

Client:  
Order number:  
Date of tests:  
Report code:

Band-it IDEX  
EL7880  
10<sup>th</sup> and 11<sup>th</sup> of September 2026  
TR

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**Subject:**  
**Purpose:**  
**Object:**  
**Conclusion:**

Cable cleats for electrical installations.  
Test for resistance to electromechanical forces on cable cleats for electrical installations based on IEC 61914 ed. 3.0 2021-10, clause 9.5.2 and 9.5.3.  
Cable cleats for electrical installations.  
Manufacturer: Band-it IDEX  
Type: LFFC-F1015M\*\*\*-A900 / CFFC-F1015M\*\*\*-A900  
The test results of the performed test are stated in the table with test results and are shown in the pictures of the tests for resistance to electromechanical forces.

**Author:**  
**Checked by:**

B. Stange  
Test Engineer  
R. Wanschers  
Test Coordinator


**This report consists of:**

31  
pages

P.A.H. van Gestel BSc  
Manager Prof. Ir. Damstra Laboratory

  
Hengelo, 21-09-2026

The test results concern only the investigated test objects.



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Client:

Address:

Test location:

Tested by:

Observed by:

Band-it IDEX

4799 Dahlia street

CO 80216

Denver

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Band-it IDEX

Band-it IDEX

Band-it IDEX

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DOCUMENT CONTROL

| Revision      | Amendment | By   | Date       |
|---------------|-----------|------|------------|
| PDL-26.160.04 | Creation  | B.S. | 18-09-2026 |
|               |           |      |            |
|               |           |      |            |
|               |           |      |            |
|               |           |      |            |

1

Object identification



Photo 1 and 2

Cable cleats for electrical installations

Manufacturer: Band-it IDEX

Test rig number: 1

1.1

Technical data and characteristics

The technical data and characteristics of the test object are defined by the following parameters as specified by the manufacturer

|                     |                                           |
|---------------------|-------------------------------------------|
| Test object         | Cable cleats for electrical installations |
| Type                | LFFC-F1015M***-A900 / CFFC-F1015M***-A900 |
| Manufacturer        | Band-it IDEX                              |
| Year of manufacture | 2026                                      |

|                                        |                       |
|----------------------------------------|-----------------------|
| Rated characteristics of system        |                       |
| Rated peak withstand current, $I_{pk}$ | Several peak currents |

2      **Test program**

| Test rig number | Cleat type                                                               | Centers between fixed cleats [mm] | Cable formation | Type of cable | Target peak current [kA] | Duration [ms] |
|-----------------|--------------------------------------------------------------------------|-----------------------------------|-----------------|---------------|--------------------------|---------------|
| 1               | LFFC-F1015M***-A900 (double normally wrapped)                            | 300                               | Trefoil         | Class 5       | 70                       | 100           |
| 2               | LFFC-F1015M***-A900 (double cross-wrapped)                               |                                   |                 |               | 65                       |               |
| 3               | LFFC-F1015M***-A900 (triple cross-wrapped)                               |                                   |                 |               | 85                       |               |
| 8               | LFFC-F1015M***-A900 (double wrapped, PPA coated)                         | 600                               |                 |               | 65                       |               |
| 9               | LFFC-F1015M***-A900 (double cross wrapped, PPA coated)                   |                                   |                 |               |                          |               |
| 10              | LFFC-F1015M***-A900 (triple cross wrapped, PPA coated)                   |                                   |                 |               |                          |               |
| 17              | LFFC-F1015M***-A900 (double wrapped, PPA coated and with D70109 bracket) | 300                               |                 |               | 70                       |               |
| 16a             | CFAC-F0430M*** (double wrapped, uncoated with rubber channel)            | 600                               |                 |               | 45                       |               |
| Remarks:        |                                                                          |                                   |                 |               |                          |               |

**Table 1**

**2.1 Normative document**

IEC 61914:2021

Cable cleats for electrical installations

**3 Test results**

| Test rig number | Cleat type                                       | Peak current [kA]    | Centres between fixed cleats [mm] | Duration [ms] | Clause | Osc.               | Verdict |
|-----------------|--------------------------------------------------|----------------------|-----------------------------------|---------------|--------|--------------------|---------|
| 1               | LFFC-F1015M***-A900 (double normally wrapped)    | 65,3<br>46,6<br>57,6 | 300                               | 118           | 9.5.2  | 5                  | Pass    |
|                 |                                                  | 65,0<br>45,8<br>57,8 |                                   | 118           | 9.5.3  | 6 <sup>1)</sup> .  |         |
|                 |                                                  | 70,0<br>49,0<br>62,3 |                                   | 123           | 9.5.2  | 7                  |         |
| 2               | LFFC-F1015M***-A900 (double cross-wrapped)       | 71,5<br>52,2<br>61,8 |                                   | 119           | 9.5.2  | 9                  |         |
|                 |                                                  | 70,8<br>49,9<br>62,4 |                                   | 118           | 9.5.3  | 10 <sup>2)</sup> . |         |
| 3               | LFFC-F1015M***-A900 (triple cross-wrapped)       | 90,8<br>62,4<br>81,7 |                                   | 123           | 9.5.2  | 11                 |         |
|                 |                                                  | 90,9<br>62,9<br>81,2 |                                   | 120           | 9.5.3  | 12 <sup>3)</sup> . |         |
| 8               | LFFC-F1015M***-A900 (double wrapped, PPA coated) | 55,3<br>39,9<br>48,4 | 600                               | 122           | 9.5.2  | 22                 |         |
|                 |                                                  | 55,5<br>40,3<br>48,5 |                                   | 122           | 9.5.3  | 23 <sup>4)</sup> . |         |

|                                                                   |                                                                          |                      |     |     |       |                    |      |
|-------------------------------------------------------------------|--------------------------------------------------------------------------|----------------------|-----|-----|-------|--------------------|------|
| 9                                                                 | LFFC-F1015M***-A900 (double cross wrapped, PPA coated)                   | 65,5<br>48,2<br>56,3 | 600 | 118 | 9.5.2 | 25                 | Pass |
|                                                                   |                                                                          | 65,4<br>46,7<br>57,4 |     | 125 | 9.5.3 | 26 <sup>6)</sup> . |      |
| 10                                                                | LFFC-F1015M***-A900 (triple cross wrapped, PPA coated)                   | 80,5<br>55,9<br>72,0 |     | 119 | 9.5.2 | 28                 |      |
|                                                                   |                                                                          | 81,6<br>57,6<br>71,8 |     | 123 | 9.5.3 | 29 <sup>5)</sup> . |      |
| 17                                                                | LFFC-F1015M***-A900 (double wrapped, PPA coated and with D70109 bracket) | 62,7<br>45,9<br>54,3 | 300 | 124 | 9.5.2 | 51                 |      |
|                                                                   |                                                                          | 63,3<br>46,3<br>55,1 |     | 124 | 9.5.3 | 52 <sup>6)</sup> . |      |
| Remark:                                                           |                                                                          |                      |     |     |       |                    |      |
| 1). Dielectric properties after Osc.6 at 1000Va.c. for 60sec: OK  |                                                                          |                      |     |     |       |                    |      |
| 2). Dielectric properties after Osc.10 at 1000Va.c. for 60sec: OK |                                                                          |                      |     |     |       |                    |      |
| 3). Dielectric properties after Osc.12 at 1000Va.c. for 60sec: OK |                                                                          |                      |     |     |       |                    |      |
| 4). Dielectric properties after Osc.23 at 1000Va.c. for 60sec: OK |                                                                          |                      |     |     |       |                    |      |
| 5). Dielectric properties after Osc.29 at 1000Va.c. for 60sec: OK |                                                                          |                      |     |     |       |                    |      |
| 6). Dielectric properties after Osc.52 at 1000Va.c. for 60sec: OK |                                                                          |                      |     |     |       |                    |      |

