



DEWETRON GmbH

Parking 4
8074 Grambach
Austria



AAT2550007
Akkreditierung Austria 0632
07.02.2025

Kalibrierstelle für elektrische Messgrößen
Calibration body for electrical measurands

akkreditiert durch / accredited by
AKKREDITIERUNG AUSTRIA

Kalibrierzeichen
Calibration Mark

Kalibrierschein nach ISO/IEC 17025
Calibration certificate according to ISO/IEC 17025

Gegenstand
Object 8 Channel Data Acquisition

Hersteller
Manufacturer DEWETRON

Typ
Type TRION-1820-POWER-4

Herstellernummer
Serial number A1244710

Auftraggeber
Customer

Kalibriernummer
Order number AAT2550007

Anzahl der Seiten des Kalibrierscheines
Number of pages of the certificate 12

Datum der Kalibrierung
Date of calibration 07.02.2025

Dieser Kalibrierschein dokumentiert die Rückführbarkeit auf nationale Normale zur Darstellung der physikalischen Einheiten in Übereinstimmung mit dem Internationalen Einheitensystem (SI).

Akkreditierung Austria ist Unterzeichner der multilateralen Übereinkommen der European Co-operation for Accreditation (EA) und der International Laboratory Accreditation Cooperation (ILAC) zur gegenseitigen Anerkennung der Kalibrierscheine.

This calibration certificate documents the traceability to national standards, which realize the physical units of measurements according to the International system of Units (SI).

Akkreditierung Austria is a signatory to the multilateral agreements of the European Co-operation for Accreditation (EA) and of the International Laboratory Accreditation Cooperation (ILAC) for the mutual recognition of calibration certificates.

Dieser Kalibrierschein darf nur vollständig und unverändert weiterverbreitet werden. Auszüge oder Änderungen sind unzulässig. Kalibrierscheine ohne Unterschrift und Stempel haben keine Gültigkeit.

This calibration certificate may not be reproduced other than in full. Calibration certificates without signature and seal are not valid.

Stempel
Seal

Datum
Date

Zeichnungsberechtigter
Authorised person

Bearbeiter
Person responsible

07.02.2025

Stefan Strohmaier

Nandor Nagy

1. Kalibriergegenstand / Calibration object

8 Channel Data Acquisition DEWETRON TRION-1820-POWER-4, S/N: A1244710

2. Kalibrierverfahren / Calibration procedure

Die Kalibrierung erfolgt durch Vergleich der durch die Kalibrierstelle / Normale dargestellten Werte mit den Ausgangsgrößen am Kalibriergegenstand beziehungsweise den am Kalibriergegenstand angezeigten Werten.
The calibration is made by comparing the readings from the laboratory / standards to the output of the calibration object respectively the values displayed on the calibration object.

Prüfroutine / *Calibration procedure*: TRION-Active-Power-1-4-Phase_Akkred, Rev. 2.00

3. Messergebnisse / Measurement results

Die Kalibrierung im Rahmen der Akkreditierung umfasst die Messgrößen Gleichspannung, Wechselspannung, Gleichstrom, Wechselstrom und Gleichstromwiderstand.

Die Messergebnisse beziehen sich ausschließlich auf diesen Kalibriergegenstand zum Zeitpunkt der Kalibrierung.
The calibration scope of the accreditation contains the quantities direct voltage, alternating voltage, direct current, alternating current and direct current resistance.

The measurement results are exclusively linked to this calibration object at the time of calibration.

4. Messunsicherheit / Measurement uncertainty

Angegeben ist die erweiterte Messunsicherheit, die sich aus der Standardmessunsicherheit durch Multiplikation mit dem Erweiterungsfaktor $k=2$ ergibt. Sie wurde gemäß EA-4/02 ermittelt. Der Wert der Messgröße liegt im Regelfall mit einer Wahrscheinlichkeit von annähernd 95% im zugeordneten Werteintervall.

Ein Anteil für die Langzeitstabilität des Kalibriergegenstandes ist nicht enthalten.

The stated extended measurement uncertainty is derived from the standard uncertainty of measurement multiplied by the coverage factor $k=2$. It has been determined according to EA-4/02. The measured quantity is inside the corresponding value interval with a probability of approximately 95%.

A factor for the long time stability of the calibration object is not taken into account.

5. Umgebungsbedingungen / environmental conditions

Temperatur / *Temperature*: 22,1 °C

Rel. Luftfeuchte / *Rel. humidity*: 32,4 % r.H.

Kalibrierort / *Place of calibration*: DEWETRON GmbH, Parkring 4, 8074 Grambach, Austria

6. Auftragsnummer / Reference Number

7. Status / Status

PASS ()

AS-FOUND: Eingangskalibration / *Incoming calibration*

AS-LEFT: Ausgangskalibration / *Outgoing calibration*

FOUND/LEFT: Eingangskalibration erfüllt Herstellerspezifikation / *Incoming calibration according to manufacturer specifications*

PASS: Messergebnis liegt innerhalb der Herstellerspezifikationen (ohne Berücksichtigung der Messunsicherheiten) / *Measurement result is within manufacturer's specifications (without taking into account the measurement uncertainties)*

FAIL: Das Messergebnis liegt nicht innerhalb der Herstellerspezifikationen (ohne Berücksichtigung der Messunsicherheiten) / *Measurement result is out of manufacturer's specifications (without taking into account the measurement uncertainties)*

8. Verwendete Fußnoten / Used foot notes:

(1) Zusätzliche Messwerte außerhalb des akkreditierten Bereiches, es kann keine Konformitätsaussage getroffen werden.

(1) Additional measured values outside the accredited scope, a conformity statement cannot be made.

9. Kommentare / Comments

Sub-cur 1A Test

Für die Festlegung und Einhaltung einer angemessenen Frist zur Wiederholung der Kalibrierung ist der Benutzer verantwortlich.

The user is responsible for the definition and the compliance to a reasonable period for repeating the calibration.



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10. Verwendete Normale / Standards used

<u>Asset</u>	<u>Description</u>	<u>Serial Number</u>	<u>Certificate No.</u>	<u>Cal Date</u>	<u>Due Date</u>
5522A 01	5522A CALIBRATOR	3904901	16082024	2-Aug-2024	2-Aug-2025
6105A	6105A Electrical Power Standard	514177505	099967	25-Nov-2024	25-Nov-2025



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11. Testergebnisse / Test results

Test Description	True Value	Test Result	Lower limit	Upper limit	Exp Uncert	Error	% of Tol	Status
Kalibrierverfahren / calibration method: CAL-KV-01_Gleichspannung_v1.0_2024-07-04.xlsx-02 CAL-KV-02_Wechselspannung_v1.0_2024-07-04.xlsx-02C CAL-KV-03_Gleichstromstärke_v1.0_2024-07-04.xlsx-02C CAL-KV-04_Wechselstromstärke_v1.0_2024-07-04.xlsx-02C CAL-KV-08_Gleichstromleistung_v1.0_2024-07-04.xlsx-01C CAL-KV-09_Wechselstromwirkleistung_v1.0_2024-07-04.xlsx-01C								
Current Temperature Calibrator: 25.61°C								
DEWE3 device S/N: CB210022								
Oxygen Version: 7.3.2 TRION API: 7.3.2.6198" TRION Board Type: TRION-1820-POWER-4 TRION Board S/N: A1244710 TRION Board FW: 0078								
TRION-SUB-CUR Type: TRION-POWER-SUB-CUR-1A-1 @I1: SN: 1328452 @I2: SN: 1328463 @I3: SN: 1328589 @I4: SN: 1328485								
All Tests done with appropriate Range SampleRate for all Tests: 2000000S/s Filter Type/Frequency for U: Butterworth/8th order/600kHz Filter Type/Frequency for I: Butterworth/8th order/300kHz Update Rate of power group: 3s								
Frequency Accuracy: DEWE3 : ±0.005% of reading ± 1 mHz								
Voltage Accuracy: DC : ±0.02% of reading ±0.02% of range >0.5Hz to 1kHz : ±0.03% of reading >1kHz to 5kHz : ±0.15% of reading >5kHz to 10kHz : ±0.35% of reading >10kHz to 50kHz : ±0.6% of reading >50kHz to 300kHz : ±(0.02% * f[kHz]) of reading								
Current Accuracy: DC and AC below 1 % of range add : 25 ppm of range DC with no zero level add : ±0.03% of range DC : ±0.02% of reading ±80 uA >0.5Hz to 10kHz : ±0.03% of reading >10kHz to 30kHz : ±0.1% of reading >30kHz to 200kHz : ±(0.015% * f[kHz]) of reading >200kHz to 300kHz : ±(0.1% * f[kHz]) of reading								
Power Accuracy with PF=1: DC with no zero level add : ±0.03% of range DC : ±0.03% of reading ±0.03% of range >0.5Hz to 1kHz : ±0.04% of reading >1kHz to 5kHz : ±0.2% of reading >5kHz to 10kHz : ±0.5% of reading >10kHz to 50kHz : ±(0.5% + 0.05% * f[kHz]) of reading								
Influence of PF : add 0.01 % * f[Hz]/50 * sqrt(1/PF²-1)								
#####								
AC Power Calibration								
Range U: 1000V Range I: 1A								

Following tests @ 20Hz								
Frequency	20.00000 Hz	19.99991 Hz	19.99800 Hz	20.00200 Hz		-0,00009 Hz	4.5%	Pass (1)

Phase 1								
Test @ 10% U 10% I								
Voltage U1	100.00000 V	99.99607 V	99.97000 V	100.03000 V	13.00 e-03 V	-0,00393 V	13.1%	Pass



