

| <b>Anlagentyp:</b>   | Netzgekoppelte Photovoltaik Wechselrichter   |       |       |                    |       |                    |       |                    |       |                    |       |                    |       |                    |       |
|--|--|-------|-------|--------------------|-------|--------------------|-------|--------------------|-------|--------------------|-------|--------------------|-------|--------------------|-------|
| <b>Hersteller:</b>   | POWER-ONE ITALY S.P.A. Via S. Giorgio, 642<br>52028 Terranuova Bracciolini. Arezzo. Italy  |       |       |                    |       |                    |       |                    |       |                    |       |                    |       |                    |       |
| <b>Referenzreport:</b>   | <b>28110272 004</b>  |       |       |                    |       |                    |       |                    |       |                    |       |                    |       |                    |       |
| <b>Messzeitraum:</b>   | 20/12/2016 – 20/01/2017  |       |       |                    |       |                    |       |                    |       |                    |       |                    |       |                    |       |
| <b>Wirkleistung [P<sub>Emax</sub>]:</b><br>(Nominale Leistung unter Referenzkonditionen) | <table border="1"> <thead> <tr> <th>Model</th> <th>Power</th> </tr> </thead> <tbody> <tr> <td>UNO-DM-5.0-TL-PLUS</td> <td>5000W</td> </tr> <tr> <td>UNO-DM-4.6-TL-PLUS</td> <td>4600W</td> </tr> <tr> <td>UNO-DM-4.0-TL-PLUS</td> <td>4000W</td> </tr> <tr> <td>UNO-DM-3.3-TL-PLUS</td> <td>3000W</td> </tr> <tr> <td>UNO-DM-2.0-TL-PLUS</td> <td>2000W</td> </tr> <tr> <td>UNO-DM-1.2-TL-PLUS</td> <td>1200W</td> </tr> </tbody> </table> | Model | Power | UNO-DM-5.0-TL-PLUS | 5000W | UNO-DM-4.6-TL-PLUS | 4600W | UNO-DM-4.0-TL-PLUS | 4000W | UNO-DM-3.3-TL-PLUS | 3000W | UNO-DM-2.0-TL-PLUS | 2000W | UNO-DM-1.2-TL-PLUS | 1200W |
| Model  | Power  |       |       |                    |       |                    |       |                    |       |                    |       |                    |       |                    |       |
| UNO-DM-5.0-TL-PLUS   | 5000W  |       |       |                    |       |                    |       |                    |       |                    |       |                    |       |                    |       |
| UNO-DM-4.6-TL-PLUS   | 4600W  |       |       |                    |       |                    |       |                    |       |                    |       |                    |       |                    |       |
| UNO-DM-4.0-TL-PLUS   | 4000W  |       |       |                    |       |                    |       |                    |       |                    |       |                    |       |                    |       |
| UNO-DM-3.3-TL-PLUS   | 3000W  |       |       |                    |       |                    |       |                    |       |                    |       |                    |       |                    |       |
| UNO-DM-2.0-TL-PLUS   | 2000W  |       |       |                    |       |                    |       |                    |       |                    |       |                    |       |                    |       |
| UNO-DM-1.2-TL-PLUS   | 1200W  |       |       |                    |       |                    |       |                    |       |                    |       |                    |       |                    |       |
| <b>Nominale Ausgangsspannung:</b>  | 230 V (Phase/ Neutral)   |       |       |                    |       |                    |       |                    |       |                    |       |                    |       |                    |       |

| Blindleistungsbezug                     |       |       |       |     |       |       |       |       |       |       |
|---|-------|-------|-------|-----|-------|-------|-------|-------|-------|-------|
| Wirkleistung<br>P/P <sub>n</sub> [%]    | 10    | 20    | 30    | 40  | 50    | 60    | 70    | 80    | 90    | 100   |
| <b>Max. cos φ<sub>untererregt</sub></b> | 0.895 | 0.897 | 0.901 | 0.9 | 0.901 | 0.901 | 0.9   | 0.901 | 0.9   | 0.901 |
| <b>Max. cos φ<sub>übererregt</sub></b>  | 0.904 | 0.9   | 0.898 | 0.9 | 0.899 | 0.899 | 0.899 | 0.899 | 0.899 | 0.9   |

| Einhaltung eines fest vorgegebenen Verschiebungsfaktors cos φ |                         |             |             |             |             |       |             |             |             |             |             |
|---|-------------------------|-------------|-------------|-------------|-------------|-------|-------------|-------------|-------------|-------------|-------------|
| Vorgabewert   | 0,900 <sub>o</sub><br>v | 0,920<br>ov | 0,940<br>ov | 0,960<br>ov | 0,980<br>ov | 1     | 0,980<br>un | 0,960<br>un | 0,940<br>un | 0,920<br>un | 0,900<br>un |
| <b>Messwert an den Klemmen</b>                                | 0.899                   | 0.919       | 0.939       | 0.959       | 0.979       | 0.999 | 0.980       | 0.960       | 0.940       | 0.921       | 0.901       |

| Blindleistungsübergangsfunktion – Standard cos φ (P) - Kurve |    |       |       |       |       |       |       |       |       |       |
|--|----|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Wirkleistung<br>P/P <sub>n</sub> [%]                         | 10 | 20    | 30    | 40    | 50    | 60    | 70    | 80    | 90    | 100   |
| <b>cos φ</b>   | -  | 0.999 | 1.000 | 1.000 | 1.000 | 0.980 | 0.960 | 0.942 | 0.922 | 0.917 |

