SIPROTEC 4 6MD665
Bay Processing Unit

Fig. 13/38 SIPROTEC 4 6MD665 bay processing unit

Description

The 6MD665 bay processing unit stands for an innovative type of process connection via Ethernet. The connection with the intelligent SICAM HV control modules is established via the process bus connection, which is mounted directly on the switchgear.

The 6MD665 bay processing unit has the same design (look and feel) as the other protection and combined units of the SIPROTEC 4 relay series. Configuration is also performed in a standardized way with the easy-to-use DIGSI 4 configuration tool.

For operation, a large graphic display with a keyboard is available. The important operating actions are performed in a simple and intuitive way, e.g. alarm list display or switchgear control. The operator panel can be mounted separately from the unit, if required. Thus, flexibility with regard to the mounting position of the unit is ensured. Integrated key-operated switches control the switching authority and authorization for switching without interlocking.

Function overview

Application

- Process bus connection via Ethernet, optically and electrically, for control, indication, measured values, for connection to the SICAM HV modules
- Automation can be configured easily by graphic means with CFC
- Additional 8 indication inputs, 7 command relays
- Switchgear interlocking
- Inter-relay communication with other units of the 6MD66 series, even without a master station
- Interface with high-level control and protection
- Display of operational measured values *I*, *V*, *P*, *Q*, *f*, cos φ (power factor)
- Limit values for measured values
- Feeder diagram can have several pages
- Can be supplied in a standard housing for cubicle mounting or with a separate display for free location of the operator elements
- 4 freely assignable function keys to speed up frequently recurring operator actions
- Suitable for redundant master station
- Also available with measuring inputs and synchronization function

Communication interfaces

- System interface

– PROFIBUS - FMS

– IEC 60870-5-103 protocol

- Process bus

– 10 MBd Ethernet

Selection and ordering data

Description	Order No.
6MD665 bay processing unit	**6MD665☐ – ☐☐☐☐☐ – ☐AA0**
Number of inputs and outputs / measuring inputs	
8 indication inputs (5 ungrouped, 3 grouped), 7 1-pole single commands (3 grouped, 4 ungrouped), no measuring inputs	0
8 indication inputs (5 ungrouped, 3 grouped), 12 1-pole single commands (6 grouped, 6 ungrouped), 4 x voltage, 3 x current (1 A[1] rated current) via direct CT inputs, 2 x 20 mA measuring transducer inputs with synchronization function	1
8 indication inputs (5 ungrouped, 3 grouped), 12 1-pole single commands (6 grouped, 6 ungrouped), 4 x voltage, 3 x current (5 A[1] rated current) via direct CT inputs, 2 x 20 mA measuring transducer inputs with synchronization function	5
Rated auxiliary voltage (power supply, indication voltage)	
24 to 48 V DC, threshold binary input 19 V[2]	2
60 V DC, threshold binary input 19 V[2]	3
110 V DC, threshold binary input 88 V[2]	4
220 V to 250 V DC, threshold binary input 176 V[2]	5
Unit design	
For panel surface mounting, remote operator control unit, in low-voltage case, plug-in terminals (2/3-pin AMP connector)	A
For panel surface mounting, remote operator control unit, in low-voltage case, screw terminals (direct connection/ring- and fork-type cable lugs)	C
For panel flush mounting, with integrated local control unit (graphic display, keyboard) screw terminals (2/3-pin AMP connector)	D
For panel flush mounting, with integrated local control unit (graphic display, keyboard) screw terminals (direct connection/ring- and fork-type cable lugs)	E
For panel surface mounting, without operator control unit, in low-voltage case, screw terminals (direct connection/ring- and fork-type cable lugs)	F
Region-specific default settings/function and language presettings	
Region DE, 50 Hz, IEC, language: German, changeable	A
Region World, 50/60 Hz, language: English (GB), changeable	B
Region US (ANSI) language: English (US), changeable	C
System interface (on rear of unit, port E)	
IEC 60870-5-103 protocol, electrical RS485	2
IEC 60870-5-103 protocol, optical 820 nm, ST connector	3
PROFIBUS-FMS Slave, electrical RS485	4
PROFIBUS-FMS Slave, optical, single ring, ST connector	5
PROFIBUS-FMS Slave, optical, double ring, ST connector	6
Function interface (on rear of unit, port C and D)	
No function interface	0
DIGSI 4, electrical RS232, port C	1
DIGSI 4, electrical RS485, port C	2
DIGSI 4, optical 820 nm, ST connector, port C	3
Inter-relay communication, electrical RS485, port C	4
Inter-relay communication, electrical RS485, port C and DIGSI 4, optical 820 nm, ST connector, port D	5
Process bus interface (on rear of unit, port B)	
One process bus interface	0

1) Rated current can be selected by means of jumpers.

2) The binary input thresholds can be selected in two stages by means of jumpers.