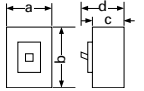


Molded Case Circuit Breakers

Quick reference guide

Line protection

■ L series/3-pole

Frame				50A
Pole				3
Type	<i>Page 06/43</i>			LA53B
Rated current (Amps)				5, 10
Ambient temp.:	40°C for general use 45°C for marine use			
Rated insulation voltage Ui (Volts)	AC	660		
	DC	—		
Rated breaking capacity (kA)	JIS C8370 sym	550V AC	42	35
		480V AC	50	65
		220V AC	100	125
		250V DC	—	40
	IEC 60947-2 [Icu/Ics]	690V AC	—	—
		660V AC	—	—
		600V AC	—	25/7
		500V AC	42/21	35/9
		440V AC	50/25	65/17
		400V AC	60/30	65/17
		230V AC	100/50	125/32
		250V DC	—	40/10
	NK sym	500V AC	50	65
		250V AC	100	100
		250V DC	—	—
Dimensions (mm)		a	75	90
		b	150	155
		c	82	60
		d	102	82
Mass (kg)	Front mounting type			1.1
Tripping device				Hydraulic-magnetic
Trip button				Provided
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	—	●	●
Draw-out	D	—	—	—
Internal accessories	<i>Page 06/88</i>			
Alarm switch	K	BZ-K23B□	BZ-K35B□	BZ-K35B□
Auxiliary switch	W	BZ-W23B□	BZ-W35B□	BZ-W35B□
Undervoltage trip	R	BZ-R23BT	BZ-R35BT	BZ-R35BT
Shunt trip	F	BZ-F23BT	BZ-F35BT	BZ-F35BT
External accessories				
Motor operating mechanism	M	▲	▲	▲
Padlocking device	Q	▲	▲	▲
Mechanical interlocking device	M1	BZ-M120C-3	BZ-M130C-3	BZ-M130C-3
Operating handle N type	N	BZ-N20C	BZ-N30C	BZ-N30C
Operating handle V type	V	BZ-V20C	BZ-V30C	BZ-V30C
Steel enclosure	C	—	BZ-C30B-3	BZ-C30B-3
Steel enclosure with V type handle	CV	—	BZ-CV30C	BZ-CV30C
Terminal cover Short	TS	—	BZ-TS30B-3	BZ-TS30B-3
Terminal cover Long	TB	—	BZ-TB30B-3	BZ-TB30B-3
Insulation barrier Interphase	B	BZ-B30B (Line), B35B (Load)	BZ-B30B	BZ-B30B
Insulation barrier Earth	BL	BZ-BL20B-3	BZ-BL35B	BZ-BL35B

■ H series/2, 3-pole

Frame	50A		100A		
Pole	2	3	2	3	3
Type	H52BA	H53BA	H102BA	H103BA	H103R
Rated current (Amps)	15, 20, 30 40, 50		15, 20, 30, 40 50, 60, 75, 100		40, 50, 60 75, 100
Rated insulation voltage Ui (Volts)	690	250	690	250	660
	250	—	250	—	250
Rated breaking capacity (kA)	35	65	35	65	42
	125	125	125	125	85
	40	40	40	40	125
	—	—	—	—	—
	—	—	—	—	—
	25/7	35/9	25/7	35/9	—
	65/17	65/17	65/17	65/17	—
	65/17	65/17	65/17	65/17	—
	125/32	125/32	125/32	125/32	—
	40/10	40/10	40/10	40/10	—
	65	100	65	100	85
100	—	100	—	125	
—	—	—	—	—	
Dimensions (mm)	90		90		105
	155		155		165
	60		60		99
	82		82		127
Mass (kg)	1.1	1.2	1.1	1.2	2.3
Tripping device	Thermal-magnetic		Thermal-magnetic		Thermal-magnetic
Trip button	Provided		Provided		Provided
Front mounting, front connection	●	●	●	●	●
Front mounting, rear connection	●	●	●	●	●
Flush mounting, rear connection	●	●	●	●	●
Flush mounting, top & bottom connection	—	—	—	—	—
Plug-in mounting	●	●	●	●	●
Draw-out	—	—	—	—	—
Internal accessories	<i>Page 06/88</i>				
Alarm switch	K	BZ-K23B□	BZ-K35B□	BZ-K35B□	BZ-K50B□
Auxiliary switch	W	BZ-W23B□	BZ-W35B□	BZ-W35B□	BZ-W50B□
Undervoltage trip	R	BZ-R23BT	BZ-R35BT	BZ-R35BT	BZ-R50BT
Shunt trip	F	BZ-F23BT	BZ-F35BT	BZ-F35BT	BZ-F50BT
External accessories					
Motor operating mechanism	M	▲	▲	▲	▲
Padlocking device	Q	▲	▲	▲	▲
Mechanical interlocking device	M1	BZ-M120C-3	BZ-M130C-3	BZ-M130C-3	BZ-M140C
Operating handle N type	N	BZ-N20C	BZ-N30C	BZ-N30C	BZ-N50C
Operating handle V type	V	BZ-V20C	BZ-V30C	BZ-V30C	BZ-V50C
Steel enclosure	C	—	BZ-C30B-3	BZ-C30B-3	BZ-C50B
Steel enclosure with V type handle	CV	—	BZ-CV30C	BZ-CV30C	—
Terminal cover Short	TS	—	BZ-TS30B-3	BZ-TS30B-3	BZ-TS50B
Terminal cover Long	TB	—	BZ-TB30B-3	BZ-TB30B-3	BZ-TB50B
Insulation barrier Interphase	B	BZ-B30B (Line), B35B (Load)	BZ-B30B	BZ-B30B	BZ-B50B
Insulation barrier Earth	BL	BZ-BL20B-3	BZ-BL35B	BZ-BL35B	BZ-BL50B

