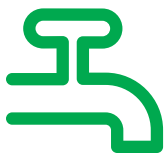
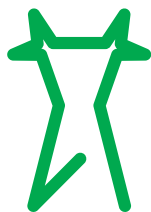


The perfect balance of electrical network protection

Square D® SEPAM® Series 10 Protective Relay



Water



Energy and
Infrastructure



Industry



by Schneider Electric

protective relay

Sepam series 10 protective relays offer overcurrent and ground-fault protection for feeders and distribution transformers.

Applications

- > Protection of secondary power distribution networks (MV/MV and MV/LV substations)
- > Protection of buildings with MV power supply: office buildings, shopping centers, industry, warehouses, etc.



Electrical network protection

Sepam series 10

Protective relays constantly monitor the power network and trip the circuit breakers to isolate problem circuits under fault conditions including: overcurrent, short circuit, over temperature, etc.

Sepam offers an extensive range of protective relays with increasing capabilities and performance.



Sepam series 20
for the protection of power lines, transformers and motors based on current monitoring



Sepam series 40
for the protection of power lines, transformers and generators based on current and voltage monitoring



Sepam series 80*
for the protection of power lines, transformers, motors and generators based on current and voltage monitoring – incorporates current differential protection, and offers wide-ranging possibilities for function controls and customization

* Remote display shown with the Sepam 40 is also available for the 20 and the 80.

Experience

- > Schneider Electric, a world leader in protective protection relays has 30 years' experience, in a context of constant innovation.
- > Schneider Electric has research and development teams which constantly work towards industry leading quality and reliability in product design and operation.
- > Schneider Electric means the assurance of finding, throughout the world, a product and service offering that meets your needs and the standards applicable in your country.

ANSI codes

Codes and definitions	12	Overspeed (2 set points)	46BC	Broken conductor	6
	14	Underspeed (2 set points)	47	Negative sequence overvoltage	6
	21B	Underimpedance	48	Excessive starting time	6
	24	Overfluxing (V/Hz)	49RMS	Thermal overload	6
	25	Synch-check	50/27	Inadvertent energization	6
	26/63	Thermostat/Buchholz	50/51	Phase overcurrent	6
	27/27S	Undervoltage (L-L/L-N)	50/51 CLPU	Phase overcurrent cold load P/B*	6
	27D	Positive-sequence undervoltage	50BF	Breaker failure	7
	27R	Remanent undervoltage	50G/51G	Ground sensitive	7
	30	Annunciation	50N/51N	Ground fault	7
	32P	Directional real overpower	50N/51N CLPU	Ground/sensitive ground fault cold load P/B*	8
	32Q/40	Directional reactive overpower	50V/51V	Voltage restrained overcurrent	8
	37	Phase undercurrent	51C	Capacitor bank unbalance	8
	37P	Directional active underpower	51LR	Locked rotor	8
	38/49T	Temperature monitoring	59	Overvoltage (L-L or L-N)	8
	40	Field loss (underimpedance)	59	Overvoltage (L-L)	8
46	Unbalance/negative sequence	59N	Neutral voltage displacement	9	

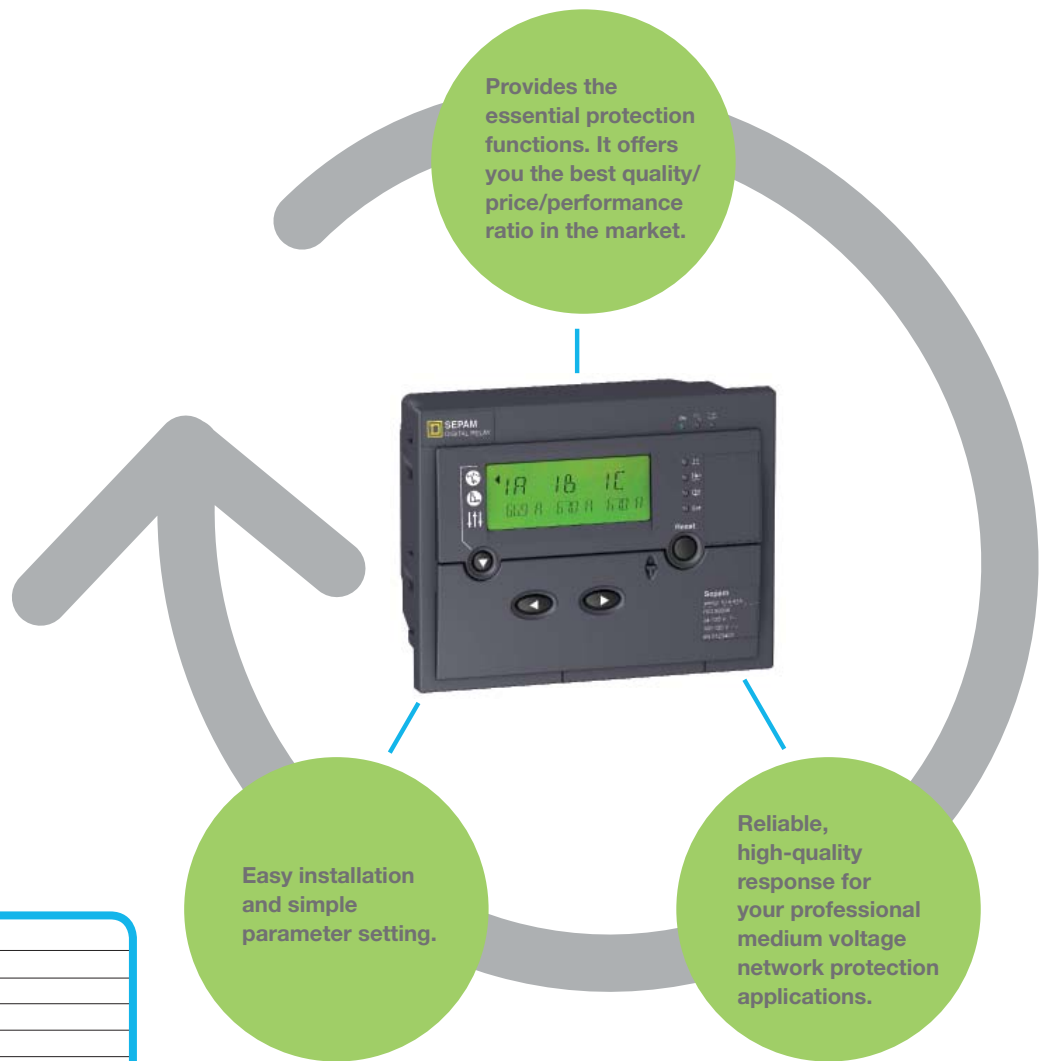
Bolded items available on the Sepam 10 protective relay

