

SIPROTEC 7UM515 Generator Protection Relay



Fig. 11/72 SIPROTEC 7UM515 generator protection relay

Description

The SIPROTEC 7UM515 is a numerical protection relay which is mainly used for larger generators in block connection. In the majority of cases it is used in combination with other relays from the 7UM51 and 7UT51 series. In such combinations, some functions can be used to provide redundant generator protection systems.

Function overview

Protection functions

- 100 % stator earth-fault protection (64G 100 %)
- Sensitive rotor earth-fault protection (64R)
- Stator earth-fault protection (displacement voltage) (64G)
- Overexcitation protection (24)
- Overvoltage protection (59)
- Undervoltage protection (27)
- Overfrequency protection (81)
- Underfrequency protection (81)
- Interturn short-circuit protection (64 W)

Features

- Direct trip coupling (for separate protection equipment)
- Assignable output relays, LEDs and binary inputs
- Trip matrix for trip relays

Monitoring functions

- Trip circuit supervision
- Operational measured values
- Self-supervision of relay
- 50 event logs
- 3 fault logs (with 80 events)
- 8 oscillographic fault records

Communication interfaces

- System interface
– IEC 60870-5-103 protocol

Hardware

- 8 binary inputs
- Binary outputs: 5 trip relays; 12 alarm relays

Front design

- PC front port for convenient relay setting
- 16 LEDs for local indication

Selection and ordering data

Description	Order No.
7UM515 generator protection relay	7UM5150-□□B01-0□A0
<i>Rated auxiliary voltage</i>	
24 V, 48 V DC	2
60 V, 110 V, 125 V DC	4
220 V, 250 V DC	5
<i>Unit design</i>	
For panel surface mounting, with screw-type terminals	B
For panel flush mounting or cubicle mounting	C
For panel flush mounting or cubicle mounting, without glass cover	E
<i>Rear-side serial interface (suitable for substation control and protection and DIGSI operating program)</i>	
Electrical	B
Optical	C

Accessories

DIGSI 4

Software for configuration and operation of Siemens protection units running under MS Windows (version Windows 95 and higher) device templates, Comtrade Viewer, electronic manual included as well as "Getting started" manual on paper, connecting cables (copper)

Basis

Full version with license for 10 computers, on CD-ROM (authorization by serial number)

7XS5400-0AA00

Demo

Demo version on CD-ROM

7XS5401-0AA00

Professional

Complete version:

DIGSI 4 Basis and additionally SIGRA (fault record analysis), CFC Editor (logic editor), Display Editor (editor for default and control displays) and DIGSI 4 Remote (remote operation)

7XS5402-0AA00

SIGRA

(generally contained in DIGSI Professional, but can be ordered additionally)

Software for graphic visualization, analysis and evaluation of fault records.

Can also be used for fault records of devices of other manufacturers

(Comtrade format). Running under MS Windows 95/98/ME/NT/2000/XP Professional.

Incl. templates, electronic manual with license for 10 PCs.

Authorization by serial number. On CD-ROM.

7XS5410-0AA00

Rotor earth-fault protection

Controlling unit

7XT7100-0EA00

Resistor for 1 to 3 Hz rotor earth-fault protection for panel surface mounting

7XR6004-0BA00

Resistor for 1 to 3 Hz rotor earth-fault protection for panel flush mounting

7XR6004-0CA00

Stator earth-fault protection

20 Hz generator

7XT3300-0CA00

Band-pass filter

7XT3400-0CA00

Miniature C.T. (400 A/5 A, 5 VA)

4NC5225-2CE20

Voltage divider (500/100 V)

3PP1336-1CZ-013001

Connecting cable

Cable between PC/notebook (9-pin connector) and protection unit (25-pin connector)

7XV5100-2

or

Cable between PC/notebook (9-pin connector) and protection unit (9-pin connector)

7XV5100-4

Adaptor 9-/25-pin for 7XV5100-4 cable for protec. unit w. 25-pin connector (cable 7XV5100-4 and adaptor contained in DIGSI 4)

7XV5100-8H

Manual for 7UM515

English

CS3000-G1176-C111-3