Table 2

Appendix A    Short-circuit tests

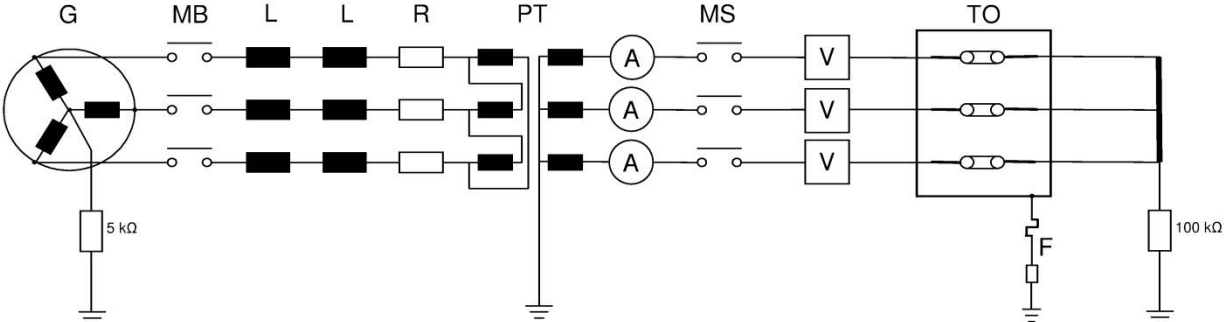
A.1    Tables with test results

|                                                                                                                                                                                                                                                             |                      |                                                          |                  |                 |              |                         |                   |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|----------------------------------------------------------|------------------|-----------------|--------------|-------------------------|-------------------|
|                                                                                                                                                                            |                      | TABLE WITH TEST RESULTS<br>Short-circuit withstand tests |                  |                 |              | Date:<br><br>10-09-2026 | Sheet:<br><br>SC1 |
|                                                                                                                                                                                                                                                             |                      | PDL-26.160.04                                            |                  |                 |              |                         |                   |
| <b>Object:</b> Cable cleats for electrical installations<br>Manufacturer: Band-it                                                                                                                                                                           |                      |                                                          |                  |                 |              |                         |                   |
| Test and Osc no                                                                                                                                                                                                                                             | Current              |                                                          |                  |                 | Test voltage | Remarks                 |                   |
|                                                                                                                                                                                                                                                             | peak<br>[A]          | rms<br>[A]                                               | duration<br>[ms] | Energy<br>[I²t] | [V]          |                         |                   |
| Test rig number: 1<br>Cleat type: LFFC-F1015M***-A900 / CFFC-F1015M***-A900 (double normally wrapped)<br>Cable configuration: Trefoil<br>Cable type: Class 5<br>Cleat spacing: 300 mm                                                                       |                      |                                                          |                  |                 |              |                         |                   |
| 1                                                                                                                                                                                                                                                           | 39,8<br>29,5<br>34,7 | 17,6<br>17,5<br>17,8                                     | 121              | -               | 230          | Calibration shot        |                   |
| 5                                                                                                                                                                                                                                                           | 65,3<br>46,6<br>57,6 | 28,8<br>28,6<br>29,0                                     | 118              | -               | 373          | Clause 9.5.2 passed     |                   |
| 6                                                                                                                                                                                                                                                           | 65,0<br>45,8<br>57,8 | 28,7<br>28,5<br>28,9                                     | 118              | -               | 373          | Clause 9.5.3 passed     |                   |
| Re-strapped the test rig with new straps<br>Same configuration as before Osc.5                                                                                                                                                                              |                      |                                                          |                  |                 |              |                         |                   |
| 7                                                                                                                                                                                                                                                           | 70,0<br>49,0<br>62,3 | 30,7<br>30,6<br>31,1                                     | 123              | -               | 400          | Clause 9.5.2 passed     |                   |
| Test rig number: 2<br>Cleat type: LFFC-F1015M***-A900 / CFFC-F1015M***-A900 (double cross-wrapped)<br>Cable configuration: Trefoil<br>Cable type: Class 5<br>Cleat spacing: 300 mm                                                                          |                      |                                                          |                  |                 |              |                         |                   |
| 9                                                                                                                                                                                                                                                           | 71,5<br>52,2<br>61,8 | 31,1<br>30,9<br>31,4                                     | 119              | -               | 404          | Clause 9.5.2 passed     |                   |
| 10                                                                                                                                                                                                                                                          | 70,8<br>49,9<br>62,4 | 31,0<br>30,8<br>31,3                                     | 118              | -               | 404          | Clause 9.5.3 passed     |                   |
| Phase values are to be read: L1(R) Supply → L1(R) object<br>L2(S) Supply → L2(S) object<br>L3(T) Supply → L3(T) object<br><br>Dielectric properties after Osc.10 at 1000Va.c. for 60sec: OK<br>Dielectric properties after Osc.6 at 1000Va.c. for 60sec: OK |                      |                                                          |                  |                 |              |                         |                   |

|                                                                                                                                                                                                 |                      |                                                          |                  |                 |              |                     |        |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|----------------------------------------------------------|------------------|-----------------|--------------|---------------------|--------|
|                                                                                                                |                      | TABLE WITH TEST RESULTS<br>Short-circuit withstand tests |                  |                 |              | Date:               | Sheet: |
|                                                                                                                                                                                                 |                      | PDL-26.160.04                                            |                  |                 |              | 10-09-2026          | SC2    |
| <b>Object:</b> Cable cleats for electrical installations<br>Manufacturer: Band-it                                                                                                               |                      |                                                          |                  |                 |              |                     |        |
| Test and Osc no                                                                                                                                                                                 | Current              |                                                          |                  |                 | Test voltage | Remarks             |        |
|                                                                                                                                                                                                 | peak<br>[A]          | rms<br>[A]                                               | duration<br>[ms] | Energy<br>[I²t] | [V]          |                     |        |
| Test rig number: 3<br>Cleat type: LFFC-F1015M***-A900 / CFFC-F1015M***-A900 (triple cross-wrapped)<br>Cable configuration: Trefoil<br>Cable type: Class 5<br>Cleat spacing: 300 mm              |                      |                                                          |                  |                 |              |                     |        |
| 11                                                                                                                                                                                              | 90,8<br>62,4<br>81,7 | 39,9<br>39,8<br>40,4                                     | 123              | -               | 516          | Clause 9.5.2 passed |        |
| 12                                                                                                                                                                                              | 90,9<br>62,9<br>81,2 | 40,0<br>39,7<br>40,4                                     |                  | -               | 516          | Clause 9.5.3 passed |        |
| Test rig number: 8<br>Cleat type: LFFC-F1015M***-A900 / CFFC-F1015M***-A900 (double wrapped, PPA coated)<br>Cable configuration: Trefoil<br>Cable type: Class 5<br>Cleat spacing: 600 mm        |                      |                                                          |                  |                 |              |                     |        |
| 20                                                                                                                                                                                              | 31,2<br>23,3<br>26,9 | 13,8<br>13,7<br>13,8                                     | 114              | -               | 182          | Calibration shot    |        |
| 22                                                                                                                                                                                              | 55,3<br>39,9<br>48,4 | 24,2<br>24,2<br>24,5                                     | 122              | -               | 321          | Clause 9.5.2 passed |        |
| 23                                                                                                                                                                                              | 55,5<br>40,3<br>48,5 | 24,3<br>24,3<br>24,6                                     | 122              | -               | 324          | Clause 9.5.3 passed |        |
| Test rig number: 9<br>Cleat type: LFFC-F1015M***-A900 / CFFC-F1015M***-A900 (double cross wrapped, PPA coated)<br>Cable configuration: Trefoil<br>Cable type: Class 5<br>Cleat spacing: 600 mm  |                      |                                                          |                  |                 |              |                     |        |
| 25                                                                                                                                                                                              | 65,5<br>48,2<br>56,3 | 28,4<br>28,4<br>28,7                                     | 118              | -               | 379          | Clause 9.5.2 passed |        |
| 26                                                                                                                                                                                              | 65,4<br>46,7<br>57,4 | 28,5<br>28,6<br>28,7                                     | 125              | -               | 382          | Clause 9.5.3 passed |        |
| Phase values are to be read: L1(R) Supply → L1(R) object<br>L2(S) Supply → L2(S) object<br>L3(T) Supply → L3(T) object                                                                          |                      |                                                          |                  |                 |              |                     |        |
| Dielectric properties after Osc.12 at 1000Va.c. for 60sec: OK<br>Dielectric properties after Osc.23 at 1000Va.c. for 60sec: OK<br>Dielectric properties after Osc.26 at 1000Va.c. for 60sec: OK |                      |                                                          |                  |                 |              |                     |        |

|                                                                                                                                                                                                                   |                      |                                                          |                  |                 |              |                            |                   |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|----------------------------------------------------------|------------------|-----------------|--------------|----------------------------|-------------------|
|                                                                                                                                  |                      | TABLE WITH TEST RESULTS<br>Short-circuit withstand tests |                  |                 |              | Date:<br><br>10/11-09-2026 | Sheet:<br><br>SC3 |
|                                                                                                                                                                                                                   |                      | PDL-26.160.04                                            |                  |                 |              |                            |                   |
| <b>Object:</b> Cable cleats for electrical installations<br>Manufacturer: Band-it                                                                                                                                 |                      |                                                          |                  |                 |              |                            |                   |
| Test and Osc no                                                                                                                                                                                                   | Current              |                                                          |                  |                 | Test voltage | Remarks                    |                   |
|                                                                                                                                                                                                                   | peak<br>[A]          | rms<br>[A]                                               | duration<br>[ms] | Energy<br>[J²t] | [V]          |                            |                   |
| Test rig number: 10<br>Cleat type: LFFC-F1015M***-A900 / CFFC-F1015M***-A900 (triple cross wrapped, PPA coated)<br>Cable configuration: Trefoil<br>Cable type: Class 5<br>Cleat spacing: 600 mm                   |                      |                                                          |                  |                 |              |                            |                   |
| 28                                                                                                                                                                                                                | 80,5<br>55,9<br>72,0 | 35,3<br>35,2<br>35,6                                     | 119              | -               | 469          | Clause 9.5.2 passed        |                   |
| 29                                                                                                                                                                                                                | 81,6<br>57,6<br>71,8 | 35,4<br>35,6<br>35,9                                     | 123              | -               | 473          | Clause 9.5.3 passed        |                   |
| Test rig number: 17<br>Cleat type: LFFC-F1015M***-A900 / CFFC-F1015M***-A900 (double wrapped, PPA coated and with D70109 bracket)<br>Cable configuration: Trefoil<br>Cable type: Class 5<br>Cleat spacing: 300 mm |                      |                                                          |                  |                 |              |                            |                   |
| 51                                                                                                                                                                                                                | 62,7<br>45,9<br>54,3 | 26,9<br>26,7<br>27,3                                     | 124              | -               | 248          | Clause 9.5.2 passed        |                   |
| 52                                                                                                                                                                                                                | 63,3<br>46,3<br>55,1 | 27,3<br>27,0<br>27,6                                     | 124              | -               | 251          | Clause 9.5.3 passed        |                   |
| Phase values are to be read: L1(R) Supply → L1(R) object<br>L2(S) Supply → L2(S) object<br>L3(T) Supply → L3(T) object                                                                                            |                      |                                                          |                  |                 |              |                            |                   |
| Dielectric properties after Osc.29 at 1000Va.c. for 60sec: OK<br>Dielectric properties after Osc.52 at 1000Va.c. for 60sec: OK                                                                                    |                      |                                                          |                  |                 |              |                            |                   |

A.2 Test circuit diagram

|                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                              |                                   |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------|-----------------------------------|
|                                                                                                                                                                                                                                                                                                                                                                | <b>TEST CIRCUIT DIAGRAMS</b><br><br>Short-circuit laboratory | Test report:<br><br>PDL-26.160.04 |
| <p>Three phase circuit</p>  <p>G : Generator<br/>MB : Master Breaker<br/>L : Reactor<br/>R : Resistance<br/>PT : Power Transformer<br/>MS : Making Switch<br/>TO : Test Object<br/>V : Voltage Measurement between phases<br/>A : Current Measurement<br/>F : Fusible element, with current limiting resistance (not attached during earth fault testing)</p> |                                                              |                                   |

