



SEFELEC 32-C

The EATON Earth Bond Tester



The SEFELEC 32-C advantages:

Earth bond test under 6V / 32A
8V / 50A (in option)

Programmable test ramps
Up, Steady, Down
Multi-ramps mode (hipot test)

7" TFT Multi touchscreen 16 million colors
for programming, tests and results display

ARM-Dual core control & Nand 3D technologies
inside for more accuracy, stability and repeatability

DSPs speeds up measurements and production tests

Large internal memory for configurations and test results storage

IEC 61010-2-034 full compliance, specific safety standard for insulation and dielectric strength meters

The **SEFELEC 32-C** is the EATON new generation earth bond tester, based et controlled y components such as ARM-Dual Core or DSPs. This technology brings more reliability and repeatable measurement for operators.

High accuracy and fast measurements are adapted to quality processes needs in production and also for the income controls department.

The sequence mode makes the **SEFELEC 32-C** easy to integrate in a test or control bench.

The new SEFELEC Series HMI, with its 7" dual-touch TFT screen, offers simple and intuitive operations.

- Native Ethernet / RS232 / USB / PLC / 0-10 V
- IEEE488-2 interface as an option
- Bus CAN for external additional modules (Scanners)
- SIL2 double safety loop
- Automatic measurement range selection
- Sequence mode to combine several successive tests (i.e.: Insulation / Hipot / Insulation / Earth Bond)



