



Main

Range of product	Sepam series 10
Device short name	B41E
Relay application	Transformer Substation
Protection type	Cold load pick-up Io CPLU 50N/51N Cold load pick-up CPLU 50/51 Phase overcurrent 50/51 Thermal overload protection 49RMS Earth fault/standard earth fault 50N/51N
Control and monitoring type	Logic discrimination ANSI code: 68 Annunciation ANSI code: 30 Latching/acknowledgement ANSI code: 86
Metering type	Earth-fault current Peak demand currents Phase currents
Network and machine diagnosis type	Tripping context
Input output max capacity	3 outputs
Communication compatibility	IEC 60870-5-103 Modbus RTU
Local signalling	LEDs for fault indication (front face) LEDs for Sepam operating status (front face)
Number of outputs	3 control relay
Output type	Control relay: 100...240 V AC 47...63 Hz continuous current: 5 A breaking capacity: 5 kA $\cos \varphi > 0.3$ making capacity: 30 A for 200 ms 2000 cycles Control relay: 127 V DC continuous current: 5 A breaking capacity: 0.7 kA resistive making capacity: 30 A for 200 ms 2000 cycles Control relay: 220 V DC continuous current: 5 A breaking capacity: 0.1 kA L/R < 40 ms making capacity: 30 A for 200 ms 2000 cycles Control relay: 220 V DC continuous current: 5 A breaking capacity: 0.3 kA resistive making capacity: 30 A for 200 ms 2000 cycles Control relay: 24 V DC continuous current: 5 A breaking capacity: 4 kA resistive making capacity: 30 A for 200 ms 2000 cycles Control relay: 24 V DC continuous current: 5 A breaking capacity: 5 kA L/R < 40 ms making capacity: 30 A for 200 ms 2000 cycles Control relay: 48 V DC continuous current: 5 A breaking capacity: 1 kA L/R < 40 ms making capacity: 30 A for 200 ms 2000 cycles

Disclaimer: This documentation is not intended as a substitute for and is not to be used for determining suitability or reliability of these products for specific user applications

Control relay: 48 V DC continuous current: 5 A breaking capacity: 4 kA resistive making capacity: 30 A for 200 ms 2000 cycles

[Us] rated supply voltage	100...240 V AC tolerance: +/- 20 % 110...250 V DC tolerance: +/- 20 %
Supply inrush current	< 20 A 0.1 ms
Power consumption in VA	8 VA maximum 3 VA typical
Mounting mode	Fixed
Mounting support	Plate

## Complementary

Height	139 mm
Width	179 mm
Depth	123 mm
Net weight	1.26 kg

## Environment

Standards	CSA C22.2 EN 50263 UL 508
Product certifications	CE UL 508 file N° 212533 C22.2 file N° 210625
Fire resistance	650 °C conforming to IEC 60695-2-11
IP degree of protection	Rear panel: IP40 conforming to IEC 60529 Front panel: IP54 conforming to IEC 60529
NEMA degree of protection	Type 12 conforming to Nema type 250
IK degree of protection	IK07 conforming to IEC 62262
Power frequency dielectric withstand	2 kV during 60 s conforming to IEC 60255-5
[Uimp] rated impulse withstand voltage	5 kV (1.2/50 µs) conforming to IEC 60255-5
Immunity to microbreaks	100 ms conforming to CEI 60255-11
Electromagnetic compatibility	Conducted emission: (tests), A, conforming to CISPR 22 Conducted emission: (tests), A, conforming to EN 55022 Conducted RF disturbances: (immunity tests-conducted disturbances), 10 V, 0.15...80 MHz, conforming to IEC 60255-22-6 Conducted RF disturbances: (immunity tests-conducted disturbances), 3, 10 V, 0.15...80 MHz, conforming to IEC 61000-4-6 Damped oscillatory wave: (immunity tests-conducted disturbances), 2.5 kV CM and DM, conforming to ANSI C37.90.1 Damped oscillatory wave: (immunity tests-conducted disturbances), 2.5 kV DM, 1 kV DM, 100 kHz and 1 MHz, conforming to IEC 60255-22-1 Damped oscillatory wave: (immunity tests-conducted disturbances), 3, 2.5 kV DM, 1 kV DM, 100 kHz and 1 MHz, conforming to IEC 61000-4-18 Electrostatic discharge: (immunity tests-radiated disturbances), 8 kV air, 6 kV contact, conforming to ANSI C37.90.3 Electrostatic discharge: (immunity tests-radiated disturbances), 8 kV air, 6 kV contact, conforming to IEC 60255-22-2 Electrostatic discharge: (immunity tests-radiated disturbances), 3, 8 kV air, 6 kV contact, conforming to IEC 61000-4-2 Fast transient bursts: (immunity tests-conducted disturbances), 4 kV CM and DM, 5 kHz, conforming to ANSI C37.90.1 Fast transient bursts: (immunity tests-conducted disturbances), 4 kV CM, 5kHz, conforming to IEC 60255-22-4 Fast transient bursts: (immunity tests-conducted disturbances), 4, 4 kV CM, 5kHz, conforming to IEC 61000-4-4 Magnetic field at power frequency: (immunity tests-radiated disturbances), 4, 30 A/m (continuous) 100 A/m (for 1...3 s), conforming to IEC 61000-4-8 Overall: (tests), A, conforming to IEC 60255-26 Power frequency for status inputs: (immunity tests-conducted disturbances), 300 V CM, 150 V DM, conforming to IEC 60255-22-7 Power frequency for status inputs: (immunity tests-conducted disturbances), 4, 300 V CM, 150 V DM, conforming to IEC 61000-4-16 Radiated emission: (tests), A, conforming to CISPR 22 Radiated emission: (tests), A, conforming to EN 55022

