

Power Fail Simulator

PFS series single/three-phase



- IEC 61000-4-11:2020
- IEC 61000-4-34:2009
- GB/T 17626.11:2023
- GB/T 17626.34:2012

— Features

- > 5.7 inch color touch screen front panel operation
- > Fully compatible with IEC 61000-4-11/34 testing
- > Built-in multifunctional test module
- > Data acquisition of voltage and current
- > Programmable test procedures
- > Ethernet RJ45 interface, used for PC remote control and printing test reports

— Introduction

The PFS series single/three-phase power fail simulator simulates the impact of voltage dips, interruptions, and voltage variations on electrical and electronic equipment in the power grid. The reasons for these voltage changes are due to faults in the power grid, substation equipment, or sudden large changes in load. Testing such phenomena is to verify whether electrical and electronic equipment can avoid unsafe operating conditions when encountering voltage fluctuations. The PFS series single/three-phase is equipped with controllable semiconductor switches, which can withstand instantaneous impulse currents and have electronic short circuit protection function and can fully be compliant with IEC 61000-4-11/34 and GB/T 17626.11/34.

— Application Areas



General
Parameters

Display Screen	5.7-inch TFT touch screen
Working Power	AC 110 V / 220 V, ($\pm 10\%$), 50/60 Hz
Fuses	6 A
Maximum Power Consumption	300 W
Memory Space	Infinite (PC)
Communication Methods	Ethernet LAN, RJ45
External Trigger Input	BNC, 5 V TTL
CRO Trigger Output	BNC, 5 V TTL
Operation Control input	BNC, 5 V TTL
External Synchronous Input	45-65 Hz, 20-500 V between dotted terminal & undotted terminal
Failure Detection	Display on LCD and interrupt the work at failure case
Working Status Indication	Front panel LED indication, LCD display
Grounding Connection Method	Flat grounding cable
EUT Power Supply Voltage Injection	5-core industrial socket
Measurement Output Method	Standard 1-meter coaxial cable
Dimension	19-inch 6U chassis or 19 inch/22U/35U cabinet
Weight	6U: approx. 35 kg 22U: approx. 150 kg 35U: approx. 380~467 kg
Ambient Temperature	15 °C~ 35 °C
Relative Humidity	45% ~ 75%
Atmospheric Pressure	86 kPa ~ 106 kPa

Generator
Load Capacity

Product Peak Inrush Current Capability	
Product Rated Current	Withstand Peak Inrush Current Capacity
≤ 50 A	500 A
50.1 A ~ 100 A	1000 A
> 100 A	> 1000 A
Product with rated current ≤ 16 A meets the load capacity specified in IEC 61000-4-11	
Product Rated Current	Load Current Capability
PFS 3810T1 PFS 3810T1V	12 A AC/DC continuous current; 15 A for 5 s; 25 A for 3 s;
PFS 3816T1 PFS 3816T1V	18 A AC/DC continuous current; 23 A for 5 s; 40 A for 3 s;

