



### Main

Relay application	Transformer
Range of product	Sepam series 80 Sepam series 80 NPP
Device short name	T87
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 ) Logipam programming (ladder language) ( option ) Logic equation editor 200 operators
Metering type	Phase current I'1, I'2, I'3 RMS Measured residual current I0, calculated I'0Σ Calculated residual current I'0Σ 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 )
Network and machine diagnosis type	Datalog (DLG) Current phase displacement θ 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

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

	Difference in amplitude, frequency and phase of voltages with synchro-check ( option ) Apparent positive sequence impedance Zd Apparent phase-to-phase impedances Z21, Z32, Z13 Differential current Idiff1, Idiff2, Idiff3 Through current It1, It2, It3 Phase displacement
Switchgear diagnosis type	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 ) Cumulative breaking current

## Complementary

Type of measurement	Current Energy Frequency Harmonic distortion (I THD & U THD) Peak demand power Power (P,Q) Power factor Temperature Voltage
Protection type	Directional earth fault ANSI code: 67N/67NC Directional phase overcurrent ANSI code: 67 Synchro-check ( option ) ANSI code: 25 Overvoltage (L-L or L-N) ANSI code: 59 Temperature monitoring (16 RTDs) ( option ) ANSI code: 38/49T Thermal overload for machines ANSI code: 49RMS Restricted earth fault ANSI code: 64REF Overfluxing (V/Hz) ANSI code: 24 Two-winding transformer differential ANSI code: 87T 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 Negative sequence overvoltage ANSI code: 47 Directional active overpower ANSI code: 32P 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 Thermostat / buchholz ( option ) ANSI code: 26/63
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	42 inputs + 23 outputs
Communication compatibility	Modbus RTU IEC 60870-5-103 DNP3 IEC 61850 Modbus TCP/IP IEC 61850 goose message
User machine interface type	Advanced Mimic-based Without Remote

## Offer Sustainability

Product environmental profile	Available  Product environmental
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