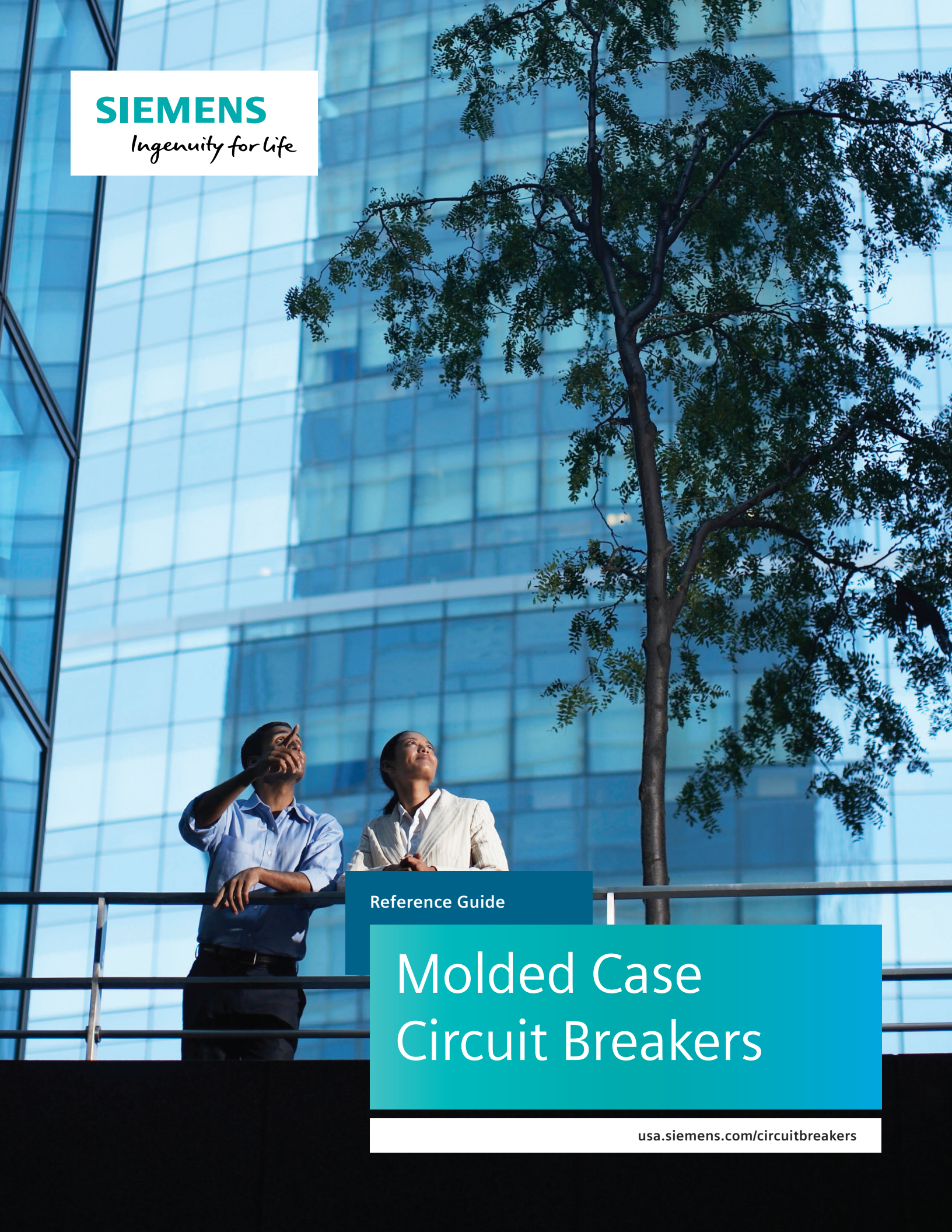




SIEMENS

Ingenuity for life



Reference Guide

Molded Case Circuit Breakers

usa.siemens.com/circuitbreakers

Siemens – a name that stands for innovation and quality – offers one of the most comprehensive lines of Molded Case Circuit Breakers on the market today.

With current ratings from 3A to 2000A and interrupt ratings up to 200kA at 480V, the possibilities are endless. Geared for Industrial, Commercial and OEM applications, when it comes to ready availability, easy installation, and quality, you need a manufacturer you can trust. Our products are engineered to take on the most demanding conditions day after day. Siemens Sentron™ Series Circuit Breakers have a long history of excellent performance in both the commercial and

industrial market segments; they are tried and true in the most critical applications. Siemens Sentron™ Series circuit breakers are available in nine frame sizes from 125A to 2000A and are globally rated (UL489, CSA, CE, NOM, HID, HACR, SWD). Features include field installable external accessories, series connected short circuit ratings, and many sizes for motor circuit protectors and molded case switches.

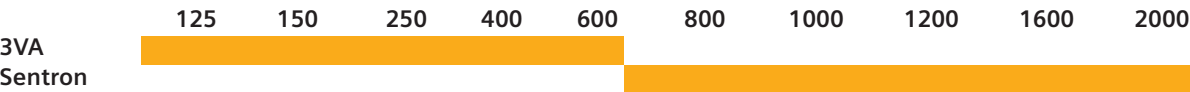


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Molded Case Circuit Breakers