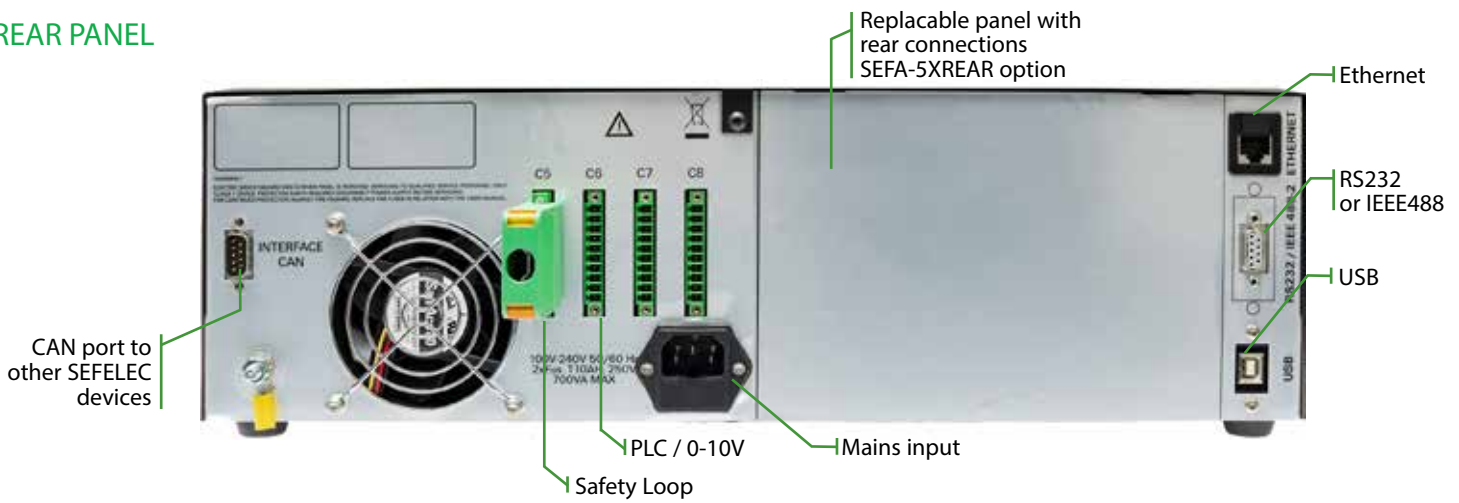
Powering Business Worldwide

SEFELEC 32C : Earth Bond Tester - General Overview

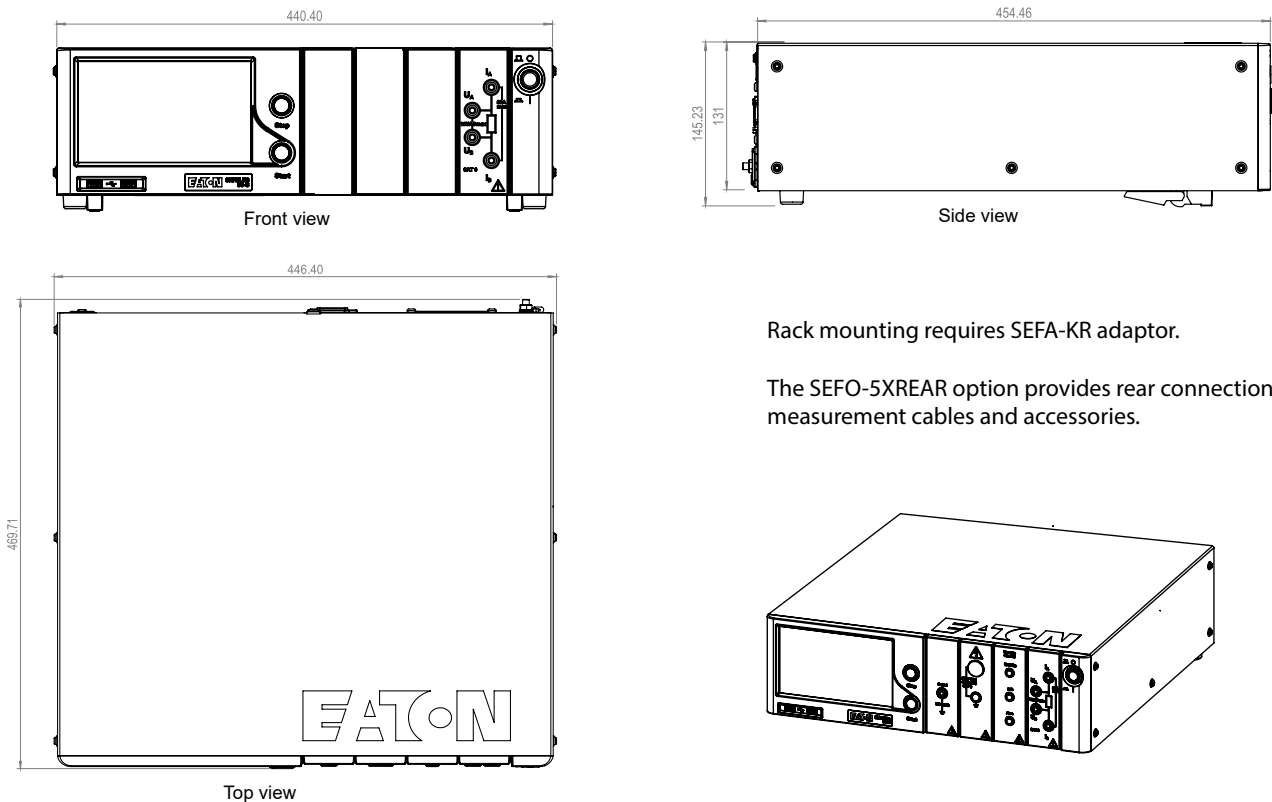
FRONT PANEL



REAR PANEL



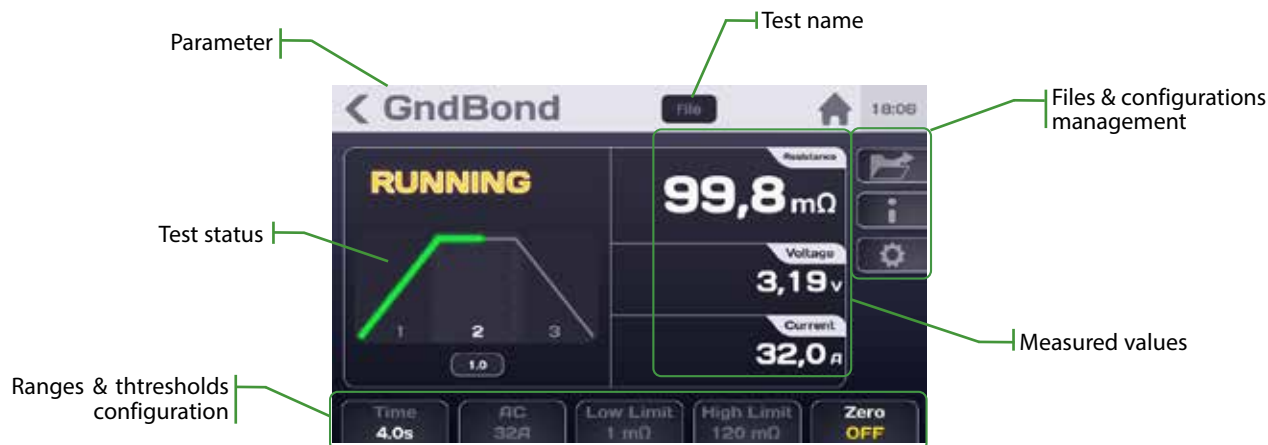
DIMENSIONAL DIAGRAMS



Rack mounting requires SEFA-KR adaptor.

The SEFO-5XREAR option provides rear connections for measurement cables and accessories.

