

The Sepam range of protection and metering is designed for the operation of machines and electrical distribution networks of industrial installations and utility substations for all levels of voltage. It consists of complete, simple and reliable solutions, suited to following four families: Sepam series 20, 40, 60 and 80.

A range adapted at your application

- Protection of substation (incoming, outgoing line and busbars).
- Protection of transformers.
- Protection of motors, and generators.

Simplicity

Easy to install

- Light, compact base unit.
- Optional modules fitted on a DIN rail, connected using prefabricated cords.
- User friendly and powerful PC parameter and protection setting software to utilize all of Sepam's possibilities.

User-friendly

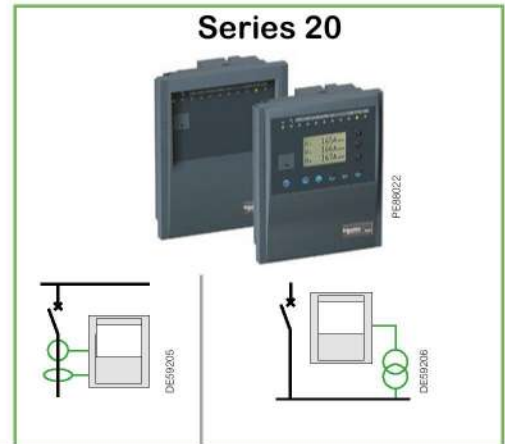
- Intuitive User Machine Interface, with direct data access.
- Local operating data in the user's language.

Accurate measurement and detailed diagnosis

- Measuring all necessary electrical values.
- Monitoring switchgear status: sensors and trip circuit, mechanical switchgear status.
- Disturbance recording.
- Sepam self-diagnosis and watchdog.

Flexibility and evolutivity

- Enhanced by optional modules to evolve in step with your installation.
- Possible to add optional modules at any time.
- Simple to connect and commission via a parameter setting procedure.



| Protections | | | |
|--------------------------------------|---------------------|-----------------|--|
| Current | • | • | |
| Voltage | | | • • |
| Frequency | | | • • |
| Specifics | | Breaker failure | Disconnection by rate of change of frequency |
| Applications | | | |
| Substation | S20 | S24 | |
| Busbar | | | B21 B22 |
| Transformer | T20 | T24 | |
| Motor | M20 | | |
| Generator | | | |
| Capacitor | | | |
| Characteristics | | | |
| Logic inputs | 0 to 10 | | 0 to 10 |
| Logic outputs | 4 to 8 | | 4 to 8 |
| Temperature sensors | 0 to 8 | | 0 to 8 |
| Channel | | | |
| Current | 3I + I ₀ | | |
| Voltage | | | 3V + V ₀ |
| LPCT ⁽¹⁾ | • | | |
| Communication ports | 1 to 2 | | 1 to 2 |
| IEC61850 Protocol | • | | • |
| Control | | | |
| Matrix ⁽²⁾ | • | | • |
| Logic equation editor | | | |
| Logipam ⁽³⁾ | | | |
| Other | | | |
| Backup battery | | | |
| Front memory cartridge with settings | | | |

(1) LPCT: low-power current transformer complying with standard IEC 60044-8.

(2) Control matrix for simple assignment of information from the protection, control and monitoring functions.

(3) Logipam ladder language (PC programming environment) to make full use of Sepam series 80 functions.

(4) Standard lithium battery 1/2 AA format, 3.6 V, front face exchangeable.

