

- Optimized for EMC directive testing
- Selectable output impedance for EN 61000-3-2 and EN 61000-3-3 testing (Single phase mode)
- Interharmonic waveform generator for EN 61000-4-13 testing
- Immunity tests include Ripple on DC input power port for portable electronic devices
- Low Impedance mode
- ARB Sequencing
- DC output

Product Overview

The European Union's EMC directive requires electronic and electrical products to be tested for immunity and emissions on AC public mains. The Elgar SmartWave AE models SW 1750AE, SW 3700AE and SW 5250AE, are an enhancement to the SmartWave Series designed to meet the strict requirements of EMC directives.

Harmonics & Flicker Testing

The SWAE is especially designed to meet the requirements for testing to EN 61000-3-2/3-3/4-13/4-14/4-17/4-28 and pre-compliance only for 4-11. This version provides selectable output impedance in addition to the many standard features of the SWseries. The SWAE also features an embedded interharmonics waveform generator.

The SWAE AC Power Source Series is designed to meet the strict requirements for equipment used in susceptibility and emissions testing. In addition to pure sine wave generation, the SW family of power sources can simulate a wide range of line conditions such as sub-cycle and multi-cycle dropouts, spikes, distorted waveforms, noise, phase shifts and voltage and frequency changes. The SW 1750AE, SW 3700AE and SW 5250AE also feature:

- Selectable output impedance for EN 61000-3-3 testing (single phase)
- Interharmonics waveform generator suitable for EN 61000-4-13 testing
- Immunity test, suites for EN 61000-4-11, 4-13, 4-14, 4-17, 4-28

Specifications

Refer to the SmartWave Series for general descriptions and specifications. The following specifications highlight the differences and enhanced modes of operation.

Low Impedance

| Low Impedance Mode | | |
|---|---|---|
| 1750 VA 50 Hz 1 phase 312V range | 3700 VA 50 Hz 1 phase 312V range | 5250 VA 50 Hz 1 phase 312V range |
| <(0.07 + j0.05)Ω | <(0.05 + j0.04)Ω | <(0.03 + j0.03)Ω |

Output

Voltage Accuracy: $\pm 0.1\%$ of range. Add $\pm 0.1\%$ of full scale for "AC plus DC" mode. Valid for 5 to 156 Vrms and 10 to 312 Vrms at 25°C, sense leads connected, no load. Temperature coefficient less than 50 ppm/°C

(Ref: EN 61000-3-3, Annex A and IEC 725

Standard Reference Impedance Mode:
(0.40+j0.25)Ω $\pm 3\%$ at 50 Hz

Output Frequency: DC or 40 to 500 Hz (SINE);
40-63 Hz (Complex WaveForms)

Interharmonic WaveForm Generator

Ref: EN 61000-4-13

Frequency Range: 15-3000 Hz

Frequency Accuracy: 0.5%
(of interharmonic signal)

Frequency Resolution:

15-60 Hz: 0.001 Hz

60-120 Hz: 0.002 Hz

120-240 Hz: 0.004 Hz

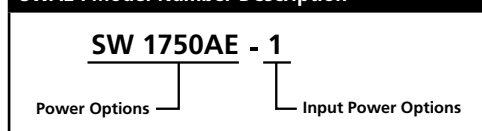
240-3000 Hz: 0.008 Hz

Voltage Range: 0-40.0 Vrms

Voltage Accuracy: ± 0.23 Vrms

Voltage Resolution: 0.02 Vrms

SWAE : Model Number Description



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