**Auszug aus dem Prüfbericht zum Einheitszertifikat: 28110272 004**  
**“Bestimmung der elektrischen Eigenschaften”**

Seite 2 von 8  
 Page 2 of 8

Auszug Nr.: 1 \_ **Annex F.3** (VDE-AR-N 4105)

| <b>Schalthandlungen</b>   |                |      |     |     |
|---|----------------|------|-----|-----|
| <b>Einschalten ohne Vorgabe</b>   | $k_i$ :        | 0.50 |     |     |
| <b>Ungünstigster Fall beim Umschalten der Generatorstufen</b>                 | $k_i$ :        | - -  |     |     |
| <b>Einschalten bei Nennbedingungen</b>  | $k_i$ :        | 0.93 |     |     |
| <b>Schaltvorgang bei Nennleistung</b>   | $k_i$ :        | 0.93 |     |     |
| <b>Schlechtester Wert aller Schaltvorgänge</b>                                | $k_{i \max}$ : | 0.93 |     |     |
| <b>Flickers:</b>  |                |      |     |     |
| <b>Netzimpedanzwinkel <math>\Psi_k</math></b><br><i>Im schlechtesten Fall</i> | 30°            | 50°  | 70° | 85° |
| <b>Coefficient of system flicker <math>c_\Psi</math></b>                      | 1.67           | -    | -   | -   |

| Order | Harmonics [%] |          |          |          |          |          |          |          |          |           |
|-------|---------------|----------|----------|----------|----------|----------|----------|----------|----------|-----------|
|       | 10% P/Pn      | 20% P/Pn | 30% P/Pn | 40% P/Pn | 50% P/Pn | 60% P/Pn | 70% P/Pn | 80% P/Pn | 90% P/Pn | 100% P/Pn |
| 1     | 10.154%       | 20.684%  | 30.095%  | 39.728%  | 49.271%  | 60.483%  | 69.748%  | 78.749%  | 87.677%  | 96.670%   |
| 2     | 0.112%        | 0.116%   | 0.117%   | 0.146%   | 0.152%   | 0.200%   | 0.209%   | 0.236%   | 0.336%   | 0.374%    |
| 3     | 0.361%        | 0.384%   | 0.409%   | 0.619%   | 0.629%   | 0.631%   | 0.640%   | 0.676%   | 0.719%   | 0.785%    |
| 4     | 0.048%        | 0.052%   | 0.056%   | 0.057%   | 0.063%   | 0.072%   | 0.086%   | 0.089%   | 0.113%   | 0.137%    |
| 5     | 0.246%        | 0.219%   | 0.216%   | 0.153%   | 0.243%   | 0.239%   | 0.202%   | 0.152%   | 0.133%   | 0.123%    |
| 6     | 0.003%        | 0.003%   | 0.013%   | 0.012%   | 0.012%   | 0.018%   | 0.028%   | 0.025%   | 0.051%   | 0.065%    |
| 7     | 0.249%        | 0.141%   | 0.172%   | 0.139%   | 0.144%   | 0.221%   | 0.243%   | 0.245%   | 0.233%   | 0.216%    |
| 8     | 0.003%        | 0.006%   | 0.007%   | 0.016%   | 0.009%   | 0.013%   | 0.023%   | 0.023%   | 0.036%   | 0.051%    |
| 9     | 0.159%        | 0.210%   | 0.123%   | 0.230%   | 0.188%   | 0.201%   | 0.226%   | 0.239%   | 0.241%   | 0.225%    |
| 10    | 0.018%        | 0.012%   | 0.015%   | 0.022%   | 0.036%   | 0.036%   | 0.041%   | 0.050%   | 0.063%   | 0.076%    |
| 11    | 0.082%        | 0.145%   | 0.120%   | 0.132%   | 0.170%   | 0.133%   | 0.136%   | 0.139%   | 0.145%   | 0.142%    |
| 12    | 0.004%        | 0.006%   | 0.004%   | 0.017%   | 0.015%   | 0.018%   | 0.021%   | 0.037%   | 0.031%   | 0.025%    |
| 13    | 0.178%        | 0.176%   | 0.174%   | 0.151%   | 0.201%   | 0.193%   | 0.185%   | 0.189%   | 0.196%   | 0.206%    |
| 14    | 0.026%        | 0.013%   | 0.034%   | 0.032%   | 0.018%   | 0.044%   | 0.030%   | 0.034%   | 0.035%   | 0.018%    |
| 15    | 0.036%        | 0.008%   | 0.106%   | 0.078%   | 0.102%   | 0.133%   | 0.113%   | 0.084%   | 0.064%   | 0.057%    |
| 16    | 0.000%        | 0.001%   | 0.001%   | 0.002%   | 0.003%   | 0.007%   | 0.009%   | 0.015%   | 0.011%   | 0.009%    |
| 17    | 0.106%        | 0.004%   | 0.051%   | 0.034%   | 0.026%   | 0.122%   | 0.122%   | 0.078%   | 0.036%   | 0.030%    |
| 18    | 0.000%        | 0.000%   | 0.000%   | 0.003%   | 0.005%   | 0.003%   | 0.002%   | 0.011%   | 0.006%   | 0.008%    |
| 19    | 0.004%        | 0.001%   | 0.007%   | 0.003%   | 0.009%   | 0.041%   | 0.104%   | 0.083%   | 0.021%   | 0.017%    |
| 20    | 0.000%        | 0.004%   | 0.001%   | 0.003%   | 0.004%   | 0.002%   | 0.004%   | 0.009%   | 0.008%   | 0.007%    |
| 21    | 0.003%        | 0.001%   | 0.006%   | 0.003%   | 0.008%   | 0.014%   | 0.046%   | 0.064%   | 0.029%   | 0.009%    |
| 22    | 0.000%        | 0.005%   | 0.004%   | 0.000%   | 0.004%   | 0.005%   | 0.002%   | 0.005%   | 0.002%   | 0.001%    |
| 23    | 0.044%        | 0.014%   | 0.007%   | 0.006%   | 0.002%   | 0.010%   | 0.011%   | 0.035%   | 0.021%   | 0.009%    |
| 24    | 0.000%        | 0.001%   | 0.000%   | 0.004%   | 0.000%   | 0.001%   | 0.006%   | 0.007%   | 0.002%   | 0.001%    |
| 25    | 0.006%        | 0.032%   | 0.010%   | 0.003%   | 0.014%   | 0.010%   | 0.013%   | 0.025%   | 0.017%   | 0.013%    |
| 26    | 0.000%        | 0.003%   | 0.005%   | 0.004%   | 0.004%   | 0.003%   | 0.003%   | 0.007%   | 0.004%   | 0.000%    |
| 27    | 0.031%        | 0.009%   | 0.006%   | 0.008%   | 0.007%   | 0.014%   | 0.014%   | 0.025%   | 0.013%   | 0.006%    |
| 28    | 0.000%        | 0.002%   | 0.000%   | 0.001%   | 0.001%   | 0.003%   | 0.000%   | 0.005%   | 0.002%   | 0.003%    |
| 29    | 0.013%        | 0.000%   | 0.003%   | 0.001%   | 0.002%   | 0.010%   | 0.013%   | 0.020%   | 0.008%   | 0.004%    |
| 30    | 0.000%        | 0.002%   | 0.000%   | 0.003%   | 0.004%   | 0.004%   | 0.004%   | 0.004%   | 0.003%   | 0.002%    |
| 31    | 0.010%        | 0.000%   | 0.006%   | 0.016%   | 0.003%   | 0.019%   | 0.013%   | 0.009%   | 0.006%   | 0.000%    |
| 32    | 0.000%        | 0.000%   | 0.004%   | 0.004%   | 0.005%   | 0.001%   | 0.005%   | 0.002%   | 0.002%   | 0.001%    |
| 33    | 0.014%        | 0.000%   | 0.005%   | 0.019%   | 0.005%   | 0.014%   | 0.020%   | 0.014%   | 0.004%   | 0.005%    |
| 34    | 0.000%        | 0.001%   | 0.005%   | 0.002%   | 0.000%   | 0.003%   | 0.004%   | 0.001%   | 0.004%   | 0.001%    |
| 35    | 0.001%        | 0.001%   | 0.007%   | 0.002%   | 0.000%   | 0.005%   | 0.011%   | 0.011%   | 0.004%   | 0.002%    |
| 36    | 0.000%        | 0.005%   | 0.001%   | 0.003%   | 0.002%   | 0.002%   | 0.002%   | 0.003%   | 0.005%   | 0.003%    |
| 37    | 0.000%        | 0.003%   | 0.002%   | 0.001%   | 0.002%   | 0.003%   | 0.012%   | 0.008%   | 0.000%   | 0.000%    |
| 38    | 0.000%        | 0.001%   | 0.002%   | 0.003%   | 0.002%   | 0.005%   | 0.001%   | 0.001%   | 0.000%   | 0.003%    |
| 39    | 0.000%        | 0.000%   | 0.004%   | 0.004%   | 0.004%   | 0.001%   | 0.009%   | 0.002%   | 0.006%   | 0.002%    |
| 40    | 0.000%        | 0.005%   | 0.001%   | 0.004%   | 0.000%   | 0.003%   | 0.001%   | 0.002%   | 0.003%   | 0.001%    |

