

Features

Spectra™ RMS Molded Case Circuit Breakers

SE150, SF250, SG600, and SK1200 circuit breaker frames have a digital, solid-state, rms sensing trip system with field installable, front-mounted rating plugs to establish or change the breaker ampere rating. Adjustable instantaneous with tracking short-time is standard on all frames including SE150. The trip system uses digital sampling to determine the rms value of sinusoidal and nonsinusoidal currents.

microEntelliGuard™ Trip Units

Spectra™ SG600 and SK1200 breakers are now available with *microEntelliGuard™* trip units - the newest and most advanced trip unit available in the Spectra™ line of molded case circuit breakers. Based on the EntelliGuard™ TU trip unit platform, the *microEntelliGuard™* trip unit has the same HMI interface and incorporates the advanced features and protective functions for improved system protection, coordination, selectivity, performance, and diagnostic capabilities. New features offered with the *microEntelliGuard™* trip unit include enhanced time-current curve shaping capability, ground fault alarm, direct Modbus communications, reduced energy let-through setting, zone selective interlock, neutral protection, waveform capture, and programmable output contacts. The *microEntelliGuard™* trip unit utilizes the same power management accessories offered for the Spectra™ MicroVersaTrip™ with the addition of a new advanced junction box and interconnect cables. The breakers have the same footprint and interrupt ratings as their SG/SK counterparts and are backwards compatible with existing equipment and installations. The *microEntelliGuard™* trip unit uses the same universal rating plugs and test kit offered for the EntelliGuard TU™ trip unit.

Spectra™ molded cases circuit breakers with *microEntelliGuard™* trip units can be part of an ArcWatch™ solution.

GE's ArcWatch™ system solution involves a combination of intelligent trip units and current limiting molded case circuit breakers to create a no compromise solution; safety and reliability together. Advances in zone selective interlocking (ZSI) and waveform recognition algorithms allow entire systems to be designed so that full selectivity and 100% instantaneous protection at calculated arcing current is possible. For most industrial systems, the GE ArcWatch™ solution will result in incident energy under 8 cal/cm² at 18".

Enabling ArcWatch™ means the proper coordination analysis techniques have been used to determine the necessary circuit breaker protection features and settings that allow full coordination in the given system. The circuit breaker must be set to match the results of the completed study.

For more information, check out www.geindustrial.com/ArcWatch (Publication DET-760) or contact your local sales representative.



