



Main

Relay application	Substation
Range of product	Sepam series 60
Device short name	S60
Control and monitoring type	Circuit breaker/contactors control ANSI code: 94/69 (option) Latching/Acknowledgement ANSI code: 86 Logic discrimination ANSI code: 68 (option) Switching of groups of settings Annunciation ANSI code: 30 Automatic transfer (AT) (option) Logic equation editor 200 operators
Metering type	Measured residual current I ₀ , calculated I' _{0Σ} Positive sequence voltage V _d /rotation direction Frequency Calculated active and reactive energy (+/- W.h, +/- VAR.h) Active and reactive energy by pulse counting (+/- W.h, +/- VAR.h) (option) Phase current I ₁ , I ₂ , I ₃ RMS Demand current I ₁ , I ₂ , I ₃ Peak demand current IM ₁ , IM ₂ , IM ₃ Measured residual current I' ₀ Voltage U ₂₁ , U ₃₂ , U ₁₃ , V ₁ , V ₂ , V ₃ Residual voltage V ₀ Negative sequence voltage V _i Active power P, P ₁ , P ₂ , P ₃ Reactive power Q, Q ₁ , Q ₂ , Q ₃ Apparent power S, S ₁ , S ₂ , S ₃ Peak demand power PM, QM Power factor
Network and machine diagnosis type	Datalog (DLG) Unbalance ratio/negative sequence current I _i Disturbance recording Tripping context Phase fault and earth fault trip counters Harmonic distortion (THD), current and voltage I _{thd} , U _{thd} Difference in amplitude, frequency and phase of voltages with synchro-check (option) Cable arcing fault detection Phase displacement
Switchgear diagnosis type	CT/VT supervision ANSI code: 60FL Trip circuit supervision ANSI code: 74 (option) Nb of operations, operating time, charging time, nb of racking out operations (option) Cumulative breaking current

Disclaimer: This documentation is not intended as a substitute for and is not to be used for determining suitability or reliability of these products for specific user applications

Complementary

Type of measurement	Voltage Frequency Harmonic distortion (I THD & U THD) Power factor Energy Current Power (P,Q) Peak demand power
Protection type	Synchro-check (option) ANSI code: 25 Overvoltage (L-L or L-N) ANSI code: 59 Earth fault/sensitive earth fault ANSI code: 50N/51N Earth fault/sensitive earth fault ANSI code: 50G/51G Negative sequence/unbalance ANSI code: 46 Remanent undervoltage ANSI code: 27R Overfrequency ANSI code: 81H Underfrequency ANSI code: 81L Rate of change of frequency ANSI code: 81R Negative sequence overvoltage ANSI code: 47 Positive sequence undercurrent ANSI code: 27D Undervoltage (L-L or L-N) ANSI code: 27 Breaker failure ANSI code: 50BF Neutral voltage displacement ANSI code: 59N Phase overcurrent ANSI code: 50/51 Recloser (4 cycles) (option) ANSI code: 79
Communication port protocol	Measurement readout (option) : Modbus Remote control orders (option) : Modbus Remote indication and time tagging of events (option) : Modbus Remote protection setting (option) : Modbus Transfer of disturbance recording data (option) : Modbus
Input output max capacity	28 inputs + 16 outputs
Communication compatibility	Modbus RTU IEC 61850 DNP3 IEC 60870-5-103 IEC 61850 goose message Modbus TCP/IP
User machine interface type	Remote Advanced Mimic-based Without