

SIEMENS

SIPROTEC 5

Configuration

Jun 19, 2017 11:24 AM

DIGSI 5: DIGSI 5 Premium

Product code

Short: P1V185

Long: DIGSID1000000B02

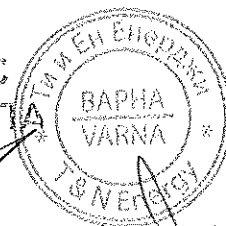
Number of licenses:

Option package SIGRA:

Can be installed on 5 PCs

with SIGRA for fault analysis

**ВЯРНО С
ОРИГИНАЛА**



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SIPROTEC 5
Configuration

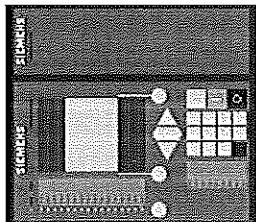
Jun 19, 2017 9:36 AM

Device: 7UT86 Transf. Prot (3 Wnd.)

Product code

Short: P1F232548

Long: 7UT86-DAAA-AA0-0AAAA0-AB0111-12111A-BAA000-000AC0-CC1BA1-CB1



Housing width: 1/2 x 19"

Housing type: Flush mounting

Binary inputs: 15

Binary outputs: 13 Relays (3 Standard, 10 Fast, 0 High-Speed, 0 Power)

Current transformers: 12 for protection, 0 for measurement and sensitive ground-current detection

Voltage transformers: 4

Measuring-transducer inputs: 0 (20 mA or 10 V, fast)

CPU: 0 (20 mA, standard)

CP300

IO203 , PS201 , IO202

16 LEDs

Integrated

Without

Small display

Standard

Power Supply: DC 60 V-250 V, AC 100 V-230 V

Communication/Plug-in modules:

Normal

for DIGSI 5

Integrated Ethernet port J:

Plug-in module position E:

USART-AB-1EL: 1 x electric serial RS485, RJ45, applicable for serial protocols, e.g. IEC60870-5-103, DNP3.0 etc.

Port is available but not assembled

Plug-in module position F:

Base + 10 function points

Functions:

Function points class:

Note on function-points class



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Configuration

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The function-points class results from the sum of the function points of the selected functions. You can apply these functions as selected. The device allows also each other selection of functions as long as the sum of the required function points is within the selected function-points class. With the maximum function-points class of 1400 it is possible to activate all the functions in the device. The function-points exceeding 1400 are free of charge. In the engineering phase DIGSI 5 checks that the selected configuration is suitable (capable of running in the device) before loading it to the device.

Miscellaneous:

Warranty:

Firmware:

5 years

Current version

ВЯРНО С
ОРИГИНАЛА



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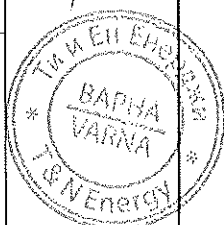
SIPROTEC 5

Configuration

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Functional scope_ZUT86_Transf_Prot (3 Wind.):

ANSI	Function	Abbr.	Always included	Add selected Qty.	Value	Points	Result Qty.
	Hardware quantity structure expandable	I/O	✓				✓
21/21N	Distance protection	Z<, V< / I>/(V,I)		X	100	=	
21T	Impedance protection for transformers	Z<		X	25	=	
87L	Line differential protection for 2 line ends	I		X	170	=	
24	Overexcitation protection	V/I		X	25	=	
25	Synchrocheck, synchronizing function	Sync		X	50	=	
27	Undervoltage protection: "3-phase" or "pos.seq. V1" or "universal Vx"	V<		X	5	=	
32, 37	Power protection active/reactive power	P<,> Q<,>		X	10	=	
32R	Reverse power protection	- P<		X	5	=	
37	Undercurrent	I<	✓				✓
38	Temperature Supervision	>	✓				✓
46	Negative sequence overcurrent protection	I2>		X	5	=	
46	Unbalanced-load protection (thermal)	I2' I>		X	5	=	
47	Overvoltage protection, negative-sequence system	V2>		X	5	=	
47	Overvoltage protection, negative-sequence- / positive-sequence system	V2V1>		X	5	=	
49	Thermal overload protection	I, I'	✓				✓
49	Thermal overload protection, user-defined characteristic	I, I'	✓				✓
49H	Hot spot calculation	h, I'		X	20	=	
50/51 TD	Overcurrent protection, phases	I>	2x	X	30	=	2x
50N/ 51N TD	Overcurrent protection, ground	IN>	✓				✓
50HS	High speed instantaneous overcurrent protection	I>>>	✓				✓
	Instantaneous tripping at switch onto fault	SOTF	✓				✓



