

Spitzenberger + Spies
Viechtach

| | | | |
|-----------------|-----------------------|------------------|-------------------------------|
| Name: | Heinz Graßl | Serial no: | |
| Department: | QS | Operating modes: | |
| Company: | Spitzenberger + Spies | Comment1: | PAS 5000 4-Quadrant Amplifier |
| Test report no: | | Comment2: | |
| Device: | | Comment3: | |
| Specimen: | | Comment4: | |
| Manufacturer: | | Date: | 20.10.2004 |
| Type: | | Test date: | |

Maximum RMS current and corresponding values in timewindow 1:

| | | | | | | |
|--------------|-------------|----------------|--------------|--------------|--------------|--------------|
| Voltage: | 230.18 Vrms | 325.49 Vpk | THD=0.14 % | THV=0.328 V | POHV=0.062 V | PWHD=0.17 % |
| Current: | 41.528 Arms | -106.093 Apk | THD=107.03 % | THC=30.342 A | POHC=1.405 A | PWHD=37.57 % |
| Power: | 6414.9 W | P1=6422.1 W | 9559.1 VA | | | |
| Powerfactor: | 0.671 | CosPhi1: 0.984 | | | | |

Testconditions: EN 61000-3-2 / A14, f=50 Hz, Phase=L1, Range=64.00 A
Time window cycles=16, Grouping of harmonics=off

