



# PERRY JOHNSON LABORATORY ACCREDITATION, INC.

## Certificate of Accreditation

*Perry Johnson Laboratory Accreditation, Inc. has assessed the Laboratory of:*

***Solair Group, Inc.***  
***10421 SW 187 Terrace, Miami, FL 33157***

*(Hereinafter called the Organization) and hereby declares that Organization is accredited in accordance with the recognized International Standard:*

**ISO/IEC 17025:2017**

This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (as outlined by the joint ISO-ILAC-IAF Communiqué dated April 2017):

***Dimensional, Electrical, Time and Frequency, Mass and Mechanical***  
***(As detailed in the supplement)***

Accreditation claims for such testing and/or calibration services shall only be made from addresses referenced within this certificate. This Accreditation is granted subject to the system rules governing the Accreditation referred to above, and the Organization hereby covenants with the Accreditation body's duty to observe and comply with the said rules.

For PJLA:

Tracy Szerszen  
President

*Initial Accreditation Date:*

June 07, 2024

*Issue Date:*

June 07, 2024

*Expiration Date:*

June 07, 2026

*Accreditation No.:*

121219

*Certificate No.:*

L24-424

Perry Johnson Laboratory  
Accreditation, Inc. (PJLA)  
755 W. Big Beaver, Suite 1325  
Troy, Michigan 48084

*The validity of this certificate is maintained through ongoing assessments based on a continuous accreditation cycle. The validity of this certificate should be confirmed through the PJLA website: [www.pjilabs.com](http://www.pjilabs.com)*



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# Certificate of Accreditation: Supplement

## Solair Group, Inc.

10421 SW 187 Terrace, Miami, FL 33157  
 Contact Name: Sergio Molina 305-984-9960

Accreditation is granted to the facility to perform the following testing:

### Mass

| MEASURED INSTRUMENT, QUANTITY OR GAUGE                        | RANGE (AND SPECIFICATION WHERE APPROPRIATE) | CALIBRATION AND MEASUREMENT CAPABILITY EXPRESSED AS AN UNCERTAINTY ( $\pm$ ) | CALIBRATION EQUIPMENT AND REFERENCE STANDARDS USED | CALIBRATION MEASUREMENT METHOD OR PROCEDURES USED |
|---|---|--|--|---|
| Pressure Gauges and Transducers <sup>F</sup>                  | (30) psia                                   | 0.018 psia   | DPI-104-30   | WI-CAL-PC   |
|   | (15 to 100) psi                             | 0.061psi   | DPI-104-100  |   |
|   | (100 to 300) psi                            | 0.18 psi   | DPI-104-300  |   |
|   | (300 to 1000) psi                           | 0.63 psi   | DPI-104-1K   |   |
|   | (1000 to 3000) psi                          | 1.8 psi  | DPI-104-3K   |   |
|   | (3000 to 5000) psi                          | 3 psi  | DPI-104-5K   |   |
|   | (5000 to 10000) psi                         | 6.5 psi  | DPI-104-10K  |   |
|   | (Up to 5000) psi                            | 16 psi   | DPG8001-5K (Used for phosphate fluid only)         |   |
| Equipment to Measure Force Tension & Compression <sup>F</sup> | (5 to 550) lbf                              | 0.7 lbf  | AFG 500 N  | WI-CAL-FC   |
|   | (30 to 3000) lbf                            | 1.8 lbf  | XLS2-HSS-3K and DSUB                               |   |
|   | (150 to 15000) lbf                          | 18 lbf   | XTS4-15K and T24                                   |   |
|   | (250 to 2000) lbf                           | 46 lbf   | HRS-20K and DSUB                                   |   |
| Equipment to Measure Torque <sup>F</sup>                      | 1 to 100 (lb.in)                            | 0.19 lb-in   | TSD011 and TSD6500-1                               | WI-CAL-FC   |
| Equipment to Measure Torque <sup>F</sup>                      | 10 to 1 000 (lb.ft)                         | 1.7 lb-ft  | TSD1200 and TSD1011                                |   |
| Equipment to Measure Flow Rate- Measure <sup>F</sup>          | (up to 110 l/min)                           | 0.005 l/min +1.35  | FT-12AEYBBLEA-5                                    | WI-CAL-FC   |
| Bench Scale <sup>F</sup>                                      | (1 to 500) g                                | 0.00016Wt+1.14 g   | Weight set ASTM Class 5                            | WI-CAL-WD   |
| Bench Scale <sup>F</sup>                                      | (0.5 to 2) Kg                               | 0.0092Wt - 0.0034 g  | Weight set ASTM Class 5                            |   |
| Bench Scale <sup>F</sup>                                      | (5 to 50) lb                                | 0.08Wt + 0.136 lb  | Weight set ASTM Class 6                            |   |
| Bench Scale <sup>F</sup>                                      | (50 to 1500) lb                             | 0.0013Weight + 0.134 lb  | Weight set ASTM Class 6                            |   |