ВЯРНО С
СЕРТИФИКАЦИЯ

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SIPROTEC 5

Configuration

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Functional scope_ZUT86_Transf_Prot (3 Wind.):

ANSI	Function	Abbr.	Always included	Add selected Qty.	Value	Points	Result Qty.
50N/ 51N TD	Overcurrent protection, 1-phase	IN>	✓				✓
50Ns/ 51Ns	Sensitive ground-current protection for systems with resonant or isolated neutral	INS>		X	5	=	
	Intermittent ground fault protection	Ile>		X	20	=	
50BF	Circuit-breaker failure protection, 3-pole	CBFP		1 X	5	=	1 X
50RS	Circuit-breaker restrike protection	CBRS		X	20	=	
51V	Voltage dependent overcurrent protection	I=(I,V)		X	10	=	
59, 59N	Overvoltage protection: "3-phase" or "zero seq. V0" or "pos.seq. V1" or "universal Vx"	V>		X	5	=	
59	Overvoltage protection: "3-phase" or "pos.seq. V1" or "universal Vx"	V>		X	5	=	
67	Directional overcurrent protection, phases	I>, (V,I)		X	5	=	
67N	Directional overcurrent protection for ground faults in grounded systems	IN>, (V,I)		X	30	=	
67N	Directional overcurrent protection, ground	IN>, (V,I)		X	15	=	
67Ns	Dir. sensitive ground-fault detection for systems with resonant or isolated neutral incl. a) 3I0>, b) V0>, c) Cos-/ SinPhi, d) Transient tcl., e) Phi(V,I), f) admittance	Ile dir>		X	30	=	
	Directional intermittent ground fault protection	Ile dir>		X	20	=	
68	Power-swing blocking	Z/I		X	25	=	
74TC	Trip circuit supervision	TCS	✓				✓
79	Automatic reclosing, 3-pole	AR		X	45	=	
81	Frequency protection: "fs" or "fc" or "diff" or "df/dt"	f><, df/dt><		X	5	=	
85/21	Teleprotection for distance protection	WI	✓				✓
85/27	Weak or no infeed: Echo and Tripping	WI	✓				✓

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Configuration

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Functional scope_ZUT86_Transf_Prot_(3_Wind.):

ANSI	Function	Abbr.	Always included	Add selected Qty. x Value =	Points	Result Qty.
85/67N	Teleprotection for directional ground fault protection		✓			✓
86	Lockout		✓			✓
87T	Transformer differential protection	I	✓			✓
87T	Transformer differential protection for phase angle regulating transformer (single core)	I		x 200 =		
87T	Transformer differential protection for special transformers	I		x 150 =		
87T	Differential protection (Node protection for Autotransformer)	I Node	✓			✓
87N T	Restricted ground-fault protection	IN		x 15 =		
87M	Motor differential protection	I	✓			✓
87G	Generator differential protection	I		x 50 =		
	Option for line differential protection: charging-current compensation	I		x 40 =		
87	STUB Differential protection (for one- and-half circuit-breaker applications)			x 35 =		
90V	Automatic voltage control for 2 winding transformer			x 150 =		
90V	Automatic voltage control for 3 winding transformer			x 200 =		
90V	Automatic voltage control for grid coupling transformer			x 175 =		
FL	Fault locator, single-ended measurement	FL-one		x 25 =		
PMU	Synchrophasor measurement (1 PMU can be used for max. 8 voltages and 8 currents)	PMU		x 40 =		
AFD	Arc-protection (only with plug-in module ARC-CD-3FO)		✓			✓
	Measured values, standard		✓			✓
	Measured values, extended: Min, Max, Avg			x 12 =		

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Configuration

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Functional scope_ZUT86_Transf_Prot_(3_Wind.):

ANSI	Function	Abbr.	Always included	Add selected Qty. x Value =	Points	Result Qty.
	Switching statistic counters		✓			✓
	Circuit breaker wear monitoring	lx, lP, 2P		x 10 =		
	CFC (Standard, Control)		✓			✓
	CFC arithmetic			x 40 =		
	Switching sequences function			x 5 =		
	Inrush current detection		✓			✓
	External trip initiation		✓			✓
	Control		✓			✓
	Fault recording of analog and binary signals		✓			✓
	Monitoring and supervision		✓			✓
	Protection interface, serial		✓			✓
	Circuit Breaker		4x	x 3 =		4x
	Disconnecter		4x	x 3 =		4x
	Transformer Side ZUT86		3x	x 120 =		3x
Sum:						5

