Feeder Protection
SIPROTEC 7SC80

Product description	Variants	Order No.

Feeder Protection

Order No. positions: 7 S C 8 0 □ □ - □ □ □ □ □ □ - 3 □ □ □   Short code □ □ □

Housing, binary inputs and outputs
Housing , 12 BI, 8 BO , 1 Life contact — **2**

Specification of CT and VT measurement inputs
3 x I LPS/LoPo, 1 x V [1] — **1**
4 x I 1 A/5 A, 1 x V — **2**
3 x I LPS/LoPo, 4 x V [1] — **3**
4 x I 1 A/5 A, 4 x V — **4**
3 x I 1A/5A, 1 x I$_{ee}$ (sensitive) = 0,001 to 1,6A/0,005 to 8A, 1 x V — **5**
3 x I 1A/5A, 1 x I$_{ee}$ (sensitive) = 0,001 to 1,6A/0,005 to 8A, 4 x V — **6**

Rated auxiliary voltage
DC 60 V to 250 V; AC 115 V; AC 230 V — **1**
DC 24 V/48 V — **2**
DC 24 V/48 V, Battery Monitoring — **3**

Unit version
Surface-mounting housing [4] — **A**
Surface/Flush-mounting housing with HMI — **B**
Surface-mounting housing with detached HMI — **C**

Region-specific default- and language settings
Region DE, IEC, language German [2] — **A**
Region World, IEC/ANSI, language English [2] — **B**
Region US, ANSI, language US-English [2] — **C**
Region World, IEC/ANSI, language Spanish [2] — **E**
Region World, IEC/ANSI, language Russian [2] — **G**

Systeminterface

No port — **0**
100 Mbit Ethernet, electrical, 2 x RJ45 connector — **9** ... **R**
100 Mbit Ethernet, with integrated switch, optical, 2 x LC-connector multimode — **9** ... **S**
100 Mbit Ethernet, with integrated switch, optical, 2 x LC-connector singlemode 24 km — **9** ... **T**

System interface short code: **L** □ □

Protocol for Systeminterface
IEC 61850 — **0**
IEC 61850 + DNP3 TCP — **2**
IEC 61850 + PROFINET IO [3] — **3**
IEC 61850 + IEC60870-5-104 — **4**

Additional interfaces
No module — **0**
IRIG-B optical module — **6**
GPS module — **7**

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1) The mentioned sensors in chapter Power Quality and Measurements see SICAM FCM can be used for protection related purpose the usability of the sensors have to be checked.
2) Language selectable.
3) Only with 100 Mbit Ethernet electrical and multimode.
4) HMI can be ordered separately: without cable C53207-A406-D242-A / with cable C53207-A406-D243-1.

Product description	Variants		Order No.

			1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
Feeder Protection			7 S C 8 0 □□ - □□□□□ - 3 □□□
(continued from previous page)			
Software packages	ANSI-No.		

Base Package A	50/51	Overcurrent protection phase I>, I>>, I>>>, I$_P$	F A
	50N/51N	Overcurrent protection ground I$_E$>, I$_E$>>, I$_E$>>>, I$_{EP}$	
	50N(s)/51N(s)	Sensitive ground fault protection I$_{EE}$ >, I$_{EE}$ >>, I$_{EEP}$ [4]	
	50BF	Circuit breaker failure protection	
	46	Negative sequence / unbalanced load protectio	
	49	Thermal Overload protection	
	87N	High impedance REF [3]	
	74TC	Trip circuit supervision	
	37	undercurrent	
	51c	Cold load pickup	
	86	Lockout	
	60CTS	CT supervision	
		Parameter changeover	
		Monitoring functions	
		Control of circuit-breaker	
		Flexible protection functions (current parameters)	
		Under- / overfrequency	
		Inrush restraint	
		Fault recording, average values, min/max values	
Base Package B (containing A)	67	Directional overcurrent protection phase I>, I>>, I$_{EP}$	F B [1]
	67N	Directional overcurrent protection ground, I$_E$ >, I$_E$ >>, I$_{EP}$	
	67N(s)	Directional sensitive ground fault protection, I$_{EE}$>, I$_{EE}$ >>, I$_{EEP}$ [4]	
	27/59	Under- / overvoltage	
	81U/O	Under- / overfrequency, f<, f>	
	25	Sync-check	
	47	Phase rotation	
	64/59N	Displacement voltage	
	60VTS	VT supervision	
	32/55/81R	Flexible protection functions (current and voltage parameters)	
		Protective function for voltage, power, power factor, frequency change	
		Base Package N (contains R)	F N [2] [5]
		SNTP-server /master functionality, no protection	
		Base Package R	F R [2]
		pure RTU functionality, no protection	
Automatic reclosing (AR),		without	0
Fault locator, 3-/1-pole operation	79	with autoreclose	1
	21FL	with fault locator	2 [1]
	79/21FL	with autoreclose and fault locator	3 [1]
	79	with automatic reclosing function (AR) and 3-/1-pole operation	4
	79/21FL	with automatic reclosing function (AR), fault locator, and 3-/1-pole operation	5 [1]

[1]   Only with position 7 = **3, 4** or **6.**
[2]   Only with position 16 = **0.**
[3]   87N (REF) only with sensitive ground current input (position 7 = **5** or **6**).
[4]   Depending on the ground current input the function will be either sensitive (I$_{EE}$) or non-sensitive (I$_E$).
[5]   Only with position 12 = **7.**