Reference Guide

Thermal-Magnetic Trip Breakers

				Plug-In Breakers						Panelboard Breakers							
				QT	QP, QPP ^②	QPH, QPPH ^②	HQP, HQPP ^②	HQPPH ^②	QPJ ^⑨	BL [®]	BLH	HBL	BQD, BQD6	NGB	HGB	LGB	
Ratings	Poles			1, 2	1, 2, 3	1, 2, 3	1, 2, 3 ^⑦	2	2, 3	1, 2, 3	1, 2, 3	1, 2, 3	1, 2, 3	1, 2, 3	1, 2, 3	1, 2, 3	
	Amperes			15-50	10-125 ^{③④}	10-125 ^{③④}	10-125 ^{③⑦}	100-225	150-200	10-125	15-125	15-100	15-100	15-125	15-125	15-125	
	Volts (50/60 HZ)		1 Pole	120/240	120/240	120/240	120/240	120/240	120/240	120/240	120/240	120/240	277	347	347	347	
			2 Pole	120/240	120/240	120/240	120/240	120/240	120/240	120/240	120/240	120/240	480/277	600/347	600/347	600/347	
			3 Pole	—	240	240	240	240	240	240	240	240	480/277	600/347	600/347	600/347	
	AC	UL	120V	10,000	10,000	22,000	65,000	—	—	10,000	22,000	65,000	65,000	—	—	—	
			240V	10,000	10,000	22,000	65,000	100,000	10,000	10,000	22,000	65,000	100,000	100,000	100,000		
			277V	—	—	—	—	—	—	—	—	—	14,000	—	—	—	
			347V	—	—	—	—	—	—	—	—	—	10,000	—	—	—	
			480/277V	—	—	—	—	—	—	—	—	—	14,000	25,000	—	—	
			480V	—	—	—	—	—	—	—	—	—	—	—	35,000	65,000	
			600/347V	—	—	—	—	—	—	—	—	10,000	14,000	14,000	14,000		
			600V	—	—	—	—	—	—	—	—	—	—	—	—	—	
		IEC 947-2 50/60 HZ	220/240V	I _{cu}	—	—	—	—	—	—	—	—	—	—	—	—	—
				I _{cs}	—	—	—	—	—	—	—	—	—	—	—	—	—
			380/415V	I _{cu}	—	—	—	—	—	—	—	—	—	—	—	—	—
				I _{cs}	—	—	—	—	—	—	—	—	—	—	—	—	—
			500V	I _{cu}	—	—	—	—	—	—	—	—	—	—	—	—	—
				I _{cs}	—	—	—	—	—	—	—	—	—	—	—	—	—
	DC	125/250 V DC Interrupting Rating	2-Pole	—	—	—	—	—	—	—	—	—	14,000	14,000	14,000	14,000	
			3-Pole	—	—	—	—	—	—	—	—	—	—	—	—	—	
Dimensions in Inches	Height	10-50A	—	2.87	2.87	—	—	—	3.56	3.56	3.75	4.50	5.00	5.00	5.00		
		10-60A	3.12	—	—	—	—	—	—	—	—	—	—	—	—		
		55-125A	—	3.12	3.12	3.12	3.12	3 ^⑨	3.75	3.75	3.75	4.50	5.00	5.50	5.50		
	Width	1-Pole	1.00	1.00	1.00	1.00	—	—	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
		2-Pole	2.00 ^①	2.00 ^②	2.00 ^②	2.00	4.00 ^②	^⑨	2.00	2.00	2.00	2.00	2.00	2.00	2.00		
		3-Pole	2.00 ^①	3.00	3.00	3.00	—	3.00 ^⑨	3.00	3.00	3.00	3.00	3.00	3.00	3.00		
Depth		2.06	2.37	2.37	2.37	2.37	2.34	2.37	2.37	2.37	2.69	2.71	2.71	2.71			
Overcurrent Devices	Thermal and Fixed Magnetic Trip			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
	Thermal and Adjustable Magnetic Trip			—	—	—	—	—	—	—	—	—	—	—	—		
	Adjustable Magnetic Trip Only			—	—	—	—	—	—	—	—	—	—	—	—		
	Motor Circuit Protector			—	—	—	—	—	—	—	—	—	—	—	—		
	Molded Case Switch			—	✓ ^⑥	—	—	—	—	—	—	—	—	—	—		
Accessories & Modifications	Undervoltage Trip			—	—	—	—	—	—	—	—	✓	—	✓	✓		
	Shunt Trip			—	✓ ^⑥	✓ ^⑥	✓ ^⑧	✓ ^⑧	—	✓	✓	✓	✓	✓	✓		
	Auxiliary Switch			—	—	—	—	✓ ^⑧	—	✓	✓	✓	✓	✓	✓		
	Alarm Switch			—	—	—	—	—	—	—	—	✓	✓	✓	✓		
	Mechanical Interlock			—	—	—	—	—	—	—	—	—	—	—	—		
	Fungus Proofing			—	—	—	—	—	—	✓	✓	✓	✓	✓	✓		
Individual Enclosures	Type 1 – Indoor Surface			✓	✓	✓	✓	✓	—								
	Type 1 – Indoor, Flush			—	✓	✓	✓	✓	—								
	Type 3R – Outdoor-Rainproof			—	✓	✓	✓	✓	—								

① BQD6 CSA certified 10,000A @ 600Y/347V 15–70A only.

② Types QPP, QPPH, HQPP and HQPPH are special 2-pole configurations for metering equipment. Amperage range = 125–225A, width = 4 in.

③ Single pole breakers available in ratings 10–70A only.

④ 125A, 2-pole 120/240V AC only.

⑤ Not applicable to types QPP and QPPH.

⑦ Single pole circuit breakers available in ratings 15-70A only, 125A available as a 2-pole only.

⑧ Not applicable to type HQPP and HQPPH.

⑨ Fits only Siemens EQIII load centers. Breaker is 2 or 3 poles wide.

⑩ 10A, 1-pole & 2-pole 120/240V AC only.

