



# **ISO/IEC 17025:2017**

## מעבדות כיול

# תעודת הסמכה מס' 579 אלספק הנדסה בע"מ

**כתובת אתר ייחוס:** אזור תעשיה פארק צבאים, שדה נחום, 1171602

בתוקף מיום:19.03.2024 עד יום: 19.03.2024

הארגון נבדק ונבחן על ידי הרשות הלאומית להסמכת מעבדות (להלן הרשות) ונמצא ראוי להסמכה בהתאם לנספח פירוט היקף ההסמכה המצורף לתעודה זו, המהווה חלק בלתי נפרד ממנה ומספרו זהה למספר התעודה.

הסמכה מצביעה על כשירות מקצועית ותפעול מערכת ניהול איכות בעלת הכרה בינלאומית.

הארגון המוסמך על ידי הרשות, עומד בתקנים/ בדרישות המפורטים מעלה. דרישות התקנים הם לכשירות מקצועית ולמערכות ניהול, שהינן הכרחיות למתן תוצאות אמינות. הסמכה זו ניתנה בהתאם לכללי ISO/IEC 17011:2017 לפיהם פועלת הרשות ובמסגרתם מקיימת פיקוח שוטף על הארגון לצורך בחינת תפקודו המתמשך בהתאם לדרישות ההסמכה. ההסמכה תקפה כל עוד הארגון עונה לאמות המידה שנקבעו על ידי הרשות.

.(EA) European Accreditation Cooperation מול ארגון (MLA) מול הסכם הכרה רב צדדי

תעודה זו אינה מהווה אישור לפי סעיף 12 לחוק התקנים.

אתי פלר מנכ"ל הרשות הלאומית להסמכת מעבדות

תאריך הסמכה ראשון:19.03.2024

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### **Calibration Laboratories**

**ISO/IEC 17025:2017** 

# **Elspec Engineering Ltd.**

**Main site address:** Tzevaim industrial park, Sede Nachum, 1171602

Valid from:19.03.2024 Until:18.03.2026

The organization was assessed by the Israel Laboratory Accreditation Authority (ISRAC) and found to be worthy of accreditation to the detailed schedule attached.

The schedule is an integral part of this certificate and is numbered with the above certificate number.

Accreditation demonstrates technical competence and operation of an internationally recognized quality management system.

The organization accredited by ISRAC complies with the standards/requirements mentioned above, meets the technical competence requirements and management system requirements that are necessary for it to consistently deliver technically competent results. This accreditation is granted in accordance with the requirements of ISO/IEC 17011:2017, and entails periodic surveillance and reassessment by ISRAC to ensure that the organization continues to comply with the accreditation requirements.

The accreditation is valid provided that the organization continues to meet the criteria as laid down by ISRAC. ISRAC is an EA-MLA (European Accreditation Cooperation Multi-Lateral Agreement) signatory.

This certificate does not constitute an approval in accordance with article 12 of the standard law.

Date of first accreditation:19.03.2024

Etty Feller
General Manager
Israel Laboratory Accreditation Authority

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**Department:** Calibration Laboratory ISO/IEC 17025: 2017

**Accreditation No.579** 

#### Name and Address:

Organization name <u>Elspec Engineering Ltd.</u>

Address Tzevaim industrial park, Sede Nachum, 1171602

**Phone** 04-6061100 **Fax** 04-6061128

E-mail (contact person) <u>nissimd@elspec-ltd.com</u>

Site: P or T or M, P-Permanent, T-Temporary, M-Mobile

A permanent (P) or temporary (T) place, or a stationary or mobile (M) facility, at or from which the organization performs activities forming part of its scope of accreditation, starting from sampling to final issuance of a report or certificate and / or quality system activities. A temporary (T) site is a site established under the responsibility of an accredited permanent site. All activities performed at a temporary site are the responsibility of the permanent site. An outdoors work is also considered to be a temporary site. Temporary site will be a site that involves work for special project and the activity will be defined in time (up to 2 years).

Type of Scopes: A- Fixed, C- Flexible scope in analytical tests: Type of matrix, analytes, experimental systems and/or analytical characteristics may be subject to changes, in accordance with the laboratory's approved and documented procedures. For details, please refer to the list of Accredited Tests, available from the laboratory upon request.

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### **Accreditation No.579**

