

# TRANSMISSION AND SUBTRANSMISSION PROTECTION FEATURES

TRANSMISSION LINE PROTECTION	SEL-411L	SEL-421	SEL-311C	SEL-311L	SEL-387L	SEL-321
<b>APPLICATIONS</b>						
Distance Protection	•	•	•	•		•
Line Current Differential	•			•	•	
Breaker Failure Protection	•	•	•	f		f
Undervoltage Load Shedding	f	f	f	f		f
Series-Compensated Lines	+	+				
<b>PROTECTION</b>						
21G Mho Ground Distance, 21P Mho Phase Distance	•	•	•	•		•
21XG Quad Ground Distance	•	•	•	•		•
25 Synchronism Check	•	•	•	•		
27/59 Under-/Overvoltage	•	•	•	•		•
49 Thermal	f	f				
50 (N,G) Overcurrent (Neutral, Ground)	•	•	•	•		•
50P Phase Overcurrent, 50Q Negative-Sequence Overcurrent	•	•	•	•		•
51 (N,G) Time-Overcurrent (Neutral, Ground)	•	•	•	•		•
51P Phase Time-Overcurrent, 51Q Negative-Sequence Time-Overcurrent	•	•	•	•		•
67 (N,G) Directional Overcurrent (Neutral, Ground)	•	•	•	•		•
67P Phase Directional Overcurrent	•	•	•	•		•
67Q Negative-Sequence Directional Overcurrent	•	•	•	•		•
81 Under-/Overfrequency	•	•	•	•		
87L Line Current Differential	•			•	•	
Programmable Analog Math	•	•				
Out-of-Step Block and Trip	•	•	•	•		•
Load-Encroachment Supervision	•	•	•	•		•
Switch-Onto-Fault	•	•	•	•		•
Single-Pole Trip	•	•	+	+		•
Zone/Level Timers	•	•	•	•		•
Pilot Protection Logic	•	•	•	•		•
<b>INSTRUMENTATION AND CONTROL</b>						
79 Automatic Reclosing	•	•	•	•		f
Number of Controlled Breakers	2	2	1	1	1	1
Fault Locating	•	•	•	•		•
Traveling Wave Fault Location	+					
Subcycle Distance Elements	+	+	+			•
SELogic® Control Equations	•	•	•	•		•
Nonvolatile Latch Control Switches	•	•	•	•		•
SELogic Remote Control Switches	•	•	•	•		•
SELogic Local Control Switches	•	•	•	•		•
Display Points	•	•	+	•		•
MIRRORED BITS® Communications	•	•	•	•		•
Substation Battery Monitor	•	•	•	•		•
Breaker Wear Monitor	•	•	•	•		•
Trip Coil Monitor	f	f	f	f		•
Event Report (Multicycle Data)	•	•	•	•		•
Sequential Events Recorder	•	•	•	•		•
Instantaneous Meter	•	•	•	•		•
DNP3 Level 2 Outstation	•	•	•	+	+	+
Parallel Redundancy Protocol (PRP)	•	•	+			
IEC 61850 Communications	+	+	+			
Synchrophasors	•	•	•	•		•
<b>MISCELLANEOUS FEATURES</b>						
Accepts Delta Voltage Transformers			+			
Configurable Labels	•	•	+			



• Standard Feature    + Model Option    f This function may be created using settings