Molded Case Circuit Breakers

Reference Guide

Thermal-Magnetic Trip Breakers

				General Purpose Breakers								
				BQ	BQH	HBQ	QR2	QRH2	HQR2	HQR2H	CQD	NGG
Ratings	AC	Poles		1, 2, 3	1, 2, 3	1, 2, 3	2, 3	2, 3	2, 3	2, 3	1, 2, 3	1, 2, 3
		Amperes, Continuous	1 Pole	15-70	15-70	15-50	—	—	—	—	15-100	15-125
			2 Pole	15-125	15-100	15-70	100-250	100-250	100-250	100-250	15-100	15-125
			3 Pole	15-100	15-100	15-100	100-250	100-250	100-250	100-250	15-100	15-125
		Volts (50/60 HZ)	1 Pole	120/240	120/240	120/240	—	—	—	—	277	347
			2 Pole	120/240	120/240	120/240	240	240	240	240	480/277	600/347
			3 Pole	240	240	240	240	240	240	240	480/277	600/347
		UL Interrupting Rating – Symmetrical RMS Amperes	120V	10,000	22,000	65,000	—	—	—	—	65,000	65,000
			240V	10,000	22,000	65,000	10,000	25,000	65,000	100,000	65,000	65,000
			480V	—	—	—	—	—	—	—	14,000 ^①	25,000
	DC	600/347V		—	—	—	—	—	—	—	10,000 ^②	14,000
		Volts – 2-Pole		—	—	—	—	—	—	—	125/250	125/250
		Interrupting Rating – DC Amperes		—	—	—	—	—	—	14,000	14,000	
Dimensions in inches	Height	15-50A	3.75	3.75	4.00	—	—	—	—	4.50	5.40	
		55-125A	4.00	4.00	4.00	—	—	—	—	4.50	5.40	
		60-225A	—	—	—	7.00	7.00	7.00	7.00	—	—	
	Width	1-Pole	1.00	1.00	1.00	1.00	—	—	—	1.00	1.00	
		2-Pole	2.00	2.00	2.00	2.00	3.00	3.00	3.00	2.00	2.00	
		3-Pole	3.00	3.00	3.00	3.00	4.50	4.50	4.50	3.00	3.00	
Depth			2.37	2.37	2.37	2.53	2.53	2.53	2.53	2.87	2.90	
Overcurrent Devices	Thermal and Fixed Magnetic Trip			✓	✓	✓	✓	✓	✓	✓	✓	
	Molded Case Switch			✓	—	—	✓	—	—	✓ ^③	—	
Accessories & Modifications	Undervoltage Trip			—	—	—	—	—	—	—	—	
	Shunt Trip			✓	✓	✓	✓	✓	✓	✓	✓	
	Auxiliary Switch			✓	✓	✓	✓	✓	✓	✓	✓	
	Alarm Switch			—	—	—	—	—	—	✓	✓	
	Mechanical Interlock			—	—	—	✓	✓	✓	—	—	
	Fungus Proofing			✓	✓	✓	✓	✓	✓	✓	✓	
Individual Enclosures	Type 1 – Indoor Surface			✓	✓	✓	✓	✓	✓	—	✓	
	Type 1 – Indoor Flush			✓	✓	✓	✓	✓	✓	—	✓	
	Type 3R – Outdoor-Rainproof			✓	✓	✓	✓	✓	✓	—	✓	

① CQD breakers are rated 14,000 KAIC at 480/277V.

③ 3-pole only.

② Type CQD6—CSA only.

Molded Case Circuit Breakers

Reference Guide

Thermal-Magnetic Trip Breakers

					General Purpose Breakers										
					HGG	LGG	ED2	ED4	ED6	HED4	HHED6	CED6			
Ratings	AC	Poles			1, 2, 3	1, 2, 3	1, 2, 3	1, 2, 3	1 ^④ , 2, 3	1, 2, 3	1, 2, 3	1, 2, 3			
		Amperes, Continuous			15-125	15-125	15-100	15-125	15-125 ^⑦	15-125	15-50	15-125			
		Volts (50/60 HZ)			1 Pole	347	347	120	277	347	277	—			
					2 Pole	600-347	600-347	240	480	600	480	600	600		
					3 Pole	600-347	600-347	240	480	600	480	600	600		
		UL Interrupting Rating Symmetrical RMS Amperes			120V	—	—	10,000	—	—	100,000	—	—		
					240V	85,000	100,000	10,000	65,000	65,000	100,000 ^⑤	100,000	200,000		
					277V	—	—	—	22,000 ^①	—	65,000 ^②	—	—		
					347V	—	—	—	—	30,000	—	—	—		
					480V	35,000	65,000	—	18,000	25,000	42,000	65,000	200,000		
					600V	22,000 ^③	25,000 ^④	—	—	18,000	—	18,000	100,000		
					IEC 947-2 50/60HZ		220/240V	I _{cu}	—	—	—	65,000	—	—	
							I _{cs}	—	—	—	17,000	—	—	—	
							380/415V	I _{cu}	—	—	—	35,000	—	—	—
							I _{cs}	—	—	—	9,000	—	—	—	
					500V	I _{cu}	—	—	—	18,000	—	—	—		
		I _{cs}	—	—	—	5,000	—	—	—						
	DC	2-Pole, 250V DC Interrupting Ratings			35,000	42,000	5,000	30,000	30,000	30,000	—	30,000			
		3-Pole, 500V DC Interrupting Ratings ^⑥			—	—	—	—	18,000	—	—	50,000			
Dimensions in inches		Height			5.40	5.40	6.34	6.34	6.34	6.34	6.58	9.26			
		Width			1-Pole	1.00	1.00	1.00	1.00	1.00	1.00	—	—		
					2-Pole	2.00	2.00	2.00	2.00	3.00	2.00	2.00	2.00		
					3-Pole	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00		
					4-Pole	4.00	4.00	—	—	—	—	—	—		
Depth			2.90	2.90	4.00	4.00	4.00	4.00	4.00	4.00	4.00				
Overcurrent Devices		Thermal and Fixed Magnetic Trip			✓	✓	✓	✓	✓	✓	✓				
		Thermal and Adjustable Magnetic Trip			—	—	—	—	—	—	—	—			
		Adjustable Magnetic Trip only – Motor Circuit Protector			—	—	—	—	✓	—	—	✓			
		Molded Case Switch			—	—	✓	✓	✓	—	—	✓			
Accessories & Modifications		Undervoltage Trip			—	—	✓	✓	✓	✓	✓	✓			
		Shunt Trip			✓	✓	✓	✓	✓	✓	✓	✓			
		Auxiliary Switch			✓	✓	✓	✓	✓	✓	✓	✓			
		Alarm Switch			✓	✓	✓	✓	✓	✓	✓	✓			
		Mechanical Interlock			—	—	—	—	—	—	—	—			
		Rear Connection Studs			—	—	✓	✓	✓	✓	✓	✓			
		Electric Motor Operator			—	—	✓	✓	✓	✓	✓	✓			
		Plug-In Mounting Assembly (3 Pole Only)			—	—	✓	✓	✓	✓	✓	✓			
		Fungus Proofing			✓	✓	✓	✓	✓	✓	✓	✓			
Individual Enclosures		Type 1 – Indoor Surface			✓	✓	✓	✓	✓	✓	✓				
		Type 1 – Indoor Flush			✓	✓	✓	✓	✓	✓	✓	✓			
		Type 3R – Outdoor Rainproof			✓	✓	✓	✓	✓	✓	✓	✓			
		Type 7 – Flammable Gas Atmosphere			—	—	✓	✓	✓	✓	✓	—			
		Type 9 – Combustion Dusttight			✓	✓	✓	✓	✓	✓	✓	—			
		Type 5, 12 – Lint, Fine Dust, Oils, Coolants			✓	✓	✓	✓	✓	✓	✓	✓			
		Type 12K – Semi Dusttight			—	—	✓	✓	✓	✓	✓	✓			

