

MOLDED CASE CIRCUIT BREAKERS

— HITACHI FUSE-FREE BREAKERS —

New line-ups with fully integrated configuration, advanced performance and simplified operation

Reduced Total Costs Through Increased Efficiency in Specification Changes and Replacement

System configuration is integrated for each model type cassette loading system for interior accessories. Specification change and replacement are flexibly, easily executed. Leading-edge technology improves reliability and performance.

Flexibility — Cassette Type Accessories

The specifications of breakers can be changed by cassette type internal accessories. It can be installed by users. Quickly responding to changing specifications.

Capability — Improvement of Breaking Performance

Performance of short-circuit breaking has been developed for the requirement of IEC standard and we have just realized the performance $I_{cs}=I_{cu}$ ($I_{cs}=100\% I_{cu}$)

Compatibility — Unified Dimensions

Dimensions are unified for economical models and standard models *1, interrupt capacity is unified *2, for the fuse-free breaker and earth leakage breaker to facilitate easy replacement.

*1 400, 600AF

*2 Within the frame for the same rated current

▼ Types and Models

Fuse-Free Breaker for General Purpose









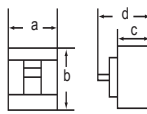
Standard Breaker	Economical Breaker	High Interrupting Capacity Breaker
 <p style="text-align: right;">Fundamental</p> <p style="text-align: center;">F series</p>	 <p style="text-align: right;">Small</p> <p style="text-align: center;">S series</p>	 <p style="text-align: right;">Current Limiting</p> <p style="text-align: center;">L series</p>
30A~4000A Frame	30A~800A Frame	50A~800A Frame

▼ Composition of Interrupting Capacity

AC 230V				= S series		= F series		= L series					
Transformer Capacity [kVA]	- 30		50 - 100		150	200 - 500			750 - 1500		2000 - 3000		
Interrupting Capacity [kA](sym)	2.5	5	10		14	25	35	42	50	85	100	125	175
Frame (AF)	30	S-30S	F-30FB										
	50	S-50E	S-50SB	F-50KB						L-50E			
	60	S-60RB		F-60RB									
	100, 125	S-100EB			S-100SB		F-100RB FXK125-S		F-100KB	FXK125-H		L-100E	
	225, 250	S-225SB, SXK225				F-225FB FXK250-S		F-225KC		FXK250-H		L-225E	
	400	S-400S, SX400						F-400R, FX400			L-400E		
	600	S-600S, SX600						F-600F, FX600			L-600E		
	800	S-800S, SX800						F-800R, FX800			F-800RH	L-800E	
	1000-1200	FX1000, FX1200, F-1000K, F-1200K, F-1000C, F-1200C											
	1600-4000	F-1600CB, F-1600E, F-2000E(130), F-2500E(130), F-3200CB, F-3200E, F-4000E											

AC 400V				= S series		= F series		= L series								
Transformer Capacity [kVA]	- 50		75 - 100		200 - 500			750 - 1000			1500 - 2000			2500 - 3000		
Interrupting Capacity [kA](sym)	1.5	2.5	5	7.5	10	15	18	22	25	30	35	50	75	85	125	175
Frame (AF)	30	S-30S	F-30FB													
	50	S-50E	S-50SB	F-50KB									L-50E			
	60	S-60RB		F-60RB												
	100, 125	S-100SB				F-100RB FXK125-S				F-100KB FXK125-H		F-100GB	L-100E			
	225, 250	S-225SB, SXK225				F-225FB FXK250-S				F-225KC FXK250-H		F-225GB F-250GB		L-225E		
	400	S-400S, SX400						F-400R FX400		F-400GB		L-400E				
	600	S-600S, SX600						F-600F FX600		F-600GB		L-600E				
	800	S-800S, SX800						F-800R FX800		F-800GB		F-800RH	L-800E			
	1000-1200	FX1000, FX1200, F-1000K, F-1200K, F-1000C, F-1200C														
	1600-4000	F-1600CB, F-1600E, F-2000E(130), F-2500E(130), F-3200CB, F-3200E, F-4000E														

