GROUND-FAULT GROUND-CHECK MONITOR COMPARISON

GENERAL			
	SE-105/SE-107	SE-134C	SE-135
Recommended Application	<5 kV and <1,500 m	ALL[1]	ALL, SE-125 replacement
CAN/CSA-M421-00 Compliant	Yes	Yes	Yes
NEC 250.188 (D) Compliant	Yes	Yes	Yes
Dual-Purpose Ground-Fault & Ground-Check Protection	Yes	Yes	Yes
Can Be Used For Ground-Check Only	Yes	Yes	Yes
Can Be Used For Ground-Fault Only	Yes	Yes	Yes
Ground-Check Fail-Safe Design	Yes	Yes	Yes
Microprocessor Based	No	Yes	Yes
Supply Voltage	120 Vac, 240 Vac, or 120 Vac/Vdc	120 - 240 Vac & 110 to 250 Vdc or 24-48 Vac/Vdc	120 - 240 Vac & 110 to 250 Vdc or 24-48 Vac/Vdc
Suitable For Commutated/Slip Ring Loads	No	Yes	Yes
Plug-In Terminal Blocks	No	Yes	Yes
Reset Switch: Local/Remote	Yes/Yes	Yes/Yes	Yes/Yes
Reset Switch: Single Shot	Yes	Yes	Yes
Ethernet Communications Option	No	No	Yes
Mounting	Surface	Surface/Panel	Surface/Panel
Dimensions: H x W x D (mm)	150 x 109 x 100	213 x 99 x 161	213 x 99 x 161
Operating Temperature (°C)	-40 to 60	-40 to 60	-40 to 60
Conformal Circuit Coating	Yes	Yes	Yes
Five-Year Warranty	Yes	Yes	Yes

ANNUNCIATION					
	SE-105/ SE-107	SE-125[1]	SE-134[1]/ SE-134C	SE-135	SE-145
Power-On LED	Yes[7]	No	Yes	Yes	Yes
Current-Sensor-Valid LED	No	No	Yes	Yes	Yes
Ground-Check-Valid LED: Local/Remote	Yes Yes	Yes Yes	Yes Yes	Yes Yes	Yes Yes
Ground-Fault-Trip LED: Local/Remote	Yes Yes	Yes Yes	Yes Yes	Yes Yes	Yes Yes
Diagnostic LED	No	No	Yes	Yes	Yes
Ground-Check-Trip LED	No	No	Yes	Yes	Yes
Ground-Check-Open LED	No	No	Yes	Yes	Yes
Ground-Check-Short LED	No	No	Yes	Yes	Yes

GROUND-FAULT GROUND-CHECK MONITOR COMPARISON

GROUND FAULT					
	SE-105	SE-125[1]	SE-134C	SE-135	SE-145
Harmonic Filter	Analog	No	Digital	Digital	Digital
Ground-Fault Fail-Safe Design	No	No	Yes	Yes	Yes
Current Sensor	CT200 or CT200L	CT200 or CT200L	SE-CS10 Series	SE-CS10 Series or SE-CS40	SE-CS10 Series or SE-CS40
Current Sensor Verification	No	No	Yes	Yes	Yes
Trip-Level Settings (A)	0.5, 2.0, 4.0	0.5, 2.0, 4.0	0.5, 0.75, 1.0, 1.5, 2.0...12.5	0.5, 0.75, 1.0, 1.5, 2.0, 3.0, 4.0, 6.0, 8.0...50.0	0.5, 0.75, 1.0, 1.5, 2.0, 3.0, 4.0, 6.0, 8.0...50.0
Trip-Time Range (s)	0.1 to 2.0	0.1 to 2.0	0.1 to 2.5	0.1 to 2.5	0.1 to 2.5