Radiated RF fields: (immunity tests-radiated disturbances), 10 V/m, 80...1000 MHz, 1.4...2.7 GHz, conforming to IEC 60255-22-3  
 Radiated RF fields: (immunity tests-radiated disturbances), 20 V/m, 80...1000 MHz, conforming to ANSI C37.90.2 (2004)  
 Radiated RF fields: (immunity tests-radiated disturbances), 3, 10 V/m, 80 MHz...2000 MHz, conforming to IEC 61000-4-3  
 Surges: (immunity tests-conducted disturbances), 1.2/50 µs, 10/700 µs, 2 kV CM, 1 kV DM, conforming to IEC 60255-22-5  
 Surges: (immunity tests-conducted disturbances), 3, 1.2/50 µs, 10/700 µs, 2 kV CM, 1 kV DM, conforming to IEC 61000-4-5

Mechanical robustness	<p>Fire resistance enclosure protection: 650 °C conforming to IEC 60695-2-11          Bumps de-energized (level: 2) : 20 Gn for 16 ms conforming to IEC 60255-21-2          Earthquakes in operation (level: 2) : 2 Gn horizontal, 1 Gn vertical conforming to IEC 60255-21-3          Front panel enclosure protection (level: IP54) conforming to IEC 60529          Front panel enclosure protection (level: type 12) conforming to Nema type 250          Rear panel enclosure protection (level: IP40) conforming to IEC 60529          Shocks de-energized (level: 2) : 30 Gn for 11 ms conforming to IEC 60255-21-2          Shocks enclosure protection (level: IK7) : 2 joules conforming to IEC 62262          Shocks in operation (level: 2) : 10 Gn for 11 ms conforming to IEC 60255-21-2          Vibrations de-energized (level: 2) : 2 Gn, 10...150 Hz, 20 cycle conforming to IEC 60255-21-1          Vibrations in operation (level: 2) : 1 Gn, 10...150 Hz, 1 cycle conforming to IEC 60255-21-1</p>
Climatic withstand	<p>Exposure to cold (storage in original packaging) : - 40 °C (104 °F), 96 h conforming to IEC 60068-2-1          Corrosive atmosphere/2 gas test (in operation) : Ke: 21 days, 75 % RH, 25 °C (77 °F), 0.5 ppm H2S, 1 ppm SO2 conforming to IEC 60068-2-60          Exposure to cold (in operation) : Ad: - 40 °C (104 °F), 96 h conforming to IEC 60068-2-1          Exposure to damp heat (in operation) : Cab: 93 % RH, 40 °C, 56 days conforming to IEC 60068-2-78          Exposure to damp heat (storage in original packaging) : Cab: 93 % RH, 40 °C, 56 days conforming to IEC 60068-2-78          Exposure to dry heat (in operation) : Bd: 70 °C (158 °F), 96 h conforming to IEC 60068-2-2          Exposure to dry heat (storage in original packaging) : Bd: 70 °C (158 °F), 96 h conforming to IEC 60068-2-2          Salt mist (in operation) : Kb/2: 6 cycles conforming to IEC 60068-2-52          Temperature variation (storage in original packaging) : Nb: 5 °C/min at - 40...70 °C (- 40...158 °F) conforming to IEC 60068-2-14</p>

## Offer Sustainability

Sustainable offer status	Green Premium product
REACH Regulation	<a href="#">REACH Declaration</a>
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope) <a href="#">EU RoHS Declaration</a>
Mercury free	Yes
RoHS exemption information	<a href="#">Yes</a>
China RoHS Regulation	<a href="#">China RoHS declaration</a> Product out of China RoHS scope. Substance declaration for your information
Environmental Disclosure	<a href="#">Product Environmental Profile</a>
Circularity Profile	<a href="#">End of Life Information</a>