▼ Ratings and Specification

Series		S series		F series		S series		F series																	
Frame size		30AF						50AF																	
TYPE		S-30S		S-30E		F-30FB		S-50E		S-50EB		S-50SB		F-50KB		FXK50-HU									
Appearance																									
Number of Poles		2	3	2	3	2	3	2	3	2	3	2	3	2	3	4	2	3							
Rated Current In [A] (Base Ambient Temperature 40 °C)		3	5	10	3	5	10	3	5	10	5	10	15	20	5	10	15	20	5	10	15	20	10	5	3
Rated Insulation Voltage Ui [V]		500		500		690		500		500		690		690		690		690							
Rate Impulse withstand Voltage Uimp [kV]		-		4		6		-		4		6		6		6		8							
Rated Breaking Capacity [kA]	IEC 60947-2 (Icu/Ics)	AC	440V	-	-	2.5/1	-	-	2.5/1	-	-	2.5/1	50/50	50/25											
			415V	-	1.5/1	2.5/1	-	1.5/1	2.5/1	50/50	50/25														
			400V	1.5/1	1.5/1	2.5/1	1.5/1	1.5/1	2.5/1	50/50	50/25														
			380V	1.5/1	-	2.5/1	1.5/1	-	2.5/1	50/50	50/25														
			240V	2.3/1.3	-	7.5/2	2.5/1.3	-	7.5/2	85/85	100/50														
			230V	2.5/1.3	5/2	7.5/2	2.5/1.3	5/2	7.5/2	85/85	100/50														
		DC	250V	-	-	2.5/1	-	-	2.5/1	-	40/40	-	-	-											
		125V	-	-	5/2	-	-	5/2	-	40/40	-	-	-												
Dimensions [mm]		a	50	75	50	75	52	75	50	75	50	75	52	75	65	90	120	60	90						
		b	95		96		130		95		96		130		150		150								
		c	60		60		60		60		60		60		86		68								
		d	79		76		84		79		76		84		106		94								
Net weight [kg]		0.32	0.47	0.25	0.37	0.46	0.63	0.32	0.47	0.25	0.37	0.46	0.63	1.4	1.8	2.3	0.8	1.4							
Automatic Tripping device		Full magnetic		Full magnetic		Full magnetic		Full magnetic		Full magnetic		Full magnetic		Full magnetic		Full magnetic									
Short Time Delay Trip		-		-		-		-		-		-		-		-									
Standard Connection Type		Front Terminal		Front Terminal		Front Terminal		Front Terminal		Front Terminal		Front Terminal		Front Terminal		Front Terminal									
Interior Accessories	Shunt Trip	SHT	-	○	○	-	○	○	○	○	○	○	○	○											
	Undervoltage Trip	UVT	-	-	-	-	-	-	-	-	-	-	○	○											
	Alrm Switch	AL-1C	-	○	○	-	○	○	○	○	○	○	○	○											
		AL-2C	-	-	-	-	-	-	-	-	-	-	-	○											
	Auxiliary Switch	AUX-1C	-	○	○	-	○	○	○	○	○	○	○	○											
		AUX-2C	-	-	-	-	-	-	-	-	-	-	-	○											
Terminal block	TB, TB2	-	○ (TB2 Only)	○	-	○ (TB2 Only)	○	○	○	○	○	○	○												
Exterior Accessories	Rear-Connecting Studs	STB	-	-	STB-2M	-	-	STB-2M	STB-2	STB-2S															
	Rear-Connecting Bar Studs	BSD	-	-	-	-	-	-	-	-															
	Flush Mounting Base Ass'y	GKW (STB)	-	-	○	-	○	○	○	○															
		GK•GKW (BSD)	-	-	-	-	-	-	-	-															
	Plug-in Mounting Base Ass'y	PK	-	-	○	-	○	○	○																
	Drawout Ass'y	PDK	-	-	-	-	-	-	-																
	Mechanical Interlock	MIW	-	-	MIW-2E	-	MIW-2E	MIW-3D	MIW-3H																
	Motor-Operating Mechanism	MMK	-	-	-	-	-	MMK-S	-																
	Lock Cover	LC	LC-0B	LC-03	LC-2E	LC-0B	LC-03	LC-2G	LC-2C	LC-4J															
	Handle Lock	HL	-	-	○	-	-	HL-2G	○	HL-4J															
	Handle-Operating Mechanism	HA	-	-	HA-108	-	HA-108	HA-106	-																
		HM	-	-	-	HM-S12	-	HM-S12	HM-S11	HM-S13															
Terminal Cover	Front type	TMC	TMC-0C	TMC-0A	TMC-0G	TMC-1	TMC-0C	TMC-0A	TMC-0G	TMC-1	TMC-3C	TMC-2C													
		(Short or Wide)	-	-	TMC-1S(Short)	-	-	TMC-1S(Short)	-	-															
	Rear Type	BTC	-	-	BTC-1	-	-	BTC-1	BTC-3C	BTC-2C															
Trip Button		●		-		●		●		●		●													
Phase Separator for Line Side		-		-		○		-		○		●													

REMARKS: *1; 2 pole marked with *1 supplied in 3 pole unit.

