

Voltage Dips, Interruptions & Variations

HPFS

HV3P T

HV3P VAR



Continue

Stop

Line

Main

General

Electrical and electronic equipment will be affected by voltage sags, short interruptions or voltage changes in the power supply. Voltage sags and short-term interruptions are caused by faults in the power grid or power facilities or sudden load changes. In some cases, there will be two or more consecutive dips or interruptions, and voltage changes are caused by continuous changes in the load connected to the grid. These phenomena are random in nature. In order to simulate in the laboratory, the deviation and duration of the rated voltage can be used to minimize their characteristics. In order to test the anti-interference performance of electrical equipment when encountering this situation, it is necessary to simulate this kind of grid power failure in the product development stage to evaluate the performance of electronic products under the electrical stress.

The HPFS immunity test system can quickly and completely complete the automatic test under the conventional IEC standard. HPFS can be started through the color touch screen interface on the front panel, or remotely controlled through the network cable. In addition to the parameter setting specified by the standard, it can also be set and run the test program according to user-defined parameters, which is fully compatible with the latest version of the IEC standard.

Features

- 7 Inch touch color screen, simple and elegant UI, benefit for operating
- Powered IGBT and meet AC&DC test requirements
- Inrush current >500A(50A), Inrush current >1000A(100A)
- External programmable AC tapped transformers and AC source
- External programmable DC fault power suppliers
- EUT rated current up to 16A/32A/64A/100A/200A

Applications

- IEC/EN 61000-4-11, GB/T 17626.11
- IEC/EN 61000-4-29, GB/T 17626.29
- IEC/EN 61000-4-34
- SEMIF47
- IEC/EN 61000-6-1
- IEC/EN 61000-6-2
- IEC62052-11 GB/T 17215.211
- IEC61326



Inrush current requirements

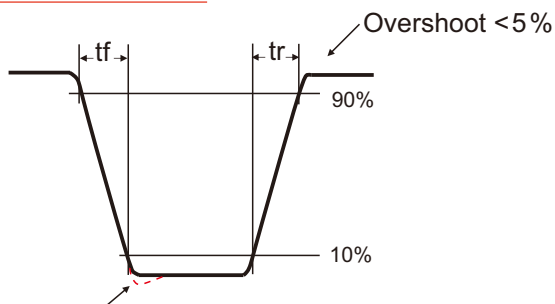
EUT current	Minimum peak inrush current capability of the generator
16A - 50A	500A
50.1A - 100A	1000A
>100A	Not less than 1 000 A, and sufficient to maintain $\pm 10\%$ of required voltage value during maximum peak inrush, measured as r.m.s. value refreshed each $\frac{1}{2}$ cycle per IEC 61000-4-30.

Rise time t_r Fall time t_f *

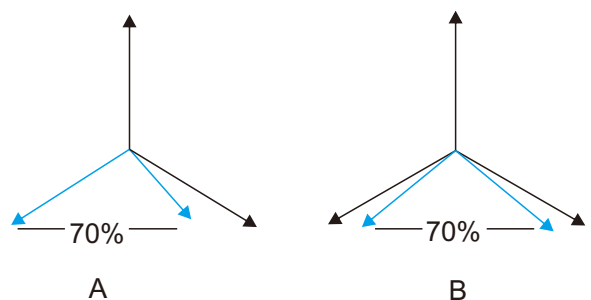
Device rated current	$I < 50A$	$50A \leq I \leq 75A$	$75A < I \leq 100A$	$I > 100A$
t_r / t_f	1-5 μ s		1-50 μ s	
Load impedance	100 Ω	50 Ω		25 Ω

*The load is a non-inductive resistance. This parameter is a requirement when the instrument is calibrated, not a true indicator when the EUT is running.

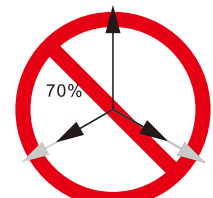
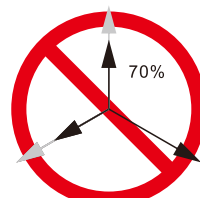
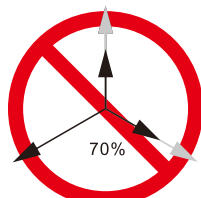
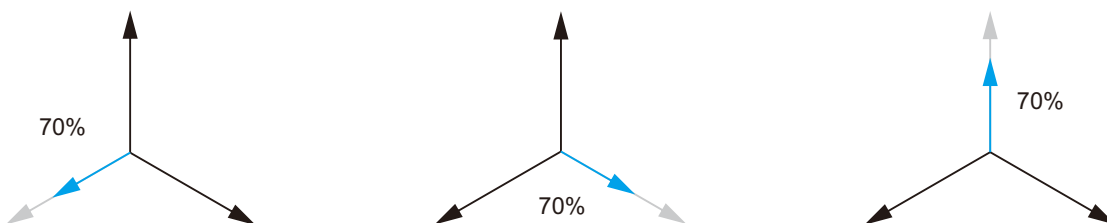
Overshoot and undershoot



Phase shift (Three-phase power supply system)

