A.1 Ordering Information and Accessories

A.1.1 Ordering Information

A.1.1.1 7SJ80 V4.6

Multifunctional pro-tection device with control			6 7	8 9 10 11 12	13 14 15 16	Supplemen-tary
	7 S J 8 0		☐☐ –	☐☐☐☐☐ –	☐ F ☐☐ +	☐☐☐

Number of binary inputs and outputs	Pos. 6
Housing 1/6 19" 4 x I, 3 BI, 5 BO (2 changeover contacts), 1 life status contact	1
Housing 1/6 19" 4 x I, 7 BI, 8 BO (2 changeover contacts), 1 life status contact	2
Housing 1/6 19" 4 x I, 3x V, 3 BI, 5 BO (2 changeover contacts), 1 life status contact	3
Housing 1/6 19" 4 x I, 3 x V, 7 BI, 8 BO (2 changeover contacts), 1 life status contact	4

Measuring inputs (4 x I)	Pos. 7
I_{ph} = 1 A, I_n = 1 A / 5 A	1
I_{ph} = 1 A, I_{ns} (sensitive) = 0.001 to 1.6 A / 0.005 to 8 A	2

Auxiliary voltage (power supply, pilot voltage)	Pos. 8
24/48 VDC	1
DC 60V / 110V / 125V / 220V / 250V, AC 115 V, AC 230 V	5

Construction	Pos. 9
Surface-mounted housing, screw-type terminals	B
Flush mounting case, screw-type terminals	E

Region-specific default settings / function versions and language default settings	Pos. 10
Region DE, IEC, language German (language can be changed, standard front panel	A
Region world, IEC/ANSI, language English (language can be changed), standard front panel	B
Region US, ANSI, language US-English (language can be changed), US front panel	C
Region FR, IEC/ANSI, language French (language can be changed), standard front panel	D
Region world, IEC/ANSI, language Spanish (language can be changed), standard front panel	E
Region world, IEC/ANSI, language Italian (language can be changed), standard front panel	F
Region RUS, IEC/ANSI, language Russian (language can be changed), standard front panel	G

Port B (bottom side of device, rear)	Pos. 11
not equipped	0
IEC60870-5-103 or DIGSI4/Modem, electrical RS232	1
IEC60870-5-103 or DIGSI4/Modem, electrical RS485	2
IEC60870-5-103 or DIGSI4/Modem, optical 820nm, ST connector	3
For further interface options see Additional Information in the following	9

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Additional information for additional ports (bottom side of device, rear, port B)	Supple-mentary
Profibus DP Slave, electrical RS485	+ L 0 A
Profibus DP Slave, 820 nm, optical double ring, ST connector	+ L 0 B
Modbus, electrical RS485	+ L 0 D
Modbus, optical 820 nm, ST connector	+ L 0 E
DNP3.0, electrical RS485	+ L 0 G
DNP3.0, optical 820 nm, ST connector	+ L 0 H
IEC 60870-5-103 Protocol, redundant, electrical RS485, RJ45 connector	+ L 0 P
IEC 61850, 100Mbit Ethernet electrical, double, RJ45 connector	+ L 0 R
IEC 61850, 100Mbit Ethernet optical, double, ST connector	+ L 0 S

Converter	Order number	Use
SIEMENS OLM[1]	6GK1502–2CB10	for single ring
SIEMENS OLM[1]	6GK1502–3CB10	for twin ring

[1] The converter requires an operating voltage of 24 V DC. If the available operating voltage is > 24 V DC the additional power supply 7XV5810–0BA00 is required.

Port A (bottom side of device, front)	Pos. 12
not equipped	0
with Ethernet port (DIGSI port, not IEC61850), RJ45 connector	6

Measurement / Fault Recording	Pos. 13
With fault recording	1
With fault recording, average values, min/max values	3

Functions			Pos. 15
Designation	ANSI No.	Description	
Basic function (included in all versions) [2]	—	Control	A
	50/51	Time overcurrent protection phase, 50-1, 50-2, 50-3, 51,	
	50N/51N	Time overcurrent protection ground 50N-1, 50N-2, 50N-3, 51N	
	50N(s)/51N(s)	Ground fault protection 50Ns-1, 50Ns-2, 51Ns [1]	
	87N	High-impedance ground fault differential protection (87N (REF) only available with sensitive ground current input (position 7 = 2)) [1]	
	49	Thermal overload protection	
	74TC	Trip circuit supervision	
	46	Unbalanced load protection	
	50BF	Breaker failure protection	
	37	Undercurrent monitoring	
	86	Lock out	
	—	Cold load pickup (dynamic setting changes) Monitoring functions Breaker control Flexible protection functions (parameters from current): Inrush restraint	
Basic version [3] + directional ground fault detection + voltage protection + frequency protection	67N	Directional ground fault protection 67N-1, 67N-2, 67N-TOC	B
	67N(s)	Directional ground fault protection 67Ns-1, 67Ns-2, 67Ns-TOC [1]	
	64/59N	Displacement voltage	
	27/59	Undervoltage / overvoltage 59-1, 59-2, 27-1, 27-2	
	81 U/O	Underfrequency / overfrequency, f< ,f>	
	47	Phase sequence	
	32/55/81R	Flexible protection functions (parameters from current and voltage): Voltage, power, power factor, frequency-change protection	
Basic version [3] + Directional ground fault detection + Directional supplement phase + Voltage protection + Frequency protection	67	Determination of direction for phase overcurrent 67-1, 67-2, 67-TOC	C
	67N	Directional ground fault protection 67N-1, 67N-2, 67N-TOC	
	67N(s)	Directional ground fault protection 67Ns-1, 67Ns-2, 67Ns-TOC [1]	
	64/59N	Displacement voltage	
	27/59	Undervoltage / overvoltage 59-1, 59-2, 27-1, 27-2	
	81 U/O	Underfrequency / overfrequency, f< ,f>	
	47	Phase sequence	
	32/55/81R	Flexible protection functions (parameters from current and voltage): Voltage, power, power factor, frequency-change protection	

Functions			Pos. 15
Basic version [3] + Directional supplement phase + Voltage protection + Frequency protection + Synchrocheck	67	Determination of direction for phase overcurrent 67-1, 67-2, 67-TOC	Q
	27/59	Undervoltage / overvoltagte (phase-to-phase)	
	81 U/O	Underfrequency / overfrequency, f< ,f>	
	47	Phase sequence	
	25	Synchrocheck	
	32/55/81R	Flexible protection functions (parameters from current and voltage): Voltage, power, power factor, frequency-change protection	

[1] Depending on the ground current input at position 7, the function operates either as ground fault protection (sensitive input) or as ground fault protection (normal I_N input),

[2] Only delivrable in connection with 6th digit = 1 or 2,

[3] Only delivrable in connection with 6th digit = 3 or 4 (3 x V),

Automatic reclosing function 79AR / Fault locator 21FL			Pos. 16
		No 79, no fault locator	0
	79	With 79	1
	21FL	With fault locator [1]	2
	79, 21FL	With AR, with fault locator [1]	3

[1] Only delivrable in connection with 6th digit = 3 or 4 (3 x V),