

# SmartTS-HFI Test System

A smarter approach to Harmonic & Flicker Emissions and Power Line Immunity Testing.

*Pre & Full Compliance Testing*



## All-in-One Platform

Combined hardware and automation software simplify test on one platform.

### Emissions IEC Test Standards

(Harmonics & Flicker)

- IEC 61000-3-2 Harmonics and Inter Harmonics to 16A/phase
- IEC 61000-3-12 Harmonics and Inter Harmonics to 75A/phase
- IEC 61000-3-3 Flicker to 16A/phase
- IEC 61000-3-11 Flicker to 75A/phase

### Immunity IEC Test Standards

- IEC 61000-4-11 AC Voltage Dips, Interruptions and Variations to 16A/phase
- IEC 61000-4-13 Interharmonics
- IEC 61000-4-14 AC Voltage Fluctuations
- IEC 61000-4-17 DC Ripple
- IEC 61000-4-27 AC Voltage Unbalance three phase
- IEC 61000-4-28 Frequency Variations
- IEC 61000-4-29 DC Voltage Dips, Interruptions and Variations
- IEC 61000-4-34 AC Voltage Dips, Interruptions and Variations to 75A/phase

### Wide range of available test sequences and libraries for:

- Avionics & Defense Testing
- Grid Compliance Testing

## Smart Harmonics, Flicker & Immunity Compliance Testing

The SmartTS-HFI combines accurate measurements, high-performance power sources, and automated workflows into one scalable system.

### SmartTS-HFI

- Regenerative, Non-Regenerative, and Compact
- Supports testing up to 75A per phase
- Normative Harmonics & Flicker EMC Test Systems
- Full Compliant Power Line Immunity Testing
- ISO17025 Calibrated



### Accelerate Testing

Shortest path to test. Complete full testing in days instead of the typical weeks.

- ✓ Optimized system integration
- ✓ Automated test sequences
- ✓ Instant Pass/ Fail results



### Get to Market Faster

Streamline testing with a single solution saves TCO, resources, space, and time.

- ✓ Single turnkey solution
- ✓ Clear test data analysis
- ✓ Ensure global compliance

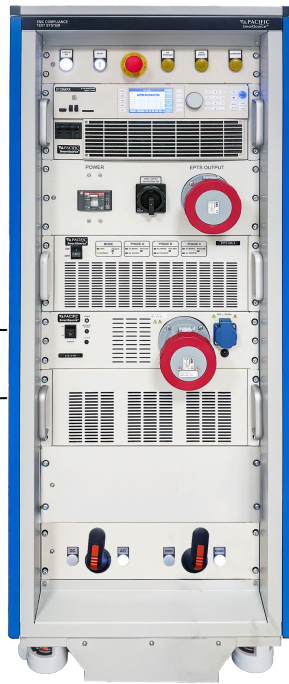
## Standard Systems

- SmartTS-HFI-3-75: 3-phase 75A
- SmartTS-HFI-3-40: 3-phase 40A
- SmartTS-HFI-3-32: 3-phase 32A
- SmartTS-HFI-3-16: 3-phase 16A
- SmartTS-HFI-1-16: 1-phase 16A
- SmartTS-HF-1-16: 1-phase 16A
- Full Compliant Power Line Immunity with EPTS  
Option for IEC 61000-4-11/-27/-29/-34

# SmartTS - Harmonics, Flicker & Immunity

One platform for pre- or full compliance testing

**Example of a standard system up to 32A per phase: 28U cabinet with integrated 24kVA AC & DC Power Sources**



**Standard arrangement of the front panel (top to bottom)**

**Light Indicators and EPO**

Layered safety protections

**AC & DC Power Source / 24kVA**

Quiet, high performance, and low distortion.

**Main Switch and EPTS Output (top socket)**

Main switches and EPTS three-phase socket for dips and interruptions tests

**Optional EPTS Module**

Full compliance Voltage Dips & Interrupts Test

**HFMM module and Flicker impedance with three-phase output socket (lower socket)**

Integrated lumped impedance options automatically selected by software to match the IEC flicker standard and test level.

**Manual AC/DC and Internal/External Switches**

Select between AC or DC dips tests for Testing to AC (4-11/4-34) or DC (4-29) test standards and Internal or External AC Source for 50Hz/60Hz.

**High-Accuracy Harmonics & Flicker Measurement (HFMM)**

Precision HFMM measurement module compliant with IEC 61000-4-7 and IEC 61000-4-15. Test system comes with ISO 17025 accredited calibration.

**19" Cabinet**

Mobile-friendly with ventilated rear doors to ensure cooling with integrated safety features.

*SmartTS-HFI-3-32A-3241AFX-EPTS-32A*

## One Vendor. One System. One Support Team

Test Smarter. Faster Compliance.

### High Performance AC & DC Source

Ultra-low distortion power source for valid and repeatable results. SmartTS-HFI far exceeds the IEC specifications and actively monitors the power source compliance during testing.

### Smart, Automated Test Execution

Guided workflows that eliminate operator error. SmartTS-HFI enforces correct setup, impedance selection, and test sequencing, making results accurate and repeatable.

### Integrated Platform for Analysis, Instant Automatic Pass/Fail Results

Fast fault detection allows interruption in real-time. Real-time harmonics are color-coded for peak, average, and IEC limits, with full data recorded to pinpoint failures.

### Audit-Ready Reports in One Click

Automatic IEC-ready reporting with full traceability. SmartTS-HFI delivers complete, structured test reports including settings, limits, results, and source compliance — no post-processing needed.

# Test Smarter

## Key Features

### Integrated Harmonics & Flicker Smart Test System

- Single, turnkey platform for IEC 61000 harmonics and flicker emissions testing—no third-party measurement hardware required.

### Full IEC 61000 Emissions Coverage

- Supports IEC 61000-3-2, -3-12 (harmonics) and IEC 61000-3-3, -3-11 (flicker) in both single- and three-phase configurations.