HARMONIC ANALYSIS: Test PASS

Tobs = entire measurement POHC: avg=0.062 V, limits=0.728 V

| Ha | Entire measurement (0.320 s = 1 time window(s)) | | | | | | Worst 2.5 min | | Average | | P A S S | F A I L |
|----|---|--------|----------------------|------------------|-------------|-----------|---------------|-----------|------------|-----------|------------------|------------------|
| | Maximum | Window | EN61000-3-2 Voltages | Margin in MaxWin | 100 to 150% | Ex-ceeded | 100 to 150% | Ex-ceeded | Value | Ex-ceeded | | |
| DC | 0.0064 V | 1 | ---- | ---- | --- | 0 | n.e. | n.e. | 0.0064 V | 0 | X | |
| 1 | 230.1823 V | 1 | ---- | ---- | --- | 0 | n.e. | n.e. | 230.1823 V | 0 | X | |
| 2 | 0.0053 V | 1 | fluctuating | -98.9 % | --- | 0 | n.e. | n.e. | 0.0053 V | 0 | X | |
| 3 | 0.2195 V | 1 | fluctuating | -89.4 % | --- | 0 | n.e. | n.e. | 0.2195 V | 0 | X | |
| 4 | 0.0065 V | 1 | fluctuating | -98.6 % | --- | 0 | n.e. | n.e. | 0.0065 V | 0 | X | |
| 5 | 0.1831 V | 1 | fluctuating | -80.1 % | --- | 0 | n.e. | n.e. | 0.1831 V | 0 | X | |
| 6 | 0.0068 V | 1 | fluctuating | -98.5 % | --- | 0 | n.e. | n.e. | 0.0068 V | 0 | X | |
| 7 | 0.1074 V | 1 | fluctuating | -84.4 % | --- | 0 | n.e. | n.e. | 0.1074 V | 0 | X | |
| 8 | 0.0042 V | 1 | fluctuating | -99.1 % | --- | 0 | n.e. | n.e. | 0.0042 V | 0 | X | |
| 9 | 0.0366 V | 1 | fluctuating | -92.0 % | --- | 0 | n.e. | n.e. | 0.0366 V | 0 | X | |
| 10 | 0.0031 V | 1 | fluctuating | -99.3 % | --- | 0 | n.e. | n.e. | 0.0031 V | 0 | X | |
| 11 | 0.0501 V | 1 | fluctuating | -78.2 % | --- | 0 | n.e. | n.e. | 0.0501 V | 0 | X | |
| 12 | 0.0033 V | 1 | fluctuating | -98.6 % | --- | 0 | n.e. | n.e. | 0.0033 V | 0 | X | |
| 13 | 0.0596 V | 1 | fluctuating | -74.1 % | --- | 0 | n.e. | n.e. | 0.0596 V | 0 | X | |
| 14 | 0.0021 V | 1 | fluctuating | -99.1 % | --- | 0 | n.e. | n.e. | 0.0021 V | 0 | X | |
| 15 | 0.0319 V | 1 | fluctuating | -86.1 % | --- | 0 | n.e. | n.e. | 0.0319 V | 0 | X | |
| 16 | 0.0012 V | 1 | fluctuating | -99.5 % | --- | 0 | n.e. | n.e. | 0.0012 V | 0 | X | |
| 17 | 0.0200 V | 1 | fluctuating | -91.3 % | --- | 0 | n.e. | n.e. | 0.0200 V | 0 | X | |
| 18 | 0.0017 V | 1 | fluctuating | -99.3 % | --- | 0 | n.e. | n.e. | 0.0017 V | 0 | X | |
| 19 | 0.0373 V | 1 | fluctuating | -83.8 % | --- | 0 | n.e. | n.e. | 0.0373 V | 0 | X | |
| 20 | 0.0020 V | 1 | fluctuating | -99.1 % | --- | 0 | n.e. | n.e. | 0.0020 V | 0 | X | |
| 21 | 0.0297 V | 1 | fluctuating | -87.1 % | --- | 0 | n.e. | n.e. | 0.0297 V | 0 | X | |
| 22 | 0.0011 V | 1 | fluctuating | -99.5 % | --- | 0 | n.e. | n.e. | 0.0011 V | 0 | X | |
| 23 | 0.0105 V | 1 | fluctuating | -95.4 % | --- | 0 | n.e. | n.e. | 0.0105 V | 0 | X | |
| 24 | 0.0011 V | 1 | fluctuating | -99.5 % | --- | 0 | n.e. | n.e. | 0.0011 V | 0 | X | |
| 25 | 0.0245 V | 1 | fluctuating | -89.3 % | --- | 0 | n.e. | n.e. | 0.0245 V | 0 | X | |
| 26 | 0.0017 V | 1 | fluctuating | -99.2 % | --- | 0 | n.e. | n.e. | 0.0017 V | 0 | X | |
| 27 | 0.0270 V | 1 | fluctuating | -88.3 % | --- | 0 | n.e. | n.e. | 0.0270 V | 0 | X | |
| 28 | 0.0007 V | 1 | fluctuating | -99.7 % | --- | 0 | n.e. | n.e. | 0.0007 V | 0 | X | |
| 29 | 0.0117 V | 1 | fluctuating | -94.9 % | --- | 0 | n.e. | n.e. | 0.0117 V | 0 | X | |
| 30 | 0.0005 V | 1 | fluctuating | -99.8 % | --- | 0 | n.e. | n.e. | 0.0005 V | 0 | X | |
| 31 | 0.0142 V | 1 | fluctuating | -93.8 % | --- | 0 | n.e. | n.e. | 0.0142 V | 0 | X | |
| 32 | 0.0013 V | 1 | fluctuating | -99.4 % | --- | 0 | n.e. | n.e. | 0.0013 V | 0 | X | |
| 33 | 0.0220 V | 1 | fluctuating | -90.4 % | --- | 0 | n.e. | n.e. | 0.0220 V | 0 | X | |
| 34 | 0.0011 V | 1 | fluctuating | -99.5 % | --- | 0 | n.e. | n.e. | 0.0011 V | 0 | X | |
| 35 | 0.0155 V | 1 | fluctuating | -93.3 % | --- | 0 | n.e. | n.e. | 0.0155 V | 0 | X | |
| 36 | 0.0003 V | 1 | fluctuating | -99.9 % | --- | 0 | n.e. | n.e. | 0.0003 V | 0 | X | |
| 37 | 0.0076 V | 1 | fluctuating | -96.7 % | --- | 0 | n.e. | n.e. | 0.0076 V | 0 | X | |
| 38 | 0.0009 V | 1 | fluctuating | -99.6 % | --- | 0 | n.e. | n.e. | 0.0009 V | 0 | X | |
| 39 | 0.0187 V | 1 | fluctuating | -91.9 % | --- | 0 | n.e. | n.e. | 0.0187 V | 0 | X | |
| 40 | 0.0013 V | 1 | fluctuating | -99.4 % | --- | 0 | n.e. | n.e. | 0.0013 V | 0 | X | |