-CE	SA53C□-CE	SA52RC□-CE	SA53RC□-CE	
Rated current (A)	3, 5, 10, 15, 20, 30		5, 10, 15, 20, 30, 40, 50		10, 15, 20, 30, 40, 50			
Rated insulation voltage (V AC)	690		690		690			
[IEC 60947-2, EN60947-2, JIS C8201-2-1] (V DC)	250 *2		250 *2		250 *2			
Rated breaking capacity (kA)	600V AC	-		-		-		
[IEC 60947-2, EN60947-2, JIS C8201-2-1] (Icu/Ics) *1	500V AC	1.5/1	5/3		7.5/4			
	440V AC	2.5/2	7.5/4		10/5			
	415V AC	2.5/2	7.5/4		10/5			
	400V AC	2.5/2	7.5/4		10/5			
	380V AC	2.5/2	7.5/4		10/5			
	230V AC	5/3	10/5		25/13			
	250V DC	2.5/2	5/3		5/3			
Rated operating voltage [UL508] (V AC)	550		600		600			
Dimensions (mm)	a	50	75	50	75	50	75	
	b	100	100	100	100	100	100	
	c	60	60	60	60	60	60	
	d	84	84	84	84	84	84	
Mass (kg) Front mounting type	0.4		0.5		0.4		0.5	
Tripping device	Hydraulic-magnetic		Hydraulic-magnetic		Hydraulic-magnetic		Hydraulic-magnetic	
Front mounting, front connection	No-mark	●	●	●	●	●	●	
Front mounting, rear connection	X	●	●	●	●	●	●	
Flush mounting, rear connection	E	●	●	●	●	●	●	
Flush mounting, top & bottom connection	Y	●	●	●	●	●	●	
Plug-in mounting	P	●	●	●	●	●	●	
IEC 35mm wide rail mounting		●	●	●	●	●	●	
Internal accessories		Page 06/88						
Alarm switch	K	BZ6KR10C	BZ6K□10C	BZ6KR10C	BZ6K□10C	BZ6KR10C	BZ6K□10C	
Alarm switch with terminal block	KA	BZ6KR10CA	BZ6K□10CA	BZ6KR10CA	BZ6K□10CA	BZ6WR10CA	BZ6K□10CA	
Auxiliary switch	W	BZ6WR10C	BZ6W□10C	BZ6WR10C	BZ6W□10C	BZ6WR10C	BZ6W□10C	
Auxiliary switch with terminal block	WA	BZ6WR10CA	BZ6W□10CA	BZ6WR10CA	BZ6W□10CA	BZ6WR10CA	BZ6W□10CA	
Undervoltage trip	R	BZ6R□10C	BZ6R□10C	BZ6R□10C	BZ6R□10C	BZ6R□10C	BZ6R□10C	
Shunt trip	F	BZ6F□10C	BZ6F□10C	BZ6F□10C	BZ6F□10C	BZ6F□10C	BZ6F□10C	
Shunt trip with terminal block	FA	BZ6F□10CA	BZ6F□10CA	BZ6F□10CA	BZ6F□10CA	BZ6F□10CA	BZ6F□10CA	
External accessories								
Motor operating mechanism	M	-	▲	-	▲	-	▲	
Handle padlocking device Cap type	Q1	-	-	-	-	-	-	
Plate type	Q2	▲	▲	▲	▲	▲	▲	
Mechanical interlocking device	M1	BZ6M110C2	BZ6M110C3	BZ6M110C2	BZ6M110C3	BZ6M110C2	BZ6M110C3	
	M2	BZ6M210C2	BZ6M210C3	BZ6M210C2	BZ6M210C3	BZ6M210C2	BZ6M210C3	
	M3	BZ6M310C2	BZ6M310C3	BZ6M310C2	BZ6M310C3	BZ6M310C2	BZ6M310C3	
Operating handle N-type	N	BZ6N10C	BZ6N10C	BZ6N10C	BZ6N10C	BZ6N10C	BZ6N10C	
Operating handle V-type	V	BZ6V10C	BZ6V10C	BZ6V10C	BZ6V10C	BZ6V10C	BZ6V10C	
Steel enclosure Direct operating	C	BZ6C10C2	BZ6C10C3	BZ6C10C2	BZ6C10C3	BZ6C10C2	BZ6C10C3	
Dustproof steel enclosure Handle operating	CV	BZ6CV10C	BZ6CV10C	BZ6CV10C	BZ6CV10C	BZ6CV10C	BZ6CV10C	
Rainproof steel enclosure Handle operating	CW	BZ6CW10C	BZ6CW10C	BZ6CW10C	BZ6CW10C	BZ6CW10C	BZ6CW10C	
Terminal cover Short	TS	BZ6TS10C2	BZ6TS10C3	BZ6TS10C2	BZ6TS10C3	BZ6TS10C2	BZ6TS10C3	
Terminal cover Long	TB	BZ6TB10C2	BZ6TB10C3	BZ6TB10C2	BZ6TB10C3	BZ6TB10C2	BZ6TB10C3	
Insulation barrier Interphase *3	B	BZ6B10C	BZ6B10C	BZ6B10C	BZ6B10C	BZ6B10C	BZ6B10C	
Insulation barrier Earth	BL	BZ6BL10C2	BZ6BL10C3	BZ6BL10C2	BZ6BL10C3	BZ6BL10C2	BZ6BL10C3	
Handle locking cover	L	BZ6L10C	BZ6L10C	BZ6L10C	BZ6L10C	BZ6L10C	BZ6L10C	
Flat terminal	S	BZ6S10C502	BZ6S10C503	BZ6S10C502	BZ6S10C503	BZ6S10C502	BZ6S10C503	

Notes: *1 Icu: Rated ultimate short-circuit breaking capacity

Ics: Rated service short-circuit breaking capacity

*2 Specify DC only when ordering circuit breakers for DC circuit.

*3 Interphase insulation barriers are standard provided for the front mounting type breakers of 50AF and over.

