ORMAZABAL

Focus on Medium Voltage

ekorSYS units: protection, telemanagement & communication

ekorRPTci

Protection and metering unit with integrated control for fuse protection cubicles

Protection, metering and control unit, integrated in Ormazabal switch-fuse combination cubicles for general protection with integrated control functions.

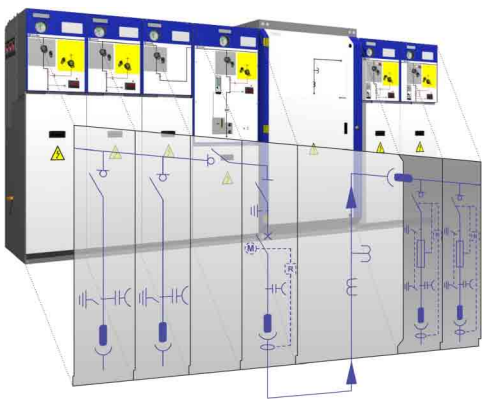
- Presence / absence of voltage
- Remote control
- Current and voltage metering functions

Microprocessor-based with protection functions for timed (overload) and instant (shortcircuit) overcurrent of phases and neutral.

- Communicable electronic relay
- Current and voltage sensors (1000/1 or 300/1)
- Power supply and test board
- Toroidal-core current transformers
- Bistable trigger

APPLICATIONS

- Protection of remote-controlled Medium Voltage customers.
- Protection of Transformer Substations and industrial customers:
  - Transformer protection
  - Line protection with fuses



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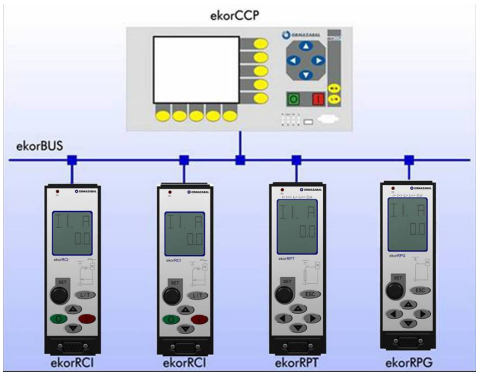
Protection and metering unit with integrated control for fuse protection cubicles

Most notable features:

- Improved selectivity than fuse protection: IEC inverse time curves
- Protects against phase-neutral faults
- Prevents unsafe fuse blowing (I_3)
- External trip
- Primary and secondary tests
- Phase metering from 5 A
- Earth current metering from 0.5 A
- Factory-installed toroidal-core current transformers: prevention of errors on site



Technical Characteristics

General	Phase current sensors		3
	Zero-sequence earth current sensor		1 (optional)
	Digital Inputs		1 (external trip)
	Digital outputs		2
Power Supply Options	Selfpowered	**[A, Vac]**	> 5, 230 ±30%
	AC	**[Vac...Vac]**	24 ... 110 ± 30%
	DC	**[Vdc...Vdc]**	24 ... 125 ± 30%
	Consumption	**[VA]**	< 2
Frequency		**[Hz; Hz]**	50; 60 ±1%
Current inputs	Primary phase	**[A...A]**	5 ... 630 (acc/ model)
	Earth	**[A...A]**	0,5 ... 50 (acc/ model)
	I thermal/dynamic	**[kA/kA]**	20 / 50
	Impedance	**[Ω]**	0,1
Accuracy	Time delay	**[%]**	5 (minimum 20 ms)
	Metering / Protection		Class 1 / 5P20
Output contacts	Voltage	**[Vac]**	270
	Current	**[A]**	10 (AC)
	Switching power	**[VA]**	750 (resistive load)
Measurements	Current		Amperimeter Function
	Presence / absence of voltage		
Protection Functions	Phase overcurrent		50-51
	Earth overcurrent		50N-51N
	Ultrasensitive earth leakage protection		50Ns-51Ns
	Thermometer (external trip)		49T
Voltage	Detection of voltage presence / absence		
Detection, Automation and Control	5 inputs / 7 outputs (*)		
	10 inputs / 4 outputs (*)		
Communications	Front port configuration		DB9 RS232
	Rear port remote control		RS485 (5 kV) – RJ45
			RJ485 – optical Fibre
	Protocol		MODBUS (RTU)
			PROCOME
	Setup and monitoring program		ekorSOFT (optional)
Indications	Tripping cause indication		
	Error display		
	History Log		
Test	Test blocks for current injection		
	Output contact for test		

(*) Both modules are not cumulative.
The availability of one or the other depends on the model.

CONFIGURATOR

ekorRP **T** — ▢ ▢ ▢ **B**

Protection functions:

- 10 - Three phases (3 x 50/51)
- 20 - Three phases and neutral (3 x 50/51 + 50N/51N) (#)
- 30 - Three phases and sensitive neutral (3 x 50/51 + 50Ns/51Ns) (#)

Inputs/Outputs:

- 0 - 5 inputs / 7 outputs
- 1 - 5 inputs / 7 outputs with coil monitoring
- 2 - 10 inputs / 4 outputs

Toroidal-core current transformers:

- 0 - Without toroidal-core current transformers
- 1 - Range 5-100 A
- 2 - Range 15-630 A

Power supply:

- B - Auxiliary power supply (Battery, UPS, etc.)

(#) (+79) in cubicles with RAMV driving mechanism

Tests

Insulation		IEC 60255-5
Electromagnetic Compatibility	IEC 60255-11	IEC 60255-22-1
	IEC 60255-22-2	IEC 60255-22-3
	IEC 60255-22-4	IEC 60255-22-5
	IEC 60255-22-6	IEC 61000-4-8
	IEC 61000-4-12	IEC 60255-25
Climatic	IEC 60068-2-1	IEC 60068-2-2
	IEC 60068-2-78	IEC 60068-2-30
Mechanical	IEC 60255-21-1	IEC 60255-21-2
	IEC 60255-21-3	
Power	IEC 60265	IEC 60056
CE Conformity	CE-26/08-43-EE-1	IEC60255

Not all the combinations of this configurator are possible. Please ask our Technical-Commercial Department about availability of models.