*2; Attached Rear-connected bar studs as satandard.

*3; Attached Rear-connected bar studs as satandard.
Front-connected bar terminals type can not be supplied

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L series		S series		F series		S series				F series				L series		S series		F series							
50AF		60AF				100AF												125AF							
L-50E		S-60RB		F-60RB		S-100EB		S-100SB		F-100RB		F-100KB		F-100GB		L-100E		S-125SB		FXK125-S		FXK125-H			
3	4	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3
5 10 15 20 30 40 50	5 10 15 20 30 40 50 60	5 10 15 20 30 40 50 60	60 75 100	60 75 100	15 20 30 40 50 60 75 100	15 20 30 40 50 60 75 100	15 20 30 40 50 60 75 100	15 20 30 40 50 60 75 100	15 20 30 40 50 60 75 100	125	15 20 30 40 50 60 75 100 125	15 20 30 40 50 60 75 100 125													
690	690	690	250	690	690	690	690	690	690	690	690	690													
6	6	6	6	6	8	8	8	8	8	6	8	8													
125/32	5/2	10/10	-	10/3	25/25	50/50	65/65	125/32	10/3	30/30	50/50														
125/32	5/2	10/10	-	10/3	25/25	50/50	70/70	125/32	10/3	30/30	50/50														
125/32	5/2	10/10	-	10/3	25/25	50/50	75/75	125/32	10/3	30/30	50/50														
125/32	5/2	10/10	-	10/3	25/25	50/50	75/75	125/32	10/3	30/30	50/50														
175/88	10/3	25/25	10/3	35/9	50/50	85/85	100/100	175/88	35/9	50/50	100/100														
175/88	10/3	25/25	10/3	35/9	50/50	85/85	100/100	175/88	35/9	50/50	100/100														
-	2.5/1	-	5/2	-	2.5/1	-	5/2	-	-	40/40	-	40/40	-	-	5/2	-	25/13	-	40/20	-					
-	5/2	-	7.5/2	-	5/2	-	7.5/2	-	-	40/40	-	40/40	-	-	7.5/2	-	25/13	-	40/20	-					
90	120	52	75	52	75	52	75	52	75	65	90	65	90	65	90	90	120	52	75	60	90	60	90		
150	130	130	130	130	150	150	150	150	130	150	150														
103	60	60	60	60	78	86	86	103	60	68	68														
123	84	84	84	84	97.5	106	106	123	84	94	94														
2.0	2.5	0.53	0.74	0.53	0.74	0.53	0.74	0.53	0.74	1.2	1.5	1.4	1.8	2.3	1.4	1.8	2.3	2	2.5	0.53	0.74	0.8	1.4	0.8	1.4
Full magnetic	Full magnetic	Full magnetic	Full magnetic	Full magnetic	Full magnetic	Full magnetic	Full magnetic	Full magnetic	Full magnetic	Full magnetic	Full magnetic	Full magnetic	Full magnetic	Full magnetic	Full magnetic	Full magnetic	Full magnetic	Full magnetic	Full magnetic	Thermal-Magnetic	Thermal-Magnetic				
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
Front Terminal	Front Terminal	Front Terminal	Front Terminal	Front Terminal	Front Terminal	Front Terminal	Front Terminal	Front Terminal	Front Terminal	Front Terminal	Front Terminal	Front Terminal	Front Terminal	Front Terminal	Front Terminal	Front Terminal	Front Terminal	Front Terminal	Front Terminal	Front Terminal	Front Terminal				
○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○				
○	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○				
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○				
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○				
○	STB-3K (50A or Less STB-2M)	STB-2M	STB-3K	STB-3K	STB-3J (50A or Less STB-2)	STB-3J (50A or Less STB-2)	STB-3J (50A or Less STB-2)	○	STB-3K	STB-2S (Up to 50A)	STB-2S (Up to 50A)														
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○				
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○				
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
MIW-3E	MIW-2E	MIW-2E	MIW-2E	MIW-2E	MIW-3C	MIW-3D	MIW-3D	MIW-3E	MIW-2E	MIW-3H	MIW-3H														
MMK-S	-	-	-	-	-	MMK-S	MMK-S	MMK-S	-	○	○														
LC-2C	LC-2G	LC-2E	LC-2G	LC-2G	LC-2C	LC-2C	LC-2C	LC-2C	LC-2G	LC-4J	LC-4J														
○	HL-2G	○	HL-2G	HL-2G	○	○	○	○	HL-2G	HL-4J	HL-4J														
HA-106	HA-108	HA-108	HA-108	HA-108	HA-106	HA-106	HA-106	HA-106	HA-108	-	-														
HM-S11	-	HM-S12	-	HM-S12	-	HM-S12	-	HM-S11	-	HM-S11	HM-S13	HM-S13													
TMC-3C	TMC-1	TMC-1	TMC-1	TMC-1	TMC-2	TMC-3C	TMC-3C	TMC-3C	TMC-1	TMC-2C	TMC-2C														
-	TMC-1S(Short)	TMC-1S(Short)	TMC-1S(Short)	TMC-1S(Short)	-	-	-	-	TMC-1S(Short)	-	-														
BTC-3C	BTC-1	BTC-1	BTC-1	BTC-1	BTC-2	BTC-3C	BTC-3C	BTC-3C	BTC-1	BTC-2C	BTC-2C														
●	●	●	●	●	●	●	●	●	●	●	●														
●	○	●	○	●	●	●	●	●	●	●	●														