### High-Accuracy Harmonics & Flicker Measurement

- Precision HFMM measurement module compliant with IEC 61000-4-7 and IEC 61000-4-15.

### IEC-Compliant Flicker Impedance Networks

- Integrated lumped impedance options automatically selected by software to match the applicable IEC flicker standards.

### Automated Test Execution & Guided Workflows

- Intuitive Windows-based software enforces correct EUT classification, standard selection, and test sequencing.

### Real-Time Visualization & Data Capture

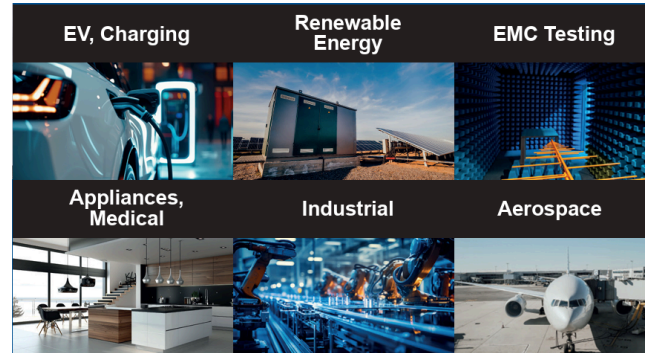
- Live harmonics spectra, flicker metrics, and limit comparisons displayed during testing with full data logging.

### Automatic Report Generation

- Comprehensive IEC-ready test reports generated at the end of each run, including settings, results, and source compliance verification.

### Dips Pre- or Full Compliance Options

- The EPTS Module Option can be integrated to perform full-compliance testing of products to the immunity standards for voltage dips & interruptions (IEC 61000-4-11, IEC 61000-4-34, IEC 61000-4-29).
- All of our cabinets are prewired for the integration of EPTS at any point in time (field-upgradable).



Example: 75A System shown with 55kVA AZX Regenerative Source or 63kVA Regenerative modular AGX Series

## Standard Systems

Select from standard HFI systems with option for pre- or full compliance voltage dips and interruptions testing. For full-compliance, select the EPTS Option.

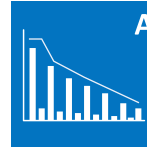
Available Systems			
Model	Number of Phases	Amps/ per phase	EPTS Option
SmartTS-HFI-3-75A	3: Three-Phase	75A	EPTS-75A
SmartTS-HFI-3-40A	3: Three-Phase	40A	EPTS-32A
SmartTS-HFI-3-32A	3: Three-Phase	32A	EPTS-32A
SmartTS-HFI-3-16A	3: Three-Phase	16A	EPTS-16A
SmartTS-HFI-1-16A	1: Single-Phase	16A	EPTS-16A-1
SmartTS-HF-1-16A	1: Single-Phase	16A	See Note 1

\*Note 1: Limited Version for Harmonics and Flicker test only.

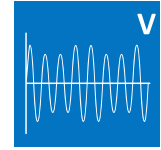
**Supported AC & DC Power Sources:** AZX, AGX, AFX Series

# Test Systems for Power Line Emissions & Immunity

The SmartTS-HFI series delivers turnkey solutions for harmonics and flicker testing, using Pacific Power Source AC power sources to test in compliance with common IEC 61000-3 standards. Integrated EMC test software streamlines emissions testing and automates compliance reporting to support product certification.

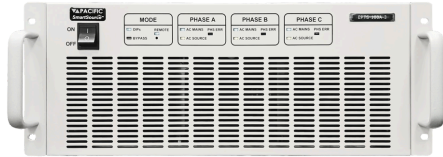


**IEC 61000-3-2 / 3-12**  
Harmonics Emissions



**IEC 61000-3-3 / 3-11**  
Flicker Emissions

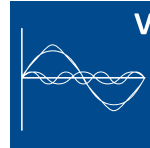
## Need Full Compliance? Add the EPTS Module



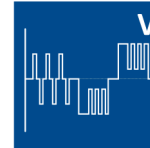
Our solution supports IEC 61000-4-xx power line immunity standards. For 61000-4-11, 61000-4-34 and 61000-4-29 full compliance testing, add the Electronic Power Transfer Switch EPTS ensuring precise and compliant rise and fall time performance.



**IEC 61000-4-11**  
AC Voltage Dips < 16 A



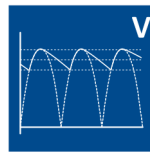
**IEC 61000-4-13**  
Harm & Interharmonics



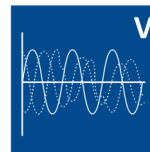
**IEC 61000-4-14**  
AC Voltage Fluctuations



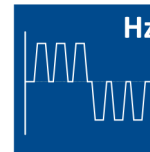
**IEC 61000-4-29**  
DC Voltage Dips



**IEC 61000-4-17**  
DC Ripple



**IEC 61000-4-27**  
3 Phase Unbalance



**IEC 61000-4-28**  
Frequency Variations



**IEC 61000-4-34**  
AC Voltage Dips > 16 A

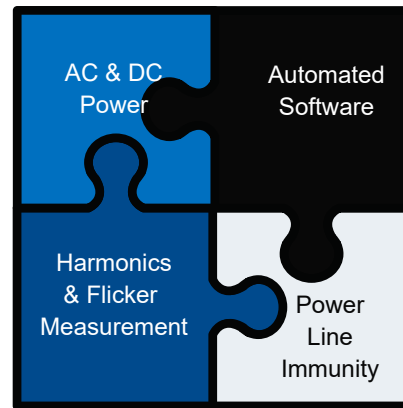
## Overview of current standards supported by the SmartTS-HFI Series

