

# PFS Single Phase Power Fail Simulator

## Datasheet



### In Compliance with

- > EN/IEC 61000-4-11
- > EN/IEC 61000-4-29
- > GB/T 17626.11
- > GB/T 17626.29

### Introduction

PFS single phase power fail simulator simulates voltage dip, interruption and variation which are caused by power grid and transformer devices due to malfunction or sudden large change of load. It is required to test this kind of phenomena to check whether electronic and electrical device can sustain safety operating condition. PFS 2216 SV is equipped with two semiconductor switch controlled independently. It can withstand impulse current and each switch has electronic protection function.

### Features

- > 5.7 inch color touch screen
- > Full compliant test as per IEC 61000-4-11, GB/T17626.11
- > Built-in multi functional test module
- > Data acquisition of voltage and current
- > Programmable test procedures
- > Ethernet RJ45, PC remote control, test report documentation and print

### Application Areas

- |                 |                      |
|-----------------|----------------------|
| > Communication | > Technology         |
| > Telecom       | > Military           |
| > Medical       | > Avionics           |
| > Broadcast     | > New energy         |
| > Railway       | > Electrical Vehicle |

General Parameters	
Display	5.7 inch TFT touch screen
Power supply	110 V / 220 V, $\pm 10\%$ , 50/60 Hz
Fuse	6 A
Max. Power consumption	100 W
Memory space	Infinite (PC)
Communication mode	Ethernet LAN、RJ45
External control	D-sub 25p
External trigger input	BNC, 5 V TTL
CRO output	BNC, 5 V TTL
Input	BNC, 5 V TTL
Synchronization	45-65 Hz, 20-500 V between dotted terminal & undotted terminal
Warning LED	0-220 VAC 10 A/0-48 VDC 3 A Depending on external signal lamp
Safety circuit	Test only can be started when it is closed
Failure test	Display on LCD and interrupt the work at failure case
EUT voltage monitoring output	BNC, 100:1 coaxial output
EUT current monitoring output	BNC, 10A:1 V coaxial output
Working indicator	LED, LCD front panel display
Grounding connection	Flat ground line
EUT power injection	4 mm banana line
Output mode	Standard 1 m coaxial cable
Size	19 inch/6U/4U or 22U cabinet
Weight (different weight for different model)	Eg. PFS 2210SVD / PFS 2210SD / PFS 2216SD weight: 40 Kg; PFS 1130D weight: 24 Kg or 100 kg (with the power supply)
Temperature	15 °C ~ 35 °C
Humidity	45% ~ 75%
Air pressure	86 kPa ~ 106 kPa

Peak impulse capacity of simulator	
Rated current	Withstand current impulse capacity
PFS 2210SD	500 A
PFS 2210SVD	500 A
PFS 2216SD	500 A
PFS 2216SVD	500 A
PFS 2232SD	500 A
PFS 2232SVD	500 A
PFS 0505D	24 V/50 A, 48 V/100 A
PFS 0510D	24 V/50 A, 48 V/100 A
PFS 1110D	24 V/50 A, 48 V/100 A, 110 V/220 A
PFS 1120D	24 V/50 A, 48 V/100 A, 110 V/220 A
PFS 1125D	24 V/50 A, 48 V/100 A, 110 V/220 A
PFS 1130D	24 V/50 A, 48 V/100 A, 110 V/220 A
PFS 1150D	24 V/50 A, 48 V/100 A, 110 V/220 A
PFS 2210D	24 V/50 A, 48 V/100 A, 110 V/220 A
PFS 2225D	24 V/50 A, 48 V/100 A, 110 V/220 A
PFS 2250D	24 V/50 A, 48 V/100 A, 110 V/220 A

Simulator with rated current no more than 16 A meets the load capacity specified in IEC 61000-4-11	
Rated current	Load current capacity
PFS 2210SD PFS 2210SVD	12 A AC/DC continuous current; 15 A continuous 5 s; 25 A continuous 3 s;
PFS 2216SD PFS 2216SVD	18 A AC/DC continuous current; 20 A continuous 5 s; 40 A continuous 3 s;

**Power fail test as per IEC6100-4-11&IEC61000-4-29, GB/T17626.29 for single phase AC and DC including voltage dips, short interruption and voltage variation**

Power fail simulator		
EUT max. Voltage	PFS22xxSD, PFS22xxSVD series: 250 V AC, 300 V DC PFS05xxD series: 55 V DC PFS11xxD series: 130 V DC PFS12xxD series: 140 V DC PFS22xxD series: 300 V DC	
EUT max. current	PFS2216SD, PFS2216SVD: 16 A AC/DC continuous current; 20 A continuous 5 s; 40 A continuous 3 s; PFS2210SVD, PFS2210SVD: 10 A AC/DC continuous current; 12 A continuous 5 s; 25 A continuous 3 s; PFSxx05D: 6 A PFSxx010D: 12 A PFSxx20D: 22 A PFSxx25D: 28 A PFSxx30D: 33 A PFSxx50D: 55 A	
EUT power supply	Single phase no more than 230 V 50~60 Hz±5%	DC no more than 300 V DC Offer DC control
EUT current and voltage measurement	LCD display BNC terminal: voltage 100:1, current 100 A : 1 V	
Interrupt level	0%	
Dips level	0%-100% (for accessories VVT/VMT series) 0%, 40%, 70%, 80% (for accessories VVTxxxxSF series )	
Repetition rate for dips and interruption	0.3-9999 cycle or 5 ms - 9999 ms	
Duration for dips and interruption	50 ms – 50000 ms	
Test time for dips and interruption	1 s – 9999 s	
Rise and fall time for dips and interruption	Generator rated current ≤ 75 A: 1-5 μs (standard resistance calibration) Generator rated current > 75 A: 1-50 μs (standard resistance calibration)	
Voltage variation level	0-100%	
Time for decreasing voltage	500 ms - 9999 ms (50%-100%) or abrupt (same with rise and fall time for dips and interruption) 1000 ms - 9999 ms (0%-100%) or abrupt (same with rise and fall time for dips and interruption)	
Time for increasing voltage	500 ms - 60000 ms (50%-100%) ; 1000 ms – 60000 ms (0%-100%)	
Time for reduced voltage	10 ms – 99999 ms	
DC voltage level	0-120%	
DC voltage change continuous	1 ms ~ 99999 ms	
DC voltage change interval	50 ms ~ 50000 ms	
Synchronization	0°~ 360°, 1° step or random	
Trigger mode	Automatic, manual or external	
Optional function	Additional module for voltage variation test and two DC mains	



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