A.3 Pictures of short-circuit tests



Photo 3: After Osc.6



Photo 4: After Osc.10



Photo 5: After Osc.12



Photo 6: After Osc.23



Photo 7: After Osc.25



Photo 8: After Osc.26



Photo 9: After Osc.28



Photo 10: After Osc.29



Photo 11: After Osc.51



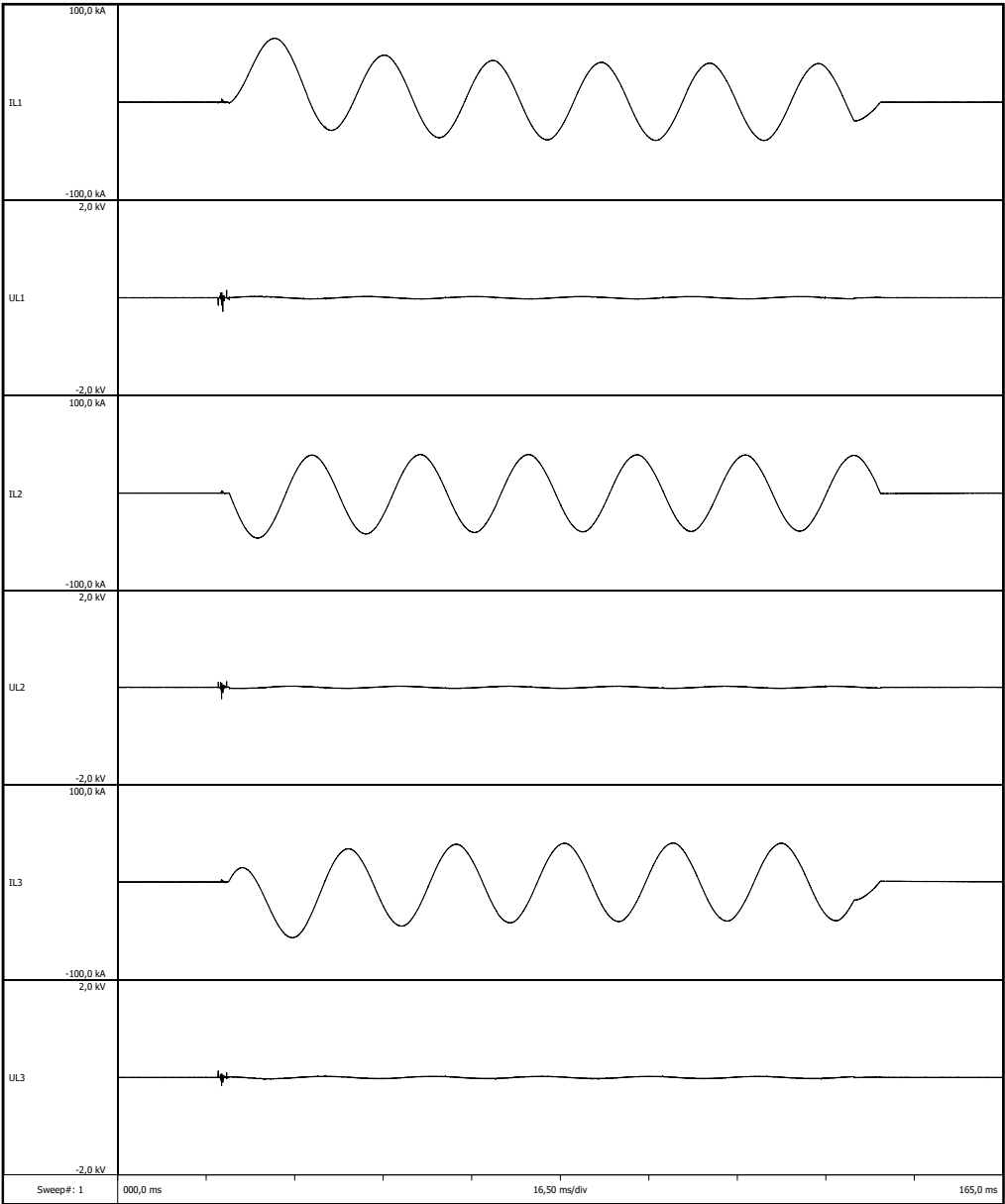
Photo 12: After Osc.52



PDL-26.160

Osc005

10-9-2026

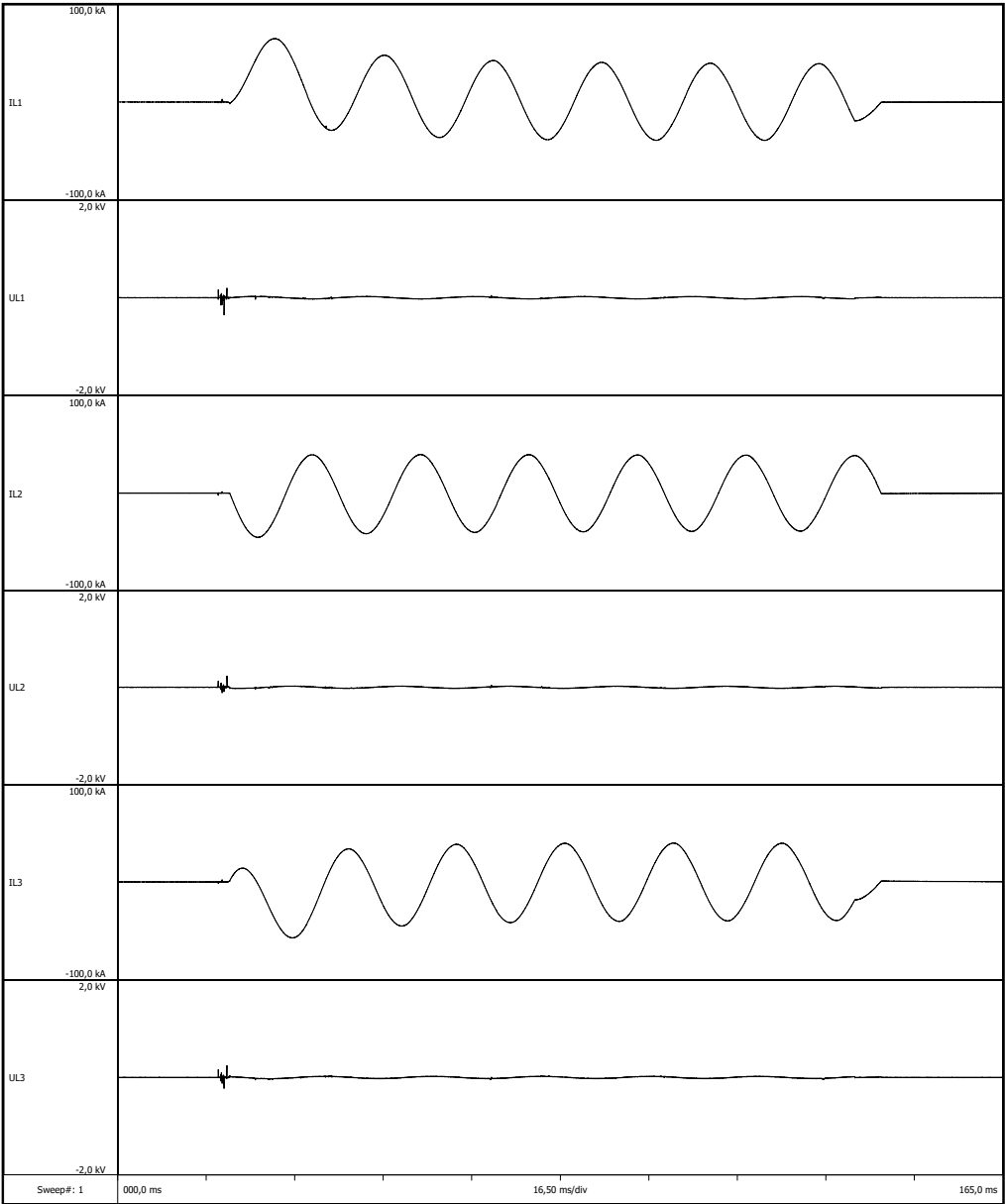


