Automotive Power Failure Simulator

PFS 60100A2

- BMW GS 95003-2
- BMW GS 95024-2-1
- Chrysler CS-11809
- Chrysler CS-11979
- Chrysler PF-9326
- Cummins 14269 (982022-026)
- DaimlerChrysler DC-10615
- DaimlerChrysler DC-10842
- DaimlerChrysler PF-10541
- Fiat 9.90110
- Ford EMC-CS-2009.1
- Ford ES-XW7T-1A278-AB
- Ford ES-XW7T-1A278-AC
- Ford WDR 00.00EA
- Freightliner 49-00085
- GMW 3172
- Hyundai/Kia ES 95400-10,Rev. D
- Hyundai/Kia ES 96100-02
- Hyundai ES 39110-00
- Iveco 16-2103 Rev.15
- EMC-CS-2010JLR V1.1
- VW80000:2022
- MBN LV 124-1: 2013
- VS-00.34-L-10002:2024

Features

> 5.7-inch colorful touchscreen front panel operation
> Standalone test system designed for voltage dip, short interruption, and voltage drop testing
> Switching time: ≤200 ns (GM3172 9.2.18), ≤1 μs (LV124, VW 80000, etc.), and 10 ns ~ 1 μs (Clause 7b of VS-00.34-L-10002)
> Input voltage ±80 V, current 100 A
> Integrated overcurrent protection function
> Built-in standard test programs

Introduction

The PFS 60100A2 automotive power failure simulator complies with GM3172, LV124, VW 80000, VS-00.34-L-10002, and other relevant standards. It is a standalone test system based on solid-state semiconductor switching technology, enabling voltage rise and fall times within 1 μs during simulated voltage dips and micro-interruptions. The DC switch supports up to 80 V, making it suitable for 48 V power supply system testing.

The unique variable output impedance technology provides a more realistic simulation of power failures: high impedance simulates an open circuit, while low impedance simulates a short circuit. The output waveform remains compliant with standards under different resistive loads. The system supports both manual operation and remote control via Ethernet using AutoLab software.

Application Areas

Technical Parameters

Input Voltage	-80 V ~ 80 V
Rating Current	100 A
Switching Circuit	2*twisted wires
Switching Time	≤200 ns (GM3172 9.2.18) ≤1 μs (LV124, VW 80000, etc.) 10 ns ~ 1 μs (Clause 7b of VS-00.34-L-10002)
Peak Current	200 A for 500 ms
Output Impedance	High impedance or low impedance
Circuit Protection	Overvoltage protection (80 V), reverse polarity protection, overcurrent protection, short-circuit protection
Voltage Drop Duration t_d	1 μs ~ 1 h
Repetition Rate	1 μs ~ 1 h
Trigger Mode	Auto, manual

General Parameters

Screen	5.7-inch TFT touchscreen
Working power	AC 220 V, 50/60 Hz
Fuse	6 A
Max. power consumption	300 W
Storage space	Infinite (PC)
Communication mode	Ethernet LAN, RJ45
External control mode	25-pin parallel port cable
Working status indication	LED indication and LCD display on the front panel
Grounding method	Flat grounding wire
Dimension	19-inch/4 U, 450 (W)*190 (H)*620 (D) mm
Weight	Approx. 30 kg
Ambient Temperature	15℃ ~ 35℃
Relative Humidity	45% ~ 75% RH (no condensation)
Atmospheric Pressure	86 kPa ~ 106 kPa

Switch Impedance

Switch Impedance	Power cord: ＜ 50 mΩ
Built-in Short-circuit Switch	Impedance: ＜ 100 mΩ
Output Impedance Modes	Hight impedance and low impedance

Standard Accessories

Power Cord, Fuse, Test Cable, Grounding Wire, user manual,
Calibration Resistor PFS-R1Ω (200 A), PFS-R100Ω (200 A), PFS-R1000Ω (200 A)

Optional Accessories

1	Immunity Test Software	Model: AutoLab > 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	Signal/Data Line Failure Simulator	Model: DFS 4002A Can be used with this instrument for signal line fault simulation tests (Meets the test requirements for LV 124 pulses E10, E13, and E14, and LV 148 pulse E48-09.)	
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SUZHOU 3CTEST ELECTRONIC CO., LTD.

Address: No. 99 E'meishan Road, SND, Suzhou, Jiangsu Province, China
E-mail: globalsales@3ctest.cn
Service: service@3ctest.cn
Tel: +86 - 512 - 68077192
Web: www.3ctest.com

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