| Order | Inter-Harmonics [%] |          |          |          |          |          |          |          |          |           |
|-------|---------------------|----------|----------|----------|----------|----------|----------|----------|----------|-----------|
|       | 10% P/Pn            | 20% P/Pn | 30% P/Pn | 40% P/Pn | 50% P/Pn | 60% P/Pn | 70% P/Pn | 80% P/Pn | 90% P/Pn | 100% P/Pn |
| 1.5   | 0.065%              | 0.081%   | 0.090%   | 0.103%   | 0.118%   | 0.168%   | 0.177%   | 0.196%   | 0.241%   | 0.283%    |
| 2.5   | 0.044%              | 0.047%   | 0.049%   | 0.050%   | 0.054%   | 0.078%   | 0.082%   | 0.099%   | 0.150%   | 0.176%    |
| 3.5   | 0.057%              | 0.061%   | 0.066%   | 0.065%   | 0.069%   | 0.077%   | 0.081%   | 0.085%   | 0.106%   | 0.126%    |
| 4.5   | 0.033%              | 0.037%   | 0.037%   | 0.037%   | 0.037%   | 0.039%   | 0.041%   | 0.042%   | 0.054%   | 0.064%    |
| 5.5   | 0.025%              | 0.030%   | 0.032%   | 0.030%   | 0.031%   | 0.033%   | 0.039%   | 0.035%   | 0.045%   | 0.057%    |
| 6.5   | 0.021%              | 0.022%   | 0.028%   | 0.024%   | 0.025%   | 0.028%   | 0.027%   | 0.029%   | 0.037%   | 0.046%    |
| 7.5   | 0.023%              | 0.022%   | 0.032%   | 0.025%   | 0.026%   | 0.030%   | 0.029%   | 0.031%   | 0.037%   | 0.046%    |
| 8.5   | 0.032%              | 0.031%   | 0.032%   | 0.033%   | 0.035%   | 0.034%   | 0.035%   | 0.036%   | 0.039%   | 0.040%    |
| 9.5   | 0.060%              | 0.065%   | 0.065%   | 0.065%   | 0.064%   | 0.067%   | 0.068%   | 0.071%   | 0.078%   | 0.087%    |
| 10.5  | 0.038%              | 0.029%   | 0.032%   | 0.030%   | 0.035%   | 0.032%   | 0.032%   | 0.034%   | 0.039%   | 0.041%    |
| 11.5  | 0.032%              | 0.023%   | 0.031%   | 0.029%   | 0.037%   | 0.030%   | 0.031%   | 0.034%   | 0.033%   | 0.034%    |
| 12.5  | 0.038%              | 0.039%   | 0.039%   | 0.039%   | 0.037%   | 0.036%   | 0.041%   | 0.041%   | 0.040%   | 0.038%    |
| 13.5  | 0.127%              | 0.122%   | 0.134%   | 0.131%   | 0.126%   | 0.129%   | 0.142%   | 0.118%   | 0.112%   | 0.088%    |
| 14.5  | 0.031%              | 0.024%   | 0.036%   | 0.038%   | 0.035%   | 0.034%   | 0.037%   | 0.037%   | 0.034%   | 0.031%    |
| 15.5  | 0.021%              | 0.014%   | 0.033%   | 0.036%   | 0.036%   | 0.026%   | 0.038%   | 0.037%   | 0.033%   | 0.029%    |
| 16.5  | 0.023%              | 0.010%   | 0.021%   | 0.018%   | 0.016%   | 0.024%   | 0.026%   | 0.029%   | 0.018%   | 0.016%    |
| 17.5  | 0.026%              | 0.008%   | 0.023%   | 0.017%   | 0.014%   | 0.030%   | 0.034%   | 0.035%   | 0.020%   | 0.017%    |
| 18.5  | 0.009%              | 0.007%   | 0.009%   | 0.008%   | 0.008%   | 0.018%   | 0.026%   | 0.030%   | 0.013%   | 0.011%    |
| 19.5  | 0.008%              | 0.006%   | 0.008%   | 0.007%   | 0.007%   | 0.020%   | 0.030%   | 0.034%   | 0.014%   | 0.011%    |
| 20.5  | 0.007%              | 0.006%   | 0.006%   | 0.006%   | 0.006%   | 0.009%   | 0.019%   | 0.026%   | 0.014%   | 0.008%    |
| 21.5  | 0.008%              | 0.005%   | 0.006%   | 0.005%   | 0.006%   | 0.009%   | 0.022%   | 0.030%   | 0.016%   | 0.008%    |
| 22.5  | 0.018%              | 0.007%   | 0.005%   | 0.005%   | 0.005%   | 0.006%   | 0.009%   | 0.017%   | 0.012%   | 0.007%    |
| 23.5  | 0.021%              | 0.008%   | 0.005%   | 0.005%   | 0.005%   | 0.006%   | 0.008%   | 0.019%   | 0.013%   | 0.007%    |
| 24.5  | 0.008%              | 0.013%   | 0.005%   | 0.004%   | 0.008%   | 0.006%   | 0.007%   | 0.012%   | 0.009%   | 0.007%    |
| 25.5  | 0.007%              | 0.015%   | 0.005%   | 0.004%   | 0.009%   | 0.006%   | 0.008%   | 0.013%   | 0.009%   | 0.007%    |
| 26.5  | 0.014%              | 0.006%   | 0.004%   | 0.005%   | 0.005%   | 0.007%   | 0.007%   | 0.012%   | 0.007%   | 0.006%    |
| 27.5  | 0.016%              | 0.005%   | 0.004%   | 0.005%   | 0.004%   | 0.008%   | 0.008%   | 0.013%   | 0.007%   | 0.006%    |
| 28.5  | 0.008%              | 0.004%   | 0.004%   | 0.004%   | 0.003%   | 0.006%   | 0.006%   | 0.010%   | 0.006%   | 0.005%    |
| 29.5  | 0.008%              | 0.003%   | 0.003%   | 0.004%   | 0.003%   | 0.007%   | 0.007%   | 0.011%   | 0.006%   | 0.005%    |
| 30.5  | 0.006%              | 0.003%   | 0.003%   | 0.007%   | 0.003%   | 0.008%   | 0.007%   | 0.007%   | 0.005%   | 0.004%    |
| 31.5  | 0.007%              | 0.003%   | 0.003%   | 0.008%   | 0.003%   | 0.009%   | 0.008%   | 0.007%   | 0.005%   | 0.004%    |
| 32.5  | 0.007%              | 0.003%   | 0.003%   | 0.008%   | 0.003%   | 0.007%   | 0.008%   | 0.007%   | 0.004%   | 0.004%    |
| 33.5  | 0.008%              | 0.003%   | 0.003%   | 0.008%   | 0.003%   | 0.007%   | 0.010%   | 0.007%   | 0.004%   | 0.004%    |
| 34.5  | 0.003%              | 0.003%   | 0.003%   | 0.004%   | 0.003%   | 0.004%   | 0.006%   | 0.006%   | 0.004%   | 0.004%    |
| 35.5  | 0.003%              | 0.003%   | 0.003%   | 0.003%   | 0.003%   | 0.004%   | 0.006%   | 0.006%   | 0.004%   | 0.004%    |
| 36.5  | 0.003%              | 0.003%   | 0.003%   | 0.003%   | 0.003%   | 0.003%   | 0.006%   | 0.005%   | 0.004%   | 0.004%    |
| 37.5  | 0.003%              | 0.002%   | 0.003%   | 0.003%   | 0.003%   | 0.003%   | 0.007%   | 0.005%   | 0.004%   | 0.004%    |
| 38.5  | 0.002%              | 0.002%   | 0.003%   | 0.003%   | 0.003%   | 0.003%   | 0.005%   | 0.004%   | 0.004%   | 0.004%    |
| 39.5  | 0.002%              | 0.002%   | 0.002%   | 0.018%   | 0.002%   | 0.003%   | 0.005%   | 0.004%   | 0.004%   | 0.004%    |
| 40.5  | 0.002%              | 0.002%   | 0.002%   | 0.012%   | 0.002%   | 0.003%   | 0.004%   | 0.003%   | 0.004%   | 0.003%    |