SEFELEC 32-C : Touchscreen - General Overview



Good test



Failed test



On going test



Communication parameters configuration



Measurement parameters configuration



Parameters and results storage management

SEFELEC 32-C : Accessories & Options

Accessories

- SEFA-CO183-3202** ⁽¹⁾ 32A 4mm / alligator clips cables for earth bond test, length. 2 meters
- SEFA-CO183-5002** ⁽¹⁾⁽²⁾ 50A Lemo connector cable / large pincers for earth bond test, length. 2 meters
- SEFA-TE81-3202** ⁽¹⁾⁽³⁾ Safety probe 32A for earth bond test, with remote control, cable length. 2 meters
- SEFA-TE81-5002** ⁽¹⁾⁽²⁾⁽³⁾ Safety probe 50A for earth bond test, with remote control, cable length. 2 meters
- SEFA-CO184-3202** ⁽¹⁾ Sonde 2 fils avec pointe rétractable tip for earth bond test, length. 2 meters
- SEFA-KR** 19" Rackmount adaptors for SEFELEC Series
- SEFA-CO160** Red/Green safety lamp

⁽¹⁾ These models are also available with cables length 5m and 10 m. Please order the following part numbers: SEFA-TE81-3205 / SEFA-TE81-3210 / SEFA-CO183-3205 / SEFA-CO183-3210 / SEFA-CO183-5005 / SEFA-CO183-5010

⁽²⁾ Requires SEFO-5X50A option (mandatory)

⁽³⁾ If, on the probe, the remote control button needs to be actionned , then SEFO-5XRC option is mandatory



Options

- SEFO-5XRC** Remote control module
- SEFO-5X50A** Earth bond test at 8VAC/50A
- SEFO-IEEE488** IEEE488-2 communication port
- SEFO-5XREAR** Measurement connections on rear panel

General Specifications				
Mains	230 V AC $\pm 10\%$ 50 to 60 Hz / single phase			
Mains protection	Temporized double fuse T10AH 250V			
Input power	700 VA max.			
Temperature range	Storage		Operation	
	-10°C à +60°C		0°C à +45°C	
Specified accuracy after 1/2 hour warm-up and RH<50 %				
Altitude	Up to 2 000 m			
Relative humidity	80 % max. @ 31°C			
Dimensions & weight	Height	Width	Depth	Weight
	131 mm	440 mm	455 mm	

Measurement current	
Type	Sinus wave 50Hz or 60 hz depending on mains voltage
Setting	By steps of 0,5 A
Setting range	from 5,0 to 32,0 A AC - 5,0 to 50,0 A AC with SEFO-5X50A option
Accuracy	$\pm (1\% + 0,1 \text{ A})$ generator and measurement. $\pm (1\% + 0,2 \text{ A})$ with SEFO-5X50A option

Output voltage	
32 A AC generator	6 V AC $\pm 10\%$
50 A AC generator	8 V AC $\pm 10\%$
Voltage drop measurement / Range	0,01 à 9,99 V
Resolution	0,01 V
Accuracy (% of reading)	$\pm (1,5\% + 0,03\text{V})$

Earth bond resistance measurement	
This function calculates the resistive value of the circuit from the generated current and the voltage across the sample	
Range	0,1 m Ω à 1 Ω
Resolution	0,1 m Ω
Units indication	m Ω = 0,001 Ω
Accuracy (% of reading)	$\pm (1,5\% + 0,5 \text{ m}\Omega)$
Etendue de la mesure de résistance	0,1 m Ω à 1000,0 m Ω

Voltage drop or resistance value threshold setting	
An high and a low thresholds can be set for both parameters, either resistance measurement or voltage drop on the device.	
Resistance measurement threshold	adjustable from 0,1 m Ω to 1000,0 m Ω
Voltage drop threshold	adjustable from 0,01 to 9,99 V

Temporisation	
PERMANENT mode	Rise time can be set. Output current reaches the setting current value. Test stops on default or if red "STOP" button is pressed on the front panel.
AUTO mode	The test goes through three successive phases: Linear ramp-up to the set value (Rise), output level then stays the same (Steady), progressive decrease to zero (Descente)
Rise-Steady-down steps settings	0,1 à 9999,0 sec. by step of 0,1sec.
Accuracy	$\pm 20 \text{ ms}$

Measurement cycle			
Transformer is protected by a thermal circuit breaker ($\geq 25 \text{ A}$ or $\geq 40 \text{ A}$ with SEFO-5X50A option) according to compliance with measurement cycles			
The information below indicates the maximum times of use of the earth bond test function according to the cycle of use (a 1/2 cycle represents an application of the current of one second for a cycle of a total duration of 2 seconds). Note: all these times are given for a current of 32A. For lower currents, these times are higher.			
Cycle	Permanent	0,5	0,3
Maximum operation duration	25 minutes	5 hours	infini

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Please learn more about SEFELEC 5x series
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