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Current I1	0.100000 A	0.100005 A	0.099970 A	0.100030 A	15.00 e-06 A	0,000005 A	15.2%	Pass
Power @ PF 1	10.000000 W	10.000005 W	9.996000 W	10.004000 W	2.00 e-03 W	0,000005 W	1.34%	Pass
Test @ 50% U 20% I								
Voltage U1	500.000000 V	499.99255 V	499.850000 V	500.150000 V	56.00 e-03 V	-0,00745 V	4.96%	Pass
Current I1	0.200000 A	0.200011 A	0.199940 A	0.200060 A	23.00 e-06 A	0,000011 A	17.7%	Pass
Power @ PF 1	100.000000 W	100.00380 W	99.960000 W	100.040000 W	20.00 e-03 W	0,00380 W	9.49%	Pass
Test @ 50% U 50% I								
Voltage U1	500.000000 V	499.99256 V	499.850000 V	500.150000 V	56.00 e-03 V	-0,00744 V	4.96%	Pass
Current I1	0.500000 A	0.500022 A	0.499850 A	0.500150 A	56.00 e-06 A	0,000022 A	14.7%	Pass
Power @ PF 1	250.000000 W	250.00729 W	249.900000 W	250.100000 W	50.00 e-03 W	0,00729 W	7.29%	Pass
Test @ 50% U 100% I								
Voltage U1	500.000000 V	499.99270 V	499.850000 V	500.150000 V	56.00 e-03 V	-0,00730 V	4.87%	Pass
Current I1	1.000000 A	1.000003 A	0.999700 A	1.000300 A	110.00 e-06 A	0,000003 A	1.06%	Pass
Power @ PF 1	500.000000 W	499.99419 W	499.800000 W	500.200000 W	100.00 e-03 W	-0,00581 W	2.9%	Pass
Test @ 90% U 90% I								
Voltage U1	900.000000 V	900.01365 V	899.730000 V	900.270000 V	89.00 e-03 V	0,01365 V	5.06%	Pass
Current I1	0.900000 A	0.899999 A	0.899730 A	0.900270 A	100.00 e-06 A	-0,000001 A	0.296%	Pass
Power @ PF 1	810.000000 W	810.01149 W	809.676000 W	810.324000 W	160.00 e-03 W	0,01149 W	3.55%	Pass
Test @ 100% U 100% I								
Voltage U1	1000.000000 V	1000.02097 V	999.700000 V	1000.300000 V	97.00 e-03 V	0,02097 V	6.99%	Pass
Current I1	1.000000 A	0.999991 A	0.999700 A	1.000300 A	110.00 e-06 A	-0,000009 A	3.09%	Pass
Power @ PF 1	1000.000000 W	1000.01160 W	999.600000 W	1000.400000 W	200.00 e-03 W	0,01160 W	2.9%	Pass

Phase 2								
Test @ 10% U 10% I								
Voltage U2	100.000000 V	99.99494 V	99.970000 V	100.030000 V	13.00 e-03 V	-0,00506 V	16.9%	Pass
Current I2	0.100000 A	0.100002 A	0.099970 A	0.100030 A	15.00 e-06 A	0,000002 A	5.38%	Pass
Power @ PF 1	10.000000 W	9.99965 W	9.996000 W	10.004000 W	2.00 e-03 W	-0,00035 W	8.81%	Pass
Test @ 50% U 20% I								
Voltage U2	500.000000 V	499.98835 V	499.850000 V	500.150000 V	56.00 e-03 V	-0,01165 V	7.76%	Pass
Current I2	0.200000 A	0.200007 A	0.199940 A	0.200060 A	23.00 e-06 A	0,000007 A	11.1%	Pass
Power @ PF 1	100.000000 W	100.00097 W	99.960000 W	100.040000 W	20.00 e-03 W	0,00097 W	2.42%	Pass
Test @ 50% U 50% I								
Voltage U2	500.000000 V	499.98814 V	499.850000 V	500.150000 V	56.00 e-03 V	-0,01186 V	7.91%	Pass
Current I2	0.500000 A	0.500016 A	0.499850 A	0.500150 A	56.00 e-06 A	0,000016 A	10.5%	Pass
Power @ PF 1	250.000000 W	250.00187 W	249.900000 W	250.100000 W	50.00 e-03 W	0,00187 W	1.87%	Pass
Test @ 50% U 100% I								
Voltage U2	500.000000 V	499.98849 V	499.850000 V	500.150000 V	56.00 e-03 V	-0,01151 V	7.67%	Pass
Current I2	1.000000 A	1.000007 A	0.999700 A	1.000300 A	110.00 e-06 A	0,000007 A	2.3%	Pass
Power @ PF 1	500.000000 W	499.99188 W	499.800000 W	500.200000 W	100.00 e-03 W	-0,00812 W	4.06%	Pass
Test @ 90% U 90% I								
Voltage U2	900.000000 V	900.00281 V	899.730000 V	900.270000 V	89.00 e-03 V	0,00281 V	1.04%	Pass
Current I2	0.900000 A	0.900001 A	0.899730 A	0.900270 A	100.00 e-06 A	0,000001 A	0.388%	Pass
Power @ PF 1	810.000000 W	810.00338 W	809.676000 W	810.324000 W	160.00 e-03 W	0,00338 W	1.04%	Pass
Test @ 100% U 100% I								
Voltage U2	1000.000000 V	1000.00360 V	999.700000 V	1000.300000 V	97.00 e-03 V	0,00360 V	1.2%	Pass
Current I2	1.000000 A	0.999996 A	0.999700 A	1.000300 A	110.00 e-06 A	-0,000004 A	1.48%	Pass
Power @ PF 1	1000.000000 W	999.99905 W	999.600000 W	1000.400000 W	200.00 e-03 W	-0,00095 W	0.238%	Pass

Phase 3								
Test @ 10% U 10% I								
Voltage U3	100.000000 V	99.99508 V	99.970000 V	100.030000 V	13.00 e-03 V	-0,00492 V	16.4%	Pass
Current I3	0.100000 A	0.100003 A	0.099970 A	0.100030 A	15.00 e-06 A	0,000003 A	8.83%	Pass
Power @ PF 1	10.000000 W	9.99977 W	9.996000 W	10.004000 W	2.00 e-03 W	-0,00023 W	5.86%	Pass
Test @ 50% U 20% I								
Voltage U3	500.000000 V	499.98770 V	499.850000 V	500.150000 V	56.00 e-03 V	-0,01230 V	8.2%	Pass
Current I3	0.200000 A	0.200009 A	0.199940 A	0.200060 A	23.00 e-06 A	0,000009 A	14.2%	Pass
Power @ PF 1	100.000000 W	100.00178 W	99.960000 W	100.040000 W	20.00 e-03 W	0,00178 W	4.46%	Pass
Test @ 50% U 50% I								
Voltage U3	500.000000 V	499.98731 V	499.850000 V	500.150000 V	56.00 e-03 V	-0,01269 V	8.46%	Pass
Current I3	0.500000 A	0.500018 A	0.499850 A	0.500150 A	56.00 e-06 A	0,000018 A	12.1%	Pass
Power @ PF 1	250.000000 W	250.00268 W	249.900000 W	250.100000 W	50.00 e-03 W	0,00268 W	2.68%	Pass
Test @ 50% U 100% I								
Voltage U3	500.000000 V	499.98737 V	499.850000 V	500.150000 V	56.00 e-03 V	-0,01263 V	8.42%	Pass
Current I3	1.000000 A	0.999992 A	0.999700 A	1.000300 A	110.00 e-06 A	-0,000008 A	2.51%	Pass
Power @ PF 1	500.000000 W	499.98354 W	499.800000 W	500.200000 W	100.00 e-03 W	-0,01646 W	8.23%	Pass
Test @ 90% U 90% I								
Voltage U3	900.000000 V	900.00507 V	899.730000 V	900.270000 V	89.00 e-03 V	0,00507 V	1.88%	Pass
Current I3	0.900000 A	0.899992 A	0.899730 A	0.900270 A	100.00 e-06 A	-0,000008 A	3.14%	Pass
Power @ PF 1	810.000000 W	809.99685 W	809.676000 W	810.324000 W	160.00 e-03 W	-0,00315 W	0.973%	Pass
Test @ 100% U 100% I								
Voltage U3	1000.000000 V	1000.01080 V	999.700000 V	1000.300000 V	97.00 e-03 V	0,01080 V	3.6%	Pass
Current I3	1.000000 A	0.999982 A	0.999700 A	1.000300 A	110.00 e-06 A	-0,000018 A	6.11%	Pass
Power @ PF 1	1000.000000 W	999.99237 W	999.600000 W	1000.400000 W	200.00 e-03 W	-0,00763 W	1.91%	Pass

Phase 4								
Test @ 10% U 10% I								
Voltage U4	100.000000 V	99.99414 V	99.970000 V	100.030000 V	13.00 e-03 V	-0,00586 V	19.5%	Pass
Current I4	0.100000 A	0.100002 A	0.099970 A	0.100030 A	15.00 e-06 A	0,000002 A	6.17%	Pass
Power @ PF 1	10.000000 W	9.99959 W	9.996000 W	10.004000 W	2.00 e-03 W	-0,00041 W	10.2%	Pass



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Test Description	True Value	Test Result	Lower limit	Upper limit	Exp Uncert	Error	% of Tol	Status
Test @ 50% U 20% I								
Voltage U4	500.00000 V	499.98380 V	499.85000 V	500.15000 V	56.00 e-03 V	-0,01620 V	10.8%	Pass
Current I4	0.200000 A	0.200006 A	0.199940 A	0.200060 A	23.00 e-06 A	0,000006 A	10.5%	Pass
Power @ PF 1	100.00000 W	99.99991 W	99.96000 W	100.04000 W	20.00 e-03 W	-0,00009 W	0.232%	Pass
Test @ 50% U 50% I								
Voltage U4	500.00000 V	499.98426 V	499.85000 V	500.15000 V	56.00 e-03 V	-0,01574 V	10.5%	Pass
Current I4	0.500000 A	0.500014 A	0.499850 A	0.500150 A	56.00 e-06 A	0,000014 A	9.56%	Pass
Power @ PF 1	250.00000 W	249.99927 W	249.90000 W	250.10000 W	50.00 e-03 W	-0,00073 W	0.733%	Pass
Test @ 50% U 100% I								
Voltage U4	500.00000 V	499.98395 V	499.85000 V	500.15000 V	56.00 e-03 V	-0,01605 V	10.7%	Pass
Current I4	1.000000 A	1.000011 A	0.999700 A	1.000300 A	110.00 e-06 A	0,000011 A	3.6%	Pass
Power @ PF 1	500.00000 W	499.98928 W	499.80000 W	500.20000 W	100.00 e-03 W	-0,01072 W	5.36%	Pass
Test @ 90% U 90% I								
Voltage U4	900.00000 V	900.00191 V	899.73000 V	900.27000 V	89.00 e-03 V	0,00191 V	0.709%	Pass
Current I4	0.900000 A	0.900007 A	0.899730 A	0.900270 A	100.00 e-06 A	0,000007 A	2.49%	Pass
Power @ PF 1	810.00000 W	810.00769 W	809.67600 W	810.32400 W	160.00 e-03 W	0,00769 W	2.37%	Pass
Test @ 100% U 100% I								
Voltage U4	1000.00000 V	1000.00943 V	999.70000 V	1000.30000 V	97.00 e-03 V	0,00943 V	3.14%	Pass
Current I4	1.000000 A	1.000004 A	0.999700 A	1.000300 A	110.00 e-06 A	0,000004 A	1.31%	Pass
Power @ PF 1	1000.00000 W	1000.01320 W	999.60000 W	1000.40000 W	200.00 e-03 W	0,01320 W	3.3%	Pass

