

Quick Selection

2026



NEW!

What's New Frer Evolves

E-TOR:

New range of TYPE A Earth Leakage Relays



E-TOR:

New design of TYPE F and Type B Earth Leakage Relays
New large 72x72 display



E-TOR:

New design of COMBI 6 multi-channel Earth Leakage Relay
New multi-channel relay in 72x72 format



SPLIT-X:

New range of split-core current transformers



NANO & QUBO:

New design of network analyzers



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PAPER CATALOGUE

Scan the QR Codes in the catalogue and access the product page on our website!



DIGITAL CATALOGUE

Click on the QR Code or on the images in the catalogue and access the product page on our website!

2 MODULI DIN	CODICE	1° RELÈ	2° RELÈ	OPZIONI	AUX
	X35DL3030R102	TRIP	/	TEST/RESET INPUT	230Vac
	X35DL3030H112	TRIP	ALLARME	TEST/RESET INPUT	230Vac
	X35DL3030B102	TRIP	/	RS485 Modbus RTU TEST/RESET INPUT	230Vac



Earth Leakage Relays

TYPE B – TYPE F

New front graphics

Large display for improved readability

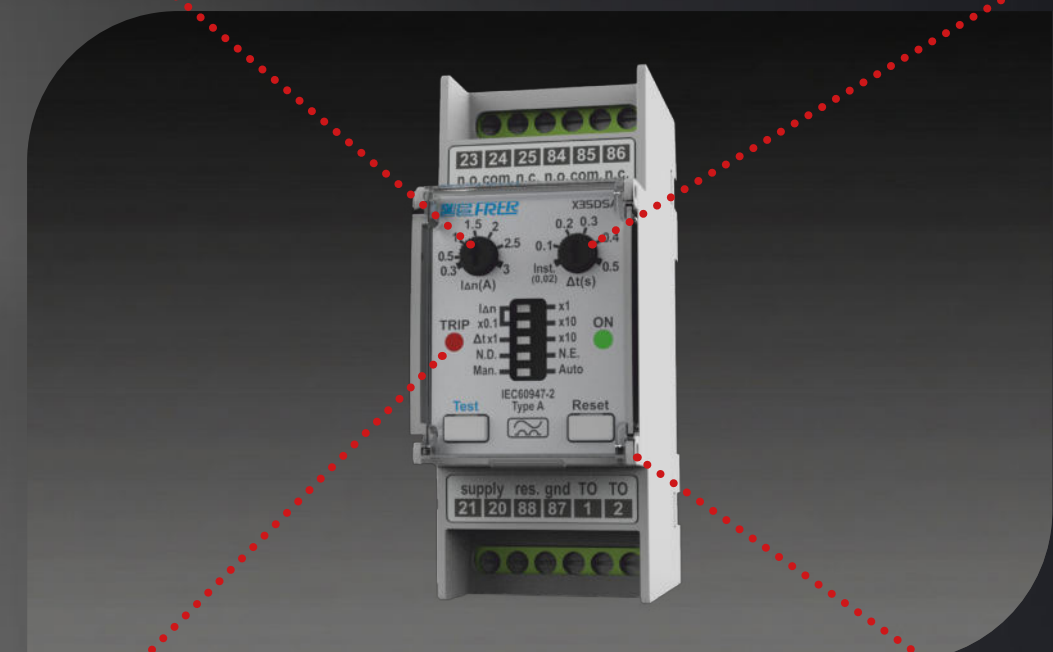


Keyboards with improved tactile sensitivity for instant setup and navigation

TYPE A

Trigger sensitivity adjustment

Trigger delay adjustment



Trigger status LED

Sealable front door



TYPE B EARTH LEAKAGE RELAYS

2 DIN MODULES

CODE	1st CONTACT	2nd CONTACT	OPTIONS	AUX SUPPLY
X35DB34DCR102	TRIP	/	TEST/RESET INPUT	230Vac
X35DB34DCX112	TRIP	ALARM	/	230Vac
X35DB34DCM102	TRIP	/	RS485 Modbus RTU	230Vac



48X48

CODE	1st CONTACT	2nd CONTACT	OPTIONS	AUX SUPPLY
X48DB34DCR102	TRIP	/	TEST/RESET INPUT	230Vac
X48DB34DCX112	TRIP	ALARM	/	230Vac
X48DB34DCM102	TRIP	/	RS485 Modbus RTU	230Vac



72X72

CODE	1st CONTACT	2nd CONTACT	OPTIONS	AUX SUPPLY
X72DB44DCR112	TRIP	ALARM	TEST/RESET INPUT	230Vac
X72DB44DCB112	TRIP	ALARM	RS485 Modbus RTU TEST/RESET INPUT	230Vac



Available frame accessory for flush mounting 96x96 code 4C7296XK

SENSORS

CODE	HOLE Ø	IΔn CURRENT
TDB0283CM	28 mm	30mA ÷ 1,5A
TDB028003	28 mm	300mA ÷ 15A
TDB0603CM	60 mm	30mA ÷ 1,5A
TDB060003	60 mm	300mA ÷ 15A
TDB0903CM	90 mm	30mA ÷ 1,5A
TDB090003	90 mm	300mA ÷ 15A
TDB1103CM	110 mm	30mA ÷ 1,5A
TDB110003	110 mm	300mA ÷ 15A
TDB160003	160 mm	300mA ÷ 15A
TDB210003	210 mm	300mA ÷ 15A



TYPE F EARTH LEAKAGE RELAYS

2 DIN MODULES

CODE	1st CONTACT	2nd CONTACT	OPTIONS	AUX SUPPLY
X35DL3030R102	TRIP	/	TEST/RESET INPUT	230Vac
X35DL3030H112	TRIP	ALARM	TEST/RESET INPUT	230Vac
X35DL3030B102	TRIP	/	RS485 Modbus RTU TEST/RESET INPUT	230Vac



48X48

CODE	1st CONTACT	2nd CONTACT	OPTIONS	AUX SUPPLY
X48DL3030R102	TRIP	/	TEST/RESET INPUT	230Vac
X48DL3030H112	TRIP	ALARM	TEST/RESET INPUT	230Vac
X48DL3030B102	TRIP	/	RS485 Modbus RTU TEST/RESET INPUT	230Vac



72X72

CODE	1st CONTACT	2nd CONTACT	OPTIONS	AUX SUPPLY
X72DL4030R112	TRIP	ALARM	TEST/RESET INPUT	230Vac
X72DL4030B112	TRIP	ALARM	RS485 Modbus RTU TEST/RESET INPUT	230Vac



Available frame accessory for flush mounting 96x96 code 4C7296XK

TOROIDAL

CODE	Ø / □	CORE	IΔn min.
TDC028*	28 mm	Closed core	30mA
TDC035	35 mm	Closed core	30mA
TDC060	60 mm	Closed core	30mA
TDC080	80 mm	Closed core	50mA
TDC110	110 mm	Closed core	100mA
TDC160	160 mm	Closed core	500mA
TDC210	210 mm	Closed core	500mA
TDC350	350 mm	Closed core	500mA
TDA060	60 mm	Split core	250mA
TDA110	110 mm	Split core	500mA
TDA160	160 mm	Split core	500mA
TDA210	210 mm	Split core	500mA
TDC177	175x70 mm	Closed core	500mA
TDC321	325x125 mm	Closed core	500mA
TDC471	470x160 mm	Closed core	1A



* Integrated connection cables 1m length

TYPE A EARTH LEAKAGE RELAYS

2 DIN MODULES



CODE	1st CONTACT	2nd CONTACT	3rd CONTACT	OPTIONS	AUX SUPPLY
X35DSA030X202	TRIP	TRIP	/	RESET INPUT	230Vac
X35DSA030X20E	TRIP	TRIP	/	RESET INPUT	20÷260Vac/dc



3 DIN MODULES



CODE	1st CONTACT	2nd CONTACT	3rd CONTACT	OPTIONS	AUX SUPPLY
X52DSA030R21E	TRIP	TRIP	ALARM	RESET INPUT	20÷260Vac/dc
X52DSA030T21E	TRIP	TRIP	ALARM	RESET INPUT TCS ALARM	20÷260Vac/dc



TOROIDAL



CODE	HOLE Ø	CORE	IΔn min.
TDC028*	28 mm	Closed core	30mA
TDC035	35 mm	Closed core	30mA
TDC060	60 mm	Closed core	30mA
TDC080	80 mm	Closed core	50mA
TDC110	110 mm	Closed core	100mA
TDC160	160 mm	Closed core	500mA
TDC210	210 mm	Closed core	500mA
TDC350	350 mm	Closed core	500mA
TDA060	60 mm	Split core	250mA
TDA110	110 mm	Split core	500mA
TDA160	160 mm	Split core	500mA
TDA210	210 mm	Split core	500mA
TDC177	175x70 mm	Closed core	500mA
TDC321	325x125 mm	Closed core	500mA
TDC471	470x160 mm	Closed core	1A



* Integrated connection cables 1m length

TYPE A EARTH LEAKAGE RELAYS

48X48



CODE	1st CONTACT	2nd CONTACT	3rd CONTACT	OPTIONS	AUX SUPPLY
X48DSA030X20S	TRIP	TRIP	/	RESET INPUT	115-230Vac
X48DSA030X20E	TRIP	TRIP	/	RESET INPUT	20÷260Vac/dc



72X72



CODE	1st CONTACT	2nd CONTACT	3rd CONTACT	OPTIONS	AUX SUPPLY
X72DSA030R21E	TRIP	TRIP	ALARM	RESET INPUT	20÷260Vac/dc
X72DSA030T21E	TRIP	TRIP	ALARM	RESET INPUT TCS ALARM	20÷260Vac/dc



96X96



CODE	1st CONTACT	2nd CONTACT	3rd CONTACT	OPTIONS	AUX SUPPLY
X96DSA030R21E	TRIP	TRIP	ALARM	RESET INPUT	20÷260Vac/dc
X96DSA030T21E	TRIP	TRIP	ALARM	RESET INPUT TCS ALARM	20÷260Vac/dc



TOROIDAL



CODE	HOLE Ø	CORE	IΔn min.
TDC028*	28 mm	Closed core	30mA
TDC035	35 mm	Closed core	30mA
TDC060	60 mm	Closed core	30mA
TDC080	80 mm	Closed core	50mA
TDC110	110 mm	Closed core	100mA
TDC160	160 mm	Closed core	500mA
TDC210	210 mm	Closed core	500mA
TDC350	350 mm	Closed core	500mA
TDA060	60 mm	Split core	250mA
TDA110	110 mm	Split core	500mA
TDA160	160 mm	Split core	500mA
TDA210	210 mm	Split core	500mA
TDC177	175x70 mm	Closed core	500mA
TDC321	325x125 mm	Closed core	500mA
TDC471	470x160 mm	Closed core	1A



* Integrated connection cables 1m length

3 DIN MODULES



CODE	1st CONTACT	2nd CONTACT	OPTIONS	AUX SUPPLY
X52UB64DCX60H	6x TRIP	/	/	80÷260Vac/dc
X52UB64DCR61H	6x TRIP	1x ALARM	RESET INPUT	80÷260Vac/dc
X52UB64DCM60H	6x TRIP	/	RS485 Modbus RTU	80÷260Vac/dc



72X72



CODE	1st CONTACT	2nd CONTACT	OPTIONS	AUX SUPPLY
X72UB64DCX60H	6x TRIP	/	/	80÷260Vac/dc
X72UB64DCR61H	6x TRIP	1x ALARM	RESET INPUT	80÷260Vac/dc
X72UB64DCM60H	6x TRIP	/	RS485 Modbus RTU	80÷260Vac/dc



Available frame accessory for flush mounting 96x96 code 4C7296XK

SENSORS



CODE	HOLE Ø	CORE	IΔn min.
TDB0283CM	28 mm	Closed core	30mA
TDB028003	28 mm	Closed core	300mA
TDB0603CM	60 mm	Closed core	30mA
TDB060003	60 mm	Closed core	300mA
TDB0903CM	90 mm	Closed core	30mA
TDB090003	90 mm	Closed core	300mA
TDB1103CM	110 mm	Closed core	30mA
TDB110003	110 mm	Closed core	300mA
TDB160003	160 mm	Closed core	300mA
TDB210003	210 mm	Closed core	300mA



3 DIN MODULES



CODE	1st CONTACT	2nd CONTACT	OPTIONS	AUX SUPPLY
X52UL6030X60H	6x TRIP	/	/	80÷260Vac/dc
X52UL6030R61H	6x TRIP	1x ALARM	RESET INPUT	80÷260Vac/dc
X52UL6030M60H	6x TRIP	/	RS485 Modbus RTU	80÷260Vac/dc



72X72



CODE	1st CONTACT	2nd CONTACT	OPTIONS	AUX SUPPLY
X72UL6030X60H	6x TRIP	/	/	80÷260Vac/dc
X72UL6030R61H	6x TRIP	1x ALARM	RESET INPUT	80÷260Vac/dc
X72UL6030M60H	6x TRIP	/	RS485 Modbus RTU	80÷260Vac/dc