Power fail testing in accordance with IEC 61000-4-11 & IEC 61000-4-34 standards

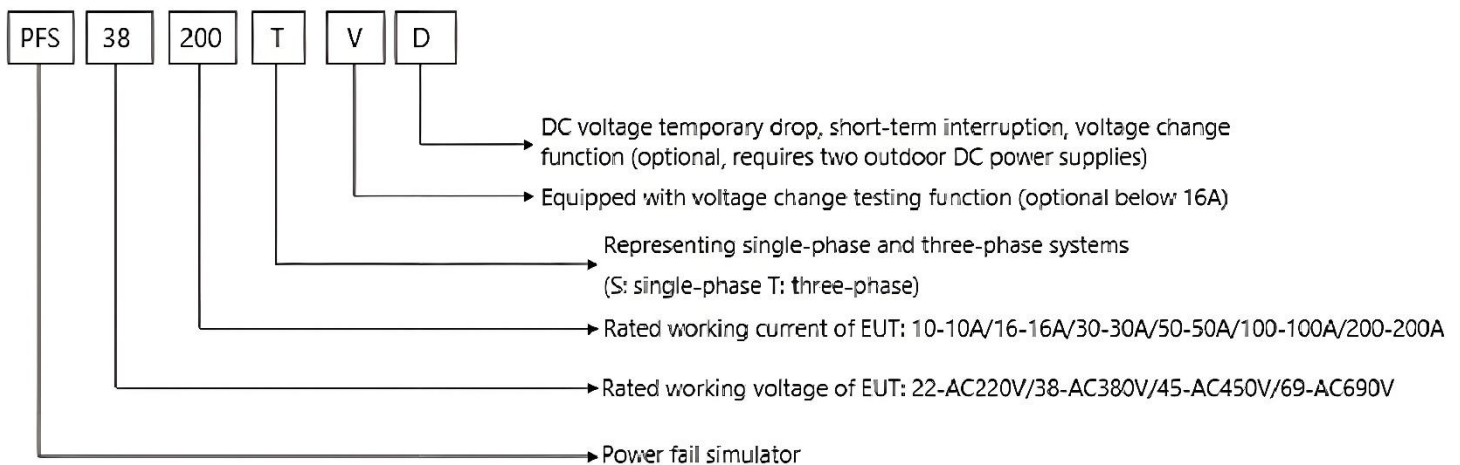
Technical parameters for single/three-phase AC power fail simulators with voltage dips, short interruptions, and voltage variations function	
Maximum Continuous Current of EUT	12 A (PFS xx10xxx series) 18 A (PFS xx16xxx series) 32 A (PFS xx30xxx series) 52 A (PFS xx50xxx series) 77 A (PFS xx75xxx series) 102 A (PFS xx100xxx series) 202 A (PFS xx200xxx series)
Withstand Impulse Current	500A @ Product's current ≤ 50 A 1000 A @ Product's current > 50 A
Protection	Built-in over current, short circuit, over voltage, over heat, surge, burst, ESD protection; Optional external accessories for Line in, Line out port
Maximum Input Voltage of EUT	Single-phase 250 V AC $\pm 5\%$, 50/60 Hz $\pm 5\%$ Three-phase: PFS 38xxxx series: 420 V AC, 50/60 Hz $\pm 5\%$ PFS 45xxxx series: 480 V AC, 50/60 Hz $\pm 5\%$ PFS 69xxxx series: 720 V AC, 50/60 Hz $\pm 5\%$
EUT Current and Voltage Measurement	LCD display
Interruption Level	0%
Voltage Interruption Mode	Optional voltage interruption for one phase, two phases, or three phases
Dips Level	0% ~ 100%
Voltage Dips Mode	Line to neutral & Line to line
Duration for Dips and Interruptions	0.3 ~ 9,999 cycles or 10 ms ~ 99,999 ms (1 ms for PFS xxxxD model)
Interval for Dips and Interruptions	50 ms ~ 50,000 ms
Test Counter	1 ~ 9,999
Rise and Fall Time for Dips and Interruptions	Product rated current ≤ 75 A: 1 ~ 5 μ s (standard resistance calibration) Product rated current > 75 A: 1 ~ 50 μ s (standard resistance calibration)
Voltage Variations Level (Product rated current ≤ 16 A)	0 ~ 100%

Time for Decreasing Voltage (Product rated current < 16 A)	500 ms ~ 9,999 ms (50% ~ 100%) or abrupt (same with rise and fall time for dips and interruption) 1500 ms ~ 9,999 ms (0% ~ 100%) or abrupt (same with rise and fall time for dips and interruption)
Time for Increasing Voltage (Product rated current < 16 A)	500 ms ~ 9,999 ms (50% ~ 100%) 1500 ms ~ 9,999 ms (0% ~ 100%)
Time for Reduced Voltage (Product rated current < 16 A)	10 ms ~ 99,999 ms
Synchronization	0 ° ~ 360 °, 1 ° step setting or random mode
Trigger Method	Manual, automatic, external trigger input

Standard Accessories

Power Cord, EUT Power Supply Cables, Grounded Cable, RF cables, Fuses, User Manuals, Inspection Report, Product Warranty Certificate

Naming Rule:



▼ 4U



▼ 6U



▼ 22U



▼ 35U



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