ВЯРНО С
ОРИГИНАЛА



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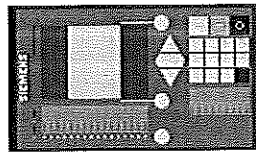
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Configuration
Jun 19, 2017 10:57 AM

Device: 7SJ82 Overcurrent protection

Product code

Short: P1193417

Long: 7SJ82-DAAA-AA0-0AAA-A0-AB0411-12111A-BA000-000A-B0-HA1BD4-IJ0



Housing width:

1/3 x 19"

Housing type:

Flush mounting

Binary inputs:

11

Binary outputs:

9 Standard relays

Current transformers:

4 for protection, 0 for measurement and sensitive ground-current detection

Voltage transformers:

0

Measuring-transducer inputs:

0 (20 mA or 10 V, fast)

0 (20 mA, standard)

CP100

IO101 . PS101

16 LEDs

Integrated

Without

Small display

Standard

DC 110 V-250 V, AC 100 V-230 V

Power Supply:

Communication/Plug-in modules:

Normal

Communications encryption:

for DIGSI 5

Integrated Ethernet port J:

USART-AB-1EL; 1 x electric serial RS485, RJ45, applicable for serial protocols,

Plug-in module position E:

e.g. IEC60870-5-103, DNP3.0 etc.

Port is available but not assembled

Plug-in module position F:

Base + 10 function points

Functions:

Function points class:

Note on function-points class

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SIPROTEC 5
Configuration
Jun 19, 2017 10:57 AM

The function-points class results from the sum of the function points of the selected functions. You can apply these functions as selected. The device allows also each other selection of functions as long as the sum of the required function points is within the selected function-points class. With the maximum function-points class of 1400 it is possible to activate all the functions in the device. The function-points exceeding 1400 are free of charge. In the engineering phase DIGSI 5 checks that the selected configuration is suitable (capable of running in the device) before loading it to the device.

Miscellaneous:

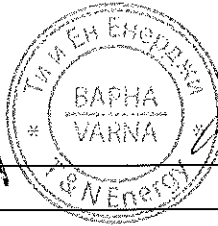
Warranty:

Firmware:

5 years

Current version

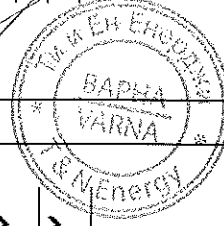
ВЯРНО С
ОРИГИНАЛА



Functional_scope_7SJB2_Overcurrent protection:

ANSI	Function	Abbr.	Always included	Add selected Qty.	Value	Points	Result Qty.
24	Protection functions for 3-pole tripping	3-pole	✓				✓
24	Overexcitation protection	V/f		x	25 =		
25	Synchrocheck, synchronizing function	Sync		x	50 =		
27	Undervoltage protection: "3-phase" or "pos.seq. V1" or "universal Vx"	V<		x	5 =		
32, 37	Undervoltage-controlled reactive power protection	Q>/V<		x	15 =		
32, 37	Power protection active/reactive power	P<,>, Q<,>		x	10 =		
32R	Reverse power protection	- P<		x	5 =		
37	Undercurrent	I<	✓				✓
38	Temperature Supervision	>	✓				✓
46	Negative sequence overcurrent protection	I2>	✓				✓
46	Unbalanced-load protection (thermal)	I2' I2	✓				✓
46	Negative sequence overcurrent protection with direction	I2>, (V2,I2)		x	10 =		
47	Overvoltage protection, negative-sequence system	V2>		x	5 =		
49	Thermal overload protection	, I't	✓				✓
49	Thermal overload protection, user-defined characteristic	, I't	✓				✓
49	Thermal overload protection for RLC filter elements of a capacitor bank	, I't		x	10 =		
50/51 TD	Overcurrent protection, phases	I>	2x	x	30 =		2x
50N/ 51N TD	Overcurrent protection, ground	IN>	✓				✓
50HS	High speed instantaneous overcurrent protection	I>>>	✓				✓
	Instantaneous tripping at switch onto fault	SOTF	✓				✓
50N/ 51N TD	Overcurrent protection, 1-phase	IN>	✓				✓

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Functional_scope_7SJB2_Overcurrent protection:

ANSI	Function	Abbr.	Always included	Add selected Qty.	Value	Points	Result Qty.
50Ns/ 51Ns	Sensitive ground-current protection for systems with resonant or isolated neutral	INs>	✓				✓
50/51 TD	Intermittent ground fault protection	Ile>		x	20 =		
50/51 TD	Overcurrent protection for RLC filter elements of a capacitor bank	I>		x	10 =		
50BF	Circuit-breaker failure protection, 3-pole	CBFP		x	5 =		
50RS	Circuit-breaker restrike protection	CBRS		x	20 =		
51V	Voltage dependent overcurrent protection	I=(I,V)		x	10 =		
	Peak overvoltage protection, 3-phase, for capacitors	V> cap.		x	30 =		
59, 59N	Overvoltage protection: "3-phase" or "zero seq. V0" or "pos.seq. V1" or "universal Vx"	V>		x	5 =		
80C	Current-unbalance protection for capacitor banks	Iunbal>		x	50 =		
67	Directional overcurrent protection, phases	I>, (V,I)		x	15 =		
67N	Directional overcurrent protection, ground	IN>, (V,I)		x	15 =		
67Ns	Dir. sensitive ground-fault detection for systems with resonant or isolated neutral incl. a) 3I0> b) V0> c) Cos-/ SinPhi, d) Transient fct., e) Pth(V,I), f) admittance			x	30 =		
	Directional intermittent ground fault protection	Ile dir>		x	20 =		
74TC	Trip circuit supervision	TCS	✓				✓
79	Automatic reclosing, 3-pole	AR		x	35 =		
81	Frequency protection: "f>" or "f<" or "df/ dt">,<	f>,< df/ dt>,<		x	5 =		
86	Lockout		✓				✓
87N T	Restricted ground-fault protection	IN		x	15 =		
87C	Differential protection, capacitor bank	I		x	95 =		

ВАРНО С
ОПРАТНИЦА

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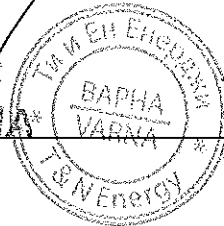
Configuration

Jun 19, 2017 10:57 AM

Functional scope_ZS_02_Overcurrent protection:

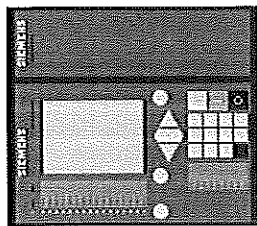
ANSI	Function	Abbr.	Always included	Add selected Qty.	Value	Points	Result Qty.
90V	Automatic voltage control transformer			x	150 =		
FL	Fault locator, single-ended measurement	FL-one		x	25 =		
PMU	Synchrophasor measurement (1 PMU can be used for max. 8 voltages and 8 currents)	PMU		x	40 =		
AFD	Arc-protection (only with plug-in module ARC-CD-3FO)		✓				✓
	Measured values, standard		✓				✓
	Measured values, extended: Min, Max, Avg			x	12 =		
	Switching statistic counters		✓				✓
	Circuit breaker wear monitoring	ix, IR, 2P		x	10 =		
	CFC (Standard, Control)		✓				✓
	CFC arithmetic			x	40 =		
	Switching sequences function		✓				✓
	Inrush current detection		✓				✓
	External trip initiation		✓				✓
	Control		✓				✓
	Fault recording of analog and binary signals		✓				✓
	Monitoring and supervision		✓				✓
	Protection interface, serial		✓				✓
	Circuit Breaker		4x	x	3 =		4x
	Disconnecter		4x	x	3 =		4x
					Sum:		0

ВРАНО
ОРИГИНАЛ



SIEMENS
SIPROTEC 5
Configuration
Jun 19, 2017 11:20 AM

Device: 6MD85 Bay Controller
Product code
Short: P1G189352
Long: 6MD85-DAAA-AA0-0AAAA0-AG0111-13111A-BAAA000-000AC0-CB3BA1-CE0



Housing width: 1/2 x 19"
Housing type: Flush mounting
Binary inputs: 23
Binary outputs: 25 Relays (19 Standard, 6 Fast, 0 High-Speed, 0 Power)
Current transformers: 0 for protection, 4 for measurement and sensitive ground-current detection
Voltage transformers: 4
Measuring-transducer inputs: 0 (20 mA or 10 V, fast)
0 (20 mA, standard)
CPU: CP300
IO202 , PS201 , IO205
LEDs: 16 LEDs
Operation Panel: Integrated
Key switch: Without
Display type: Large display
Standard
Power Supply: DC 60 V-250 V, AC 100 V-250 V