Available frame accessory for flush mounting 96x96 code 4C7296XK

TOROIDAL



CODE	HOLE Ø	CORE	IΔn min.
TDC028*	28 mm	Closed core	30mA
TDC035	35 mm	Closed core	30mA
TDC060	60 mm	Closed core	30mA
TDC080	80 mm	Closed core	50mA
TDC110	110 mm	Closed core	100mA
TDC160	160 mm	Closed core	500mA
TDC210	210 mm	Closed core	500mA
TDC350	350 mm	Closed core	500mA
TDA060	60 mm	Split core	250mA
TDA110	110 mm	Split core	500mA
TDA160	160 mm	Split core	500mA
TDA210	210 mm	Split core	500mA



* Integrated connection cables 1m length

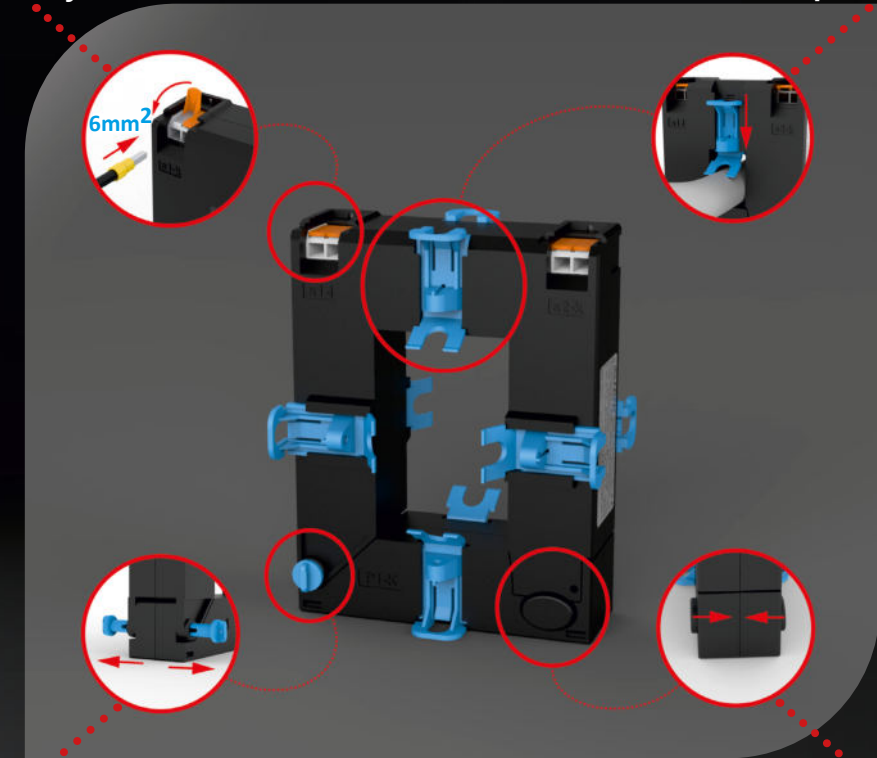


Current and Voltage Transformers, Shunts

New range of Split-Core Current Transformers

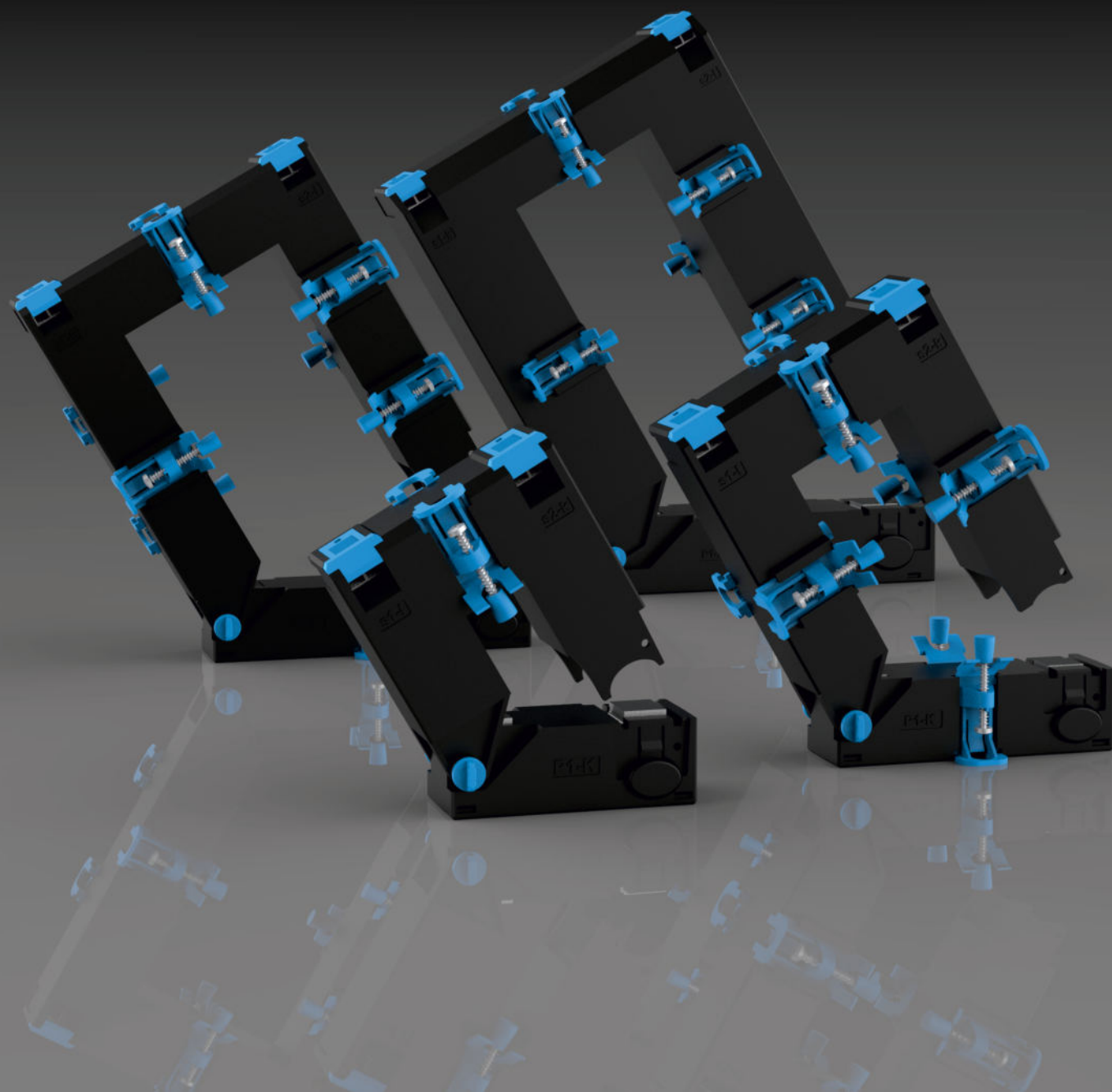
Spring-loaded secondary terminals with lever opening, for quick and easy connection.

Sled fixing system, for quick centering and locking of the CT on the primary side.



Complete separation of the CT core into two parts with removable pins.

The CT core opens by pressing the two buttons and closes with a snap.



Completely open CT in two separate parts



Progressive step-by-step opening

CURRENT TRANSFORMERS



TYPE	TAC003			TAC005			TAC010			TAC017			TAC021		
Cable	primary wound			primary wound			primary wound			Ø 17 mm			Ø 21 mm		
Window size	—			—			—			15 x 5 mm			20 x 10 mm		
Width	56 mm			56 mm			85 mm			56 mm			70 mm		
RATIO	CODE	VA		CODE	VA		CODE	VA		CODE	VA		CODE	VA	
		cl.	Q5 1		cl.	Q5 1		cl.	Q5 1		cl.	Q5 1 3		cl.	Q5 1 3
5/5 A	TAC003005X05	3	6	TAC005005X05	5	7	TAC010005X05	10	20						
10/5 A	TAC003010X05	3	6	TAC005010X05	5	7	TAC010010X05	10	20						
15/ 5 A	TAC003015X05	3	6	TAC005015X05	5	7	TAC010015X05	10	20						
20/5 A	TAC003020X05	3	6	TAC005020X05	5	7	TAC010020X05	10	20						
25/5 A	TAC003025X05	3	6	TAC005025X05	5	7	TAC010025X05	10	20						
30/5 A	TAC003030X05	3	6	TAC005030X05	5	7	TAC010030X05	10	20	TAC017030X05		1.5	TAC021030X05		1,5
40/5 A	TAC003040X05	3	6	TAC005040X05	5	7	TAC010040X05	10	20	TAC017040X05		3	TAC021040X05		3
50/5 A	TAC003050X05	3	6	TAC005050X05	5	7	TAC010050X05	10	20	TAC017050X05		1 4	TAC021050X05		2 5
60/5 A	TAC003060X05	3	6	TAC005060X05	5	7	TAC010060X05	10	20	TAC017060X05		1.25 5	TAC021060X05		3 6
80/5 A	TAC003080X05	3	6	TAC005080X05	5	7	TAC010080X05	10	20	TAC017080X05		1 2.5 6	TAC021080X05		4 8
100/5 A	TAC003100X05	3	6	TAC005100X05	5	7	TAC010100X05	10	20	TAC017100X05		2 4 8	TAC021100X05		3 6 12
120/5 A							TAC010120X05	10	20	TAC017120X05		2.5 4 10	TAC021120X05		4 8 15
150/5 A							TAC010150X05	10	20	TAC017150X05		4 8 15	TAC021150X05		6 12 20
200/5 A							TAC010200X05	10	20	TAC017200X05		7 15 20	TAC021200X05		10 15 25
250/5 A							TAC010250X05	10	20				TAC021250X05		15 25 30
TERMINALS COVERS	9SBMCTA			9SBMCTA			9SBMCTA			9SBMCTA			9SBMCTA		
															

For execution with secondary at 1A replace the last digit 5 with 1

CURRENT TRANSFORMERS



TYPE	TAT022				TAC022				TAC032				TAC033				TAC040							
Cable	Ø 22 mm				Ø 22 mm				Ø 24 mm				Ø 24 mm				Ø 32 mm							
Window size	20 x 5 mm				20 x 5 mm				32 x 10 mm				30 x 10 mm				40 x 10 mm							
Width	48 mm				56 mm				56 mm				70 mm				70 mm							
RATIO	CODE	VA			CODE	VA			CODE	VA			CODE	VA			CODE	VA						
		cl.	Q5	1	3		cl.	Q5	1	3		cl.	Q5	1	3		cl.	Q5	1	3				
40/5 A	TAT022040X05				1.2	TAC022040X05				1.5	TAC032040X05				1									
50/5 A	TAT022050X05				1.2	TAC022050X05				2	TAC032050X05				1.2									
60/5 A	TAT022060X05				1.5	TAC022060X05			1	2.5	TAC032060X05				1.5	TAC033060X05		1	1.5					
80/5 A	TAT022080X05			1	2.5	TAC022080X05			2	4	TAC032080X05			1	2.5	TAC033080X05		2	3					
100/5 A	TAT022100X05			1.5	3	TAC022100X05		1	3	5	TAC032100X05		1	2	3	TAC033100X05		3	4	TAC040100X05		1.5	4	
120/5 A	TAT022120X05			2	4	TAC022120X05		2	4	6	TAC032120X05		2	3	4	TAC033120X05		4	5	TAC040120X05		2	4	
150/5 A	TAT022150X05		1	3	5	TAC022150X05		3	5	8	TAC032150X05		2.5	3	5	TAC033150X05		5	7.5	TAC040150X05		1.5	3	5
200/5 A	TAT022200X05		1	1.5	2	TAC022200X05		5	10	12	TAC032200X05		3	5	8	TAC033200X05		7.5	10	TAC040200X05		2	4	6
250/5 A	TAT022250X05		1	1.5	3	TAC022250X05		8	10	15	TAC032250X05		4	7	10	TAC033250X05		10	12	TAC040250X05		3	6	9
300/5 A	TAT022300X05		1	2	4	TAC022300X05		9	10	15	TAC032300X05		6	10	12	TAC033300X05		10	15	TAC040300X05		5	8	12
400/5 A	TAT022400X05		1.5	3	5						TAC032400X05		10	12	12	TAC033400X05		12	20	TAC040400X05		10	15	20
500/5 A	TAT022500X05		2	4	6						TAC032500X05		12	15	15	TAC033500X05		15	25	TAC040500X05		12	20	25
600/5 A	TAT022600X05		2.5	5	7						TAC032600X05		12	15	15	TAC033600X05		20	30	TAC040600X05		15	20	25
800/5 A																				TAC040800X05		18	25	30
1000/5 A																				TAC0401K0X05		20	25	30
TERMINALS COVERS	—					9SBMCTA					9SBMCTA					9SBMCTA				9SBMCTA				
																								