IEC Standard	Category	Description	Supported Edition	
IEC 61000-3-2	Emission	Limits for harmonic current emissions (equipment input current $\leq 16$ A per phase)	IEC 61000-3-2:2018+A1:2020+A2:2024	Ed. 5.2
IEC 61000-3-3	Emission	Limitation of voltage changes, voltage fluctuations and flicker in public low-voltage supply systems, for equipment with rated current $\leq 16$ A per phase and not subject to conditional connection	IEC 61000-3-3:2013+A1:2017+A2:2021	Ed. 3.2
IEC 61000-3-11	Emission	Limitation of voltage changes, voltage fluctuations and flicker in public low-voltage supply systems – Equipment with rated current $\leq 75$ A and not subject to conditional connection	IEC 61000-3-11:2017	Ed. 2.0
IEC 61000-3-12	Emission	Limits for harmonic currents produced by equipment connected to public low-voltage systems with input current $> 16$ A and $\leq 75$ A per phase	IEC 61000-3-12:2011+A1:2021	Ed. 2.1
IEC 61000-4-7	Emission	Testing and measurement techniques - General guide on harmonics and interharmonics measurements and instrumentation, for power supply systems and equipment connected thereto	IEC 61000-4-7:2002+A1:2008	Ed. 2.1
IEC 61000-4-15	Emission	Testing and measurement techniques - Flickermeter - Functional and design specifications	IEC 61000-4-15:2010	Ed. 2.0
IEC 61000-4-11	Immunity	Voltage dips, short interruptions and voltage variations immunity tests for equipment with input current up to 16 A per phase	IEC 61000-4-11:2020	Ed. 3.0
IEC 61000-4-13	Immunity	Harmonics and interharmonics including mains signalling at a.c. power port, low frequency immunity test	IEC 61000-4-13:2002+A1:2009+A2:2015	Ed. 1.2
IEC 61000-4-14	Immunity	Voltage fluctuation immunity test for equipment with input current not exceeding 16 A per phase	IEC 61000-4-14:1999+A1:2001+A2:2009	Ed. 1.2
IEC 61000-4-17	Immunity	Ripple on d.c. input power port immunity test	IEC 61000-4-17:1999+A1:2001+A2:2008	Ed. 1.2
IEC 61000-4-27	Immunity	Unbalance, immunity test for equipment with input current not exceeding 16 A per phase	IEC 61000-4-27:2000+A1:2009+A2:2025	Ed. 1.2
IEC 61000-4-28	Immunity	Variation of power frequency, immunity test for equipment with input current not exceeding 16 A per phase	IEC 61000-4-28:1999+A1:2001+A2:2009	Ed. 1.2
IEC 61000-4-29	Immunity	Voltage dips, short interruptions and voltage variations on d.c. input power port immunity tests	IEC 61000-4-29:2000	Ed. 1.0
IEC 61000-4-34	Immunity	Voltage dips, short interruptions and voltage variations immunity tests for equipment with mains current more than 16 A per phase	IEC 61000-4-34:2005+A1:2009+A2:2025	Ed. 1.2
IEC TR 61000-4-37	Calibration	Calibration and verification protocol for harmonic emission compliance test systems	IEC TR 61000-4-37:2016	Ed. 1.0
IEC TR 61000-4-38	Calibration	Test, verification and calibration protocol for voltage fluctuation and flicker compliance test systems	IEC TR 61000-4-37:2015	Ed. 1.0

# One Integrated Platform

The SmartTS-HFI Series Harmonics, Flicker, and Immunity Smart Test System is a fully integrated compliance testing platform designed for fast and repeatable testing across single- and three-phase products.

SmartTS-HFI reduces test time, minimizes operator error — while scaling from low-power product validation to high-current test requirements.



## 1 Select a High Performance AC & DC Power Source

### AZX Series: Regenerative All-in-1 AC & DC Power Source

Regenerative power source ideal for bidirectional applications and energy savings. The AZX is ideal for easily disconnecting from system to use independently as a power source for multiple applications.



Scan to view datasheet



#### 55kVA / kW per unit

Dual Voltage Range: 0~240Vac L-N/  
0~415Vac L-L and 0~340Vdc; 0~480Vac L-N/  
0~830Vac L-L and 0~680Vdc  
High Frequency: 15 up to 1000Hz  
Extended Mode 1-1000Hz  
Regenerative Power > 90%

### AGX Series: Regenerative, High Power Density All-in-1 AC & DC Power Source

Regenerative power source ideal for bidirectional applications and energy savings. High power density and compact.



Scan to view datasheet



#### up to 24kVA / kW in 4U

Voltage: 350Vac L-N/606Vac L-L or  
 $\pm 500$ Vdc  
Frequency: 15 up to 1200Hz  
Extended Range 1-3000Hz  
Regenerative Power > 90%

### AFX Series: Unidirectional AC & DC Power Source

Compact, economical AC & DC Power Source with high energy efficiency, ideal for unidirectional applications.



Scan to view datasheet

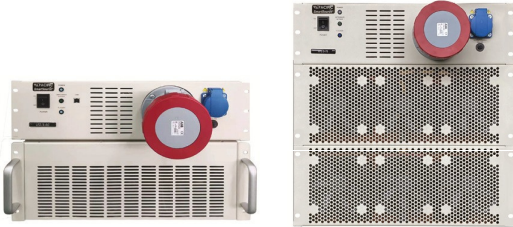


#### up to 15kVA / kW in 4U

Voltage: 0 up to 333Vac L-N/576Vac L-L  
or 425Vdc  
Frequency: 15-1200Hz;  
Extended Range 1-3000Hz  
High Energy Efficiency 85%

## 2 Harmonics & Flicker Measurement

The SmartTS-HFI Series integrates advanced harmonics and flicker measurement to support IEC 61000-3-2, IEC 61000-3-12, IEC 61000-3-3, and IEC 61000-3-11 testing up to 75 A per phase, with higher current capability.



LFZ-3-40, LFZ-3-32, LFZ-3-16 and LFZ-1-16

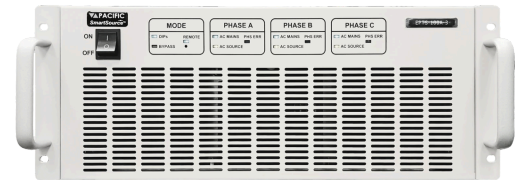
Flicker Impedance Module Available in 16A, 32A, 40A and 75A.