● Available - Not available ▲ Factory-mounted accessory

■ S series/2, 3-pole IEC and CE marking conformed types

Frame	60A			
Pole	2	3	2	3
Type	SA62C□-CE		SA63C□-CE	
Rated current (A)	60			
Rated insulation voltage (V AC)	690		690	
[IEC 60947-2, EN60947-2, JIS C8201-2-1] (V DC)	250 *2		250 *2	
Rated breaking capacity (kA)	600V AC –		600V AC –	
[IEC 60947-2, EN60947-2, JIS C8201-2-1] (Icu/Ics) *1	500V AC 5/3		500V AC 7.5/4	
	440V AC 7.5/4		440V AC 10/5	
	415V AC 7.5/4		415V AC 10/5	
	400V AC 7.5/4		400V AC 10/5	
	380V AC 7.5/4		380V AC 10/5	
	230V AC 10/5		230V AC 25/13	
	250V DC 5/3		250V DC 5/3	
Rated operating voltage [UL508] (V AC)	600			
Dimensions (mm)	a	50	75	100
	b	100	100	100
	c	60	60	60
	d	84	84	84
Mass (kg) Front mounting type	0.4		0.6	
Tripping device	Hydraulic-magnetic		Hydraulic-magnetic	
Front mounting, front connection	No-mark	●	●	●
Front mounting, rear connection	X	●	●	●
Flush mounting, rear connection	E	●	●	●
Flush mounting, top & bottom connection	Y	●	●	●
Plug-in mounting	P	●	●	●
IEC 35mm wide rail mounting		●	●	●
Internal accessories	Page 06/88			
Alarm switch	K	BZ6KR10C	BZ6K□10C	BZ6KR10C
Alarm switch with terminal block	KA	BZ6KR10CA	BZ6K□10CA	BZ6KR10CA
Auxiliary switch	W	BZ6WR10C	BZ6W□10C	BZ6WR10C
Auxiliary switch with terminal block	WA	BZ6WR10CA	BZ6W□10CA	BZ6WR10CA
Undervoltage trip	R	BZ6R□10C	BZ6R□10C	BZ6R□10C
Shunt trip	F	BZ6F□10C	BZ6F□10C	BZ6F□10C
Shunt trip with terminal block	FA	BZ6F□10CA	BZ6F□10CA	BZ6F□10CA
External accessories				
Motor operating mechanism	M	–	▲	–
Handle padlocking device Cap type	Q1	–	–	–
Plate type	Q2	▲	▲	▲
Mechanical interlocking device	M1	BZ6M110C2	BZ6M110C3	BZ6M110C2
	M2	BZ6M210C2	BZ6M210C3	BZ6M210C2
	M3	BZ6M310C2	BZ6M310C3	BZ6M310C2
Operating handle N-type	N	BZ6N10C	BZ6N10C	BZ6N10C
Operating handle V-type	V	BZ6V10C	BZ6V10C	BZ6V10C
Steel enclosure Direct operating	C	BZ6C10C2	BZ6C10C3	BZ6C10C2
Dustproof steel enclosure Handle operating	CV	BZ6CV10C	BZ6CV10C	BZ6CV10C
Rainproof steel enclosure Handle operating	CW	BZ6CW10C	BZ6CW10C	BZ6CW10C
Terminal cover Short	TS	BZ6TS10C2	BZ6TS10C3	BZ6TS10C2
Terminal cover Long	TB	BZ6TB10C2	BZ6TB10C3	BZ6TB10C2
Insulation barrier Interphase *3	B	BZ6B10C	BZ6B10C	BZ6B10C
Insulation barrier Earth	BL	BZ6BL10C2	BZ6BL10C3	BZ6BL10C2
Handle locking cover	L	BZ6L10C	BZ6L10C	BZ6L10C
Flat terminal	S	BZ6S10C1002	BZ6S10C1003	BZ6S10C1002

Notes: *1 Icu: Rated ultimate short-circuit breaking capacity
Ics: Rated service short-circuit breaking capacity
*2 Specify DC only when ordering circuit breakers for DC circuit.
*3 Interphase insulation barriers are standard provided for the front mounting type breakers of 50AF and over.

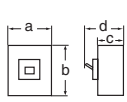
● Available – Not available ▲ Factory-mounted accessory

Molded Case Circuit Breakers

Quick reference guide

Line protection

■ S series/2, 3-pole IEC and CE marking conformed types

Frame	100A				225A	
Pole	2		3		2	3
Type	SA102C□-CE		SA103C□-CE		SA102RC□-CE	SA103RC□-CE
Rated current (A)	15, 20, 30, 40, 50, 60, 75, 100		15, 20, 30, 40, 50, 60, 75, 100		125, 150, 175, 200, 225	
Rated insulation voltage (V AC)	690		690		690	
[IEC 60947-2, EN60947-2, JIS C8201-2-1] (V DC)	250		250		250	
Rated breaking capacity (kA)	600V AC		-		-	
[IEC 60947-2, EN60947-2, JIS C8201-2-1] (Icu/Ics) *1	500V AC		30/8		15/4	
	440V AC		50/13		25/7	
	415V AC		50/13		30/8	
	400V AC		50/13		30/8	
	380V AC		50/13		30/8	
	230V AC		100/50		50/25	
	250V DC		40/20		15/8	
Rated operating voltage [UL508] (V AC)	-		-		-	
Dimensions (mm)	a	60	90	90	90	105
	b	155	155	155	155	165
	c	60	60	60	60	60
	d	82	82	82	82	84
						
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Mass (kg) Front mounting type	0.7		1.1		1.3	
Tripping device	Thermal-magnetic		Thermal-magnetic		Thermal-magnetic	
Front mounting, front connection	No-mark	●	●	●	●	●
Front mounting, rear connection	X	●	●	●	●	●
Flush mounting, rear connection	E	●	●	●	●	●
Flush mounting, top & bottom connection	Y	-	-	-	-	-
Plug-in mounting	P	●	●	●	●	●
IEC 35mm wide rail mounting	-	-	-	-	-	-
Internal accessories	Page 06/88					
Alarm switch	K	BZ6K□30C	BZ6K□30C	BZ6K□30C	BZ6K□30C	BZ6K□40C
Alarm switch with terminal block	KA	BZ6K□30CA	BZ6K□30CA	BZ6K□30CA	BZ6K□30CA	BZ6K□40CA
Auxiliary switch	W	BZ6W□30C	BZ6W□30C	BZ6W□30C	BZ6W□30C	BZ6W□40C
Auxiliary switch with terminal block	WA	BZ6W□30CA	BZ6W□30CA	BZ6W□30CA	BZ6W□30CA	BZ6W□40CA
Undervoltage trip	R	▲	▲	▲	▲	▲
Shunt trip	F	BZ6F□30C	BZ6F□30C	BZ6F□30C	BZ6F□30C	BZ6F□40C
Shunt trip with terminal block	FA	BZ6F□30CA	BZ6F□30CA	BZ6F□30CA	BZ6F□30CA	BZ6F□40CA
External accessories						
Motor operating mechanism	M	-	▲	▲	▲	▲
Handle padlocking device Cap type	Q1	-	-	-	-	-
Plate type	Q2	-	-	-	-	-
Mechanical interlocking device	M1	BZ6M130C2	BZ6M130C3	BZ6M130C3	BZ6M130C3	BZ6M140C
	M2	BZ-M230C-2	BZ-M230C-3	BZ-M230C-3	BZ-M230C-3	BZ-M240C
	M3	BZ-M330C-2	BZ-M330C-3	BZ-M330C-3	BZ-M330C-3	BZ-M340C
Operating handle N-type	N	BZ-N30C	BZ-N30C	BZ-N30C	BZ-N30C	BZ-N40C
Operating handle V-type	V	BZ6V30C	BZ6V30C	BZ6V30C	BZ6V30C	BZ6V40C
Steel enclosure Direct operating	C	BZ6C30C2	BZ6C30C3	BZ6C30C3	BZ6C30C3	BZ-C40B
Dustproof steel enclosure Handle operating	CV	BZ-CV30C	BZ-CV30C	BZ-CV30C	BZ-CV30C	BZ-CV40C
Rainproof steel enclosure Handle operating	CW	BZ-CW30C	BZ-CW30C	BZ-CW30C	BZ-CW30C	BZ-CW40C
Terminal cover Short	TS	BZ-TS30B-2	BZ-TS30B-3	BZ-TS30B-3	BZ-TS30B-3	BZ-TS40B
Terminal cover Long	TB	BZ-TB30B-2	BZ-TB30B-3	BZ-TB30B-3	BZ-TB30B-3	BZ-TB40B
Insulation barrier Interphase *2	B	BZ-B30B	BZ-B30B	BZ-B30B	BZ-B30B	BZ-B40B
Insulation barrier Earth	BL	BZ-BL30B-2	BZ-BL35B	BZ-BL35B	BZ-BL35B	BZ-BL40B
Handle locking cover	L	BZ6L30C	BZ6L30C	BZ6L30C	BZ6L30C	BZ6L40C
Flat terminal	S	BZ-S35B-1002	BZ-S35B-1003	BZ-S35B-1002	BZ-S35B-1003	BZ-S50B-2252

Notes: *1 Icu: Rated ultimate short-circuit breaking capacity

Ics: Rated service short-circuit breaking capacity

*2 Interphase insulation barriers are standard provided for the front mounting type breakers of 50AF and over.

