

# Product datasheet

Specifications



## motor - M87 - Sepam series 80

59737

### Main

<b>Relay application</b>	Motor
<b>Range of product</b>	Sepam series 80 Sepam series 80 NPP
<b>Device short name</b>	M87
<b>Control and monitoring type</b>	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
<b>Metering type</b>	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
<b>Network and machine diagnosis type</b>	Unbalance ratio/negative sequence current li 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)

<b>Switchgear diagnosis type</b>	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

<b>Type of measurement</b>	Temperature Power (P,Q) Peak demand power Power factor Voltage Energy Frequency Current Harmonic distortion (I THD & U THD) Rotation speed
<b>Protection type</b>	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: 27D (2) Remanent undervoltage ANSI code: 27R (2) Undervoltage (L-L or L-N) 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: 50N/51N (8) Earth fault/sensitive earth fault ANSI code: 50G/51G (8) Directional active overpower ANSI code: 32P (2)
<b>Communication port protocol</b>	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
<b>Input output max capacity</b>	42 inputs + 23 outputs
<b>Communication compatibility</b>	IEC 61850 Modbus RTU Modbus TCP/IP DNP3 IEC 61850 goose message IEC 60870-5-103
<b>User machine interface type</b>	Remote Without Mimic-based Advanced

## Packing Units

<b>Unit Type of Package 1</b>	PCE
<b>Number of Units in Package 1</b>	1
<b>Package 1 Height</b>	0.1 cm
<b>Package 1 Width</b>	0.1 cm
<b>Package 1 Length</b>	0.2 cm

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Package 1 Weight

1.0 g