● = Standard
○ = Option

▼ Ratings and Specification

Series		S series			F series									L series											
Frame size		225AF/250AF																							
TYPE		S-225SB		SXX225		F-225FB F-250FB		F-225KC F-250KC		F-225GB F-250GB		FXK250-S		FXK250-H		L-225E									
Appearance																									
Number of Poles		2 ^{*1}	3	2 ^{*1}	3	2 ^{*1}	3	4	2 ^{*1}	3	4	2	3	2	3	2	3								
Rated Current In [A] (Base Ambient Temperature 40 °C)		125 150 175 200 225		125 150 175 200 225		125 150 175 200 225 250		125 150 175 200 225 250		125 150 175 200 225 250		125 150 175 200 225 250		125 150 175 200 225 250		125 150 175 200 225 250									
Rated Insulation Voltage Ui [V]		690		690		690		690		690		690		690		690									
Rate Impulse withstand Voltage Uimp [kV]		6		6		8		8		8		8		8		8									
Rated Breaking Capacity [kA]	IEC 60947-2 (Icu/Ics)	AC	440V		15/8		15/8		30/30		50/50		65/65		30/30		50/50		125/32						
			415V		15/8		15/8		30/30		50/50		70/70		30/30		50/50		125/32						
			400V		15/8		15/8		30/30		50/50		75/75		30/30		50/50		125/32						
			380V		15/8		15/8		30/30		50/50		75/75		30/30		50/50		125/32						
			240V		35/18		35/18		85/85		85/85		100/100		50/50		100/100		175/88						
		230V		35/18		35/18		85/85		85/85		100/100		50/50		100/100		175/88							
		DC	250V		10/5	-	10/5	-	25/25	-	40/40	-	40/40	-	25/13	-	40/20	-	-						
			125V		15/8	-	15/8	-	25/25	-	40/40	-	40/40	-	25/13	-	40/20	-	-						
Dimensions [mm]			a		105		105		105		140		105		140		105		105		140		185		
			b		165		165		165		165		165		165		165		165		257				
			c		60		68		103		103		103		68		68		68		103				
			d		85		95		127		127		127		75		75		75		133				
Net weight [kg]		1.6		1.6		2.0	2.3	3.1	2.0	2.3	3.1	2.0	2.3	3.1	1.6		1.6		5.2	7.0					
Automatic Tripping device		Thermal-Magnetic		Thermal-Magnetic		Thermal-Magnetic		Thermal-Magnetic		Thermal-Magnetic		Thermal-Magnetic		Thermal-Magnetic		Thermal-Magnetic		Thermal-Magnetic		Thermal-Magnetic					
Short Time Delay Trip		-		-		-		-		-		-		-		-		-		-					
Standard Connection Type		Front Terminal		Front Terminal		Front Terminal		Front Terminal		Front Terminal		Front Terminal		Front Terminal		Front Terminal		Front Terminal		Front Terminal					
Interior Accessories	Shunt Trip		SHT		○		○		○		○		○		○		○		○		○				
	Undervoltage Trip		UVT		-		-		○		○		○		-		-		-		○				
	Alarm Switch	AL-1C		○		○		○		○		○		○		○		○		○		○			
		AL-2C		-		-		-		-		-		-		-		-		-		○			
	Auxiliary Switch	AUX-1C		○		○		○		○		○		○		○		○		○		○			
		AUX-2C		-		-		-		-		-		-		-		-		-		○			
Terminal block		TB, TB2		○		○		○		○		○		○		○		○		○		○			
Exterior Accessories	Rear-Connecting Studs		STB		-		-		-		-		-		-		-		-		-				
	Rear-Connecting Bar Studs		BSD		○		○		○		○		○		○		○		○		○				
	Flush Mounting Base Ass'y	GKW (STB)		-		-		-		-		-		-		-		-		-		-			
		GK·GKW (BSD)		○		○		○		○		○		○		○		○		○		○ (GK)			
	Plug-in Mounting Base Ass'y		PK		-		-		○		○		○		○		○		○		○				
	Drawout Ass'y		PDK		-		-		-		-		-		-		-		-		-				
	Mechanical Interlock		MIW		MIW-4F		MIW-4L		MIW-4H		MIW-4H		MIW-4H		MIW-4M		MIW-4M		MIW-4M		MIW-5D				
	Motor-Operating Mechanism		MMK		MMK-S		MMK-S		MMK-S	-	MMK-S	-	MMK-S	-	MMK-S	MMK-S	MMK-S	MMK-S	MMK-S	MMK-S	MMK-C				
	Lock Cover		LC		LC-4E		LC-2F		LC-4H		LC-4H		LC-4H		LC-4J		LC-4J		LC-4J		-				
	Handle Lock		HL		HL-4E		HL-2F		○		○		○		HL-4J		HL-4J		HL-4J		HL-5				
	Handle-Operating Mechanism	HA		HA-207		HA-209		HA-206		HA-206		HA-206		HA-206		HA-210		HA-210		HA-210		HA-405			
		HM		HM-S22		HM-S23		HM-S21		HM-S21		HM-S21		HM-S21		HM-S25		HM-S25		HM-S25		HM-405			
Terminal Cover	Front type		TMC		TMC-4K		TMC-4J		TMC-4H		TMC-4H		TMC-4H		TMC-4J		TMC-4J		TMC-4J		TMC-5B				
	Rear Type		(Short or Wide)		-		TMC-4JS (Short)		-		-		-		TMC-4JS (Short)		TMC-4JS (Short)		TMC-4JS (Short)		-				
Trip Button		●		●		●		●		●		●		●		●		●		●					
Phase Separator for Line Side		●		●		●		●		●		●		●		●		●		●					