● Available — Not available ▲ Factory-mounted accessory

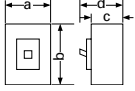
Notes: • The breaking capacity for the 240V, 380V and 415V circuits are equivalent to that of 230V, 400V and 440V, respectively.
• Interphase insulation barriers are standard provided for the front mounting type breakers.

Molded Case Circuit Breakers

Quick reference guide

Line protection

■ H series/2, 3-pole

Frame		225A			400A		
Pole		2	3	3	2	3	3
Type		<i>Page 06/43</i>			<i>Page 06/43</i>		
		H202BA	H203BA	H203R	H402B	H403B	H403R
Rated current (Amps)		125, 150, 175			125, 150, 175		
Ambient temp.: 40°C for general use 45°C for marine use		200, 225			200, 225		
Rated insulation voltage Ui (Volts)		AC DC			AC DC		
		690 250			660 250		
Rated breaking capacity (kA)	JIS C8370 sym	550V AC	35	42	42	85	85
		480V AC	65	85	65	125	125
		220V AC	125	125	125	125	125
		250V DC	40	40	40	40	40
Rated breaking capacity (kA)	IEC 60947-2 [Icu/Ics]	690V AC	—	—	—	—	—
		660V AC	—	—	—	—	—
		600V AC	25/7	—	—	35/18	—
		500V AC	35/9	—	—	42/21	85/43
		440V AC	65/17	—	—	65/33	125/63
		400V AC	65/17	—	—	65/33	125/63
		230V AC	125/32	—	—	125/63	125/63
		250V DC	40/10	—	—	40/20	40/20
Dimensions (mm)		a	105	105	140	140	
		b	165	165	257	257	
		c	60	99	103	103	
		d	84	127	146	146	
Mass (kg)	Front mounting type	1.1	1.3	2.3	4.5	5	5
Tripping device		Thermal-magnetic			Thermal-magnetic		
Trip button		Provided			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 <i>Page 06/88</i>							
Alarm switch	K	BZ-K40B□	BZ-K40B□	BZ-K40B□	BZ-K70B□	BZ-K70B□	
Auxiliary switch	W	BZ-W40B□	BZ-W40B□	BZ-W40B□	BZ-W70B□	BZ-W70B□	
Undervoltage trip	R	BZ-R40BT	BZ-R40BT	BZ-R40BT	BZ-R70BT	BZ-R70BT	
Shunt trip	F	BZ-F40BT	BZ-F40BT	BZ-F40BT	BZ-F70BT	BZ-F70BT	
External accessories							
Motor operating mechanism	M	▲	▲	▲	▲	▲	
Padlocking device	Q	▲	▲	▲	▲	▲	
Mechanical interlocking device	M1	BZ-M140C	BZ-M140C	BZ-M140C	BZ-M160C	BZ-M160C	
Operating handle N type	N	BZ-N40C	BZ-N50C	BZ-N50C	BZ-N60C	BZ-N60C	
Operating handle V type	V	BZ-V40C	BZ-V50C	BZ-V50C	BZ-V60C	BZ-V60C	
Steel enclosure	C	BZ-C40B	BZ-C50B	BZ-C50B	BZ-C60B	BZ-C60B	
Steel enclosure with V type handle	CV	—	—	—	BZ-CV60C	BZ-CV60C	
Terminal cover Short	TS	BZ-TS40B	BZ-TS50B	BZ-TS50B	—	—	
Terminal cover Long	TB	BZ-TB40B	BZ-TB50B	BZ-TB50B	BZ-TB60B	BZ-TB60B	
Insulation barrier Interphase	B	BZ-B40B	BZ-B50B	BZ-B50B	B-43A	B-43A	
Insulation barrier Earth	BL	BZ-BL40B	BZ-BL50B	BZ-BL50B	—	—	

● Available — Not available ▲ Factory-mounted accessory

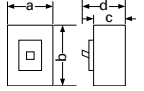
Notes: • The breaking capacity for the 240V, 380V and 415V circuits are equivalent to that of 230V, 400V and 440V, respectively.
• Interphase insulation barriers are standard provided for the front mounting type breakers.