| Order | Frequency | High frequency harmonics [%] |          |          |          |          |          |          |          |          |           |
|-------|-----------|------------------------------|----------|----------|----------|----------|----------|----------|----------|----------|-----------|
|       |           | 10% P/Pn                     | 20% P/Pn | 30% P/Pn | 40% P/Pn | 50% P/Pn | 60% P/Pn | 70% P/Pn | 80% P/Pn | 90% P/Pn | 100% P/Pn |
| 42    | 2100      | 0.005%                       | 0.002%   | 0.001%   | 0.004%   | 0.002%   | 0.004%   | 0.004%   | 0.003%   | 0.005%   | 0.012%    |
| 43    | 2150      | 0.002%                       | 0.000%   | 0.001%   | 0.006%   | 0.002%   | 0.007%   | 0.019%   | 0.005%   | 0.009%   | 0.011%    |
| 44    | 2200      | 0.001%                       | 0.002%   | 0.002%   | 0.003%   | 0.004%   | 0.005%   | 0.006%   | 0.005%   | 0.009%   | 0.003%    |
| 45    | 2250      | 0.001%                       | 0.000%   | 0.002%   | 0.004%   | 0.001%   | 0.006%   | 0.017%   | 0.003%   | 0.005%   | 0.006%    |
| 46    | 2300      | 0.001%                       | 0.000%   | 0.001%   | 0.003%   | 0.003%   | 0.005%   | 0.006%   | 0.004%   | 0.004%   | 0.001%    |
| 47    | 2350      | 0.001%                       | 0.000%   | 0.002%   | 0.004%   | 0.004%   | 0.006%   | 0.010%   | 0.006%   | 0.006%   | 0.009%    |
| 48    | 2400      | 0.001%                       | 0.000%   | 0.000%   | 0.003%   | 0.004%   | 0.009%   | 0.007%   | 0.009%   | 0.009%   | 0.009%    |
| 49    | 2450      | 0.000%                       | 0.001%   | 0.001%   | 0.003%   | 0.003%   | 0.011%   | 0.005%   | 0.009%   | 0.004%   | 0.005%    |
| 50    | 2500      | 0.000%                       | 0.002%   | 0.001%   | 0.003%   | 0.002%   | 0.008%   | 0.007%   | 0.008%   | 0.010%   | 0.006%    |
| 51    | 2550      | 0.000%                       | 0.001%   | 0.001%   | 0.002%   | 0.002%   | 0.011%   | 0.008%   | 0.017%   | 0.007%   | 0.005%    |
| 52    | 2600      | 0.000%                       | 0.000%   | 0.000%   | 0.002%   | 0.001%   | 0.009%   | 0.004%   | 0.006%   | 0.007%   | 0.004%    |
| 53    | 2650      | 0.000%                       | 0.000%   | 0.001%   | 0.002%   | 0.002%   | 0.010%   | 0.006%   | 0.018%   | 0.006%   | 0.002%    |
| 54    | 2700      | 0.000%                       | 0.000%   | 0.000%   | 0.002%   | 0.002%   | 0.006%   | 0.005%   | 0.006%   | 0.006%   | 0.003%    |
| 55    | 2750      | 0.000%                       | 0.000%   | 0.001%   | 0.001%   | 0.000%   | 0.005%   | 0.003%   | 0.005%   | 0.005%   | 0.002%    |
| 56    | 2800      | 0.000%                       | 0.000%   | 0.000%   | 0.001%   | 0.000%   | 0.007%   | 0.003%   | 0.003%   | 0.004%   | 0.002%    |
| 57    | 2850      | 0.000%                       | 0.000%   | 0.000%   | 0.001%   | 0.000%   | 0.005%   | 0.003%   | 0.003%   | 0.009%   | 0.002%    |
| 58    | 2900      | 0.000%                       | 0.000%   | 0.000%   | 0.000%   | 0.001%   | 0.006%   | 0.004%   | 0.004%   | 0.003%   | 0.003%    |
| 59    | 2950      | 0.000%                       | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.005%   | 0.005%   | 0.003%   | 0.008%   | 0.002%    |
| 60    | 3000      | 0.000%                       | 0.000%   | 0.001%   | 0.000%   | 0.001%   | 0.005%   | 0.002%   | 0.003%   | 0.002%   | 0.002%    |
| 61    | 3050      | 0.000%                       | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.005%   | 0.003%   | 0.002%   | 0.007%   | 0.002%    |
| 62    | 3100      | 0.000%                       | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.003%   | 0.000%   | 0.000%   | 0.001%   | 0.000%    |
| 63    | 3150      | 0.000%                       | 0.000%   | 0.001%   | 0.001%   | 0.000%   | 0.003%   | 0.000%   | 0.003%   | 0.004%   | 0.005%    |
| 64    | 3200      | 0.000%                       | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.003%   | 0.000%   | 0.000%   | 0.000%   | 0.002%    |
| 65    | 3250      | 0.000%                       | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.004%   | 0.002%   | 0.003%   | 0.002%   | 0.006%    |
| 66    | 3300      | 0.000%                       | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.004%   | 0.001%   | 0.001%   | 0.001%   | 0.000%    |
| 67    | 3350      | 0.000%                       | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.002%   | 0.000%   | 0.003%   | 0.001%   | 0.001%    |
| 68    | 3400      | 0.000%                       | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.003%   | 0.001%   | 0.002%   | 0.001%   | 0.000%    |
| 69    | 3450      | 0.000%                       | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.004%   | 0.001%   | 0.002%   | 0.001%   | 0.000%    |
| 70    | 3500      | 0.000%                       | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.005%   | 0.001%   | 0.003%   | 0.001%   | 0.000%    |
| 71    | 3550      | 0.000%                       | 0.000%   | 0.000%   | 0.001%   | 0.000%   | 0.000%   | 0.003%   | 0.003%   | 0.002%   | 0.000%    |
| 72    | 3600      | 0.000%                       | 0.000%   | 0.000%   | 0.002%   | 0.000%   | 0.008%   | 0.004%   | 0.003%   | 0.002%   | 0.000%    |
| 73    | 3650      | 0.000%                       | 0.000%   | 0.000%   | 0.001%   | 0.001%   | 0.004%   | 0.002%   | 0.003%   | 0.005%   | 0.000%    |
| 74    | 3700      | 0.000%                       | 0.000%   | 0.001%   | 0.001%   | 0.007%   | 0.025%   | 0.013%   | 0.014%   | 0.003%   | 0.001%    |
| 75    | 3750      | 0.001%                       | 0.001%   | 0.000%   | 0.005%   | 0.002%   | 0.004%   | 0.003%   | 0.008%   | 0.008%   | 0.002%    |
| 76    | 3800      | 0.000%                       | 0.000%   | 0.002%   | 0.004%   | 0.012%   | 0.010%   | 0.007%   | 0.005%   | 0.011%   | 0.001%    |
| 77    | 3850      | 0.004%                       | 0.002%   | 0.002%   | 0.012%   | 0.003%   | 0.004%   | 0.000%   | 0.003%   | 0.013%   | 0.000%    |
| 78    | 3900      | 0.011%                       | 0.008%   | 0.024%   | 0.009%   | 0.014%   | 0.006%   | 0.000%   | 0.005%   | 0.007%   | 0.012%    |
| 79    | 3950      | 0.023%                       | 0.021%   | 0.004%   | 0.007%   | 0.004%   | 0.003%   | 0.001%   | 0.003%   | 0.006%   | 0.014%    |
| 80    | 4000      | 0.054%                       | 0.048%   | 0.041%   | 0.042%   | 0.036%   | 0.021%   | 0.024%   | 0.036%   | 0.042%   | 0.049%    |
| 81    | 4050      | 0.010%                       | 0.008%   | 0.006%   | 0.007%   | 0.006%   | 0.005%   | 0.001%   | 0.003%   | 0.006%   | 0.011%    |
| 82    | 4100      | 0.017%                       | 0.013%   | 0.009%   | 0.012%   | 0.021%   | 0.010%   | 0.004%   | 0.005%   | 0.009%   | 0.011%    |
| 83    | 4150      | 0.015%                       | 0.013%   | 0.010%   | 0.006%   | 0.016%   | 0.007%   | 0.001%   | 0.003%   | 0.005%   | 0.006%    |
| 84    | 4200      | 0.016%                       | 0.014%   | 0.016%   | 0.010%   | 0.030%   | 0.015%   | 0.001%   | 0.006%   | 0.007%   | 0.005%    |
| 85    | 4250      | 0.041%                       | 0.038%   | 0.030%   | 0.015%   | 0.038%   | 0.021%   | 0.002%   | 0.003%   | 0.005%   | 0.002%    |