For execution with secondary at 1A replace the last digit 5 with 1

CURRENT TRANSFORMERS



TYPE	TAC050			TAC051			TAC053			TAC054			TAT061								
Cable	—			Ø 30 mm			Ø 40 mm			Ø 40 mm			Ø 51 mm								
Window size	50 x 10 mm			51 x 18 mm			51 x 32 - 41 x 41 mm			54 x 34 - 41 x 41 mm			61 x 31 mm								
Width	70 mm			85 mm			85 mm			85 mm			90 mm								
RATIO	CODE	VA		CODE	VA		CODE	VA		CODE	VA		CODE	VA							
		cl.	0.5	1	3		cl.	0.5	1		cl.	0.5	1		cl.	0.5	1				
200/5 A	TAC050200X05	5	2	3	TAC051200X05	5	5	10	TAC053200X05	5	1	3	TAC054200X05	5	1	1					
250/5 A	TAC050250X05	5	1.5	3	3.5	TAC051250X05	5	8	12	TAC053250X05	5	2	4	TAC054250X05	5	2	2	TAT061250X05	5	3	
300/5 A	TAC050300X05	5	3	4	4.5	TAC051300X05	5	10	20	TAC053300X05	5	4	6	TAC054300X05	5	4	4	TAT061300X05	5	4	
400/5 A	TAC050400X05	5	4	5	6	TAC051400X05	5	15	20	TAC053400X05	5	6	8	TAC054400X05	5	5	7.5	TAT061400X05	5	2	6
500/5 A	TAC050500X05	5	5	6	7	TAC051500X05	5	20	30	TAC053500X05	5	8	10	TAC054500X05	5	6	10	TAT061500X05	5	4	10
600/5 A	TAC050600X05	5	6	8	9	TAC051600X05	5	30	50	TAC053600X05	5	10	12	TAC054600X05	5	7.5	12	TAT061600X05	5	6	15
800/5 A	TAC050800X05	5	8	10	11	TAC051800X05	5	40	60	TAC053800X05	5	12	16	TAC054800X05	5	8	15	TAT061800X05	5	8	15
1000/5 A	TAC0501K0X05	5	10	12	13	TAC0511K0X05	5	50	80	TAC0531K0X05	5	12	16	TAC0541K0X05	5	10	18	TAT0611K0X05	5	10	20
1200/5 A	TAC0501K2X05	5	12	14	15	TAC0511K2X05	5	60	80	TAC0531K2X05	5	12	16	TAC0541K2X05	5	12	20	TAT0611K2X05	5	12	25
1500/5 A					TAC0511K5X05	5	80	100		TAC0531K5X05	5	16	20	TAC0541K5X05	5	15	25	TAT0611K5X05	5	20	30
2000/5 A										TAC0532K0X05	5	16	20	TAC0542K0X05	5	15	25	TAT0612K0X05	5	25	40
TERMINALS COVERS	9SBMCTA			9SBMCTA			9SBMCTA			9SBMCTA			9SBMCTA								
																					

For execution with secondary at 1A replace the last digit 5 with 1

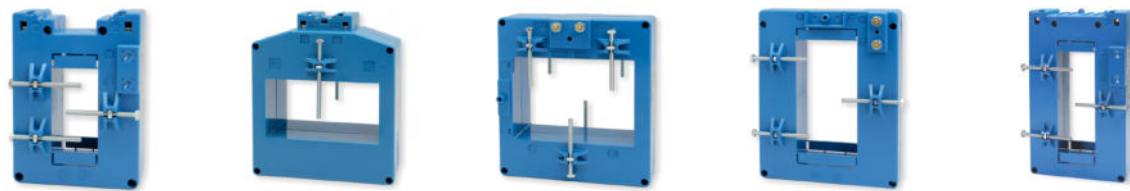
CURRENT TRANSFORMERS



TYPE	TAT063			TAT064			TAT081			TAT082			TAT085		
Cable	—			Ø 64 mm			—			—			—		
Window size	63 x 30 mm			64 x 54 mm			81 x 31 mm			82 x 37mm			85 x 54 mm		
Width	105 mm			118 mm			105 mm			130 mm			118 mm		
RATIO	CODE	VA		CODE	VA		CODE	VA		CODE	VA		CODE	VA	
		cl. 0.5	1		cl. 0.5	1		cl. 0.5	1		cl. 0.5	1		cl. 0.5	1
200/5 A				TAT064200X05		2									
250/5 A				TAT064250X05	1	2									
300/5 A				TAT064300X05	2	4									
400/5 A	TAT063400X05	4	8	TAT064400X05	4	6	TAT081400X05	4	8	TAT082400X05	6	15			
500/5 A	TAT063500X05	5	10	TAT064500X05	6	8	TAT081500X05	5	9	TAT082500X05	10	20			
600/5 A	TAT063600X05	8	15	TAT064600X05	6	10	TAT081600X05	6	10	TAT082600X05	15	30			
800/5 A	TAT063800X05	10	20	TAT064800X05	8	12	TAT081800X05	8	15	TAT082800X05	20	40	TAT085800X05	5	10
1000/5 A	TAT0631K0X05	15	30	TAT0641K0X05	10	15	TAT0811K0X05	10	20	TAT0821K0X05	20	40	TAT0851K0X05	8	15
1200/5 A	TAT0631K2X05	20	40	TAT0641K2X05	12	18	TAT0811K2X05	15	30	TAT0821K2X05	25	50	TAT0851K2X05	10	20
1500/5 A	TAT0631K5X05	20	40	TAT0641K5X05	15	20	TAT0811K5X05	20	40	TAT0821K5X05	40	80	TAT0851K5X05	12	25
2000/5 A	TAT0632K0X05	20	40	TAT0642K0X05	18	25	TAT0812K0X05	25	50	TAT0822K0X05	50	100	TAT0852K0X05	18	35
2500/5 A				TAT0642K5X05	20	30	TAT0812K5X05	30	50	TAT0822K5X05	60	120	TAT0852K5X05	20	40
TERMINALS COVERS	9SBMCTA			9SBMCTA125			9SBMCTA			9SBMCTA			9SBMCTA125		
															

For execution with secondary at 1A replace the last digit 5 with 1

CURRENT TRANSFORMERS



TYPE	TAT084			TAT101			TAT106			TAT125			TAT126		
Cable	—			—			—			—			—		
Window size	62 x 34 - 84 x 34 mm			102 x 55 mm			106 x 76 mm			105 x 55 - 127 x 55 mm			105 x 38 - 127 x 38 mm		
Width	94 mm			129 mm			134 mm			125 mm			98 mm		
RATIO	CODE	VA		CODE	VA		CODE	VA		CODE	VA		CODE	VA	
		cl. 0.5	1		cl. 0.5	1		cl. 0.5	1		cl. 0.5	1		cl. 0.5	1
200/5 A	TAT084200X05	2	4												
250/5 A	TAT084250X05	3	6												
300/5 A	TAT084300X05	4	8												
400/5 A	TAT084400X05	5	10	TAT101400X05	3	5				TAT125400X05	2	7	TAT126400X05	3	5
500/5 A	TAT084500X05	6	15	TAT101500X05	5	8				TAT125500X05	4	10	TAT126500X05	4	8
600/5 A	TAT084600X05	8	20	TAT101600X05	8	12	TAT106600X05	2	5	TAT125600X05	6	12	TAT126600X05	6	12
800/5 A	TAT084800X05	10	20	TAT101800X05	10	18	TAT106800X05	4	8	TAT125800X05	12	16	TAT126800X05	8	15
1000/5 A	TAT0841K0X05	15	25	TAT1011K0X05	15	25	TAT1061K0X05	5	10	TAT1251K0X05	15	22	TAT1261K0X05	12	20
1200/5 A	TAT0841K2X05	20	40	TAT1011K2X05	20	30	TAT1061K2X05	5	10	TAT1251K2X05	15	30	TAT1261K2X05	15	30
1500/5 A	TAT0841K5X05	25	50	TAT1011K5X05	30	40	TAT1061K5X05	10	20	TAT1251K5X05	22	35	TAT1261K5X05	20	40
2000/5 A	TAT0842K0X05	30	60	TAT1012K0X05	30	40	TAT1062K0X05	10	20	TAT1252K0X05	27	40	TAT1262K0X05	30	60
2500/5 A	TAT0842K5X05	40	80	TAT1012K5X05	35	40	TAT1062K5X05	12	25	TAT1252K5X05	30	50	TAT1262K5X05	40	80
3000/5 A				TAT1013K0X05	35	40	TAT1063K0X05	15	30	TAT1253K0X05	35	50	TAT1263K0X05	50	80
4000/5 A				TAT1014K0X05	35	40	TAT1064K0X05	20	40	TAT1254K0X05	35	50	TAT1264K0X05	60	100
TERMINALS COVERS	9SBMCTA84			9SBMCTA			9SBMCTA125			9SBMCTA125			9SBMCTA126		



For execution with secondary at 1A replace the last digit 5 with 1

CURRENT TRANSFORMERS



TYPE	TAT127			TAT050			TAT060			TAT079			TAT090		
Cable	—			Ø 50 mm			Ø 61 mm			Ø 81 mm			Ø 90 mm		
Window size	127 x 55 mm			—			—			—			—		
Width	185 mm			117 mm			105 mm			118 mm			147 mm		
RATIO	CODE	VA		CODE	VA		CODE	VA		CODE	VA		CODE	VA	
		cl. 0.5	1		cl. 0.5	1		cl. 0.5	1		cl. 0.5	1		cl. 0.5	1
100/5 A				TAT050100X05	3	4									
150/5 A				TAT050150X05	5	10									
200/5 A				TAT050200X05	15	20				TAT079200X05	2				
250/5 A				TAT050250X05	15	25	TAT060250X05	4	8						
300/5 A				TAT050300X05	15	25	TAT060300X05	5	9	TAT079300X05	2	4			
400/5 A				TAT050400X05	15	25	TAT060400X05	6	10	TAT079400X05	4	6			
500/5 A				TAT050500X05	15	25	TAT060500X05	8	15	TAT079500X05	6	8			
600/5 A				TAT050600X05	15	25	TAT060600X05	10	20	TAT079600X05	6	10	TAT090600X05	15	20
800/5 A	TAT127800X05	20	40				TAT060800X05	15	30	TAT079800X05	8	12	TAT090800X05	15	20
1000/5 A	TAT1271K0X05	20	40				TAT0601K0X05	20	40	TAT0791K0X05	10	15	TAT0901K0X05	15	20
1200/5 A	TAT1271K2X05	25	50				TAT0601K2X05	25	50	TAT0791K2X05	12	18	TAT0901K2X05	15	20
1500/5 A	TAT1271K5X05	40	80				TAT0601K5X05	30	50	TAT0791K5X05	15	20	TAT0901K5X05	15	20
2000/5 A	TAT1272K0X05	50	100							TAT0792K0X05	18	25	TAT0902K0X05	15	20
2500/5 A	TAT1272K5X05	60	120							TAT0792K5X05	20	30	TAT0902K5X05	15	25
3000/5 A	TAT1273K0X05	80	160												
4000/5 A	TAT1274K0X05	100	200												
TERMINALS COVERS	9SBMCTA			9SBMCTA50			9SBMCTA			9SBMCTA125			9SBMCTA50		



For execution with secondary at 1A replace the last digit 5 with 1

												
TYPE	TAA033			TAA083			TAA123			TAA163		
Cable	—			—			—			—		
Window size	24 x 34 mm			51 x 80.5 mm			80.5 x 121.5 mm			81 x 161.5 mm		
Width	92 mm			116 mm			150 mm			185 mm		
RATIO	CODE	VA		CODE	VA		CODE	VA		CODE	VA	
		cl. 0.5	1 3		cl. 0.5	1		cl. 0.5	1		cl. 0.5	1
60/5 A	TAA033060X05		1									
80/5 A	TAA033080X05		1									
100/5 A	TAA033100X05		1.5									
120/5 A	TAA033120X05		1.5									
150/5 A	TAA033150X05		1.5									
200/5 A	TAA033200X05	1	2									
250/5 A	TAA033250X05	1	2.5 4	TAA083250X05	1	3						
300/5 A	TAA033300X05	1	2.5 4	TAA083300X05	1	3						
400/5 A	TAA033400X05	1	3.75 6	TAA083400X05	1	5						
500/5 A	TAA033500X05	2	5 6	TAA083500X05	1.5	6						
600/5 A	TAA033600X05	5	8	TAA083600X05	3	7.5	TAA123600X05	3	6			
800/5 A				TAA083800X05	4	10	TAA123800X05	3	6			
1000/5 A				TAA0831K0X05	5	10	TAA1231K0X05	5	8	TAA1631K0X05	6	10
1200/5 A				TAA0831K2X05	5	10	TAA1231K2X05	5	10	TAA1631K2X05	6	10
1500/5 A				TAA0831K5X05	10	15	TAA1231K5X05	7.5	10	TAA1631K5X05	8	10
2000/5 A							TAA1232K0X05	10	15	TAA1632K0X05	10	15
2500/5 A										TAA1632K5X05	10	20
3000/5 A										TAA1633K0X05	20	25
4000/5 A										TAA1634K0X05	20	25
5000/5 A										TAA1635K0X05	20	25
TERMINALS COVERS	9SBMCTAA			9SBMCTAA			9SBMCTAA			9SBMCTAA		
												

