

## PFS series single/ three-phase power fail simulator

### Datasheet



#### In Compliance with

- > IEC 61000-4-34
- > EN/IEC 61000-4-11
- > GB/T 17626.11
- > GB/T 17626.34

#### Introduction

PFS series single/ three-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 series single/ three-phase power fail simulator is equipped with controllable semi-conductor switches with protection function as per IEC 61000-4-11/34, GB/T17626.11/34.

#### Features

- > 5.7 inch color touch screen
- > Full compliant test as per IEC 61000-4-11
- > Built-in multifunctional 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 |

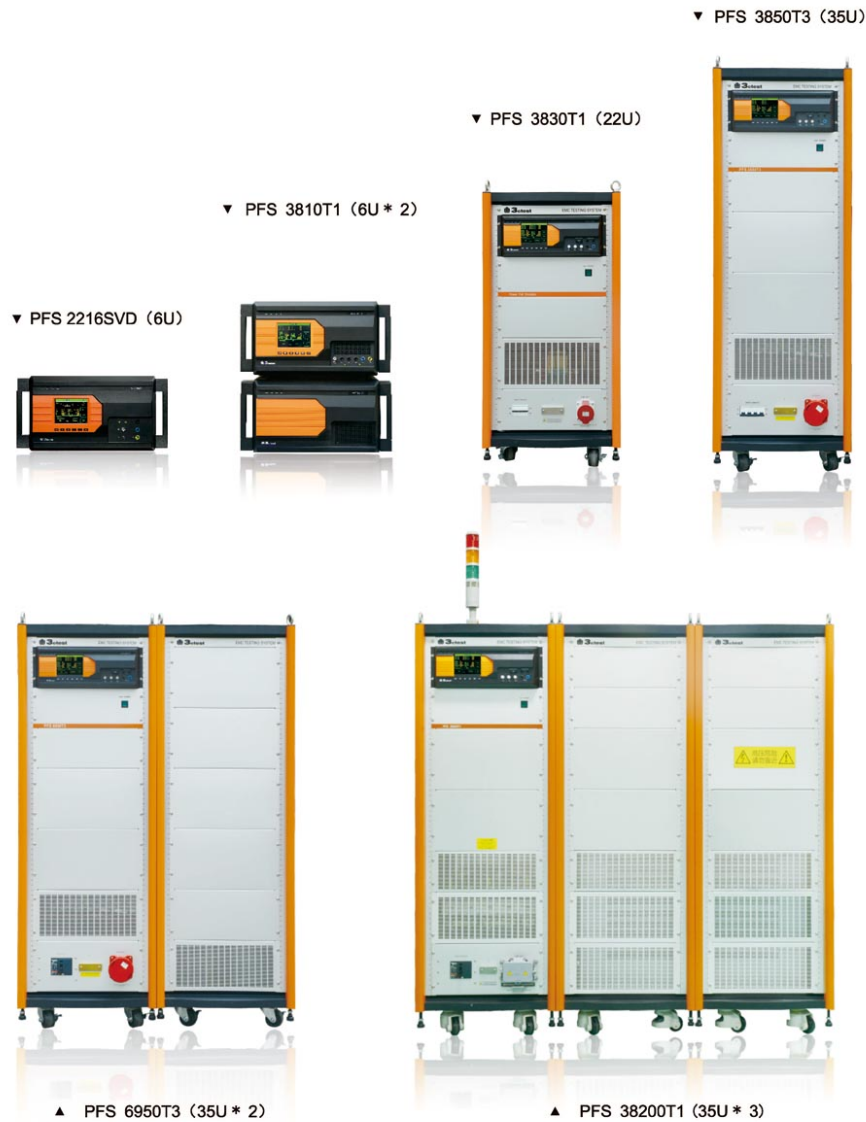
General Parameters	
Display	5.7 inch TFT touch screen
Power supply	110 V or 220 V, $\pm 10\%$ , 50/60 Hz (default AC 220 V, 50 Hz)
Fuse	6 A
Max. Power consumption	300 W
Memory space	Infinite (PC)
Communication mode	Ethernet LAN、RJ45
Auxiliary interface	D-sub 25p
External trigger input	BNC, 5 V TTL
CRO output	BNC, 5 V TTL
Input	BNC, 5 V TTL
Synchronization	45-65 Hz, 20-500 V between dotted terminal & undotted terminal 0-500 V among dotted terminal, undotted terminal and case
Warning LED	0-220 VAC 10 A / 0-48 V DC 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
Working indicator	LED, LCD front panel display
Grounding connection	Flat ground line
EUT power injection	5-core industrial plug
Output mode	Standard 1 m coaxial cable
Size	19 inch 6U or 22U/35U cabinet
Weight	Approx. 35 kg ~ 150 kg
Temperature	15 °C ~ 35 °C
Humidity	45% ~ 75%
Air pressure	86 kPa ~ 106 kPa