① 1-pole only.

② 35-100A: 25,000 AIR at 277V AC/15-30A: 65,000 AIR at 277V AC.

③ For DC UPS system application.

④ Single pole ED6 (15-30A) 30kA, (35-100A) 18 kA. CSA Only.

⑤ Single pole HED4, 15-30A: 65,000 AIR at 240V AC; single pole HED4, 35-100A: 25,000 AIR at 240V AC.

⑥ HGG and LGG breakers are rated at 600/347V.

⑦ ED6, 2-pole available 15-125 amps only.

Molded Case Circuit Breakers

Reference Guide

Thermal-Magnetic Trip Breakers

				General Purpose Breakers										
				FD6A FXD6A	HFD6 HFXD6	HHFD6 HHFXD6	CFD6	JXD2-A	JD6-A JXD6-A	HJD6-A HJXD6-A	HHJD6-A HHJXD6-A	CJD6-A		
Ratings	AC	Poles		2, 3	2, 3	2, 3	3	2, 3	2, 3	2, 3	2, 3	3		
		Amperes, Continuous		70-250	70-250	70-250	70-250	200-400	200-400	200-400	200-400	200-400		
		Volts (50/60 HZ)	2 Pole	600	600	600	600	240	600	600	600	600		
			3 Pole	600	600	600	600	240	600	600	600	600		
		UL Interrupting Rating Symmetrical RMS Amperes	UL	240V	65,000	100,000	200,000	200,000	65,000	65,000	100,000	200,000	200,000	
				480V	35,000	65,000	100,000	200,000	—	35,000	65,000	100,000	150,000	
				600V	22,000	25,000	25,000	100,000	—	25,000	35,000	50,000	100,000	
			IEC60947-2 50/60HZ	220/240V	I _{cu}	65,000	100,000	—	—	—	65,000	100,000	—	—
					I _{cs}	33,000	50,000	—	—	—	33,000	50,000	—	—
				380/415V	I _{cu}	33,000	65,000	—	—	—	40,000	65,000	—	—
					I _{cs}	18,000	33,000	—	—	—	20,000	33,000	—	—
			500V	I _{cu}	—	—	—	—	—	—	—	—	—	
				I _{cs}	—	—	—	—	—	—	—	—	—	
	DC	2-Pole, 250V DC Interrupting Ratings		30,000	30,000	—	50,000	30,000	30,000	30,000	—	—		
		3-Pole, 500V DC Interrupting Ratings ^①		18,000	25,000	—	50,000	—	25,000	35,000	—	50,000		
Dimensions in inches	Height		9.50	9.50	14.12	14.12	11.00	11.00	11.00	11.00	17.86			
	Width	2-Pole	4.50	4.50	4.50	4.50	7.50	7.50	7.50	7.50	7.50			
		3-Pole	4.50	4.50	4.50	4.50	7.50	7.50	7.50	7.50	7.50			
Depth		4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00				
Overcurrent Devices	Thermal and Fixed Magnetic Trip		✓	✓	✓	✓	✓	✓	✓	✓				
	Thermal and Adjustable Magnetic Trip		✓	✓	✓	✓	✓	✓	✓	✓	—			
	Adjustable Magnetic Trip only		✓	—	—	✓	—	—	✓	✓	—			
	Motor Circuit Protector		✓	—	—	✓	—	—	✓	✓	—			
Accessories & Modifications	Molded Case Switch		✓	—	—	✓	✓	✓	—	—	✓			
	Undervoltage Trip		✓	✓	✓	✓	✓	✓	✓	✓	✓			
	Shunt Trip		✓	✓	✓	✓	✓	✓	✓	✓	✓			
	Auxiliary Switch		✓	✓	✓	✓	✓	✓	✓	✓	✓			
	Alarm Switch		✓	✓	✓	✓	✓	✓	✓	✓	✓			
	Mechanical Interlock		✓	✓	✓	✓	✓	✓	✓	✓	✓			
	Rear Connection Studs		✓	✓	✓	✓	✓	✓	✓	✓	✓			
	Electric Motor Operator		✓	✓	✓	✓	✓	✓	✓	✓	✓			
	Plug-In Mounting Assembly (3 Pole Only)		✓	✓	✓	✓	✓	✓	✓	✓	✓			
	Fungus Proofing		✓	✓	✓	✓	—	✓	✓	✓	✓			
	Individual Enclosures	Type 1 – Indoor Surface		✓	✓	✓	✓	✓	✓	✓	✓	✓		
Type 1 – Indoor, Flush		—	✓	—	✓	—	—	—	—	—				
Type 3R – Outdoor-Rainproof		✓	✓	✓	✓	✓	✓	✓	✓	—				
Type 7 – Flammable Gas Atmosphere		✓	✓	✓	✓	✓	✓	✓	✓	—				
Type 9 – Combustion Dusttight		✓	✓	✓	—	✓	✓	✓	✓	—				
Type 5, 12 – Lint, Fine Dust, Oils, Coolants		✓	✓	✓	✓	✓	✓	✓	✓	✓				
Type 12K – Semi-Dusttight		✓	✓	✓	✓	—	✓	✓	✓	✓				

① For DC UPS application.