For execution with secondary at 1A replace the last digit 5 with 1

						
TYPE	TAA018		TAA019		TAA029	
Cable	Ø 18 mm		Ø 18 mm		Ø 27 mm	
Window size	18x21 mm		18x19 mm		27.5x29.5 mm	
Width	30 mm		43.5 mm		43.5 mm	
RATIO	CODE	VA	CODE	VA	CODE	VA
		cl. 3		cl. 1		cl. 1
60/1 A	TAA018060X01	0.1				
100/5 A			TAA019100X05	1		
150/5 A			TAA019150X05	1		
200/5 A			TAA019200X05	1		
250/5 A			TAA019250X05	1		
400/5 A					TAA029400X05	2.5
TERMINALS COVERS	Integrated secondary cables 3m length		Integrated secondary cables 1m length		Integrated secondary cables 1m length	
						



TYPE	TTV003	TTV006	TTV007	TTV010	TTV020	TTV010	TTV020
Width	56 mm	70 mm	140 mm	150 mm	166 mm	150 mm	166 mm
Class	1	1	0,5	0,5	0,5	0,5/3P (CEI016)	0,5/3P (CEI016)
Burdens	3 VA	6 VA	7 VA	10 VA	20 VA	10/25 VA	20/50 VA
	1,5 VA ($\sqrt{3}$)	3 VA ($\sqrt{3}$)	3,5 VA ($\sqrt{3}$)	5 VA ($\sqrt{3}$)	8 VA ($\sqrt{3}$)		
RATIO	CODE	CODE	CODE	CODE	CODE	CODE	CODE
230/100 V	TTV003230XCO	TTV006230XCO	TTV007230XCO	TTV010230XCO	TTV020230XCO		
400/100 V	TTV003400XCO	TTV006400XCO	TTV007400XCO	TTV010400XCO	TTV020400XCO	TTV010400MCO	
440/100 V	TTV003440XCO	TTV006440XCO	TTV007440XCO	TTV010440XCO	TTV020440XCO		
690/100 V				TTV010690XCO	TTV020690XCO		
800/100 V					TTV020800XCO		TTV020800MCO
1000/100 V					TTV0201K0XCO		
230: $\sqrt{3}$ /100: $\sqrt{3}$ V	TTV003230VCO	TTV006230VCO	TTV007230VCO	TTV010230VCO	TTV020230VCO		
400: $\sqrt{3}$ /100: $\sqrt{3}$ V	TTV003400VCO	TTV006400VCO	TTV007400VCO	TTV010400VCO	TTV020400VCO		
440: $\sqrt{3}$ /100: $\sqrt{3}$ V	TTV003440VCO	TTV006440VCO	TTV007440VCO	TTV010440VCO	TTV020440VCO		
690: $\sqrt{3}$ /100: $\sqrt{3}$ V				TTV010690VCO	TTV020690VCO		
800: $\sqrt{3}$ /100: $\sqrt{3}$ V					TTV020800VCO		
1000: $\sqrt{3}$ /100: $\sqrt{3}$ V					TTV0201K0VCO		
TERMINALS COVERS	9SBMCTA	STANDARD EQUIPMENT	9SBMCTV	9SBMCTV	9SBMCTV	9SBMCTV	9SBMCTV



TYPE	SSHMAX				
Class	0,5				
Continuous Overload	1,2 In continuously				
RATIO	CODE	RATIO	CODE	RATIO	CODE
6 A/60 mV	SSHMAX006X60	100 A/60 mV	SSHMAX100X60	1000 A/60 mV	SSHMAX1K0X60
10 A/60 mV	SSHMAX010X60	120 A/60 mV	SSHMAX120X60	1200 A/60 mV	SSHMAX1K2X60
15 A/60 mV	SSHMAX015X60	150 A/60 mV	SSHMAX150X60	1500 A/60 mV	SSHMAX1K5X60
20 A/60 mV	SSHMAX020X60	200 A/60 mV	SSHMAX200X60	2000 A/60 mV	SSHMAX2K0X60
25 A/60 mV	SSHMAX025X60	250 A/60 mV	SSHMAX250X60	2500 A/60 mV	SSHMAX2K5X60
30 A/60 mV	SSHMAX030X60	300 A/60 mV	SSHMAX300X60	3000 A/60 mV	SSHMAX3K0X60
40 A/60 mV	SSHMAX040X60	400 A/60 mV	SSHMAX400X60	4000 A/60 mV	SSHMAX4K0X60
50 A/60 mV	SSHMAX050X60	500 A/60 mV	SSHMAX500X60		
60 A/60 mV	SSHMAX060X60	600 A/60 mV	SSHMAX600X60		
80 A/60 mV	SSHMAX080X60	800 A/60 mV	SSHMAX800X60		





Network Analyzers



Kit solution with compact three-phase CT for LV networks

Kit solution with mini Split Core CTs for LV networks



Kit solution with openable Rogowski coils for LV/MV networks

Solution with CTs for LV/MV networks



SINGLE PHASE	CODE	V	A	CT TYPE INCLUDED	COMMUNICATION	AUX SUPPLY	
	Q52S3L063MD32	230 V	63 A	Miniaturized single-phase	RS485 Modbus RTU	230Vac	

LV 3 PHASE	CODE	V	A	CT TYPES INCLUDED	COMMUNICATION	AUX SUPPLY	
	Q52D3L063X4C2	400 V	63 A	Miniaturized 3 phase	—	230Vac	
	Q52D3L125X4C2	400 V	125 A	Miniaturized 3 phase	—	230Vac	
	Q52D3L160X4C2	400 V	160 A	Miniaturized 3 phase	—	230Vac	
	Q52D3L250X4C2	400 V	250 A	Miniaturized 3 phase	—	230Vac	
	Q52D3H063M4C2	400 V	63 A	Miniaturized 3 phase	RS485 Modbus RTU	230Vac	
	Q52D3H125M4C2	400 V	125 A	Miniaturized 3 phase	RS485 Modbus RTU	230Vac	
	Q52D3H160M4C2	400 V	160 A	Miniaturized 3 phase	RS485 Modbus RTU	230Vac	
	Q52D3H250M4C2	400 V	250 A	Miniaturized 3 phase	RS485 Modbus RTU	230Vac	
	Q52A3L060X4C2	400 V	60 A	3x Mini Split Core CTs	—	230Vac	
	Q52A3L100X4C2	400 V	100 A	3x Mini Split Core CTs	—	230Vac	
	Q52A3L150X4C2	400 V	150 A	3x Mini Split Core CTs	—	230Vac	
	Q52A3L200X4C2	400 V	200 A	3x Mini Split Core CTs	—	230Vac	
	Q52A3L250X4C2	400 V	250 A	3x Mini Split Core CTs	—	230Vac	
	Q52A3L400X4C2	400 V	400 A	3x Mini Split Core CTs	—	230Vac	
	Q52A3H060MCQ2	100-400 V	60 A	3x Mini Split Core CTs	RS485 Modbus RTU	230Vac	
	Q52A3H100MCQ2	100-400 V	100 A	3x Mini Split Core CTs	RS485 Modbus RTU	230Vac	
	Q52A3H150MCQ2	100-400 V	150 A	3x Mini Split Core CTs	RS485 Modbus RTU	230Vac	
	Q52A3H200MCQ2	100-400 V	200 A	3x Mini Split Core CTs	RS485 Modbus RTU	230Vac	
	Q52A3H250MCQ2	100-400 V	250 A	3x Mini Split Core CTs	RS485 Modbus RTU	230Vac	
	Q52A3H400MCQ2	100-400 V	400 A	3x Mini Split Core CTs	RS485 Modbus RTU	230Vac	

LV/MV 3 PHASE	CODE	V	A	CT TYPES	COMMUNICATION	AUX SUPPLY	
	Q52P3H005MCQ2	100-400 V	1-5 A	External	RS485 Modbus RTU	230Vac	
	Q52P3H005MCQH	100-400 V	1-5 A	External	RS485 Modbus RTU	80÷260Vac/dc	
	Q52P3H005MCQL	100-400 V	1-5 A	External	RS485 Modbus RTU	20÷60Vac/dc	
	Q52R3H100MCQH	100-400 V	30A÷25 kA	Rogowski coils Ø100mm	RS485 Modbus RTU	80÷260Vac/dc	
	Q52R3H100MCQL	100-400 V	30A÷25 kA	Rogowski coils Ø100mm	RS485 Modbus RTU	20÷60Vac/dc	
	Q52R3H150MCQH	100-400 V	30A÷25 kA	Rogowski coils Ø150mm	RS485 Modbus RTU	80÷260Vac/dc	
	Q52R3H150MCQL	100-400 V	30A÷25 kA	Rogowski coils Ø150mm	RS485 Modbus RTU	20÷60Vac/dc	
	Q52R3H200MCQH	100-400 V	30A÷25 kA	Rogowski coils Ø200mm	RS485 Modbus RTU	80÷260Vac/dc	
	Q52R3H200MCQL	100-400 V	30A÷25 kA	Rogowski coils Ø200mm	RS485 Modbus RTU	20÷60Vac/dc	

DC LINES	CODE	V	A	COMMUNICATION	AUX SUPPLY	
	Q52C3LX60M60L	60 V	60mV by external SHUNT	RS485 Modbus RTU	20÷60Vac/dc	
	Q52C3LX60MC1L	110 V	60mV by external SHUNT	RS485 Modbus RTU	20÷60Vac/dc	
	Q52C3LX60MC1H	110 V	60mV by external SHUNT	RS485 Modbus RTU	80÷260Vac/dc	
	Q52C3LX60MD2H	220 V	60mV by external SHUNT	RS485 Modbus RTU	80÷260Vac/dc	
	Q52C3LX60M6CH	600 V	60mV by external SHUNT	RS485 Modbus RTU	80÷260Vac/dc	

SINGLE PHASE		CODE	V	A	CT TYPES	COMMUNICATION	AUX SUPPLY	
		Q72S3L005MD32	230 V	1-5 A	External	RS485 Modbus RTU	230Vac	
		Q72S3L005MD3H	230 V	1-5 A	External	RS485 Modbus RTU	80÷260Vac/dc	
		Q72S3L005MD3L	230 V	1-5 A	External	RS485 Modbus RTU	20÷60Vac/dc	
LV 3 PHASE		CODE	V	A	CT TYPES INCLUDED	COMMUNICATION	AUX SUPPLY	
		Q72D3H063M4C2	400 V	63 A	Miniaturized 3 phase	RS485 Modbus RTU	230Vac	
		Q72D3H125M4C2	400 V	125 A	Miniaturized 3 phase	RS485 Modbus RTU	230Vac	
		Q72D3H160M4C2	400 V	160 A	Miniaturized 3 phase	RS485 Modbus RTU	230Vac	
		Q72D3H250M4C2	400 V	250 A	Miniaturized 3 phase	RS485 Modbus RTU	230Vac	
		CODE	V	A	CT TYPES	COMMUNICATION	AUX SUPPLY	
		Q72A3H060MCQ2	100-400 V	60 A	3x Mini Split Core CTs	RS485 Modbus RTU	230Vac	
		Q72A3H100MCQ2	100-400 V	100 A	3x Mini Split Core CTs	RS485 Modbus RTU	230Vac	
		Q72A3H150MCQ2	100-400 V	150 A	3x Mini Split Core CTs	RS485 Modbus RTU	230Vac	
		Q72A3H200MCQ2	100-400 V	200 A	3x Mini Split Core CTs	RS485 Modbus RTU	230Vac	
		Q72A3H250MCQ2	100-400 V	250 A	3x Mini Split Core CTs	RS485 Modbus RTU	230Vac	
		Q72A3H400MCQ2	100-400 V	400 A	3x Mini Split Core CTs	RS485 Modbus RTU	230Vac	
LV/MV 3 PHASE		CODE	V	A	CT TYPES	COMMUNICATION	AUX SUPPLY	
		Q72P3H005MCQ2	100-400 V	1-5 A	External	RS485 Modbus RTU	230Vac	
DC LINES		CODE	V	A		COMMUNICATION	AUX SUPPLY	
		Q72C3LX60M60L	60 V	60mV by external SHUNT		RS485 Modbus RTU	20÷60Vac/dc	
		Q72C3LX60MC1L	110 V	60mV by external SHUNT		RS485 Modbus RTU	20÷60Vac/dc	
		Q72C3LX60MC1H	110 V	60mV by external SHUNT		RS485 Modbus RTU	80÷260Vac/dc	
		Q72C3LX60MD2H	220 V	60mV by external SHUNT		RS485 Modbus RTU	80÷260Vac/dc	
		Q72C3LX60M6CH	600 V	60mV by external SHUNT		RS485 Modbus RTU	80÷260Vac/dc	