● Available - Not available ▲ Factory-mounted accessory

■ S series/2, 3-pole IEC and CE marking conformed types

Frame	225A		400A	
Pole	2	3	2	3
Type	SA202RC□-CE		SA203RC□-CE	
Rated current (A)	125, 150, 175, 200, 225		250, 300, 350, 400	
Rated insulation voltage (V AC)	690		690	
[IEC 60947-2, EN60947-2, JIS C8201-2-1] (V DC)	250		250	
Rated breaking capacity (kA)	600V AC –		–	
[IEC 60947-2, EN60947-2, JIS C8201-2-1] (Icu/Ics) *1	500V AC 30/8		22/11	
	440V AC 50/13		35/18	
	415V AC 50/13		35/18	
	400V AC 50/13		35/18	
	380V AC 50/13		35/18	
	230V AC 100/50		50/25	
	250V DC 40/20		20/10	
Rated operating voltage [UL508] (V AC)	–		–	
Dimensions (mm)	a	105	105	140
	b	165	165	257
	c	60	60	103
	d	84	84	146
Mass (kg) Front mounting type	1.1		1.3	
Tripping device	Thermal-magnetic		Thermal-magnetic	
Front mounting, front connection	No-mark	●	●	●
Front mounting, rear connection	X	●	●	●
Flush mounting, rear connection	E	●	●	●
Flush mounting, top & bottom connection	Y	–	–	–
Plug-in mounting	P	●	●	●
IEC 35mm wide rail mounting		–	–	–
Internal accessories				
Alarm switch	K	BZ6K□40C	BZ6K□40C	BZ-K70B
Alarm switch with terminal block	KA	BZ6K□40CA	BZ6K□40CA	BZ-K70BA
Auxiliary switch	W	BZ6W□40C	BZ6W□40C	BZ-W70B
Auxiliary switch with terminal block	WA	BZ6W□40CA	BZ6W□40CA	BZ-W70BA
Undervoltage trip	R	▲	▲	BZ-R70B-□
Shunt trip	F	BZ6F□40C	BZ6F□40C	BZ-F70B-□
Shunt trip with terminal block	FA	BZ6F□40CA	BZ6F□40CA	BZ-F70BA-□
External accessories				
Motor operating mechanism	M	▲	▲	▲
Handle padlocking device Cap type	Q1	–	–	▲
Plate type	Q2	–	–	▲
Mechanical interlocking device	M1	BZ6M140C	BZ6M140C	BZ-M160C
	M2	BZ-M240C	BZ-M240C	BZ-M260C
	M3	BZ-M340C	BZ-M340C	BZ-M360C
Operating handle N-type	N	BZ-N40C	BZ-N40C	BZ-N60C
Operating handle V-type	V	BZ6V40C	BZ6V40C	BZ6V60C
Steel enclosure Direct operating	C	BZ-C40B	BZ-C40B	BZ-C60B
Dustproof steel enclosure Handle operating	CV	BZ-CV40C	BZ-CV40C	BZ-CV60C
Rainproof steel enclosure Handle operating	CW	BZ-CW40C	BZ-CW40C	BZ-CW60C
Terminal cover Short	TS	BZ-TS40B	BZ-TS40B	–
Terminal cover Long	TB	BZ-TB40B	BZ-TB40B	BZ-TB60B
Insulation barrier Interphase *2	B	BZ-B40B	BZ-B40B	B-43A
Insulation barrier Earth	BL	BZ-BL40B	BZ-BL40B	–
Handle locking cover	L	BZ6L40C	BZ6L40C	BZ-L70B
Flat terminal	S	BZ-S50B-2252	BZ-S50B-2253	–

Notes: *1 Icu: Rated ultimate short-circuit breaking capacity
Ics: Rated service short-circuit breaking capacity
*2 Interphase insulation barriers are standard provided for the front mounting type breakers of 50AF and over.

● Available – Not available ▲ Factory-mounted accessory

Molded Case Circuit Breakers

Quick reference guide

Line protection

■ S series/2, 3-pole IEC and CE marking conformed types

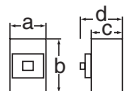
Frame	400A		600A	800A
Pole	2		3	3
Type	SA402RC□-CE		SA403RC□-CE	SA603RC□-CE
Rated current (A)	250, 300, 350, 400		500, 600	700, 800
Rated insulation voltage (V AC)	690		690	690
[IEC 60947-2, EN60947-2, JIS C8201-2-1] (V DC)	250		250	250
Rated breaking capacity (kA)	30/15		30/15	30/15
[IEC 60947-2, EN60947-2, JIS C8201-2-1] (Icu/Ics) *1	35/18		35/18	35/18
	50/25		50/25	50/25
	50/25		50/25	50/25
	50/25		50/25	50/25
	50/25		50/25	50/25
	85/43		85/43	85/43
	40/20		40/20	40/20
Rated operating voltage [UL508] (V AC)	-		-	-
Dimensions (mm)	140		140	210
	257		257	275
	103		103	103
	146		146	146
Mass (kg) Front mounting type	4.5		5	9
Tripping device	Thermal-magnetic		Thermal-magnetic	Thermal-magnetic
Front mounting, front connection	No-mark	●	●	●
Front mounting, rear connection	X	●	●	●
Flush mounting, rear connection	E	●	●	●
Flush mounting, top & bottom connection	Y	-	-	-
Plug-in mounting	P	●	●	●
IEC 35mm wide rail mounting		-	-	-
Internal accessories	Page 06/88			
Alarm switch	K	BZ-K70B	BZ-K70B	BZ-K70B
Alarm switch with terminal block	KA	BZ-K70BA	BZ-K70BA	BZ-K70BA
Auxiliary switch	W	BZ-W70B	BZ-W70B	BZ-W70B
Auxiliary switch with terminal block	WA	BZ-W70BA	BZ-W70BA	BZ-W70BA
Undervoltage trip	R	BZ-R70B-□	BZ-R70B-□	BZ-R70B-□
Shunt trip	F	BZ-F70B-□	BZ-F70B-□	BZ-F70B-□
Shunt trip with terminal block	FA	BZ-F70BA-□	BZ-F70BA-□	BZ-F70BA-□
External accessories				
Motor operating mechanism	M	▲	▲	▲
Handle padlocking device Cap type	Q1	▲	▲	▲
Plate type	Q2	▲	▲	▲
Mechanical interlocking device	M1	BZ-M160C	BZ-M160C	BZ-M170C
	M2	BZ-M260C	BZ-M260C	BZ-M270C
	M3	BZ-M360C	BZ-M360C	BZ-M370C
Operating handle N-type	N	BZ-N60C	BZ-N60C	BZ-N70C
Operating handle V-type	V	BZ6V60C	BZ6V60C	BZ6V70C
Steel enclosure Direct operating	C	BZ-C60B	BZ-C60B	BZ-C70B
Dustproof steel enclosure Handle operating	CV	BZ-CV60C	BZ-CV60C	BZ-CV70C
Rainproof steel enclosure Handle operating	CW	BZ-CW60C	BZ-CW60C	-
Terminal cover Short	TS	-	-	-
Terminal cover Long	TB	BZ-TB60B	BZ-TB60B	BZ-TB70B
Insulation barrier Interphase *2	B	B-43A	B-43A	B-43A
Insulation barrier Earth	BL	-	-	-
Handle locking cover	L	BZ-L70B	BZ-L70B	BZ-L70B
Flat terminal	S	-	-	-

Notes: *1 Icu: Rated ultimate short-circuit breaking capacity
Ics: Rated service short-circuit breaking capacity

*2 Interphase insulation barriers are standard provided for the front mounting type breakers of 50AF and over.

