

RATINGS AND SPECIFICATIONS

TEMBREAK 2

MOULDED CASE CIRCUIT BREAKERS

16A TO 630A

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3. Operating Characteristics

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6. Installation

7. Dimensions



TEMBREAK 2

MINI MOULDED CASE CIRCUIT BREAKERS

10A TO 100A

8. TemBreak 2 MINI Moulded Case
Circuit Breakers



TEMBREAK

MOULDED CASE CIRCUIT BREAKERS

630A TO 1600A

9. TemBreak Moulded Case Circuit Breakers



10. Order Codes

RATINGS AND SPECIFICATIONS

MCCB ELECTRICAL CHARACTERISTICS TO IEC 60947-2, EN 60947-2, JIS C 8201-2-1 ANN.1, AS/NZS 3947-2, NEMA AB-1

Frame	Quantity	Unit	Condition	125	
Model				E125	S125
Number of Poles				3, 4	1
Type				NJ	NF
Nominal current ratings					
	I_n	(A)	50°C	20,32,50, 63,100,125	16,20,25, 32,40,50, 63, 80, 100,125
Electrical characteristics					
Rated operational voltage	U_e	(V)	AC 50/60 Hz DC	500 500	240 -
Rated insulation voltage	U_i	(V)		800	800
Rated impulse withstand voltage	U_{imp}	(kV)		8	8
Ultimate breaking capacity (IEC, JIS, AS/NZS)	I_{cu}	(kA)	690V AC	-	-
			525V AC	8	-
			440V AC	15	-
			400/415V AC	25	-
			220/240V AC	35	25
			250V DC	25	-
Service breaking capacity (IEC, JIS, AS/NZS)	I_{cs}	(kA)	690V AC	-	-
			525V AC	6	-
			440V AC	12	-
			400/415V AC	19	-
			220/240V AC	27	13
			250V DC	19	-
Rated breaking capacity (NEMA)		(kA)	480V AC 240VAC	8 35	- 25
Protection					
Adjustable thermal, adjustable magnetic				■	■
Fixed thermal, fixed magnetic					
Microprocessor					
Utilisation category				A	A
Installation					
Front connection (FC)				■	■
Attached flat bar (FB)				●	●
Solderless terminal (cable clamp) (FW)				●	●
Rear connection (RC)				●	-
Plug-in (PM)				●	-
Draw- out (DR)				-	-
DIN rail mounting (DA)				●	●
Dimensions	h	(mm)		155	155
	w	(mm)	3 pole, (1 pole) 4 pole	90 120	(30)
	d	(mm)		68	68
Weight	W	(kg)	3 pole, (1 pole) 4 pole	1.1 1.4	(0.45)
Operation					
Direct Opening Action				■	■
Toggle operation				■	■
Variable depth / direct mount operating handle (HB/HP)				●	-
Motor operator (MC)				●	-
Endurance	Electrical Mechanical	cycles cycles	440V AC		