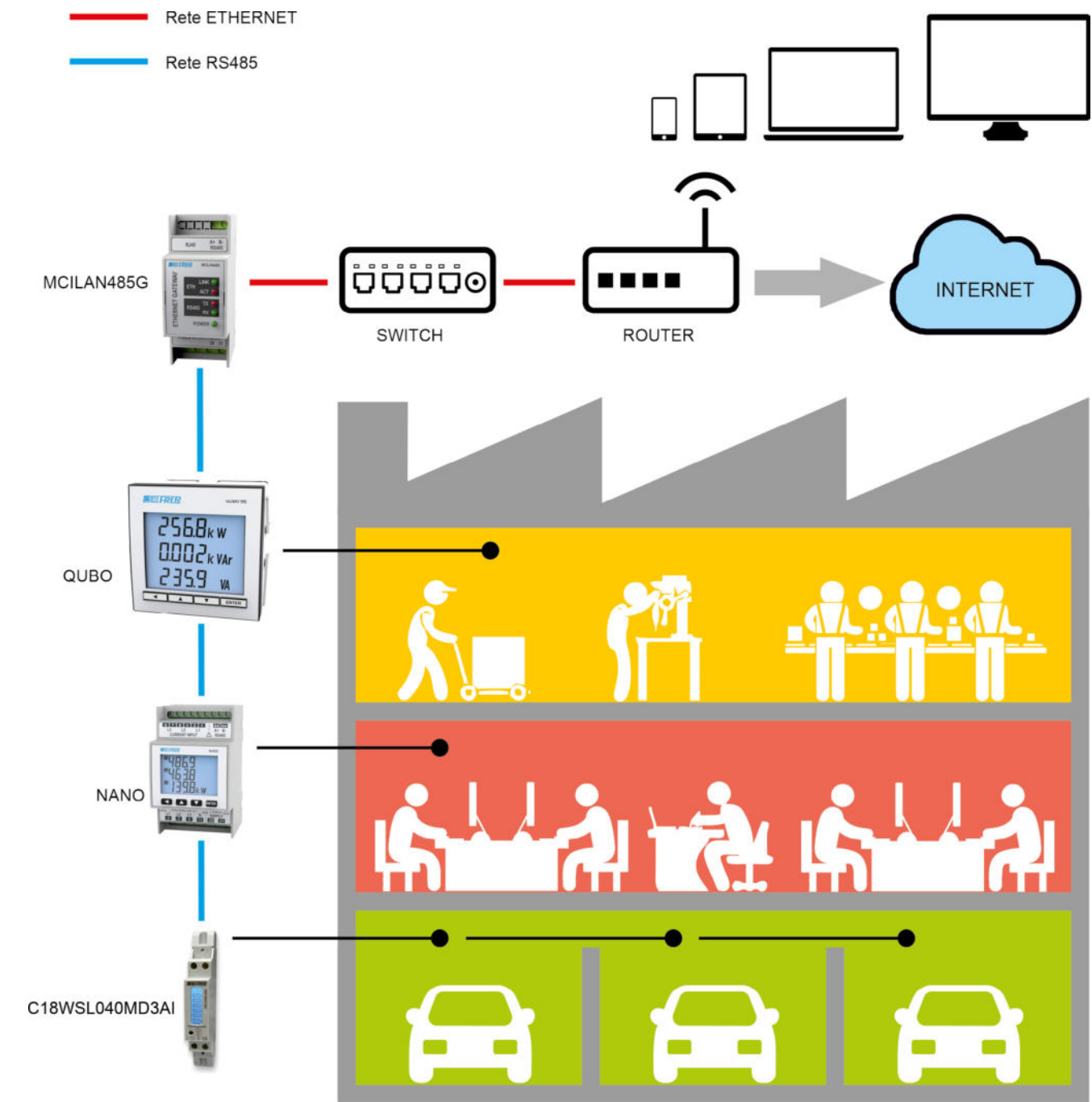
SINGLE PHASE		CODE	V	A	CT TYPES	COMMUNICATION	AUX SUPPLY	
		Q96S3L005MD32	230 V	1-5 A	External	RS485 Modbus RTU	230Vac	
		Q96S3L005MD3H	230 V	1-5 A	External	RS485 Modbus RTU	80÷260Vac/dc	
		Q96S3L005MD3L	230 V	1-5 A	External	RS485 Modbus RTU	20÷60Vac/dc	
LV 3 PHASE		CODE	V	A	CT TYPES INCLUDED	COMMUNICATION	AUX SUPPLY	
		Q96D3H063M4C2	400 V	63 A	Miniaturized 3 phase	RS485 Modbus RTU	230Vac	
		Q96D3H125M4C2	400 V	125 A	Miniaturized 3 phase	RS485 Modbus RTU	230Vac	
		Q96D3H160M4C2	400 V	160 A	Miniaturized 3 phase	RS485 Modbus RTU	230Vac	
		Q96D3H250M4C2	400 V	250 A	Miniaturized 3 phase	RS485 Modbus RTU	230Vac	
LV/MV 3 PHASE		CODE	V	A	CT TYPES	COMMUNICATION	AUX SUPPLY	
		Q96P3H005MCQ2	100-400 V	1-5 A	External	RS485 Modbus RTU	230Vac	
		Q96P3H005MCQH	100-400 V	1-5 A	External	RS485 Modbus RTU	80÷260Vac/dc	
		Q96P3H005MCQL	100-400 V	1-5 A	External	RS485 Modbus RTU	20÷60Vac/dc	
		Q96P3H005ECQ2	100-400 V	1-5 A	External	Ethernet/Web Server	230Vac	
		Q96P3H005ECQH	100-400 V	1-5 A	External	Ethernet/Web Server	80÷260Vac/dc	
		Q96P3H005ECQL	100-400 V	1-5 A	External	Ethernet/Web Server	20÷60Vac/dc	
		Q96R3H100MCQH	100-400 V	30A÷25 kA	Rogowski coils Ø100mm	RS485 Modbus RTU	80÷260Vac/dc	
		Q96R3H100MCQL	100-400 V	30A÷25 kA	Rogowski coils Ø100mm	RS485 Modbus RTU	20÷60Vac/dc	
		Q96R3H150MCQH	100-400 V	30A÷25 kA	Rogowski coils Ø150mm	RS485 Modbus RTU	80÷260Vac/dc	
		Q96R3H150MCQL	100-400 V	30A÷25 kA	Rogowski coils Ø150mm	RS485 Modbus RTU	20÷60Vac/dc	
		Q96R3H200MCQH	100-400 V	30A÷25 kA	Rogowski coils Ø200mm	RS485 Modbus RTU	80÷260Vac/dc	
		Q96R3H200MCQL	100-400 V	30A÷25 kA	Rogowski coils Ø200mm	RS485 Modbus RTU	20÷60Vac/dc	
		Q96R3H100ECQH	100-400 V	30A÷25 kA	Rogowski coils Ø100mm	Ethernet/Web Server	80÷260Vac/dc	
		Q96R3H100ECQL	100-400 V	30A÷25 kA	Rogowski coils Ø100mm	Ethernet/Web Server	20÷60Vac/dc	
		Q96R3H150ECQH	100-400 V	30A÷25 kA	Rogowski coils Ø150mm	Ethernet/Web Server	80÷260Vac/dc	
		Q96R3H150ECQL	100-400 V	30A÷25 kA	Rogowski coils Ø150mm	Ethernet/Web Server	20÷60Vac/dc	
		Q96R3H200ECQH	100-400 V	30A÷25 kA	Rogowski coils Ø200mm	Ethernet/Web Server	80÷260Vac/dc	
		Q96R3H200ECQL	100-400 V	30A÷25 kA	Rogowski coils Ø200mm	Ethernet/Web Server	20÷60Vac/dc	
DC LINES		CODE	V	A		COMMUNICATION	AUX SUPPLY	
		Q96C3LX60M60L	60 V	60mV by external SHUNT		RS485 Modbus RTU	20÷60Vac/dc	
		Q96C3LX60MC1L	110 V	60mV by external SHUNT		RS485 Modbus RTU	20÷60Vac/dc	
		Q96C3LX60MC1H	110 V	60mV by external SHUNT		RS485 Modbus RTU	80÷260Vac/dc	
		Q96C3LX60MD2H	220 V	60mV by external SHUNT		RS485 Modbus RTU	80÷260Vac/dc	
		Q96C3LX60M6CH	600 V	60mV by external SHUNT		RS485 Modbus RTU	80÷260Vac/dc	

GATEWAY	CODE	INPUT	DEVICES	OUTPUT	AUX SUPPLY
	MCILAN485G32H	RS485 MODBUS RTU	MAX. 32	MODBUS TCP - WEB SERVER	80÷260Vac/dc
	MCILAN485G32L	RS485 MODBUS RTU	MAX. 32	MODBUS TCP - WEB SERVER	20÷60Vac/dc

The FRER ETHERNET gateway allows to connect up to 32 FRER devices equipped with an RS485 interface to an Ethernet network (using a single IP address), providing the user with two possible operating modes (even simultaneously) :

1. Conversion from Modbus/TCP to Modbus RTU protocol (for up to 3 simultaneous clients)
2. Built-In Web-server

Furthermore, through appropriate network router settings, the FRER gateway can be made accessible via the Internet, allowing the user to view and record the measurements taken by the instruments with a simple browser and from anywhere in the world.



The FRER mini WEB-SERVER is included in all 96x96mm network analyzers equipped with Ethernet communication (Modbus TCP) and in Ethernet / RS485 interface converters (MCILAN485...). Accessible via any Internet browser, it allows viewing the measurements of up to 32 instruments and recording, with automatic or manual start, up to 450 instantaneous measurements simultaneously, which can then be downloaded in .csv format.

- Measurements**
- Direct access to 32 devices on a single page
 - Editable device description
 - Immediate display of electrical measurements
 - 4 quadrants Energy counting



- Data Logging**
- Automatic or manual recording of selected measurements
 - Circular buffer function
 - Immediate selection of the quantities to be recorded
 - Download in CSV format



A new complete range of MID-certified Energy Meters (Measuring Instruments Directive – Directive 2014/32/EU).

Energy Meters



- Single Phase
- Class B (EN 50470-3)
- Direct Input at 45A
- Bidirectional
- Multi-measure
- RS485 Modbus or M-Bus
- So Pulse Outputs
- Tariff Management



- 3 Phase 3/4 wires
- Class C (EN 50470-3)
- Input via CTs 1/5A
- Bidirectional
- Multi-measure
- RS485 Modbus or M-Bus o Ethernet
- So Pulse Outputs
- Tariff Management



- 3 Phase 3/4 wires
- Class B (EN 50470-3)
- Direct Input at 100A
- Bidirectional
- Multi-measure
- RS485 Modbus or M-Bus o Ethernet (80A)
- So Pulse Outputs
- Tariff Management



NOT MID	CODE	SIZE	WIRING SYSTEM	V	A	AUX SUPPLY	OUTPUTS
	C18WS	1 DIN mod.	Single Phase	230 V	40 A	Self-Supplied	Pulse Output
	C18WSL040MD3AI	1 DIN mod.	Single Phase	230 V	40 A	Self-Supplied	Pulse Output + RS485 Modbus RTU <i>Compatible with Gateway WEB SERVER page 26</i>



MID CERTIFIED ENERGY METERS

MID	CODE	SIZE	WIRING SYSTEM	V	A	AUX SUPPLY	OUTPUTS
	C18QSL045MD3AI	1 DIN mod.	Single Phase	230 V	45 A	Self-Supplied	Pulse Outputs+RS485 Modbus RTU
	C18QSL045SD3AI	1 DIN mod.	Single Phase	230 V	45 A	Self-Supplied	Pulse Outputs+M-bus
	C70QPL005M4CAD	4 DIN mod.	3Phase 3 or 4 wires	400 V	1-5 A	100...277Vac	Pulse Outputs+RS485 Modbus RTU
	C70QPL005S4CAD	4 DIN mod.	3Phase 3 or 4 wires	400 V	1-5 A	100...277Vac	Pulse Outputs+M-bus
	C70QPL005E4CAD	4 DIN mod.	3Phase 3 or 4 wires	400 V	1-5 A	Self-Supplied	Pulse Outputs+Ethernet - WEB-server
	C70QPL080E4CAD	4 DIN mod.	3Phase 4 wires	400 V	80 A	Self-Supplied	Pulse Outputs+Ethernet - WEB-server
	C70QPL100M4CAD	4 DIN mod.	3Phase 3 or 4 wires	400 V	100 A	Self-Supplied	Pulse Outputs+RS485 Modbus RTU
	C70QPL100S4CAD	4 DIN mod.	3Phase 3 or 4 wires	400 V	100 A	Self-Supplied	Pulse Outputs+M-bus

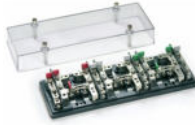


MID CERTIFIED ENERGY METERS

ENEL	CODE	BRAND	WIRING SYSTEM	V	A	AUX SUPPLY*	OUTPUTS
	CSEEMHD21	EMH	3Phase 3/4 wires	100-415 V	1-5 A	48...300Vac/dc	RS232
	COMMUNICATION ACCESSORIES:						
	MCIEMHLTE	LTE/GSM+RS485 communication plug-in module (IEC62056-21 and DLMS protocol) complete with antenna					
	MCIEMH MDB	External communication module for reading meter data (RS232 port) and converting to both MODBUS TCP (on Ethernet port) and RTU (on RS485 port) protocols - Aux. 10...30 Vdc					
	CODE	BRAND	WIRING SYSTEM	V	A	AUX SUPPLY*	OUTPUTS
	CSEZMD405	LANDIS+GYR	3Phase 3/4 wires	100-415 V	1-5 A	100...240Vac/dc	—
	COMMUNICATION ACCESSORIES:						
	MCIZMDLTE	LTE/GSM+RS485 communication plug-in module (IEC62056-21 and DLMS protocol) complete with antenna					
	MCIMRCMDB	External communication module for reading meter data (RS485 port) and converting to both MODBUS TCP (on Ethernet port) and RTU (on RS232 port) protocols - Aux.10...30 Vdc					



* The auxiliary power supply is not necessary for the operation of the Energy Meter, but is used exclusively to keep the display active and to power the communication and diagnostic functions in the absence of the measurement voltage.