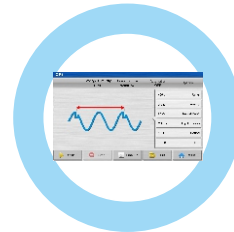
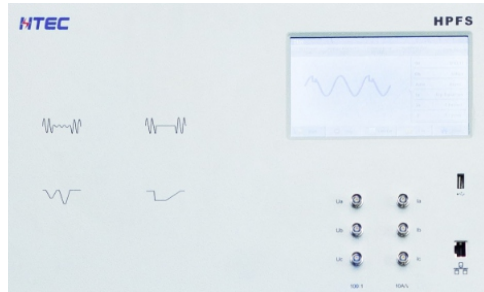


Phase-to-neutral

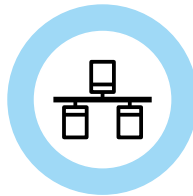


Humanized operation interface and connectors

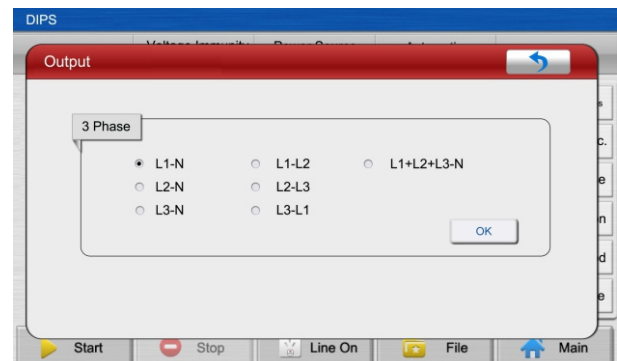
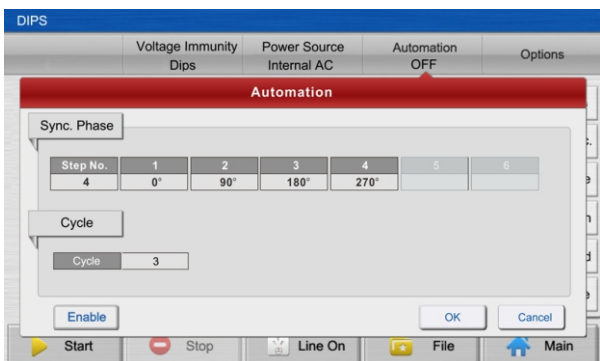
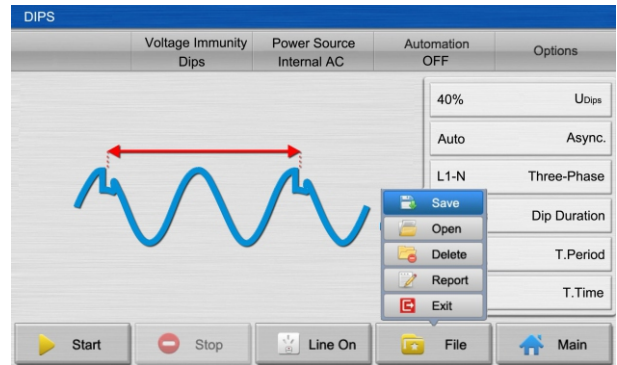
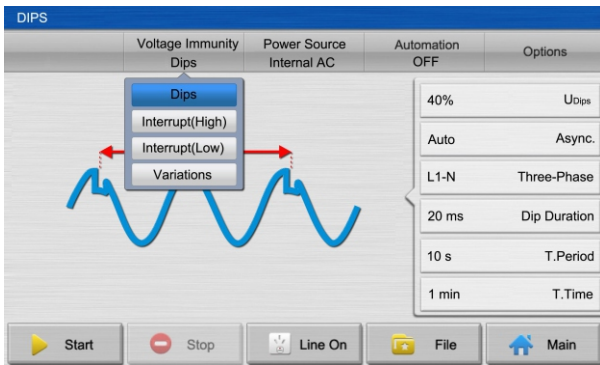
High precision phase synchronization



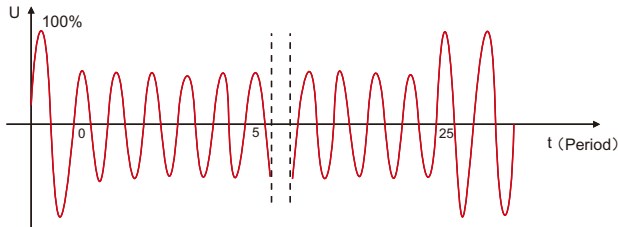
All functions and parameters can be set directly through the touch screen



