
US CATALOG

SENTRICITY[®] load centers and circuit breakers

Raising the standard in residential.



SENTRICITY®

Residential solution

Home has a power like no other.

To comfort us. Keep us safe. And give us peace of mind. But only if the load center solution can do the same. That's why ABB, the inventor of the resettable circuit breaker, has brought its global brand of electrical innovation to the residential market with our new SENTRICITY load centers and circuit breakers.

For SENTRICITY, ABB has combined our components with premium features to create a residential product that's anything but standard. SENTRICITY delivers greater value to contractors, distributors, homebuilders and homeowners alike.

For superior safety and quality you can depend on, turn to SENTRICITY load centers and circuit breakers from ABB.

We know the power of home.



SENTRICITY®

Faster. Easier. Safer. Better.

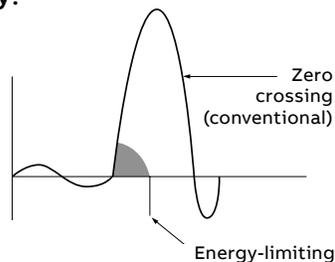


Superior safety you can see.

Like a 24-hour sentry, SENTRICITY load centers and circuit breakers protect electrical circuits with energy-limiting technology. The SENTRICITY residential solution includes the load center, miniature circuit breakers (MCBs), ground fault circuit interrupters (GFCIs), combination arc fault circuit interrupters (AFCIs) and surge protective devices (SPDs). The SENTRICITY residential solution includes LED lights on its AFCIs and GFCIs to indicate proper function. Also included is a visual trip indicator on its MCBs, usually only found on premium units.

Why energy-limiting technology?

Energy-limiting technology interrupts the circuit up to three times faster than conventional circuit breaker technology. This limits the intensity of the short circuit and reduces the likelihood of collateral damage.



Faster, easier installation.