Molded Case Circuit Breakers

Reference Guide

Thermal-Magnetic Trip Breakers

						General Purpose Breakers									
						LD6, LXD6	HLD6, HLXD6	HHLXD6 HHLXD6	CLD6-A	LMD6, LMXD6	HLMD6, HLMXD6	MD6, MXD6	HMD6, HMXD6	CMD6	
Ratings	AC	Poles				2, 3	2, 3	2, 3	3	2, 3	2, 3	2, 3	2, 3	3	
		Amperes, Continuous				250-600	250-600	250-600	450-600	500-800	500-800	500-800	500-800	400-800	
		Volts (50/60 HZ)				2 Pole	600	600	600	600	240	600	600	600	600
						3 Pole	600	600	600	600	240	600	600	600	600
		UL	240V	65,000	100,000	200,000	200,000	65,000	100,000	65,000	100,000	200,000			
				480V	35,000	65,000	100,000	150,000	50,000	65,000	50,000	65,000	100,000		
				600V	25,000	35,000	50,000	100,000	25,000	50,000	25,000	50,000	65,000		
			UL Interrupting Rating Symmetrical RMS Amperes	IEC 947-2 50/60HZ	220/240V	Icu	65,000	100,000	—	—	65,000	100,000	65,000	100,000	—
						Ics	33,000	50,000	—	—	33,000	50,000	33,000	50,000	—
					380/415V	Icu	40,000	65,000	—	—	40,000	65,000	40,000	65,000	—
						Ics	20,000	33,000	—	—	20,000	33,000	20,000	33,000	—
					500V	Icu	—	—	—	—	—	—	—	—	—
						Ics	—	—	—	—	—	—	—	—	—
	DC	2-Pole, 250V DC Interrupting Ratings				30,000	30,000	—	—	30,000	30,000	30,000	30,000		
		3-Pole, 500V DC Interrupting Ratings ①				35,000	—	—	50,000	25,000	50,000	25,000	50,000		
Dimensions in inches	Height				11.0	11.0	11.0	17.86	16.00	16.00	16.00	16.00	16.00		
	Width				7.50	7.50	7.50	7.50	7.50	7.50	9.00	9.00	9.00		
	Depth				4.00	4.00	4.00	4.00	4.59	4.59	6.19	6.19	6.19		
Accessories & Modifications	Thermal and Adjustable Magnetic Trip				✓	✓	✓	✓	✓	✓	✓	—	✓		
	Adjustable Magnetic Trip only – Motor Circuit Protector				✓	—	—	✓	✓	✓	✓	—	✓		
	Molded Case Switch				✓	—	—	✓	✓	—	✓	—	✓		
	Undervoltage Trip				✓	✓	✓	✓	✓	✓	✓	✓	✓		
	Shunt Trip				✓	✓	✓	✓	✓	✓	✓	✓	✓		
	Auxiliary Switch				✓	✓	✓	✓	✓	✓	✓	✓	✓		
	Alarm Switch				✓	✓	✓	✓	✓	✓	✓	✓	✓		
	Mechanical Interlock				✓	✓	✓	✓	✓	✓	✓	✓	✓		
	Rear Connection Studs				✓	✓	✓	✓	✓	✓	✓	✓	✓		
	Electric Motor Operator				✓	✓	✓	✓	✓	✓	✓	✓	✓		
	Plug-in Mounting Assembly				✓	✓	✓	✓	—	—	✓	✓	✓		
	Fungus Proofing				✓	✓	✓	✓	✓	✓	✓	✓	✓		
	Individual Enclosures	Type 1 – Indoor Surface				✓	✓	✓	✓	✓	✓	✓	✓	✓	
		Type 1 – Indoor Flush				✓	—	—	—	—	—	—	—	—	
		Type 3R – Outdoor-Rainproof				✓	✓	✓	—	✓	✓	✓	✓	✓	
Type 5, 12 – Lint, Fine Dust, Oils, Coolants				✓	✓	✓	—	✓	✓	✓	✓	✓			
Type 7 – Flammable Gas Atmosphere				✓	✓	✓	✓	—	—	—	—	—			
Type 9 – Combustion Dusttight				✓	✓	✓	—	—	✓	✓	✓	✓			
Type 12K – Semi-Dusttight				✓	✓	✓	—	✓	✓	✓	✓	✓			

① For DC UPS application.

