Motor Self-Balancing Differential Protection Relay

POWER SYSTEM PROTECTION EQUIPMENT



For motors adopting self-balancing differential protection schemes, medium-voltage motor differential protection and the self-balancing differential protection function of the Motor Self-Balancing Differential Protection Relay must be properly configured; this device is applicable to the protection and monitoring of both high-voltage and low-voltage asynchronous motors.
Protection Configuration（ANSI）
27/46/48/49/50/51/50N/51N/51LR/59/59N/60/63/81O/81U/87M
Communication Mode Optional: RS-485, CAN bus, Ethernet, IEC 60870-5-103 (IEC-103), IEC 61850

KEY FEATURES

- ANSI 87M self-balancing differential protection
- Magnetic balance differential protection
- Reduced CT wiring requirements
- High sensitivity to internal motor faults
- Overcurrent and overload protection
- Negative-sequence protection
- Earth fault protection
- Stall and long-start protection

TECHNICAL DATA

Item	Self-Balancing Differential	Conventional Longitudinal Differential
Protection Principle	Magnetic balance	Current comparison
CT Arrangement	Special balanced CT arrangement	CTs on both sides
Secondary Wiring	Reduced in suitable schemes	More extensive
CT Quantity	Can be reduced	Usually more CTs required
Installation	Simpler for compatible motors	More complex
Internal Fault Sensitivity	High when correctly configured	High
Application	Motors designed for self-balancing scheme	Motors with conventional differential scheme

MOTOR SELF-BALANCING DIFFERENTIAL PROTECTION RELAY SETTINGS

Setting	Range
Motor Rated Current	0.1–100 A
87M Magnetic Balance Differential	0.1–100 A
Motor Start-Up Time	0–600 s
Overcurrent	0.1–100 A
Negative-Sequence Current	0.1–100 A
Zero-Sequence Current	0.1–100 A
Overvoltage	1–600 V
Undervoltage	1–400 V

ORDERING INFORMATION

MOQ	LEAD TIME	TRADE TERMS	PAYMENT	WARRANTY
1 unit	7-15 working days	EXW / FOB / CIF / DDU	T/T, L/C, WU, PayPal	12 months