Molded Case Circuit Breakers

Quick reference guide

Line protection

■ H series/3-pole

Frame		600A		800A		
Pole		3		3		
Type		H603B		H603R		
Rated current (Amps)		500, 600		500, 600		
Ambient temp.:		40°C for general use 45°C for marine use		700, 800		
Rated insulation voltage Ui (Volts)		690 250		690 250		
Rated breaking capacity (kA)	JIS C8370 sym	550V AC 480V AC 220V AC 250V DC	42 65 125 40	85 125 125 40	42 65 125 40	85 125 125 40
	IEC 60947-2 [Icu/Ics]	690V AC 660V AC 600V AC 500V AC 415V AC 380V AC 240V AC 250V DC	— — 35/18 42/21 65/33 65/33 125/63 40/20	— — — 85/43 125/63 125/63 125/63 40/20	— — 35/18 42/21 65/33 65/33 125/63 40/20	— — — 85/43 125/63 125/63 125/63 40/20
	NK sym	500V AC 250V AC 250V DC	50 125 —	— — —	50 125 —	— — —
Dimensions (mm)		a b c d	210 275 103 146	210 275 103 146	210 275 103 146	210 275 103 146
Mass (kg)	Front mounting type		9	9	10	10
Tripping device		Thermal-magnetic		Thermal-magnetic		
Trip button		Provided		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		BZ-K70B□ BZ-W70B□ BZ-R70BT BZ-F70BT		BZ-K70B□ BZ-W70B□ BZ-R70BT BZ-F70BT		
External accessories		BZ-M170C BZ-N70C BZ-V70C		BZ-M170C BZ-N70C BZ-V70C		
Motor operating mechanism	M	▲	▲	▲	▲	
Padlocking device	Q	▲	▲	▲	▲	
Mechanical interlocking device	M1	BZ-M170C	BZ-M170C	BZ-M170C	BZ-M170C	
Operating handle N type	N	BZ-N70C	BZ-N70C	BZ-N70C	BZ-N70C	
Operating handle V type	V	BZ-V70C	BZ-V70C	BZ-V70C	BZ-V70C	
Steel enclosure	C	BZ-70B	BZ-70B	BZ-70B	BZ-70B	
Steel enclosure with V type handle	CV	BZ-CV70C	BZ-CV70C	BZ-CV70C	BZ-CV70C	
Terminal cover Short	TS	—	—	—	—	
Terminal cover Long	TB	BZ-TB70B	BZ-TB70B	BZ-TB70B	BZ-TB70B	
Insulation barrier Interphase	B	B-43A	B-43A	B-43A	B-43A	
Insulation barrier Earth	BL	—	—	—	—	

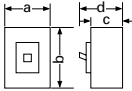
Notes: ● Interphase insulation barriers are standard provided for the front mounting type breakers. ● Available — Not available ▲ Factory-mounted accessory

Molded Case Circuit Breakers

Quick reference guide

Motor protection

■ L and H series/3-pole

Frame	50A		
Pole	3		3
Type	<i>Page 06/43</i>	LA53BM	H53BAM
Rated current (Amps) *1 Ambient temp.: 40°C for general use 45°C for marine use		5, 8, 10, 12	16, 24, 32, 40, 45
Rated insulation voltage Ui (Volts)	AC DC	660 —	660 —
Rated breaking capacity (kA)	JIS C8370 sym	550V AC 480V AC 220V AC	42 50 100
	IEC60947-2 [Icu/lcs]	600V AC 500V AC 440V AC 400V AC 230V AC	— 42/21 50/25 60/30 100/50
	NK sym	500V AC 250V AC	50 100
Dimensions (mm) <i>Page 06/70</i>		a	75
		b	150
		c	82
		d	102
Mass (kg)	Front mounting type	1.1	1.4
Tripping device		Hydraulic-magnetic	Thermal-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	<i>Page 06/88</i>		
Alarm switch	K	BZ-K23B□	BZ-K35B□
Auxiliary switch	W	BZ-W23B□	BZ-W35B□
Undervoltage trip	R	BZ-R23BT□	BZ-R35BT□
Shunt trip	F	BZ-F23BT□	BZ-F35BT□
External accessories			
Motor operating mechanism	M	▲	▲
Padlocking device	Q	▲	▲
Mechanical interlocking device	M1	BZ-M120C-3	BZ-M130C-3
Operating handle N type	N	BZ-N20C	BZ-N30C
Operating handle V type	V	BZ-V20C	BZ-V30C
Steel enclosure	C	—	BZ-C30B-3
Steel enclosure with V type handle	CV	—	BZ-CV30C
Terminal cover Short	TS	—	BZ-TS30B-3
Terminal cover Long	TB	—	BZ-TB30B-3
Insulation barrier Interphase	B	BZ-B30B (LINE), B35B (LOAD)	BZ-B30B
Insulation barrier Earth	BL	BZ-BL20B-3	BZ-BL35B

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

● Available — Not available ▲ Factory-mounted accessory