| Order | Frequency | High frequency harmonics [%] |             |             |             |             |             |             |             |             |              |
|-------|-----------|------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|--------------|
|       |           | 10%<br>P/Pn                  | 20%<br>P/Pn | 30%<br>P/Pn | 40%<br>P/Pn | 50%<br>P/Pn | 60%<br>P/Pn | 70%<br>P/Pn | 80%<br>P/Pn | 90%<br>P/Pn | 100%<br>P/Pn |
| 86    | 4300      | 0.075%                       | 0.067%      | 0.056%      | 0.022%      | 0.037%      | 0.031%      | 0.002%      | 0.005%      | 0.007%      | 0.005%       |
| 87    | 4350      | 0.085%                       | 0.086%      | 0.071%      | 0.030%      | 0.033%      | 0.037%      | 0.003%      | 0.004%      | 0.006%      | 0.005%       |
| 88    | 4400      | 0.088%                       | 0.079%      | 0.070%      | 0.038%      | 0.037%      | 0.029%      | 0.003%      | 0.005%      | 0.007%      | 0.006%       |
| 89    | 4450      | 0.062%                       | 0.058%      | 0.048%      | 0.029%      | 0.041%      | 0.017%      | 0.000%      | 0.004%      | 0.005%      | 0.004%       |
| 90    | 4500      | 0.034%                       | 0.026%      | 0.027%      | 0.021%      | 0.036%      | 0.007%      | 0.000%      | 0.002%      | 0.007%      | 0.006%       |
| 91    | 4550      | 0.042%                       | 0.038%      | 0.031%      | 0.020%      | 0.022%      | 0.004%      | 0.000%      | 0.003%      | 0.015%      | 0.002%       |
| 92    | 4600      | 0.038%                       | 0.032%      | 0.023%      | 0.018%      | 0.022%      | 0.004%      | 0.000%      | 0.004%      | 0.008%      | 0.004%       |
| 93    | 4650      | 0.030%                       | 0.027%      | 0.022%      | 0.020%      | 0.012%      | 0.004%      | 0.000%      | 0.001%      | 0.007%      | 0.005%       |
| 94    | 4700      | 0.025%                       | 0.022%      | 0.016%      | 0.015%      | 0.010%      | 0.002%      | 0.001%      | 0.003%      | 0.005%      | 0.004%       |
| 95    | 4750      | 0.022%                       | 0.025%      | 0.016%      | 0.010%      | 0.004%      | 0.000%      | 0.000%      | 0.002%      | 0.003%      | 0.002%       |
| 96    | 4800      | 0.016%                       | 0.016%      | 0.010%      | 0.010%      | 0.006%      | 0.000%      | 0.001%      | 0.001%      | 0.004%      | 0.005%       |
| 97    | 4850      | 0.013%                       | 0.011%      | 0.007%      | 0.006%      | 0.003%      | 0.000%      | 0.000%      | 0.004%      | 0.004%      | 0.005%       |
| 98    | 4900      | 0.011%                       | 0.009%      | 0.006%      | 0.005%      | 0.005%      | 0.000%      | 0.000%      | 0.001%      | 0.005%      | 0.005%       |
| 99    | 4950      | 0.009%                       | 0.007%      | 0.004%      | 0.003%      | 0.000%      | 0.000%      | 0.000%      | 0.001%      | 0.005%      | 0.002%       |
| 100   | 5000      | 0.008%                       | 0.009%      | 0.005%      | 0.004%      | 0.004%      | 0.000%      | 0.001%      | 0.005%      | 0.010%      | 0.009%       |
| 101   | 5050      | 0.002%                       | 0.004%      | 0.002%      | 0.002%      | 0.000%      | 0.000%      | 0.000%      | 0.000%      | 0.001%      | 0.001%       |
| 102   | 5100      | 0.004%                       | 0.002%      | 0.002%      | 0.005%      | 0.001%      | 0.000%      | 0.003%      | 0.010%      | 0.008%      | 0.006%       |
| 103   | 5150      | 0.001%                       | 0.000%      | 0.000%      | 0.000%      | 0.000%      | 0.000%      | 0.000%      | 0.000%      | 0.000%      | 0.001%       |
| 104   | 5200      | 0.008%                       | 0.005%      | 0.005%      | 0.013%      | 0.000%      | 0.013%      | 0.015%      | 0.012%      | 0.009%      | 0.010%       |
| 105   | 5250      | 0.000%                       | 0.000%      | 0.000%      | 0.001%      | 0.000%      | 0.000%      | 0.000%      | 0.000%      | 0.000%      | 0.002%       |
| 106   | 5300      | 0.061%                       | 0.066%      | 0.061%      | 0.053%      | 0.080%      | 0.048%      | 0.019%      | 0.020%      | 0.003%      | 0.004%       |