Molded Case Circuit Breakers

Reference Guide

Thermal-Magnetic Trip Breakers

					General Purpose Breakers						
					ND6, NXD6	HND6, HNXD6	CND6	PD6, ② PXD6 ②	HPD6, ② HPXD6 ②	CPD6 ②	
Ratings	AC	Poles			2, 3	2, 3	3	3	3	3	
		Amperes, Continuous			800-1200	800-1200	800-1200	1200-1600	1200-1600	1200-1600	
		Volts (50/60 HZ)			3 Pole	600	600	600	600	600	
		UL Interrupting Rating Symmetrical RMS Amperes	UL	240V	65,000	100,000	200,000	65,000	100,000	200,000	
				480V	50,000	65,000	100,000	50,000	65,000	100,000	
				600V	25,000	50,000	65,000	25,000	50,000	65,000	
			IEC 947-2 50/60 HZ	220/240V	I _{cu}	65,000	100,000	—	—	—	—
					I _{cs}	33,000	50,000	—	—	—	—
				380/415V	I _{cu}	40,000	65,000	—	—	—	—
			I _{cs}	20,000	33,000	—	—	—	—		
			500V	I _{cu}	—	—	—	—	—	—	
			I _{cs}	—	—	—	—	—	—		
		DC	2-Pole, 250V DC Interrupting Ratings			30,000	30,000	30,000	30,000	30,000	30,000
	3-Pole, 500V DC Interrupting Ratings ①			25,000	50,000	50,000	25,000	50,000	50,000		
Dimensions in inches		Circuit breakers require Connect-all mounting block. Dimensions shown are for circuit breaker only.	Height	16.00	16.00	16.00	16.00	16.00	16.00		
			Width	9.00	9.00	9.00	9.00	9.00	9.00		
			Depth	6.19	6.19	6.19	6.19	6.19	6.19		
Overcurrent Devices		Thermal and Adjustable Magnetic Trip			✓	✓	✓	✓	✓		
		Adjustable Magnetic Trip only			—	—	—	—	—		
		Motor Circuit Protector			—	—	—	—	—		
		Molded Case Switch			✓	—	✓	✓	—	—	
Accessories & Modifications		Undervoltage Trip			✓	✓	✓	✓	✓	✓	
		Shunt Trip			✓	✓	✓	✓	✓	✓	
		Auxiliary Switch			✓	✓	✓	✓	✓	✓	
		Alarm Switch			✓	✓	✓	✓	✓	✓	
		Mechanical Interlock			✓	✓	✓	✓	✓	✓	
		Rear Connections Studs			✓	✓	✓	—	—	—	
		Electric Motor Operator			✓	✓	✓	✓	✓	✓	
		Plug-in Mounting Assembly			✓	✓	✓	—	—	—	
		Fungus Proofing			✓	✓	✓	✓	✓	✓	
		Mounting Block (required)			—	—	—	✓	✓	✓	
Individual Enclosures		Type 1 – Indoor Surface			✓	✓	✓	✓	✓	✓	
		Type 1 – Indoor, Flush			—	—	—	—	—	—	
		Type 3R – Outdoor-Rainproof			✓	✓	✓	—	—	—	
		Type 7 – Flammable Gas Atmosphere			✓	✓	✓	—	—	—	
		Type 9 – Combustion Dusttight			—	—	—	—	—	—	
		Type 5, 12 – Lint, Fine Dust, Oils, Coolants			—	—	—	—	—	—	
		Type 12K – Semi-Dusttight			✓	✓	✓	—	—	—	

① For DC UPS application.

② Requires Connect-all mounting assembly. Dimensions shown are for circuit breaker only.

Molded Case Circuit Breakers

Reference Guide

Thermal-Magnetic Trip Breakers and Electronic Trip Breakers

						General Purpose Breakers		Solid State Trip Circuit Breakers					
						RD6, ① RXD6 ①	HRD6, ① HRXD6 ①	SJD6	SHJD6	SCJD6	SLD6	SHLD6	SCLD6
Ratings	AC	Poles				3	3	3	3	3	3	3	
		Amperes, Continuous				1600-1200	1600-2000	200-400	200-400	200-400	300-600	300-600	300-600
		Volts (50,60 HZ)				3 Pole	600	600	600	600	600	600	600
		UL	UL Interrupting Rating Symmetrical RMS Amperes	240V	65,000	100,000	65,000	100,000	200,000	65,000	100,000	200,000	
				480V	50,000	65,000	35,000	65,000	150,000	35,000	65,000	150,000	
				600V	25,000	50,000	25,000	35,000	100,000	25,000	35,000	100,000	
				IE60947-2 50/60 HZ	220/240V	I _{cu}	—	—	—	—	—	—	—
					380/415V	I _{cs}	—	—	—	—	—	—	—
						I _{cu}	—	—	—	—	—	—	—
		500V	I _{cs}	—	—	—	—	—	—	—	—		
DC	2-Pole, 250V DC Interrupting Ratings				30,000	30,000	—	—	—	—	—		
	3-Pole, 500V DC Interrupting Ratings ①				25,000	50,000	—	—	—	—	—		
Dimensions in inches		Height				16.00	16.00	11.00	11.00	17.86	11.00	11.00	17.86
		Width				9.00	9.00	7.50	7.50	7.50	7.50	7.50	7.50
		Depth				6.19	6.19	4.00	4.00	4.00	4.00	4.00	4.00
Overcurrent Devices		Solid State Trip				—	—	✓	✓	✓	✓	✓	✓
		Thermal and Adjustable Magnetic Trip				✓	✓	—	—	—	—	—	—
		Adjustable Magnetic Trip only				—	—	—	—	—	—	—	—
		Motor Circuit Protector				—	—	—	—	—	—	—	—
Accessories & Modifications		Molded Case Switch				✓	—	—	—	—	—	—	—
		Undervoltage Trip				✓	✓	✓	✓	✓	✓	✓	✓
		Shunt Trip				✓	✓	✓	✓	✓	✓	✓	✓
		Auxiliary Switch				✓	✓	✓	✓	✓	✓	✓	✓
		Alarm Switch				✓	✓	✓	✓	✓	✓	✓	✓
		Mechanical Interlock				✓	✓	✓	✓	✓	✓	✓	✓
		Rear Connections Studs				—	—	✓	✓	✓	✓	✓	✓
		Electric Motor Operator				✓	✓	✓	✓	✓	✓	✓	✓
		Plug-in Mounting Assembly				—	—	✓	✓	—	—	✓	✓
		Fungus Proofing				✓	✓	✓	✓	✓	✓	✓	✓
Individual Enclosures		Mounting Block (required)				✓	✓	—	—	—	—	—	—
		Type 1 – Indoor Surface				✓	✓	✓	✓	✓	✓	✓	✓
		Type 1 – Indoor Flush				—	—	—	—	—	—	—	—
		Type 3R - Outdoor-Rainproof				—	—	✓	✓	—	✓	✓	—
		Type 7 – Flammable Gas Atmosphere				—	—	✓	✓	—	✓	✓	—
		Type 9 – Combustion Dusttight				—	—	✓	✓	—	✓	✓	—
		Type 5, 12 – Lint, Fine Dust, Oils, Coolants				—	—	✓	✓	✓	✓	✓	✓

① Requires Connect-all mounting assembly. Dimensions shown are for circuit breaker only.

