

ACS 503

THREE-PHASE AC VOLTAGE SOURCE 20 KVA



FOR TESTS ACCORDING TO ...

- › EN 61000-3-11
- › EN 61000-3-12
- › EN 61000-3-2
- › EN 61000-3-3
- › IEC 61000-3-11
- › IEC 61000-3-12
- › IEC 61000-3-2
- › IEC 61000-3-3
- › JIS C 61000-3-2





ACS 503 is a three-phase AC source, specifically designed for harmonics and flicker testing. It meets the corresponding specifications as per EN/IEC 61000-3-2, EN/IEC 61000-3-3 and JIS C 61000-3-2 as well as per EN/IEC 61000-3-11 and EN/IEC 61000-3-12 for measuring DUTs having a nominal current of more than 16A per phase.

ACS 503 provides the perfect sinusoidal and stable voltage signal specified to perform fully compliant harmonics and flicker analysis despite of the mains supply frequency and steadyness of the voltage.

HIGHLIGHTS

- › **FREQUENCY (FUND.) 40HZ .. 80HZ**
- › **VERY LOW DISTORTION (THD)**
- › **VERY HIGH VOLTAGE STABILITY**
- › **OUTPUT POWER MAX. 20,000VA**
- › **OUTPUT VOLTAGE MAX. 300V(P-N)**
- › **HIGH OVERCURRENT CAPABILITY**
- › **INRUSH CURRENT CAPABILITY**
- › **REMOTE CONTROL VIA RS232**

APPLICATION AREAS

-  INDUSTRY
-  MEDICAL
-  BROADCAST
-  RESIDENTIAL

TECHNICAL DETAILS

OUTPUT

| | |
|-------------------------------|---|
| Voltage range | 0V to 300V (p-n) |
| Voltage resolution | 0.025% (12 bit) |
| Output frequency | 40Hz to 80Hz |
| Frequency resolution | 0.02Hz |
| Frequency accuracy, stability | 100ppm |
| Output power | 20,000VA |
| Output connector | Safety laboratory connectors 3ph CEE connector |
| Output current, 50Hz | Continuous: 34A max. per phase RMS (max. 3s): 81A Repetitive peak: 300A |
| Output current, 60Hz | Continuous: 36A max. per phase RMS (max. 3s): 83A Repetitive peak: 300A |

REGULATION

| | |
|----------------------------------|---|
| Voltage sense | Internal or external 4 wires |
| Total harmonic distortion | Less than 0.1% |
| Output voltage stability | Better than 0.1% |
| Output voltage accuracy | Better than 0.5% |
| Max. compensatable drop on wires | 5% f.s. |
| Protection | Overcurrent Overtemperature Overvoltage Undervoltage |

INPUT

| | |
|----------------|--------------------|
| Supply voltage | 3 x 400V +10%/-15% |
| Input current | Max. 72A |
| Line frequency | 50Hz - 60Hz |
| Fuse | 3 x 63A |
| Connector | Sockets |

CONTROL

| | |
|-----------|-------------------|
| Interface | RS 232 9-pin SubD |
| Security | Safety circuit |

AMBIENT CONDITIONS

| | |
|--------------|---------------------|
| Temperature | 0°C to 35°C |
| Rel.Humidity | 80%, non condensing |

DIMENSIONS

| | |
|---------|------------------------|
| Housing | Frame |
| Weight | 400kg |
| Size | 1670mm x 920mm x 625mm |

ANALYZER DPA 503 FOR HARMONICS AND FLICKER

| | |
|---------------------|-----------------------------------|
| Input channels | 6 (3x current & voltage) |
| Current measurement | Ext. current transformer |
| Interface | USB for control and data transfer |

FLICKER IMPEDANCE AIF 503 AS PER EN/IEC 61000-3-3

| | |
|----------------------|----------------------------|
| Phase | 3-phase (L1, L2, L3 and N) |
| Impedance phase | 0.24ohm + j0.15ohm |
| Impedance neutral | 0.16ohm + j0.10ohm |
| Line current | Max. 16A per phase |
| Bypass for harmonics | Remote controlled switch |