| 107   | 5350      | 0.000%                       | 0.000%      | 0.000%      | 0.001%      | 0.000%      | 0.000%      | 0.002%      | 0.006%      | 0.003%      | 0.006%       |
| 108   | 5400      | 0.131%                       | 0.133%      | 0.136%      | 0.140%      | 0.175%      | 0.213%      | 0.232%      | 0.246%      | 0.276%      | 0.291%       |
| 109   | 5450      | 0.000%                       | 0.001%      | 0.002%      | 0.001%      | 0.000%      | 0.003%      | 0.002%      | 0.011%      | 0.009%      | 0.057%       |
| 110   | 5500      | 0.039%                       | 0.041%      | 0.026%      | 0.011%      | 0.008%      | 0.133%      | 0.082%      | 0.121%      | 0.183%      | 0.626%       |
| 111   | 5550      | 0.001%                       | 0.016%      | 0.018%      | 0.027%      | 0.024%      | 0.039%      | 0.037%      | 0.045%      | 0.053%      | 0.090%       |
| 112   | 5600      | 0.458%                       | 0.474%      | 0.523%      | 0.569%      | 0.633%      | 0.859%      | 0.796%      | 0.878%      | 1.042%      | 1.823%       |
| 113   | 5650      | 0.003%                       | 0.014%      | 0.010%      | 0.020%      | 0.016%      | 0.031%      | 0.036%      | 0.044%      | 0.047%      | 0.066%       |
| 114   | 5700      | 0.043%                       | 0.031%      | 0.016%      | 0.077%      | 0.085%      | 0.138%      | 0.113%      | 0.126%      | 0.153%      | 0.614%       |
| 115   | 5750      | 0.000%                       | 0.000%      | 0.000%      | 0.001%      | 0.002%      | 0.002%      | 0.005%      | 0.005%      | 0.005%      | 0.040%       |
| 116   | 5800      | 0.131%                       | 0.133%      | 0.136%      | 0.152%      | 0.193%      | 0.216%      | 0.234%      | 0.247%      | 0.263%      | 0.247%       |
| 117   | 5850      | 0.000%                       | 0.000%      | 0.000%      | 0.000%      | 0.000%      | 0.000%      | 0.000%      | 0.002%      | 0.001%      | 0.009%       |
| 118   | 5900      | 0.064%                       | 0.060%      | 0.055%      | 0.047%      | 0.087%      | 0.051%      | 0.030%      | 0.012%      | 0.016%      | 0.009%       |
| 119   | 5950      | 0.000%                       | 0.000%      | 0.000%      | 0.000%      | 0.000%      | 0.000%      | 0.000%      | 0.000%      | 0.000%      | 0.000%       |
| 120   | 6000      | 0.000%                       | 0.000%      | 0.000%      | 0.000%      | 0.000%      | 0.003%      | 0.003%      | 0.001%      | 0.001%      | 0.020%       |
| 121   | 6050      | 0.000%                       | 0.000%      | 0.000%      | 0.000%      | 0.000%      | 0.000%      | 0.000%      | 0.000%      | 0.000%      | 0.000%       |
| 122   | 6100      | 0.000%                       | 0.000%      | 0.000%      | 0.000%      | 0.000%      | 0.002%      | 0.000%      | 0.001%      | 0.000%      | 0.000%       |
| 123   | 6150      | 0.000%                       | 0.000%      | 0.000%      | 0.000%      | 0.000%      | 0.000%      | 0.000%      | 0.000%      | 0.000%      | 0.000%       |
| 124   | 6200      | 0.000%                       | 0.000%      | 0.000%      | 0.000%      | 0.000%      | 0.000%      | 0.000%      | 0.000%      | 0.000%      | 0.000%       |
| 125   | 6250      | 0.000%                       | 0.000%      | 0.000%      | 0.000%      | 0.000%      | 0.000%      | 0.000%      | 0.000%      | 0.000%      | 0.000%       |
| 126   | 6300      | 0.000%                       | 0.000%      | 0.000%      | 0.000%      | 0.000%      | 0.000%      | 0.000%      | 0.000%      | 0.000%      | 0.000%       |
| 127   | 6350      | 0.000%                       | 0.000%      | 0.000%      | 0.000%      | 0.000%      | 0.000%      | 0.000%      | 0.000%      | 0.000%      | 0.000%       |
| 128   | 6400      | 0.000%                       | 0.000%      | 0.000%      | 0.000%      | 0.000%      | 0.000%      | 0.000%      | 0.000%      | 0.000%      | 0.000%       |
| 129   | 6450      | 0.000%                       | 0.000%      | 0.000%      | 0.000%      | 0.000%      | 0.000%      | 0.000%      | 0.000%      | 0.000%      | 0.000%       |
| 130   | 6500      | 0.000%                       | 0.000%      | 0.000%      | 0.000%      | 0.000%      | 0.000%      | 0.000%      | 0.000%      | 0.000%      | 0.000%       |