Molded Case Circuit Breakers

3VA UL Catalog Number Logic

The 3VA line is new and Siemens has introduced a new logic for creating the catalog numbers, we have included a breakdown of that logic for your reference.

		Catalog Number position																	
		1	2	3	4	5	6	7	-	8	9	10	11	12	-	13	14	15	16
1. Position	Type of circuit breaker	3							-						-				
2. Position	Type of circuit breaker		V						-						-				
3. Position	Breaker series			A					-						-				
4. Position	Type of trip unit thermal magnetic or electronic				5				-						-				
5. Position	Size					1			-						-				
6.+ 7. Position	Rated current						1	0	-						-				
8. Position	Breaking capacity								-	4					-				
9. + 10. Position	Trip unit: protection function, type (display, metering function, ...)										E	D			-				
11. Position	Number of poles												3		-				
12. Position	Connection technology													1	-				
13. Position	Auxiliary release														-	0			
14. Position	Auxiliary release																A		
15. Position	Auxiliary / alarm switch																	A	
16. Position	Auxiliary / alarm switch																		0

Molded Case Circuit Breakers

Reference Guide

Breaker Frame Family				3VA51			3VA51			3VA52		
	Continuous Amps			15-125A			15-125A			100-250A		
	Poles			1			3			2 in 3-Pole, 3		
	Max. Volts AC			347V			600Y/347V			600V		
Breaker Type				SEAS	MEAS	H5EAS-Z	SEAS	MEAS	HEAS	MFAS	HFAS	CFAS
Ratings	Interrupting Class			S	M	H	S	M	H	M	H	C
	Interrupting Rating RMS Symmetrical Amperes AC 50/60 HZ	UL	120/240 Vac	65	85	100	65	85	100	85	100	200
			277/480 Vac	25	35	50	25	35	65	35	65	100
			347/600 Vac	14	14	14	14	18	25	25	25	25
			480 Vac	—	—	—	25	35	65	18	25	35
			600 Vac	—	—	—	—	—	—	18	25	35
	DC Interrupting Ratings (UL) ②		125 Vdc	14	25	30	—	—	—	—	—	—
			250 Vdc (2-Pole)	—	—	—	50	85	100	30	30	30
			500 Vdc (3-Pole) ①	—	—	—	50	85	100	25	35	35
		600 Vdc (3-Pole)	—	—	—	—	—	—	50	85	100	
Dimensions in inches	1-Pole			5.5H x 1.0W x 3.8D			—			—		
	2-Pole			—			—			7.2H x 4.1W x 4.2D		
	3-Pole			—			5.5H x 3.0W x 3.8D			7.2H x 4.1W x 4.2D		
	4-Pole			—			—			—		
Trip Unit Information	Thermal-Magnetic			◆			◆			◆		
	Electronic			—			—			—		
	Electronic with LCD			—			—			—		
	Interchangeable Trip Unit			—			—			—		
	Reverse Feed (w/ Non-Interchangeable Trip)			◆			◆			◆		
	Communications Capability ③			—			—			—		
Specific Application Breaker	Molded Case Switch			—			◆			◆		
	Motor Circuit Protector			—			◆			◆		
	100% Rated			—			—			—		
	50°C Calibrated ④			—			—			—		
Accessories & Modifications	Auxiliary Switch			◆			◆			◆		
	Alarm Switch			◆			◆			◆		
	Shunt Trip			◆			◆			◆		
	Undervoltage Release			◆			◆			◆		
	Mechanical Interlocks			◆			◆			◆		
	Electric Motor or Stored Energy Operator			—			◆			◆		
	Rear Connecting Studs			◆			◆			◆		
	Plug-In Mounting Assy. w/ Trip Interlock			—			—			—		
	Draw-Out Assembly			—			—			—		
	Handle Mechanism Options			—			◆			◆		
Enclosures	NEMA 1 - Indoor, Surface Mount			◆			◆			◆		
	NEMA 1 - Indoor, Flush Mount			◆			◆			◆		
	NEMA 3R - Outdoor, Rain Proof			◆			◆			◆		
	NEMA 4, 4X - Stainless Steel ⑤			◆			◆			◆		
	NEMA 7, 9 - Hazardous Locations			—			—			—		
	NEMA 12 - Dust			◆			◆			◆		
	Terminal Shields			◆			◆			◆		
	Distribution Lugs			◆			◆			◆		
Ground Sensor (Neutral Transformer)			—			—			—			

① 500 Vdc Nominal 600 Vdc max. for Ungrounded DC UPS system.

② DC Interrupting Ratings are not applicable to electronic circuit breakers.

③ Communications available via a COMPRO or COMMODO modules using PROFIBUS or Modbus protocols.

④ Consult Siemens for availability.

⑤ 304 and 316 Stainless Steel.