* Pickup/Blocking

protective relay

Simplicity, reliability, price ...

Sezam series 10 protective relay, the perfect balance!



0/60FL	CT/VT supervision
4G	100% stator ground fault
4REF	Restricted ground fault
6	Starts per hour
7	Directional phase overcurrent
7N/67NC	Directional ground fault
8	Zone selective interlocking
4	Circuit connection supervision
8PS	Pole slip
9	Recloser (4 cycles)
1H	Overfrequency
1L	Underfrequency
1R	Rate of change of frequency (df/dt)
6	Latching/acknowledgement
7M	Machine differential
7T	Two-winding transformer differential
4/69	Circuit breaker/contactors control



Sepam series 10 protective relay: phase current and ground fault monitoring.

Three models for varying needs:

- N:** Ground fault overcurrent protection
- B:** Phase and ground fault overcurrent protection
- A:** Performs the same functions as the Sepam series 10 B, with digit inputs and additional relay outputs, one communication port and additional protection and control functions



✓ Simplicity

- > Easier stock management: a single box for the content, no accessories, sold as a single unit, a light, compact product.
- > Fast implementation: easy installation and wiring, parameter setting done directly on the Sepam series 10 without the use of a PC.
- > Intuitive operation: display, keys icons have been set up ergonomically.

✓ Productivity

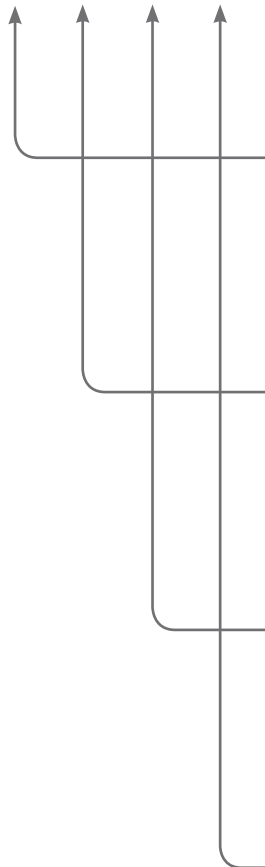
- > Reduced maintenance costs: self-testing “watch-dog” of the Sepam series 10, allowing longer periods without maintenance.
- > Improved power availability: precise tripping threshold and time, logic discrimination capability, detailed and spontaneous operator information in the event of tripping.

✓ Reliability

- > Carefully designed and robustly manufactured to work in a severe environment.
- > Accessible parts are made entirely of insulating materials, compliant with the new IEC 60255-27 standard.
- > A product in compliance with the European RoHS directive, environmentally friendly, with low energy consumption, manufactured in a plant with ISO 14001 certification.

Technical characteristics of the Sepam series 10 range

SQ1




	Model
N	Ground fault overcurrent protection
B	Phase and ground fault overcurrent protection
A	Phase and ground fault overcurrent protection, logic inputs and communication port
	Number of current inputs
1	1-ground current input
3	2-phase current inputs + 1 ground current input
4	3-phase current inputs + 1 ground current input
	Sensitivity of earth fault overcurrent protection
1	Standard (0.1... 24 In0)
2	Sensitive (0.01... 2.4 In0)
3	Very sensitive (0.2... 24 A and 2... 240 A primary) with CSH core balance CT
	Supply voltage
A	24... 125 Vdc and 100... 120 Vac
E	110... 250 Vdc and 100... 240 Vac
F	220... 250 Vdc and high switching threshold logic inputs

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