REMARKS: *1; 2 pole marked with *1 supplied in 3 pole unit.

*2; Attached Rear-connected bar studs as satandard.









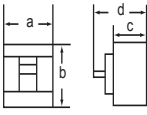
*3; Attached Rear-connected bar studs as satandard.
Front-connected bar terminals type can not be supplied

MOLDED CASE CIRCUIT BREAKERS

S series		F series				L series		S series		F series				L series	
400AF						600AF									
S-400S	SX400	F-400R	FX400	F-400GB	L-400E	S-600S	SX600	F-600F	FX600	F-600GB	L-600E				
2 ¹ 3	2 ¹ 3	2 ¹ 3 4	2 ¹ 3	2 ¹ 3 4	3 4	2 ¹ 3	2 ¹ 3	2 ¹ 3 4	2 ¹ 3	2 ¹ 3 4	3 4				
250 300 350 400	200/225/250/300/ 350/400 Adjustable	250 300 350 400	200/225/250/300/ 350/400 Adjustable	250 300 350 400	250 300 350 400	500 600	300/350/400/500/ 600 Adjustable	500 600	300/350/400/500/ 600 Adjustable	500 600	500 600				
690	690	690	690	690	690	690	690	690	690	690	690				
8	8	8	8	8	8	8	8	8	8	8	8				
36/18	36/18	50/50	50/50	65/65	125/32	36/18	36/18	50/50	50/50	65/65	125/32				
36/18	36/18	50/50	50/50	70/70	125/32	36/18	36/18	50/50	50/50	70/70	125/32				
36/18	36/18	50/50	50/50	75/75	125/32	36/18	36/18	50/50	50/50	75/75	125/32				
36/18	36/18	50/50	50/50	75/75	125/32	36/18	36/18	50/50	50/50	75/75	125/32				
50/25	50/25	100/100	100/100	100/100	175/88	50/25	50/25	100/100	100/100	100/100	175/88				
50/25	50/25	100/100	100/100	100/100	175/88	50/25	50/25	100/100	100/100	100/100	175/88				
25/13	-	40/40	-	40/40	-	40/20	-	40/40	-	40/40	-				
25/13	-	40/40	-	40/40	-	40/20	-	40/40	-	40/40	-				
140	140	140 185	140	140 185	140 185	210	210	210 280	210	210 280	210 280				
257	257	257	257	257	257	274	274	274	274	274	274				
103	103	103	103	103	103	103	103	103	103	103	103				
133	133	133	133	133	133	141	141	141	141	141	141				