Molded Case Circuit Breakers

Reference Guide

Breaker Frame Family				3VA61				3VA62			
	Continuous Amps			40-150A				100, 250A			
	Poles			3,4				3, 4			
	Max. Volts AC			600V				600Y/347V			
Breaker Type				MDAE	HDAE	CDAE	LDAE	MFAE-Y	HFAE-Y	CFAE-Y	LFAE-Y
Ratings	Interrupting Class			M	H	C	L	M	H	C	L
	Interrupting Rating RMS Symmetrical Amperes AC 50/60 HZ	UL	120/240 Vac	100	100	200	200	100	100	200	200
			277/480 Vac	35	65	100	150	35	65	100	120
			347/600 Vac	18	22	35	50	18	22	35	50
			480 Vac	35	65	100	150	35	65	100	150
			600 Vac	18	22	35	50	—	—	—	—
	DC Interrupting Ratings (UL) ②		125 Vdc	—	—	—	—	—	—	—	—
			250 Vdc (2-Pole)	—	—	—	—	—	—	—	—
			500 Vdc (3-Pole) ①	—	—	—	—	—	—	—	—
			600 Vdc (3-Pole)	—	—	—	—	—	—	—	—
Dimensions in inches	1-Pole			—				—			
	2-Pole			—				—			
	3-Pole			7.8H x 4.1 W x 4.2D				7.8H x 4.1W x 4.2D			
	4-Pole			7.8H x 5.5W x 4.2D				7.8H x 5.5W x 4.2D			
Trip Unit Information	Thermal-Magnetic			—				—			
	Electronic			◆				◆			
	Electronic with LCD			◆				◆			
	Interchangeable Trip Unit			—				—			
	Reverse Feed (w/ Non-Interchangeable Trip)			◆				◆			
	Communications Capability ③			◆				◆			
Specific Application Breaker	Molded Case Switch			—				—			
	Motor Circuit Protector			◆				◆			
	100% Rated			◆				◆			
	50°C Calibrated ④			—				—			
Accessories & Modifications	Auxiliary Switch			◆				◆			
	Alarm Switch			◆				◆			
	Shunt Trip			◆				◆			
	Undervoltage Release			◆				◆			
	Mechanical Interlocks			◆				◆			
	Electric Motor or Stored Energy Operator			◆				◆			
	Rear Connecting Studs			◆				◆			
	Plug-In Mounting Assy. w/ Trip Interlock			◆				◆			
	Draw-Out Assembly			◆				◆			
	Handle Mechanism Options			◆				◆			
Enclosures	NEMA 1 - Indoor, Surface Mount			◆				◆			
	NEMA 1 - Indoor, Flush Mount			◆				◆			
	NEMA 3R - Outdoor, Rain Proof			◆				◆			
	NEMA 4, 4X - Stainless Steel ⑤			◆				◆			
	NEMA 7, 9 - Hazardous Locations			—				—			
	NEMA 12 - Dust			◆				◆			
	Terminal Shields			◆				◆			
	Distribution Lugs			◆				◆			
Ground Sensor (Neutral Transformer) ④			◆				◆				

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④ Consult Siemens for availability.

⑤ 304 and 316 Stainless Steel.

Molded Case Circuit Breakers

Reference Guide

Breaker Frame Family				3VA63				3VA64			
	Continuous Amps			240, 400A				400A, 600A			
	Poles			3, 4				3, 4			
	Max. Volts AC			600V				600V			
Breaker Type				MJAE	HJAE	CJAE	LJAE	MLAE	HLAE	CLAE	LLAE
Ratings	Interrupting Class			M	H	C	L	M	H	C	L
	Interrupting Rating RMS Symmetrical Amperes AC 50/60 HZ	UL	120/240 Vac	100	100	200	200	100	100	200	200
			277/480 Vac	35	65	100	150	35	65	100	150
			347/600 Vac	18	22	35	50	18	22	35	50
			480 Vac	35	65	100	150	35	65	100	150
			600 Vac	18	22	35	50	18	22	35	50
	DC Interrupting Ratings (UL) ②		125 Vdc	—	—	—	—	—	—	—	—
			250 Vdc (2-Pole)	—	—	—	—	—	—	—	—
			500 Vdc (3-Pole) ①	—	—	—	—	—	—	—	—
			600 Vdc (3-Pole)	—	—	—	—	—	—	—	—
Dimensions in inches	1-Pole			—				—			
	2-Pole			—				—			
	3-Pole			9.8H x 5.4 W x 5.4D				9.8H x 5.4 W x 5.4D			
	4-Pole			9.8H x 7.2 W x 5.4D				9.8H x 7.2 W x 5.4D			
Trip Unit Information	Thermal-Magnetic			—				—			
	Electronic			◆				◆			
	Electronic with LCD			◆				◆			
	Interchangeable Trip Unit			—				—			
	Reverse Feed (w/ Non-Interchangeable Trip)			◆				◆			
Specific Application Breaker	Communications Capability ③			◆				◆			
	Molded Case Switch			◆				◆			
	Motor Circuit Protector			◆				◆			
	100% Rated			◆				◆			
Accessories & Modifications	50°C Calibrated ④			—				—			
	Auxiliary Switch			◆				◆			
	Alarm Switch			◆				◆			
	Shunt Trip			◆				◆			
	Undervoltage Release			◆				◆			
	Mechanical Interlocks			◆				◆			
	Electric Motor or Stored Energy Operator			◆				◆			
	Rear Connecting Studs			◆				◆			
	Plug-In mountign Assy. w/ Trip Interlock			—				—			
	Draw-Out Assembly			—				—			
	Handle Mechanism Options			◆				◆			
	Enclosures	NEMA 1 - Indoor, Surface Mount			—				—		
NEMA 1 - Indoor, Flush Mount			—				—				
NEMA 3R - Outdoor, Rain Proof			—				—				
NEMA 4, 4X - Stainless Steel ⑤			—				—				
NEMA 7, 9 - Hazardous Locations			—				—				
NEMA 12 - Dust			—				—				
Terminal Shields			◆				◆				
Distribution Lugs			◆				◆				
Ground Sensor (Neutral Transformer) ⑥			—				—				

① 500 Vdc Nominal 600 Vdc max. for Ungrounded DC UPS system.

② DC Interrupting Ratings are not applicable to electronic circuit breakers.

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⑤ 304 and 316 Stainless Steel.

Notes

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Siemens Industry, Inc.
5400 Triangle Parkway
Norcross, GA 30092

For more information, please contact
our Customer Support Center.
Phone: 1-800-241-4453
E-mail: info.us@siemens.com

usa.siemens.com/circuitbreakers

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