REPUBLIC OF BULGARIA
Executive agency
Bulgarian accreditation service

Signatory to the EA Multilateral Agreement in this field

ORDER

№ A 21

Sofia, 20.01.2025

Pursuant to Art. 10, para. 1, item 3, Art. 30, para. 1 of the Law on National Accreditation of Conformity Assessment Bodies, item 7 of the BAS QR 2 Accreditation Procedure, in connection with an open procedure reg. № 23/22 ЛК/РО/24.09.2024, assessment report reg. № 23/22 ЛК/РО/4/В/28.11.2024 and statement of the Accreditation Commission, reg. № 23/22 ЛК/РО/2/В/10.01.2025, I hereby

EXTEND THE SCOPE OF ACCREDITATION

of

DELTA INSTRUMENTS LTD.
CALIBRATION LABORATORY OF MEASUREMENT EQUIPMENT FOR ELECTRICAL QUANTITIES

Management and laboratory address:
1616 Sofia, Boyana, Vitosha district, 20, 732 Str.

To perform calibrating of:

Type of the scope: *Fixed*

№	Measuring Instrument	Measure and, Measure ment Unit	Measurement Range	Measurement Uncertainty	Calibration Method
1	2	3	4	5	6
1.	DC Voltmeters	DC Voltage, V	20 mV to 100 mV 100 mV to 1 V 1 V to 10 V 10 V to 100 V 100 V to 1000 V	$1,6.10^{-2}$ mV to $3,0.10^{-2}$ mV $3,0.10^{-2}$ mV to $1,3.10^{-4}$ V $1,2.10^{-4}$ V to $2,5.10^{-3}$ V $2,5.10^{-3}$ V to $1,3.10^{-2}$ V $1,3.10^{-2}$ V to 0,2 V	CP-702-02-06/2019
2.	AC Voltmeters	AC Voltage, (50 Hz) V	0,2 V to 1 V 1 V to 10 V 10 V to 100 V 100 V to 1000 V	4.10^{-4} V to $1,5.10^{-3}$ V $1,5.10^{-3}$ V to $1,5.10^{-2}$ V $1,5.10^{-2}$ V to 0,16 V 0,16 V to 1,9 V	CP-702-02-06/2019
3.	DC Ammeters testers	DC current, A	0,2 mA to 2 mA 2 mA to 20 mA 20 mA to 200 mA 0,2 A to 2 A 2 A to 10 A	$3,2.10^{-4}$ to $2,7.10^{-3}$ mA $2,7.10^{-3}$ mA to $2,7.10^{-2}$ mA $2,7.10^{-2}$ mA to 0,24 mA $2,4.10^{-4}$ A to $2,7.10^{-3}$ A $2,7.10^{-3}$ A to 0,014 A	CP-702-02-06/2019
4.	AC Ammeters testers	AC current, (50Hz) A	2 mA to 20 mA 20 mA to 200 mA 0,2 A to 2 A 2 A to 10 A	$1,3.10^{-2}$ mA to 0,071 mA 0,071 mA to 0,6 mA $6,0.10^{-4}$ A to 7.10^{-3} A 7.10^{-3} A to 0,052 A	CP-702-02-06/2019
5.	DC resistance meters (Ohmmeters)	Electrical Resistance, Ω	0,5 Ω to 10 Ω 10 Ω to 100 Ω 100 Ω to 1000 Ω	1.10^{-4} x R + 6 mΩ 3.10^{-4} x R + 4 mΩ 3.10^{-4} x R + 4 mΩ	CP-702-02-03/2018

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Type of the scope: *Fixed*					
№	**Measuring Instrument**	**Measure and, Measure ment Unit**	**Measurement Range**	**Measurement Uncertainty**	**Calibration Method**
1	**2**	**3**	**4**	**5**	**6**
			1 kΩ to 10 kΩ от 10 kΩ to 100 kΩ	3.10^{-4} x R 3.10^{-4} x R	
6.	Earth testers (Instruments for measuring the parameters of electrical installations by earth resistance)	Electrical Resistance, Ω	0,5 Ω to 1 Ω 1 Ω to 20 Ω 20 Ω to 200 Ω 200 Ω to 2000 Ω	10 mΩ 10 mΩ 5.10^{-4} x R 5.10^{-4} x R	CP-702-02-05/2018
7.	Loop impedance testers (Instruments for measuring the parameters of electrical installations by loop resistance)	Electrical Resistance, Ω	0,1 Ω to 19,99 Ω 20 Ω to 200 Ω	$2,5.10^{-3}$ x R + 0,05 Ω 1.10^{-3} x R + 0,09 Ω	CP-702-02-04/2018
8.	Residual-current device (RCD testers) by contact voltage (Instruments for measuring the parameters of electrical installations by contact voltage)	AC Voltage, (50Hz) V	0,1 V to 9,99V 10 V to 49,9 V 50 V to 90 V	5.10^{-2} x U + 0,1 V 6.10^{-2} x U + 0,02 V $5,2.10^{-2}$ x U + 0,6 V	CP-702-02-02/2018
9.	Residual-current device (RCD testers) by tripping current (Instruments for measuring the parameters of electrical installations by tripping current)	AC current, (50Hz) A	10 mA 30 mA 100 mA 300 mA 500 mA	0,1 mA 0,1 mA 0,2 mA 1 mA 2 mA	CP-702-02-02/2018
10.	Insulation testers	Electrical Resistance, Ω	1 kΩ, 10 kΩ, 100 kΩ 1 MΩ, 10 MΩ,100 MΩ 1 GΩ, 10 GΩ 100 GΩ 1 TΩ	5.10^{-4} x R 15.10^{-3} x R 15.10^{-3} x R 5.10^{-2} x R 5.10^{-2} x R	CP-702-02-01/2018
11.	Instruments for measuring the parameters of electrical installations by tripping time	Time, s	10 ms 30 ms 100 ms 200 ms	0,8 ms 1 ms 1 ms 1 ms	CP-702-02-07/2023

