

SE7441

Electrical Safety Analyzer

The next generation SE series compact 4-in-1 safety analyzer brings together the enhanced safety features of advanced ARC detection, next level precision ground bond measurements and true negative voltage with the convenience of maximum 500VA output capacity. The result is a line of testers that is ideally suited to the demanding environment of today's industrial settings. Designed with user-friendly 4.3-inch touch panel and barcode data scanning features, it makes the testing operations simple and intuitive and in overall, achieving highest work productivity.



Key Highlight

- True Negative Voltage Insulation Resistance Technology (optional).
- Highly flexible and programmable testing parameters.
- Intuitive and user-friendly touch panel operation.
- EEC exclusive patent right on fast discharge function to help DUT expeditiously releases any excess electricity within 50ms.
- Compact 2U(89mm) design to save the testing spaces.
- Unmatched quality assurance with ARC detection capability eliminates poor gap spacing that can cause dielectric breakdowns.
- Built-in scanners up to 16 channel (optional).

Provided with barcode interface, users can scan and capture data directly without connecting to a computer.

Safety and Productivity

Features



DualCHEK



VERICHEK



External Scanner



Fast Discharge



ARC Detection



Smart GFI



Ramp High



Charge Low

EEC Benefits



APAC Only

Available Interface



USB



RS-232



LAN (OPT)



GPIB (OPT)



Specifications – SE7441 (APAC Only)

| MODEL | | SE 7441 |
|-----------------------------------|-----------------|----------------------------------------------------------|
| INPUT | | |
| Voltage (AC) | | 200-240V±10% |
| Apparent Power | | 600VA |
| Frequency | | 50/60Hz ± 5% |
| AC WITHSTAND VOLTAGE | | |
| Output Rating (AC) | | 5kV/40mA |
| Output Voltage Range | | 0-5.00kV |
| Voltage Resolution | | 0.01kV |
| Voltage Accuracy | | ±(1% of setting + 0.5% of Range) |
| Current Measurement Range (Total) | | 0.000-40.00mA |
| Current Resolution (Total) | | 0.001/0.01/0.1mA |
| Current Accuracy (Total) | 0.000-4.000mA | ±(2% of reading + 3 counts) |
| | 3.50-100.0mA | ±(2% of reading + 6 counts) |
| Current Measurement Range (Real) | | 0.000-40.00mA |
| Current Resolution (Real) | | 0.001/0.01mA |
| Current Accuracy (Real) | 0.000-9.999mA | ±(3% of reading + 50uA), All Ranges PF > 0.1, V > 250Vac |
| | 10.00-99.99mA | |
| Output Frequency | | 50/60Hz ± 0.1% |
| Ramp Up Timer | | 0.1-999.9s |
| Ramp Down Timer | | 0.0-999.9s |
| Dwell Timer | Auto Range | 0, 0.2-999.9s (0=continuous) |
| | Fixed Range | 0, 0.1-999.9s (0=continuous) |
| Timer Resolution | | 0.1s |
| Timer Accuracy | | ±(0.1% of setting + 0.05s) |
| Output Waveform | | Sine Wave, Crest Factor = 1.3-1.5 |
| Output Regulation | | ±(1% of output + 5V), From no load to full load |
| Current Offset | | 0.000-40.00mA (Total current + current offset ≤ 40mA) |
| Arc Detection | | The range is from 1-9 (9 is the most sensitive) |
| DC WITHSTAND VOLTAGE | | |
| Output Rating (DC) | | 6kV/10mA |
| Output Voltage Range | | 0-6.00kV |
| Voltage Resolution | | 0.01kV |
| Voltage Accuracy | | ±(1% of setting + 0.5% of Range) |
| Current Measurement Range | | 0.0nA-10mA |
| Current Resolution | | 0.1nA/0.001uA/0.01uA/0.1uA/0.001mA/0.01mA |
| Current Accuracy | 0.0-400.0nA | ±(2% of reading + 10 counts) Low Range is ON. |
| | 0.350-4.000uA | |
| | 3.50-40.00uA | |
| | 35.0-400.0uA | |
| | 0.300-4.000mA | |
| Current Accuracy | | ±(2% of reading + 2 counts) |
| Current Resolution | | 3.50-10.00mA |
| Output Ripple | | < 4% (6kV/10mA at Resistive Load) |
| Ramp Up Timer | Low range = OFF | 0.4-999.9s |
| | Low range = ON | 0.5-999.9s |

