

# PFS 503

# POWER FAIL SIMULATOR



## FOR TESTS ACCORDING TO ...

- > EN 61000-6-1
- > EN 61000-6-2
- > IEC 60601-1-2:2002
- > IEC 61000-4-11
- > IEC 61000-4-29
- > IEC 61000-4-34
- > IEC 61326

# PFS 503 - SIMULATOR FOR DIPS, SHORT INTERRUPTIONS AND VOLTAGE VARIATIONS

Electronic and electrical equipment may be affected by voltage dips, short interruptions and voltage variations of the power supply. Dips and interruptions are caused by faults in the public supply network, in installations or by sudden large change of load. Testing to such phenomena is required to proof that electronic and electrical equipment do not fall into unsafe operation conditions.

#### HIGHLIGHTS

- > STANDALONE TEST GENERATOR
- > FULL-COMPLIANT THREE-PHASE SYSTEM AS PER IEC 61000-4-11, ED.2:2004 AND IEC 61000-4-34 FOR TESTING DELTA AND STAR SUPPLY SYSTEMS
- > 6 ELECTRONIC SWITCHES, SHORT-CIRCUIT PROTECTED
- > RATED VOLTAGE 3X440V
- > UP TO 100A PER PHASE
- > DC SIGNAL TO CONTROL EXTERNAL VARIAC

# **APPLICATION AREAS**





(()) BROADCAST

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# **TECHNICAL DETAILS**

| PFS 503 MODEL CONFIGURATION |                             |
|-----------------------------|-----------------------------|
| PFS 503S1                   | Max. 32A current per phase  |
| PFS 503S2                   | Max. 63A current per phase  |
| PFS 503S3                   | Max. 100A current per phase |

| POWER SWITCHES |   |
|----------------|---|
|                | Three-phase application                                     |
| Voltage (p-p)  | Max. 440V   |
| Frequency      | 50/60Hz   |
|                | Single phase application                                    |
| Voltage (p-n)  | Max. 250V   |
| Frequency      | 50/60Hz   |
| DC voltage     | Max. 250V   |
| DC current     | Max. 25/32A   |
| Peak current   | > 500A  |
|                | Switches are electronically protected against short-circuit |

| TRIGGERING      |   |
|-----------------|---|
| Automatic       | Release of the events according to the settings         |
| Repetition rate | 0.01s - 999s  |
| Duration td     | 0.05ms - 19,990ms                                       |
| Manual          | Release of a single event via function key              |
| External        | Release of a single event by an external trigger signal |
| Synchronization | 0° - 360°, resolution 1°                                |

| OUTPUTS                |  |
|------------------------|--|
| 3-phase<br>application | L1, L2, L3, N and PE on the rear panel |
| 1-phase application    | L, N and PE on the front panel         |

| MEASUREMENTS |   |
|--------------|---|
| CRO Trigger  | +15V trigger signal for oscilloscope                        |
| CRO Î        | Built-in current probe 10mV/A; max.<br>700A<br>on each line |

| TEST ROUTINES          |   |
|------------------------|---|
| Quick Start            | Immediate start, easy-to-use and fast   |
| Standard Test routines | IEC 61000-4-11, Level 1 - Level 3   |
| User Test routines     | Customer specific routines<br>Change duration after n events<br>Change phase angle after n events<br>Asynchronous mode<br>Voltage variation |
| Service                | Service routines, Set-up  |

| INTERFACES    |   |
|---------------|---|
| Serial        | RS 232, 1,200 - 19,200 Baud                   |
| Parallel      | IEEE 488, addresses 1 - 30                    |
| Analog output | 0-10 V DC to control an external motor variac |

| GENERAL DATA   |                                |
|----------------|--------------------------------|
| Dimensions     | 19"/6 HU                       |
| Weight         | app. 28kg; PFS 503S4 app. 35kg |
| Supply voltage | 115V/230V; +10/-15%            |
| Fuses          | 2 x T 1A                       |

| ACCESSORIES |  |
|-------------|--|
|             | Motor variac with delta/star mode selection                    |
| MV3P4016DS  | 3 x 440V/16A, cont. adjustable                                 |
| MV3P4032DS  | 3 x 440V/32A, cont. adjustable                                 |
| MV3P4063DS  | 3 x 440V/63A, cont. adjustable                                 |
| MV3P40100DS | 3 x 440V/100A, cont. adjustable                                |
| Controls    | Analog output 0 - 10V of the PFS 503                           |
|             | Tapped transformers with delta/star mode selection             |
| V3P4016DS   | 3 x 440V/16A, taps @40%, 70% and<br>80% of the nominal voltage |
| V3P4032DS   | 3 x 440V/32A, taps @40%, 70% and<br>80% of the nominal voltage |

| OPTIONS     |  |
|-------------|--|
| iec.control | Software to control the test, including standard library, test report facility and data conversion generator |

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Information about scope of delivery, visual design and technical data correspond with the state of development at time of release. Technical data subject to change without further notice.

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