Following tests @ 53Hz								
Frequency	53.00000 Hz	52.99975 Hz	52.99635 Hz	53.00365 Hz		-0,00025 Hz	6.9%	Pass (1)

Phase 1								
Test @ 10% U 10% I								
Voltage U1	100.00000 V	99.99730 V	99.97000 V	100.03000 V	13.00 e-03 V	-0,00270 V	8.99%	Pass
Current I1	0.100000 A	0.100002 A	0.099970 A	0.100030 A	15.00 e-06 A	0,000002 A	8.13%	Pass
Power @ PF 1	10.00000 W	9.99997 W	9.99600 W	10.00400 W	2.00 e-03 W	-0,00003 W	0.835%	Pass
Test @ 50% U 20% I								
Voltage U1	500.00000 V	499.99880 V	499.85000 V	500.15000 V	56.00 e-03 V	-0,00120 V	0.8%	Pass
Current I1	0.200000 A	0.200008 A	0.199940 A	0.200060 A	23.00 e-06 A	0,000008 A	12.9%	Pass
Power @ PF 1	100.00000 W	100.00361 W	99.96000 W	100.04000 W	20.00 e-03 W	0,00361 W	9.02%	Pass
Test @ 50% U 50% I								
Voltage U1	500.00000 V	499.99853 V	499.85000 V	500.15000 V	56.00 e-03 V	-0,00147 V	0.982%	Pass
Current I1	0.500000 A	0.500015 A	0.499850 A	0.500150 A	56.00 e-06 A	0,000015 A	9.8%	Pass
Power @ PF 1	250.00000 W	250.00659 W	249.90000 W	250.10000 W	50.00 e-03 W	0,00659 W	6.59%	Pass
Power @ PF 0.9 cap	225.00000 W	225.00508 W	224.89845 W	225.10155 W	45.00 e-03 W	0,00508 W	5%	Pass
Power @ PF 0.9 ind	225.00000 W	225.00657 W	224.89845 W	225.10155 W	45.00 e-03 W	0,00657 W	6.47%	Pass
Power @ PF 0.5 cap	125.00000 W	125.00176 W	124.92705 W	125.07295 W	29.00 e-03 W	0,00176 W	2.41%	Pass
Power @ PF 0.5 ind	125.00000 W	125.00458 W	124.92705 W	125.07295 W	29.00 e-03 W	0,00458 W	6.27%	Pass
Power @ PF 0.1 cap	25.00000 W	24.99908 W	24.96363 W	25.03637 W	16.00 e-03 W	-0,00092 W	2.53%	Pass
Power @ PF 0.1 ind	25.00000 W	25.00249 W	24.96363 W	25.03637 W	16.00 e-03 W	0,00249 W	6.84%	Pass
Test @ 50% U 100% I								
Voltage U1	500.00000 V	499.99744 V	499.85000 V	500.15000 V	56.00 e-03 V	-0,00256 V	1.71%	Pass
Current I1	1.000000 A	0.999993 A	0.999700 A	1.000300 A	110.00 e-06 A	-0,000007 A	2.42%	Pass
Power @ PF 1	500.00000 W	499.99371 W	499.80000 W	500.20000 W	100.00 e-03 W	-0,00629 W	3.14%	Pass
Test @ 90% U 90% I								
Voltage U1	900.00000 V	900.02187 V	899.73000 V	900.27000 V	89.00 e-03 V	0,02187 V	8.1%	Pass
Current I1	0.900000 A	0.899992 A	0.899730 A	0.900270 A	100.00 e-06 A	-0,000008 A	2.89%	Pass
Power @ PF 1	810.00000 W	810.01257 W	809.67600 W	810.32400 W	160.00 e-03 W	0,01257 W	3.88%	Pass
Test @ 100% U 100% I								
Voltage U1	1000.00000 V	1000.02940 V	999.70000 V	1000.30000 V	97.00 e-03 V	0,02940 V	9.8%	Pass
Current I1	1.000000 A	0.999984 A	0.999700 A	1.000300 A	110.00 e-06 A	-0,000016 A	5.25%	Pass
Power @ PF 1	1000.00000 W	1000.01357 W	999.60000 W	1000.40000 W	200.00 e-03 W	0,01357 W	3.39%	Pass

Phase 2								
Test @ 10% U 10% I								
Voltage U2	100.00000 V	99.99545 V	99.97000 V	100.03000 V	13.00 e-03 V	-0,00455 V	15.2%	Pass
Current I2	0.100000 A	0.100001 A	0.099970 A	0.100030 A	15.00 e-06 A	0,000001 A	2.56%	Pass
Power @ PF 1	10.00000 W	9.99961 W	9.99600 W	10.00400 W	2.00 e-03 W	-0,00039 W	9.64%	Pass
Test @ 50% U 20% I								
Voltage U2	500.00000 V	499.99056 V	499.85000 V	500.15000 V	56.00 e-03 V	-0,00944 V	6.29%	Pass
Current I2	0.200000 A	0.200005 A	0.199940 A	0.200060 A	23.00 e-06 A	0,000005 A	7.81%	Pass
Power @ PF 1	100.00000 W	100.00044 W	99.96000 W	100.04000 W	20.00 e-03 W	0,00044 W	1.09%	Pass
Test @ 50% U 50% I								
Voltage U2	500.00000 V	499.99064 V	499.85000 V	500.15000 V	56.00 e-03 V	-0,00936 V	6.24%	Pass
Current I2	0.500000 A	0.500011 A	0.499850 A	0.500150 A	56.00 e-06 A	0,000011 A	7.03%	Pass
Power @ PF 1	250.00000 W	250.00057 W	249.90000 W	250.10000 W	50.00 e-03 W	0,00057 W	0.567%	Pass
Power @ PF 0.9 cap	225.00000 W	224.99957 W	224.89845 W	225.10155 W	45.00 e-03 W	-0,00043 W	0.423%	Pass
Power @ PF 0.9 ind	225.00000 W	225.00227 W	224.89845 W	225.10155 W	45.00 e-03 W	0,00227 W	2.24%	Pass
Power @ PF 0.5 cap	125.00000 W	124.99808 W	124.92705 W	125.07295 W	29.00 e-03 W	-0,00192 W	2.63%	Pass
Power @ PF 0.5 ind	125.00000 W	125.00302 W	124.92705 W	125.07295 W	29.00 e-03 W	0,00302 W	4.14%	Pass
Power @ PF 0.1 cap	25.00000 W	24.99748 W	24.96363 W	25.03637 W	16.00 e-03 W	-0,00252 W	6.93%	Pass
Power @ PF 0.1 ind	25.00000 W	25.00311 W	24.96363 W	25.03637 W	16.00 e-03 W	0,00311 W	8.55%	Pass
Test @ 50% U 100% I								
Voltage U2	500.00000 V	499.99086 V	499.85000 V	500.15000 V	56.00 e-03 V	-0,00914 V	6.1%	Pass
Current I2	1.000000 A	1.000000 A	0.999700 A	1.000300 A	110.00 e-06 A	0,000000 A	0.0133%	Pass
Power @ PF 1	500.00000 W	499.99079 W	499.80000 W	500.20000 W	100.00 e-03 W	-0,00921 W	4.6%	Pass



DEWETRON GmbH
 Parking 4
 8074 Grambach
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Kalibrierschein nach ISO/IEC 17025
 Calibration Certificate according to ISO/IEC 17025

AAT2550007
Akkreditierung Austria 0632
07.02.2025

11. Testergebnisse / Test results

Test Description	True Value	Test Result	Lower limit	Upper limit	Exp Uncert	Error	% of Tol	Status
Test @ 90% U 90% I								
Voltage U2	900.00000 V	900.00694 V	899.73000 V	900.27000 V	89.00 e-03 V	0,00694 V	2.57%	Pass
Current I2	0.900000 A	0.899995 A	0.899730 A	0.900270 A	100.00 e-06 A	-0,000005 A	1.99%	Pass
Power @ PF 1	810.00000 W	810.00134 W	809.67600 W	810.32400 W	160.00 e-03 W	0,00134 W	0.415%	Pass
Test @ 100% U 100% I								
Voltage U2	1000.00000 V	1000.00730 V	999.70000 V	1000.30000 V	97.00 e-03 V	0,00730 V	2.43%	Pass
Current I2	1.000000 A	0.999989 A	0.999700 A	1.000300 A	110.00 e-06 A	-0,000011 A	3.66%	Pass
Power @ PF 1	1000.00000 W	999.99627 W	999.60000 W	1000.40000 W	200.00 e-03 W	-0,00373 W	0.932%	Pass