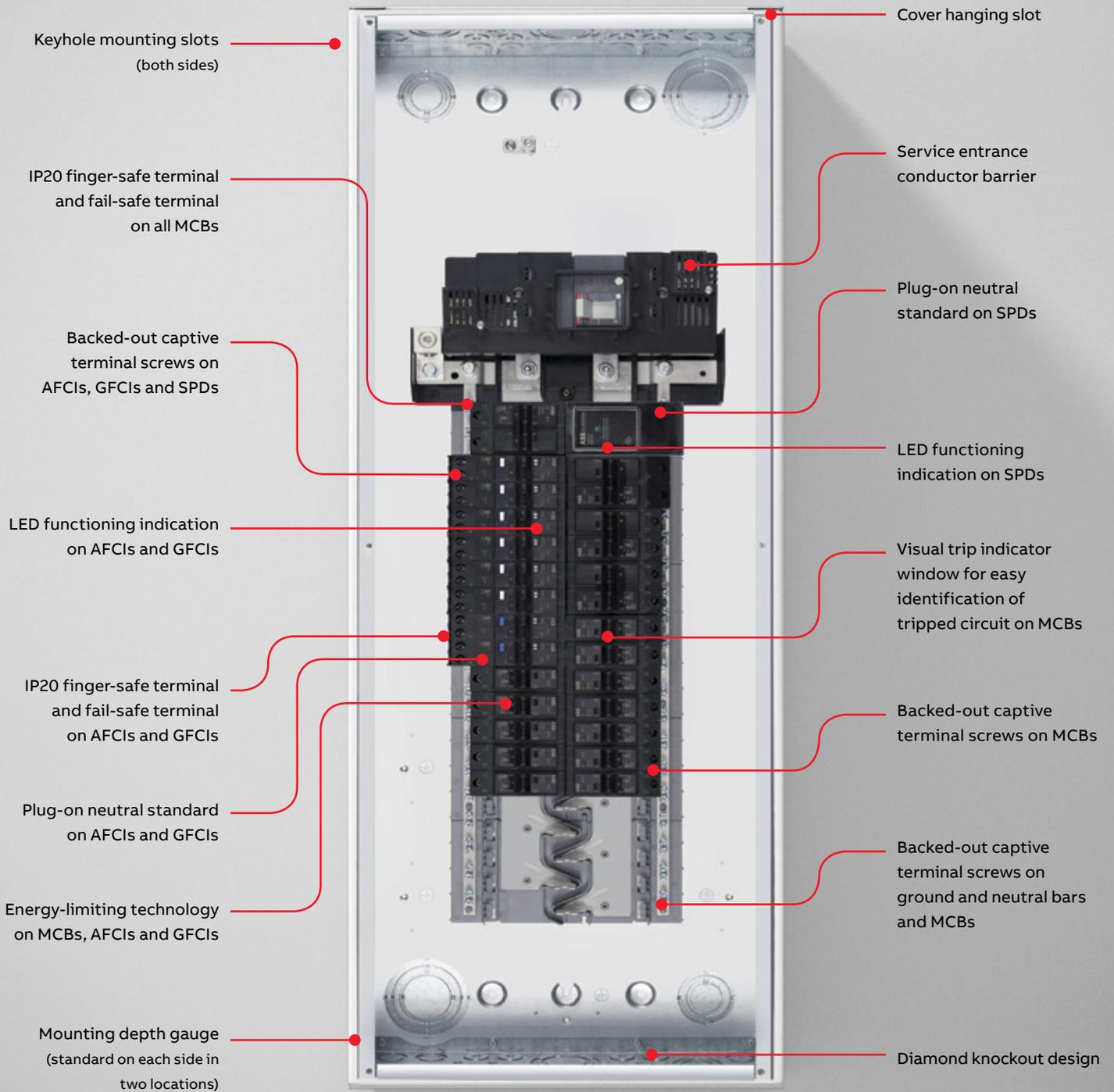
ABB, along with electrical contractors, designed the SENTRICITY load centers and circuit breakers for faster and easier installation. Smart features—including keyhole mounting slots and simplified plug-on neutral AFCIs, GFCIs and SPDs that eliminate pigtails—help streamline every job. Even more remarkable, SENTRICITY includes self-testing AFCIs and GFCIs. AFCI trip diagnostics make it easy to determine the cause of the AFCI interruption.

Why ABB?

ABB has long been known as a pioneering technology leader. ABB's Hugo Stotz invented the resettable circuit breaker in 1923. We continue to be a leader in circuit protection innovation. Today, we offer electrical innovations that drive efficiency, safety and productivity for utility, industry, transportation and infrastructure customers around the world.

SENTRICITY® load centers and circuit breakers offer all of these advantages.

Features	Benefits
Energy-limiting technology for MCBs, AFCIs, GFCIs	Fastest short circuit interruptions in the industry
LED functioning indication on AFCIs, GFCIs, SPDs	Ensures operational functionality
Fail-safe terminals on MCBs, AFCIs, GFCIs	Helps ensure wire is fed properly into the terminal
Multi-trip indication on AFCIs	Easier troubleshooting cause of trip
Plug-on neutral standard on AFCIs, GFCIs, SPDs	Quicker installation and maximizes wire gutter space
Captive terminal screws on MCBs, AFCIs, GFCIs	Prevents terminal screws from backing/falling out
Keyhole mounting slots	Simplifies mounting and helps ensure proper flush installation
Diamond knockout design	Easy removal of knockout in flush application for addition of more circuits
IP20 finger-safe terminals on MCBs, AFCIs, GFCIs	Reduce opportunity for inadvertent shock
Backed-out terminal screws on MCBs, AFCIs, GFCIs, neutral and ground bars	Eliminates up to 50% of work required for terminating wires
Visual trip indicator window on 1" MCBs	Easy identification of tripped circuit
Cover hanging tabs	Allows hands-free cover screw installation



Load centers

Convertible load centers now available!