● Available - Not available ▲ Factory-mounted accessory

■ S series/3, 4-pole IEC and CE marking conformed types

Frame		1000A		1200A		1600A		
Pole		3	4	3	4	3	4	
Type		SA1003E	SA1004E	SA1203E	SA1204E	SA1603E	SA1604E	
Rated current(A)		Adjustable 500—600—700—800 —900—1000		Adjustable 600—700—800—1000 —1200		Adjustable 800—900—1000—1200 —1400—1600		
Rated insulation voltage(V)		AC DC	690 —	690 —	690 —	690 —	690 —	
Rated breaking capacity (kA)	IEC 60947-2, EN60947-2 JIS C8201-2-1 (Icu/Ics)	690V AC	25/19	25/19	25/19	45/34	45/34	
		660V AC	25/19	25/19	25/19	45/34	45/34	
		600V AC	25/19	25/19	25/19	45/34	45/34	
		500V AC	45/34	45/34	45/34	65/49	65/49	
		440V AC	65/49	65/49	65/49	85/64	85/64	
		400V AC	65/49	65/49	65/49	85/64	85/64	
		230V AC	100/75	100/75	100/75	125/94	125/94	
		250V DC	—	—	—	—	—	
Dimensions (mm)		a	210	280	210	280	210	280
		b	370		370		370	
		c	120		120		140	
		d	171		171		191	
Protection function	Long-time delay tripping time (s)	5-30 (at 6In) (Adjustable)						
	Short-time delay tripping current (A)	2In-10In (Adjustable)						
	Short-time delay tripping time (s)	0.1-0.3 (Adjustable)						
	Instantaneous tripping current (kA)	3.0-12 (Adjustable)		3.75-15 (Adjustable)		4.8-19.2 (Adjustable)		
Ground fault current tripping or pre-alarm	●		●		●			
Mass(kg) Front mounting, front connection	22	28	22	28	27	35		
Tripping device	Solid-state		Solid-state		Solid-state			
Trip button	Provided		Provided		Provided			
Mounting								
Front mounting, front connection	No mark	●	● Bar stud	● Bar stud	●	● Bar stud		
Front mounting, rear connection	X	● Bar Stud	● Bar stud	●	● Bar stud	● Bar stud		
Flush mounting, rear connection	E	● Bar Stud	●	●	● Bar stud	● Bar stud		
Plug-in mounting	P	●	●	●	—	—		
Internal accessories								
Auxiliary switch	W	●	●	●	●	●		
Alarm switch	K	●	●	●	●	●		
Shunt trip	F	●	●	●	●	●		
Undervoltage trip	R	●	●	●	●	●		
External accessories								
Motor operating mechanism	M	●	●	●	●	●		
Lead-wire terminal block	—	●	●	●	●	●		

● Available — Not available

Molded Case Circuit Breakers

Quick reference guide

Line protection

■ E series/2, 3-pole IEC and CE marking conformed types

Frame		30A		50A			
Pole		2	3	2	3	2	3
Type	Page 06/42	EA32AC□-CE	EA33AC□-CE	EA52AC□-CE	EA53AC□-CE	EA52C□-CE	EA53C□-CE
Rated current (A)		3, 5, 10, 15, 20, 30		5, 10, 15, 20, 30, 40, 50		5, 10, 15, 20, 30, 40, 50	
Rated insulation voltage (V AC)		500		500		690	
[IEC 60947-2, EN60947-2, JIS C8201-2-1] (V DC)		-		-		250 *2	
Rated breaking capacity (kA)		600V AC		-		-	
[IEC 60947-2, EN60947-2, JIS C8201-2-1] (Icu/Ics) *1		500V AC		-		1.5/1	
		440V AC		1.5/1		2.5/2	
		415V AC		1.5/1		2.5/2	
		400V AC		1.5/1		2.5/2	
		380V AC		1.5/1		2.5/2	
		230V AC		2.5/2		5/3	
		250V DC		-		2.5/2	
Rated operating voltage [UL508] (V AC)		240		240		550	
Dimensions (mm)		a	50	75	50	75	50
		b	100	100	100	100	100
		c	60	60	60	60	60
		d	84	84	84	84	84
Mass (kg) Front mounting type		0.4	0.5	0.4	0.5	0.4	0.5
Tripping device		Hydraulic-magnetic		Hydraulic-magnetic		Hydraulic-magnetic	
Front mounting, front connection		No-mark	●	●	●	●	●
Front mounting, rear connection		X	●	●	●	●	●
Flush mounting, rear connection		E	●	●	●	●	●
Flush mounting, top & bottom connection		Y	●	●	●	●	●
Plug-in mounting		P	●	●	●	●	●
IEC 35mm wide rail mounting			●	●	●	●	●
Internal accessories		Page 06/88					
Alarm switch		K	BZ6KR10C	BZ6K□10C	BZ6KR10C	BZ6K□10C	BZ6KR10C
Alarm switch with terminal block		KA	BZ6KR10CA	BZ6K□10CA	BZ6KR10CA	BZ6K□10CA	BZ6KR10CA
Auxiliary switch		W	BZ6WR10C	BZ6W□10C	BZ6WR10C	BZ6W□10C	BZ6WR10C
Auxiliary switch with terminal block		WA	BZ6WR10CA	BZ6W□10CA	BZ6WR10CA	BZ6W□10CA	BZ6WR10CA
Undervoltage trip		R	BZ6R□10C	BZ6R□10C	BZ6R□10C	BZ6R□10C	BZ6R□10C
Shunt trip		F	BZ6F□10C	BZ6F□10C	BZ6F□10C	BZ6F□10C	BZ6F□10C
Shunt trip with terminal block		FA	BZ6F□10CA	BZ6F□10CA	BZ6F□10CA	BZ6F□10CA	BZ6F□10CA
External accessories							
Motor operating mechanism		M	-	▲	-	▲	-
Handle padlocking device Cap type		Q1	-	-	-	-	-
Plate type		Q2	▲	▲	▲	▲	▲
Mechanical interlocking device		M1	BZ6M110C2	BZ6M110C3	BZ6M110C2	BZ6M110C3	BZ6M110C2
		M2	BZ6M210C2	BZ6M210C3	BZ6M210C2	BZ6M210C3	BZ6M210C2
		M3	BZ6M310C2	BZ6M310C3	BZ6M310C2	BZ6M310C3	BZ6M310C2
Operating handle N-type		N	BZ6N10C	BZ6N10C	BZ6N10C	BZ6N10C	BZ6N10C
Operating handle V-type		V	BZ6V10C	BZ6V10C	BZ6V10C	BZ6V10C	BZ6V10C
Steel enclosure Direct operating		C	BZ6C10C2	BZ6C10C3	BZ6C10C2	BZ6C10C3	BZ6C10C2
Dustproof steel enclosure Handle operating		CV	BZ6CV10C	BZ6CV10C	BZ6CV10C	BZ6CV10C	BZ6CV10C
Rainproof steel enclosure Handle operating		CW	BZ6CW10C	BZ6CW10C	BZ6CW10C	BZ6CW10C	BZ6CW10C
Terminal cover Short		TS	BZ6TS10C2	BZ6TS10C3	BZ6TS10C2	BZ6TS10C3	BZ6TS10C2
Terminal cover Long		TB	BZ6TB10C2	BZ6TB10C3	BZ6TB10C2	BZ6TB10C3	BZ6TB10C2
Insulation barrier Interphase *3		B	BZ6B10C	BZ6B10C	BZ6B10C	BZ6B10C	BZ6B10C
Insulation barrier Earth		BL	BZ6BL10C2	BZ6BL10C3	BZ6BL10C2	BZ6BL10C3	BZ6BL10C2
Handle locking cover		L	BZ6L10C	BZ6L10C	BZ6L10C	BZ6L10C	BZ6L10C
Flat terminal		S	BZ6S10C502	BZ6S10C503	BZ6S10C502	BZ6S10C503	BZ6S10C502

Notes: *1 Icu: Rated ultimate short-circuit breaking capacity

Ics: Rated service short-circuit breaking capacity

*2 Specify DC only when ordering circuit breakers for DC circuit.