Phase 3								
Test @ 10% U 10% I								
Voltage U3	100.00000 V	99.99572 V	99.97000 V	100.03000 V	13.00 e-03 V	-0,00428 V	14.3%	Pass
Current I3	0.100000 A	0.100002 A	0.099970 A	0.100030 A	15.00 e-06 A	0,000002 A	6.88%	Pass
Power @ PF 1	10.00000 W	9.99977 W	9.99600 W	10.00400 W	2.00 e-03 W	-0,00023 W	5.73%	Pass
Test @ 50% U 20% I								
Voltage U3	500.00000 V	499.99093 V	499.85000 V	500.15000 V	56.00 e-03 V	-0,00907 V	6.05%	Pass
Current I3	0.200000 A	0.200007 A	0.199940 A	0.200060 A	23.00 e-06 A	0,000007 A	12.1%	Pass
Power @ PF 1	100.00000 W	100.00180 W	99.96000 W	100.04000 W	20.00 e-03 W	0,00180 W	4.51%	Pass
Test @ 50% U 50% I								
Voltage U3	500.00000 V	499.99074 V	499.85000 V	500.15000 V	56.00 e-03 V	-0,00926 V	6.17%	Pass
Current I3	0.500000 A	0.500015 A	0.499850 A	0.500150 A	56.00 e-06 A	0,000015 A	9.71%	Pass
Power @ PF 1	250.00000 W	250.00262 W	249.90000 W	250.10000 W	50.00 e-03 W	0,00262 W	2.62%	Pass
Power @ PF 0.9 cap	225.00000 W	225.00236 W	224.89845 W	225.10155 W	45.00 e-03 W	0,00236 W	2.33%	Pass
Power @ PF 0.9 ind	225.00000 W	225.00285 W	224.89845 W	225.10155 W	45.00 e-03 W	0,00285 W	2.81%	Pass
Power @ PF 0.5 cap	125.00000 W	125.00132 W	124.92705 W	125.07295 W	29.00 e-03 W	0,00132 W	1.81%	Pass
Power @ PF 0.5 ind	125.00000 W	125.00148 W	124.92705 W	125.07295 W	29.00 e-03 W	0,00148 W	2.02%	Pass
Power @ PF 0.1 cap	25.00000 W	25.00071 W	24.96363 W	25.03637 W	16.00 e-03 W	0,00071 W	1.94%	Pass
Power @ PF 0.1 ind	25.00000 W	25.00037 W	24.96363 W	25.03637 W	16.00 e-03 W	0,00037 W	1.03%	Pass
Test @ 50% U 100% I								
Voltage U3	500.00000 V	499.99180 V	499.85000 V	500.15000 V	56.00 e-03 V	-0,00820 V	5.47%	Pass
Current I3	1.000000 A	0.999993 A	0.999700 A	1.000300 A	110.00 e-06 A	-0,000007 A	2.49%	Pass
Power @ PF 1	500.00000 W	499.98799 W	499.80000 W	500.20000 W	100.00 e-03 W	-0,01201 W	6.01%	Pass
Test @ 90% U 90% I								
Voltage U3	900.00000 V	900.01322 V	899.73000 V	900.27000 V	89.00 e-03 V	0,01322 V	4.9%	Pass
Current I3	0.900000 A	0.899990 A	0.899730 A	0.900270 A	100.00 e-06 A	-0,000010 A	3.88%	Pass
Power @ PF 1	810.00000 W	810.00238 W	809.67600 W	810.32400 W	160.00 e-03 W	0,00238 W	0.736%	Pass
Test @ 100% U 100% I								
Voltage U3	1000.00000 V	1000.01977 V	999.70000 V	1000.30000 V	97.00 e-03 V	0,01977 V	6.59%	Pass
Current I3	1.000000 A	0.999981 A	0.999700 A	1.000300 A	110.00 e-06 A	-0,000019 A	6.41%	Pass
Power @ PF 1	1000.00000 W	1000.00042 W	999.60000 W	1000.40000 W	200.00 e-03 W	0,00042 W	0.104%	Pass

Phase 4								
Test @ 10% U 10% I								
Voltage U4	100.00000 V	99.99511 V	99.97000 V	100.03000 V	13.00 e-03 V	-0,00489 V	16.3%	Pass
Current I4	0.100000 A	0.100002 A	0.099970 A	0.100030 A	15.00 e-06 A	0,000002 A	5.54%	Pass
Power @ PF 1	10.00000 W	9.99967 W	9.99600 W	10.00400 W	2.00 e-03 W	-0,00033 W	8.24%	Pass
Test @ 50% U 20% I								
Voltage U4	500.00000 V	499.98870 V	499.85000 V	500.15000 V	56.00 e-03 V	-0,01130 V	7.53%	Pass
Current I4	0.200000 A	0.200006 A	0.199940 A	0.200060 A	23.00 e-06 A	0,000006 A	9.31%	Pass
Power @ PF 1	100.00000 W	100.00051 W	99.96000 W	100.04000 W	20.00 e-03 W	0,00051 W	1.27%	Pass
Test @ 50% U 50% I								
Voltage U4	500.00000 V	499.98887 V	499.85000 V	500.15000 V	56.00 e-03 V	-0,01113 V	7.42%	Pass
Current I4	0.500000 A	0.500013 A	0.499850 A	0.500150 A	56.00 e-06 A	0,000013 A	8.41%	Pass
Power @ PF 1	250.00000 W	250.00071 W	249.90000 W	250.10000 W	50.00 e-03 W	0,00071 W	0.71%	Pass
Power @ PF 0.9 cap	225.00000 W	225.00016 W	224.89845 W	225.10155 W	45.00 e-03 W	0,00016 W	0.161%	Pass
Power @ PF 0.9 ind	225.00000 W	225.00176 W	224.89845 W	225.10155 W	45.00 e-03 W	0,00176 W	1.73%	Pass
Power @ PF 0.5 cap	125.00000 W	124.99893 W	124.92705 W	125.07295 W	29.00 e-03 W	-0,00107 W	1.47%	Pass
Power @ PF 0.5 ind	125.00000 W	125.00195 W	124.92705 W	125.07295 W	29.00 e-03 W	0,00195 W	2.67%	Pass
Power @ PF 0.1 cap	25.00000 W	24.99863 W	24.96363 W	25.03637 W	16.00 e-03 W	-0,00137 W	3.77%	Pass
Power @ PF 0.1 ind	25.00000 W	25.00207 W	24.96363 W	25.03637 W	16.00 e-03 W	0,00207 W	5.68%	Pass
Test @ 50% U 100% I								
Voltage U4	500.00000 V	499.98818 V	499.85000 V	500.15000 V	56.00 e-03 V	-0,01182 V	7.88%	Pass
Current I4	1.000000 A	1.000010 A	0.999700 A	1.000300 A	110.00 e-06 A	0,000010 A	3.26%	Pass
Power @ PF 1	500.00000 W	499.99299 W	499.80000 W	500.20000 W	100.00 e-03 W	-0,00701 W	3.5%	Pass
Test @ 90% U 90% I								
Voltage U4	900.00000 V	900.00940 V	899.73000 V	900.27000 V	89.00 e-03 V	0,00940 V	3.48%	Pass
Current I4	0.900000 A	0.900004 A	0.899730 A	0.900270 A	100.00 e-06 A	0,000004 A	1.56%	Pass
Power @ PF 1	810.00000 W	810.01217 W	809.67600 W	810.32400 W	160.00 e-03 W	0,01217 W	3.76%	Pass
Test @ 100% U 100% I								
Voltage U4	1000.00000 V	1000.01577 V	999.70000 V	1000.30000 V	97.00 e-03 V	0,01577 V	5.26%	Pass
Current I4	1.000000 A	1.000002 A	0.999700 A	1.000300 A	110.00 e-06 A	0,000002 A	0.549%	Pass
Power @ PF 1	1000.00000 W	1000.01733 W	999.60000 W	1000.40000 W	200.00 e-03 W	0,01733 W	4.33%	Pass

Following tests @ 180Hz								
Frequency	180.00000 Hz	179.99911 Hz	179.99000 Hz	180.01000 Hz		-0,00089 Hz	8.9%	Pass (1)

Phase 1								
Test @ 50% U 50% I								
Voltage U1	500.00000 V	500.00282 V	499.85000 V	500.15000 V	56.00 e-03 V	0,00282 V	1.88%	Pass



DEWETRON GmbH
 Parking 4
 8074 Grambach
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Kalibrierschein nach ISO/IEC 17025
 Calibration Certificate according to ISO/IEC 17025

AAT2550007
Akkreditierung Austria 0632
07.02.2025

11. Testergebnisse / Test results

Test Description	True Value	Test Result	Lower limit	Upper limit	Exp Uncert	Error	% of Tol	Status
Current I1	0.500000 A	0.500019 A	0.499850 A	0.500150 A	56.00 e-06 A	0,000019 A	12.7%	Pass
Power @ PF 1	250.00000 W	250.01088 W	249.90000 W	250.10000 W	50.00 e-03 W	0,01088 W	10.9%	Pass
Power @ PF 0.9 cap	225.00000 W	225.01445 W	224.87077 W	225.12923 W	61.00 e-03 W	0,01445 W	11.2%	Pass
Power @ PF 0.9 ind	225.00000 W	225.00667 W	224.87077 W	225.12923 W	61.00 e-03 W	0,00667 W	5.16%	Pass
Power @ PF 0.5 cap	125.00000 W	125.01403 W	124.87206 W	125.12794 W	41.00 e-03 W	0,01403 W	11%	Pass
Power @ PF 0.5 ind	125.00000 W	124.99814 W	124.87206 W	125.12794 W	41.00 e-03 W	-0,00186 W	1.45%	Pass

Phase 2								
Test @ 50% U 50% I								
Voltage U2	500.00000 V	499.99335 V	499.85000 V	500.15000 V	56.00 e-03 V	-0,00665 V	4.43%	Pass
Current I2	0.500000 A	0.500017 A	0.499850 A	0.500150 A	56.00 e-06 A	0,000017 A	11.6%	Pass
Power @ PF 1	250.00000 W	250.00532 W	249.90000 W	250.10000 W	50.00 e-03 W	0,00532 W	5.32%	Pass
Power @ PF 0.9 cap	225.00000 W	225.00724 W	224.87077 W	225.12923 W	61.00 e-03 W	0,00724 W	5.6%	Pass
Power @ PF 0.9 ind	225.00000 W	225.00303 W	224.87077 W	225.12923 W	61.00 e-03 W	0,00303 W	2.35%	Pass
Power @ PF 0.5 cap	125.00000 W	125.00708 W	124.87206 W	125.12794 W	41.00 e-03 W	0,00708 W	5.53%	Pass
Power @ PF 0.5 ind	125.00000 W	124.99879 W	124.87206 W	125.12794 W	41.00 e-03 W	-0,00121 W	0.946%	Pass

