



ENERGY AUTOMATION PRODUCTS

Line differential protection Reyrolle 7SR18 Solkor

[siemens.com/reyrolle](https://www.siemens.com/reyrolle)

The 7SR18 Solkor is a two ended line differential protection relay for overhead line and underground cable circuit applications as well as shorter circuits such as interconnectors. The relays primary differential protection function is supported by a comprehensive range of features to ensure a high level of stability with fast clearance of in zone faults.



Highlights



Signalling channel supervision



Optional Ethernet Optical or Electrical interface for IEC 61850 compatible with IEC 61850 Editions 1 & 2, Redundancy protocols PRP and HSR supported



Multiple user selectable communication protocols



Optional 6 user configurable function keys with additional indication LEDs

Your benefits

- Compact Cost Efficiency – Offers an affordable solution that saves space while delivering essential functionality
- Local Interface – Ensures consistency across products and provides a user friendly access to the menu structure
- Enhanced Convenience – Protection settings can be viewed and edited from the fascia
- Flexible Alert Customization – Allows for the personalization of alarms and indications, with visualization on LCD and 9 colored LEDs

Main Function	Line differential protection for distribution and industrial feeders up to 40 km
Inputs and Outputs	4 Current Transformers with 1A and 5A Inputs, 3 Voltage Transformers, 3 or 6 Binary Inputs and 5 or 8 Binary Outputs
Communication	Signalling channel – Fibre Optic 2 km or 40 km
Data comms	Front USB, Rear RS485, Rear option for two Electrical or two Optical Ethernet
Housing	Size E6, 4U high - withdrawable design

Applications

- Line protection with phase segregated protection and indication
- Two ended differential with 30ms operation for distribution networks
- Integrated back up overcurrent
- Integrated overcurrent guard function
- Intertripping for both internal and external initiations

Protection functions

- 87L 3-phase, phase segregated current differential protection
- 50 Instantaneous Phase Overcurrent
- 50G/N Instantaneous Earth fault
- 51 Time Delayed Phase Overcurrent
- 51G/N Time Delayed Earth fault
- 37 Undercurrent
- 46NPS Negative Phase Overcurrent
- 49 Thermal Overload
- 50 LC/540G LC Line Check (SOTF)
- 67/50 Directional Instantaneous Overcurrent
- 67/50G/N Directional Instantaneous Earth Fault
- 67/51 Directional Time Delayed Overcurrent
- 67/51G/N Directional Time Delayed Earth Fault

Supervision Functions

- Protection signalling communication supervision
- 50BF Circuit breaker fail
- 60 CTS CT Supervision
- 60VTS VT Supervision
- 81HBL2 Second Harmonic Block
- TCS/CCS Trip and Close circuit supervision

Control Functions


- 85 Intertripping
- 79 Autoreclose
- Plant control


Monitoring functions


- Local and Remote end current meters
- Primary/secondary analogue values
- Protection signalling status
- Historical demand record
- Data logging


Communication


- Fascia USB Interface for Reydisp Evolution and Reydisp Manager connection
- System/service RS485 Interface on rear
- IEC 60870-5-103
- DNP3.0
- MODBUS RTU
- IEC 61850 (Optional)

 [Configuration software - Reydisp Evolution](#)

 [Virtual Relay Tool](#)

 [Webinar series - Reyrolle essentials](#)

 [Catalog Reyrolle 7SR18 Solkor](#)

 [Online shop - Industry Mall](#)

Siemens AG
Smart Infrastructure
Electrification & Automation
Mozartstrasse 31c,
91052 Erlangen, Germany

Siemens Industry Inc.
3617 Parkway Lane
Peachtree Corners, GA 30092
United States

© Siemens 2024

Subject to changes and errors. The information given in this document only contains general descriptions and/or performance features which may not always specifically reflect those described, or which may undergo modification in the course of further development of the products. The requested performance features are binding only when they are expressly agreed upon in the concluded contract.