TERMINAL BLOCKS	CODE	CABLES PASSAGE	WIRING SYSTEM
	GXXWTP	Rear	3Phase 4 wires (3 systems)
	GXXWTL	Side	3Phase 4 wires (3 systems)
	GXXWDP	Rear	3Phase 3 wires (2 systems)
	GXXWDL	Side	3Phase 3 wires (2 systems)



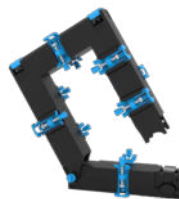
CERTIFICATES	CODE	DESCRIPTION
	ZCPXXCACT	Energy Meters certificate with revenue stamp
	ZCPXXCATV	Voltage Transformers certificate with revenue stamp
	ZCPXXCATA	Current transformers certificate with revenue stamp
	ZCPXXCATC	Certificate of matching Energy Meters (+VTs) + CTs with revenue stamp

UTF CERTIFIED VOLTAGE TRANSFOMER



TYPE	TTV007	TTV010	TTV020	TTV050
Width	140 mm	150 mm	166 mm	187 mm
Class	0,5	0,5	0,5	0,5
Burdens	7 VA	10 VA	20 VA	50 VA
	3,5 VA ($\sqrt{3}$)	5 VA ($\sqrt{3}$)	8 VA ($\sqrt{3}$)	25 VA ($\sqrt{3}$)
RATIO	CODE	CODE	CODE	CODE
400/100 V	TTV007400XCO	TTV010400XCO	TTV020400XCO	TTV050400XCO
800/100 V			TTV020800XCO	TTV050800XCO
400: $\sqrt{3}$ /100: $\sqrt{3}$ V	TTV007400VCO	TTV010400VCO	TTV020400VCO	TTV050400VCO
800: $\sqrt{3}$ /100: $\sqrt{3}$ V			TTV020800VCO	TTV050800VCO
SEALABLE TERMINALS COVERS	9SBMCTVS	9SBMCTVS	9SBMCTVS	9SBMCTVS
				

UTF CERTIFIED SPLIT CORE CURRENT TRANSFORMERS



TYPE	TAA033	TAA083	TAA123	TAA163				
Cable	—	—	—	—				
Window size	24 x 34 mm	51 x 80.5 mm	80.5 x 121.5 mm	81 x 161.5 mm				
Width	92 mm	116 mm	150 mm	185 mm				
Class	0,5	0,5	0,5	0,5				
RATIO	CODE	VA	CODE	VA	CODE	VA	CODE	VA
250/5 A	TAA033250X05	1	TAA083250X05	1				
300/5 A	TAA033300X05	1	TAA083300X05	1				
400/5 A	TAA033400X05	1	TAA083400X05	1				
500/5 A	TAA033500X05	2	TAA083500X05	1.5				
600/5 A	TAA033600X05	5	TAA083600X05	3	TAA123600X05	3		
800/5 A			TAA083800X05	4	TAA123800X05	3		
1000/5 A			TAA0831K0X05	5	TAA1231K0X05	5	TAA1631K0X05	6
1200/5 A			TAA0831K2X05	5	TAA1231K2X05	5	TAA1631K2X05	6
1500/5 A			TAA0831K5X05	10	TAA1231K5X05	7.5	TAA1631K5X05	8
2000/5 A					TAA1232K0X05	10	TAA1632K0X05	10
2500/5 A							TAA1632K5X05	10
3000/5 A							TAA1633K0X05	20
4000/5 A							TAA1634K0X05	20
5000/5 A							TAA1635K0X05	20
SEALABLE TERMINALS COVERS	9SBMCTAA	9SBMCTAA	9SBMCTAA	9SBMCTAA				
								

UTF CERTIFIED CURRENT TRANSFORMERS

CERTIFICATO

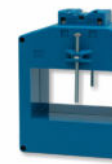
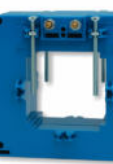
AD USO ESCLUSIVO



TYPE	TAC005		TAC032		TAC033		TAC040		TAC051		TAC053	
Cable	primary wound		Ø 24 mm		Ø 24 mm		Ø 32 mm		Ø 30 mm		Ø 40 mm	
Window size	—		32 x 10 mm		30 x 10 mm		40 x 10 mm		51 x 18 mm		51x32 - 41x41 mm	
Width	56 mm		56 mm		70 mm		70 mm		85 mm		85 mm	
Class	0,5		0,5		0,5		0,5		0,5		0,5	
RATIO	CODE	VA	CODE	VA	CODE	VA	CODE	VA	CODE	VA	CODE	VA
40/5 A	TAC005040X05	5										
60/5 A	TAC005060X05	5										
80/5 A	TAC005080X05	5										
100/5 A					TAC033100X05	3						
120/5 A					TAC033120X05	4						
150/5 A					TAC033150X05	5						
200/5 A			TAC032200X05	3	TAC033200X05	7,5			TAC051200X05	5		
250/5 A			TAC032250X05	4	TAC033250X05	10	TAC040250X05	3	TAC051250X05	8		
300/5 A			TAC032300X05	6			TAC040300X05	5	TAC051300X05	10	TAC053300X05	4
400/5 A			TAC032400X05	10			TAC040400X05	10	TAC051400X05	15	TAC053400X05	6
500/5 A			TAC032500X05	12			TAC040500X05	12	TAC051500X05	20	TAC053500X05	8
600/5 A			TAC032600X05	12			TAC040600X05	15	TAC051600X05	30	TAC053600X05	10
800/5 A							TAC040800X05	18	TAC051800X05	40	TAC053800X05	12
1000/5 A									TAC0511K0X05	50	TAC0531K0X05	12
1200/5 A									TAC0511K2X05	60	TAC0531K2X05	12
1500/5 A									TAC0511K5X05	80	TAC0531K5X05	16
2000/5 A											TAC0532K0X05	16
SEALABLE TERMINALS COVERS	9SBMCTA		9SBMCTA		9SBMCTA		9SBMCTA		9SBMCTA		9SBMCTA	
												

For insertion on 800V systems, CTs with 1.2 (6) kV insulation are required. Add XXK to the codes in the table (e.g. TAT0611K5X05XXK)

UTF CERTIFIED CURRENT TRANSFORMERS



TYPE	TAT061		TAT064		TAT081		TAT084		TAT101		TAT126	
Cable	Ø 51 mm		Ø 64 mm		—		—		—		—	
Window size	61 x 31 mm		64 x 54 mm		81 x 31 mm		62x34 - 84x34 mm		102 x 55 mm		105x38 - 127x38 mm	
Width	90 mm		118 mm		105 mm		94 mm		129 mm		98 mm	
Class	0,5		0,5		0,5		0,5		0,5		0,5	
RATIO	CODE	VA	CODE	VA	CODE	VA	CODE	VA	CODE	VA	CODE	VA
400/5 A			TAT064400X05	4	TAT081400X05	4	TAT084400X05	5				
500/5 A	TAT061500X05	4	TAT064500X05	6	TAT081500X05	5	TAT084500X05	6				
600/5 A	TAT061600X05	6	TAT064600X05	6	TAT081600X05	6	TAT084600X05	8				
800/5 A	TAT061800X05	8	TAT064800X05	8	TAT081800X05	8	TAT084800X05	10	TAT101800X05	10		
1000/5 A	TAT0611K0X05	10	TAT0641K0X05	10	TAT0811K0X05	10	TAT0841K0X05	15	TAT1011K0X05	15	TAT1261K0X05	12
1200/5 A	TAT0611K2X05	12	TAT0641K2X05	12	TAT0811K2X05	15	TAT0841K2X05	20	TAT1011K2X05	20	TAT1261K2X05	15
1500/5 A	TAT0611K5X05	20	TAT0641K5X05	15	TAT0811K5X05	20	TAT0841K5X05	25	TAT1011K5X05	30	TAT1261K5X05	20
2000/5 A	TAT0612K0X05	25	TAT0642K0X05	18	TAT0812K0X05	25	TAT0842K0X05	30	TAT1012K0X05	30	TAT1262K0X05	30
2500/5 A			TAT0642K5X05	20	TAT0812K5X05	30	TAT0842K5X05	40	TAT1012K5X05	35	TAT1262K5X05	40
3000/5 A											TAT1263K0X05	50
4000/5 A											TAT1264K0X05	60
SEALABLE TERMINALS COVERS	9SBMCTA		9SBMCTA125S		9SBMCTA		9SBMCTA84S		9SBMCTA		9SBMCTA126S	
												

For insertion on 800V systems, CTs with 1.2 (6) kV insulation are required. Add XXK to the codes in the table (e.g. TAT0611K5X05XXK)

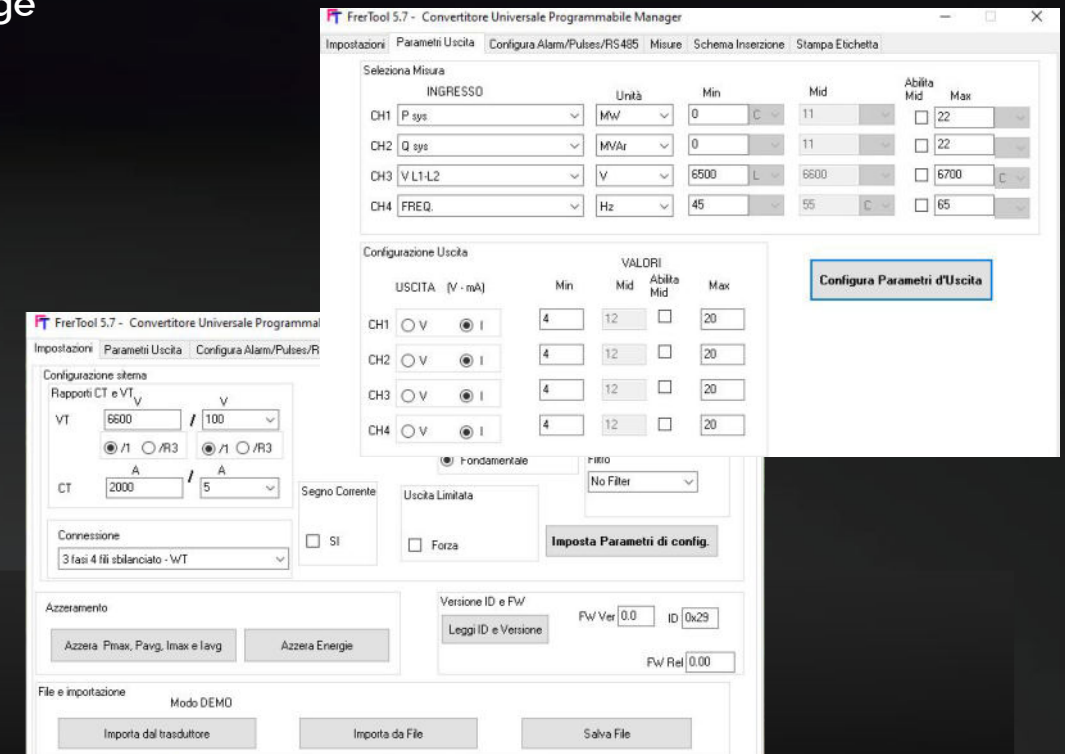
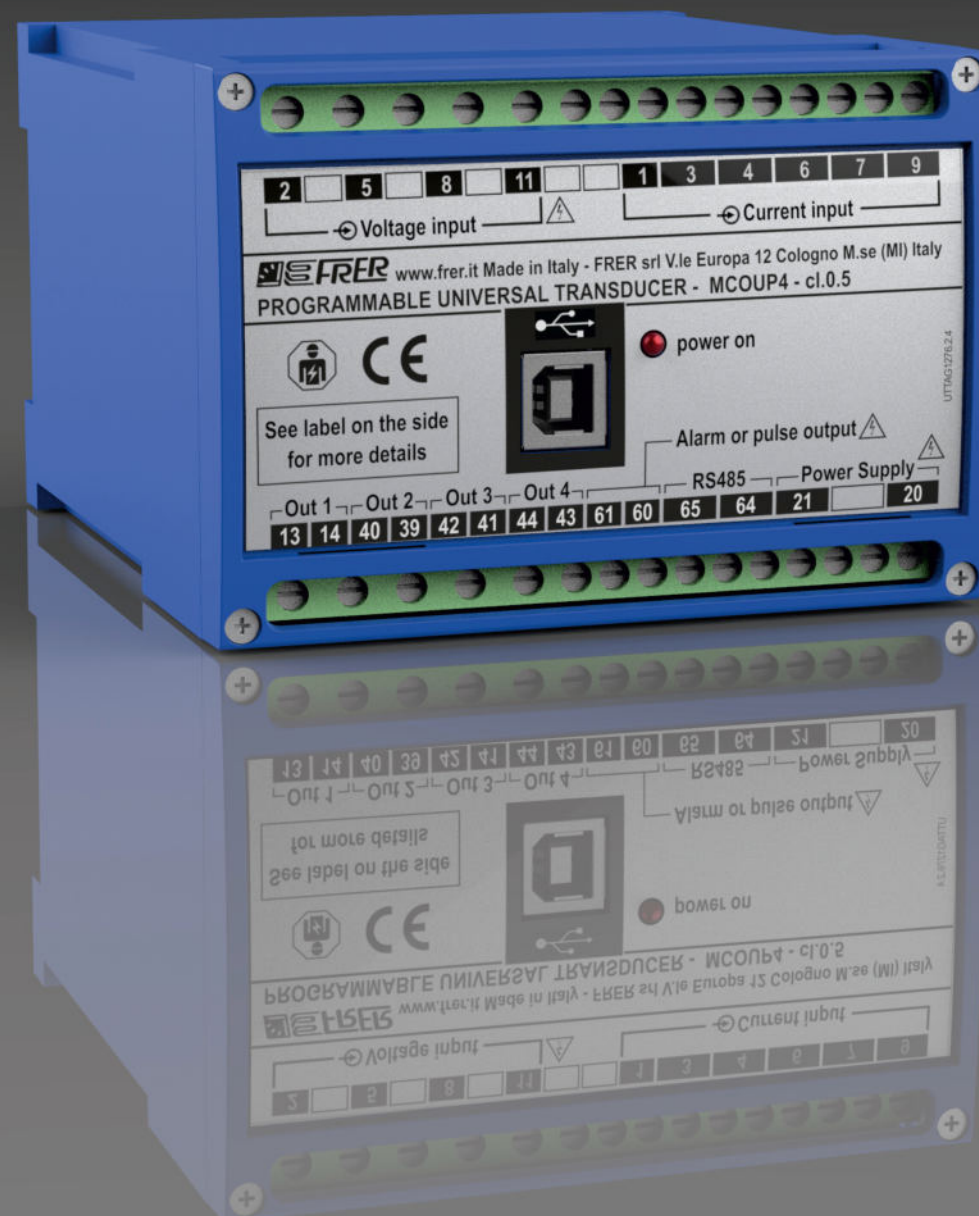