Model	Specification
Compliance	IEC 61000-4-7, IEC 61000-4-15
Available Impedance Modules (LFZ)	
Single Phase	LFZ-1-40
Three Phase	LFZ-3-40, LFZ-3-75
Impedance - LFZ-3-75, LFZ-3-40, LFZ-1-40 Zref / Ztest	
Phase	R=0.24 Ohms / 0.15 Ohms   jX = 0.15 Ohms @ 50 Hz
Neutral	R=0.16 Ohms / 0.10 Ohms   jX = 0.10 Ohms @ 50 Hz
Current Rating	
LFZ-3-40, LFZ-1-40	40 Arms per phase - IEC61000-3-11 Zref / Ztest
LFZ-3-75	75 Arms per phase - IEC61000-3-11 Zref / Ztest

Note 1: Impedance setting selected by a Control Software for IEC 61000-3-3 or IEC 61000-3-11 based on standard selection mode.

## 3 Voltage Dips & Interruptions Electronic Power Transfer Switch (EPTS) Option

The EPTS module uses solid-state transfer switch technology to meet **IEC 61000-4-11/-27/-29/-34** Voltage Dips, Interruptions, Variations & Unbalance standards, ensuring <math><5\mu s</math> voltage transition times. Dips and interruptions testing with the EPTS requires a programmable AC source for dip levels and an AC mains power line or fixed AC generator to provide the unperturbed 100% voltage level.



Optional EPTS Module Integrated for Full-Compliance Testing

## 4 Automated Software & IEC Ready Reporting Included

Real-time data visualization, guided test workflows, and automatic report generation enable engineers to quickly identify compliance issues, shorten debug cycles, and generate complete test documentation with confidence.



### Automated Test Execution & Guided Workflows

- Intuitive Windows-based software enforces correct EUT classification, standard selection, and test sequencing.

### Real-Time Visualization, Full Data Capture & Logging

- Automatic Instant Pass/Fail based on class. Live harmonics and flicker metrics, and limit comparisons displayed during test.

### Automatic Report Generation

- Comprehensive IEC-ready test reports generated at the end of each run, including settings, results, and verification.

# PPS TESTSUITE: Easy-to-Use Proprietary Software with Built-In Report Generator

PPS TestSuite is the unified software platform powering the SmartTS-HFI, providing automated test execution, real-time data visualization, and audit-ready reporting across both harmonics and flicker emissions and power line immunity testing—all from a single, intuitive Windows-based environment.

At the end of every run, comprehensive test reports are automatically generated, capturing all measurement data, settings, waveform control details, and test conditions in clearly organized RTF format for simple editing, sharing, or conversion—ensuring consistent, compliant documentation with no manual effort required.

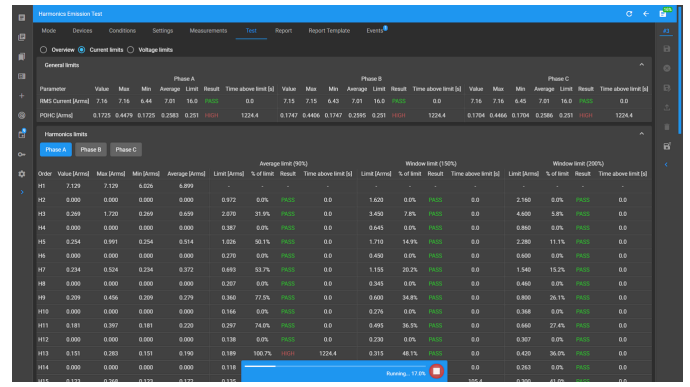
## Harmonics & Flicker

The single- and three-phase harmonics and flicker modules (HFMM-1 / HFMM-3) are controlled by PPS TESTSUITE software, supporting IEC 61000-3-2, -3-12, -3-3, and -3-11 standards. The HFMM is a precision instrument that performs measurements in accordance with IEC 61000-4-7 and IEC 61000-4-15. Guided workflows automatically lead operators through the correct test configurations based on EUT category—reducing setup errors and training time. Real-time data display allows early fault detection, enabling users to stop failed tests immediately and saving significant testing time. Color-coded results highlight peaks, averages, and IEC limits for fast diagnostics, while full data capture allows detailed post-analysis of any failure condition. For flicker testing, long-duration tests are streamlined with real-time visibility into the IFS, which can help to predict the Pst early and significantly improving lab efficiency and throughput.

## Power Line Emissions Testing Examples



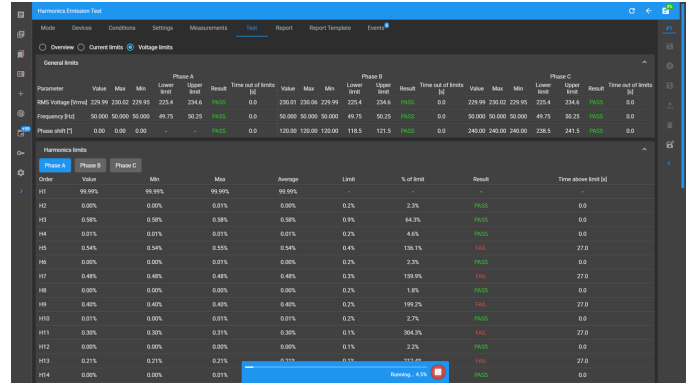
Flicker-Pst Limits and Short Term Graph  
Measured Flicker readings for each phase with Pst charts



Harmonics - Current Limits Table 90%,150%,200%  
Measured current harmonics vs allowable limits for phase A



Harmonics - Voltage Limits Check Table run 4.5%  
Example of a Fail result for source Vthd

