59737

motor - M87 - Sepam series 80

Main

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'0Σ Calculated residual current 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 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 θ
	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)
	Auxiliary power supply monitoring
	Nb of operations, operating time, charging time, nb of racking out operations (option)

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
	Starts per hour ANSI code: 66
	Neutral voltage displacement ANSI code: 59N
	Breaker failure ANSI code: 50BF
	Directional earth fault ANSI code: 67N/67NC
	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
	Excessive starting time, locked rotor ANSI code: 48/51LR
	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
	Machine differential ANSI code: 87M
	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
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

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