Protection

Easergy Sepam selection guide



| Protections | | | | | | |
|--------------------------------------|-------------------------|-------------------------|---|--|-------------------------|---|
| Current | ● | ● | ● | ● | ● | ● |
| Voltage | ● | ● | ● | ● | ● | ● |
| Frequency | ● | ● | ● | ● | ● | ● |
| Specifics | | Directional earth fault | Directional earth fault and phase overcurrent | | Directional earth fault | Directional earth fault and phase overcurrent |
| Applications | | | | | | |
| Substation | S40 | S41, S43 | S42 | S60 | S62 | |
| Busbar | | | | | | |
| Transformer | T40 | | T42 | T60 | T62 | |
| Motor | | M41 | | | M61 | |
| Generator | G40 | | | G60 | G62 | |
| Capacitor | | | | C60 | | |
| Characteristics | | | | | | |
| Logic inputs | 0 to 10 | | | 0 to 28 | | |
| Logic outputs | 4 to 8 | | | 4 to 16 | | |
| Temperature sensors | 0 to 16 | | | 0 to 16 | | |
| Channel | | | | | | |
| Current | 3 I + I ₀ | | | 3 I + I ₀ | | |
| Voltage | 3V, 2U + V ₀ | | | 3V, 2U + V ₀ or V _{nt} | | |
| LPCT ⁽¹⁾ | ● | | | ● | | |
| Communication ports | 1 to 2 | | | 1 to 2 | | |
| IEC61850 Protocol | ● | | | ● | | |
| Control | | | | | | |
| Matrix ⁽²⁾ | ● | | | ● | | |
| Logic equation editor | ● | | | ● | | |
| Logipam ⁽³⁾ | | | | | | |
| Other | | | | | | |
| Backup battery | 48 hours | | | Lithium battery ⁽⁴⁾ | | |
| Front memory cartridge with settings | | | | ● | | |

⁽¹⁾ LPCT: low-power current transformer complying with standard IEC 60044-8.

⁽²⁾ Control matrix for simple assignment of information from the protection, control and monitoring functions.

⁽³⁾ Logipam ladder language (PC programming environment) to make full use of Sepam series 80 functions.

⁽⁴⁾ Standard lithium battery 1/2 AA format, 3.6 V, front face exchangeable.

Protection

Easergy Sepam selection guide

| Series 80 | | | | | | | | |
|--------------------------------------|--------------------------------|-------------------------|---|--|---|----------------------|--|--------------------------------|
| | | | | | | | | |
| | | | | | | | | |
| Protections | | | | | | | | |
| Current | ● | ● | ● | ● | ● | ● | ● | ● |
| Voltage | ● | ● | ● | ● | ● | ● | ● | ● |
| Frequency | ● | ● | ● | ● | ● | ● | ● | ● |
| Specifics | | Directional earth fault | Directional earth fault and phase overcurrent | Disconnection by rate of change of frequency | Transformer & transformer-machine unit differential | Machine differential | Voltage and frequency protection for 2 sets of busbars | Capacitor-bank unbalance |
| Applications | | | | | | | | |
| Substation | S80 | S81 | S82 | S84 | | | | |
| Busbar | B80 | | | | | | B83 | |
| Transformer | | T81 | T82 | | T87 | | | |
| Motor | | M81 | | | M88 | M87 | | |
| Generator | | | G82 | | G88 | G87 | | |
| Capacitor | | | | | | | | C86 |
| Characteristics | | | | | | | | |
| Logic inputs | 0 to 42 | | | | 0 to 42 | | 0 to 42 | 0 to 42 |
| Logic outputs | 5 to 23 | | | | 5 to 23 | | 5 to 23 | 5 to 23 |
| Temperature sensors | 0 to 16 | | | | 0 to 16 | | 0 to 16 | 0 to 16 |
| Channel | | | | | | | | |
| Current | 3I + 2 x Io | | | | 2 x 3I + 2 x Io | | 3I + Io | 2 x 3I + 2 x Io |
| Voltage | 3V + Vo | | | | 3V + Vo | | 2 x 3V + 2 x Vo | 3V + Vo |
| LPCT ⁽¹⁾ | ● | | | | ● | | ● | ● |
| Communication ports | 2 to 4 | | | | 2 to 4 | | 2 to 4 | 2 to 4 |
| IEC61850 Protocol | ● | | | | ● | | ● | ● |
| Control | | | | | | | | |
| Matrix ⁽²⁾ | ● | | | | ● | | ● | ● |
| Logic equation editor | ● | | | | ● | | ● | ● |
| Logipam ⁽³⁾ | ● | | | | ● | | ● | ● |
| Other | | | | | | | | |
| Backup battery | Lithium battery ⁽⁴⁾ | | | | Lithium battery ⁽⁴⁾ | | Lithium battery ⁽⁴⁾ | Lithium battery ⁽⁴⁾ |
| Front memory cartridge with settings | ● | | | | ● | | ● | ● |

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