RATINGS AND SPECIFICATIONS

					160				
	S125	S125	H125	L125	S160	S160	S160	H160	L160
	3, 4 NJ	3,4 GJ	3, 4 NJ	3, 4 NJ	1 NF	3, 4 NJ	3, 4 GJ	3, 4 NJ	3, 4 NJ
	20,32,50, 63,100,125	20,32,50, 63,100,125	20,32,50, 63,100,125	20,32,50, 63,100,125	16,20,25,32, 40,50,63,80, 100,125,160	20,32,50,63, 100,125,160	50,63,100, 125,160	160	160
	690 600 800 8	690 600 800 8	690 600 800 8	690 600 800 8	415 125 800 8	690 600 800 8	690 600 800 8	690 600 800 8	690 600 800 8
	6 22 25 36 50 25	6 25 50 65 85 40	20 45 120 125 150 40	25 65 180 200 200 40	- - - - 25 -	7.5 (5*) 25 (18*) 25 (18*) 36 (30*) 65 (42*) 40 (30*)	7.5 25 50 65 85 40	20 45 120 125 150 40	25 65 180 200 200 40
	6 22 25 36/30 50 19	6 22 25 36/33 85 40	15 45 80 85 150 40	20 65 135 150 150 40	- - - - 19 -	7.5 (5*) 25 (18*) 25 (18*) 36 (25*) 65 (35*) 40 (25*)	7.5 25 25 36 85 40	15 45 80 85 150 40	20 65 135 150 150 40
	22 50	25 85	45 150	65 200	- 25	22 (18*) 65 (42*)	25 85	45 150	65 200
	■ A	■ A	■ A	■ A	■ A	■ A	■ A	■ A	■ A
	■ ● ● ● ● - ● 155 90 120 68 1.1 1.4	■ ● ● ● ● - ● 155 90 120 68 1.1 1.4	■ ● ● ● ● - - 165 105 140 103 2.4 3.2	■ ● ● ● ● - - 165 105 140 103 2.4 3.2	■ ● ● - - - 165 (35) - 68 (0.5)	■ ● ● ● ● - - 165 105 140 68 1.5 1.9	■ ● ● ● ● - - 165 105 140 68 1.5 1.9	■ ● ● ● ● - - 165 105 140 103 2.5 3.3	■ ● ● ● ● - - 165 105 140 103 2.5 3.3
	■ ■ ● ●	■ ■ ● ●	■ ■ ● ●	■ ■ ● ●	■ ■ - -	■ ■ ● ●	■ ■ ● ●	■ ■ ● ●	■ ■ ● ●
30,000 30,000					20,000 30,000			20,000 30,000	

*Applies only to 20A and 32A models

The Ultimate Safety Breaker

RATINGS AND SPECIFICATIONS

MCCB ELECTRICAL CHARACTERISTICS TO IEC 60947-2, EN 60947-2, JIS C 8201-2-1 ANN.1, AS/NZS 3947-2, NEMA AB-1

Frame	Quantity	Unit	Condition	250		
Model				E250	S250	S250
Number of Poles				3, 4	3, 4	3, 4
Type				NJ	NJ	GJ
Nominal current ratings						
	I_n	(A)	50°C	20,32,50,63 100,125,160, 200,250	160,200, 250	160,200, 250
Electrical characteristics						
Rated operational voltage	U_c	(V)	AC 50/60 Hz DC	500 500	690 600	690 600
Rated insulation voltage	U_i	(V)		800	800	800
Rated impulse withstand voltage	U_{imp}	(kV)		8	8	8
Ultimate breaking capacity (IEC, JIS, AS/NZS)	I_{cu}	(kA)	690V AC 525V AC 440V AC 400/415V AC 220/240V AC 250V DC	- 10 15 25 35 25	7.5 25 25 36 65 40	7.5 25 50 65 85 40
Service breaking capacity (IEC, JIS, AS/NZS)	I_{cs}	(kA)	690V AC 525V AC 440V AC 400/415V AC 220/240V AC 250V DC	- 7.5 12 19 27 19	7.5 25 25 36 65 40	7.5 25 25 36 85 40
Rated breaking capacity (NEMA)		(kA)	480V AC 240VAC	10 35	22 65	25 85
Rated short-time withstand current	I_{cw}	(kA)	0.3 Seconds	-	-	-
Protection						
Adjustable thermal, adjustable magnetic				■	■	■
Fixed thermal, fixed magnetic						
Microprocessor						
Utilisation category				A	A	A
Installation						
Front connection (FC)				■	■	■
Attached flat bar (FB)				●	●	●
Solderless terminal (cable clamp) (FW)				●	●	●
Rear connection (RC)				●	●	●
Plug-in (PM)				●	●	●
Draw- out (DR)				-	-	-
DIN rail mounting (DA)				-	-	-
Dimensions						
	h	(mm)		165	165	165
	w	(mm)	3 pole	105	105	105
		(mm)	4 pole	140	140	140
	d	(mm)		68	68	68
Weight	W	(kg)	3 pole	1.5	1.5	1.5
			4 pole	1.9	1.9	1.9
Operation						
Direct Opening Action				■	■	■
Toggle operation				■	■	■
Variable depth / direct mount operating handle (HB/HP)				●	●	●
Motor operator (MC)						
Endurance						
	Electrical	cycles	415V AC			
	Mechanical	cycles				