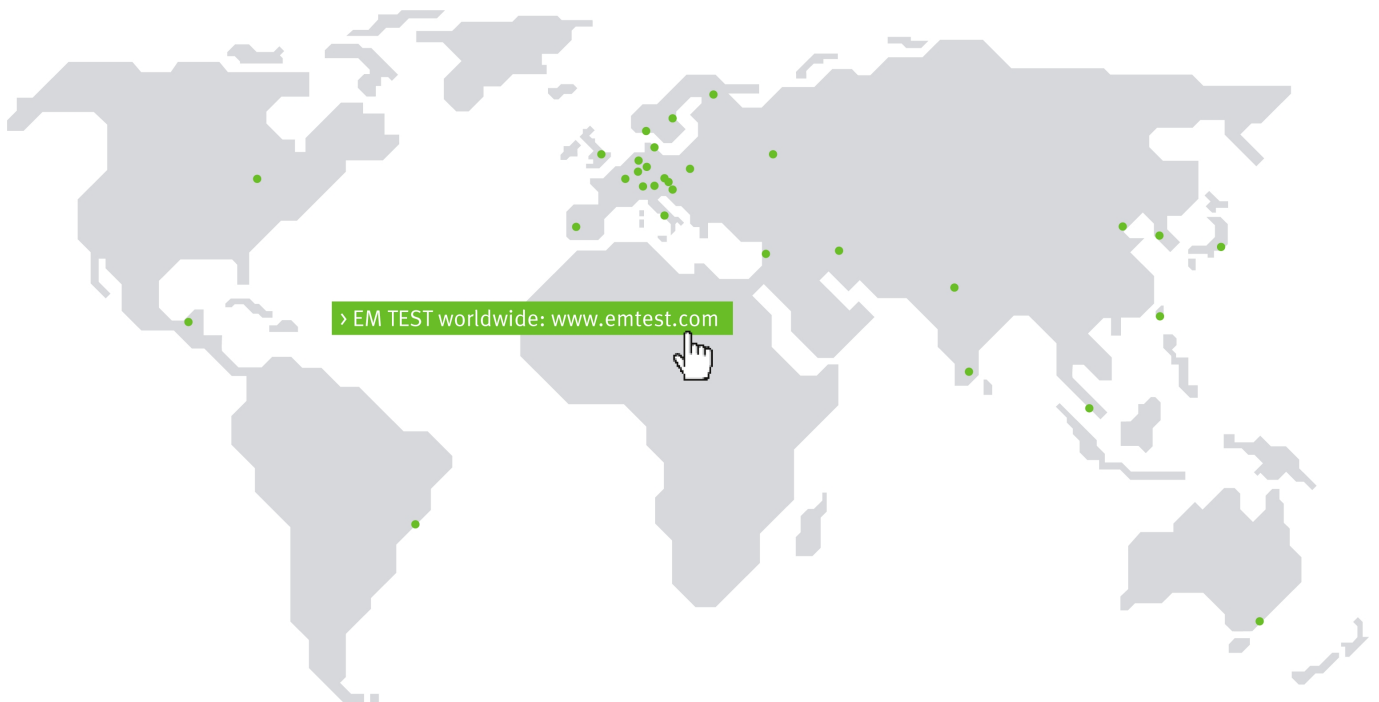
FLICKER IMPEDANCE AIF 503S1 AS PER EN/IEC 61000-3-3 AND EN/IEC 61000-3-11

| | |
|----------------------|--|
| Phase | 3-phase (L1, L2, L3 and N) |
| Zref at 50Hz | RA = 0.24ohm XA = 0.15ohm RN = 0.16ohm XN = 0.10ohm |
| Ztest at 50Hz | RA = 0.15ohm XA = 0.15ohm RN = 0.10ohm XN = 0.10ohm |
| Line current | Max. 32A per phase |
| Bypass for harmonics | Remote controlled switch |

SINGLE PHASE SOLUTION

| | |
|-----------|---|
| ACS 500N6 | AC source 6,000VA |
| ACS 500N2 | AC source 2,000VA |
| DPA 500N | Single phase Harmonics and Flicker analyzer |

COMPETENCE WHEREVER YOU ARE



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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.