



**GENERATOR PROTECTION**

**FEEDER PROTECTION**

**VOLTAGE & FREQUENCY PROTECTION**

TRANSFORMER



SIL-G

SIL-C

SIL-S

SIU-C

TRANSFORMATION SUBSTATION

TRANSMISSION LINE

**TEST SYSTEM**

**FEEDER & GENERATOR PROTECTION**

**RECLOSER CONTROL**



FTS

SIL-G

SIL-C

SIL-S

SIR-A

SIR-A

SIR-C

DISTRIBUTION LINE

**Secondary Distribution**

**RECLOSER CONTROL & FEEDER PROTECTION**

**FEEDER PROTECTION**

**FEEDER & GENERATOR PROTECTION**



SIR-C

SIL-A

SIL-C

SIL-S

**Self Powered Range**

**RMU's PROTECTION / MRMU's PROTECTION**



KEMA Labs



SIA-B Specific CTs

SIA-B Standard CTs



SIA-C



CTs

**SF6 & METALCLAD SWITCHGEAR PROTECTION**



SIA-F

	SIA-B Specific CT's	SIA-B Standard CT's	SIA-C Standard CT's	SIA-F
TYPE	SELF & DUAL POWERED (SELF+AUX)	SELF & DUAL POWERED (SELF+AUX)	SELF & DUAL POWERED (SELF+AUX)	AUXILIARY POWERED
Auxiliary Supply	24-230 Vac/dc	24-230 Vac/dc	24Vdc230Vac48 Vdc110-230 Vac/Vdc	24-220 Vcc / 48-230 Vac
Self Power Supply	I > 0,35 x Is min (x3)	0,075 In (x3)	0,1 In (x3)	
External battery	USB cable / Power bank	USB cable / Power bank	KITCOM	USB cable / Power bank
Internal battery	√ (*)	√	√ (*)	
Consumption	0,5 W	1,5 W	0,5 W	1,5 – 2,2 W
CT	Specific CT	Standard CT/1A - 2VA	Standard CT/1A - 2.5VA Standard CT/5A - 5VA	Standard CT/1 - 0,5VA Standard CT/5A - 0.5VA
50	1	2	2	1
50G		2	2	1
50N	1			
51	1	1	1	1
51G		1	1	1
51N	1			
SHB	1	1	1	
74CT			1	
46BC			1	
46		1	1	
79			1	
52		1	1	1
50BF		1	1	1
49	1	1	1	1
49T	1	1	1	1
CLP		1	1	1
74TCS			1	
Trip Block	1	1		1
68 Zone Selection interbloking		1	1	1
86		√	√	√
PGCProgrammable Logic	V3	V3	V3	V3
Counters		√	√	√
Commands	√	√	√	√

	SIA-B Specific CT's	SIA-B Standard CT's	SIA-C Standard CT's	SIA-F
Sett. Group	2	4	3/4	3
Inputs	--- EXT.TRIP	3 DI	--- EXT.TRIP 2DI 2DI + EXT.TRIP	--- 2DI
Outputs	--- 2NC-NO	3 NC-NO	--- 2 NC-NO 3 NO	1 NO + 2 NC-NO
Output for STRIKER	24 Vdc – 135 mJ	24 Vdc – 135 mJ	24 Vdc – 135 mJ	
LEDs	2 LEDs 2 LEDs +1MAG.FLAG	4 LEDs	3 LEDs + 1 MAG.FLAGS 3 LEDs + 3 MAG.FLAGS	3 LEDs configurable
HMI	20x2 LCD + 7/8 keys	20x2 LCD + 8 keys	20x2 LCD + 7/8 keys	20x2 LCD + 7 keys
Event	100	1024	1024	200
Fault Report	4	20	20	4
Oscillography		10 records x 50 cycles	10 records x 50 cycles	1 record x 22 cycles
Current demand		√	√	
Local Port (frontal)	Micro USB	Micro USB	RS232 Micro USB	Micro USB
Remote Port (rear)	RS485	RS485	RS485	RS485
Communications Protocols	ModBus RTU	ModBus RTU ModBus RTU or DNP3.0	ModBus RTU ModBus RTU or IEC60870-5-103	ModBus RTU DNP3.0
Size of (HxW)	Vertical: 120,65 x 167,80 mmHorizontal: 185,80 x 102,7 mm	90 x 245 mm	Vertical Compact: 177 x 155 mmVertical Standard: 177 x 189 mmHorizontal: 177,8 x 290,3 mm	167,80 x 120,65 mm