RATINGS AND SPECIFICATIONS

					400										630			
	S250	H250	H250	L250	E400	S400	S400	S400	S400	S400	H400	H400	L400	L400	E630	S630	S630	>630
	3, 4 PE	3, 4 NJ	3, 4 NE	3, 4 NJ	3, 4 NJ	3, 4 CJ	3, 4 NJ	3, 4 NE	3, 4 GJ	3, 4 GE	3, 4 NJ	3, 4 NE	3, 4 NJ	3, 4 NE	3, 4 NE	3, 4 CE	3, 4 GE	
	250, 160, 125, 40	160, 250	250, 160, 125, 40	160, 250	250, 400	250, 400	250, 400	250, 400	250, 400	250, 400	250, 400	250, 400	250, 400	250, 400	630	630	630	
	690 - 800 8	690 600 800 8	690 - 800 8	690 600 800 8	500 500 800 8	690 600 800 8	690 600 800 8	690 - 800 8	690 600 800 8	690 - 800 8	690 600 800 8	690 - 800 8	690 600 800 8	690 - 800 8	690* - 800 8	690* - 800 8	690* - 800 8	
	20 35 50 70 125 -	20 45 120 125 150 40	20 45 120 125 150 -	25 65 180 200 200 40	- 15 22 25 35 25	15 22 30 36 50 40	20 30 45 50 85 40	20 30 45 50 85 -	20 30 45 50 85 100 40	20 30 45 50 85 100 -	35 45 120 125 150 40	35 45 120 125 150 -	50 65 180 200 200 40	50 65 180 200 200 -	10* 15 25 36 50 -	20* 30 45 50 85 -	20* 30 65 70 100 -	
	15 35 50 70 125 -	15 45 80 85 150 40	15 45 80 85 150 -	20 65 135 150 150 40	- 15 22 25 35 19	15 22 30 36 50 40	15 30 45 50 85 40	15 30 45 50 85 -	15 30 45 50 85 40	15 30 45 50 85 -	35 45 80 85 150 40	35 45 80 85 150 -	50 65 135 150 150 40	50 65 135 150 150 -	10* 15 25 36 50 -	15* 30 45 50 85 -	15* 30 50 50 85 -	
	35 125	45 150	45 150	65 200	15 35	22 50	25 85	25 85	30 100	30 100	45 150	45 150	65 200	65 200	15 50	25 85	30 100	
	-	-	-	-	-	-	-	5	-	5	-	5	-	5	-	-	-	
	■ A	■ A	■ A	■ A	■ A	■ A	■ A	■ B	■ A	■ B	■ A	■ B	■ A	■ B	■ A	■ A	■ A	
	■ ● ● ● ● - - 165 105 140 103 2.5 3.3	■ ● ● ● ● † - - 165 105 140 103 2.4 3.2	■ ● ● ● ● † - - 165 105 140 103 2.5 3.3	■ ● ● ● ● † - - 165 105 140 103 2.4 3.2	■ ● ● ● ● ● - - 260 140 185 103 4.2 5.6	■ ● ● ● ● ● - - 260 140 185 103 4.2 5.6	■ ● ● ● ● ● - - 260 140 185 103 4.2 5.6	■ ● ● ● ● ● - - 260 140 185 103 4.3 5.7	■ ● ● ● ● ● - - 260 140 185 103 4.2 5.6	■ ● ● ● ● ● - - 260 140 185 103 4.3 5.7	■ ● ● ● ● ● - - 260 140 185 103 7.0 9.3	■ ● ● ● ● ● - - 260 140 185 103 7.1 9.4	■ ● ● ● ● ● - - 260 140 185 103 7.0 9.3	■ ● ● ● ● ● - - 260 140 185 103 7.1 9.4	■ ● ● ● ● ● - - 260 140 185 103 5.0 6.5	■ ● ● ● ● ● - - 260 140 185 103 5.0 6.5	■ ● ● ● ● ● - - 260 140 185 103 5.0 6.5	
	■ ■ ●	■ ■ ●	■ ■ ●	■ ■ ●	■ ■ ●	■ ■ ●	■ ■ ●	■ ■ ●	■ ■ ●	■ ■ ●	■ ■ ●	■ ■ ●	■ ■ ●	■ ■ ●	■ ■ ●	■ ■ ●	■ ■ ●	
	10,000 30,000								4,500 15,000						4,500 15,000			

