



Sepam series 40

جهت سفارش محصولات با شماره ۶۶۳۴۹۴۷۷ تماس حاصل فرمایید
شرکت مبتكران صنعت برنا
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Sepam series 40 and its optional modules

1 Base unit, with various types of User Machine Interfaces (UMI):

- basic UMI
- advanced UMI with graphical LCD screen.

2 Remote advanced UMI.

3 10 logic inputs and 8 output relays,

4 outputs on the base unit + 1 optional module providing 10 inputs and 4 outputs.

4 1 communication port:

- connection to 1 or 2 S-LAN and/or E-LAN networks
- Modbus, Modbus TCP/IP, IEC60870-5-103, DNP3 and IEC 61850 communication protocols
- RS 485 (2 or 4 wire) or fiber optic network.

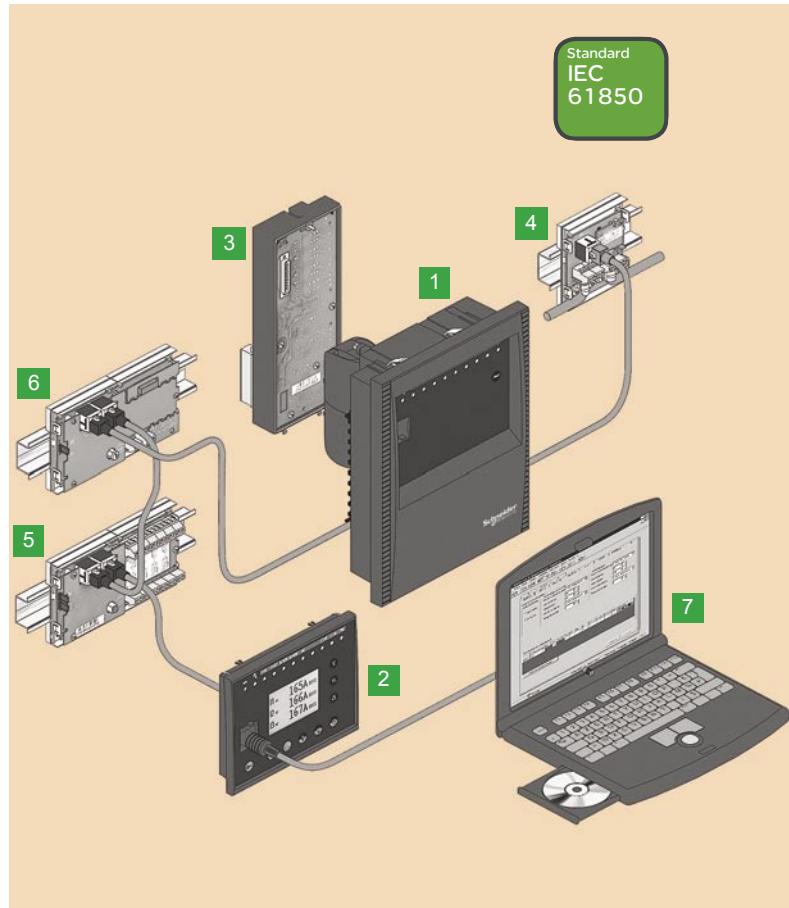
5 Temperature data from 16 sensors, Pt100, Ni100, or Ni120.

6 1 analog output, 0-10mA, 4-20mA or 0-20mA.

7 Software tools:

- Sepam parameter and protection setting and control function customization
- recovery and display of disturbance recording data
- local or remote operation via an E-LAN.

PE90545



Characteristics

Conformity to standards

IEC 60255 - Protection relays

IEC 60529 - Degree of protection

IP52 on front panel

IEC 60068 - Operating temperature

-25°C to +70°C (-13°F to +158°F)

Certifications

CE, UL508, CSA C22.2

Auxiliary power supply

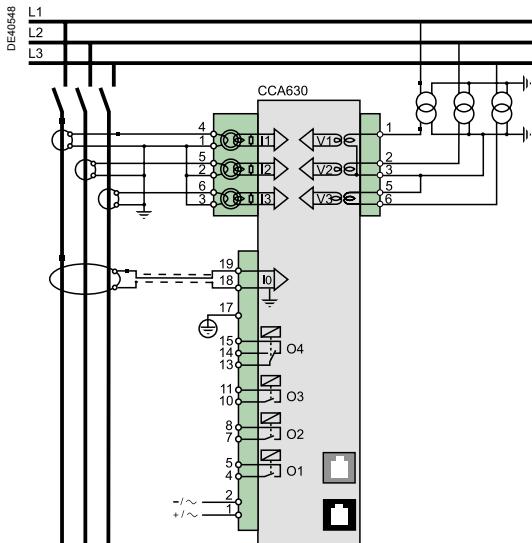
24-250 V DC and 110-240 V AC

Overall size of base units (H x W x D)

222 X 176 X 130 mm

8 types of Sepam series 40

- S40, S41, S42, S43: substation incomers and feeders protection
- T40, T42: transformer protection
- M41: motor protection
- G40: generator protection