PDLF-90810A\_V3.0

PDL-26.160

Osc006

10-9-2026

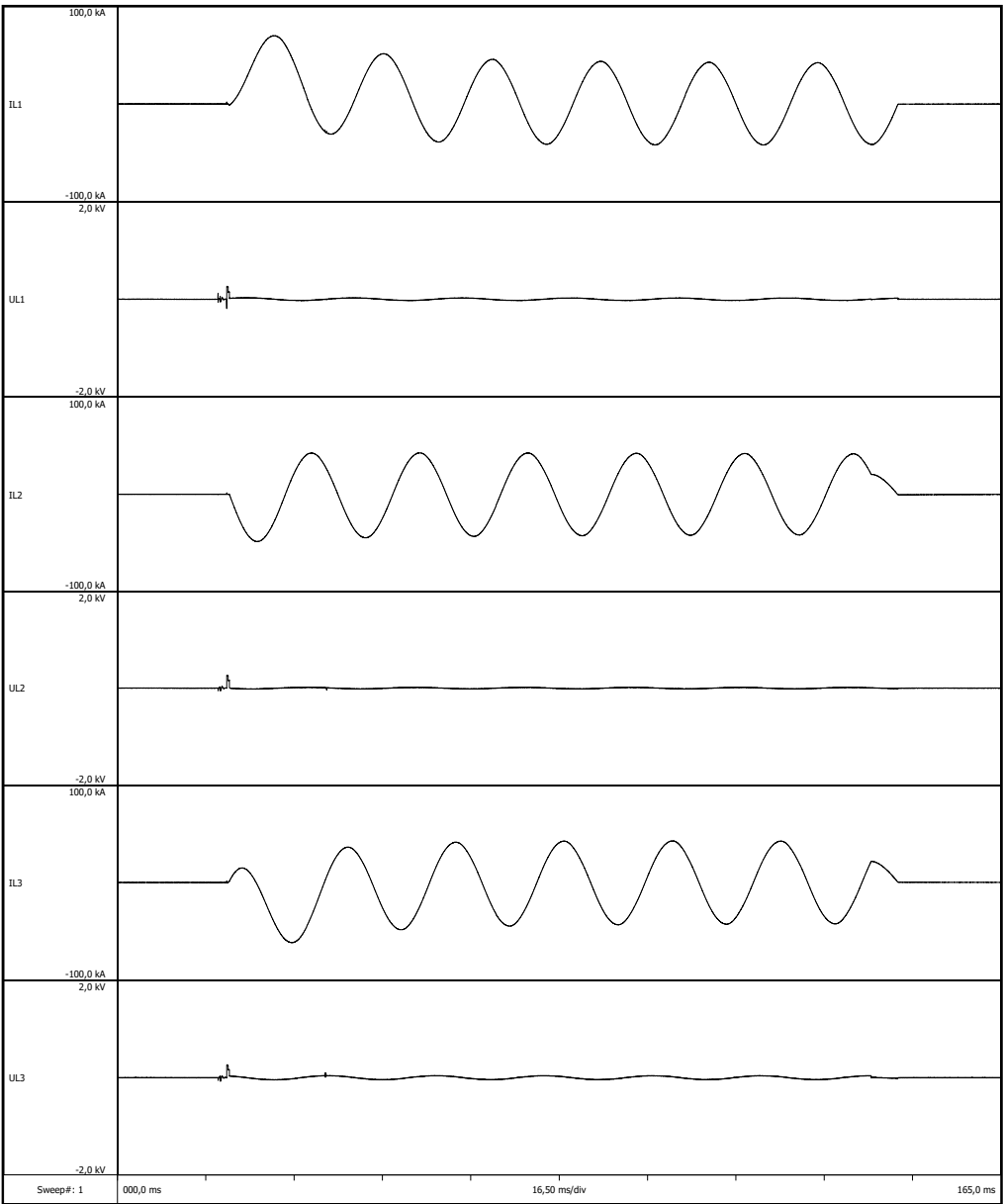


PDLF-90810A\_V3.0

PDL-26.160

Osc007

10-9-2026

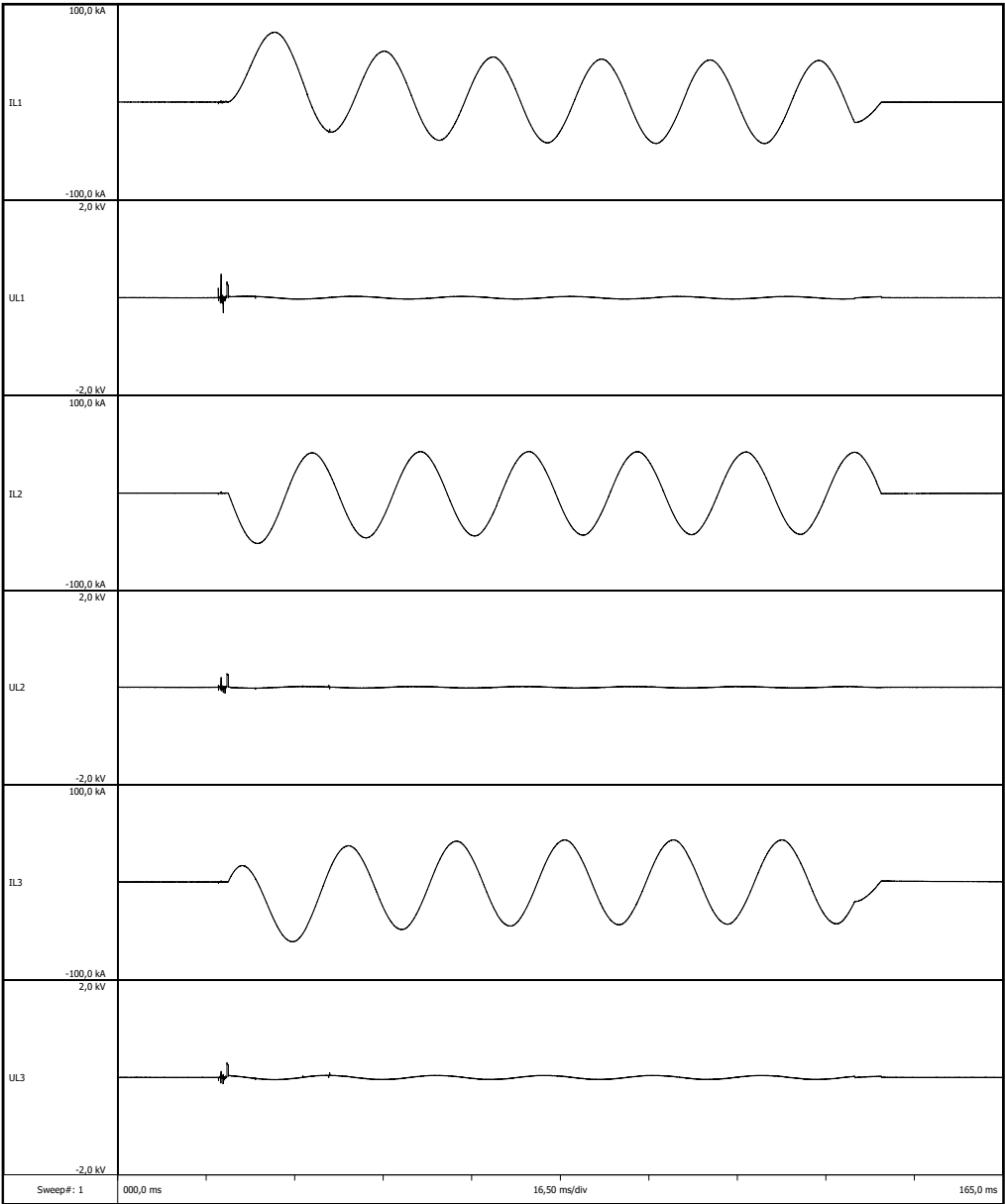


PDLF-90810A\_V3.0

PDL-26.160

Osc009

10-9-2026

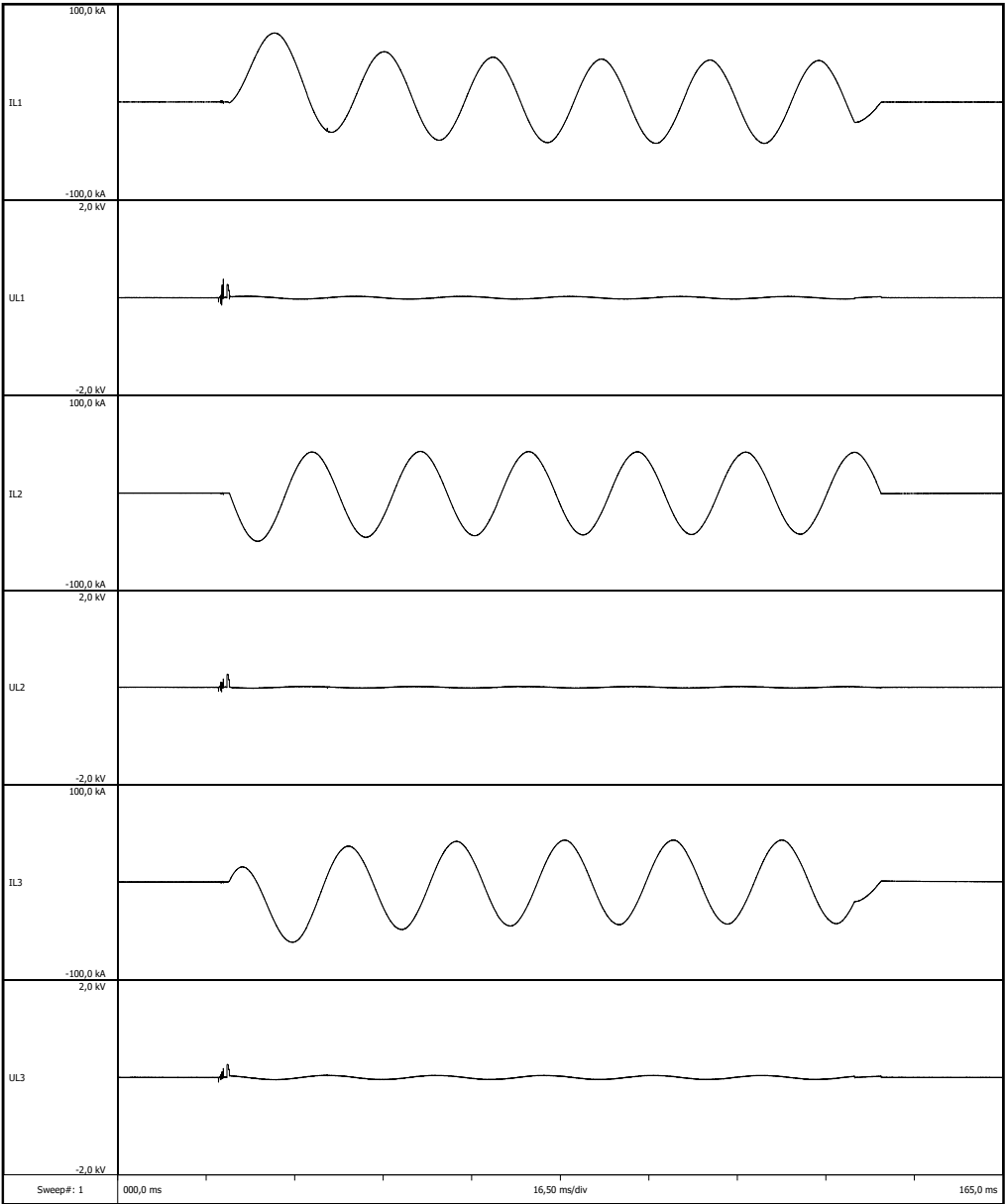


PDLF-90810A\_V3.0

PDL-26.160

Osc010

10-9-2026

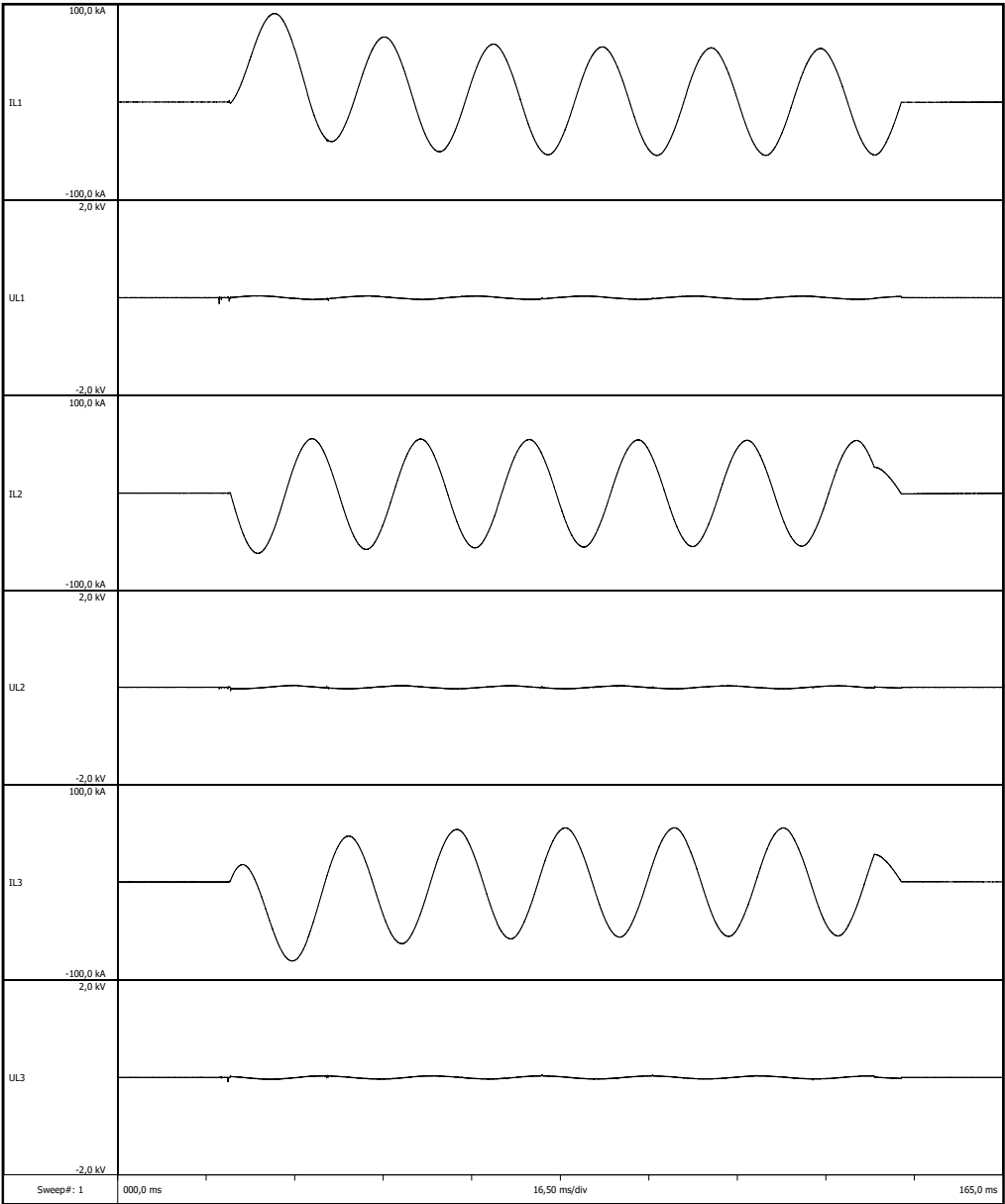


PDLF-90810A\_V3.0

PDL-26.160

Osc011

