

Molded Case Circuit Breakers

Introduction

What's New?

Siemens Energy & Automation is proud to announce several new products. These new concepts serve the OEM and power distribution markets.

WL Power Circuit Breakers



It's the Circuit Breaker that changes everything! And it's armed with a full array of competitive advantages:

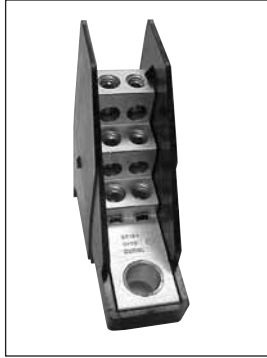
- Reliable – increased operations and better than 1% metering accuracy
- Compact – smallest switchgear footprint in the industry
- Easy to Use – straightforward catalog numbers & selection tools
- Modular – drop-in, front-mounted accessories & field changeable main contacts
- System Solution – Internet/Ethernet, Modbus and Profibus communications
- Safety – customized interlocking and unique status indicators

Specifications and Applications:

- Standards: UL489, UL1066 and ANSI C37
- Frame Ratings: 800A to 5000A
- Rated Nominal Voltages: 240, 480 and 600VAC
- Interrupting Ratings: from 50KA to 150KA un-fused and 200KA fused
- Assemblies: Fixed mounted, draw-out Circuit Breaker or Non-automatic Switch
- Applicable for all ICCB or RL Breaker applications

The WL Circuit Breaker may be new to North America, but it has already been proven in the field – with two years of flawless performance in Europe. No other product on the market today offers more flexibility or greater reliability.

Sentron Distribution Lug



Distribution lugs are now available for use with Siemens Sentron E, F, J and L-frame circuit breakers. These lugs are UL 486-B recognized and are ideal for UL 508 control panel applications to replace a distribution block. Using the Sentron distribution lugs can reduce the need for extra wire stripping. They also reduce the use of extra crimp connectors going between the circuit breaker and distribution block.

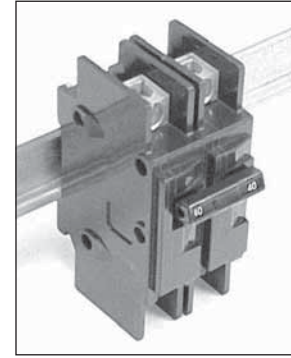
CE Marking

A wide range of Sentron® thermal magnetic circuit breakers has been fully tested for compliance with the European community's Low Voltage Directive, and carry the CE mark, indicating their compliance with that directive. These are noted in the Speedfax with the stylized CE in watermark behind the catalog numbers. Declarations of conformity are available for these products. A point of misunderstanding lies in the area of handle operators. A handle operator alone, such as that for the Max-flex, since there is no applicable European Directive, may not carry the CE mark. The mark is affixed to the finished equipment that incorporates the handle, but not to this component device.

PLC Level Auxiliary Switches

A new family of gold flashed auxiliary switches for the FD through ND breakers allows sensing at very low voltage and currents for interface directly to programmable logic controllers and other electronic devices. Standard contacts, built to switch 120 Volts and higher currents can be unreliable when the sensing current is in the milliamp range, and the sensing voltage is 12 Volts or lower. These very reliable low level switches overcome that limitation. Standard switch contacts should, of course, continue to be used in standard current and voltage applications.

DIN Rail mounted 120/240 V Breaker



The Siemens BQ breakers are now available in 1- and 2-pole construction, from 15 to 60 Amps in lug in – lug out DIN rail mounted configuration. These breakers, rated 120/240 Volts, are ideal for applications in control panels and HVAC, and with their available finger safe terminal shields can qualify as service disconnects.

NGG Type 125A Frame Circuit Breaker



The new NGG Circuit Breaker is a compact, industrial design with true value-added features such as Global Ratings (UL/CSA/IEC/CE/NOM), flexible DIN or base mounting without the need for adapters and UL Listed for field install-able accessories. This NGG125 has a 25KAIC interrupting rating at 480VAC and features a Quick Make/Quick Break Trip-free Mechanism. All this in a 3.0W x 5.4H x 2.8D package. Please consult your sales office for availability.