| Item   | Scope<br>Type  | Site | Measurand Ins             | trument, Gauge                       | Range<br>[Including margins]<br>(Does not include margins) | Uncertainty of Measurement <sup>1</sup>                             | Reference Documents  | Remarks   |  |
|--------|--|------|---------------------------|--------------------------------------|--|---|--|---|--|
| Calibr | alibration – Electrical Quantities LF Single & Three Phase Electrical Power and Energy |      |                           |                                      | al Power and Energy  | כיול - גדלים חשמליים - הספק ואנרגיה חשמלית חד ותלת מופעית בתדר נמוך |  |   |  |
| 1      | A  | P    | AC Low Voltage, PQ meters | מתח חילופין נמוך,<br>מוני איכות חשמל | [0.2 V to 8 V]   | 290 μV/V  | Automated Calibration<br>Software<br>Manufacturer instructions<br>W.I: G4 01, PURE | Fluke 6100B<br>PQ - Power Quality   |  |
| 2      | A  | Р    | AC Voltage<br>PQ meters   | מתח חילופין,<br>מוני איכות חשמל      | [16 V to 1000 V]   | 200 μV/V  | Automated Calibration<br>Software<br>Manufacturer instructions<br>W.I: G4 01, PURE | Fluke 6100B   |  |
| 3      | A  | P    | DC Low Voltage PQ meters  | מתח נמוך ישר,<br>מוני איכות חשמל     | 0 V  | 19 μV   | Automated Calibration<br>Software<br>Manufacturer instructions<br>W.I: G4 01, PURE | Fluke 6100B  Remark1: The uncertainty value is for using calibrator range up to 0.25 V. For using other ranges, the uncertainty value will be grater. |  |
| 4      | A  | P    |                           |                                      | [0.1 V to 4 V]   | $400~\mu\text{V/V}$   |  |   |  |
| 5      | A  | P    | DC Voltage<br>PQ meters   | מתח ישר,<br>מוני איכות חשמל          | 0 V  | 5.7 mV  |  | Fluke 6100B  Remark2: The uncertainty value is for using calibrator range up to 23 V. For using other ranges, the uncertainty value will be grater.   |  |
| 6      | A  | P    |                           |                                      | [9 V to 400 V]   | 1.1 mV/V  |  |   |  |
| 7      | A  | P    | AC Current, PQ meters     | זרם חילופין ,<br>מוני איכות חשמל     | [0.1 A to 20 A]  | 260 μΑ/Α  | Automated Calibration<br>Software<br>Manufacturer instructions<br>W.I: G4 01, PURE | Fluke 6100B   |  |

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### **Accreditation No.579**

| Item   | Scope<br>Type   | Site   | Measurand Instrument, Gauge                        |  | Range [Including margins] (Does not include margins) | Uncertainty of Measurement <sup>1</sup>                             | Reference Documents  | Remarks  |  |
|--------|---|--------|--|--|--|---|--|--|--|
| Calibr | Calibration – Electrical Quantities LF Single & Three Phase Electrical Power and Energy |        |  |  |  | כיול - גדלים חשמליים - הספק ואנרגיה חשמלית חד ותלת מופעית בתדר נמוך |  |  |  |
| 8      | A   | P      | DC Current,<br>PQ meters                           | זרם ישר,<br>מוני איכות חשמל                          | 0 A  | 120 μΑ  | Automated Calibration<br>Software<br>Manufacturer instructions<br>W.I: G4 01, PURE | Fluke 6100B Remark3: The uncertainty value is for using calibrator range up to 0.25 A. For using other ranges, the uncertainty value will be grater. |  |
| 9      | A<br>A  | P<br>P |  |  | Up to 0.8 A] (0.8 A to 4 A]                          | 1 mA/A<br>1.9 mA/A  |  |  |  |
| 11     | A   | P      | Active Power, PQ meters                            | הספק אקטיבי, מוני איכות<br>חשמל                      | [14.375 W to 3450 W]                                 | 64 μW/W   | Automated Calibration<br>Software<br>Manufacturer instructions<br>W.I: G4 01, PURE | Fluke 6100B  |  |
| 12     | A   | P      | Frequency, PQ meters                               | תדר,<br>מוני איכות חשמל                              | [50 Hz to 60 Hz]                                     | 0.00038 Hz  | Automated Calibration<br>Software<br>Manufacturer instructions<br>W.I: G4 01, PURE | Fluke 6100B  |  |
| 13     | A   | P      | Voltage harmonics -<br>amplitude,<br>PQ meters     | הרמוניות מתח -אמפליטודה,<br>מוני איכות חשמל          | Harmonics 1-99 [4.5 V to 200 V]                      | 0.96 mV/V   | Automated Calibration<br>Software<br>Manufacturer instructions<br>W.I: G4 01, PURE | Fluke 6100B  |  |
| 14     | A   | P      | Low Voltage harmonics –<br>amplitude,<br>PQ meters | הרמוניות מתח נמוך -<br>אמפליטודה,<br>מוני איכות חשמל | Harmonics 1-99<br>[0.025 V to 1 V]                   | 1.8 mV/V  | Automated Calibration<br>Software<br>Manufacturer instructions<br>W.I: G4 01, PURE | Fluke 6100B  |  |

Calibration Laboratory ISO/IEC 17025: 2017 **Department:** 

### **Accreditation No.579**

| Item  | Scope<br>Type | Site | Measurand Inst                                      | rument, Gauge                               | Range<br>[Including margins]<br>(Does not include margins)          | Uncertainty of Measurement <sup>1</sup> | Reference Documents  | Remarks     |
|---|---------------|------|---|---|---|---|--|-------------|
| Calibration – Electrical Quantities LF Single & Three Phase Electrical Power and Energy |               |      |   |   | כיול - גדלים חשמליים - הספק ואנרגיה חשמלית חד ותלת מופעית בתדר נמוך |   |  |             |
| 15  | A             |      | Current harmonics –<br>amplitude,<br>PQ meters      | הרמוניות זרם -אמפליטודה,<br>מוני איכות חשמל | Harmonics 1-99<br>[0.025 A to 2 A]                                  | 1.1 mA/A                                | Automated Calibration<br>Software<br>Manufacturer instructions<br>W.I: G4 01, PURE | Fluke 6100B |
| 16  | A             | P    | Phase shift - fundamental<br>harmonic,<br>PQ meters | הפרש מופע בהרמוניה ראשית<br>מוני איכות חשמל | 0° to 60°   | 0.0036°                                 | Automated Calibration<br>Software<br>Manufacturer instructions<br>W.I: G4 01, PURE | Fluke 6100B |

<sup>1)</sup> The uncertainty covered by the CMC expressed as the standard measurement uncertainty multiplied by the coverage factor k such that the coverage probability corresponds to approximately 95 %.