Protections	ANSI code	S40	S41	S42	S43	T40	T42	M41	G40
Phase overcurrent	50/51	4	4	4	4	4	4	4	4
Voltage restrained overcurrent	50V/51V								1
Earth fault, sensitive earth fault	50N/51N 50G/51G	4	4	4	4	4	4	4	4
Breaker failure	50BF	1	1	1	1	1	1	1	1
Unbalance/negative sequence	46	2	2	2	2	2	2	2	
Directional phase overcurrent	67			2			2		
Directional earth fault	67N/67NC		2	2	2		2	2	
Directional real overpower	32P		1	1	1			1	1
Directional reactive overpower	32Q/40							1	1
Thermal overload	49 RMS					2	2	2	2
Phase undercurrent	37							1	
Locked rotor, excessive starting time	48/51LR/14							1	
Starts per hour	66							1	
Positive sequence undervoltage	27D							2	
Remanent undervoltage	27R							1	
Undervoltage	27/27S	2	2	2		2	2	2	2
Oversupply	59	2	2	2		2	2	2	2
Neutral voltage displacement	59N	2	2	2		2	2	2	2
Negative sequence oversupply	47	1	1	1		1	1	1	1
Overfrequency	81H	2	2	2		2	2	2	2
Underfrequency	81L	4	4	4		4	4	4	4
Recloser (4 cycles)	79	□	□	□	□				
Temperature monitoring (8 or 16 RTDs, 2 set points per RTD)	38/49T					□	□	□	□
Thermostat / Buchholz	26/63					□	□		
Metering									
RMS phase current I1,I2,I3, residual current I0	■	■	■	■	■	■	■	■	■
Average current I1, I2, I3	■	■	■	■	■	■	■	■	■
Peak demand current IM1, IM2, IM3	■	■	■	■	■	■	■	■	■
Voltage U21, U32, U13, V1, V2, V3	■	■	■	■	■	■	■	■	■
Residual voltage V0	■	■	■	■	■	■	■	■	■
Positive sequence voltage Vd/rotation direction, Negative sequence voltage Vi	■	■	■	■	■	■	■	■	■
Frequency	■	■	■	■	■	■	■	■	■
Real / reactive / apparent power P, Q, S	■	■	■	■	■	■	■	■	■
Peak demand real/reactive power PM, QM	■	■	■	■	■	■	■	■	■
Power factor	■	■	■	■	■	■	■	■	■
Calculated real / reactive energy (±W.h, ±var.h)	■	■	■	■	■	■	■	■	■
Real/reactive energy impulse counter (±W.h, ±var.h)	□	□	□	□	□	□	□	□	□
Temperature	■	■	■	■	■	■	■	■	■
Network and machine diagnosis									
Tripping current Trip1, Trip2, Trip3, Trip0	■	■	■	■	■	■	■	■	■
Tripping context	■	■	■	■	■	■	■	■	■
Unbalance ratio/negative sequence current	■	■	■	■	■	■	■	■	■
Phase shift φ0, φ1, φ2, φ3	■	■	■	■	■	■	■	■	■
Disturbance recording	■	■	■	■	■	■	■	■	■
Thermal capacity used	■	■	■	■	■	■	■	■	■
Remaining operating time before overload tripping	■	■	■	■	■	■	■	■	■
Waiting time after overload tripping	■	■	■	■	■	■	■	■	■
Running hours counter / operating time	■	■	■	■	■	■	■	■	■
Starting current and time	■	■	■	■	■	■	■	■	■
Start inhibit time delay, number of starts before inhibition	■	■	■	■	■	■	■	■	■
Switchgear diagnosis									
Cumulative breaking current	■	■	■	■	■	■	■	■	■
Trip circuit supervision	□	□	□	□	□	□	□	□	□
Number of operations, operating time, charging time	□	□	□	□	□	□	□	□	□
CT/VT supervision	■	■	■	■	■	■	■	■	■
Control and monitoring									
ANSI code									
Circuit breaker / contactor control	94/69	■	■	■	■	■	■	■	■
Latching / acknowledgment	86	■	■	■	■	■	■	■	■
Logic discrimination	68	□	□	□	□	□	□	□	□
Switching of group of settings	■	■	■	■	■	■	■	■	■
Annunciation	30	■	■	■	■	■	■	■	■
Logical equation editor	■	■	■	■	■	■	■	■	■
Communication port									
Measurement readout	□	□	□	□	□	□	□	□	□
Remote indication and time tagging of event	□	□	□	□	□	□	□	□	□
Remote control orders	□	□	□	□	□	□	□	□	□
Remote setting of protections	□	□	□	□	□	□	□	□	□
Transfer of disturbance recording data	□	□	□	□	□	□	□	□	□

■ standard, □ according to parameter settings and optional modules.
Note: the figures (in the table) give the number of independent protection sets for each protection function.

As standards, specifications and designs change from time to time, please ask for confirmation of the information given in this publication.

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