HID Lighting Breakers

Siemens BQD and CQD circuit breakers have been tested and approved for use in switching HID lighting. One, two and three pole breakers from 15A to 50A are now approved and marked for use in these high energy lighting systems where the breakers is used to directly control the lighting in 120VAC, 240VAC, 277AC or 480/277VAC circuits.

Molded Case Circuit Breakers

Catalog Numbering System

Selection/Application

If used on 250A frame and above means non-interchangeable trip breaker with factory assembled frame and trip. Solid state trip and current limiting (S or C in first character) are non-interchangeable only, and the "X" is omitted.



Trip Unit Type

- Omitted — Thermal-Magnetic
- S — Sensitrip® Electronic Trip

Sentron Series Type/Interrupting Range

- Omitted — Standard Rating
- H — High IC Rating
- HH — Extra High IC Rating
- C — Highest IC Rating and Current Limiting

Frame Identifier

- | | |
|---------------|-------------|
| E — Type ED | M — Type MD |
| F — Type FD | N — Type ND |
| J — Type JD | P — Type PD |
| L — Type LD | R — Type RD |
| LM — Type LMD | T — Type TD |

Maximum Voltage

- 2 — 240 Vac
- 4 — 480 Vac
- 6 — 600 Vac

Number of Poles

- 1
- 2
- 3
- 9 used to indicate the max. functions for an electronic trip circuit breaker (always 3 poles)

(Specific Application Type)

- B — Standard 40°C Breaker
- M — Calibrated for 50°C Application
- F — Frame Only
- T — 40°C Trip Unit Only
- W — 50°C Trip Unit Only
- S — Molded Case Switch
- L — Low Instantaneous Range ETI Breaker
- A — Standard Range ETI Breaker
- H — High Instantaneous Range ETI Breaker

Maximum Continuous Current Rating

- ED Frame — 015, 020, 025, 030, 035, 040, 045, 050, 060, 070, 080, 090, 100, 110, 125
- FD Frame — 070, 080, 090, 100, 110, 125, 150, 175, 200, 225, 250
- JD Frame — 200, 225, 250, 300, 350, 400
- LD Frame — 250, 300, 350, 400, 450, 500, 600
- LMD Frame — 500, 600, 700, 800
- MD Frame — 500, 600, 700, 800
- ND Frame — 900, 100 (1000A), 120 (1200A)
- PD Frame — 120 (1200A), 140 (1400A), 160 (1600A)
- RD Frame — 160 (1600A), 180 (1800A), 200 (2000A)
- TD Frame — 2000, 2500, 3200

Suffix

- L — where applicable indicates a breaker shipped with line/loads lugs installed
- A — used with a switch to show automatic self protection
- Y — 400 Hertz
- H — 100% rated
- P — Load side lugs only

NOTE:

- Position omitted if not used.

Molded Case Circuit Breakers

JD 400A Frame Sentron Series

Selection

Type JXD2-A^⑤

240V AC, 2-Pole 250V DC Only

Blue Label

Non-Interchangeable Trip (Assembled Circuit Breaker without Lugs)				
Continuous Current Rating @ 40°C	2-Pole (3 Pole Width)		3-Pole	
	Catalog Number	List Price \$	Catalog Number	List Price \$
200	JXD22B200■		JXD23B200	
225	JXD22B225■		JXD23B225	
250	JXD22B250■		JXD23B250	
300	JXD22B300		JXD23B300	
350	JXD22B350■		JXD23B350	
400	JXD22B400		JXD23B400	

Type JXD6-A^{①⑤}

600V AC, 2-Pole 250V DC, 3-Pole 500V DC^②

Blue Label

Non-Interchangeable Trip (Assembled Circuit Breaker without Lugs)				
Continuous Current Rating @ 40°C	2-Pole (3 Pole Width)		3-Pole	
	Catalog Number	List Price \$	Catalog Number	List Price \$
200	JXD62B200■		JXD63B200	
225	JXD62B225■		JXD63B225	
250	JXD62B250■		JXD63B250	
300	JXD62B300		JXD63B300	
350	JXD62B350■		JXD63B350	
400	JXD62B400		JXD63B400	