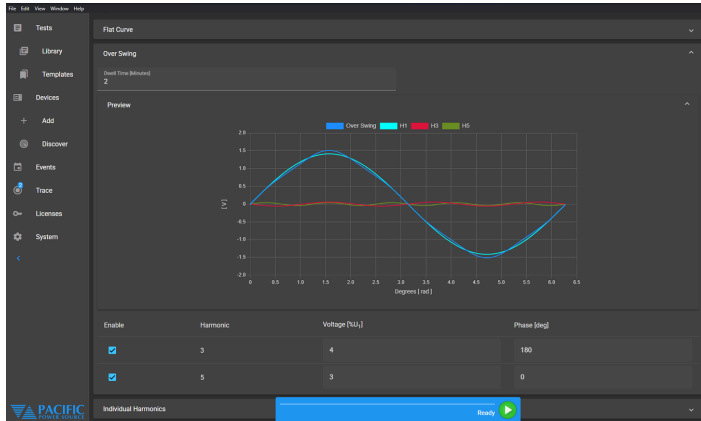


Harmonics Limits Graph Plots Callout Instant  
Instant current harmonics vs IEC standard limits for all phases with detail for H17

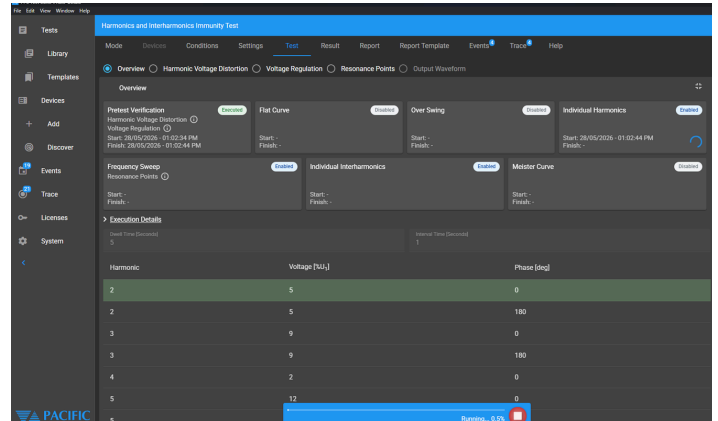
# Immunity Testing

PPS TestSuite includes a full suite of IEC 61000-4-xx test sequences covering voltage dips, interruptions, variations, unbalance, frequency variations, and interharmonics. Automated sequencing enforces correct dip levels, timing, and phase angles—eliminating operator error and ensuring every run meets standard requirements.

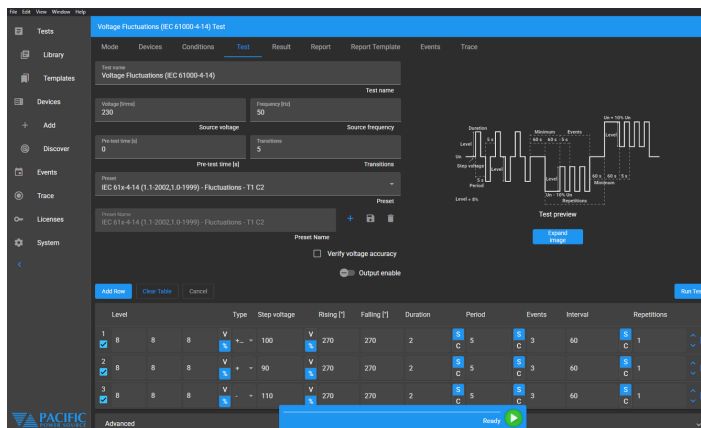
## Immunity Testing Examples



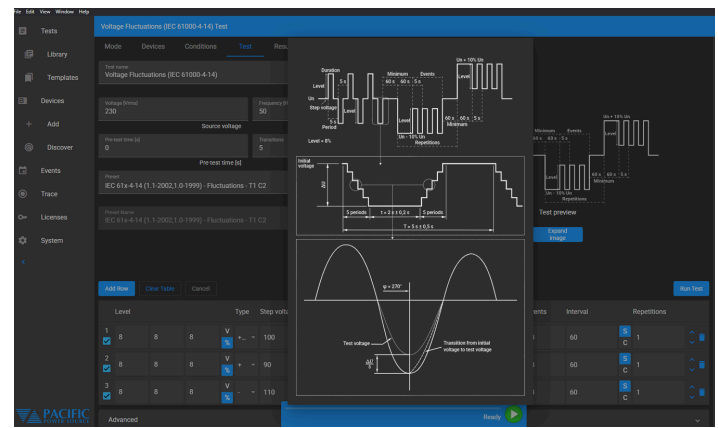
**IEC61000-4-13**  
Composition of fundamental and Harmonics 3 & 5 for Overswing Immunity test.



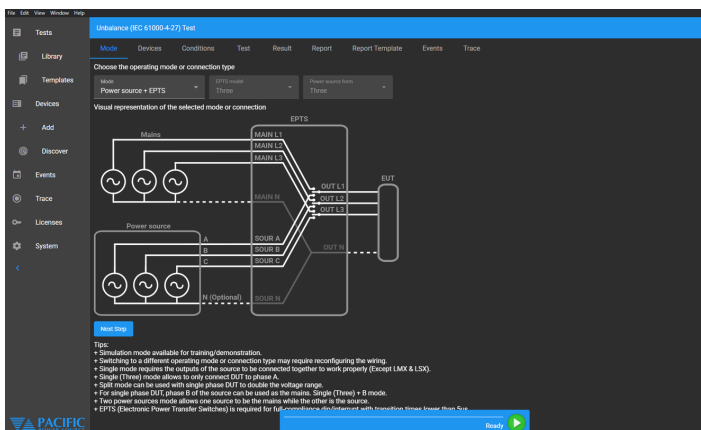
**IEC61000-4-13**  
Execution progress screen for Harmonics & Interharmonics Immunity test.