Measuring Transducers

Range of programmable transducers for AC systems with 1, 2, 3 or 4 analogue outputs.

Quick setup via USB port:

- Wiring type
- CT/VT Ratio
- Output mA/V
- Quantity associated with the output
- Measuring Range



ac PROGRAMMABLE



CODE	INPUT	OUTPUTS	AUX SUPPLY
MCOUP1PROGXXH	100-400V 1-5A	1 (mA o V)	80÷260Vac/dc
MCOUP2PROGXXH	100-400V 1-5A	2 (mA o V)	80÷260Vac/dc
MCOUP3PROGXXH	100-400V 1-5A	3 (mA o V)	80÷260Vac/dc
MCOUP4PROGXXH	100-400V 1-5A	4 (mA o V)	80÷260Vac/dc



Programming: [via free software downloadable from the product page on the website.](#)

Input Programmability: Wiring system (Single-phase, 3-phase); CT and VT ratios.

Quantities that can be associated with the outputs: IL1; IL2; IL3; ILsys; IN; VL1; VL2; VL3; VLNsyst; VL12; VL23; VL13; VLLsys; P1; P2; P3; Psyst; Q1; Q2; Q3; Qsyst; S1; S2; S3; Ssyst; P.F.1; P.F.2; P.F.3; P.F.syst; P.F.avg; CosφL1; CosφL2; CosφL3; Cosφsyst; F; IavgL1; IavgL2; IavgL3; ImaxL1; ImaxL2; ImaxL3; Pavg; Pmax; THDA; THDV

Output programmability: Output type (mA or V), Output nominal value; Input start and end scale value corresponding to the output signal

Vac



CODE	INPUT	OUTPUTS	AUX SUPPLY
MSOVS1400X20A	0-400 V	0-20 mA	Self-Supplied
MSOVS1400X0DA	0-400 V	0-10 V	Self-Supplied
MSOVS1500X20A	0-500 V	0-20 mA	Self-Supplied
MSOVS1500X0DA	0-500 V	0-10 V	Self-Supplied



MCOVS1100X42S	0-100 V	4-20 mA	115-230Vac
MCOVS1100X0DS	0-100 V	0-10 V	115-230Vac
MCOVS1150X42S	0-150 V	4-20 mA	115-230Vac
MCOVS1150X0DS	0-150 V	0-10 V	115-230Vac
MCOVS1250X42S	0-250 V	4-20 mA	115-230Vac
MCOVS1250X0DS	0-250 V	0-10 V	115-230Vac
MCOVS1400X42S	0-400 V	4-20 mA	115-230Vac
MCOVS1400X0DS	0-400 V	0-10 V	115-230Vac
MCOVS1500X42S	0-500 V	4-20 mA	115-230Vac
MCOVS1500X0DS	0-500 V	0-10 V	115-230Vac



Aac



CODE	INPUT	OUTPUT	AUX SUPPLY
MSOAS1001X20A	0-1 A	0-20 mA	Self-Supplied
MSOAS1001X0DA	0-1 A	0-10 V	Self-Supplied
MSOAS1005X20A	0-5 A	0-20 mA	Self-Supplied
MSOAS1005X0DA	0-5 A	0-10 V	Self-Supplied



MCOAS1001X42S	0-1 A	4-20 mA	115-230Vac
MCOAS1001X0DS	0-1 A	0-10 V	115-230Vac
MCOAS1005X42S	0-5 A	4-20 mA	115-230Vac
MCOAS1005X0DS	0-5 A	0-10 V	115-230Vac



A-Vdc



CODE	MEASUREMENT	INPUT	OUTPUT	AUX SUPPLY
MCOVC160MX42S	A dc from Shunt	0-60 mV	4-20 mA	115-230Vac
MCOVC160MX0DS	A dc from Shunt	0-60 mV	0-10 V	115-230Vac
MCOVC1025X42S	V dc direct	0-25 V	4-20mA	115-230Vac
MCOVC1025X0DS	V dc direct	0-25 V	0-10 V	115-230Vac
MCOVC1060X42S	V dc direct	0-60 V	4-20mA	115-230Vac
MCOVC1060X0DS	V dc direct	0-60 V	0-10 V	115-230Vac
MCOVC1150X42S	V dc direct	0-150 V	4-20mA	115-230Vac
MCOVC1150X0DS	V dc direct	0-150 V	0-10 V	115-230Vac
MCOVC1300X42S	V dc direct	0-300 V	4-20mA	115-230Vac
MCOVC1300X0DS	V dc direct	0-300 V	0-10 V	115-230Vac
MCOVC1600X42S	V dc direct	0-600 V	4-20mA	115-230Vac
MCOVC1600X0DS	V dc direct	0-600 V	0-10 V	115-230Vac



CTs WITH OUTPUT



CODE	WINDOW SIZE	RATED VALUES	OUTPUT	AUX SUPPLY
MAC022PROG42	Ø22 - 20x5 mm	5÷30 A	4-20mA Passiv (2 wires)	10...32Vdc
MAC017PROG42	Ø17 - 15x5 mm	20÷120 A	4-20mA Passiv (2 wires)	10...32Vdc
MAC032PROG42	Ø23 - 32x10 mm	50÷200 A	4-20mA Passiv (2 wires)	10...32Vdc
MAC040PROG42	Ø32 - 40x10 mm	100÷600 A	4-20mA Passiv (2 wires)	10...32Vdc
MAT061PROG42	Ø51 - 61x31 mm	200÷1200 A	4-20mA Passiv (2 wires)	10...32Vdc





Range of 3, 3 ½ and 4 ½ digit red LED digital indicators for measuring electrical quantities directly or via CTs, VTs or external transducers.

Digital Meters

Simple and flexible configuration depending on the model:



Via dip-switches easily accessible by removing the front panel

Via the front keypad protected by password.



3 DIN MODULES



CODE	MEASUREMENT INPUT		ALARMS	AUX SUPPLY	
D52EA3PROG05S	A-V ac	600V direct CT/5A - Programmable Display	—	115-230Vac	

Display value Programmable via dip-switches:
15-20-25-40-50-60-80-100-150-200 250-400-500-600-800-1000 A

DIN RAIL 100mm



CODE	MEASUREMENT INPUT		ALARMS	AUX SUPPLY	
XC0US6PROGXXS	A-V ac/dc	1-5 A / 100-500 V	2 Alarms	115-230Vac	
XCOMS6PROGXXS	mA-mV-V dc	2mA - 20mA - 200mV - 2V - 20V	2 Alarms	115-230Vac	

Programming via front buttons:
- Input range and corresponding display
- Alarm threshold and intervention characteristics

48X48



CODE	MEASUREMENT INPUT		ALARMS	AUX SUPPLY	
D48EA4PROG05S	A-V ac	600V direct CT/5A - Programmable Display	—	115-230Vac	

Display value Programmable via dip-switches:
15-20-25-40-50-60-80-100-150-200 250-400-500-600-800-1000
1500-2000-2500-4000-5000-6000-8000-10000 A

72X36



CODE	MEASUREMENT INPUT		ALARMS	AUX SUPPLY	
D76EA4PROG05S	A-V ac	600V direct CT/5A - Programmable Display	—	115-230Vac	

Display value Programmable via dip-switches:
15-20-25-40-50-60-80-100-150-200 250-400-500-600-800-1000
1500-2000-2500-4000-5000-6000-8000-10000 A

72X72



CODE	MEASUREMENT INPUT		ALARMS	AUX SUPPLY	
D72EA4PROG05S	A-V ac	600V direct CT/5A - Programmable Display	—	115-230Vac	

Display value Programmable via dip-switches:
15-20-25-40-50-60-80-100-150-200 250-400-500-600-800-1000
1500-2000-2500-4000-5000-6000-8000-10000 A

96X48



CODE	MEASUREMENT INPUT		ALARMS	AUX SUPPLY	
D98EA5PROG05S	A-V ac	600V direct CT/5A - Progr. Display TABLE 1	—	115-230Vac	
D98EV5PROG05S	V ac	VT/100-110V - Progr. Display TABLE 2	—	115-230Vac	
D98MA5PROG60S	A dc	SHUNT/60mV -Progr. Display TABLE 3	—	115-230Vac	
D98MV5200XSDS	V dc	200V direct	—	115-230Vac	
D98MV5600XSDS	V dc	600V direct	—	115-230Vac	
D98MS5PROG42S	mA dc	4-20mA - Progr. Display TABLE 3	—	115-230Vac	
D98MS5PROG0DS	V dc	0-10V - Progr. Display TABLE 3	—	115-230Vac	

Programming via front buttons:
- Input range and corresponding display
- Alarm threshold and intervention characteristics



X98US6PROGXXS	A-V ac/dc	1-5A / 100-500V	2 Alarms	115-230Vac	
X98MS6PROGXXS	mA-mV-V dc	2mA - 20mA - 200mV - 2V - 20V	2 Alarms	115-230Vac	

96X96



CODE	MEASUREMENT INPUT		ALARMS	AUX SUPPLY	
D96EA5PROG05S	A-V ac	600V direct CT/5A - Progr. Display TABLE 1	—	115-230Vac	
D96EV5PROG05S	V ac	VT/100-110V - Progr. Display TABLE 2	—	115-230Vac	
D96MA5PROG60S	A dc	SHUNT/60mV - Progr. Display TABLE 3	—	115-230Vac	
D96MV5200XSDS	V dc	200V direct	—	115-230Vac	
D96MV5600XSDS	V dc	600V direct	—	115-230Vac	
D96MS5PROG42S	mA dc	4-20mA - Progr. Display TABLE 3	—	115-230Vac	
D96MS5PROG0DS	V dc	0-10V - Progr. Display TABLE 3	—	115-230Vac	

Programming via front buttons:
- Input range and corresponding display
- Alarm threshold and intervention characteristics



X96US6PROGXXS	A-V ac/dc	1-5A / 100-500V	2 Alarms	115-230Vac	
X96MS6PROGXXS	mA-mV-V dc	2mA - 20mA - 200mV - 2V - 20V	2 Alarms	115-230Vac	

Display value Programmable via dip-switches:

TABLE 1: 5 - 10 - 15 - 20 - 25 - 30 - 40 - 50 - 60 - 75 - 80 - 100 - 120 - 125 - 150 - 200 - 250 - 300 - 400 - 500 - 600 - 750 - 800 - 1000
1200 - 1250 - 1500 - 1600 - 2000 - 2500 - 4000 - 5000 - 6000 - 7500 - 8000 - 10000 - 12000 - 12500 - 15000 - 16000 - 20000 A

TABLE 2: 0,20 - 0,22 - 0,24 - 0,36 - 0,38 - 0,40 - 0,50 - 0,63 - 0,66 - 1,00 - 1,1 - 1,32 - 1,50
2,00 - 2,20 - 2,40 - 3,60 - 3,80 - 4,00 - 5,00 - 6,30 - 6,60 - 10,0 - 11,0 - 13,2 - 15,0
20,0 - 22,0 - 24,0 - 36,0 - 38,0 - 40,0 - 50,0 - 63,0 - 66,0 - 100 - 110 - 132 - 150
200 - 220 - 240 - 360 - 380 - 400 - 500 - 630 - 660 - 1000 - 1100 - 1320 - 1500
2000 - 2200 - 2400 - 3600 - 3800 - 4000 - 5000 - 6300 - 6600 - 10000 - 11000 - 13200 - 15000 V / kV

TABLE 3: 0,150 - 0,200 - 0,250 - 0,300 - 0,400 - 0,500 - 0,600 - 0,750 - 0,800 - 1,000 - 1,200 - 1,250 - 1,500 - 1,999
1,50 - 2,00 - 2,50 - 3,00 - 4,00 - 5,00 - 6,00 - 7,50 - 8,00 - 10,00 - 12,00 - 12,50 - 15,00 - 19,99
15,0 - 20,0 - 25,0 - 30,0 - 40,0 - 50,0 - 60,0 - 75,0 - 80,0 - 100,0 - 120,0 - 125,0 - 150,0 - 199,9
150 - 200 - 250 - 300 - 400 - 500 - 600 - 750 - 800 - 1000 - 1200 - 1250 - 1500 - 1999
1500 - 2500 - 3000 - 4000 - 5000 - 6000 - 7500 - 8000 - 10000 - 12000 - 12500 - 15000 - 19990



A complete range of easy-to-read analogue meters for measuring direct or indirect electrical quantities. Available in various sizes and scales.