Communication/Plug-in modules:
Communications encryption: Normal
Integrated Ethernet port J: for DIGSI 5
Plug-in module position E: USART-AB-1EL: 1 x electric serial RS485, RJ45, applicable for serial protocols, e.g. IEC60870-5-103, DNP3.0 etc.
Port is available but not assembled

Plug-in module position F: Base + 75 function points
Functions:
Function points class:

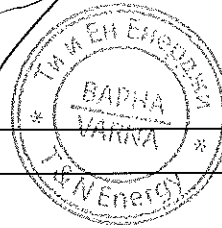
Note on function-points class

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SIPROTEC 5
Configuration
Jun 19, 2017 11:20 AM

The function-points class results from the sum of the function points of the selected functions. You can apply these functions as selected. The device allows also each other selection of functions as long as the sum of the required function points is within the selected function-points class. With the maximum function-points class of 1400 it is possible to activate all the functions in the device. The function-points exceeding 1400 are free of charge. In the engineering phase DIGSI 5 checks that the selected configuration is suitable (capable of running in the device) before loading it to the device.

Miscellaneous:
Warranty: 5 years
Firmware: Current version

ВЯРНО С
ОРИГИНАЛА



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Configuration
Jun 19, 2017 11:20 AM

Functional_scope_6MD85 Bay Controller:

ANSI	Function	Abbr.	Always included	Add selected Qty.	x	Value =	Points	Result Qty.
	Protection functions for 3-pole tripping	3-pole	✓					✓
	Hardware quantity structure expandable	I/O	✓					✓
25	Synchrocheck, synchronizing function	Sync		x	50 =			
27	Undervoltage protection: "3-phase" or "universal Vx"	V<		x	5 =			
32, 37	Power protection active/reactive power	P<>, Q<>		x	10 =			
38	Temperature Supervision	>	✓					✓
46	Negative sequence overcurrent protection	I2>		x	10 =			
49	Thermal overload protection	, Pt	✓					✓
50/51 TD	Overcurrent protection, phases	I>		x	20 =			
50N/ 51N TD	Overcurrent protection, ground	IN>		x	20 =			
50HS	High speed instantaneous overcurrent protection	I>>>	✓					✓
	Instantaneous tripping at switch onto fault	SOTF	✓					✓
51V	Voltage dependent overcurrent protection	I=(I.V)		x	10 =			
59	Overvoltage protection: "3-phase" or "pos.seq. V1" or "universal Vx"	V>		x	5 =			
74TC	Trip circuit supervision	TCS	✓					✓
81	Frequency protection: "f>" or "f<" or "dif/dt">,<	f>,<, dif/dt>,<		x	5 =			
86	Lockout		✓					✓
90V	Automatic voltage control for 2 winding transformer			x	150 =			
90V	Automatic voltage control for 3 winding transformer			x	200 =			
90V	Automatic voltage control for grid coupling transformer			x	175 =			

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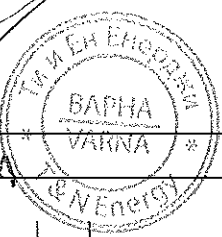
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SIPROTEC 5
Configuration
Jun 19, 2017 11:20 AM

Functional_scope_6MD85 Bay Controller:

ANSI	Function	Abbr.	Always included	Add selected Qty.	x	Value =	Points	Result Qty.
PMU	Synchrophasor measurement (1 PMU can be used for max. 8 voltages and 8 currents)	PMU						
AFD	Arc-protection (only with plug-in module ARC-CD-3FO)		✓					✓
	Measured values, standard		✓					✓
	Measured values, extended: Min, Max, Avg			x	12 =			
	Switching statistic counters		✓					✓
	Circuit breaker wear monitoring	Ix, Pt, 2P		x	10 =			
	CFC (Standard, Control)		✓					✓
	CFC arithmetic			x	40 =			
	Switching sequences function			x	5 =			
	Inrush current detection		✓					✓
	External trip Initiation		✓					✓
	Control		✓					✓
	Fault recording of analog and binary signals		✓					✓
	Monitoring and supervision		✓					✓
	Protection interface, serial		✓					✓
	Circuit Breaker		4x	x	3 =			4x
	Disconnecter		4x	x	3 =			4x

Sum: 0

ВЯРНО С
ОРИГИНАЛА



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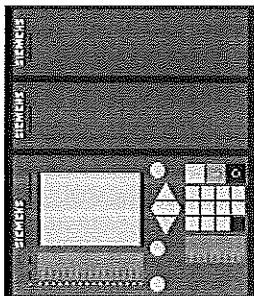
SIEMENS
SIPROTEC 5
Configuration
Jun 19, 2017 11:14 AM