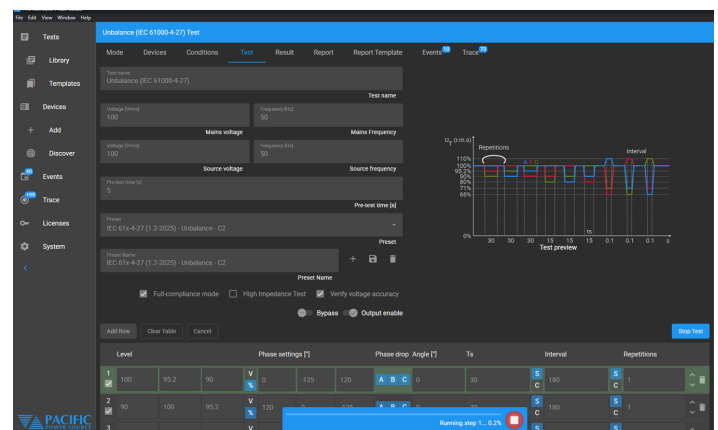
**IEC61000-4-14**  
AC voltage fluctuations test sequence timing.



**IEC61000-4-14**  
AC voltage fluctuations immunity test sequence detailed preview.



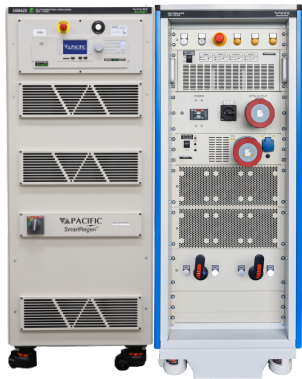
**IEC61000-4-27**  
Three phase voltage unbalance test setup screen.



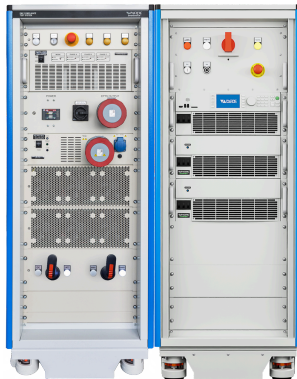
**IEC61000-4-27**  
Execution progress screen for three phase voltage unbalance test.

# Select the Test System That Fits Your Needs

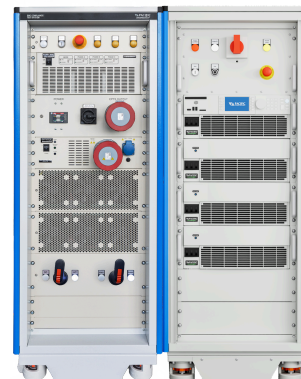
## SmartTS-HFI-3-75 Systems Three-Phase 75 A Dual Cabinet



55 kVA Regenerative AC & DC Source  
AZX Series

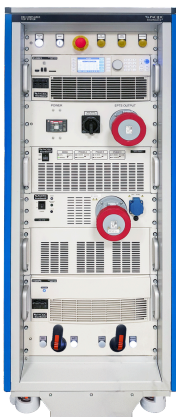


63kVA Regenerative AC & DC Source  
AGX Series up to 3 units



60 kVA Unidirectional AC & DC Source  
AFX Series up to 4 units

## SmartTS-HFI-3-40 Systems Three-Phase 40 A Single Cabinet



30kVA AC & DC Source  
AFX or AGX Master & 1 Auxiliary

## SmartTS-HFI-3-32 Systems Three-Phase 32 A Single Cabinet



24kVA AGX AC & DC Source  
One unit only

## SmartTS-HFI-3-16 Systems Three-Phase 16 A Single Cabinet



12kVA AC & DC Source  
AFX or AGX

## SmartTS-HF-1-16A Systems Single Phase 16 A Basic Version for Harmonics & Flicker only



AFX or AGX

No EPTS module available. Cannot  
upgrade at a future date.

## SmartTS-HFI-1-16A Systems Single Phase 16 A Version with EPTS-16A Module



AFX or AGX  
EPTS module available

# Ordering Information: Standard Systems

Select from standard systems with the option of pre- or full-compliance. For full compliance immunity testing, select the right additional EPTS Module.

**For Full-Compliance version with EPTS:** Add EPTS-75A, EPTS-32A, EPTS-16A, or EPTS-16A-1.

*For Example: SmartTS-HF-3-75A-3550AZX-EPTS75A.*

All cabinets are 'pre-wired' for the integration of an EPTS Unit\*\*. The EPTS unit can be ordered with a new system or can be field-upgradable later.

\*\* Except the basic single-phase 16A System SmartTS-HF-1-16A limited to Harmonics and Flicker test only.

Model	Number of Phases	Amp/ per phase	EPTS Option
SmartTS-HFI-3-75A	3: Three-Phase	75A	EPTS-75A
SmartTS-HFI-3-40A	3: Three-Phase	40A	EPTS-32A
SmartTS-HFI-3-32A	3: Three-Phase	32A	EPTS-32A
SmartTS-HFI-3-16A	3: Three-Phase	16A	EPTS-16A
SmartTS-HFI-1-16A	1: Single-Phase	16A	EPTS-16A-1
SmartTS-HF-1-16A	1: Single-Phase	16A	See Note 1

**Supported AC & DC Power Sources:** AZX, AGX, AFX Series

\*Note 1: Limited Version for Harmonics and Flicker test only.

