



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.

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

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.

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 |