ABB, along with electrical contractors, designed the SENTRY® load centers for faster and easier installation. SENTRY load centers deliver the best features available on the market into one standard offering.

Features:

- Keyhole mounting slots
- Diamond knockout design
- Backed-out captive terminal screws on ground and neutral bars
- Cover hanging tabs
- Galvanized enclosure
- Main breaker or main lug versions available
- UL 67 Listed
- Convertible load centers available

Indoor load center

Mains rating	Circuits	Indoor Complete load center (Enclosure, interior, cover) ¹	Incoming cables		Equipment ground bar kit (included)	Indoor enclosure dimensions					
			AWG/kcmil			W	H	D			
		Catalog number	Al	Cu		in.	mm	in.	mm	in.	mm
Main lug — 10 kA ICC SCCR; 120/240 V AC—1Ø3W—UL Listed											
Fixed main lug											
70 A	2	SLC2L70TS ^{2,3}	#4-2/0	#4-2/0	Installed	5.00	127	9.50	242	3.25	83
100 A	6	SLC6L100PTS ^{2,3}	#4-2/0	#4-2/0	Installed	10.00	254	15.00	381	4.00	102
125 A	6	SLC6L125PTS ²	#4-2/0	#4-2/0	Installed	10.00	254	18.00	458	4.00	102
	8	SLC8L125PTC	#14-2/0	#14-2/0	Installed	14.25	362	16.06	408	3.94	101
	12	SLC12L125PTC ⁴	#14-2/0	#14-2/0	Installed	14.25	362	19.50	496	3.94	101
	20	SLC20L125PTC ⁴	#14-2/0	#14-2/0	Installed	14.25	362	23.50	597	3.94	101
	24	SLC24L125PTC ⁴	#14-2/0	#14-2/0	Installed	14.25	362	30.50	775	3.94	101
200 A	32	SLC32L125PTC ⁴	#14-2/0	#14-2/0	Installed	14.25	362	35.50	902	3.94	101
	16	SLC16L200PTC ⁴	#6-300	#6-300	Installed	14.25	362	30.50	775	3.94	101
225 A	20	SLC20L225PTC ⁴	#6-300	#6-300	Installed	14.25	362	30.50	775	3.94	101
	32	SLC32L225PTC ⁴	#6-300	#6-300	Installed	14.25	362	35.50	902	3.94	101
	40	SLC40L225PTC ⁴	#6-300	#6-300	Installed	14.25	362	39.50	1004	3.94	101
Main circuit breaker — 22/10 kA ICC SCCR; 120/240 V AC—1Ø3W—UL Listed											
Factory-installed main circuit breaker											
100 A	8	SLC8M100PC ⁴	#12-1/0	#14-1/0		14.25	362	19.50	496	3.94	101
	12	SLC12M100PC ⁴	#12-1/0	#14-1/0		14.25	362	19.50	496	3.94	101
	20	SLC20M100PC ⁴	#12-1/0	#14-1/0		14.25	362	23.50	597	3.94	101
	24	SLC24M100PC ⁴	#12-1/0	#14-1/0		14.25	362	30.50	775	3.94	101
	32	SLC32M100PC ⁴	#12-1/0	#14-1/0		14.25	362	30.50	775	3.94	101
125 A	16	SLC16M125PC ⁴	#6-2/0	#6-2/0		14.25	362	23.50	597	3.94	101
	24	SLC24M125PC ⁴	#6-2/0	#6-2/0		14.25	362	30.50	775	3.94	101
	32	SLC32M125PC ⁴	#6-2/0	#6-2/0		14.25	362	35.50	902	3.94	101
150 A	32	SLC32M150PC ⁴	#6-300	#6-300		14.25	362	35.50	902	3.94	101
	40	SLC40M150PC ⁴	#6-300	#6-300		14.25	362	39.50	1004	3.94	101
200 A	20	SLC20M200PC ⁴	#6-300	#6-300		14.25	362	30.50	775	3.94	101
	32	SLC32M200PC ⁴	#6-300	#6-300		14.25	362	35.50	902	3.94	101
	40	SLC40M200PC ⁴	#6-300	#6-300		14.25	362	39.50	1004	3.94	101
	60	SLC60M200PC ⁴	#6-300	#6-300		14.25	362	51.50	1309	3.94	101
225 A	44	SLC44M225PC ⁴	#6-300	#6-300		14.25	362	43.50	1105	3.94	101

NOTE: The appropriate wire size must be chosen according to the current rating of the main or feeding breaker.