## SmartTS-HFI-3-75 (75A - 3-Phase Dual Cabinet)

Category 1: 75A- 3-Phase		SmartTS-HFI-3-75
Full-Compliance version for Immunity WITH integrated EPTS		
Power Output(VA/W)	Model	Description
55000	SmartTS-HFI-3-75-3550AZX-EPTS75A	AZX-based, <b>dual</b> cabinet system - current/phase @ 230V of <b>79.7Arms</b>
60000	SmartTS-HFI-3-75-3600AFX-EPTS75A	AFX-based, <b>dual</b> cabinet system - current/phase @ 230V of <b>87.0Arms</b>
45000	SmartTS-HFI-3-75-3450AFX-EPTS75A'	AFX-based, <b>dual</b> cabinet system - current/phase @ 230V of <b>65.2Arms</b>
30000	SmartTS-HFI-3-75-3300AFX-EPTS75A'	AFX-based, <b>dual</b> cabinet system - current/phase @ 230V of <b>43.5Arms</b>
63000	SmartTS-HFI-3-75-3630AGX-EPTS75A	AGX-based, <b>dual</b> cabinet system - current/phase @ 230V of <b>91.3Arms</b>
42000	SmartTS-HFI-3-75-3420AGX-EPTS75A'	AGX-based, <b>dual</b> cabinet system - current/phase @ 230V of <b>60.9Arms</b>
21000	SmartTS-HFI-3-75-3210AGX-EPTS75A'	AGX-based, <b>dual</b> cabinet system - current/phase @ 230V of <b>30.4Arms</b>
Pre-Compliance version for Immunity WITHOUT integrated EPTS		
Power Output(VA/W)	Model	Description
55000	SmartTS-HFI-3-75-3550AZX	AZX-based, <b>dual</b> cabinet system - current/phase @ 230V of <b>79.7Arms</b>
60000	SmartTS-HFI-3-75-3600AFX	AFX-based, <b>dual</b> cabinet system - current/phase @ 230V of <b>87.0Arms</b>
45000	SmartTS-HFI-3-75-3450AFX'	AFX-based, <b>dual</b> cabinet system - current/phase @ 230V of <b>65.2Arms</b>
30000	SmartTS-HFI-3-75-3300AFX'	AFX-based, <b>dual</b> cabinet system - current/phase @ 230V of <b>43.5Arms</b>
63000	SmartTS-HFI-3-75-3630AGX	AGX-based, <b>dual</b> cabinet system - current/phase @ 230V of <b>91.3Arms</b>
42000	SmartTS-HFI-3-75-3420AGX'	AGX-based, <b>dual</b> cabinet system - current/phase @ 230V of <b>60.9Arms</b>
21000	SmartTS-HFI-3-75-3210AGX'	AGX-based, <b>dual</b> cabinet system - current/phase @ 230V of <b>30.4Arms</b>

## SmartTS-HFI-3-40 (40A - 3-Phase Single Cabinet)

Category 2: 40A- 3-Phase		SmartTS-HFI-3-40
Full-Compliance version for Immunity WITH integrated EPTS		
Power Output(VA/W)	Model	Description
30000	SmartTS-HFI-3-40-3300AFX-EPTS32A	AFX-based, <b>single</b> cabinet system - current/phase @ 230V of <b>43.5Arms</b>
15000	SmartTS-HFI-3-40-3150AFX-EPTS32A'	AFX-based, <b>single</b> cabinet system - current/phase @ 230V of <b>21.7Arms</b>
30000	SmartTS-HFI-3-40-3300AGX-EPTS32A	AGX-based, <b>single</b> cabinet system - current/phase @ 230V of <b>43.5Arms</b>
15000	SmartTS-HFI-3-40-3150AGX-EPTS32A'	AGX-based, <b>single</b> cabinet system - current/phase @ 230V of <b>21.7Arms</b>
Pre-Compliance version for Immunity WITHOUT integrated EPTS		
Power Output(VA/W)	Model	Description
30000	SmartTS-HFI-3-40-3300AFX	AZX-based, <b>single</b> cabinet system - current/phase @ 230V of <b>43.5Arms</b>
15000	SmartTS-HFI-3-40-3150AFX'	AFX-based, <b>single</b> cabinet system - current/phase @ 230V of <b>21.7Arms</b>
30000	SmartTS-HFI-3-40-3300AGX	AGX-based, <b>single</b> cabinet system - current/phase @ 230V of <b>43.5Arms</b>
15000	SmartTS-HFI-3-40-3150AGX'	AGX-based, <b>single</b> cabinet system - current/phase @ 230V of <b>21.7Arms</b>

Footnote 1: Applicable models allow for later hardware upgrades of relevant Non-Controller (NC) Power Sources.

## SmartTS-HFI-3-32 (32A - 3-Phase Single Cabinet)

Category 3: 32A- 3-Phase		SmartTS-HFI-3-32
Full-Compliance version for Immunity WITH integrated EPTS		
Power Output(VA/W)	Model	Description
24000	SmartTS-HFI-3-32-3241AGX-EPTS32A	AGX-based, <b>single</b> cabinet system - current/phase @ 230V of <b>34.8Arms</b>
Pre-Compliance version for Immunity WITHOUT integrated EPTS		
Power Output(VA/W)	Model	Description
24000	SmartTS-HFI-3-32-3241AGX	AGX-based, <b>single</b> cabinet system - current/phase @ 230V of <b>34.8Arms</b>

## SmartTS-HFI-3-16 (16A - 3-Phase Single Cabinet)

Category 4: 16A- 3-Phase		SmartTS-HFI-3-16
Full-Compliance version for Immunity WITH integrated EPTS		
Power Output(VA/W)	Model	Description
12000	SmartTS-HFI-3-16-3120AFX-EPTS16A	AFX-based, <b>single</b> cabinet system - current/phase @ 230V of <b>17.4Arms</b>
12000	SmartTS-HFI-3-16-3120AGX-EPTS16A	AGX-based, <b>single</b> cabinet system - current/phase @ 230V of <b>17.4Arms</b>
Pre-Compliance version for Immunity WITHOUT integrated EPTS		
Power Output(VA/W)	Model	Description
12000	SmartTS-HFI-3-16-3120AFX	AFX-based, <b>single</b> cabinet system - current/phase @ 230V of <b>17.4Arms</b>
12000	SmartTS-HFI-3-16-3120AGX	AGX-based, <b>single</b> cabinet system - current/phase @ 230V of <b>17.4Arms</b>

