SCOPE OF ACCREDITATION FOR CALIBRATION LABORATORY
No. AP 216

issued by
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Issue 2 of 03.01.2025

AP 216	Name and address **CALMET Sp. z o.o.** **Kukulcza 18 Street,** **65-472 Zielona Gora,** **Poland**
Activity conducted at permanent location (S)	**Calibration:** Number and name of measurand*) 7.03 AC Voltage*) 7.04 AC Current*) 7.10 Phase angle*) 7.11 Energy*) 7.13 AC Power*) 10.02 Frequency*)

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*) The numbering of measurand in accordance with the classification given in the Annex to document DAP-04, available at PCA website www.pca.gov.pl

HEAD OF THE CALIBRATION ACCREDITATION DEPARTMENT

KATARZYNA WIŚNIEWSKA

This document is an annex to accreditation certificate No. AP216 of 17.01.2023
Accreditation cycle from 17.01.2023 to 16.01.2027
The status of accreditation and validity of the scope of accreditation can be confirmed at PCA website *www.pca.gov.pl*

Calmet Calibration Laboratory 18 Kukulcza Street, 65-472 Zielona Gora, Poland				
Object of calibration	**Measuring range**	**Uncertainty of measurement for CMC**	**Permanent location**	**Method of measurement**
AC Voltage				
Meters of power network parameters **Digital voltage meters** **Multimeters**	45 Hz to 65 Hz **10 V to 30 V** **30 V to 525 V**	 **0,015 %** **0,006 %**	**S**	**Internal procedure PW-01 based on EURAMET cg-15 v. 3.0 Direct comparison method**
Calibrators	45 Hz to 65 Hz **10 V to 30 V** **30 V to 525 V**	 **0,015 %** **0,006 %**	**S**	**Internal procedure PW-02 Direct comparison method**
AC Current				
Meters of power network parameters **Digital current meters** **Multimeters**	45 Hz to 65 Hz **0,01 A to 0,25 A** **0,25 A to 120 A**	 **0,01 %** **0,007 %**	**S**	**Internal procedure PW-01 based on EURAMET cg-15 v. 3.0 Direct comparison method**
Clamp meters	45 Hz to 65 Hz **0,25 A to 120 A**	 **0,05 %**	**S**	**Internal procedure PW-01 Direct comparison method**
Calibrators	45 Hz to 65 Hz **0,01 A to 0,25 A** **0,25 A to 120 A**	 **0,01 %** **0,007 %**	**S**	**Internal procedure PW-02 Direct comparison method**
Phase angle				
Meters of power network parameters **Phasemeters**	45 Hz to 65 Hz 30 V to 525 V 0,25 A to 120 A **0° to 360°**	 **0,005 °**	**S**	**Internal procedure PW-01 Direct comparison method**
Clamp meters	45 Hz to 65 Hz 30 V to 525 V 0,25 A to 120 A **0° to 360°**	 **0,04 °**	**S**	**Internal procedure PW-01 Direct comparison method**
Calibrators	45 Hz to 65 Hz 30 V to 525 V 0,25 A to 120 A **0° to 360°**	 **0,005 °**	**S**	**Internal procedure PW-02 Direct comparison method**
Energy				
Meters of power network parameters **AC current Electricity meters** **Devices for checking electricity meters**	45 Hz to 65 Hz 30 V to 525 V 0° to 360° **cosφ or sinφ: 0,5 to 1** **0,01 A to 0,25 A** **0,25 A to 120 A**	**CMC applies to active, reactive and apparent energy** **0,015 %** **0,007 %**	**S**	**Internal procedure PW-01 Direct comparison method**
Clamp meters	45 Hz to 65 Hz 30 V to 525 V 0° to 360° **cosφ or sinφ: 0,5 to 1** **0,25 A to 120 A**	**CMC applies to active, reactive and apparent energy** **0,05 %**	**S**	**Internal procedure PW-01 Direct comparison method**
Calibrators	45 Hz to 65 Hz 30 V to 525 V 0° to 360° **cosφ or sinφ: 0,5 to 1** **0,01 A to 0,25 A** **0,25 A to 120 A**	**CMC applies to active, reactive and apparent energy** **0,015 %** **0,007 %**	**S**	**Internal procedure PW-02 Direct comparison method**

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Object of calibration	Measuring range	Uncertainty of measurement for CMC	Permanent location	Method of measurement
Power AC				
Meters of power network parameters **Digital power meters**	0,15 W to 189 kW 0,15 var to 189 kvar 0,3 VA to 189 kVA 45 Hz to 65 Hz 30 V to 525 V 0° to 360° **cosφ or sinφ: 0,5 to 1** **0,01 A to 0,25 A** **0,25 A to 120 A**	 **0,015 %** **0,007 %**	**S**	**Internal procedure PW-01** **Direct comparison method**
Clamp meters	3,75 W to 189 kW 3,75 var to 189 kvar 7,5 VA to 189 kVA 45 Hz to 65 Hz 30 V to 525 V 0° to 360° **cosφ or sinφ: 0,5 to 1** **0,25 A to 120 A**	 **0,05 %**	**S**	**Internal procedure PW-01** **Direct comparison method**
Calibrators	0,15 W to 189 kW 0,15 var to 189 kvar 0,3 VA to 189 kVA 45 Hz to 65 Hz 30 V to 525 V 0° to 360° **cosφ or sinφ: 0,5 to 1** **0,01 A to 0,25 A** **0,25 A to 120 A**	 **0,015 %** **0,007 %**		**Internal procedure PW-02** **Direct comparison method**
Frequency				
Meters of power network parameters **Multimeters** **Digital frequency meters**	**45 Hz to 65 Hz**	**0,0003 %**	**S**	**Internal procedure PW-01** **Direct comparison method**
Calibrators	**45 Hz to 65 Hz**	**0,0003 %**	**S**	**Internal procedure PW-02** **Direct comparison method**

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Measurement uncertainty for CMC is the expanded uncertainty with a probability of expansion about 95%. The value expressed in percentages is the relative measurement uncertainty and concerns the percentage share in the measured value. In other cases, the measurement uncertainty for CMC is expressed in units of the measured value.

The changes list
of the accreditation scope No. AP 216

status of the changes: original version – A

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ACCREDITATION DEPARTMENT

KATARZYNA WIŚNIEWSKA
03.01.2025