| Order | Frequency | High frequency harmonics [%] |          |          |          |          |          |          |          |          |           |
|-------|-----------|------------------------------|----------|----------|----------|----------|----------|----------|----------|----------|-----------|
|       |           | 10% P/Pn                     | 20% P/Pn | 30% P/Pn | 40% P/Pn | 50% P/Pn | 60% P/Pn | 70% P/Pn | 80% P/Pn | 90% P/Pn | 100% P/Pn |
| 131   | 6550      | 0.000%                       | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%    |
| 132   | 6600      | 0.000%                       | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%    |
| 133   | 6650      | 0.000%                       | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%    |
| 134   | 6700      | 0.000%                       | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%    |
| 135   | 6750      | 0.000%                       | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%    |
| 136   | 6800      | 0.000%                       | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%    |
| 137   | 6850      | 0.000%                       | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%    |
| 138   | 6900      | 0.000%                       | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%    |
| 139   | 6950      | 0.000%                       | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%    |
| 140   | 7000      | 0.000%                       | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%    |
| 141   | 7050      | 0.000%                       | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%    |
| 142   | 7100      | 0.000%                       | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%    |
| 143   | 7150      | 0.000%                       | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%    |
| 144   | 7200      | 0.000%                       | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%    |
| 145   | 7250      | 0.000%                       | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%    |
| 146   | 7300      | 0.000%                       | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%    |
| 147   | 7350      | 0.000%                       | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%    |
| 148   | 7400      | 0.000%                       | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%    |
| 149   | 7450      | 0.000%                       | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%    |
| 150   | 7500      | 0.000%                       | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%    |
| 151   | 7550      | 0.000%                       | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%    |
| 152   | 7600      | 0.000%                       | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%    |
| 153   | 7650      | 0.000%                       | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%    |
| 154   | 7700      | 0.000%                       | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%    |
| 155   | 7750      | 0.000%                       | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%    |
| 156   | 7800      | 0.000%                       | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%    |
| 157   | 7850      | 0.000%                       | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%    |
| 158   | 7900      | 0.000%                       | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%    |
| 159   | 7950      | 0.000%                       | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%    |
| 160   | 8000      | 0.000%                       | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%    |
| 161   | 8050      | 0.000%                       | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%    |
| 162   | 8100      | 0.000%                       | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%    |
| 163   | 8150      | 0.000%                       | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%    |
| 164   | 8200      | 0.000%                       | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%    |
| 165   | 8250      | 0.000%                       | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%    |
| 166   | 8300      | 0.000%                       | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%    |
| 167   | 8350      | 0.000%                       | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%    |
| 168   | 8400      | 0.000%                       | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%    |
| 169   | 8450      | 0.000%                       | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%    |
| 170   | 8500      | 0.000%                       | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%    |
| 171   | 8550      | 0.000%                       | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%    |
| 172   | 8600      | 0.000%                       | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%    |
| 173   | 8650      | 0.000%                       | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%    |
| 174   | 8700      | 0.000%                       | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%    |
| 175   | 8750      | 0.000%                       | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%   | 0.000%    |