5.3 6.1	5.1 5.9	5.3 6.1 8.2	5.1 5.9	5.3 6.1 8.2	6.1 8.2	10.0	8.7 9.7	10.0 13.0	8.7 9.7	10.0 13.0	10.0 13.0				
Thermal-Magnetic	Electronic	Thermal-Magnetic	Electronic	Thermal-Magnetic	Thermal-Magnetic	Thermal-Magnetic	Electronic	Thermal-Magnetic	Electronic	Thermal-Magnetic	Thermal-Magnetic				
-	●	-	●	-	-	-	●	-	●	-	-				
Front Bar Terminal	Front Bar Terminal	Front Bar Terminal	Front Bar Terminal	Front Bar Terminal	Front Bar Terminal	Front Bar Terminal	Front Bar Terminal	Front Bar Terminal	Front Bar Terminal	Front Bar Terminal	Front Bar Terminal				
○	○	○	○	○	○	○	○	○	○	○	○				
○	○	○	○	○	○	○	○	○	○	○	○				
○	○	○	○	○	○	○	○	○	○	○	○				
○	○	○	○	○	○	○	○	○	○	○	○				
○	○	○	○	○	○	○	○	○	○	○	○				
○	○	○	○	○	○	○	○	○	○	○	○				
-	-	-	-	-	-	-	-	-	-	-	-				
○	○	○	○	○	○	○	○	○	○	○	○				
-	-	-	-	-	-	-	-	-	-	-	-				
○ (GK)	○	○ (GK)	○	○ (GK)	○ (GK)	○ (GK)	○ (GK)	○ (GK)	○ (GK)	○ (GK)	○ (GK)				
○	○	○	○	○	○	○	○	○	○	○	○				
-	-	-	-	-	-	-	-	-	-	-	-				
MIW-5D	MIW-5F	MIW-5D	MIW-5F	MIW-5D	MIW-5D	MIW-5	MIW-5G	MIW-5	MIW-5G	MIW-5	MIW-5				
MMK-C	MMK-C	MMK-C	MMK-C	MMK-C	MMK-C	MMK-C	MMK-C	MMK-C	MMK-C	MMK-C	MMK-C				
-	-	-	-	-	-	-	-	-	-	-	-				
HL-5	HL-5	HL-5	HL-5	HL-5	HL-5	HL-6	HL-6	HL-6	HL-6	HL-6	HL-6				
HA-405	HA-406	HA-405	HA-406	HA-405	HA-405	HA-402	HA-402	HA-402	HA-402	HA-402	HA-402				
HM-405	HM-406	HM-405	HM-406	HM-405	HM-405	HM-402	HM-407	HM-402	HM-407	HM-402	HM-402				
TMC-5B	TMC-5B	TMC-5B	TMC-5B	TMC-5B	TMC-5B	TMC-5D	TMC-5D	TMC-5D	TMC-5D	TMC-5D	TMC-5D				
TMC-5BW (Wide)	TMC-5BW (Wide)	TMC-5BW (Wide)	-	TMC-5BW (Wide)	TMC-5BW (Wide)	-	-	-	-	-	-				
BTC-5B	BTC-5B	BTC-5B	-	BTC-5B	BTC-5B	-	-	-	-	-	-				
●	●	●	●	●	●	●	●	●	●	●	●				
●	●	●	●	●	●	●	●	●	●	●	●				