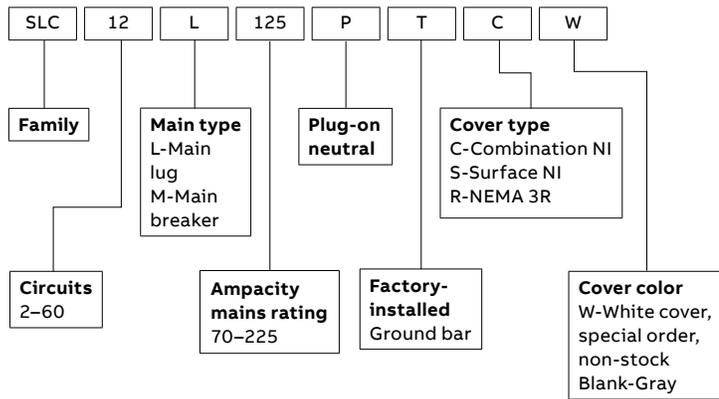
¹ C = Combination surface/flush

² S = Surface, no door

³ Nominal branch current cannot exceed the load center current rating

⁴ Convertible load center

Catalog number explanation



Cover hanging tabs



Diamond knockouts



NEMA 3R outdoor load centers

Outdoor load center

Mains rating	Circuits	Complete load center (Enclosure, interior, cover) ¹	Incoming cables		Equipment ground bar kit (included)	Outdoor enclosure dimensions					
			AWG/kcmil			W	H		D		
		Catalog number	Al	Cu		in.	mm	in.	mm	in.	mm
Main lug — 10 kAIC SCCR; 120/240 V AC—1Ø3W—UL Listed											
Fixed main lug											
70 A	2	SLC2L70TR ³	#4-2/0	#4-2/0	Installed	5.00	127	10.31	262	4.06	104
100 A	6	SLC6L100PTR ³	#4-2/0	#4-2/0	Installed	10.00	254	15.31	389	4.63	118
	6	SLC6L125PTR	#4-2/0	#4-2/0	Installed	10.00	254	18.31	465	4.63	118
125 A	8	SLC8L125PTR ⁴	#14-2/0	#14-2/0	Installed	14.25	362	20.00	508	4.50	115
	12	SLC12L125PTR ⁴	#14-2/0	#14-2/0	Installed	14.25	362	20.00	508	4.50	115
	20	SLC20L125PTR ⁴	#14-2/0	#14-2/0	Installed	14.25	362	25.50	648	4.50	115
200 A	24	SLC24L125PTR ⁴	#14-2/0	#14-2/0	Installed	14.25	362	25.50	648	4.50	115
	12	SLC12L200PTR ⁴	#6-300	#6-300	Installed	14.25	362	25.50	648	4.50	115
	16	SLC16L200PTR ⁴	#6-300	#6-300	Installed	14.25	362	30.50	775	4.50	115
225 A	20	SLC20L225PTR ⁴	#6-300	#6-300	Installed	14.25	362	30.50	775	3.94	101
	32	SLC32L225PTR ⁴	#6-300	#6-300	Installed	14.25	362	35.50	902	3.94	101
	40	SLC40L225PTR ⁴	#6-300	#6-300	Installed	14.25	362	39.50	1004	4.50	114
Main circuit breaker — 22/10 kAIC SCCR; 120/240 V AC—1Ø3W—UL Listed											
Factory-installed main circuit breaker											
100 A	8	SLC8M100PR ⁴	#12-1/0	#14-1/0		14.25	362	20.00	508	4.50	115
	12	SLC12M100PR ⁴	#12-1/0	#14-1/0		14.25	362	20.00	508	4.50	115
	20	SLC20M100PR ⁴	#12-1/0	#14-1/0		14.25	362	25.50	648	4.50	115
125 A	8	SLC8M125PR ⁴	#6-2/0	#6-2/0		14.25	362	20.00	508	4.50	115
	24	SLC24M125PR ⁴	#6-2/0	#6-2/0		14.25	362	30.50	775	4.50	115
	32	SLC32M125PR ⁴	#6-2/0	#6-2/0		14.25	362	35.50	902	4.50	115
150 A	32	SLC32M150PR ⁴	#6-300	#6-300		14.25	362	35.50	902	4.50	115
	40	SLC40M150PR ⁴	#6-300	#6-300		14.25	362	39.50	1004	4.50	115
200 A	12	SLC12M200PR ⁴	#6-300	#6-300		14.25	362	25.50	648	4.50	115
	20	SLC20M200PR ⁴	#6-300	#6-300		14.25	362	30.50	775	4.50	115
	32	SLC32M200PR ⁴	#6-300	#6-300		14.25	362	35.50	902	4.50	115
	40	SLC40M200PR ⁴	#6-300	#6-300		14.25	362	39.50	1004	4.50	115
Factory-installed main breaker with feed-through lugs											
150 A	8	SLC8M150PRFTL	#6-300	#6-300		14.25	362	25.50	648	4.50	115
200 A	8	SLC8M200PRFTL	#6-300	#6-300		14.25	362	30.50	775	4.50	115

