



### Main

Relay application	Generator
Range of product	Sepam series 80 Sepam series 80 NPP
Device short name	G82
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) Logipam programming (ladder language) (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 Temperature (16 RTDs) (option) Rotation speed (option) Neutral point voltage Vnt Measured residual current I0, calculated I'0Σ
Network and machine diagnosis type	Unbalance ratio/negative sequence current Ii Disturbance recording Thermal capacity used Remaining operating time before overload tripping Waiting time after overload tripping Running hours counter/operating time Tripping context Phase fault and earth fault trip counters Harmonic distortion (THD), current and voltage Ithd, Uthd Difference in amplitude, frequency and phase of voltages with synchro-check option Apparent positive sequence impedance Zd

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

Apparent phase-to-phase impedances Z21, Z32, Z13  
 Third harmonic voltage, neutral point residual  
 Phase displacement  
 Datalog (DLG)

Switchgear diagnosis type	Cumulative breaking current CT/VT supervision ANSI code: 60FL Trip circuit supervision ANSI code: 74 (option) Auxiliary power supply monitoring Nb of operations, operating time, charging time, nb of racking out operations (option)
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## Complementary

Type of measurement	Harmonic distortion (I THD & U THD) Voltage Current Power factor Peak demand power Power (P,Q) Energy Temperature Frequency Rotation speed
Protection type	Thermostat / buchholz ANSI code: 26/63 (option) Neutral voltage displacement ANSI code: 59N Breaker failure ANSI code: 50BF Directional earth fault ANSI code: 67N/67NC Directional phase overcurrent ANSI code: 67 Synchro-check ANSI code: 25 (option) Overvoltage (L-L or L-N) ANSI code: 59 Temperature monitoring (16 RTDs) ANSI code: 38/49T (option) Thermal overload for machines ANSI code: 49RMS Restricted earth fault ANSI code: 64REF Overfluxing (V/Hz) ANSI code: 24 Field loss (underimpedance) ANSI code: 40 Pole slip ANSI code: 78PS Overspeed (2 set points) ANSI code: 12 (option) Underspeed (2 set points) ANSI code: 14 (option) Directional reactive overpower ANSI code: 32Q Directional active underpower ANSI code: 32P Underimpedance ANSI code: 21B Inadvertent energisation ANSI code: 50/27 Third harmonic undervoltage/100 % stator earth fault ANSI code: 27TN/64G2 Third harmonic undervoltage/100 % stator earth fault ANSI code: 64G 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 Undervoltage (L-L or L-N) ANSI code: 27 Negative sequence overvoltage ANSI code: 47 Phase overcurrent ANSI code: 50/51 Earth fault/sensitive earth fault ANSI code: 50N/51N Earth fault/sensitive earth fault ANSI code: 50G/51G Directional active overpower ANSI code: 32P Voltage-restrained overcurrent ANSI code: 50V/51V
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	42 inputs + 23 outputs
Communication compatibility	DNP3 IEC 61850 Modbus TCP/IP IEC 60870-5-103 Modbus RTU IEC 61850 goose message
User machine interface type	Without Remote Mimic-based Advanced

## Packing Units

Package 1 Weight	0.001 kg
Package 1 Height	0.010 dm
Package 1 width	0.010 dm
Package 1 Length	0.020 dm