*3 Interphase insulation barriers are standard provided for the front mounting type breakers of 50AF and over. Except for EA50AC

● Available - Not available ▲ Factory-mounted accessory

■ E series/2, 3-pole IEC and CE marking conformed types

Frame	60A		100A		
Pole	2	3	3	2	3
Type	Page 06/42		EA103AC□-CE	EA102C□-CE	EA103C□-CE
Rated current (A)	60		60, 75, 100	50, 60, 75, 100	
Rated insulation voltage (V AC)	690		400	690	
[IEC 60947-2, EN60947-2, JIS C8201-2-1] (V DC)	250 *2		–	250 *2	
Rated breaking capacity (kA)	600V AC	–	–	–	
[IEC 60947-2, EN60947-2, JIS C8201-2-1] (Icu/Ics) *1	500V AC	1.5/1	–	7.5/4	
	440V AC	2.5/2	–	10/5	
	415V AC	2.5/2	–	10/5	
	400V AC	2.5/2	1.5/1	10/5	
	380V AC	5/3	1.5/1	10/5	
	230V AC	5/3	5/3	25/13	
	250V DC	2.5/2	–	5/3	
Rated operating voltage [UL508] (V AC)	Page 06/37		240	600	
Dimensions (mm)	a	50	75	50	75
	b	100	100	100	100
	c	60	60	60	60
	d	84	84	84	84
Mass (kg) Front mounting type	0.4		0.6	0.4	0.6
Tripping device	Hydraulic-magnetic		Hydraulic-magnetic		
Front mounting, front connection	No-mark	●	●	●	●
Front mounting, rear connection	X	●	●	●	●
Flush mounting, rear connection	E	●	●	●	●
Flush mounting, top & bottom connection	Y	●	●	●	●
Plug-in mounting	P	●	●	●	●
IEC 35mm wide rail mounting		●	●	●	●
Internal accessories	Page 06/88				
Alarm switch	K	BZ6KR10C	BZ6K□10C	BZ6K□10C	BZ6KR10C
Alarm switch with terminal block	KA	BZ6KR10CA	BZ6K□10CA	BZ6K□10CA	BZ6KR10CA
Auxiliary switch	W	BZ6WR10C	BZ6W□10C	BZ6W□10C	BZ6WR10C
Auxiliary switch with terminal block	WA	BZ6WR10CA	BZ6W□10CA	BZ6W□10CA	BZ6WR10CA
Undervoltage trip	R	BZ6R□10C	BZ6R□10C	BZ6R□10C	BZ6R□10C
Shunt trip	F	BZ6F□10C	BZ6F□10C	BZ6F□10C	BZ6F□10C
Shunt trip with terminal block	FA	BZ6F□10CA	BZ6F□10CA	BZ6F□10CA	BZ6F□10CA
External accessories					
Motor operating mechanism	M	–	▲	–	▲
Handle padlocking device Cap type	Q1	–	–	–	–
Plate type	Q2	▲	▲	▲	▲
Mechanical interlocking device	M1	BZ6M110C2	BZ6M110C3	BZ6M110C3	BZ6M110C2
	M2	BZ6M210C2	BZ6M210C3	BZ6M210C3	BZ6M210C2
	M3	BZ6M310C2	BZ6M310C3	BZ6M310C3	BZ6M310C2
Operating handle N-type	N	BZ6N10C	BZ6N10C	BZ6N10C	BZ6N10C
Operating handle V-type	V	BZ6V10C	BZ6V10C	BZ6V10C	BZ6V10C
Steel enclosure Direct operating	C	BZ6C10C2	BZ6C10C3	BZ6C25C3	BZ6C25C2
Dustproof steel enclosure Handle operating	CV	BZ6CV10C	BZ6CV10C	BZ6CV25C	BZ6CV25C
Rainproof steel enclosure Handle operating	CW	BZ6CW10C	BZ6CW10C	BZ6CW25C	BZ6CW25C
Terminal cover Short	TS	BZ6TS10C2	BZ6TS10C3	BZ6TS10C3	BZ6TS10C2
Terminal cover Long	TB	BZ6TB10C2	BZ6TB10C3	BZ6TB10C3	BZ6TB10C2
Insulation barrier Interphase *3	B	BZ6B10C	BZ6B10C	BZ6B10C	BZ6B10C
Insulation barrier Earth	BL	BZ6BL10C2	BZ6BL10C3	BZ6BL10C3	BZ6BL10C2
Handle locking cover	L	BZ6L10C	BZ6L10C	BZ6L10C	BZ6L10C
Flat terminal	S	BZ6S10C1002	BZ6S10C1003	BZ6S10C1003	BZ6S10C1002

Notes: *1 Icu: Rated ultimate short-circuit breaking capacity
Ics: Rated service short-circuit breaking capacity
*2 Specify DC only when ordering circuit breakers for DC circuit.
*3 Interphase insulation barriers are standard provided for the front mounting type breakers of 50AF and over. Except for EA100AC

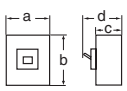
● Available – Not available ▲ Factory-mounted accessory