Phase 3								
Test @ 50% U 50% I								
Voltage U3	500.00000 V	499.99293 V	499.85000 V	500.15000 V	56.00 e-03 V	-0,00707 V	4.71%	Pass
Current I3	0.500000 A	0.500024 A	0.499850 A	0.500150 A	56.00 e-06 A	0,000024 A	15.9%	Pass
Power @ PF 1	250.00000 W	250.00838 W	249.90000 W	250.10000 W	50.00 e-03 W	0,00838 W	8.38%	Pass
Power @ PF 0.9 cap	225.00000 W	225.01390 W	224.87077 W	225.12923 W	61.00 e-03 W	0,01390 W	10.8%	Pass
Power @ PF 0.9 ind	225.00000 W	225.00079 W	224.87077 W	225.12923 W	61.00 e-03 W	0,00079 W	0.611%	Pass
Power @ PF 0.5 cap	125.00000 W	125.01684 W	124.87206 W	125.12794 W	41.00 e-03 W	0,01684 W	13.2%	Pass
Power @ PF 0.5 ind	125.00000 W	124.99117 W	124.87206 W	125.12794 W	41.00 e-03 W	-0,00883 W	6.9%	Pass

Phase 4								
Test @ 50% U 50% I								
Voltage U4	500.00000 V	499.98796 V	499.85000 V	500.15000 V	56.00 e-03 V	-0,01204 V	8.03%	Pass
Current I4	0.500000 A	0.500023 A	0.499850 A	0.500150 A	56.00 e-06 A	0,000023 A	15.1%	Pass
Power @ PF 1	250.00000 W	250.00526 W	249.90000 W	250.10000 W	50.00 e-03 W	0,00526 W	5.26%	Pass
Power @ PF 0.9 cap	225.00000 W	225.00904 W	224.87077 W	225.12923 W	61.00 e-03 W	0,00904 W	6.99%	Pass
Power @ PF 0.9 ind	225.00000 W	225.00171 W	224.87077 W	225.12923 W	61.00 e-03 W	0,00171 W	1.32%	Pass
Power @ PF 0.5 cap	125.00000 W	125.01017 W	124.87206 W	125.12794 W	41.00 e-03 W	0,01017 W	7.95%	Pass
Power @ PF 0.5 ind	125.00000 W	124.99615 W	124.87206 W	125.12794 W	41.00 e-03 W	-0,00385 W	3.01%	Pass

Following tests @ 400Hz								
Frequency	400.00000 Hz	399.99805 Hz	399.97900 Hz	400.02100 Hz		-0,00195 Hz	9.29%	Pass (1)

Phase 1								
Test @ 10% U 10% I								
Voltage U1	100.00000 V	99.99808 V	99.97000 V	100.03000 V	13.00 e-03 V	-0,00192 V	6.39%	Pass
Current I1	0.100000 A	0.100004 A	0.099970 A	0.100030 A	15.00 e-06 A	0,000004 A	13.2%	Pass
Power @ PF 1	10.00000 W	10.00020 W	9.99600 W	10.00400 W	2.00 e-03 W	0,00020 W	4.89%	Pass
Test @ 50% U 20% I								
Voltage U1	500.00000 V	500.00202 V	499.85000 V	500.15000 V	56.00 e-03 V	0,00202 V	1.34%	Pass
Current I1	0.200000 A	0.200009 A	0.199940 A	0.200060 A	23.00 e-06 A	0,000009 A	15.3%	Pass
Power @ PF 1	100.00000 W	100.00497 W	99.96000 W	100.04000 W	20.00 e-03 W	0,00497 W	12.4%	Pass
Test @ 50% U 50% I								
Voltage U1	500.00000 V	500.00169 V	499.85000 V	500.15000 V	56.00 e-03 V	0,00169 V	1.13%	Pass
Current I1	0.500000 A	0.500014 A	0.499850 A	0.500150 A	56.00 e-06 A	0,000014 A	9.48%	Pass
Power @ PF 1	250.00000 W	250.00794 W	249.90000 W	250.10000 W	50.00 e-03 W	0,00794 W	7.94%	Pass
Power @ PF 0.9 cap	225.00000 W	225.00975 W	224.82282 W	225.17718 W	61.00 e-03 W	0,00975 W	5.5%	Pass
Power @ PF 0.9 ind	225.00000 W	225.00321 W	224.82282 W	225.17718 W	61.00 e-03 W	0,00321 W	1.81%	Pass
Power @ PF 0.5 cap	125.00000 W	125.01075 W	124.77679 W	125.22321 W		0,01075 W	4.82%	Pass (1)
Power @ PF 0.5 ind	125.00000 W	124.99661 W	124.77679 W	125.22321 W		-0,00339 W	1.52%	Pass (1)
Test @ 50% U 100% I								
Voltage U1	500.00000 V	500.00010 V	499.85000 V	500.15000 V	56.00 e-03 V	0,00010 V	0.0689%	Pass
Current I1	1.000000 A	0.999973 A	0.999700 A	1.000300 A	110.00 e-06 A	-0,000027 A	8.98%	Pass
Power @ PF 1	500.00000 W	499.98656 W	499.80000 W	500.20000 W	100.00 e-03 W	-0,01344 W	6.72%	Pass
Test @ 90% U 90% I								
Voltage U1	900.00000 V	900.02356 V	899.73000 V	900.27000 V	89.00 e-03 V	0,02356 V	8.73%	Pass
Current I1	0.900000 A	0.899975 A	0.899730 A	0.900270 A	100.00 e-06 A	-0,000025 A	9.13%	Pass
Power @ PF 1	810.00000 W	809.99890 W	809.67600 W	810.32400 W	160.00 e-03 W	-0,00110 W	0.34%	Pass
Test @ 100% U 100% I								
Voltage U1	1000.00000 V	1000.03090 V	999.70000 V	1000.30000 V	97.00 e-03 V	0,03090 V	10.3%	Pass
Current I1	1.000000 A	0.999964 A	0.999700 A	1.000300 A	110.00 e-06 A	-0,000036 A	12%	Pass
Power @ PF 1	1000.00000 W	999.99465 W	999.60000 W	1000.40000 W	200.00 e-03 W	-0,00535 W	1.34%	Pass

Phase 2								
Test @ 10% U 10% I								
Voltage U2	100.00000 V	99.99615 V	99.97000 V	100.03000 V	13.00 e-03 V	-0,00385 V	12.8%	Pass
Current I2	0.100000 A	0.100001 A	0.099970 A	0.100030 A	15.00 e-06 A	0,000001 A	3.08%	Pass
Power @ PF 1	10.00000 W	9.99970 W	9.99600 W	10.00400 W	2.00 e-03 W	-0,00030 W	7.52%	Pass
Test @ 50% U 20% I								
Voltage U2	500.00000 V	499.99284 V	499.85000 V	500.15000 V	56.00 e-03 V	-0,00716 V	4.78%	Pass
Current I2	0.200000 A	0.200004 A	0.199940 A	0.200060 A	23.00 e-06 A	0,000004 A	7.47%	Pass
Power @ PF 1	100.00000 W	100.00079 W	99.96000 W	100.04000 W	20.00 e-03 W	0,00079 W	1.97%	Pass



DEWETRON GmbH
 Parking 4
 8074 Grambach
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Kalibrierschein nach ISO/IEC 17025
 Calibration Certificate according to ISO/IEC 17025