● = Standard
○ = Option

▼ Ratings and Specification












Series		S series		F series						L Series	F Series	
Frame size				800AF							1000AF	
TYPE		S-800S	SX800	F-800R	FX800	F-800RH	F-800GB	L-800E	F-1000K			
Appearance												
Number of Poles		3	3	3 4	3	3 4	3 4	3	3 4			
Rated Current In [A] (Base Ambient Temperature 40 °C)		700 800	400/450/500/600/ 700/800 Adjustable	700 800	400/450/500/600/ 700/800 Adjustable	700 800	700 800	700 800	1000			
Rated Insulation Voltage Ui [V]		690	690	690	690	690	690	690	690			
Rate Impulse withstand Voltage Uimp [kV]		8	8	8	8	8	8	8	8			
Rated Breaking Capacity [kA]	IEC 60947-2 (Icu/Ics)	AC	440V	36/18	36/18	50/50	50/50	85/43	65/65	125/32	85/22	
			415V	36/18	36/18	50/50	50/50	85/43	70/70	125/32	85/22	
			400V	36/18	36/18	50/50	50/50	85/43	75/75	125/32	85/22	
			380V	36/18	36/18	50/50	50/50	85/43	75/75	125/32	85/22	
			240V	85/43	85/43	100/100	100/100	125/63	100/100	175/88	125/32	
			230V	85/43	85/43	100/100	100/100	125/63	100/100	175/88	125/32	
		DC	250V	40/20	-	40/40	-	-	40/40	-	40/40	-
			125V	40/20	-	40/40	-	-	40/40	-	40/40	-
Dimensions [mm]		a	210	210	210 280	210	210 280	210 280	210	210 280		
		b	274	274	274	274	274	274	274	410		
		c	103	103	103	103	103	103	103	150		
		d	141	141	141	141	141	141	141	190		
Net weight [kg]		10.5	11.0	10.5 13.5	11.0	10.5 13.5	10.5 13.5	10.5	26 33			
Automatic Tripping device		Thermal-Magnetic	Electronic	Thermal-Magnetic	Electronic	Thermal-Magnetic	Thermal-Magnetic	Thermal-Magnetic	Thermal-Magnetic			
Short Time Delay Trip		-	●	-	●	-	-	-	-			
Standard Connection Type		Front Bar Terminal	Front Bar Terminal	Front Bar Terminal	Front Bar Terminal	Front Bar Terminal	Front Bar Terminal	Front Bar Terminal	Front Bar Terminal			
Interior Accessories	Shunt Trip	SHT	○	○	○	○	○	○	○			
	Undervoltage Trip	UVT	○	○	○	○	○	○	○			
	Alarm Switch	AL-1C	○	○	○	○	○	○	○			
		AL-2C	○	○	○	○	○	○	○			
	Auxiliary Switch	AUX-1C	○	○	○	○	○	○	○			
		AUX-2C	○	○	○	○	○	○	○			
Terminal block	TB, TB2	○	○	○	○	○	○	○				
Exterior Accessories	Rear-Connecting Studs	STB	-	-	-	-	-	-	-			
	Rear-Connecting Bar Studs	BSD	○	○	○	○	○	○	○			
	Flush Mounting Base Ass'y	GKW (STB)	-	-	-	-	-	-	-			
		GK*GKW (BSD)	○ (GK)	○ (GK)	○ (GK)	○ (GK)	○ (GK)	○ (GK)	○ (GK)			
	Plug-in Mounting Base Ass'y	PK	○	○	○	○	○	○	○			
	Drawout Ass'y	PDK	-	-	-	-	-	-	-			
	Mechanical Interlock	MIW	MIW-5	MIW-5G	MIW-5	MIW-5G	MIW-5	MIW-5	MIW-8			
	Motor-Operating Mechanism	MMK	MMK-C	MMK-C	MMK-C	MMK-C	MMK-C	MMK-C	MMK-C			
	Lock Cover	LC	-	-	-	-	-	-	-			
	Handle Lock	HL	HL-6	HL-6	HL-6	HL-6	HL-6	HL-6	HL-6			
	Handle-Operating Mechanism	HA	HA-402	HA-402	HA-402	HA-402	HA-402	HA-402	HA-402			
HM		HM-402	HM-407	HM-402	HM-407	HM-402	HM-402	HM-402				
Terminal Cover	Front type (Short or Wide)	TMC	TMC-5D	TMC-5D	TMC-5D	TMC-5D	TMC-5D	TMC-5D				
		BTC	-	-	-	-	-	-				
Trip Button		●	●	●	●	●	●	●				
Phase Separator for Line Side		●	●	●	●	●	●	●				

REMARKS: *1; 2 pole marked with *1 supplied in 3 pole unit.

*2; Attached Rear-connected bar studs as standard.

