

Single-phase Power Failure Simulator **PFS 4510SV**



- IEC 61000-4-11
- GB/T 17626.11

Features

- > 5.7-inch color touchscreen for front panel operation
- > Voltage and current measurement acquisition
- > Built-in multi-functional test module
- > Ethernet RJ45 interface for PC remote control and test report printing
- > Equipped with voltage limiting, current limiting, overcurrent and over voltage protection functions

Introduction

The PFS 4510SV Single-phase Power Failure Simulator is designed according to IEC/EN 61000-4-11 and GB/T 17626.11 standards. It is used to simulate voltage dips, short interruptions and voltage variations at AC power input ports.

The PFS 4510SV, combined with the VVT 4510SV accessory, forms a fully automatic immunity test system for voltage dips, short interruptions and voltage variations. It is equipped with a controllable semiconductor switch capable of withstanding transient inrush currents up to 500 A, and features electronic short-circuit protection.

Application Areas



Technical Parameters

Max. EUT Input Voltage	450 V AC, 50/60 Hz
EUT Voltage and Current Measurement	LCD display
Max. Continuous EUT Current	12 A
Inrush Current Withstand Capability	500 A
Protection	Built-in overcurrent, short-circuit, overvoltage, overtemperature, surge, EFT/burst and ESD protection. Optional external protection accessories (e.g. warning lamp, emergency stop button) can be connected to the Line in and Line out ports.
Interruption Level	0%
Voltage Dip Level	0% ~ 100%
Voltage Dip/Interruption Duration	0.3 ~ 9,999 cycles or 1 ms ~ 99,999 ms
Voltage Dip/Interruption Interval	50 ms ~ 60,000 ms
Voltage Dip/Interruption Counters	1 ~ 9,999
Voltage Dip/Interruption Rise/Fall Time	1 ~ 5 μ s
Voltage Variation Level	0 ~ 100%
Voltage Variation Decrease Time	500 ms ~ 9,999 ms (50% ~ 100%) or abrupt change (same as voltage dip/interruption rise/fall time) 1,500 ms ~ 9,999 ms (0% ~ 100%) or abrupt change (same as voltage dip/interruption rise/fall time)
Voltage Variation Increase Time	500 ms ~ 9,999 ms (50% ~ 100%) 1,500 ms ~ 9,999 ms (0% ~ 100%)
Voltage Variation Duration After Reduction	10 ms ~ 59,999 ms
Synchronization	0° ~ 360°, 1° step setting or random mode
Trigger Mode	Manual, automatic and external trigger input

General Parameters

Display Screen	5.7-inch TFT touchscreen
Working Power	AC 100V ~ 240 V $\pm$ 10%, 50/60 Hz
Fuse	6 A
Max. Power Consumption	300 W
Storage Space	Infinite (PC)
Communication Mode	Ethernet LAN, RJ45
Auxiliary Interface	D-sub 25p
External Trigger Input	BNC, 5 V TTL, no contact, trigger to close
CRO Trigger Output	BNC, 5 V TTL
Operation Control Input	BNC, 5 V TTL
External Synchronization Input	45 Hz ~ 65 Hz 20 ~ 500 V between the same-polarity and opposite-polarity terminals 0 ~ 500 V between the terminals and chassis
Warning Lamp Output	0 ~ 220 V AC, 10 A / 0 ~ 48 V, DC 3 A Power supply depends on the type of external signal lamp
Safety Circuit	Stop work when safety circuit is open

General Parameters

Failure Detection	LCD display in front panel and stop work when failure occurs
Working Status Indication	LED indication and LCD display on the front panel
Grounding Method	Flat grounding wire
Dimension	6U rack: 450 (L) * 280 (W) * 620 (H) mm
Weight	PFS 4510SV : Approx. 20 kg VVT 4510SV : Approx. 48 kg
Ambient Temperature	15°C ~ 35°C
Relative Humidity	45% ~ 75% RH (no condensation)
Atmospheric Pressure	86 kPa ~ 106 kPa

Standard Accessories

Power Cord, Test Cable, Grounding Wire, Fuse, RF Cable, Flat Grounding Wire, User Manual			
1	AC Voltage Dips and Short Interruption Simulator	Model: VVT 4510SV Used together with the PFS 4510SV to form a fully automatic immunity test system for voltage dips, short interruptions and voltage variations.	

Optional Accessories

1	Immunity Test Software	Model: CoreLab > Support Windows 7/8/10 /11 > Supports Ethernet and serial communication modes > Supports parameter sequence, test sequences, easy for operation > Supports customer information configuration and automatic test report printing.	
2	Calibration Impedance Box	Model: R100Ω/1134 Impedance: 100 Ω Accuracy: ± 10% Power: 2,000 W Generator rated current: ≤50 A	

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