AAT2550007
Akkreditierung Austria 0632
07.02.2025

11. Testergebnisse / Test results

Test Description	True Value	Test Result	Lower limit	Upper limit	Exp Uncert	Error	% of Tol	Status
Test @ 50% U 50% I								
Voltage U2	500.00000 V	499.99371 V	499.85000 V	500.15000 V	56.00 e-03 V	-0,00629 V	4.19%	Pass
Current I2	0.500000 A	0.500006 A	0.499850 A	0.500150 A	56.00 e-06 A	0,000006 A	4.28%	Pass
Power @ PF 1	250.00000 W	250.00002 W	249.90000 W	250.10000 W	50.00 e-03 W	0,00002 W	0.0233%	Pass
Power @ PF 0.9 cap	225.00000 W	224.99955 W	224.82282 W	225.17718 W	61.00 e-03 W	-0,00045 W	0.252%	Pass
Power @ PF 0.9 ind	225.00000 W	225.00147 W	224.82282 W	225.17718 W	61.00 e-03 W	0,00147 W	0.83%	Pass
Power @ PF 0.5 cap	125.00000 W	124.99923 W	124.77679 W	125.22321 W		-0,00077 W	0.345%	Pass (1)
Power @ PF 0.5 ind	125.00000 W	125.00167 W	124.77679 W	125.22321 W		0,00167 W	0.75%	Pass (1)
Test @ 50% U 100% I								
Voltage U2	500.00000 V	499.99412 V	499.85000 V	500.15000 V	56.00 e-03 V	-0,00588 V	3.92%	Pass
Current I2	1.000000 A	0.999973 A	0.999700 A	1.000300 A	110.00 e-06 A	-0,000027 A	8.94%	Pass
Power @ PF 1	500.00000 W	499.98064 W	499.80000 W	500.20000 W	100.00 e-03 W	-0,01936 W	9.68%	Pass
Test @ 90% U 90% I								
Voltage U2	900.00000 V	900.01286 V	899.73000 V	900.27000 V	89.00 e-03 V	0,01286 V	4.76%	Pass
Current I2	0.900000 A	0.899973 A	0.899730 A	0.900270 A	100.00 e-06 A	-0,000027 A	9.94%	Pass
Power @ PF 1	810.00000 W	809.98733 W	809.67600 W	810.32400 W	160.00 e-03 W	-0,01267 W	3.91%	Pass
Test @ 100% U 100% I								
Voltage U2	1000.00000 V	1000.01037 V	999.70000 V	1000.30000 V	97.00 e-03 V	0,01037 V	3.46%	Pass
Current I2	1.000000 A	0.999963 A	0.999700 A	1.000300 A	110.00 e-06 A	-0,000037 A	12.3%	Pass
Power @ PF 1	1000.00000 W	999.97359 W	999.60000 W	1000.40000 W	200.00 e-03 W	-0,02641 W	6.6%	Pass
Phase 3								
Test @ 10% U 10% I								
Voltage U3	100.00000 V	99.99692 V	99.97000 V	100.03000 V	13.00 e-03 V	-0,00308 V	10.3%	Pass
Current I3	0.100000 A	0.100002 A	0.099970 A	0.100030 A	15.00 e-06 A	0,000002 A	7.44%	Pass
Power @ PF 1	10.00000 W	9.99991 W	9.99600 W	10.00400 W	2.00 e-03 W	-0,00009 W	2.3%	Pass
Test @ 50% U 20% I								
Voltage U3	500.00000 V	499.99562 V	499.85000 V	500.15000 V	56.00 e-03 V	-0,00438 V	2.92%	Pass
Current I3	0.200000 A	0.200007 A	0.199940 A	0.200060 A	23.00 e-06 A	0,000007 A	12.1%	Pass
Power @ PF 1	100.00000 W	100.00273 W	99.96000 W	100.04000 W	20.00 e-03 W	0,00273 W	6.82%	Pass
Test @ 50% U 50% I								
Voltage U3	500.00000 V	499.99582 V	499.85000 V	500.15000 V	56.00 e-03 V	-0,00418 V	2.79%	Pass
Current I3	0.500000 A	0.500011 A	0.499850 A	0.500150 A	56.00 e-06 A	0,000011 A	7.35%	Pass
Power @ PF 1	250.00000 W	250.00339 W	249.90000 W	250.10000 W	50.00 e-03 W	0,00339 W	3.39%	Pass
Power @ PF 0.9 cap	225.00000 W	225.01168 W	224.82282 W	225.17718 W	61.00 e-03 W	0,01168 W	6.59%	Pass
Power @ PF 0.9 ind	225.00000 W	224.99473 W	224.82282 W	225.17718 W	61.00 e-03 W	-0,00527 W	2.97%	Pass
Power @ PF 0.5 cap	125.00000 W	125.01928 W	124.77679 W	125.22321 W		0,01928 W	8.64%	Pass (1)
Power @ PF 0.5 ind	125.00000 W	124.98459 W	124.77679 W	125.22321 W		-0,01541 W	6.91%	Pass (1)
Test @ 50% U 100% I								
Voltage U3	500.00000 V	499.99581 V	499.85000 V	500.15000 V	56.00 e-03 V	-0,00419 V	2.8%	Pass
Current I3	1.000000 A	0.999967 A	0.999700 A	1.000300 A	110.00 e-06 A	-0,000033 A	10.9%	Pass
Power @ PF 1	500.00000 W	499.97940 W	499.80000 W	500.20000 W	100.00 e-03 W	-0,02060 W	10.3%	Pass
Test @ 90% U 90% I								
Voltage U3	900.00000 V	900.02346 V	899.73000 V	900.27000 V	89.00 e-03 V	0,02346 V	8.69%	Pass
Current I3	0.900000 A	0.899970 A	0.899730 A	0.900270 A	100.00 e-06 A	-0,000030 A	11.3%	Pass
Power @ PF 1	810.00000 W	809.99367 W	809.67600 W	810.32400 W	160.00 e-03 W	-0,00633 W	1.95%	Pass
Test @ 100% U 100% I								
Voltage U3	1000.00000 V	1000.02560 V	999.70000 V	1000.30000 V	97.00 e-03 V	0,02560 V	8.53%	Pass
Current I3	1.000000 A	0.999956 A	0.999700 A	1.000300 A	110.00 e-06 A	-0,000044 A	14.7%	Pass
Power @ PF 1	1000.00000 W	999.98130 W	999.60000 W	1000.40000 W	200.00 e-03 W	-0,01870 W	4.67%	Pass
Phase 4								
Test @ 10% U 10% I								
Voltage U4	100.00000 V	99.99588 V	99.97000 V	100.03000 V	13.00 e-03 V	-0,00412 V	13.7%	Pass
Current I4	0.100000 A	0.100002 A	0.099970 A	0.100030 A	15.00 e-06 A	0,000002 A	6.44%	Pass
Power @ PF 1	10.00000 W	9.99977 W	9.99600 W	10.00400 W	2.00 e-03 W	-0,00023 W	5.64%	Pass
Test @ 50% U 20% I								
Voltage U4	500.00000 V	499.99302 V	499.85000 V	500.15000 V	56.00 e-03 V	-0,00698 V	4.65%	Pass
Current I4	0.200000 A	0.200006 A	0.199940 A	0.200060 A	23.00 e-06 A	0,000006 A	10%	Pass
Power @ PF 1	100.00000 W	100.00159 W	99.96000 W	100.04000 W	20.00 e-03 W	0,00159 W	3.97%	Pass
Test @ 50% U 50% I								
Voltage U4	500.00000 V	499.99219 V	499.85000 V	500.15000 V	56.00 e-03 V	-0,00781 V	5.21%	Pass
Current I4	0.500000 A	0.500009 A	0.499850 A	0.500150 A	56.00 e-06 A	0,000009 A	5.89%	Pass
Power @ PF 1	250.00000 W	250.00050 W	249.90000 W	250.10000 W	50.00 e-03 W	0,00050 W	0.497%	Pass
Power @ PF 0.9 cap	225.00000 W	225.00276 W	224.82282 W	225.17718 W	61.00 e-03 W	0,00276 W	1.56%	Pass
Power @ PF 0.9 ind	225.00000 W	224.99888 W	224.82282 W	225.17718 W	61.00 e-03 W	-0,00112 W	0.634%	Pass
Power @ PF 0.5 cap	125.00000 W	125.00525 W	124.77679 W	125.22321 W		0,00525 W	2.35%	Pass (1)
Power @ PF 0.5 ind	125.00000 W	124.99600 W	124.77679 W	125.22321 W		-0,00400 W	1.79%	Pass (1)
Test @ 50% U 100% I								
Voltage U4	500.00000 V	499.99457 V	499.85000 V	500.15000 V	56.00 e-03 V	-0,00543 V	3.62%	Pass
Current I4	1.000000 A	0.999983 A	0.999700 A	1.000300 A	110.00 e-06 A	-0,000017 A	5.71%	Pass
Power @ PF 1	500.00000 W	499.98592 W	499.80000 W	500.20000 W	100.00 e-03 W	-0,01408 W	7.04%	Pass
Test @ 90% U 90% I								
Voltage U4	900.00000 V	900.01747 V	899.73000 V	900.27000 V	89.00 e-03 V	0,01747 V	6.47%	Pass
Current I4	0.900000 A	0.899984 A	0.899730 A	0.900270 A	100.00 e-06 A	-0,000016 A	6.1%	Pass
Power @ PF 1	810.00000 W	810.00079 W	809.67600 W	810.32400 W	160.00 e-03 W	0,00079 W	0.245%	Pass
Test @ 100% U 100% I								
Voltage U4	1000.00000 V	1000.02727 V	999.70000 V	1000.30000 V	97.00 e-03 V	0,02727 V	9.09%	Pass
Current I4	1.000000 A	0.999976 A	0.999700 A	1.000300 A	110.00 e-06 A	-0,000024 A	7.97%	Pass
Power @ PF 1	1000.00000 W	1000.00323 W	999.60000 W	1000.40000 W	200.00 e-03 W	0,00323 W	0.808%	Pass



DEWETRON GmbH
 Parking 4
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Kalibrierschein nach ISO/IEC 17025
 Calibration Certificate according to ISO/IEC 17025

AAT2550007
Akkreditierung Austria 0632
07.02.2025

11. Testergebnisse / Test results

Test Description	True Value	Test Result	Lower limit	Upper limit	Exp Uncert	Error	% of Tol	Status

AC Voltage Calibration								
Test @ 100V_RMS @ 1000Hz								
Channel U1	100.00000 V	100.00702 V	99.97000 V	100.03000 V	29.00 e-03 V	0,00702 V	23.4%	Pass
Channel U2	100.00000 V	100.00617 V	99.97000 V	100.03000 V	29.00 e-03 V	0,00617 V	20.6%	Pass
Channel U3	100.00000 V	100.00619 V	99.97000 V	100.03000 V	29.00 e-03 V	0,00619 V	20.6%	Pass
Channel U4	100.00000 V	100.00534 V	99.97000 V	100.03000 V	29.00 e-03 V	0,00534 V	17.8%	Pass
Test @ 100V_RMS @ 10000Hz								
Channel U1	100.00000 V	100.05621 V	99.65000 V	100.35000 V	32.00 e-03 V	0,05621 V	16.1%	Pass
Channel U2	100.00000 V	100.06462 V	99.65000 V	100.35000 V	32.00 e-03 V	0,06462 V	18.5%	Pass
Channel U3	100.00000 V	100.08182 V	99.65000 V	100.35000 V	32.00 e-03 V	0,08182 V	23.4%	Pass
Channel U4	100.00000 V	100.06950 V	99.65000 V	100.35000 V	32.00 e-03 V	0,06950 V	19.9%	Pass
Test @ 100V RMS @ 30000Hz								
Channel U1	100.00000 V	99.97264 V	99.40000 V	100.60000 V	160.00 e-03 V	-0,02736 V	4.56%	Pass
Channel U2	100.00000 V	99.96005 V	99.40000 V	100.60000 V	160.00 e-03 V	-0,03995 V	6.66%	Pass
Channel U3	100.00000 V	100.02484 V	99.40000 V	100.60000 V	160.00 e-03 V	0,02484 V	4.14%	Pass
Channel U4	100.00000 V	99.97496 V	99.40000 V	100.60000 V	160.00 e-03 V	-0,02504 V	4.17%	Pass
AC Current Calibration								
Test @ 0.1A_RMS @ 1000Hz								
Channel I1	0.100000 A	0.100029 A	0.099970 A	0.100030 A	73.00 e-06 A	0,000029 A	97.06%	Pass
Channel I2	0.100000 A	0.100027 A	0.099970 A	0.100030 A	73.00 e-06 A	0,000027 A	90.4%	Pass
Channel I3	0.100000 A	0.100028 A	0.099970 A	0.100030 A	73.00 e-06 A	0,000028 A	93.73%	Pass
Channel I4	0.100000 A	0.100029 A	0.099970 A	0.100030 A	73.00 e-06 A	0,000029 A	98.14%	Pass
DC Power Calibration								
Range U: 1000V Range I: 1A								

