

# SIEMENS

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## SIPROTEC 7SJ66

Overcurrent Protection

[www.siemens.com/siprotec](http://www.siemens.com/siprotec)

### Description

The SIPROTEC 7SJ66 unit is a numerical protection, control and monitoring device, designed to use in Medium Voltage and Industry applications.

SIPROTEC 7SJ66 is featuring the "flexible protection functions". Up to 20 protection functions can be added according to individual requirements. Thus, for example, a rate-of-frequency-change protection or reverse power protection can be implemented.

The relay provides control of the circuit-breaker, further switching devices and automation functions. The integrated graphical logic editor (CFC) allows the user to implement its own functions, e. g. for the automation of switchgear (interlocking).

The communication interfaces support the easy integration into modern communication networks.

### Application Areas

#### Line and feeder protection:

Protection of high and medium voltage networks with earthed (grounded), low-resistance grounded, isolated or compensated neutral point.

#### Motor Protection:

Suitable for asynchronous machines of all sizes.

#### Backup Protection:

The relay performs all functions of backup protection supplementary to transformer differential protection.

### Functionality

#### Protection functions

- Overcurrent protection
- Directional overcurrent protection
- Sensitive directional ground-fault detection
- Displacement voltage
- Intermittent ground-fault protection
- Directional intermittent ground fault protection
- High-impedance restricted ground fault
- Inrush restraint
- Motor protection
- Overload protection
- Temperature monitoring
- Under-/overvoltage protection
- Under-/overfrequency protection
- Rate-of-frequency-change protection
- Power protection (e.g. reverse, factor)
- Undervoltage controlled reactive power protection



SIPROTEC 7SJ66

# Compact and Reliable

- Breaker failure protection
- Negative-sequence protection
- Phase-sequence monitoring
- Synchro-check
- Fault locator
- Lockout
- Auto-reclosure
- Admittance ground-fault protection

## Control functions and graphical logic editor

- Commands for control of CB and of isolators
- Graphical visualization of switch positions
- Control via keyboard, binary inputs, DIGSI 4 or SCADA system
- User-defined logic with CFC (e.g. interlocking)

## Monitoring functions

- Operational measured values V, I, f
- Energy metering values Wp, Wq
- Circuit-breaker wear monitoring
- Slave pointer
- Trip circuit supervision
- Fuse failure monitor
- 8 fault records with a sampling rate of 1.6 kHz
- Motor statistics
- Security log

## Languages

- English, Spanish, Russian, Polish and Turkish

## Communication interfaces

- System interface protocols: IEC 60870-5-103, IEC 61850, Modbus RTU, DNP3
- Electrical and optical interface
- RSTP, PRP (Redundancy Protocol for Ethernet)
- Service interface for DIGSI 4 or RTD-Box
- Front USB interface for DIGSI 4
- Time synchronization via IRIG B, DCF77

## Hardware

- Screw-type current terminals
- Spring or Screw-type Voltage and Binary I/O terminals
- 4 current and 4 voltage transformers
- 16/22/36 binary inputs
- 7/10/23 output relays
- Graphic or 8 line text display

## Benefits

- Space saving through high density of IOs
- Fast installation through spring-type terminals
- Easy operation via graphical display and keyboard



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For all products using security features of OpenSSL, the following shall apply:

This product includes software developed by the OpenSSL Project for use in the OpenSSL Toolkit ([www.openssl.org](http://www.openssl.org)), cryptographic software written by Eric Young ([eay@cryptsoft.com](mailto:eay@cryptsoft.com)) and software developed by Bodo Moeller.