



PFS 200N Series Automotive Power Fail Simulator

The PFS 200N Automotive Power Fail Simulator is used to comply with standard requirements, mainly from vehicle manufacturers, to perform fast voltage dips and drops (micro-interruptions). Some standards specify very fast rise and fall times below 1 microsecond and an electronic switch.

While for drop-outs (from nominal voltage value to 0 V) only one DC source is needed, for voltage dips (reduction of voltage level to other levels than 0 V) two DC voltage supplies are required. The output voltage of the second supply (PF2) can be controlled via the 0-10 V analogue output at the PFS 200Nx unit. As a second DC supply we recommend the RDS 200N1 unit.

Operation of the generator is possible both, manually from the front panel as well as by the remote software iso.control. In standard mode the remote software tool offers a large variety of preprogrammed testing. In device mode you have a similar ability to modify the parameters as by operating from the front panel.

The PFS 200N units can also be easily integrated into a complete test setup with more EM Test automotive transient generators.

MAIN FEATURES

- Standalone test generator for voltage dips and interruptions
- Rise / fall time <1 μ s
- Electronic short-circuit protection
- Rated voltage 80 VDC
- Analogue 0 - 10V output
- Front panel operation
- USB and GPIB remote interfaces

Models

PFS 200N30	DUT supply max. 80 VDC / 30 A
PFS 200N50	DUT supply max. 80 VDC / 50 A
PFS 200N100	DUT supply max. 80 VDC / 100 A

Technical specifications

Rise time t_r (drop)	< 1 μ s
Fall time t_f (drop)	< 1 μ s
Dip / drop duration t_d	1.0 μ s ... 9999 ms
Repetition rate	0.1 s ... 999 s

General specifications

Parameter	PFS 200N30	PFS 200N50	PFS 200N100
DUT supply voltage	80 VDC (PF1 / PF2)		
DUT supply current	30 A (PF1 / PF2)	50 A (PF1 / PF2)	100 A (PF1 / PF2)
Peak current	70 A @ 500 ms	100 A @ 500 ms	150 A @ 500 ms
Over current protection	Yes		
Short circuit protection	Yes		
Inputs	+/- PF1 IN +/- PF2 IN		
Outputs	+/- Test supply OUT		
Remote control	GBIP / USB		
Other interfaces	Analogue OUT 0-10 V		
Triggers	1 x Trigger IN / 1 x Trigger OUT		
Dimension	19" / 3 HU (450 x 395 x 154 mm)		
Weight	10.8 kg		14 kg
Power supply	115 / 230 VAC +10/-15 %; 50 - 60 Hz		
Fusage	2 x 1 AT		
Temperature	10 ... 35 °C		
Humidity	30 ... 75 %, non condensing		
Athmospheric pressure	860 ... 1060 mbar		

Accessories

iso.control	Remote control software tool
RDS 200N1	Power Supply 16 VDC / 10 A for dip testing (supply on channel PF2)

More automotive emc test generators

AMP 200N2	Audio Amplifier Module for magnetic field and AC ripple testing
AutoWave	ArbWave generator and much more
LD 200Nx	Load dump transient generator
PFM 200Nx	Power Fail Module for fast drop-out testing, rise < 200 ns
UCS 200Nx	Ultra Compact Simulator, containing ISO pulses 1, 2a, 3a/3b and others, coupling 50 ... 200 ADC
VDS 200Qx.2	4-quadrant amplifier, -20 ... +80 VDC, up to 200 A