Phase 1								
Test @ 0% U 0% I								
Voltage U1	0.00000 V	0.00067 V	-0.20000 V	0.20000 V	140.00 e-06 V	0,00067 V	0.335%	Pass
Current I1	0.000000 A	0.000002 A	-0.000405 A	0.000405 A	2.20 e-06 A	0,000002 A	0.479%	Pass
Power	0.000000 W	0.000000 W	-0.600000 W	0.600000 W		0,000000 W	1.51e-007%	Pass (1)
Test @ 5% U 10% I								
Voltage U1	50.00000 V	49.99832 V	49.79000 V	50.21000 V	1.50 e-03 V	-0,00168 V	0.799%	Pass
Current I1	0.100000 A	0.099998 A	0.099600 A	0.100400 A	15.00 e-06 A	-0,000002 A	0.409%	Pass
Power	5.000000 W	4.999751 W	4.398500 W	5.601500 W	1.00 e-03 W	-0,000249 W	0.0415%	Pass
Test @ 5% U 2% I								
Voltage U1	50.00000 V	49.99871 V	49.79000 V	50.21000 V	1.50 e-03 V	-0,00129 V	0.614%	Pass
Current I1	0.020000 A	0.020000 A	0.019616 A	0.020384 A	3.60 e-06 A	0,000000 A	0.0522%	Pass
Power	1.000000 W	0.999984 W	0.399700 W	1.600300 W	210.00 e-06 W	-0,000016 W	0.00263%	Pass
Test @ 50% U 20% I								
Voltage U1	500.00000 V	499.98785 V	499.70000 V	500.30000 V	13.00 e-03 V	-0,01215 V	4.05%	Pass
Current I1	0.200000 A	0.200017 A	0.199580 A	0.200420 A	29.00 e-06 A	0,000017 A	3.97%	Pass
Power	100.00000 W	100.00591 W	99.37000 W	100.63000 W		0,00591 W	0.939%	Pass (1)
Test @ 30% U 30% I								
Voltage U1	300.00000 V	299.99186 V	299.74000 V	300.26000 V	7.80 e-03 V	-0,00814 V	3.13%	Pass
Current I1	0.300000 A	0.300007 A	0.299560 A	0.300440 A	42.00 e-06 A	0,000007 A	1.61%	Pass
Power	90.00000 W	89.99969 W	89.37300 W	90.62700 W		-0,00031 W	0.0499%	Pass (1)
Test @ 5% U 50% I								
Voltage U1	50.00000 V	49.99856 V	49.79000 V	50.21000 V	1.50 e-03 V	-0,00144 V	0.685%	Pass
Current I1	0.500000 A	0.500025 A	0.499520 A	0.500480 A	180.00 e-06 A	0,000025 A	5.29%	Pass
Power	25.00000 W	25.00055 W	24.39250 W	25.60750 W	8.80 e-03 W	0,00055 W	0.0904%	Pass
Test @ -50% U -50% I								
Voltage U1	-500.00000 V	-499.99049 V	-500.30000 V	-499.70000 V	13.00 e-03 V	0,00951 V	3.17%	Pass
Current I1	-0.500000 A	-0.500037 A	-0.500480 A	-0.499520 A	180.00 e-06 A	-0,000037 A	7.72%	Pass
Power	250.00000 W	250.01377 W	249.32500 W	250.67500 W		0,01377 W	2.04%	Pass (1)
Test @ 5% U 100% I								
Voltage U1	50.00000 V	49.99814 V	49.79000 V	50.21000 V	1.50 e-03 V	-0,00186 V	0.885%	Pass
Current I1	1.000000 A	1.000030 A	0.999420 A	1.000580 A	300.00 e-06 A	0,000030 A	5.2%	Pass
Power	50.00000 W	49.99965 W	49.38500 W	50.61500 W	15.00 e-03 W	-0,00035 W	0.0575%	Pass
Test @ 70% U 70% I								
Voltage U1	700.00000 V	699.98814 V	699.66000 V	700.34000 V	18.00 e-03 V	-0,01186 V	3.49%	Pass
Current I1	0.700000 A	0.700022 A	0.699480 A	0.700520 A	230.00 e-06 A	0,000022 A	4.29%	Pass
Power	490.00000 W	490.00730 W	489.25300 W	490.74700 W		0,00730 W	0.978%	Pass (1)
Test @ 100% U 100% I								
Voltage U1	1000.00000 V	999.99195 V	999.60000 V	1000.40000 V	26.00 e-03 V	-0,00805 V	2.01%	Pass
Current I1	1.000000 A	1.000018 A	0.999420 A	1.000580 A	300.00 e-06 A	0,000018 A	3.18%	Pass
Power	1000.00000 W	1000.01033 W	999.10000 W	1000.90000 W		0,01033 W	1.15%	Pass (1)

Phase 2								
Test @ 0% U 0% I								
Voltage U2	0.00000 V	-0.00086 V	-0.20000 V	0.20000 V	140.00 e-06 V	-0,00086 V	0.43%	Pass



DEWETRON GmbH
 Parking 4
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Kalibrierschein nach ISO/IEC 17025
 Calibration Certificate according to ISO/IEC 17025

AAT2550007
Akkreditierung Austria 0632
07.02.2025

11. Testergebnisse / Test results

Test Description	True Value	Test Result	Lower limit	Upper limit	Exp Uncert	Error	% of Tol	Status
Current I2	0.000000 A	0.000002 A	-0.000405 A	0.000405 A	2.20 e-06 A	0,000002 A	0.411%	Pass
Power	0.000000 W	-0.000000 W	-0.600000 W	0.600000 W		0,000000 W	7.81e-008%	Pass (1)
Test @ 5% U 10% I								
Voltage U2	50.00000 V	49.99754 V	49.79000 V	50.21000 V	1.50 e-03 V	-0,00246 V	1.17%	Pass
Current I2	0.100000 A	0.099995 A	0.099600 A	0.100400 A	15.00 e-06 A	-0,000005 A	1.23%	Pass
Power	5.000000 W	4.999508 W	4.398500 W	5.601500 W	1.00 e-03 W	-0,000492 W	0.0819%	Pass
Test @ 5% U 2% I								
Voltage U2	50.00000 V	49.99717 V	49.79000 V	50.21000 V	1.50 e-03 V	-0,00283 V	1.35%	Pass
Current I2	0.020000 A	0.020003 A	0.019616 A	0.020384 A	3.60 e-06 A	0,000003 A	0.731%	Pass
Power	1.000000 W	1.000084 W	0.399700 W	1.600300 W	210.00 e-06 W	0,000084 W	0.014%	Pass
Test @ 50% U 20% I								
Voltage U2	500.00000 V	499.98136 V	499.70000 V	500.30000 V	13.00 e-03 V	-0,01864 V	6.21%	Pass
Current I2	0.200000 A	0.200005 A	0.199580 A	0.200420 A	29.00 e-06 A	0,000005 A	1.1%	Pass
Power	100.00000 W	99.99859 W	99.37000 W	100.63000 W		-0,00141 W	0.224%	Pass (1)
Test @ 30% U 30% I								
Voltage U2	300.00000 V	299.98714 V	299.74000 V	300.26000 V	7.80 e-03 V	-0,01286 V	4.95%	Pass
Current I2	0.300000 A	0.300020 A	0.299560 A	0.300440 A	42.00 e-06 A	0,000020 A	4.62%	Pass
Power	90.00000 W	90.00224 W	89.37300 W	90.62700 W		0,00224 W	0.357%	Pass (1)
Test @ 5% U 50% I								
Voltage U2	50.00000 V	49.99786 V	49.79000 V	50.21000 V	1.50 e-03 V	-0,00214 V	1.02%	Pass
Current I2	0.500000 A	0.500024 A	0.499520 A	0.500480 A	180.00 e-06 A	0,000024 A	4.98%	Pass
Power	25.00000 W	25.00012 W	24.39250 W	25.60750 W	8.80 e-03 W	0,00012 W	0.0205%	Pass
Test @ -50% U -50% I								
Voltage U2	-500.00000 V	-499.98517 V	-500.30000 V	-499.70000 V	13.00 e-03 V	0,01483 V	4.94%	Pass
Current I2	-0.500000 A	-0.500029 A	-0.500480 A	-0.499520 A	180.00 e-06 A	-0,000029 A	6.11%	Pass
Power	250.00000 W	250.00723 W	249.32500 W	250.67500 W		0,00723 W	1.07%	Pass (1)
Test @ 5% U 100% I								
Voltage U2	50.00000 V	49.99874 V	49.79000 V	50.21000 V	1.50 e-03 V	-0,00126 V	0.6%	Pass
Current I2	1.000000 A	1.000036 A	0.999420 A	1.000580 A	300.00 e-06 A	0,000036 A	6.14%	Pass
Power	50.00000 W	50.00052 W	49.38500 W	50.61500 W	15.00 e-03 W	0,00052 W	0.085%	Pass
Test @ 70% U 70% I								
Voltage U2	700.00000 V	699.97740 V	699.66000 V	700.34000 V	18.00 e-03 V	-0,02260 V	6.65%	Pass
Current I2	0.700000 A	0.700023 A	0.699480 A	0.700520 A	230.00 e-06 A	0,000023 A	4.46%	Pass
Power	490.00000 W	490.00042 W	489.25300 W	490.74700 W		0,00042 W	0.0558%	Pass (1)
Test @ 100% U 100% I								
Voltage U2	1000.00000 V	999.96847 V	999.60000 V	1000.40000 V	26.00 e-03 V	-0,03153 V	7.88%	Pass
Current I2	1.000000 A	1.000025 A	0.999420 A	1.000580 A	300.00 e-06 A	0,000025 A	4.24%	Pass
Power	1000.00000 W	999.99302 W	999.10000 W	1000.90000 W		-0,00698 W	0.776%	Pass (1)