Molded Case Circuit Breakers

Quick reference guide

Line protection

■ E series/2, 3-pole IEC and CE marking conformed types

Frame	225A		400A		600A		
Pole	2	3	2	3	3		
Type	<i>Page 06/42</i> EA202C□-CE		EA203C□-CE		EA402C□-CE	EA403C□-CE	EA603C□-CE
Rated current (A)	125, 150, 175, 200, 225		250, 300, 350, 400		500, 600		
Rated insulation voltage (V AC)	690		690		690		
[IEC 60947-2, EN60947-2, JIS C8201-2-1] (V DC)	250		250		250		
Rated breaking capacity (kA)	600V AC	–		–		–	
[IEC 60947-2, EN60947-2, JIS C8201-2-1] (Icu/Ics) *1	500V AC	10/3	18/9		22/11		
	440V AC	15/4	25/13		35/18		
	415V AC	18/5	25/13		35/18		
	400V AC	18/5	25/13		35/18		
	380V AC	18/5	25/13		35/18		
	230V AC	35/18	35/18		50/25		
	250V DC	10/5	20/10		20/10		
Rated operating voltage [UL508] (V AC)	–		–		–		
Dimensions (mm)	a	105	105	140	140	210	
	b	165	165	257	257	275	
	c	60	60	103	103	103	
	d	84	84	146	146	146	
<i>Page 06/65</i>							
Mass (kg) Front mounting type	1.1		1.3		4.5	5	9
Tripping device	Thermal-magnetic		Thermal-magnetic		Thermal-magnetic		
Front mounting, front connection	No-mark	●	●	●	●	●	
Front mounting, rear connection	X	●	●	●	●	●	
Flush mounting, rear connection	E	●	●	●	●	●	
Flush mounting, top & bottom connection	Y	–	–	–	–	–	
Plug-in mounting	P	●	●	●	●	●	
IEC 35mm wide rail mounting		–	–	–	–	–	
Internal accessories	<i>Page 06/88</i>						
Alarm switch	K	BZ6K□40C	BZ6K□40C	BZ-K70B	BZ-K70B	BZ-K70B	
Alarm switch with terminal block	KA	BZ6K□40CA	BZ6K□40CA	BZ-K70BA	BZ-K70BA	BZ-K70BA	
Auxiliary switch	W	BZ6W□40C	BZ6W□40C	BZ-W70B	BZ-W70B	BZ-W70B	
Auxiliary switch with terminal block	WA	BZ6W□40CA	BZ6W□40CA	BZ-W70BA	BZ-W70BA	BZ-W70BA	
Undervoltage trip	R	▲	▲	BZ-R70B-□	BZ-R70B-□	BZ-R70B-□	
Shunt trip	F	BZ6F□40C	BZ6F□40C	BZ-F70B-□	BZ-F70B-□	BZ-F70B-□	
Shunt trip with terminal block	FA	BZ6F□40CA	BZ6F□40CA	BZ-F70BA-□	BZ-F70BA-□	BZ-F70BA-□	
External accessories							
Motor operating mechanism	M	▲	▲	▲	▲	▲	
Handle padlocking device Cap type	Q1	–	–	▲	▲	▲	
Plate type	Q2	–	–	▲	▲	▲	
Mechanical interlocking device	M1	BZ6M140C	BZ6M140C	BZ-M160C	BZ-M160C	BZ-M170C	
	M2	BZ-M240C	BZ-M240C	BZ-M260C	BZ-M260C	BZ-M270C	
	M3	BZ-M340C	BZ-M340C	BZ-M360C	BZ-M360C	BZ-M370C	
Operating handle N-type	N	BZ-N40C	BZ-N40C	BZ-N60C	BZ-N60C	BZ-N70C	
Operating handle V-type	V	BZ6V40C	BZ6V40C	BZ6V60C	BZ6V60C	BZ6V70C	
Steel enclosure Direct operating	C	BZ-C40B	BZ-C40B	BZ-C60B	BZ-C60B	BZ-C70B	
Dustproof steel enclosure Handle operating	CV	BZ-CV40C	BZ-CV40C	BZ-CV60C	BZ-CV60C	BZ-CV70C	
Rainproof steel enclosure Handle operating	CW	BZ-CW40C	BZ-CW40C	BZ-CW60C	BZ-CW60C	–	
Terminal cover Short	TS	BZ-TS40B	BZ-TS40B	–	–	–	
Terminal cover Long	TB	BZ-TB40B	BZ-TB40B	BZ-TB60B	BZ-TB60B	BZ-TB70B	
Insulation barrier Interphase *2	B	BZ-B40B	BZ-B40B	B-43A	B-43A	B-43A	
Insulation barrier Earth	BL	BZ-BL40B	BZ-BL40B	–	–	–	
Handle locking cover	L	BZ6L40C	BZ6L40C	BZ-L70B	BZ-L70B	BZ-L70B	
Flat terminal	S	BZ-S50B-2252	BZ-S50B-2253	–	–	–	

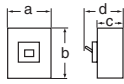
Notes: *1 Icu: Rated ultimate short-circuit breaking capacity

Ics: Rated service short-circuit breaking capacity

*2 Interphase insulation barriers are standard provided for the front mounting type breakers.

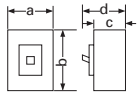
● Available – Not available ▲ Factory-mounted accessory

■ E series/3-pole IEC and CE marking conformed types

Frame	800A	
Pole	3	
Type	Page 06/42	EA803C□-CE
Rated current (A)	700, 800	
Rated insulation voltage (V AC)	690	
[IEC 60947-2, EN60947-2, JIS C8201-2-1] (V DC)	250	
Rated breaking capacity (kA)	600V AC	—
[IEC 60947-2, EN60947-2, JIS C8201-2-1] (Icu/Ics) *1	500V AC	22/11
	440V AC	35/18
	415V AC	35/18
	400V AC	35/18
	380V AC	35/18
	230V AC	50/25
	250V DC	20/10
Rated operating voltage [UL508] (V AC)	—	
Dimensions (mm)	a	210
	b	275
	c	103
	d	146
Page 06/66		
Mass (kg) Front mounting type	10	
Tripping device	Thermal-magnetic	
Front mounting, front connection	No-mark	●
Front mounting, rear connection	X	●
Flush mounting, rear connection	E	●
Flush mounting, top & bottom connection	Y	—
Plug-in mounting	P	●
IEC 35mm wide rail mounting		—
Internal accessories	Page 06/88	
Alarm switch	K	BZ-K70B
Alarm switch with terminal block	KA	BZ-K70BA
Auxiliary switch	W	BZ-W70B
Auxiliary switch with terminal block	WA	BZ-W70BA
Undervoltage trip	R	BZ-R70B-□
Shunt trip	F	BZ-F70B-□
Shunt trip with terminal block	FA	BZ-F70BA-□
External accessories		
Motor operating mechanism	M	▲
Handle padlocking device Cap type	Q1	▲
Plate type	Q2	▲
Mechanical interlocking device	M1	BZ-M170C
	M2	BZ-M270C
	M3	BZ-M370C
Operating handle N-type	N	BZ-N70C
Operating handle V-type	V	BZ6V70C
Steel enclosure Direct operating	C	BZ-C70B
Dustproof steel enclosure Handle operating	CV	BZ-CV70C
Rainproof steel enclosure Handle operating	CW	—
Terminal cover Short	TS	—
Terminal cover Long	TB	BZ-TB70B
Insulation barrier Interphase *2	B	B-43A
Insulation barrier Earth	BL	—
Handle locking cover	L	BZ-L70B
Flat terminal	S	—

Notes: *1 Icu: Rated ultimate short-circuit breaking capacity
Ics: Rated service short-circuit breaking capacity
*2 Interphase insulation barriers are standard provided for the front mounting type breakers.

■ E series/4-pole

Frame	100A	
Pole	4	
Type	Page 06/47	EA104B
Rated current (A)	50, 60, 75, 100	
Rated insulation voltage Ui (Volts)	AC	660
	DC	—
Rated breaking capacity (kA)	JIS C8201-2-1 Ann.2 [Icu]	500V AC 7.5 440V AC 10 415V AC 10 400V AC 15 380V AC 15 230V AC 25
Dimensions (mm)		a 100 b 130 c 60 d 80
Page 06/66		
Mass (kg)	Front mounting type	1.0
Tripping device	Hydraulic-magnetic	
Trip button	Provided	
Front mounting, front connection	No-mark	●
rear connection	X	●
Flush mounting, rear connection	E	●
top & bottom connection	Y	●
Plug-in mounting	P	—
Draw-out	D	—
Internal accessories	Page 06/88	
Alarm switch	K	BZ-K25B□
Auxiliary switch	W	BZ-W25B□
Undervoltage trip	R	—
Shunt trip	F	BZ-F25BT
External accessories		
Motor operating mechanism	M	—
Padlocking device	Q	▲
Mechanical interlocking device	M1	BZ-M120C-4
Operating handle N type	N	BZ-N20C
Operating handle V type	V	BZ-V20C
Steel enclosure	C	—
Steel enclosure with V type handle	CV	—
Terminal cover Short	TS	BZ-TS20B-4
Terminal cover Long	TB	BZ-TB20B-4
Insulation barrier Interphase	B	—
Insulation barrier Earth	BL	—

● Available — Not available ▲ Factory-mounted accessory

Molded Case Circuit Breakers

Quick reference guide

Motor protection

Motor protection breakers

Motors are normally controlled by MCCBs and magnetic starters. In this case the MCCB carries out overcurrent or short-circuit current protection while the starter deals with ON-OFF switching

of the motor and offers protection against sustained overload currents. These are the motor breakers which combine the two functions. FUJI motor breakers are designed to eliminate erroneous operations due to

the rush current produced at the time of starting the motor. They will trip in the face of sustained overcurrent when the integrated bimetal relay has operated.

