CA PFS-100R SERIES
LOAD RESISTOR FOR POWER FAIL SIMULATORS VERIFICATION

The standard EN / IEC 61000-4-11 for power fail generators requires a load resistor of 100 ohm for the verification of the rise and fall time of voltage dips and voltage interruptions. The CA PFS-100R consists of a low inductive, high thermally resistant carbon resistor, designed for the measurement of rise and fall times. The built-in fan allows continuous operation at 230 V mains voltage.

HIGHLIGHTS

- According to EN/IEC 61000-4-11, -29, -34
- Low inductive 100 Ohm carbon load resistor
- Forced air cooled with ventilators
- 230 VAC continuous, 400 VAC 30 minutes maximum
- Auto switch off when cooling fails

APPLICATION AREAS

- INDUSTRY
- MEDICAL
- BROADCAST
- TELECOM
- RESIDENTIAL

FOR TESTS ACCORDING TO ...

- EN 61000-4-11
- EN 61000-4-29
- EN 61000-4-34
- IEC 61000-4-11
- IEC 61000-4-29
- IEC 61000-4-34

www.emtest.com
APPLICATION DETAILS

GENERAL INFORMATION

Based on the rises- and falltimes, specified in EN/IEC 61000-4-11, the PowerFail generator needs to be verified with a 100 ohm load resistor. The load resistor current of 2.3 A requires a power dissipation of 529 W. The active air cooling keeps the load resistor temperature stable, and allows to operate continuous with a stabilized load resistance.

The following guidelines are recommended for the test setup for the rise- and falltime verification of the PowerFail generator:

The cable between the generator output and the load resistor CA PFS-100R must be as short as possible (max. 0.5 m). Connect two cables in parallel for reduce the inductance.

For the verification the PowerFail generator must be set in dU mode with 100% mains voltage at the PF1 input and the reduced dip voltage (0 %, 40 %, 70 % or 80 %) at the PF2 input.

The rise and fall time is measured with a differential voltage probe and a digital oscilloscope.
Scope Input impedance = 1 Mohm

MODEL

100 OHM LOW INDUCTIVE RESISTOR

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<tr>
<th>Model</th>
<th>Description</th>
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<tr>
<td>CA PFS-100R-115</td>
<td>100 Ohm low inductive resistor, Forced air cooling, 115 V, 50/60 Hz</td>
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<tr>
<td>CA PFS-100R-230</td>
<td>100 Ohm low inductive resistor, Forced air cooling, 230 V, 50/60 Hz</td>
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TECHNICAL DATA

LOAD RESISTOR

- **Resistor**: 100 ohm
- **Accuracy**: ± 10 %
- **Rated voltage**: 230 V, constant
  400 V, max. 30 min
- **Power**: 529 W, continuous,
  1600 W max. 30 min
- **Connectors**: 4 mm safety lab connectors
- **Cooling**: forced air cooling with 5 ventilators

PROTECTION

- **Temperature**: Overtemperature protection
- **Cooling function**: Switch off when ventilators are not running

AMBIENT CONDITIONS

- **Temperature operating**: 0° to 35°
- **Humidity**: 80 % non condensing

GENERAL DATA (CONTROL)

- **Line Voltage**: 230 V ± 10 %
- **Fuse**: 2x 3,15 AT (230 V)

DIMENSIONS AND WEIGHT

- **Dimensions**: 615 mm x 113 mm x 190 mm (LxWxH)
- **Weight**: 5.45 kg
COMPETENCE WHEREVER YOU ARE

CONTACT EM TEST DIRECTLY

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