Specifications – SE7441 (APAC Only)

| MODEL | | SE 7441 |
|----------------------------------|------------------------------------------------------------------------------------------------|------------------------------|
| DC WITHSTAND VOLTAGE | | |
| Ramp Down Timer | 0.0, 1.0-999.9s | |
| Dwell Timer | 0, 0.4-999.9s (0=continuous) ² | |
| Timer Resolution | 0.1s | |
| Timer Accuracy | ±(0.1% of setting + 0.05s) | |
| Charge Low Current | 0.0-350.0uA | |
| Discharge Timer | < 50ms for no load, < 100ms for capacitor load (all capacitance values in max load spec below) | |
| Maximum Capacitive Load | 1μF < 1kV, 0.75μF < 2kV, 0.5μF < 3kV, 0.08μF < 4kV, 0.04μF < 5kV, 0.015uF < 6kV | |
| Current Offset | 0.0-10mA (Total current + current offset ≤10mA) | |
| Arc Detection | The range is from 1-9 (9 is the most sensitive) | |
| INSULATION RESISTANCE | | |
| Output Rating (DC) | 6kV/50GΩ | |
| Output Voltage Range | 10-6000V | |
| Voltage Resolution | 1V | |
| Voltage Accuracy | ±(1% of setting + 0.5% of Range) | |
| Resistance Measurement Range | 0.100MΩ-50GΩ | |
| Resistance Resolution | 0.001/0.01/0.1/1MΩ | |
| Resistance Accuracy ³ | 0.05-999.9MΩ under 10-29V | ±(15% of reading + 2 counts) |
| | 0.05-999MΩ under 30-499V | ±(7% of reading + 2 counts) |
| | 0.100-999.9MΩ under 500-6kV | ±(2% of reading + 2 counts) |
| | 1G-9.999GΩ under 500-6kV | ±(5% of reading + 2 counts) |
| | 10G-50GΩ under 500-6kV | ±(15% of reading + 2 counts) |
| Ramp Up Timer | 0.1-999.9s | |
| Ramp Down Timer | 0.0, 1.0-999.9s | |
| Dwell Timer | 0, 0.5-999.9s (0 = continuous) | |
| Delay Timer | 0.5-999.9s | |
| Timer Resolution | 0.1s | |
| Timer Accuracy | ±(0.1% of setting + 0.05s) | |
| Charge Low Current | 0.000-3.500μA | |
| GROUND BOND | | |
| Output Rating (AC) | 32A/600mΩ/8V | |
| Output Current | 1.00-32.00A | |
| Current Resolution | 0.01A | |
| Current Accuracy | ±(2% of setting + 0.5% of range) | |
| Output Voltage | 3.00-8.00V | |
| Voltage Resolution | 0.01V | |
| Voltage Accuracy | ±(2 % of setting + 3 counts) O.C. | |
| Lead Resistance Offset | 0-200mΩ | |
| Resistance Measurement Range | 0-600mΩ | |
| Resistance Resolution | 1mΩ | |
| Resistance Accuracy | ±(2 % of reading + 2 counts) | |
| Dwell Timer | 0, 0.5-999.9s (0 = continuous) | |
| Timer Resolution | 0.1s | |
| Timer Accuracy | ±(0.1% of setting + 0.05s) | |