Device: 6MD85 Bay Controller

Product code

Short: P1G199343

Long: 6MD85-DAAA-AA0-0AAA-AB-AG0111-13111A-BA4000-000AC0-CB3BA1-CE0CF0



Housing width:

2/3 x 19"

Flush mounting

29

Binary inputs:

32 Relays (26 Standard, 6 Fast, 0 High-Speed, 0 Power)

Binary outputs:

0 for protection, 4 for measurement and sensitive ground-current detection

4

Current transformers:

0 (20 mA or 10 V, fast)

0 (20 mA, standard)

CP-300

IO202, PS201, IO205, IO206

16 LEDs

Integrated

Without

Large display

Standard

DC 60 V-250 V, AC 100 V-230 V

Power Supply:

Communication/Plug-in modules:

Normal

for DIGSI 5

Integrated Ethernet port J:

Plug-in module position E:

USA-RT-AB-1EL: 1 x electric serial RS485, RJ45, applicable for serial protocols.

e.g. IEC60870-5-103, DNP3.0 etc.

Port is available but not assembled

Plug-in module position F:

Base + 75 function points

Functions:

Function points class:

Note on function-points class

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Configuration
Jun 19, 2017 11:14 AM

The function-points class results from the sum of the function points of the selected functions. You can apply these functions as selected. The device allows also each other selection of functions as long as the sum of the required function points is within the selected function-points class. With the maximum function-points class of 1400 it is possible to activate all the functions in the device. The function-points exceeding 1400 are free of charge. In the engineering phase DIGSI 5 checks that the selected configuration is suitable (capable of running in the device) before loading it to the device.

Miscellaneous:

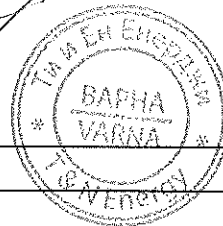
Warranty:

Firmware:

5 years

Current version

ВЪРНО С
ПРИНАДЛЕЖА



SIEMENS

SIPROTEC 5
Configuration

Jun 19, 2017 11:14 AM

Functional_scope_6MD85_Bay_Controller:

ANSI	Function	Abbr.	Always included	Add selected Qty.	x	Value =	Points	Result Qty.
	Protection functions for 3-pole tripping	3-pole	✓					✓
	Hardware quantity structure expandable	I/O	✓					✓
25	Synchrocheck, synchronizing function	Sync		1	x	50 =	50	1x
27	Undervoltage protection: "3-phase" or "universal Vx"	V<		1	x	5 =	5	1x
32, 37	Power protection active/reactive power	P<, Q<		x		10 =		
38	Temperature Supervision	>	✓					✓
46	Negative sequence overcurrent protection	I2>		x		10 =		
49	Thermal overload protection	, I ¹	✓					✓
50/51 TD	Overcurrent protection, phases	I>		x		20 =		
50N/51N TD	Overcurrent protection, ground	IN>		x		20 =		
50HS	High speed instantaneous overcurrent protection	I>>>	✓					✓
	Instantaneous tripping at switch onto fault	SOTF	✓					✓
51V	Voltage dependent overcurrent protection	I<(I,V)		x		10 =		
59	Overvoltage protection: "3-phase" or "pos.seq. V1" or "universal Vx"	V>		1	x	5 =	5	1x
74TC	Trip circuit supervision	TCS	✓					✓
81	Frequency protection: "fs" or "fc" or "dff" or "dfp, <	f<, f<, dff/dfp, <		1	x	5 =	5	1x
86	Lockout		✓					✓
90V	Automatic voltage control for 2 winding transformer			x		150 =		
90V	Automatic voltage control for 3 winding transformer			x		200 =		
90V	Automatic voltage control for grid coupling transformer			x		175 =		

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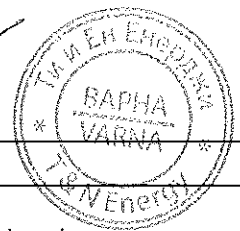
SIPROTEC 5
Configuration

Jun 19, 2017 11:14 AM

Functional_scope_6MD85_Bay_Controller:

ANSI	Function	Abbr.	Always included	Add selected Qty.	x	Value =	Points	Result Qty.
PMU	Synchrophasor measurement (1 PMU can be used for max. 8 voltages and 8 currents)	PMU				40 =		
AFD	Arc-protection (only with plug-in module ARC-CD-3FO)		✓					✓
	Measured values, standard		✓					✓
	Measured values, extended; Min, Max, Avg			x		12 =		
	Switching statistic counters		✓					✓
	Circuit breaker wear monitoring	Ix, I ¹ , 2P		x		10 =		
	CFC (Standard, Control)		✓					✓
	CFC arithmetic			x		40 =		
	Switching sequences function			x		5 =		
	Inrush current detection		✓					✓
	External trip initiation		✓					✓
	Control		✓					✓
	Fault recording of analog and binary signals		✓					✓
	Monitoring and supervision		✓					✓
	Protection interface, serial		✓					✓
	Circuit Breaker		4x			3 =	3	4x
	Disconnecter		4x			3 =	3	4x
Sum:								65

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SIPROTEC 5 Transformer Differential Protection 7UT82, 7UT85, 7UT86, 7UT87

7.3.0 and higher

Manual

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Notes

- Communication protocol manual
- The communication protocol manual contains a description of the protocols for communication within the SIPROTEC 5 device family and its high-level protection control system.
- The modular information includes general information about device installation, measured data, timing values for opens and closes modules, and conditions when preparing for operation. This document is prepared for the SIPROTEC 5 family.
- The Installation Guide describes the essential steps when engineering with SIC63. In addition, the Engineering Guide shows you how to load a standard configuration for a SIPROTEC 5 device and update the SIC63 to a new hardware.
- The SIC63 Software Help contains a help package for SIC63 V1 and SIC63.
- The help package for SIC63 V1 includes a description of the basic operation of software, the SIC63 protocols, and the SIC63 V1 hardware. The help package for SIC63 V1 is available for the SIPROTEC 5 family of devices with SIC63 V1 software. SIC63 V1 software is available for the SIPROTEC 5 family of devices with SIC63 V1 hardware.
- The SIC63 V1 software contains brief information about important product features, some detailed information, and a brief explanation.
- SIPROTEC 5 training
- Selection guide for SIPROTEC 5 and SIPROTEC 5
- Selection guide for SIPROTEC 5 and SIPROTEC 5
- Selection guide for SIPROTEC 5 and SIPROTEC 5
- Selection guide for SIPROTEC 5 and SIPROTEC 5

Information of Conformity

The product complies with the directive of the Council of the European Communities on the approximation of the laws of the Member States relating to electromagnetic compatibility (EMC Council Directive 89/330/EEC) and Council Directive 90/269/EEC. This conformity has been proved by tests performed according to the Council Directive on the approximation of the laws of the Member States (EMC Council Directive 89/330/EEC) and the Council Directive on the approximation of the laws of the Member States (EMC Council Directive 90/269/EEC). The product is designed and manufactured for application in an industrial environment. The product conforms with the international standards of IEC 60374 and the German standard VDE 0510.

Other Standards

IEC 61810-1, IEC 61810-2
The technical data of this product is approved in accordance with the following standards:
EN 60204-1, EN 60204-2, EN 60204-3, EN 60204-4, EN 60204-5, EN 60204-6, EN 60204-7, EN 60204-8, EN 60204-9, EN 60204-10, EN 60204-11, EN 60204-12, EN 60204-13, EN 60204-14, EN 60204-15, EN 60204-16, EN 60204-17, EN 60204-18, EN 60204-19, EN 60204-20, EN 60204-21, EN 60204-22, EN 60204-23, EN 60204-24, EN 60204-25, EN 60204-26, EN 60204-27, EN 60204-28, EN 60204-29, EN 60204-30, EN 60204-31, EN 60204-32, EN 60204-33, EN 60204-34, EN 60204-35, EN 60204-36, EN 60204-37, EN 60204-38, EN 60204-39, EN 60204-40, EN 60204-41, EN 60204-42, EN 60204-43, EN 60204-44, EN 60204-45, EN 60204-46, EN 60204-47, EN 60204-48, EN 60204-49, EN 60204-50, EN 60204-51, EN 60204-52, EN 60204-53, EN 60204-54, EN 60204-55, EN 60204-56, EN 60204-57, EN 60204-58, EN 60204-59, EN 60204-60, EN 60204-61, EN 60204-62, EN 60204-63, EN 60204-64, EN 60204-65, EN 60204-66, EN 60204-67, EN 60204-68, EN 60204-69, EN 60204-70, EN 60204-71, EN 60204-72, EN 60204-73, EN 60204-74, EN 60204-75, EN 60204-76, EN 60204-77, EN 60204-78, EN 60204-79, EN 60204-80, EN 60204-81, EN 60204-82, EN 60204-83, EN 60204-84, EN 60204-85, EN 60204-86, EN 60204-87, EN 60204-88, EN 60204-89, EN 60204-90, EN 60204-91, EN 60204-92, EN 60204-93, EN 60204-94, EN 60204-95, EN 60204-96, EN 60204-97, EN 60204-98, EN 60204-99, EN 60204-100.