Note: Footnote explanations on page 6.

Miniature circuit breakers (MCBs)

The SENTRICITY miniature circuit breakers use state-of-the-art energy-limiting technology to interrupt short circuits faster and safer. Energy-limiting technology interrupts the shorted circuit up to three times faster than conventional zero crossing circuit-breaker technology for more safety in your installation. The let-through energy is limited to less than 30% of other circuit breakers, reducing the likelihood of collateral damage. Due to the fact that the breaker trips up to three times faster, the branch MCB trips before the main breaker. This selectivity will only disconnect the affected branch circuit, not the entire installation.

Features:

- Energy-limiting technology
- Trip to mid-handle position
- Visual trip indicator window for easy tripped-state indication
- IP20 finger-safe terminal
- Fail-safe terminal
- Slot/Robertson combination terminal screws
- Backed-out captive terminal screws
- Durable laser printing for easy product identification
- One lock-out/tag-out device
- 1" format
- UL 489 and CSA C22.2 No. 5-13 Listed
- Fed Spec W-C-375E certified



SLC115



SLC250



Fail-safe terminal



Visual trip indication

Ampere rating	Rating kAIR	1P — 120/240 V AC	
		Catalog number	+2P — 120/240 V AC common trip Catalog number
10	10	SLC110 ^{2,3}	SLC210 ²
15	10	SLC115 ^{1,2,3}	SLC215 ²
20	10	SLC120 ^{1,2,3}	SLC220 ²
25	10	SLC125 ^{2,3}	SLC225 ²
30	10	SLC130 ^{2,3}	SLC230 ²
35	10	SLC135 ²	SLC235 ²
40	10	SLC140 ²	SLC240 ²
45	10	SLC145 ²	SLC245 ²
50	10	SLC150 ²	SLC250 ²
60	10	SLC160 ²	SLC260 ²
70	10	SLC170 ²	SLC270 ²
80	10	—	SLC280 ^{2,4}
90	10	—	SLC290 ^{2,4}
100	10	—	SLC2100 ^{2,4}
110	10	—	SLC2110 ^{2,4}
125	10	—	SLC2125 ^{2,4}

¹ UL Listed as SWD (switching duty) rated. Suitable for switching 120 V AC fluorescent lighting loads.