**Spectra™ SG600 and SK1200 Breakers
with *microEntelliGuard™* Trip Units**

Molded Case Circuit Breakers Industrial Circuit Breakers

Section 6

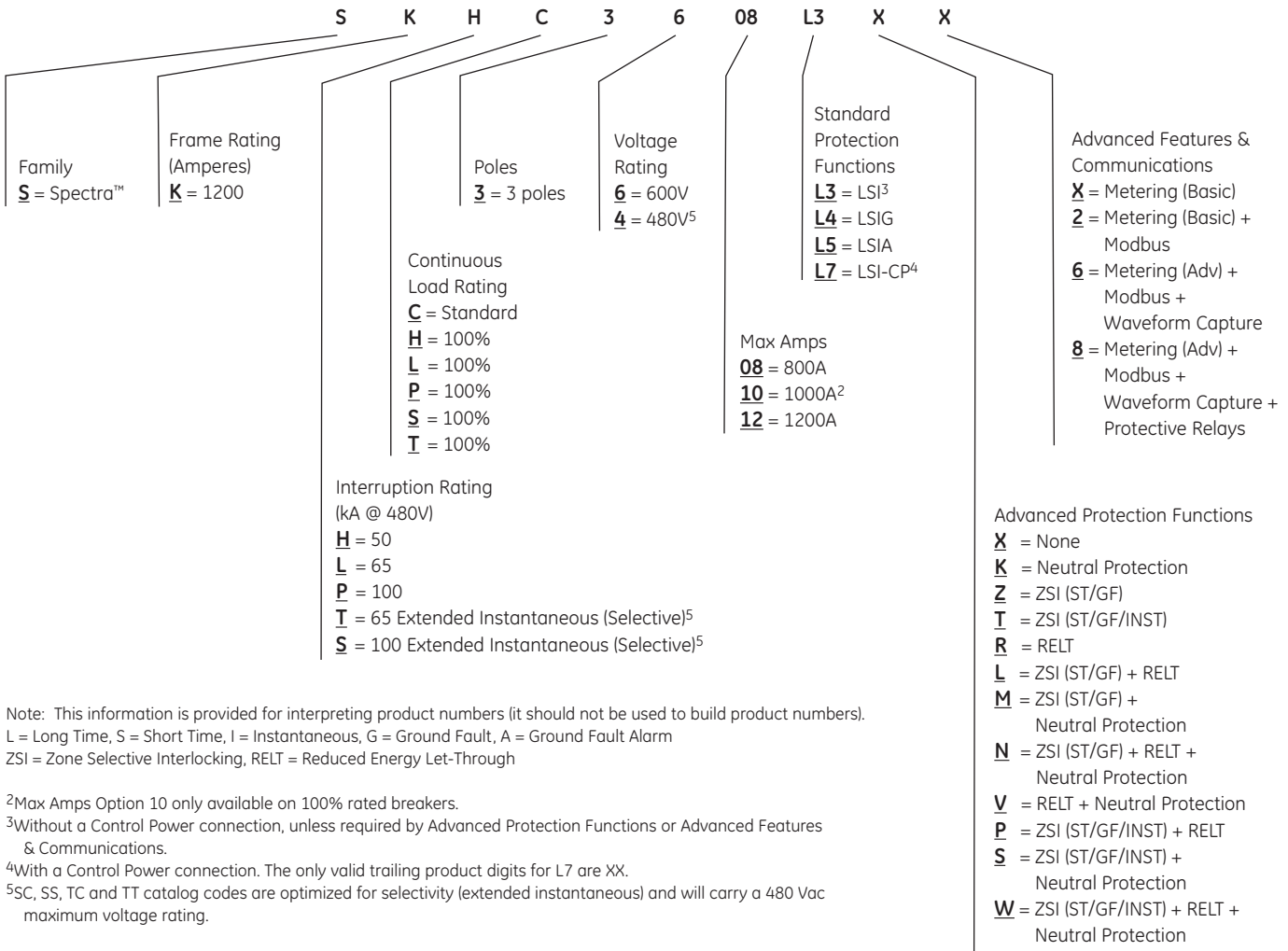
300-1200A Circuit Breakers

Electronic Trip

Spectra™ RMS

SK1200 with *microEntelliGuard™* Trip Units¹

Product Number Structure



Note: This information is provided for interpreting product numbers (it should not be used to build product numbers).

L = Long Time, S = Short Time, I = Instantaneous, G = Ground Fault, A = Ground Fault Alarm

ZSI = Zone Selective Interlocking, RELT = Reduced Energy Let-Through

²Max Amps Option 10 only available on 100% rated breakers.

³Without a Control Power connection, unless required by Advanced Protection Functions or Advanced Features & Communications.

⁴With a Control Power connection. The only valid trailing product digits for L7 are XX.

⁵SC, SS, TC and TT catalog codes are optimized for selectivity (extended instantaneous) and will carry a 480 Vac maximum voltage rating.

Note: All Spectra™ breakers are UL listed as HACR type.

microEntelliGuard™ Rating Plug Selection

Rating Plug Product Numbers	Trip Amps	SK (Max Amps)		
		800	1000	1200
GTP0300U0408	300	x		
GTP0350U0408	350	x		
GTP0400U0410	400	x		
GTP0450U0612	450	x	x	x
GTP0500U0613	500	x	x	x
GTP0600U0616	600	x	x	x
GTP0700U0816	700	x	x	x
GTP0750U0820	750	x	x	x
GTP0800U0820	800	x	x	x
GTP0900U1020	900		x	x
GTP1000U1025	1000		x	x
GTP1100U1225	1100			x
GTP1200U1232	1200			x

Range of available rating plugs for each frame indicated by x.