TURN TO PAGE 143, SECTION 9, FOR RATINGS AND SPECIFICATIONS OF MCCBs FROM 630A TO 1600A

*MCCB cannot be used in IT systems at this voltage.

† Refer to Temperature Ratings, Section 6.

‡ Contact us for details.

RATINGS AND SPECIFICATIONS

SWITCH-DISCONNECTOR ELECTRICAL CHARACTERISTICS TO IEC 60947-3, EN 60947-3, AS/NZS 3947-3

Frame	Quantity	Unit	Condition	125	160	250
Model				S125	S160	S250
Number of Poles				3,4	3,4	3,4
Type				NN	NN	NN
Nominal current ratings						
	I_c	(A)		125	160	250
Electrical characteristics						
Rated operational voltage	U_c	(V)	AC 50/60 Hz	690	690	690
Rated insulation voltage	U_i	(V)	DC	600	600	600
Rated impulse withstand voltage	U_{imp}	(kV)		800	800	800
				8	8	8
Rated short -circuit making capacity	I_{cm}	(kA peak)	0.3 Seconds	3.6	6	6
Rated short-time withstand current	I_{cw}	(kA rms)	AC	2	3	3
Utilisation category to IEC 60947-3			DC	AC-23A DC-22A	AC-23A DC-22A	AC-23A DC-22A
Installation						
Front connection (FC)				■	■	■
Attached flat bar (FB)				●	●	●
Solderless terminal				●	●	●
Rear connection (RC)				●	●	●
Plug-in (PM)				●	●	●
Draw- out (DR)				-	-	-
DIN rail mounting (DA)				●	-	-
Dimensions						
	h	(mm)		155	165	165
	w	(mm)	3 pole	90	105	105
			4 pole	120	140	140
	d	(mm)		68	68	68
Weight	W	(kg)	3 pole	1.1	1.5	1.5
			4 pole	1.4	1.9	1.9
Operation						
Direct Opening Action				■	■	■
Toggle operation				■	■	■
Variable depth / direct mount operating handle (HB/HP)				●	●	●
Motor operator (MC)				●	●	●
Endurance	Electrical	cycles	415V AC	30,000	20,000	10,000
	Mechanical	cycles		30,000	30,000	30,000

RATINGS AND SPECIFICATIONS

	400	630
	S400	S630
	3,4 NN	3,4 NN
	400	630
	690 600 800 8	690 600 800 8
	9 5 AC-23A DC-22A	9 5 AC-23A DC-22A
	■ ● ● ● ● - - 260 140 185 103 4.2 5.6	■ ● ● ● ‡ - - 260 140 185 103 4.4 5.8
	■ ■ ● ●	■ ■ ● ●
	4,500 15,000	4,500 15,000

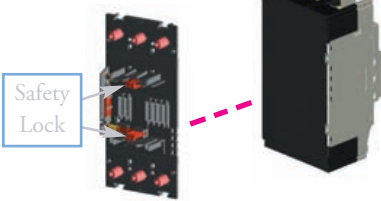
‡ Contact us for details.

SAFETY LOCK FOR PLUG-IN VERSIONS



Plug-in MCCB and base

The plug-in MCCB is locked to the base when the toggle is ON. It cannot be removed unless the toggle is OFF or TRIPPED. The safety lock prevents a trip occurring as the MCCB is being removed from the base.



Plug-in connection kit, including safety lock