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NOTE:
For your own safety, observe the warnings and safety instructions contained in this document. It is valid.

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Document version: CS3000G5040-C0-167-7.91
Edition: 04/2016
Version of the product described: 7.3.0 and higher

Additional Support

For questions about the system, please contact your Siemens sales partner.
Support:
Our Customer Support Center provides a 24-hour service.
Phone: +49 (180) 724-9000
Fax: +49 (180) 826-827
E-mail: support@siemens.com

Training Courses

Information regarding individual training courses should be addressed to our Training Center:
Siemens AG
Virtium Power Academy TD
Humboldtstraße 34
60509 Wiesbaden
Germany
Phone: +49 (911) 833-2473
Fax: +49 (911) 833-2929
E-mail: vpa@virtium.com

Notes on Safety

Unauthorized access to a computer risks off all safety functions required for operation of the equipment (people or control). However, a computer cannot be used for the equipment. Safety, as well as the protection of the equipment, is guaranteed in accordance with the following conditions:
DANGER
DANGER means that death or severe injury may result if the instructions are not followed.
• Comply with all instructions, in order to avoid death or severe injuries.

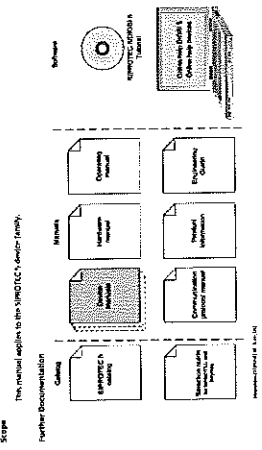
WARNING
WARNING means that death or severe injury may result if the instructions are not followed.
• Comply with all instructions, in order to avoid death or severe injuries.

CAUTION
CAUTION means that death or severe injury may occur if the specified measures are not taken.
• Comply with all instructions, in order to avoid death or severe injuries.

SIPROTEC 5 Transformer Differential Protection, Manual
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Preface

Intention of the Manual:
This manual describes the functions to transformer protection.
Target Audience:
This manual is intended for electrical engineering staff, who are involved with the setting, testing and maintenance of protection and control equipment, and operational crew in electrical installations and power plants.



Intention of the Manual:
This manual describes the functions and application of a specific SIPROTEC 5 device. The provided information is only for the device from the same manufacturer.
• The software manual describes the hardware building blocks and device combination of the SIPROTEC 5 device family.
• Operating manual describes the basic principles and procedures for operating and servicing the device family.

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NOTICE

NOTICE means that property damage can result if the measures specified are not taken.
• Comply with all instructions, in order to avoid property damage.

NOTE

Important information about the product, product handling or a certain version of the documentation with respect to general safety instructions.
Qualified Electrical Engineering Personnel
Only qualified electrical engineering personnel may commission and operate the equipment (install, debug and commission) in accordance with the instructions in this manual. The personnel must be qualified in accordance with the applicable standards and regulations. These persons may commission, install, ground and label devices, systems and circuits according to the standards of safety engineering.

Preparative Use

- The equipment (device, module) may be used only for such applications as set out in the catalog and the technical description, and only in combination with those safety engineering recommendations and approved by the manufacturer.
- Proper transport, storage and installation
- Proper operation and maintenance
- When electrical equipment is operated, hazardous voltages are available present in certain parts. If proper safety measures are not taken, there is a risk of death or severe injury.
- The equipment must be grounded as described in the technical description.
- All circuit components connected to the power supply must be subject to dielectric voltage.
- Hazardous voltages may be present in equipment even after the supply voltage has been disconnected (residual voltage).
- Operation of equipment with exposed conductive parts is prohibited. Before disconnecting the equipment, the equipment must be grounded.
- The listing labels stated in the document must not be removed. This must also be explained during the installation and commissioning.

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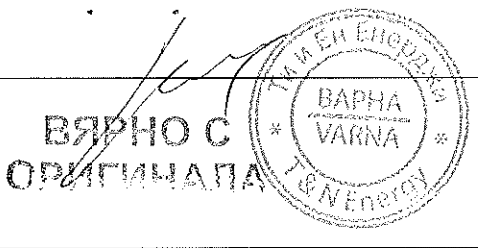
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