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Accreditation is granted to the facility to perform the following testing:

### Thermodynamic

| MEASURED INSTRUMENT, QUANTITY OR GAUGE        | RANGE (AND SPECIFICATION WHERE APPROPRIATE) | CALIBRATION AND MEASUREMENT CAPABILITY EXPRESSED AS AN UNCERTAINTY ( $\pm$ ) | CALIBRATION EQUIPMENT AND REFERENCE STANDARDS USED | CALIBRATION MEASUREMENT METHOD OR PROCEDURES USED |
|---|---|--|--|---|
| Equipment to Measure Temperature <sup>F</sup> | (0) °C                                      | 0.15 °C  | Ice point  | WI-CAL-TP-01                                      |
|   | (35 to 375) °C                              | 0.001T+0.39 °C   | Dry block 9100S                                    | WI-CAL-TP-01, WI-CAL-TP-02                        |

### Electrical

| MEASURED INSTRUMENT, QUANTITY OR GAUGE         | RANGE (AND SPECIFICATION WHERE APPROPRIATE) | CALIBRATION AND MEASUREMENT CAPABILITY EXPRESSED AS AN UNCERTAINTY ( $\pm$ ) | CALIBRATION EQUIPMENT AND REFERENCE STANDARDS USED | CALIBRATION MEASUREMENT METHOD OR PROCEDURES USED |
|--|---|--|--|---|
| Equipment to Generate Capacitance <sup>F</sup> | (0.2 to 999.99) nF                          | 1.19 % of reading + 0.062 nF   | Capacitance Box 1071                               | WI-CAL-EC-01                                      |
|  | (1 to 9.99) uF                              | 1.2% uF of reading   |  |   |
|  | (10 to 99.999) uF                           | 5.79 % of reading + 0.011 uF   |  |   |
| Equipment to Generate Resistance <sup>F</sup>  | Up to 400 $\Omega$ (0.5 mA)                 | 0.19 $\Omega$  | Process Calibrator Fluke 725                       | WI-CAL-EC-01                                      |
|  | (0.4 to 1000) k $\Omega$                    | 1.2 % of reading k $\Omega$  | Resistors Box 72-7270                              |   |
|  | (1 to 11) M $\Omega$                        | 1.18% of reading M $\Omega$  | Resistors Box 72-7270                              |   |
| Equipment to Measure AC Voltage <sup>F</sup>   | (30 to 599.9) mV at (45 to 500) Hz          | 6.1 mV   | DMM 179  | WI-CAL-EC-01                                      |
|  | (0.6 to 5.999) V at (45 to 500) Hz          | 0.073 V  |  |   |
|  | (6.00 to 59.99) V at (45 to 500) Hz         | 0.73 V   |  |   |
|  | (60.0 to 599.9) V at (45 to 500) Hz         | 7.3 V  |  |   |
|  | (600 to 1000) V at 500 Hz to 1kHz           | 24 V   |  |   |
| Equipment to Measure DC Voltage <sup>F</sup>   | (4 to 599.9) mV                             | 0.76 mV  |  |   |
|  | (0.600 to 5.999) V                          | 0.0087 V   |  |   |
|  | (6.00 to 59.99) V                           | 0.088V   |  |   |
|  | (60.0 to 599.9) V                           | 0.87 V   |  |   |
|  | (600 to 1 000) V                            | 4.2 V  |  |   |
| Equipment to Measure Capacitance <sup>F</sup>  | (70 to 1 000) nF                            | 15 nF  |  |   |
|  | (1 to 9.99) uF                              | 0.15 uF  |  |   |
|  | (10.0 to 99.9) uF                           | 1.5 uF   |  |   |
|  | (100 to 999) uF                             | 1.42 % of reading + 0.22 uF  |  |   |