Type JD6-A^⑤

Blue Label

Interchangeable Trip						
Continuous Current Rating @ 40°C	Complete Breaker Unassembled with Lugs		Frame Only		Trip Unit Only	
	Catalog Number	List Price \$	Catalog Number	List Price \$	Catalog Number	List Price \$
200	JD62B200■		JD62F400		JD62T200■	
225	JD62B225■			JD62T225■		
250	JD62B250■			JD62T250■		
300	JD62B300■			JD62T300■		
350	JD62B350■			JD62T350■		
400	JD62B400			JD62T400		

2-Pole 600V AC, 250V DC (3 Pole Width)

200	JD62B200■		JD62F400		JD62T200■	
225	JD62B225■			JD62T225■		
250	JD62B250■			JD62T250■		
300	JD62B300■			JD62T300■		
350	JD62B350■			JD62T350■		
400	JD62B400			JD62T400		

3-Pole 600V AC, 500V DC^②

200	JD63B200		JD63F400		JD63T200	
225	JD63B225			JD63T225		
250	JD63B250			JD63T250		
300	JD63B300			JD63T300		
350	JD63B350			JD63T350		
400	JD63B400			JD63T400		

Interrupting Ratings

Breaker Type	RMS Symmetrical Amperes (KA)										
	UL 489 AIR (File E10848)						IEC 947-2				
	Volts AC (50/60Hz)			Volts DC			Volts AC (50/60Hz)				
	240	480	600	250	500 ^③	Icu	Ics	Icu	Ics	Icu	Ics
JXD2-A	65	—	—	30 (2-P)	—	—	—	—	—	—	—
JXD6-A, JD6-A	65	35	25	30 (2-P)	25 (3-P)	65	33	40	20	30	15
HJD6-A, HJXD6-A	100	65	35	30 (2-P)	35 (3-P)	100	50	65	33	42	21
HHJD6, HHJXD6 ^④	200	100	50	—	—	200	100	100	50	65	33
CJD6-A	200	150	100	—	50 (3-P)	—	—	—	—	—	—

Instantaneous Adjustment Trip Range

Breaker Ampere Rating	Nominal Instantaneous Values							
	±20% Tolerance Low	2	3	4	5	6	7	±20% Tolerance High
200-300	1250	1430	1610	1790	1960	2140	2320	2500
350-400	2000	2290	2570	2860	3140	3430	3710	4000

■ Built to order. Allow 2-3 weeks for delivery.

① Type JXD2 and JXD6 circuit breakers are UL Listed for reverse feed applications.

② When wired as shown on page 17/3, this circuit breaker is UL listed and rated for use on 500V DC ungrounded UPS systems only.

③ See Note: A, page 17/67.

④ HHJD6 type circuit breakers meet the UL criteria for "current limiting" at 240 and 480V AC.

⑤ HACR rated.

Note: JD frame qualified to UL489 supplement B "NAVAL." See page 17/70 for additional information.

Ordering Information

Complete Breaker Unassembled with Lugs

Prices of JD6, HJD6, and HHJD6 breakers include frame, trip and both line and load lugs (TA2J6500). When ordered by these catalog numbers, the customer will receive the frame, trip, and lugs separately packaged. For applications requiring different lugs, order individual items as needed.

Complete Breaker Assembled without Lugs

Prices of JXD6, HJXD6, HHJXD6, and CJD6 include frame with non-interchangeable trip unit installed only. Order required lugs separately. For line and load lugs (TA2J6500) installed, add suffix "L" to catalog number (add 2 times list price of lugs for each pole).

100% Rated

Types JXD6 and HJXD6 breakers are available with 100% ratings. To order add suffix "H" to catalog number, and 10% to list price.■ 100% rated JD breakers require the use of 90°C Cu cable and lugs TC1J6600 or TC2J6500.

50°C Applications see page 17/70.

400Hz Applications see page 17/70.

Lugs For 75°C Wire^③

Catalog Number	Cables per Lug	Wire Range	List Price \$
TA2J6500	1, 2	#3/0-500 kcmil Cu #4/0-500 kcmil Al 250-500 kcmil Al	
TA1L6750	1	500-750 kcmil Al 500-600 kcmil Cu	
TC1J6600	1	#3/0-600 kcmil Cu	
TC2J6500	1, 2	#3/0-500 kcmil Cu	
Compression Lug			
CCL600	1	500 kcmil Cu/Al	

Modifications page 17/70
Accessories pages 17/29 and 17/71 to 17/77