10-9-2026

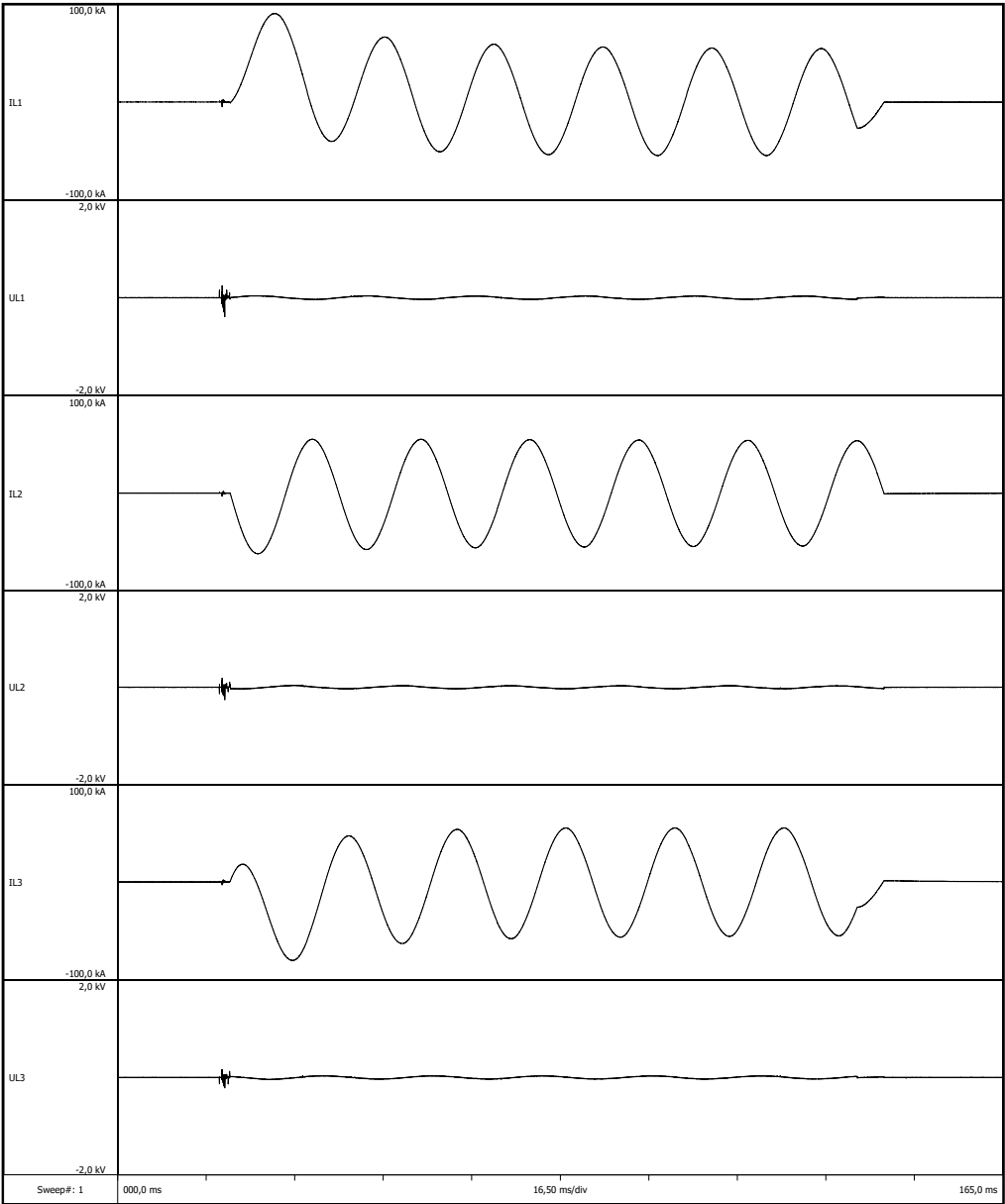


PDLF-90810A\_V3.0

PDL-26.160

Osc012

10-9-2026

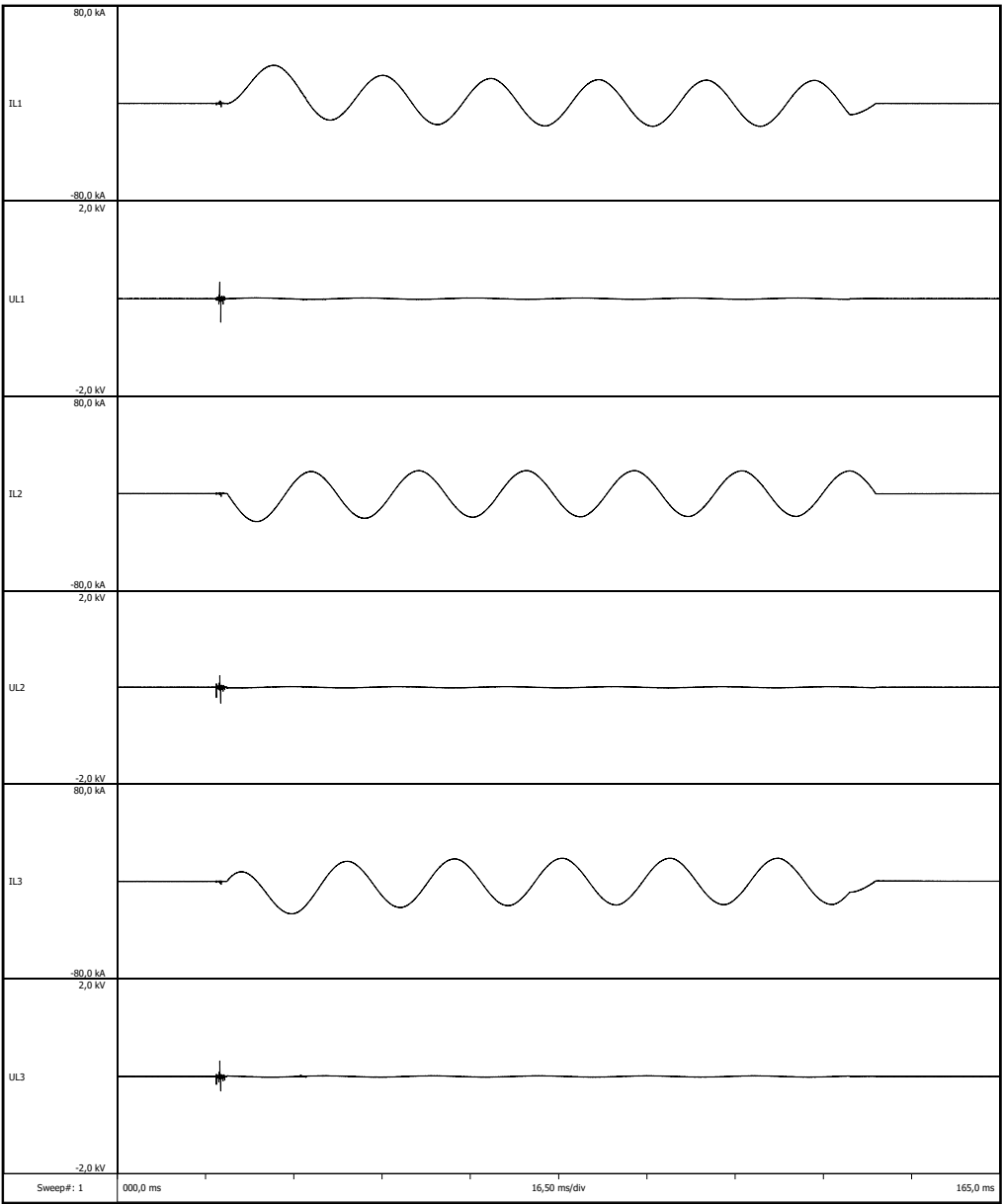


PDLF-90810A\_V3.0

PDL-26.160

Osc020

10-9-2026

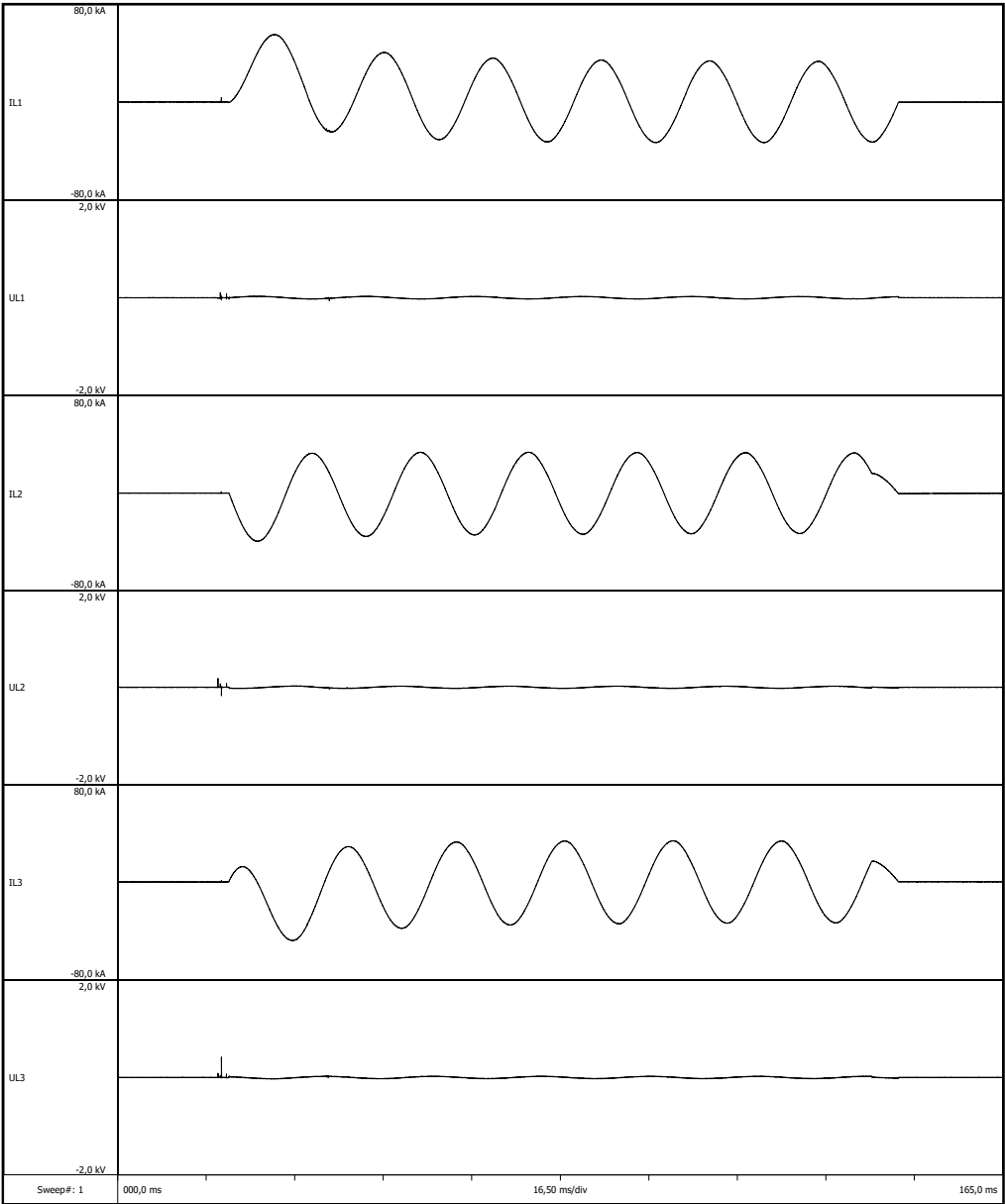


PDLF-90810A\_V3.0

PDL-26.160

Osc022

10-9-2026

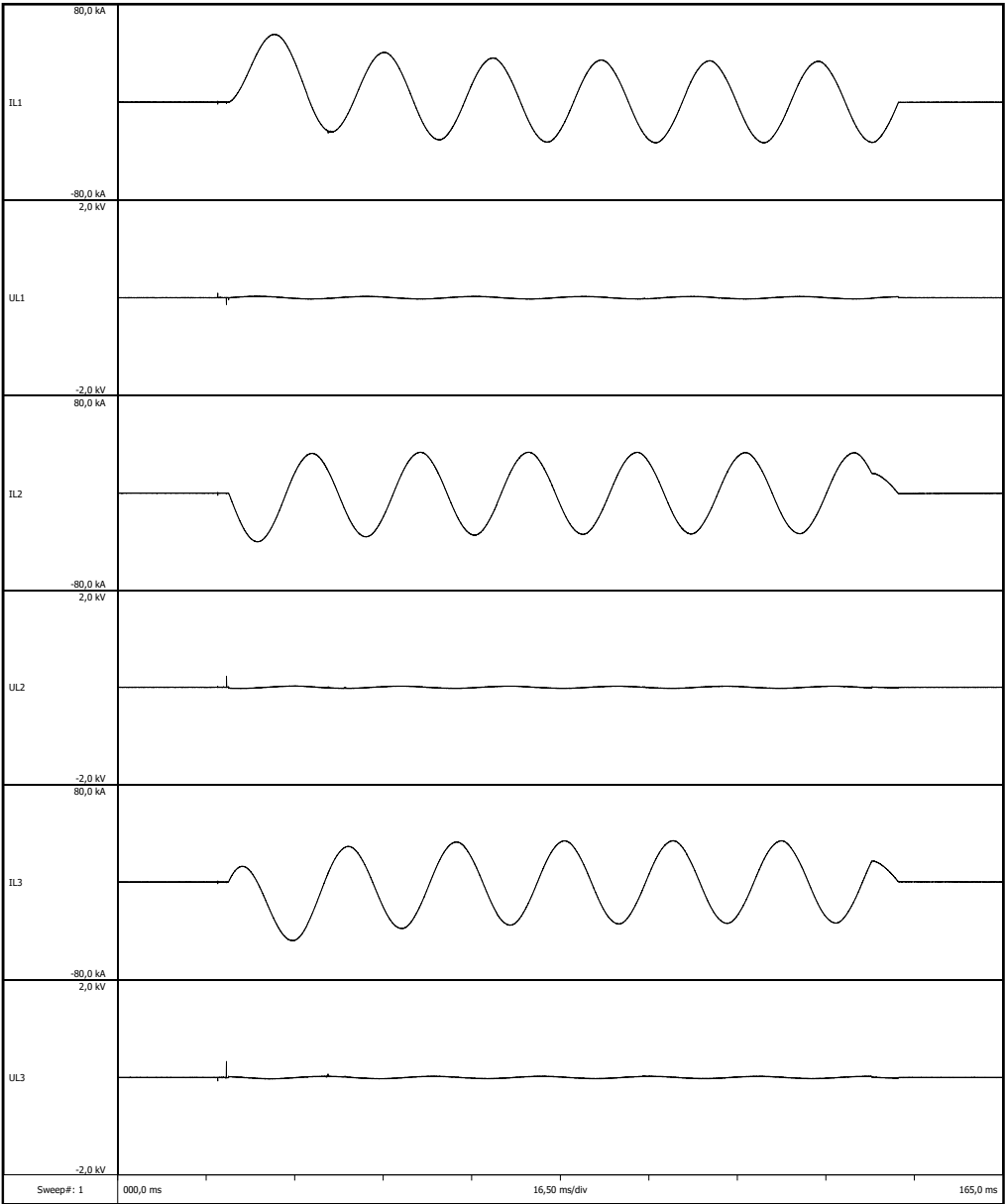


PDLF-90810A\_V3.0

PDL-26.160

Osc023

10-9-2026

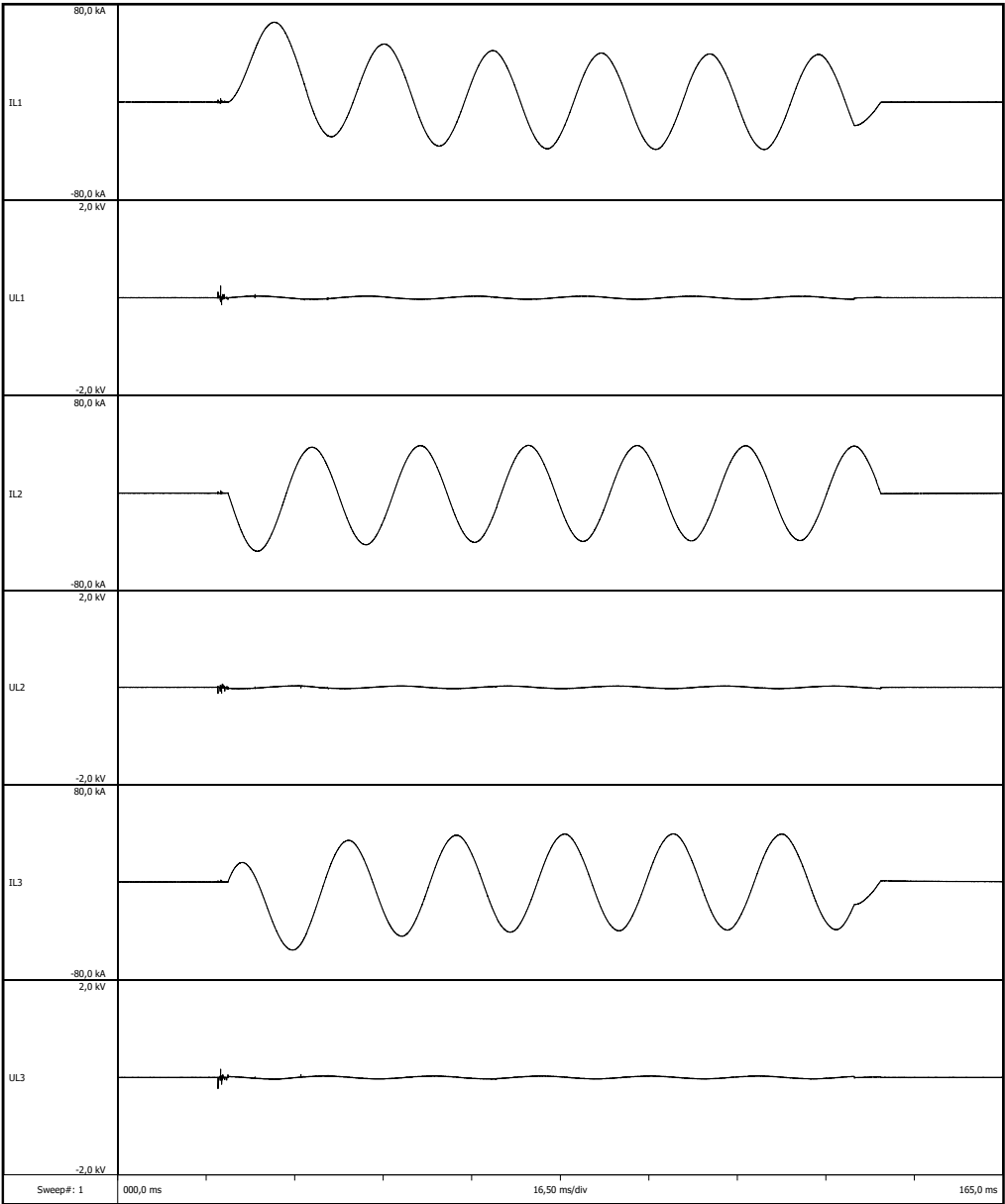