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### Electrical

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|---|---|--|--|---|
| Equipment to Measure Resistance <sup>F</sup>  | (2.0 to 599.9) $\Omega$                     | 0.89% of reading + 0.28 $\Omega$   | DMM 179  | WI-CAL-EC-01                                      |
|   | (0.6 to 600) K $\Omega$                     | 0.97 % of reading + 0.58 k $\Omega$  |  |   |
|   | (0.6 to 50) M $\Omega$                      | 1.56% of reading -0.0018 M $\Omega$  |  |   |
| Equipment to Measure/Generate DC mA- Measure <sup>F</sup>                                       | (1 to 24) mA                                | 0.081 mA   | Process Calibrator Fluke 725   | WI-CAL-EC-02                                      |
| Equipment to Generate DC Voltage <sup>F</sup>   | (1 to 100) mV                               | 0.049 mV   |  |   |
| Equipment to Generate DC Voltage <sup>F</sup>   | (0.5 to 10.000) V                           | 0.0049 V   |  |   |
| <b>Thermocouple Electric Simulation</b>   |   |  |  |   |
| Equipment to Measure/Generate DC Thermocouple TC mV- <sup>F</sup>                               | (-10 mV to 75 mV)                           | 0.0271% of reading + 0.0157 mV   | Process Calibrator Fluke 725<br>(The signal is available at the thermocouple miniplug connector) | WI-CAL-EC-02                                      |
| Temperature Calibration for measurement instrument with input Thermocouple Type J <sup>F</sup>  | (-200 to -0.1) $^{\circ}\text{C}$           | 0.48 $^{\circ}\text{C}$  | Calibrator Thermometer Omega CL351R  | WI-CAL-TF-02                                      |
|   | (0 to 1 200) $^{\circ}\text{C}$             | 0.51 $^{\circ}\text{C}$  |  |   |
| Temperature Calibration for measurement instrument with input Thermocouple Type K <sup>F</sup>  | (-200 to -0.1) $^{\circ}\text{C}$           | 0.52 $^{\circ}\text{C}$  |  |   |
|   | (0 to 1 370) $^{\circ}\text{C}$             | 0.54 $^{\circ}\text{C}$  |  |   |
| Temperature Calibration for measurement instrument with output Thermocouple Type J <sup>F</sup> | (-200 to -50) $^{\circ}\text{C}$            | 2 $^{\circ}\text{C}$   |  |   |
|   | (50 to 1 200) $^{\circ}\text{C}$            | 1.3 $^{\circ}\text{C}$   |  |   |
| Temperature Calibration for measurement instrument with output Thermocouple Type K <sup>F</sup> | (-200 to -0.1) $^{\circ}\text{C}$           | 1.8 $^{\circ}\text{C}$   |  |   |
|   | (0 to 1 370) $^{\circ}\text{C}$             | 1.3 $^{\circ}\text{C}$   |  |   |



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Accreditation is granted to the facility to perform the following testing:

### Time and Frequency

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|--|---|--|--|---|
| Equipment to Measure RPM <sup>F</sup>  | (60 to 90 000) RPM                          | 0.01% of reading + 1.09 rpm  | Optical Tachometer / OEM Manual/                   | WI-CAL-TF-02                                      |

### Dimensional

| MEASURED INSTRUMENT, QUANTITY OR GAUGE | RANGE (AND SPECIFICATION WHERE APPROPRIATE) | CALIBRATION AND MEASUREMENT CAPABILITY EXPRESSED AS AN UNCERTAINTY ( $\pm$ ) | CALIBRATION EQUIPMENT AND REFERENCE STANDARDS USED | CALIBRATION MEASUREMENT METHOD OR PROCEDURES USED |
|--|---|--|--|---|
| Dial Indicators <sup>F</sup>           | (0.105 to 5.6)"                             | 49.14L +135 $\mu$ m  | Gage block set Grade 0 Code # 516-9-22-26          | WI-CAL-DI-01                                      |

1. The CMC (Calibration and Measurement Capability) stated for calibrations included on this scope of accreditation represents the smallest measurement uncertainty attainable by the laboratory when performing a more or less routine calibration of a nearly ideal device under nearly ideal conditions. It is typically expressed at a confidence level of 95 % using a coverage factor  $k$  (usually equal to 2). The actual measurement uncertainty associated with a specific calibration performed by the laboratory will typically be larger than the CMC for the same calibration since capability and performance of the device being calibrated and the conditions related to the calibration may reasonably be expected to deviate from ideal to some degree.
2. The laboratories range of calibration capability for all disciplines for which they are accredited is the interval from the smallest calibrated standard to the largest calibrated standard used in performing the calibration. The low end of this range must be an attainable value for which the laboratory has or has access to the standard referenced. Verification of an indicated value of zero in the absence of a standard is common practice in the procedure for many calibrations but by its definition it does not constitute calibration of zero capacity.
3. The presence of a superscript F means that the laboratory performs calibration of the indicated parameter at its fixed location.
4. Measurement uncertainties obtained for calibrations performed at customer sites can be expected to be larger than the measurement uncertainties obtained at the laboratories fixed location for similar calibrations. This is due to the effects of transportation of the standards and equipment and upon environmental conditions at the customer site which are typically not controlled as closely as at the laboratories fixed location.