Type of the scope: *Fixed*					
№	**Measuring Instrument**	**Measure and, Measure ment Unit**	**Measurement Range**	**Measurement Uncertainty**	**Calibration Method**
1	**2**	**3**	**4**	**5**	**6**
12.	AC/DC Current clumps	AC current, (50Hz) A	2 mA to 20 mA 20 mA to 200 mA 200 mA to 2 A 2 A to 10 A	0,02 mA to 0,08 mA 0,08 mA to 0,95 mA 0,95 mA to 0,01 A 0,01 A to 0,1 A	CP-702-02-08/2023
		AC current, (50Hz) A	10 A to 100 A 100 A to 500 A 500 A to 950 A	0,1 A to 1,0 A 1,0 A to 4,7 A 4,7 A to 8,3 A	
		DC current, A	10 A to 100 A 100 A to 500 A 500 A to 950 A	0,1 A to 0,8 A 0,8 A to 4,0 A 4,0 A to 7,9 A	
13.	Frequency measuring instruments	Frequency, Hz	2 Hz to 200 kHz	0,078 Hz to 0,015 kHz	CP-702-02-09/2024
14.	Power quality analyzers	AC Voltage (50 Hz), V	100 V to 600 V	0,16 to 1,2 V	CP-702-02-10/2024
		AC Current (50 Hz) A	2 A to 10 A 10 A to 100 A 100 A to 950 A	0,0046 A to 0,053 A 0,053 A to 0,82 A 0,82 A to 8,4 A	

References:

CP-702-02-01/2018	Calibration Procedure of measurement equipment for electrical quantities in insulation resistance (megohmmeters, meggers, insulation testers).
CP-702-02-02/2018	Calibration Procedure of measurement equipment for electrical quantities in trip current of RCDs and contact voltage.
CP-702-02-03/2018	Calibration Procedure of measurement equipment for electrical quantities in resistance.
CP-702-02-04/2018	Calibration Procedure of measurement equipment for electrical quantities in loop impedance.
CP-702-02-05/2018	Calibration Procedure of measurement equipment for electrical quantities in ground resistance.
CP-702-02-06/2019	Calibration Procedure of measurement equipment for electrical quantities in direct current and voltage, alternating current and voltage.
CP-702-02-07/2023	Calibration Procedure of measurement the parameters of the electrical installations for tripping time.
CP-702-02-08/2023	Calibration Procedure of measurement current clupms.
CP-702-02-09/2024	Calibration Procedure of frequency measuring instruments
CP-702-02-10/2024	Calibration Procedure of power quality analyzers

Note 1: Calibration of all measuring instruments is carried out at the laboratory premises.
Note 2: Calibrated measuring instruments may be stand-alone or part of combined devices (including multimeters).
Note 3: Insulation resistance measuring devices can be megohmmeters, meggers and insulation testers.
Note 4: Calibrated measuring instruments may be analogue or digital.

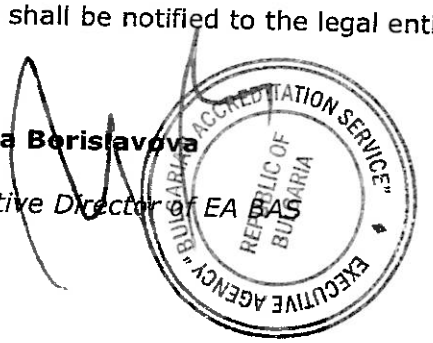
I ORDER

To issue the certificate of accreditation reg. № 22 ЛК/20.01.2025, valid until 17.01.2028 and this order as an integral part of it.

The certificate of accreditation with the enclosure should be obtained from the manager / representative of the legal entity, head of the CAB or other authorized person in the office of EA BAS.

Upon receipt of the certificate issued and enclosure, the accredited person is obliged to return to EA BAS the originals of the certificate of accreditation reg. № 22 ЛК/17.01.2024 and its enclosure - EA BAS order reg. № А 16/17.01.2024.

This order shall be notified to the legal entity within 3(three) days from its issuance.



Eng. Irena Borislavova

Executive Director of EA BAS