**Auszug aus dem Prüfbericht zum Einheitszertifikat: 28110272 004**  
**“Bestimmung der elektrischen Eigenschaften”**

Seite 8 von 8  
 Page 8 of 8

Auszug Nr.: 1 \_ **Annex F.3** (VDE-AR-N 4105)

| Order | Frequency | High frequency harmonics [%] |             |             |             |             |             |             |             |             |              |
|-------|-----------|------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|--------------|
|       |           | 10%<br>P/Pn                  | 20%<br>P/Pn | 30%<br>P/Pn | 40%<br>P/Pn | 50%<br>P/Pn | 60%<br>P/Pn | 70%<br>P/Pn | 80%<br>P/Pn | 90%<br>P/Pn | 100%<br>P/Pn |
| 176   | 8800      | 0.000%                       | 0.000%      | 0.000%      | 0.000%      | 0.000%      | 0.000%      | 0.000%      | 0.000%      | 0.000%      | 0.000%       |
| 177   | 8850      | 0.000%                       | 0.000%      | 0.000%      | 0.000%      | 0.000%      | 0.000%      | 0.000%      | 0.000%      | 0.000%      | 0.000%       |
| 178   | 8900      | 0.000%                       | 0.000%      | 0.000%      | 0.000%      | 0.000%      | 0.000%      | 0.000%      | 0.000%      | 0.000%      | 0.000%       |

**Remarks:**

Dieser Auszug aus dem Testreport ist nur gültig im Zusammenhang mit dem Testreport no.: **28110272 004**

20/01/2017

Antonio Somma / Tester



**Datum**

**Name/Stellung**

**Unterschrift**

Date

Name/Position

Signature

**Ende der Auszug**