



### Main

Relay application	Substation
Range of product	Sepam series 60
Device short name	S60
Control and monitoring type	Circuit breaker/contactor 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	Positive sequence voltage Vd/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 I1, I2, I3 RMS Demand current I1, I2, I3 Peak demand current IM1, IM2, IM3 Measured residual current I'0 Voltage U21, U32, U13, V1, V2, V3 Residual voltage V0 Negative sequence voltage Vi Active power P, P1, P2, P3 Reactive power Q, Q1, Q2, Q3 Apparent power S, S1, S2, S3 Peak demand power PM, QM Power factor Measured residual current I0, calculated I'0Σ
Network and machine diagnosis type	Unbalance ratio/negative sequence current li Disturbance recording Tripping context Phase fault and earth fault trip counters Harmonic distortion (THD), current and voltage lthd, Uthd Difference in amplitude, frequency and phase of voltages with synchro-check option Cable arcing fault detection Phase displacement Datalog (DLG)
Switchgear diagnosis type	Cumulative breaking current 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)

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

## Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Weight	100 g
Package 1 Height	1 cm
Package 1 width	1 cm
Package 1 Length	1.01 cm