² UL Listed as HACR type for use with air conditioning, heating and refrigeration equipment having motor group combinations and marked for use with HACR type circuit breakers.

³ Rated for up to two #10 Cu wires.

⁴ Available Q1 2019.

Combination arc fault circuit interrupters (AFCIs)/ Class A ground fault circuit interrupters (GFCIs)

The SENTRICITY AFCI breakers detect series and parallel arcs as well as overvoltage conditions. The GFCI breakers detect ground fault currents and trip when a fault current to ground is 6 milliamperes or more. These AFCI and GFCI breakers use the same energy-limiting technology as the MCBs. Plug-on neutral is standard for all AFCI and GFCI breakers, which reduces the number of connections by up to 33% because there is no pigtail connection to be made to the neutral bar. The neutral connection is made by simply plugging the device on to the neutral bar. AFCI and GFCI breakers serve as overcurrent and short-circuit protective devices listed under UL 489 and CSA C22.2 No. 5-13. Other listings for the GFCI are UL 943 and CSA C22.2 No. 144.1. Other listings for the AFCI are UL 1699 and CSA C22.2 No. 270.

Features:

- Energy-limiting technology
- Trip to mid-handle position
- LED functioning indication
- IP20 finger-safe terminal
- Fail-safe terminal
- LED indicator for troubleshooting three trip types (AFCI)
 - Series arc
 - Parallel arc
 - Overvoltage
- Slot/Robertson combination terminal screws
- Backed-out captive terminal screws
- One lock-out/tag-out device
- Self-test feature
- Plug-on neutral standard
- Durable laser printing for easy product identification
- UL and CSA Listed, FCC Part 15 compliant



SLC120GFI

SLC120CAFI

Ampere rating	Rating kAIR	1P — 120 V AC
Catalog number		
15	10	SLC115GFI ^{1,2,3}
20	10	SLC120GFI ^{1,2,3}
15	10	SLC115CAFI ^{1,2,3}
20	10	SLC120CAFI ^{1,2,3}

¹ UL Listed as SWD (switching duty) rated. Suitable for switching 120 V AC fluorescent lighting loads.

² UL Listed as HACR type for use with air conditioning, heating and refrigeration equipment having motor group combinations and marked for use with HACR type circuit breakers.

³ Rated for up to two #10 Cu wires.

GE dual function circuit interrupter



GE THQL dual function circuit interrupter

New for ABB SENTRICITY, the UL 67, UL 489, UL 943 and UL 1699 Listed GE THQL dual function (both AFCI and GFCI) circuit interrupter is UL approved for use in SENTRICITY load centers. The GE dual function circuit interrupter is series rated for use with SENTRICITY main breaker load centers.

Ampere rating	Rating kAIR	1P — 120 V AC
Catalog number		
15	10	THQL1115DF ^{1,2}
20	10	THQL1120DF ^{1,2}

¹ UL Listed as SWD (switching duty) rated. Suitable for switching 120 V AC fluorescent lighting loads.

² UL Listed as HACR type for use with air conditioning, heating and refrigeration equipment having motor group combinations and marked for use with HACR type circuit breakers.

Surge protective devices (SPDs)

The SENTRICITY SLCPPOSURGE™ SPD features a plug-on neutral connection and a plug-on bus connection, eliminating any wiring. Simply plug the SPD into two spaces in the load center. The SLCEXSURGE™ can be used in any brand residential load center and requires a dedicated 2-pole 30 A circuit breaker.



SLCPOSURGE



SLCPOSURGE
plug-on SPD



SLCEXSURGE



OVR CATV/F
OVR SMATV/F

Features:

- Plug-on neutral standard (SLCPOSURGE)
- Thermally protected metal oxide varistor technology
- Up to 80 kA total surge current rating (SLCEXSURGE)
- LED functioning indication
- UL and cULus Listed to ANSI/UL 1449, 4th edition

Total surge current ratings per phase	Voltage V AC	Phases	Catalog number
50 kA	120/240	1-phase 3-wire	SLCPOSURGE ¹
80 kA	120/240	1-phase 3-wire + ground	SLCEXSURGE

¹ Can only be used in SENTRICITY brand load centers.