GROUND CHECK					
	SE-105/ SE-107	SE-125*	SE-134*/SE-134C	SE-135	SE-145
Monitor Type	dc	dc	dc	dc	dc
Two-Level Termination Test	Yes	Yes	Yes	Yes	Yes
End-of-Line Termination	SE-TA6[4] 5.6 V Termination Assembly or Zener Diode	SE-TA12A series[3] 12 V Termination Assembly	SE-TA6A series[3] 5.6 V Termination Assembly or combination of SE-TA12A and SE-TA12B	SE-TA12A series[3] 12 V Termination Assembly	SE-TA12A series[3] 12 V Termination Assembly
Termination Assembly Dimensions: HxWxD (mm)	67 x 40 x 22 (SE-TA6A)	140 x 40 x 22	140 x 40 x 22 or 59 x 19 x 13	140 x 40 x 22 or 59 x 19 x 13	140 x 40 x 22 or 59 x 19 x 13
Open-Circuit Voltage	12 Vdc	24 Vdc	24 Vdc	30 Vdc	30 Vdc
Maximum Loop Resistance	50 Ω	28 Ω	31 Ω	33 Ω	33 Ω
Induced-ac Withstand: - continuous - supplemental	25 Vac 120 Vac-3 s	25 Vac 120 Vac-3 s	60 Vac 120 Vac-10 s 250 Vac-0.25 s	60 Vac 120 Vac-10 s 250 Vac-0.25 s	TBA
Chopper Filter[2]	Yes	No	No	No	No
Self-Test Switch: Local/Remote	No/No	No/No	Yes/Yes	Yes/Yes	No/Yes
Trip Time: open/short (ms)	200/500	200/500	220 /220 (open = 50 Ω)	220/220	220/220
Latching/Non-Latching Operation	Optional/Yes	Optional/Yes	Yes/Yes	Yes/Yes	Yes/Yes
Fuse	0.5 A, 250 Vac, Time Delay	0.5 A, 500 Vac, Time Delay	1.5 A, 500 Vac, Time Delay	1.5 A, 500 Vac, Time Delay	1.5 A, 500 Vac, Time Delay
SE-MUX Compatible	No	Yes	No	Yes[5]	N/A
SE-TA12A and SE-TA12B Dual-Termination Compatible. See GC-11	No	No	Yes Rev 4B or Newer	No	No

** No longer available; replaced with SE-134C and SE-135*

GROUND-FAULT GROUND-CHECK MONITOR COMPARISON

TRIP RELAY					
	SE-105/SE-107	SE-125*	SE-134*/ SE-134CC	SE-135	SE-145
Configuration	Form A	Two Form C	Isolated N.O. & N.C.	Isolated N.O. & N.C.	Form A[3] Form B[3]
Contact Ratings: CSA/UL	1 mA to 4 A Resistive, 240 Vac or 28 Vdc	1 mA to 4 A Resistive, 240 Vac or 28 Vdc	8 A Resistive 250 Vac	8 A Resistive 250 Vac	8 A Resistive 250 Vac
Make/Carry (0.2 s)	10 A	10 A	30 A	30 A	30 A
Break dc	20 W Resistive, 10 W Inductive	20 W Resistive, 10 W Inductive	75 W Resistive, 35 W Inductive	75 W Resistive, 35 W Inductive	75 W Resistive, 35 W Inductive
Break ac	960 VA Resistive, 700 VA Inductive	960 VA Resistive, 700 VA Inductive	2000 VA Resistive, 1500 VA Inductive	2000 VA Resistive, 1500 VA Inductive	2000 VA Resistive, 1500 VA Inductive
Internal Fuse	Yes				
Selectable Fail-Safe/Non-Fail-Safe Operation	Yes for SE-105 No for SE-107	Yes	Yes	Yes	Yes

REMOTE INDICATION RELAYS					
	SE-105/SE-107	SE-125*	SE-134*/ SE-134C	SE-135	SE-145
Ground-Check Valid Ground-Fault Trip	No No	Form C Form C	Form C Form C	Form C Form C	Form C Form C

TESTS AND CERTIFICATION					
	SE-105/ SE-107	SE-125*	SE-134*/ SE-134C	SE-135	SE-145
Canadian Certification	$_{C}CSA_{US}$	CSA Special Inspection	$_{C}CSA_{US}$	$_{C}CSA_{US}$	CSA Special Inspection
US Certification		No			No
ANSI/IEEE 37.90.1-1989	No	No	Yes	Yes	Yes

[1] SE-TA6-series includes SE-TA6 and SE-TA6-SM.

[2] Eliminates false circuit validation due to chopper action, such as from a hacksaw. SE-105 revision 10, SE-107 revision 02, or newer.

[3] SE-TA6A series includes the SE-TA6A, SE-TA6A-WL, SE-TA6ASF, and SE-TA6ASF-WL. SE-TA12A series includes the SE-TA12A, SE-TA12A-WL, SE-TA12ASF, and SE-TA12ASF-WL.

[4] 1N5339B included with SE-105 and SE-107. Compatible with SE-TA6A series termination assemblies.

[5] Must be SE-135 revision 4 or newer. The recommended solution for splitter applications is to use an SE-134C with SE-TA12A and SE-TA12B terminations (see Technical Note GC-11), or use an SE-145.