Analogue Meters





ac AMMETERS		F48EA		F72EA		F96EA	
Size		48 x 48 mm		72 x 72 mm		96 x 96 mm	
Scale Type		90°		90°		90°	
End Scale		In	5 In	In	5 In	In	5 In
RATIO	SCALE	CODE	CODE	CODE	CODE	CODE	CODE
5/5 A	0-5 A	F48EAX005XSD	F48EAX005CSD	F72EAX005XSD	F72EAX005CSD	F96EAX005XSD	F96EAX005CSD
10/5 A	0-10 A	F48EAX010X05	F48EAX010C05	F72EAX010X05	F72EAX010C05	F96EAX010X05	F96EAX010C05
15/ 5 A	0-15 A	F48EAX015X05	F48EAX015C05	F72EAX015X05	F72EAX015C05	F96EAX015X05	F96EAX015C05
20/5 A	0-20 A	F48EAX020X05	F48EAX020C05	F72EAX020X05	F72EAX020C05	F96EAX020X05	F96EAX020C05
25/5 A	0-25 A	F48EAX025X05	F48EAX025C05	F72EAX025X05	F72EAX025C05	F96EAX025X05	F96EAX025C05
30/5 A	0-30 A	F48EAX030X05	F48EAX030C05	F72EAX030X05	F72EAX030C05	F96EAX030X05	F96EAX030C05
40/5 A	0-40 A	F48EAX040X05	F48EAX040C05	F72EAX040X05	F72EAX040C05	F96EAX040X05	F96EAX040C05
50/5 A	0-50 A	F48EAX050X05	F48EAX050C05	F72EAX050X05	F72EAX050C05	F96EAX050X05	F96EAX050C05
60/5 A	0-60 A	F48EAX060X05	F48EAX060C05	F72EAX060X05	F72EAX060C05	F96EAX060X05	F96EAX060C05
80/5 A	0-80 A	F48EAX080X05	F48EAX080C05	F72EAX080X05	F72EAX080C05	F96EAX080X05	F96EAX080C05
100/5 A	0-100 A	F48EAX100X05	F48EAX100C05	F72EAX100X05	F72EAX100C05	F96EAX100X05	F96EAX100C05
120/5 A	0-120 A	F48EAX120X05	F48EAX120C05	F72EAX120X05	F72EAX120C05	F96EAX120X05	F96EAX120C05
150/5 A	0-150 A	F48EAX150X05	F48EAX150C05	F72EAX150X05	F72EAX150C05	F96EAX150X05	F96EAX150C05
200/5 A	0 200 A	F48EAX200X05	F48EAX200C05	F72EAX200X05	F72EAX200C05	F96EAX200X05	F96EAX200C05
250/5 A	0 250 A	F48EAX250X05	F48EAX250C05	F72EAX250X05	F72EAX250C05	F96EAX250X05	F96EAX250C05
300/5 A	0 300 A	F48EAX300X05	F48EAX300C05	F48EAX300X05	F72EAX300C05	F96EAX300X05	F96EAX300C05
400/5 A	0 400 A	F48EAX400X05	F48EAX400C05	F72EAX400X05	F72EAX400C05	F96EAX400X05	F96EAX400C05
500/5 A	0 500 A	F48EAX500X05	F48EAX500C05	F48EAX500X05	F72EAX500C05	F96EAX500X05	F96EAX500C05
600/5 A	0-600 A	F48EAX600X05	F48EAX600C05	F72EAX600X05	F72EAX600C05	F96EAX600X05	F96EAX600C05
800/5 A	0-800 A	F48EAX800X05	F48EAX800C05	F72EAX800X05	F72EAX800C05	F96EAX800X05	F96EAX800C05
1000/5 A	0-1000 A	F48EAX1K0X05	F48EAX1K0C05	F72EAX1K0X05	F72EAX1K0C05	F96EAX1K0X05	F96EAX1K0C05
1200/5 A	0-1200 A	F48EAX1K2X05	F48EAX1K2C05	F48EAX1K2X05	F72EAX1K2C05	F96EAX1K2X05	F96EAX1K2C05
1500/5 A	0-1500 A	F48EAX1K5X05	F48EAX1K5C05	F72EAX1K5X05	F72EAX1K5C05	F96EAX1K5X05	F96EAX1K5C05
2000/5 A	0-2 kA	F48EAX2K0X05	F48EAX2K0C05	F72EAX2K0X05	F72EAX2K0C05	F96EAX2K0X05	F96EAX2K0C05
2500/5 A	0-2,5 kA	F48EAX2K5X05	F48EAX2K5C05	F72EAX2K5X05	F72EAX2K5C05	F96EAX2K5X05	F96EAX2K5C05
3000/5 A	0-3 kA	F48EAX3K0X05	F48EAX3K0C05	F72EAX3K0X05	F72EAX3K0C05	F96EAX3K0X05	F96EAX3K0C05
4000/5 A	0-4 kA	F48EAX4K0X05	F48EAX4K0C05	F72EAX4K0X05	F72EAX4K0C05	F96EAX4K0X05	F96EAX4K0C05

For execution with /1A input replace the last digit 5 with 1



ac VOLTMETERS		F48EV	F72EV	F96EV
Size		48 x 48 mm	72 x 72 mm	96 x 96 mm
Scale Type		90°	90°	90°
VOLTAGE	SCALE	CODE	CODE	CODE
300 V	0-300 V	F48EVX300XSD	F72EVX300XSD	F96EVX300XSD
500 V	0-500 V	F48EVX500XSD	F72EVX500XSD	F96EVX500XSD
FREQUENCY METERS		F48FP	F72FP	F96FP
Size		48 x 48 mm	72 x 72 mm	96 x 96 mm
Scale Type		90°	90°	90°
Input voltage		57,7 ÷ 440 V	57,7 ÷ 440 V	57,7 ÷ 440 V
FREQUENCY	SCALE	CODE	CODE	CODE
50 Hz	45 ÷ 55 Hz	F48FPX455XSQ	F72FPX455XSQ	F96FPX455XSQ
60 Hz	55 ÷ 65 Hz	F48FPX565XSQ	F72FPX565XSQ	F96FPX565XSQ
50/60 Hz	45 ÷ 65 Hz	F48FPX465XSQ	F72FPX465XSQ	F96FPX465XSQ



dc AMMETERS		F48MA	F72MA	F96MA
Size		48 x 48 mm	72 x 72 mm	96 x 96 mm
Scale Type		90°	90°	90°
RATIO	SCALE	CODE	CODE	CODE
6 A / 60mV	0-6 A	F48MAX006X60	F72MAX006X60	F96MAX006X60
10 A / 60mV	0-10 A	F48MAX010X60	F72MAX010X60	F96MAX010X60
15 A / 60mV	0-15 A	F48MAX015X60	F72MAX015X60	F96MAX015X60
20 A / 60mV	0-20 A	F48MAX020X60	F72MAX020X60	F96MAX020X60
25 A / 60mV	0-25 A	F48MAX025X60	F72MAX025X60	F96MAX025X60
30 A / 60mV	0-30 A	F48MAX030X60	F72MAX030X60	F96MAX030X60
40 A / 60mV	0-40 A	F48MAX040X60	F72MAX040X60	F96MAX040X60
50 A / 60mV	0-50 A	F48MAX050X60	F72MAX050X60	F96MAX050X60
60 A / 60mV	0-60 A	F48MAX060X60	F72MAX060X60	F96MAX060X60
80 A / 60mV	0-80 A	F48MAX080X60	F72MAX080X60	F96MAX080X60
100 A / 60mV	0-100 A	F48MAX100X60	F72MAX100X60	F96MAX100X60
120 A / 60mV	0-120 A	F48MAX120X60	F72MAX120X60	F96MAX120X60
150 A / 60mV	0-150 A	F48MAX150X60	F72MAX150X60	F96MAX150X60
200 A / 60mV	0 200 A	F48MAX200X60	F72MAX200X60	F96MAX200X60
250 A / 60mV	0 250 A	F48MAX250X60	F72MAX250X60	F96MAX250X60
300 A / 60mV	0 300 A	F48MAX300X60	F72MAX300X60	F96MAX300X60
400 A / 60mV	0 400 A	F48MAX400X60	F72MAX400X60	F96MAX400X60
500 A / 60mV	0 500 A	F48MAX500X60	F72MAX500X60	F96MAX500X60
600 A / 60mV	0-600 A	F48MAX600X60	F72MAX600X60	F96MAX600X60
800 A / 60mV	0-800 A	F48MAX800X60	F72MAX800X60	F96MAX800X60
1000 A / 60mV	0-1000 A	F48MAX1K0X60	F72MAX1K0X60	F96MAX1K0X60
1200 A / 60mV	0-1200 A	F48MAX1K2X60	F72MAX1K2X60	F96MAX1K2X60
1500/ A / 60mV	0-1500 A	F48MAX1K5X60	F72MAX1K5X60	F96MAX1K5X60
2000 A / 60mV	0-2 kA	F48MAX2K0X60	F72MAX2K0X60	F96MAX2K0X60
2500 A / 60mV	0-2,5 kA	F48MAX2K5X60	F72MAX2K5X60	F96MAX2K5X60
3000 A / 60mV	0-3 kA	F48MAX3K0X60	F72MAX3K0X60	F96MAX3K0X60
4000 A / 60mV	0-4 kA	F48MAX4K0X60	F72MAX4K0X60	F96MAX4K0X60



ac VOLTMETERS		F48MV	F72MV	F96MV
Size		48 x 48 mm	72 x 72 mm	96 x 96 mm
Scale Type		90°	90°	90°
VOLTAGE	SCALE	CODE	CODE	CODE
25 V	0-25 V	F48MVX025XSD	F72MVX025XSD	F96MVX025XSD
40 V	0-40 V	F48MVX040XSD	F72MVX040XSD	F96MVX040XSD
60 V	0-60 V	F48MVX060XSD	F72MVX060XSD	F96MVX060XSD
100 V	0-100 V	F48MVX100XSD	F72MVX100XSD	F96MVX100XSD
150 V	0-150 V	F48MVX150XSD	F72MVX150XSD	F96MVX150XSD
250 V	0-250 V	F48MVX250XSD	F72MVX250XSD	F96MVX250XSD
600 V	0-600 V	F48MVX600XSD	F72MVX600XSD	F96MVX600XSD
INPUT FROM TRANSDUCEURS		F48MS	F72MS	F96MS
Size		48 x 48 mm	72 x 72 mm	96 x 96 mm
Scale Type		90°	90°	90°
Scale		0-100 %	0-100 %	0-100 %
INPUT		CODE	CODE	CODE
0-1 mA		F48MSXCPCX01	F72MSXCPCX01	F96MSXCPCX01
0-5 mA		F48MSXCPCX05	F72MSXCPCX05	F96MSXCPCX05
0-20 mA		F48MSXCPCX20	F72MSXCPCX20	F96MSXCPCX20
0...4-20 mA (live zero)		F48MSXCPCZ42	F72MSXCPCZ42	F96MSXCPCZ42
4-20 mA mechanical supp.		F48MSXCPCX42	F72MSXCPCX42	F96MSXCPCX42
0-10 V		F48MSXCPCX0D	F72MSXCPCX0D	F96MSXCPCX0D

Lined area for notes.

Look beyond, measure better!



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