SPD characteristics

Nominal discharge current (I _n)	Short circuit current rating (SCCR)	Voltage protection rating (VPR)				ANSI/UL 1449 type	Catalog number
		L-N	L-L	L-G	N-G		
10 kA	100 kA	500	900	–	–	Type 1	SLCPOSURGE
20 kA	65 kA	600	100	600	900	Type 2	SLCEXSURGE

The ABB OVR TV coaxial SPDs offering outstanding protection for cable or satellite TV systems. Using industry-leading discharge tube technology, the TV coaxial products provide protection against lightning-related surges occurring on the coaxial cables.

TV coaxial SPD characteristics

Application	Operating frequency range	Connector type	Surge current (8x20 μs)	Temperature range	Insertion loss at max. frequency	Characteristic impedance	Catalog number
Cable TV	5–860 MHz	F	3 kA	–40 to 80 °C	<0.5 dB	75 Ω	OVR CATV/F
Satellite TV	860–3224 MHz	F	3 kA	–40 to 80 °C	<2.2 dB	75 Ω	OVR SMATV/F

Main breaker kits



Replacement main breaker kit

Ampere rating	Catalog number
100	SLC2100MB
125	SLC2125MB
150	SLC2150MB
200	SLC2200MB
225	SLC2225MB

Accessories



MH12



SLC12GBK



SA1



SLC8BFMRK



SLC6BFMRK



SNM12-6R
SNM34-6R

Bolt-on hubs for NEMA 3R load centers

Conduit size (in.)	Catalog number
1	MH10
1¼	MH12
1½	MH15
2	MH20
2½	MH25

Kits and miscellaneous

Description	Catalog number
Ground bar kit (12 circuit) (14–6 AWG, Cu/Al; 3 x 10–14 AWG, Cu)	SLC12GBK
Neutral lug kit (125 A) (14–2/0 AWG, Cu/Al)	SLC125NLK
Neutral lug kit (200 A) (6 AWG–300 kcmil, Cu/Al)	SLC200NLK
Filler plate, single space	SLCFP
Back-fed main retaining kit (6 circuits or less)	SLC6BFMRK
Back-fed main retaining kit (8 circuits or more)	SLC8BFMRK
MCB-handle padlock attachment	SA1
Filler plate, main breaker	SLCFPMB
Main lug conversion kit (125 A) (14–2/0 AWG, Cu/Al)	SLC125MLK
Main lug kit conversion (225 A) (6 AWG–300 kcmil, Cu/Al)	SLC225MLK

Carlton® nonmetallic snap-in fittings

Description	Trade size (in.)	Clamping range (in.)		Suggested application (nonmetallic sheathed cable)	Catalog number
		min.	max.		
Nonmetallic fitting gray	½	0.21	0.42	14/2 - 12/2 - 10/2	SNM12-6R
				14/3 - 12/3 - 10/3	
Nonmetallic fitting blue	¾	0.22	0.65	12/2 - 10/2 - 8/2	SNM34-6R
				6/2 - 14/3 - 12/3	
				10/3 - 8/3 - 6/3	
				2 cables:	
				2 x 14/2 - 2 x 12/2	
				1 x 14/2 - 1 x 12/2	
				2 x 12/2 - 2 x 10/2	
				1 x 12/2 - 1 x 10/2	

Related ABB residential solution



Welcome® door entry system

Ideal for applications ranging from new construction to building upgrades, single-family to multi-dwelling buildings. Welcome's modular design requires one pair of connecting wires, making it easy to configure, install and maintain. It can also be accessed remotely via mobile app and landline telephone. Find out more at abb.com/door-entry-system-us.



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