■ S series/2, 3-pole IEC and CE marking conformed types

Frame	30A		50A		60A	
Pole	2		3	3	3	
Type	SA32CM□-CE		SA33CM□-CE	SA53CM□-CE	SA53RCM□-CE	SA63CM□-CE
Rated current (A) *1	2, 4, 5, 8, 10, 16		0.7, 1.4, 2, 2.6, 4 5, 8, 10, 12, 16, 24, 32	0.7, 1.4, 2, 2.6, 4 5, 8, 10, 12, 16, 24, 32, 40, 45	10, 12, 16, 24, 32, 40, 45	60
Rated insulation voltage (V AC)	690		690		690	690
[IEC 60947-2, EN60947-2, JIS C8201-2-1] (V DC)	-		-		-	-
Rated breaking capacity (kA)	500V AC	1.5/1	7.5/4		7.5/4	5/3
[IEC 60947-2, EN60947-2, JIS C8201-2-1] (Icu/Ics) *2	440V AC	2.5/2	7.5/4		10/5	7.5/4
	415V AC	2.5/2	7.5/4		10/5	7.5/4
	400V AC	2.5/2	7.5/4		10/5	7.5/4
	380V AC	2.5/2	7.5/4		10/5	7.5/4
	230V AC	5/3	10/5		25/13	10/5
Rated operating voltage [UL508] (V AC)	550		600		600	600
Dimensions (mm)	a	50	75	75	75	75
	b	100	100	100	100	100
	c	60	60	60	60	60
	d	84	84	84	84	84
Mass (kg) Front mounting type	0.5		0.5	0.5	0.5	0.6
Tripping device	Hydraulic-magnetic		Hydraulic-magnetic		Hydraulic-magnetic	Hydraulic-magnetic
Front mounting, front connection	No-mark	●	●	●	●	●
Front mounting, rear connection	X	●	●	●	●	●
Flush mounting, rear connection	E	●	●	●	●	●
Flush mounting, top & bottom connection	Y	●	●	●	●	●
Plug-in mounting	P	●	●	●	●	●
IEC 35mm wide rail mounting		●	●	●	●	●
Internal accessories	Page 06/88					
Alarm switch	K	BZ6KR10C	BZ6K□10C	BZ6K□10C	BZ6K□10C	BZ6K□10C
Auxiliary switch	W	BZ6WR10C	BZ6W□10C	BZ6W□10C	BZ6W□10C	BZ6W□10C
Undervoltage trip	R	BZ6RR10C	BZ6R□10C	BZ6R□10C	BZ6R□10C	BZ6R□10C
Shunt trip	F	BZ6FR10C	BZ6F□10C	BZ6F□10C	BZ6F□10C	BZ6F□10C
External accessories						
Handle padlocking device	Cap type	Q1	-	-	-	-
	Plate type	Q2	▲	▲	▲	▲
Mechanical interlocking device	M1	BZ6M110C2	BZ6M110C3	BZ6M110C3	BZ6M110C3	BZ6M110C3
	M2	BZ6M210C2	BZ6M210C3	BZ6M210C3	BZ6M210C3	BZ6M210C3
	M3	BZ6M310C2	BZ6M310C3	BZ6M310C3	BZ6M310C3	BZ6M310C3
Operating handle	N-type	N	BZ6N10C	BZ6N10C	BZ6N10C	BZ6N10C
	V-type	V	BZ6V10C	BZ6V10C	BZ6V10C	BZ6V10C
Steel enclosure	Direct operating	C	BZ6C10C2	BZ6C10C3	BZ6C10C3	BZ6C10C3
Dustproof steel enclosure	Handle operating	CV	BZ6CV10C	BZ6CV10C	BZ6CV10C	BZ6CV10C
Rainproof steel enclosure	Handle operating	CW	BZ6CW10C	BZ6CW10C	BZ6CW10C	BZ6CW10C
Terminal cover	Short	TS	BZ6TS10C2	BZ6TS10C3	BZ6TS10C3	BZ6TS10C3
	Long	TB	BZ6TB10C2	BZ6TB10C3	BZ6TB10C3	BZ6TB10C3
Insulation barrier	Interphase *3	B	BZ6B10C	BZ6B10C	BZ6B10C	BZ6B10C
Insulation barrier	Earth	BL	BZ6BL10C2	BZ6BL10C3	BZ6BL10C3	BZ6BL10C3
Handle locking cover		L	BZ6L10C	BZ6L10C	BZ6L10C	BZ6L10C
Flat terminal		S	BZ6S10C502	BZ6S10C503	BZ6S10C503	BZ6S10C1003

Notes: *1 For further information related to motor capacity, see page 06/49.

*2 Icu: Rated ultimate short-circuit breaking capacity

Ics: Rated service short-circuit breaking capacity

*3 Interphase insulation barriers are standard provided for the front mounting type breakers of 50AF and over.

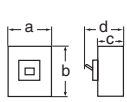
● Available - Not available ▲ Factory-mounted accessory