*3; Attached Rear-connected bar studs as standard.
Front-connected bar terminals type can not be supplied

MOLDED CASE CIRCUIT BREAKERS

F series													
1000AF		1200AF			1600AF			2000AF		2500AF		3200AF	4000AF
FX1000	F-1000C	F-1200K	FX1200	F-1200C	F-1600CB	F-1600E	F-2000E	F-2500E	F-3200E	F-4000E			
													
3	3 4	3 4	3	3 4	3 4	3 4	3 4	3 4	3	3			
500/600/700/800/ 900/1000 Adjustable	500/600/700/800/ 900/1000 Adjustable	1200	600/700/800/ 1000/1200 Adjustable	600/700/800/ 1000/1200 Adjustable	800/900/1000/1200/ 1400/1600 Adjustable	800/900/1000/1200/ 1400/1600 Adjustable	1000/1200/1400/1600/ 1800/2000 Adjustable	1200/1400/1600/ 2000/2500 Adjustable	2500 2800 3200	4000			
690	690	690	690	690	690	690	690	690	690	690			
8	8	8	8	8	8	8	8	8	8	8			
85/85	85/22	85/22	85/85	85/22	85/22	85/64	85/64	85/64	85/64	85/64			
85/85	85/22	85/22	85/85	85/22	85/22	85/64	85/64	85/64	85/64	85/64			
85/85	85/22	85/22	85/85	85/22	85/22	100/75	100/75	100/75	100/75	100/75			
85/85	85/22	85/22	85/85	85/22	85/22	100/75	100/75	100/75	100/75	100/75			
125/125	125/32	125/32	125/125	125/32	125/32	125/94	125/94	125/94	125/94	130/98			
125/125	125/32	125/32	125/125	125/32	125/32	125/94	125/94	125/94	125/94	130/98			
-	-	40/40	-	-	-	-	-	-	-	-			
-	-	40/40	-	-	-	-	-	-	-	-			
210	210 280	210 280	210	210 280	210 280	210 280	210 280	320 429	320 429	390			
410	410	410	410	410	410	370	450	450	560	560			
150	150	150	150	150	150	140	185	185	235	235			
190	190	190	190	190	190	191	245	245	315	315			
26	26 33	26 33	26	26 33	37 39	27 35	54 67	63 78	120	130			
Electronic	Electronic	Thermal-Magnetic	Electronic	Electronic	Electronic	Electronic	Electronic	Electronic	Thermal-Magnetic	Thermal-Magnetic			
●	●	-	●	●	●	●	●	●	○	○			
Front Bar Terminal	Front Bar Terminal	Front Bar Terminal	Front Bar Terminal	Front Bar Terminal	Front Bar Terminal	Rear Bar Studs	Rear Bar Studs	Rear Bar Studs	Rear Bar Studs	Rear Bar Studs			
○	○	○	○	○	○	○	○	○	○	○			
-	○	○	-	○	○	○	○	○	○	○			
○	○	○	○	○	○	-	-	-	-	-			
○	○	○	○	○	○	○	○	○	○	○			
○	○	○	○	○	○	○	○	○	○	○			
○	○	○	○	○	○	○ (TB Only)	○ (TB Only)	○ (TB Only)	○ (TB Only)	○ (TB Only)			
-	-	-	-	-	-	-	-	-	-	-			
○	○	○	○	○	○	● *2	● *2	● *3	● *3	● *3			
-	-	-	-	-	-	-	-	-	-	-			
○ (GK)	○ (GK)	○ (GK)	○ (GK)	○ (GK)	○ (GK)	○ (GK)	○ (GK)	○ (GK)	-	-			
○	○	○	○	○	○	-	-	-	-	-			
-	-	-	-	-	-	○	○	○	-	-			
MIW-8	MIW-8	MIW-8	MIW-8	MIW-8	MIW-8D	○	○	○	-	-			
MMK-C	MMK-C	MMK-C	MMK-C	MMK-C	MMK-C	MMK	MMK	MMK	MMK	MMK			
-	-	-	-	-	-	○	○	○	-	-			
○	○	○	○	○	○	○	○	○	-	-			
HA-801	HA-801	HA-801	HA-801	HA-801	HA-801	○	○	○	-	-			
-	-	-	-	-	-	-	-	-	-	-			
TMC-6B	TMC-6	TMC-6	TMC-6B	TMC-6	TMC-6	-	-	-	-	-			
-	-	-	-	-	-	-	-	-	-	-			
-	-	-	-	-	-	-	-	-	-	-			
●	●	●	●	●	●	●	●	●	-	-			
●	●	●	●	●	●	-	-	-	-	-			

● = Standard
○ = Option