Terminal Lugs for Front Connection (Cu/Al)

Sensor	Product Number	Wire Range
800	TCAL81	(3) 3/0 - 500 Cu/Al
1200 ⁶	TCAL125	(4) 3/0 - 500 Cu/Al

¹May require 24 Vdc control power and voltage sensing signals. Refer to pages 6-62 to 6-68.

⁶Lugs not required on 100% rated SK1200; these breakers are supplied with a back-connected assembly which increases breaker depth. Refer to outline drawing 168D1663 Sh1 for details.

Note: Reference BuyLog page 6-104 for alternate lug options.



Molded Case Circuit Breakers Industrial Circuit Breakers

300-1200A Circuit Breakers

Electronic Trip

Spectra™ RMS

SK1200 with *microEntelliGuard™* Trip Units¹

microEntelliGuard™, Standard UL Rated

SK1200 Line, Suitable for Reverse Feed, UL File E-11592, CSA LR 40350

3-Pole, UL/CSA: 600Vac Max., IEC 947-2: 1250A, 690 Vac Max (SKL, SKP only)

Max Amps	Standard Protection Function	50kA Product Number Prefix	65kA Product Number Prefix	100kA Product Number Prefix	Product Number Suffix (two digits)
800	LSI	SKHC3608L3 __	SKLC3608L3 __	SKPC3608L3 __	Product Number is not complete.
	LSIG ²	SKHC3608L4 __	SKLC3608L4 __	SKPC3608L4 __	
	LSIA ²	SKHC3608L5 __	SKLC3608L5 __	SKPC3608L5 __	
	LSI-CP ³	SKHC3608L7XX	SKLC3608L7XX	SKPC3608L7XX	
1200	LSI	SKHC3612L3 __	SKLC3612L3 __	SKPC3612L3 __	Select one value from each suffix tables below.
	LSIG ²	SKHC3612L4 __	SKLC3612L4 __	SKPC3612L4 __	
	LSIA ²	SKHC3612L5 __	SKLC3612L5 __	SKPC3612L5 __	
	LSI-CP ³	SKHC3612L7XX	SKLC3612L7XX	SKPC3612L7XX	

microEntelliGuard™, 100% UL Rated

SK1200 Line, Suitable for Reverse Feed, UL File E-11592, CSA LR 40350

3-Pole, UL/CSA: 600Vac Max., IEC 947-2: 1250A, 690 Vac Max (SKL, SKP only)

Max Amps	Standard Protection Function	50kA Product Number Prefix	65kA Product Number Prefix	100kA Product Number Prefix	Product Number Suffix (two digits)
800	LSI	SKHH3608L3 __	SKLL3608L3 __	SKPP3608L3 __	Product Number is not complete.
	LSIG ²	SKHH3608L4 __	SKLL3608L4 __	SKPP3608L4 __	
	LSIA ²	SKHH3608L5 __	SKLL3608L5 __	SKPP3608L5 __	
	LSI-CP ³	SKHH3608L7XX	SKLL3608L7XX	SKPP3608L7XX	
1000	LSI	SKHH3610L3 __	SKLL3610L3 __	SKPP3610L3 __	Select one value from each suffix tables below.
	LSIG ²	SKHH3610L4 __	SKLL3610L4 __	SKPP3610L4 __	
	LSIA ²	SKHH3610L5 __	SKLL3610L5 __	SKPP3610L5 __	
	LSI-CP ³	SKHH3610L7XX	SKLL3610L7XX	SKPP3610L7XX	
1200	LSI	SKHH3612L3 __	SKLL3612L3 __	SKPP3612L3 __	
	LSIG ²	SKHH3612L4 __	SKLL3612L4 __	SKPP3612L4 __	
	LSIA ²	SKHH3612L5 __	SKLL3612L5 __	SKPP3612L5 __	
	LSI-CP ³	SKHH3612L7XX	SKLL3612L7XX	SKPP3612L7XX	

microEntelliGuard™ Extended Instantaneous (Selective) Spectra K

SK1200 Line, Suitable for Reverse Feed, UL File E-11592, CSA LR 40350, 3-Pole, UL/CSA: 480 Vac Max., IEC 947-2: 1250A