Phase 3								
Test @ 0% U 0% I								
Voltage U3	0.00000 V	-0.00008 V	-0.20000 V	0.20000 V	140.00 e-06 V	-0,00008 V	0.0412%	Pass
Current I3	0.000000 A	0.000005 A	-0.000405 A	0.000405 A	2.20 e-06 A	0,000005 A	1.31%	Pass
Power	0.000000 W	-0.000000 W	-0.600000 W	0.600000 W		0,000000 W	1.27e-007%	Pass (1)
Test @ 5% U 10% I								
Voltage U3	50.00000 V	49.99627 V	49.79000 V	50.21000 V	1.50 e-03 V	-0,00373 V	1.77%	Pass
Current I3	0.100000 A	0.100000 A	0.099600 A	0.100400 A	15.00 e-06 A	0,000000 A	0.0184%	Pass
Power	5.000000 W	4.999624 W	4.398500 W	5.601500 W	1.00 e-03 W	-0,000376 W	0.0626%	Pass
Test @ 5% U 2% I								
Voltage U3	50.00000 V	49.99714 V	49.79000 V	50.21000 V	1.50 e-03 V	-0,00286 V	1.36%	Pass
Current I3	0.020000 A	0.020004 A	0.019616 A	0.020384 A	3.60 e-06 A	0,000004 A	1.04%	Pass
Power	1.000000 W	1.000142 W	0.399700 W	1.600300 W	210.00 e-06 W	0,000142 W	0.0236%	Pass
Test @ 50% U 20% I								
Voltage U3	500.00000 V	499.98285 V	499.70000 V	500.30000 V	13.00 e-03 V	-0,01715 V	5.72%	Pass
Current I3	0.200000 A	0.200006 A	0.199580 A	0.200420 A	29.00 e-06 A	0,000006 A	1.47%	Pass
Power	100.00000 W	99.99965 W	99.37000 W	100.63000 W		-0,00035 W	0.0549%	Pass (1)
Test @ 30% U 30% I								
Voltage U3	300.00000 V	299.98857 V	299.74000 V	300.26000 V	7.80 e-03 V	-0,01143 V	4.39%	Pass
Current I3	0.300000 A	0.300016 A	0.299560 A	0.300440 A	42.00 e-06 A	0,000016 A	3.57%	Pass
Power	90.00000 W	90.00129 W	89.37300 W	90.62700 W		0,00129 W	0.206%	Pass (1)
Test @ 5% U 50% I								
Voltage U3	50.00000 V	49.99810 V	49.79000 V	50.21000 V	1.50 e-03 V	-0,00190 V	0.907%	Pass
Current I3	0.500000 A	0.500028 A	0.499520 A	0.500480 A	180.00 e-06 A	0,000028 A	5.85%	Pass
Power	25.00000 W	25.00045 W	24.39250 W	25.60750 W	8.80 e-03 W	0,00045 W	0.0742%	Pass
Test @ -50% U -50% I								
Voltage U3	-500.00000 V	-499.98359 V	-500.30000 V	-499.70000 V	13.00 e-03 V	0,01641 V	5.47%	Pass
Current I3	-0.500000 A	-0.500032 A	-0.500480 A	-0.499520 A	180.00 e-06 A	-0,000032 A	6.68%	Pass
Power	250.00000 W	250.00784 W	249.32500 W	250.67500 W		0,00784 W	1.16%	Pass (1)
Test @ 5% U 100% I								
Voltage U3	50.00000 V	49.99787 V	49.79000 V	50.21000 V	1.50 e-03 V	-0,00213 V	1.01%	Pass
Current I3	1.000000 A	1.000028 A	0.999420 A	1.000580 A	300.00 e-06 A	0,000028 A	4.84%	Pass
Power	50.00000 W	49.99928 W	49.38500 W	50.61500 W	15.00 e-03 W	-0,00072 W	0.118%	Pass
Test @ 70% U 70% I								
Voltage U3	700.00000 V	699.97851 V	699.66000 V	700.34000 V	18.00 e-03 V	-0,02149 V	6.32%	Pass
Current I3	0.700000 A	0.700024 A	0.699480 A	0.700520 A	230.00 e-06 A	0,000024 A	4.53%	Pass
Power	490.00000 W	490.00146 W	489.25300 W	490.74700 W		0,00146 W	0.195%	Pass (1)
Test @ 100% U 100% I								
Voltage U3	1000.00000 V	999.97992 V	999.60000 V	1000.40000 V	26.00 e-03 V	-0,02008 V	5.02%	Pass
Current I3	1.000000 A	1.000017 A	0.999420 A	1.000580 A	300.00 e-06 A	0,000017 A	2.85%	Pass
Power	1000.00000 W	999.99646 W	999.10000 W	1000.90000 W		-0,00354 W	0.393%	Pass (1)

11. Testergebnisse / Test results

Test Description	True Value	Test Result	Lower limit	Upper limit	Exp Uncert	Error	% of Tol	Status

Phase 4								
Test @ 0% U 0% I								
Voltage U4	0.00000 V	-0.00120 V	-0.20000 V	0.20000 V	140.00 e-06 V	-0,00120 V	0.602%	Pass
Current I4	0.000000 A	0.000003 A	-0.000405 A	0.000405 A	2.20 e-06 A	0,000003 A	0.854%	Pass
Power	0.000000 W	-0.000000 W	-0.600000 W	0.600000 W		0,000000 W	6.73e-007%	Pass (1)
Test @ 5% U 10% I								
Voltage U4	50.00000 V	49.99540 V	49.79000 V	50.21000 V	1.50 e-03 V	-0,00460 V	2.19%	Pass
Current I4	0.100000 A	0.099995 A	0.099600 A	0.100400 A	15.00 e-06 A	-0,000005 A	1.18%	Pass
Power	5.000000 W	4.999304 W	4.398500 W	5.601500 W	1.00 e-03 W	-0,000696 W	0.116%	Pass
Test @ 5% U 2% I								
Voltage U4	50.00000 V	49.99514 V	49.79000 V	50.21000 V	1.50 e-03 V	-0,00486 V	2.31%	Pass
Current I4	0.020000 A	0.020001 A	0.019616 A	0.020384 A	3.60 e-06 A	0,000001 A	0.274%	Pass
Power	1.000000 W	0.999955 W	0.399700 W	1.600300 W	210.00 e-06 W	-0,000045 W	0.00743%	Pass
Test @ 50% U 20% I								
Voltage U4	500.00000 V	499.97746 V	499.70000 V	500.30000 V	13.00 e-03 V	-0,02254 V	7.51%	Pass
Current I4	0.200000 A	0.200012 A	0.199580 A	0.200420 A	29.00 e-06 A	0,000012 A	2.88%	Pass
Power	100.00000 W	100.00153 W	99.37000 W	100.63000 W		0,00153 W	0.243%	Pass (1)
Test @ 30% U 30% I								
Voltage U4	300.00000 V	299.98454 V	299.74000 V	300.26000 V	7.80 e-03 V	-0,01546 V	5.95%	Pass
Current I4	0.300000 A	0.300019 A	0.299560 A	0.300440 A	42.00 e-06 A	0,000019 A	4.28%	Pass
Power	90.00000 W	90.00101 W	89.37300 W	90.62700 W		0,00101 W	0.161%	Pass (1)
Test @ 5% U 50% I								
Voltage U4	50.00000 V	49.99418 V	49.79000 V	50.21000 V	1.50 e-03 V	-0,00582 V	2.77%	Pass
Current I4	0.500000 A	0.500021 A	0.499520 A	0.500480 A	180.00 e-06 A	0,000021 A	4.4%	Pass
Power	25.00000 W	24.99815 W	24.39250 W	25.60750 W	8.80 e-03 W	-0,00185 W	0.305%	Pass
Test @ -50% U -50% I								
Voltage U4	-500.00000 V	-499.98169 V	-500.30000 V	-499.70000 V	13.00 e-03 V	0,01831 V	6.1%	Pass
Current I4	-0.500000 A	-0.500033 A	-0.500480 A	-0.499520 A	180.00 e-06 A	-0,000033 A	6.87%	Pass
Power	250.00000 W	250.00734 W	249.32500 W	250.67500 W		0,00734 W	1.09%	Pass (1)
Test @ 5% U 100% I								
Voltage U4	50.00000 V	49.99530 V	49.79000 V	50.21000 V	1.50 e-03 V	-0,00470 V	2.24%	Pass
Current I4	1.000000 A	1.000034 A	0.999420 A	1.000580 A	300.00 e-06 A	0,000034 A	5.89%	Pass
Power	50.00000 W	49.99701 W	49.38500 W	50.61500 W	15.00 e-03 W	-0,00299 W	0.486%	Pass
Test @ 70% U 70% I								
Voltage U4	700.00000 V	699.97237 V	699.66000 V	700.34000 V	18.00 e-03 V	-0,02763 V	8.13%	Pass
Current I4	0.700000 A	0.700022 A	0.699480 A	0.700520 A	230.00 e-06 A	0,000022 A	4.2%	Pass
Power	490.00000 W	489.99595 W	489.25300 W	490.74700 W		-0,00405 W	0.542%	Pass (1)
Test @ 100% U 100% I								
Voltage U4	1000.00000 V	999.97589 V	999.60000 V	1000.40000 V	26.00 e-03 V	-0,02411 V	6.03%	Pass
Current I4	1.000000 A	1.000027 A	0.999420 A	1.000580 A	300.00 e-06 A	0,000027 A	4.64%	Pass
Power	1000.00000 W	1000.00280 W	999.10000 W	1000.90000 W		0,00280 W	0.311%	Pass (1)

Ende des Kalibrierscheines / End of Calibration Certificate