## SmartTS-HFI-1-16 (16A -1-Phase Single Cabinet)

Category 5: 16A- 1-Phase		SmartTS-HFI-1-16
Full-Compliance version for Immunity WITH integrated EPTS		
Power Output(VA/W)	Model	Description
6000	SmartTS-HFI-1-16-2x360AFX-EPTS16A-1	AFX-based, <b>single</b> cabinet system - current/phase @ 230V of <b>26.1Arms</b>
6000	SmartTS-HFI-1-16-2x360AGX-EPTS16A-1	AGX-based, <b>single</b> cabinet system - current/phase @ 230V of <b>26.1Arms</b>
Pre-Compliance version for Immunity WITHOUT integrated EPTS		
Power Output(VA/W)	Model	Description
6000	SmartTS-HFI-1-16-360AFX	AFX-based, <b>single</b> cabinet system - current/phase @ 230V of <b>26.1Arms</b>
6000	SmartTS-HFI-1-16-360AGX	AGX-based, <b>single</b> cabinet system - current/phase @ 230V of <b>26.1Arms</b>

## SmartTS-HF-1-16 (16A -1-Phase Single Cabinet)

Category 6: 16A- 1-Phase		SmartTS-HF-1-16
ONLY Harmonic and Flicker Testsystem 16A single phase.		
Power Output(VA/W)	Model	Description
6000	SmartTS-HF-1-16-360AFX	AFX-based, <b>single</b> cabinet system - current/phase @ 230V of <b>26.1Arms</b>
6000	SmartTS-HF-1-16-360AGX	AGX-based, <b>single</b> cabinet system - current/phase @ 230V of <b>26.1Arms</b>

Footnote 1: Applicable models allow for later hardware upgrades of relevant Non-Controller (NC) Power Sources.

## Test Sequences

Full Software Suite and all Test Sequences for IEC61000-4-xx are included.

### Additional Test Sequence Options

The following test sequences are available as options:

#### Grid Compliance Test Standards

- IEEE 1547.1-2020
- KS C 9610-4-11, 4-29
- DIN VDE V 0124-100-2020-06
- Eng Rec G99-1-9
- EN 50549-10-2022
- EN 62116
- Semi-F47-0706

#### Avionic & Defense Test Standards

- Airbus ABD0100.1.8 (A380), 1.8.1 (A350), G2-1.8 C
- Airbus AMD-24C
- Boeing 787B3-0147 (787) C
- MIL-STD-1399-300-1, -B
- MIL-STD-704A, D, E, F
- MIL-STD-1275E, F
- RTCA-DO160G, E



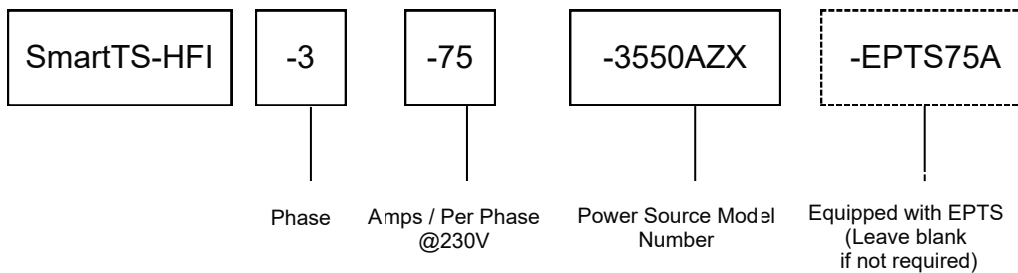
## Ordering Information

Select from standard HFI systems with the additional EPTS Option for full compliance power line immunity testing.

- Consider the additional EPTS Option for full compliance testing for voltage dips and interruptions immunity (IEC 61000-4-11/IEC 61000-4-34/IEC 61000-4-29).
- For full compliance, simply add the EPTS module with the necessary ratings: - EPTS75A, - EPTS40A, - EPTS32A or -EPTS16A. For **Example:** SmartTS-HFI-3-75A-3550AZX-EPTS75A is for full compliance testing of equipment rated up to 75 A per phase.
- All cabinets are 'pre-wired' for the integration of an EPTS unit (except the basic single phase 16A System SmartTS-HF-1-16A which is limited to Harmonics and Flicker test only). The EPTS unit can be ordered with a new system or can be field-upgradeable later.
- On-site commissioning and training services are available.

### SmartTS-HFI Model Number Encoder

Example below: SmartTS-HFI-3-75-3550AZX-EPTS75A



Input Voltage for Testsystem: 400V or 480V, 50 and 60 Hz

#### Standard Delivery items:

- Test system is delivered in wooden crate
- English operation manuals (hardware and software) incl. wiring diagrams and Quick Start Guide
- ISO17025 calibration certificates for AC/DC Source and Test system
- Electrical safety testing protocol

## Calibration

The test systems are provided with calibration from ISO/IEC 17025 accredited labs, covering both emission and immunity standards. Calibrations in accordance with ISO/IEC 17025 (General Requirements for the competence of testing and calibration) ensure the highest quality in terms of technical competence, procedures, facilities, test instrumentation, personnel, confidentiality and impartiality. Accordingly, ISO/IEC 17025 calibrations are recognised worldwide by accreditation bodies like A2LA, UKAS, or DAkKS.

## Sales & Service Centers, Worldwide

### AMERICAS & INTERNATIONAL

**Pacific Power Source, Inc.**  
Irvine, USA  
+1(949) 251-1800  
sales@pacificpower.com

### EUROPE

**Pacific Power Source Europe GmbH.**  
Kappelrodeck, Germany  
+49 7842 99722-20  
info@pacificpower.eu

### GERMANY, AUSTRIA, SWITZERLAND

**Caltest Instruments GmbH**  
+Kappelrodeck, Germany  
+49 7842 99722-20  
info@caltest.de

### UNITED KINGDOM

**Caltest Instruments Ltd**  
Petersfield, UK  
+44 (0) 1483 302 700  
sales@caltest.co.uk

### INDIA

**Caltest Instruments Private Limited**  
Bangalore, India  
sales@caltestindia.com