Max Amps	Standard Protection Function	Standard UL Rated	100% UL Rated	Standard UL Rated	100% UL Rated	Product Number Suffix (two digits)
		65kA Product Number Prefix	65kA Product Number Prefix	100kA Product Number Prefix	100kA Product Number Prefix	
800	LSI	SKTC3408L3 __	SKTT3408L3 __	SKSC3408L3 __	SKSS3408L3 __	Product Number is not complete.
	LSIG ²	SKTC3408L4 __	SKTT3408L4 __	SKSC3408L4 __	SKSS3408L4 __	
	LSIA ²	SKTC3408L5 __	SKTT3408L5 __	SKSC3408L5 __	SKSS3408L5 __	
	LSI-CP ³	SKTC3408L7XX	SKTT3408L7XX	SKSC3408L7XX	SKSS3408L7XX	
1000	LSI	SKTT3410L3 __	SKTT3410L3 __	SKSS3410L3 __	SKSS3410L3 __	Select one value from each suffix tables below.
	LSIG ²	SKTT3410L4 __	SKTT3410L4 __	SKSS3410L4 __	SKSS3410L4 __	
	LSIA ²	SKTT3410L5 __	SKTT3410L5 __	SKSS3410L5 __	SKSS3410L5 __	
	LSI-CP ³	SKTT3410L7XX	SKTT3410L7XX	SKSS3410L7XX	SKSS3410L7XX	
1200	LSI	SKTC3412L3 __	SKTT3412L3 __	SKSC3412L3 __	SKSS3412L3 __	
	LSIG ²	SKTC3412L4 __	SKTT3412L4 __	SKSC3412L4 __	SKSS3412L4 __	
	LSIA ²	SKTC3412L5 __	SKTT3412L5 __	SKSC3412L5 __	SKSS3412L5 __	
	LSI-CP ³	SKTC3412L7XX	SKTT3412L7XX	SKSC3412L7XX	SKSS3412L7XX	

Product Suffix 1

Advanced Protection Functions

X = None

K = Neutral Protection

Z = ZSI (ST/GF)

T = ZSI (ST/GF/INST)

R = RELT

L = ZSI (ST/GF) + RELT

¹May require 24 Vdc control power and voltage sensing signals.

Refer to pages 6-62 to 6-68.

²For grounded neutral systems (1 phase/3-wire or 3 phase/4-wire) a neutral current sensor is required. Refer to page 6-66.

³For +24 Vdc Control Power Accessories refer to pages 6-62 to 6-66.

Advanced Protection Functions

M = ZSI (ST/GF) + Neutral Protection

N = ZSI (ST/GF) + RELT + Neutral Protection

V = RELT + Neutral Protection

P = ZSI (ST/GF/INST) + RELT

S = ZSI (ST/GF/INST) + Neutral Protection

W = ZSI (ST/GF/INST) + RELT + Neutral Protection

Notes: All Spectra™ breakers are UL listed as HACR type.

Neutral Protection requires a neutral current sensor. Refer to page 6-66.

ZSI (Zone Selective Interlock) requires TIM1 ZSI module and 24 Vdc control power (refer to pages 6-62 to 6-66 for accessories).

RELT (Reduced Energy Let-Through), Modbus, Ground Fault Alarm and Waveform Capture options require 24 Vdc control power (refer to pages 6-62 to 6-66 for accessories).

Product Suffix 2

Advanced Features and Communications

X = Metering (Basic)

2 = Metering (Basic) + Modbus

6 = Metering (Adv) + Modbus +

Waveform Capture

8 = Metering (Adv) + Modbus +

Waveform Capture + Relays