Specifications – SE7441 (APAC Only)

| MODEL | SE 7441 |
|------------------------------|------------------------------------------------------------------------------------------------------------------|
| CONTINUITY (Optional) | |
| Output Rating (DC) | 1A for 1.000Ω, 0.1A for 10.00Ω, 0.01A for 100.0Ω, 0.001A for 1kΩ, 0.0001A for 10kΩ |
| Resistance Offset | 0.000-10.00Ω, |
| Resistance Measurement Range | 0.000-10kΩ |
| Resistance Resolution | 0.001/0.01/0.1/1/1Ω |
| Resistance Accuracy | 0.000-1.000Ω |
| | 1.01-10.00Ω |
| | 10.1-100.0Ω |
| | 101-1kΩ |
| | 1.001k-10kΩ |
| | ±(1% of reading + 3 counts) |
| Dwell Timer | 0.0, 0.4-999.9s (0 = continuous) |
| Timer Resolution | 0.1s |
| Timer Accuracy | ± (0.1% of setting + 0.05s) |
| GENERAL | |
| Remote Input Signal | Test, Reset, Interlock, Recall File 1 through 15 |
| Remote Output Signal | Pass, Fail, Test-in-Process |
| Memory | 2000 steps, Allow the user create different memories and steps. But each memory limit max. 200 steps and results |
| Display | 4.3" Color Display (Touch Panel) |
| Interface4 | Standard USB & RS232, Optional Ethernet, GPIB |
| Voltage Resolution | 0.01V |
| Built-in Scanner Module | Yes |
| External Scanner port | Yes |
| Language | English/Traditional Chinese/Simplified Chinese |
| Op./Non-Op. Temp./Humidity | 0 to 40°C/-40 to 75°C/20 to 80%RH |
| Dimension (W × H × D), mm | 430 × 133 × 400 |
| Weight | 20kg |
| INBOX ACCESSORIES | |

Power Cable (10A for SE 7430, SE 7440 & SE 7441; 15A for SE 7451 & SE 7452)*1; Fuse*1; 1101 Hipot Output Lead - Alligator Clip*1 & 1102 Hipot Return Lead - Alligator Clip*1 for SE 7430 & SE 7451; 1137 Ground Bond Output Lead - Alligator Clip (40A)*1 & 1138 Ground Bond Return Lead - Alligator Clip (40A)*1 for SE 7440, SE 7441 & SE 7452; 1109 Hipot Output Lead - Pin Connector*8 for SE 7441; 1224 USB Cable*1; 1505 Interlock Disable Key*1; USB Disk*1; Hook Terminal*20 for SE 7441

Subject to change without prior notice.

1. SE 7451 and SE 7452 short circuit current > 200mA.
2. 0, 1.0-999.9s when it is selected low current range.
3. Environment requirement: humidity < 60% RH (no condensation, no scanner), When I < 150nA.
4. Only one interface can be selected among RS232 & USB, GPIB & Ethernet interface card.

Models

- SE 7441 Electrical Safety Analyzer with build-in 8 Channels Scanner (ACW, DCW, IR, GB)

Options

- OPT.109 Replace RS232 Interface by GPIB Interface
- OPT.798 True Negative Voltage for DCW and IR
- OPT.799 GB Output 40Aac
- OPT.7002 DC Continuity Test Function
- OPT.7009 JigA/JigB
- OPT.7015 6kVac/7.5kVdc Output
- OPT.7033 Input Voltage 100-120/200-240Vac

Accessory

- 1933 Self Check Box
- 1929 Remote Test/Reset Control Box (with LED Notification)
- 1930 Hipot/IR Testing Fixture - with Voltage Sensing
- 1929 Remote Test/Reset Control Box (with LED Notification)

Note: 1. Only one Option can be selected among OPT.7004, OPT.7006 & OPT.7015.
2. When selecting OPT.7015, AC Withstand Output change to 5kV/30mA (SE 7430, SE 7440 and SE 7441) and 5kV/80mA (SE 7451, SE 7452).