



Protection Features:

- ✓ Thermal Overload Protection.
- ✓ Start-up Time Supervision.
- ✓ Stall Detection Element.
- ✓ Start Number Protection.
- ✓ Over-Current Protection including Doubling feature
- ✓ Selection of Curve: Five selectable IEC curve (Normal Inverse1 (C1), Normal Inverse2, (C2) Very inverse (C3), Extremely inverse (C4), Long time inverse (C5)) and Define Time (C6)
Five selectable IEEE / ANSI Curve C7 to C11 and C12 RI curve & C13 RXIDG curve with Drop-off time delay.
- ✓ Earth Fault Protection (Internally derived 3I_o & Externally EF or REF).
- ✓ Unbalance Protection.
- ✓ Negative Phase Sequence element including Phase reversal.
- ✓ Under Voltage Protection.
- ✓ Over Voltage Protection.
- ✓ Residual O/V (NDV) Protection.
- ✓ Under Current Protection.
- ✓ Active Under Power Protection.
- ✓ Active Over Power Protection.
- ✓ Power Factor Protection.
- ✓ Reverse Power Protection.

Note: Due to our policy to upgrade our products constantly, we reserve the right to supply products which may vary slightly from that indicated above.

- ✓ Under/Over Frequency Protection.
- ✓ 3 Phase Voltage Check.
- ✓ Breaker Failure Detection.
- ✓ I/O and AND Eq. Configuration
- ✓ In-built CB Trip Circuit Supervision function during pre closing and post closing of CB.
- ✓ On site CT Secondary selection 1A or 5A.
- ✓ Internal reconstruction phase-phase voltage and open delta voltage required for direction detection
- ✓ Internal calculation of zero seq. EF current (3I₀) and Zero sequence voltage (3V₀) for directional detection for Earth fault

Relay Design Features:

- ✓ Large 20x4 LCD display for Parameter and setting display
- ✓ Online display of CB status and other digital and logical status.
- ✓ Continuous monitoring of module's internal hardware and alarm generation in case of failure of any critical components.
- ✓ 10 Programmable Digital Output contacts.
- ✓ 8 Optically isolated digital status input for monitoring of status and avoid used of external relay logic
- ✓ 2 dedicated status input for Trip Circuit Monitoring
- ✓ 10 nos. of Fault data stored with keypad interface and time stamping.
- ✓ Display of Voltage, current, PF, Active, and Reactive Power in terms of primary and secondary value.

Main Functions

The ADR144A Relay is having following protection functions.

1. Thermal Overload Protection.
2. Start up Time Supervision.
3. Stall Detection element.
4. Start Number Element.
5. 3 stage of Over current element. (IP>, IP>> and IP>>>) with doubling features.
6. 3 stages of Earth Fault element (Internally derived 3I₀ & Externally EF or REF)
7. Unbalance Protection
8. 2 stage of Negative Phase sequence over current with phase reversal.
9. 2 stage of Under voltage element.
10. 2 stage of Over voltage element.
11. 2 stage Residual O/V Protection
12. 2 stage of Under Current
13. 2 stage of Active Under power element.
14. 2 stage of Active Over power element

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