## 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





59737

## Main

Walli		
Relay Application	Motor	
Range Of Product	Sepam series 80	
	Sepam series 80 NPP	
Device Short Name	M87	
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	
	Logipam programming (ladder language) (option)	
	Logic equation editor 200 operators	
	Load shedding/automatic restart	
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)	
	Phase current I'1, I'2, I'3 RMS	
	Rotation speed (option)	
	Neutral point voltage Vnt	
	Measured residual current I0, calculated I'0 $\Sigma$	
	Calculated residual current l'0 $\Sigma$	
Network And Machine Diagnosis	Unbalance ratio/negative sequence current li	
Туре	Disturbance recording	
	Thermal capacity used	
	Remaining operating time before overload tripping	
	Waiting time after overload tripping	
	Running hours counter/operating time	
	Starting current and time	

Start inhibit time, number of starts before inhibition

Tripping context

Phase fault and earth fault trip counters

Harmonic distortion (THD), current and voltage Ithd, Uthd

Apparent positive sequence impedance Zd

Apparent phase-to-phase impedances Z21, Z32, Z13

Differential current Idiff1, idiff2, Idiff3 Through current It1, It2, It3

Current phase displacement  $\boldsymbol{\theta}$ 

Phase displacement

Datalog (DLG)

Motor start report (MSR) Motor start trend (MST)

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)

Auxiliary power supply monitoring

## Complementary

Complementary		
Type Of Measurement	Temperature Power (P,Q) Peak demand power Power factor Voltage Energy Frequency Current Harmonic distorsion (I THD & U THD) Rotation speed	
Protection Type	Phase undercurrent ANSI code: 37 (1) Starts per hour ANSI code: 66 (1) Neutral voltage displacement ANSI code: 59N (2) Breaker failure ANSI code: 50BF (1) Directional earth fault ANSI code: 67N/67NC (2) Overvoltage (L-L or L-N) ANSI code: 59 (4) Temperature monitoring (16 RTDs) ANSI code: 38/49T (option) Thermal overload for machines ANSI code: 49RMS (2) Excessive starting time, locked rotor ANSI code: 48/51LR (1) Field loss (underimpedance) ANSI code: 40 (1) Pole slip ANSI code: 78PS (1) Overspeed (2 set points) ANSI code: 12 (option) Underspeed (2 set points) ANSI code: 14 (option) Directional reactive overpower ANSI code: 32Q (1) Machine differential ANSI code: 87M (1) Negative sequence/unbalance ANSI code: 46 (2) Overfrequency ANSI code: 81H (2) Underfrequency ANSI code: 81L (4) Positive sequence undercurrent ANSI code: 27 (2) Remanent undervoltage ANSI code: 27 (4) Negative sequence overvoltage ANSI code: 47 (2) Phase overcurrent ANSI code: 50/51 (8) Earth fault/sensitive earth fault ANSI code: 30 (2) Directional active overpower ANSI code: 50G/51G (8) Directional active overpower ANSI code: 32P (2)	
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	IEC 61850 Modbus RTU Modbus TCPIP DNP3 IEC 61850 goose message IEC 60870-5-103	
User Machine Interface Type	Remote Without Mimic-based Advanced	

## **Packing Units**

Unit Type Of Package 1	PCE
Number Of Units In Package 1	1
Package 1 Height	0.1 cm
Package 1 Width	0.1 cm
Package 1 Length	0.2 cm

Advanced

Package 1 Weight

1.0 g