PDLF-90810A\_V3.0

PDL-26.160

Osc025

10-9-2026

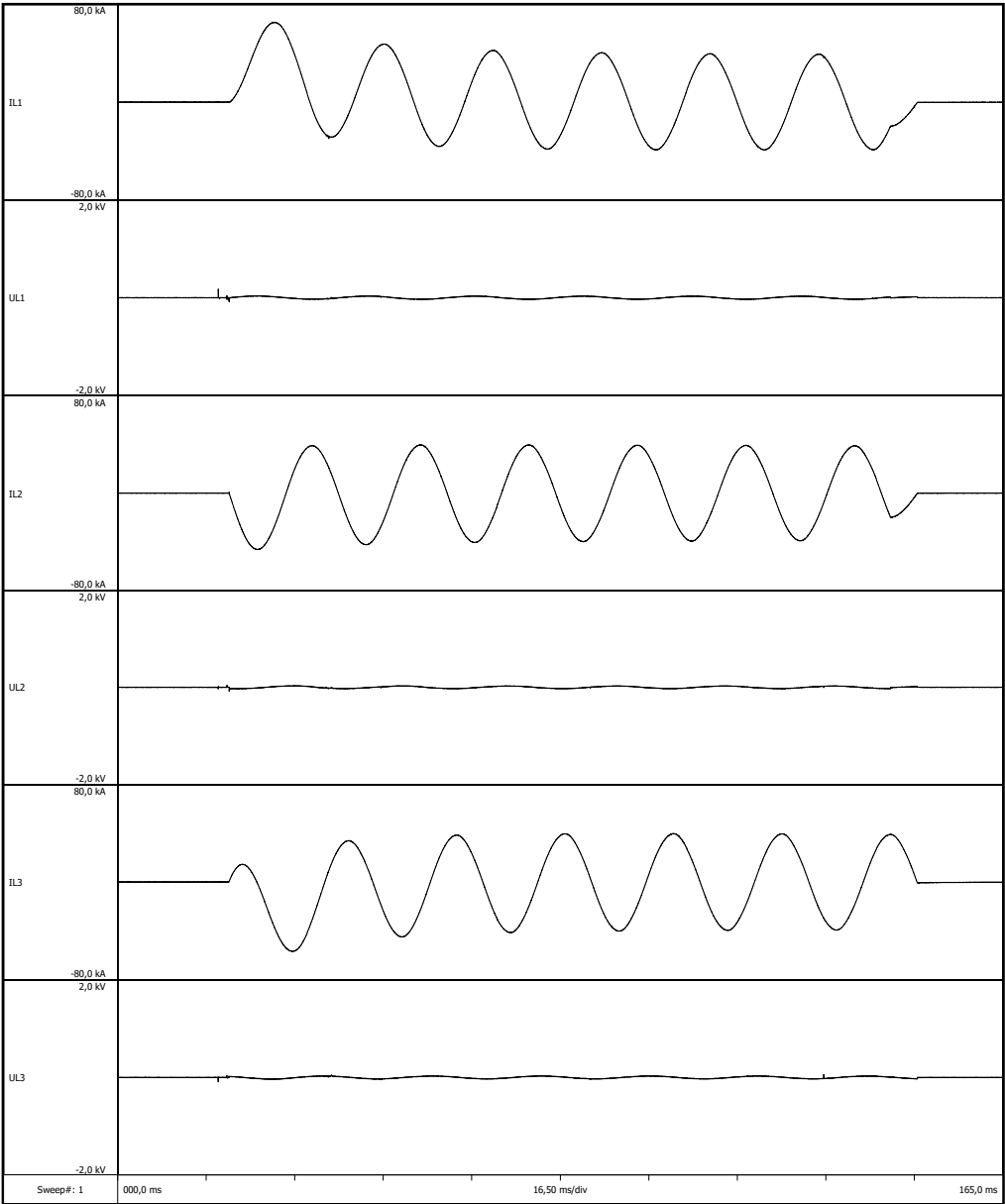


PDLF-90810A\_V3.0

PDL-26.160

Osc026

10-9-2026

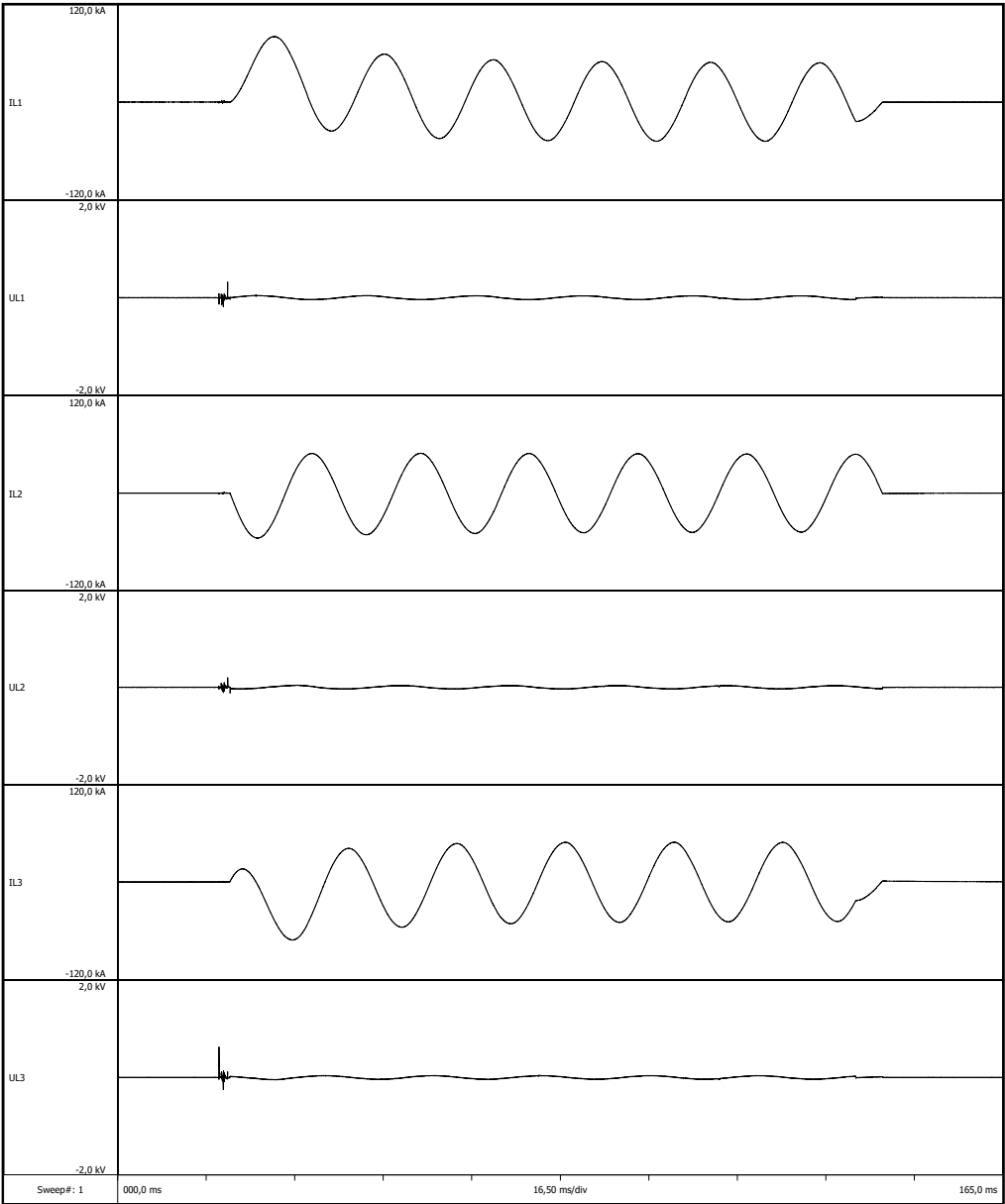


PDLF-90810A\_V3.0

PDL-26.160

Osc028

11-9-2026

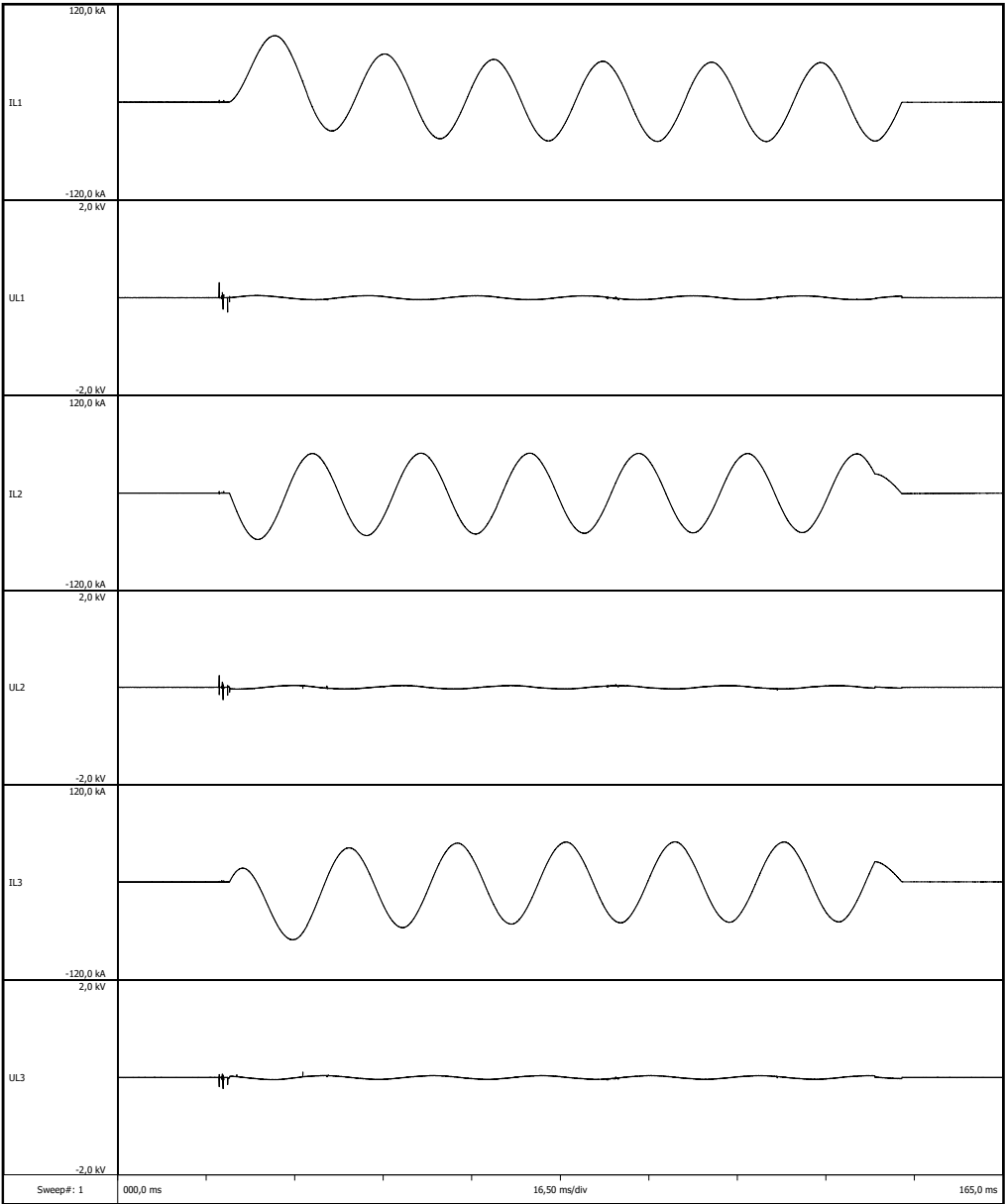


PDLF-90810A\_V3.0

PDL-26.160

Osc029

11-9-2026

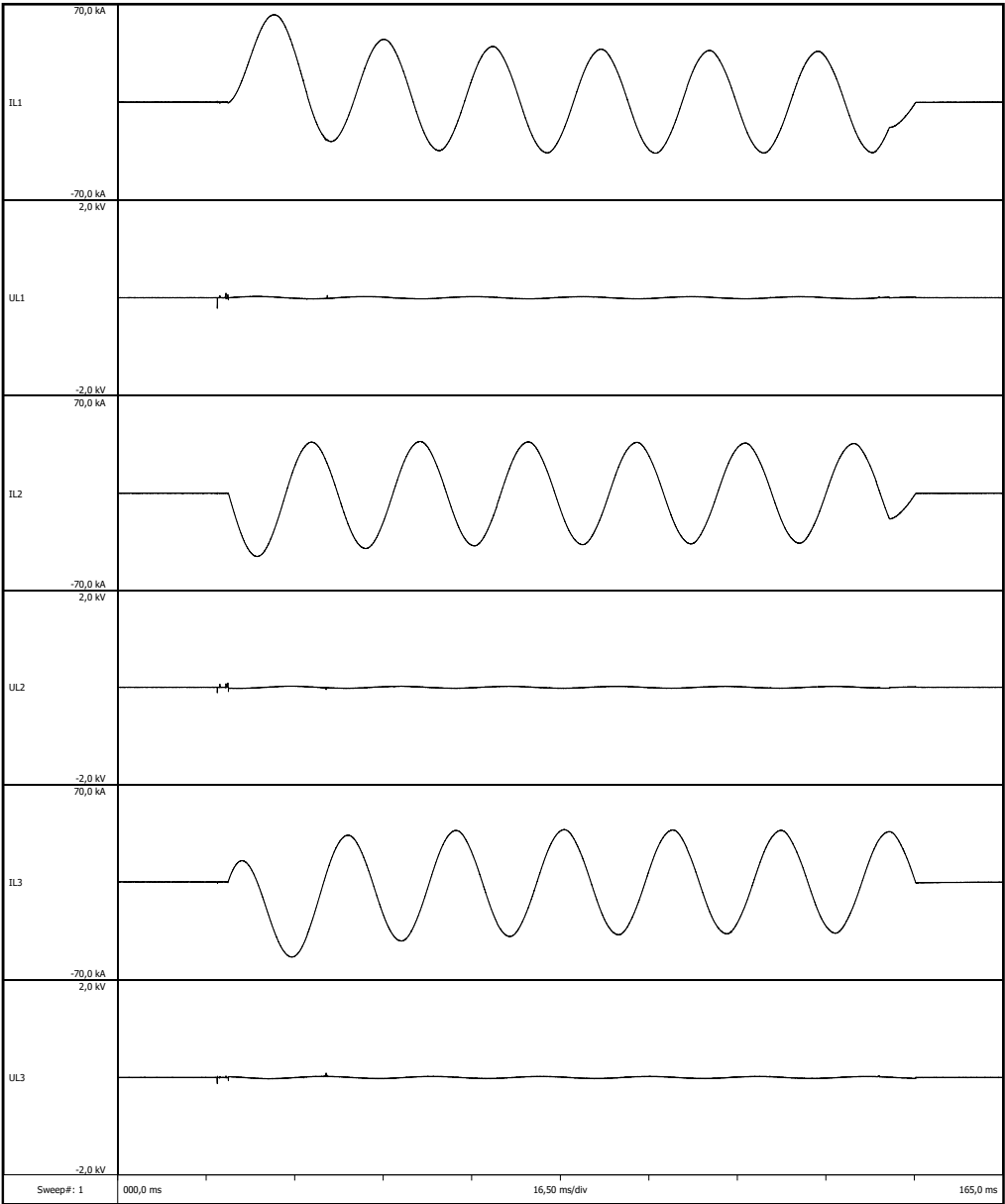


PDLF-90810A\_V3.0

PDL-26.160