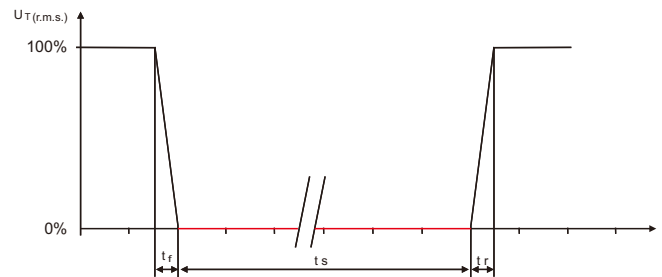
Software GUI



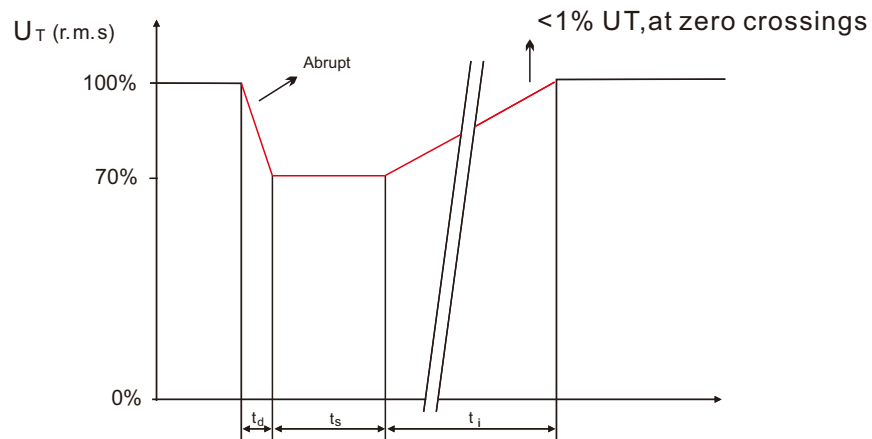
Voltage Dips Schematic



Voltage Interruption Schematic



Voltage Variations Schematic



Voltage Dips , Interruptions & Variations

Max. input voltage	300Vac(L-N) / 440Vdc	Continuous current	16A,32A,64A,100A,200A
Rise time/ Fall time	1 ~ 5 μ s (100 Ω load)	Inrush current	\geq 1000A
Phase sync.	0-359 $^\circ$ /step1 $^\circ$ or asynchronous mode	Dips range	External AC/DC voltage source
Interrupt time	Async:100 μ s ~1000min Sync:0.5 period ~ 9999 period	Interval time	Async: 10ms ~ 1000min Sync: 1 period ~ 9999 period
Cycles	1 ~ 9999 cycles	Test time	1s ~ 1000min
Voltage variation	td:Abrupt	Voltage variation ti	25 period ~ 9999 period 500ms-9999min

General specifications

Supply voltage	100V ~ 240Vac	USB port	Data reporting, software/firmware updated
Touch screen	7 inch 800x480, 24 bit	Remote interface	Ethernet
Size(MM)	W600xD800xH1750	Weight	Ca.200kg

HPFS Power Failure Simulator

Ordering No.	Product Name	Model	Description
41040100	Single-phase PFS	HPFS 161P	Dips:16Aac/dc,IEC 61000-4-11/-4-29
41040200	Three-phase PFS	HPFS 303P	Dips:3×480Vac/32A,IEC 61000-4-11/-4-29/-4-34
41040300		HPFS 603P	Dips:3×480Vac/63A,IEC 61000-4-11/-4-29/-4-34
41040400		HPFS 1003P	Dips:3×480Vac/100A,IEC 61000-4-11/-4-29/-4-34
41040500		HPFS 2003P	Dips:3×480Vac/200A,IEC 61000-4-11/-4-29/-4-34
41100100		Three-phase AC tapped transformers	HV1P16T
41100200	HV3P16T		30%,40%,50%,60%,70%,80%,4×16A
41100300	HV3P30T		30%,40%,50%,60%,70%,80%,4×32A
41100400	HV3P60T		30%,40%,50%,60%,70%,80%,4×64A
41100500	HV3P100T		30%,40%,50%,60%,70%,80%,4×100A
41100600	HV3P200T		30%,40%,50%,60%,70%,80%,4×200A
41100700	Single-phase programmable AC module	HV1P16VAR	0-300V, L-N, 1P/16A
41100800	Three-phase programmable AC module	HV3P16VAR	0-300V, L-N, 3P/16A,IEC61000-4-11/-4-34
41100900		HV3P30VAR	0-300V, L-N, 3P/32A,IEC61000-4-11/-4-34
41101000		HV3P60VAR	0-300V, L-N, 3P/64A,IEC61000-4-11/-4-34
41101100		HV3P100VAR	0-300V, L-N, 3P/100A,IEC61000-4-11/-4-34
41101200		HV3P200VAR	0-300V, L-N, 3P/200A,IEC61000-4-11/-4-34
41101300	Single-phase AC manual voltage regulator	HMV1P	0-300V, L-N, 1P/16A
41101400	Three-phase AC manual voltage regulator	HMV3P16	0-300V, L-N, 3P/16A,IEC61000-4-11/-4-34
41101500		HMV3P30	0-300V, L-N, 3P/32A,IEC61000-4-11/-4-34
41101600		HMV3P100	0-300V, L-N, 3P/100A,IEC61000-4-11/-4-34
41101700		HMV3P200	0-300V, L-N, 3P/200A,IEC61000-4-11/-4-34
41101800	DC power module	HVDC 110-15	110V/15A linear DC output, manual or automatic
41101900		HVDC 360-25	360V/25A linear DC output,manual or automatic

The leader of EMC Test and Measurement



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