Molded Case Circuit Breakers

Quick reference guide

Motor protection

■ S series/2, 3-pole IEC and CE marking conformed types

Frame		100A		225A	
Pole		3		3	
Type	Page 06/42	SA103CM□-CE	SA103RCM□-CE	SA203CM□-CE	SA203RCM□-CE
Rated current (A) *1		16, 24, 32, 40, 45, 60, 75, 90	16, 24, 32, 40, 45, 60, 75, 90	125, 150, 175, 200, 225	125, 150, 175, 200, 225
Rated insulation voltage (V AC)		690	690	690	690
[IEC 60947-2, EN60947-2, JIS C8201-2-1] (V DC)		–	–	–	–
Rated breaking capacity (kA)	500V AC	15/4	30/8	15/4	30/8
[IEC 60947-2, EN60947-2, JIS C8201-2-1] 440V AC		25/7	50/13	25/7	50/13
(Icu/Ics) *2	415V AC	30/8	50/13	30/8	50/13
	400V AC	30/8	50/13	30/8	50/13
	380V AC	30/8	50/13	30/8	50/13
	230V AC	50/25	100/50	50/25	100/50
Rated operating voltage [UL508] (V AC)		–	–	–	–
Dimensions (mm)		a 90 b 155 c 60 d 82	90 155 60 82	105 165 60 84	105 165 60 84
	Page 06/53				
Mass (kg) Front mounting type		1.1	1.4	1.3	1.3
Tripping device		Thermal-magnetic	Thermal-magnetic	Thermal-magnetic	Thermal-magnetic
Front mounting, front connection	No-mark	●	●	●	●
Front mounting, rear connection	X	●	●	●	●
Flush mounting, rear connection	E	●	●	●	●
Flush mounting, top & bottom connection	Y	–	–	–	–
Plug-in mounting	P	●	●	●	●
IEC 35mm wide rail mounting		–	–	–	–
Internal accessories	Page 06/88				
Alarm switch	K	BZ6K□30C	BZ6K□30C	BZ6K□40C	BZ6K□40C
Auxiliary switch	W	BZ6W□30C	BZ6W□30C	BZ6W□40C	BZ6W□40C
Undervoltage trip	R	▲	▲	▲	▲
Shunt trip	F	BZ6F□30C	BZ6F□30C	BZ6F□40C	BZ6F□40C
External accessories					
Handle padlocking device	Cap type	Q1 –	–	–	–
	Plate type	Q2 ▲	▲	▲	▲
Mechanical interlocking device	M1	BZ6M130C-3	BZ6M130C-3	BZ6M140C	BZ6M140C
	M2	BZ-M230C-3	BZ-M230C-3	BZ-M240C	BZ-M240C
	M3	BZ-M330C-3	BZ-M330C-3	BZ-M340C	BZ-M340C
Operating handle	N-type	N BZ-N30C	BZ-N30C	BZ-N40C	BZ-N40C
	V-type	V BZ6V30C	BZ6V30C	BZ6V40C	BZ6V40C
Steel enclosure	Direct operating	C BZ6C30C3	BZ6C30C3	BZ-C40B	BZ-C40B
Dustproof steel enclosure	Handle operating	CV BZ-CV30C	BZ-CV30C	BZ-CV40C	BZ-CV40C
Rainproof steel enclosure	Handle operating	CW BZ-CW30C	BZ-CW30C	BZ-CW40C	BZ-CW40C
Terminal cover	Short	TS BZ-TS30B-3	BZ-TS30B-3	BZ-TS40B	BZ-TS40B
	Long	TB BZ-TB30B-3	BZ-TB30B-3	BZ-TB40B	BZ-TB40B
Insulation barrier	Interphase *3	B BZ-B30B	BZ-B30B	BZ-B40B	BZ-B40B
	Earth	BL BZ-BL35B	BZ-BL35B	BZ-BL40B	BZ-BL40B
Handle locking cover		L BZ6L30C	BZ6L30C	BZ6L40C	BZ6L40C
Flat terminal		S BZ-S35B-1003	BZ-S35B-1003	BZ-S50B-2253	BZ-S50B-2253

Notes: *1 For further information related to motor capacity, see page 06/49.

● Available – Not available ▲ Factory-mounted accessory

*2 Icu: Rated ultimate short-circuit breaking capacity

Ics: Rated service short-circuit breaking capacity

*3 Interphase insulation barriers are standard provided for the front mounting type breakers.

■ E series/3-pole IEC and CE marking conformed types

Frame		30A	50A	60A	100A	225A
Pole		3	3	3	3	3
Type	Page 06/42	EA33ACM□-CE	EA53CM□-CE	EA63CM□-CE	EA103CM□-CE	EA203CM□-CE
Rated current (A) *1		1.4, 2.6, 4, 8, 10, 16, 24, 32	24, 32, 40, 45	60	60, 75, 90	125, 150, 175, 200, 225
Rated insulation voltage (V AC)		500	690	690	690	690
[IEC 60947-2, EN60947-2, JIS C8201-2-1] (V DC)		–	–	–	–	–
Rated breaking capacity (kA)	500V AC	–	1.5/1	1.5/1	7.5/4	10/3
[IEC 60947-2, EN60947-2, JIS C8201-2-1] (Icu/Ics) *2	440V AC	1.5/1	2.5/2	2.5/2	10/5	15/4
	415V AC	1.5/1	2.5/2	2.5/2	10/5	18/5
	400V AC	1.5/1	2.5/2	2.5/2	10/5	18/5
	380V AC	1.5/1	2.5/2	5/3	10/5	18/5
	230V AC	2.5/2	5/3	5/3	25/13	35/18
Rated operating voltage [UL508] (V AC)		240	240	550	–	–
Dimensions (mm)		a	b	c	d	e
		75	100	60	84	105
		75	100	60	84	165
		60	60	60	84	60
		84	84	84	84	84
Mass (kg) Front mounting type		0.5	0.5	0.6	0.6	1.3
Tripping device		Hydraulic-magnetic	Hydraulic-magnetic	Hydraulic-magnetic	Hydraulic-magnetic	Thermal-magnetic
Front mounting, front connection	No-mark	●	●	●	●	●
Front mounting, rear connection	X	●	●	●	●	●
Flush mounting, rear connection	E	●	●	●	●	●
Flush mounting, top & bottom connection	Y	●	●	●	●	–
Plug-in mounting	P	●	●	●	●	●
IEC 35mm wide rail mounting		●	●	●	●	–
Internal accessories	Page 06/88					
Alarm switch	K	BZ6K□10C	BZ6K□10C	BZ6K□10C	BZ6K□10C	BZ6K□40C
Auxiliary switch	W	BZ6W□10C	BZ6W□10C	BZ6W□10C	BZ6W□10C	BZ6W□40C
Undervoltage trip	R	BZ6R□10C	BZ6R□10C	BZ6R□10C	BZ6R□10C	–
Shunt trip	F	BZ6F□10C	BZ6F□10C	BZ6F□10C	BZ6F□10C	BZ6F□40C
External accessories						
Handle padlocking device	Cap type Q1	▲	▲	▲	▲	▲
	Plate type Q2	▲	▲	▲	▲	▲
Mechanical interlocking device	M1	BZ6M110C3	BZ6M110C3	BZ6M110C3	BZ6M110C3	BZ6M140C
	M2	BZ6M210C3	BZ6M210C3	BZ6M210C3	BZ6M210C3	BZ-M240C
	M3	BZ6M310C3	BZ6M310C3	BZ6M310C3	BZ6M310C3	BZ-M340C
Operating handle	N-type N	BZ6N10C	BZ6N10C	BZ6N10C	BZ6N10C	BZ-N40C
	V-type V	BZ6V10C	BZ6V10C	BZ6V10C	BZ6V10C	BZ6V40C
Steel enclosure	Direct operating C	BZ6C10C3	BZ6C10C3	BZ6C10C3	BZ6C25C3	BZ-C40B
Dustproof steel enclosure	Handle operating CV	BZ6CV10C	BZ6CV10C	BZ6CV10C	BZ6CV25C	BZ-CV40C
Rainproof steel enclosure	Handle operating CW	BZ6CW10C	BZ6CW10C	BZ6CW10C	BZ6CW25C	BZ-CW40C
Terminal cover	Short TS	BZ6TS10C3	BZ6TS10C3	BZ6TS10C3	BZ6TS10C3	BZ-TS40B
	Long TB	BZ6TB10C3	BZ6TB10C3	BZ6TB10C3	BZ6TB10C3	BZ-TB40B
Insulation barrier	Interphase *3 B	BZ6B10C	BZ6B10C	BZ6B10C	BZ6B10C	BZ-B40B
	Earth BL	BZ6BL10C3	BZ6BL10C3	BZ6BL10C3	BZ6BL10C3	BZ-BL40B
Handle locking cover	L	BZ6L10C	BZ6L10C	BZ6L10C	BZ6L10C	BZ6L40C
Flat terminal	S	BZ6S10C503	BZ6S10C503	BZ6S10C1003	BZ6S10C1003	BZ-S50B-2253

Notes: *1 For further information related to motor capacity, see page 06/50.

*2 Icu: Rated ultimate short-circuit breaking capacity

Ics: Rated service short-circuit breaking capacity

*3 Interphase insulation barriers are standard provided for the front mounting type breakers of 50AF and over.

● Available – Not available ▲ Factory-mounted accessory