Osc051

11-9-2026

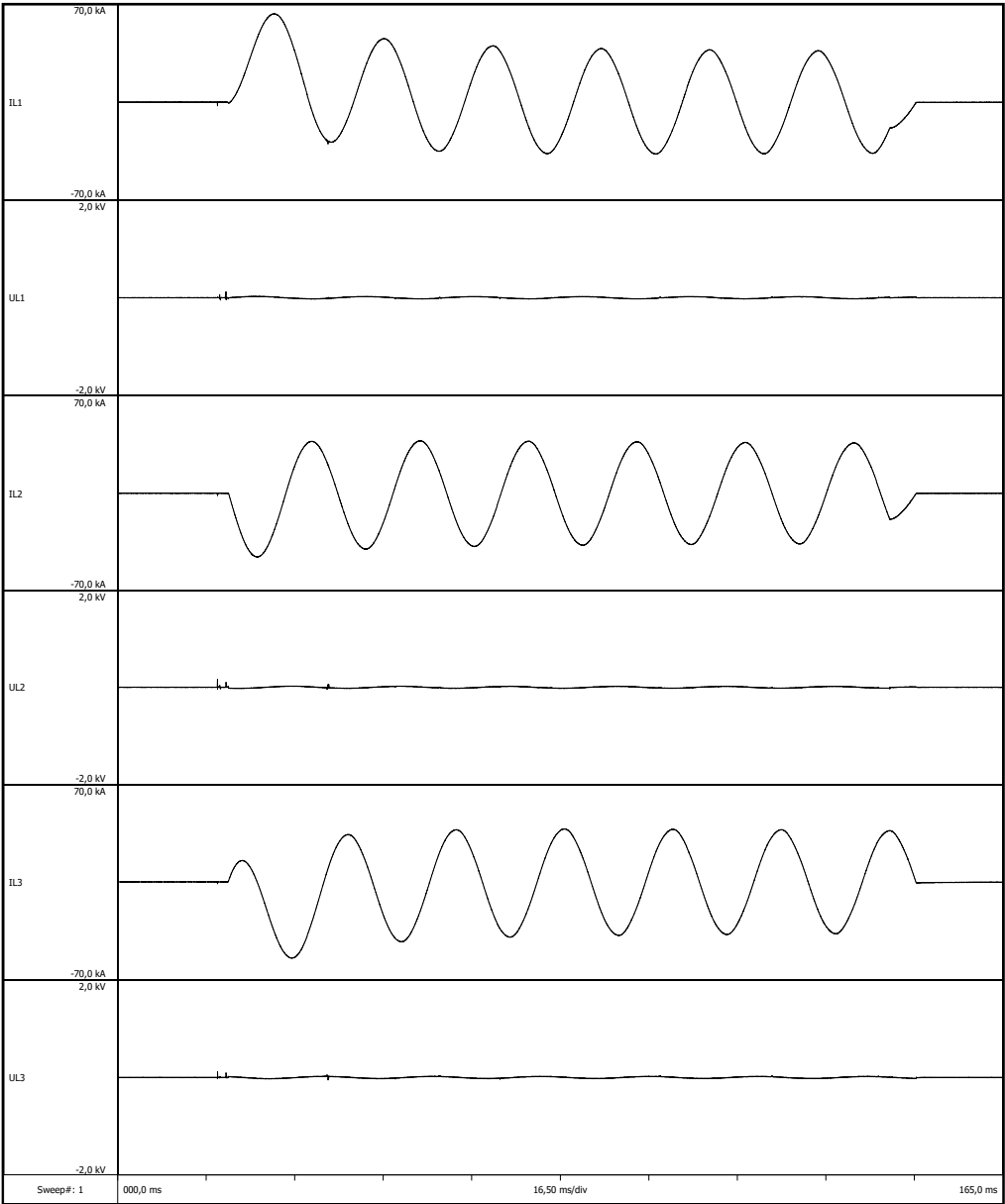


PDLF-90810A\_V3.0

PDL-26.160

Osc052

11-9-2026



PDLF-90810A\_V3.0

**Appendix B Decision rule, measurement uncertainty and used equipment**

- The decision rule for the statement of conformity is based on "Simple Acceptance" in accordance with IEC Guide 115:2023. This implies that the measurement uncertainty is not considered for the statement of conformity. Unless otherwise required by the standard or requested by the client on the front page of this Test report.
- The measurement uncertainty is available on request.
- The used measurement equipment is calibrated by an ISO/IEC 17025 accredited calibration laboratory and traceable to national and international standards. Information of the used measurement equipment is available on request.