Load capacity	
Peak impulse capacity	
Rated current	Withstand impulse current capacity
Current no more than 50 A	500 A
50.1 A ~ 100 A current	1000 A
Current more than 100 A	More than 1000 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 3810T1 PFS 3810T3V	12 A AC/DC continuous current; 15 A continuous 5 s; 25 A continuous 3 s;
PFS 3816T1 PFS 3816T3V	18 A AC/DC continuous current ; 23 A continuous 5 s; 40 A continuous 3 s;

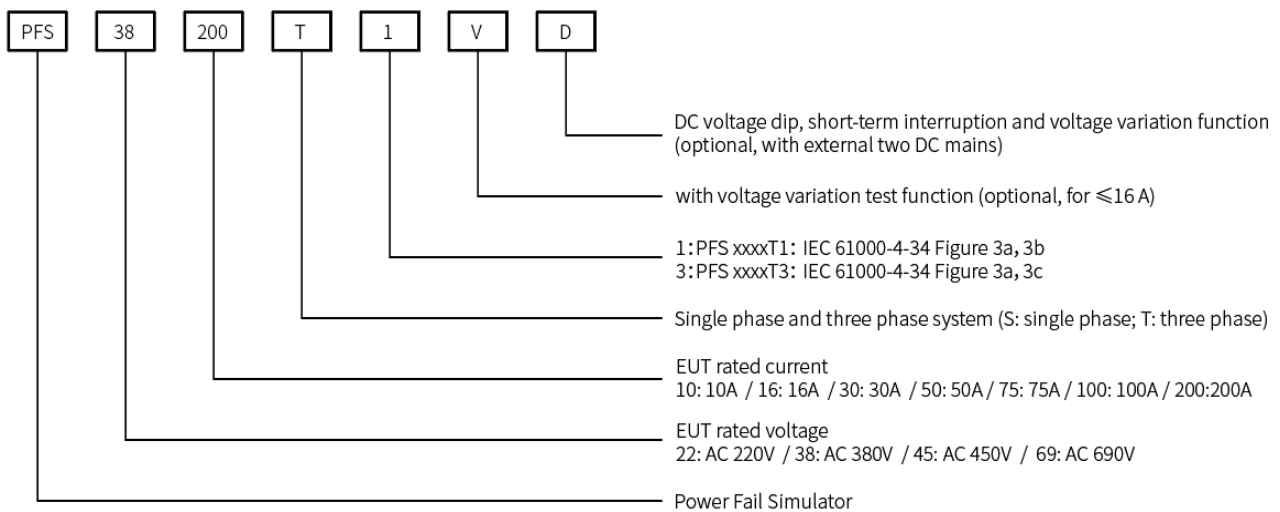
Standard accessories
PFS test system, power cable, EUT supply cable,internet cable, factory test report, user manual

**Power fail test as per IEC 61000 - 4 – 11 & IEC 61000-4-34 for single/three phase AC including voltage dips, short interruption and voltage variations**

Technical parameters	
EUT max. Continuous current	12 A (PFS xx10xxx series) 18 A (PFS xx16xxx series) 33 A (PFS xx30xxx series) 55 A (PFS xx50xxx series) 80 A (PFS xx75xxx series) 110 A (PFS xx100xxx series) 220 A (PFS xx200xxx series)
Withstand impulse current	Product's current no more than 50 A: 500 A; more than 50 A: 1000 A
Protection	Internal over current, short circuit, over voltage, over heat, surge, burst, ESD protection; Optional external accessories for Line in, Line out port
EUT max. Input voltage	Single phase 250 V AC $\pm$ 5%, 50/60 Hz $\pm$ 5% (300 V DC optional) Three-phase : PFS 38xxxx series: 420 V AC, 50/60 Hz $\pm$ 5% (300 V DC optional) PFS 45xxxx series: 480 V AC, 50/60 Hz $\pm$ 5% (300 V DC optional) PFS 69xxxx series: 720 V AC, 50/60 Hz $\pm$ 5% (300 V DC optional)
EUT current and voltage measurement	LCD display
Interruption level	0%
Voltage interruption mode	Optional one phase, two-phase or three-phase
Dips level	0%-100%
Voltage dips mode	Line to neutral & Line to line PFSxxxxT1: IEC61000-4-34:Figure3a、 3b PFSxxxxT3: IEC61000-4-34:Figure3a、 3c
Repetition rate for dips and interruption	0.3-9999 cycle or 5 ms-9999 ms (1 ms for PFS xxxxxxD)
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 $\leq$ 75 A: 1-5 $\mu$ s (standard resistance calibration) Generator rated current $>$ 75 A: 1-50 $\mu$ s (standard resistance calibration)
Voltage variation level (for generator rated current $\leq$ 16 A)	0-100%
Time for decreasing voltage (for generator rated current $\leq$ 16 A)	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 (for generator rated current $\leq$ 16 A)	500 ms – 9999 ms (50%-100%) 1000 ms – 9999 ms (0%-100%)
Time for reduced voltage (for generator rated current $\leq$ 16 A)	10 ms – 99999 ms
Synchronization	0°- 360°, 1° step or random
Trigger mode	Automatic, manual, or external



### Naming rule:





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