



# CERTIFICATE OF ACCREDITATION

*This is to attest that*

## **DIME MARINE SERVICES**

AL GHANIM COMMERCIAL CENTRE, OFFICE NO: 07, P.O. BOX 2051  
DOHA, STATE OF QATAR

### **Calibration Laboratory CL-264**

has met the requirements of AC204, *IAS Accreditation Criteria for Calibration Laboratories*, and has demonstrated compliance with ISO/IEC Standard 17025:2017, *General requirements for the competence of testing and calibration laboratories*. This organization is accredited to provide the services specified in the scope of accreditation.

Effective Date September 11, 2023

Expiration Date August 1, 2024



A handwritten signature in black ink, reading 'Raj Nathan'.

**President**

# SCOPE OF ACCREDITATION

International Accreditation Service, Inc.

3060 Saturn Street, Suite 100, Brea, California 92821, U.S.A. | [www.iasonline.org](http://www.iasonline.org)

## DIME MARINE SERVICES

[www.dimemarine.com](http://www.dimemarine.com)

**Contact Name** Nithin Raj K

**Contact Phone** +974-31000698

*Accredited to ISO/IEC 17025:2017*

*Effective Date September 11, 2023*

### CALIBRATION AND MEASUREMENT CAPABILITY (CMC)\*

MEASURED QUANTITY or DEVICE TYPE CALIBRATED	RANGE	UNCERTAINTY <sup>1,2</sup> (±)	CALIBRATION METHOD OR PROCEDURE, STANDARD EQUIPMENT (OPTIONAL)
<b>Mechanical</b>			
Pressure Gauge	0 bar to 20 bar	0.08 bar	Using Pressure Test Gauge & Comparator by comparison method Procedure: DM/CP/M&D/08 (DKD-R-6-1)
	20 bar to 40 bar	0.13 bar	
	40 bar to 100 bar	0.21 bar	
	100 bar to 300 bar	0.61 bar	
	300 bar to 700 bar	0.53 bar	
700 bar to 1500 bar	1.22 bar		
Vacuum Gauge	0 bar to -0.95 bar	0.07 bar	Using Digital Pressure Gauge, Comparator by Direct method (Procedure: DM/CP/M&D/09 DKD-R-6-1)
Sound Level meter (Fixed values at 1 kHz)	94 dB	1.0 dB	Using Sound Level calibrator by Direct Method Procedure: DM/CP/M&D/07 (ANSI)
	114 dB	0.68 dB	
Torque Wrench	100 N·m to 300 N·m	4.2 N·m	Using Torque Tester by Direct Method Procedure: DM/CP/M&D/17 (ISO6789)
	300 N·m to 480 N·m	6.2 N·m	
	480 N·m to 900 N·m	12 N·m	
	900 N·m to 1500 N·m	19 N·m	
<b>Thermal</b>			
Temperature bath/ Dry Block (Single Sensor method)	-20 °C to 120 °C	0.072 °C	Using Temp Probe with Indicator by Direct Method Procedure: DM/CP/TH/03 (ASTM E3186-19)
	120 °C to 250 °C	1.4 °C	
	250 °C to 650 °C	3.3 °C	
Temp Sensors with/without Indicator/ Temp Gauge/ Thermometers	-30 °C to 120 °C	0.65 °C	Using Temp Bath/ Dry Block by Direct Method Procedure: DM/CP/TH/02 (ASTM E 77)
	120 °C to 650 °C	1.04 °C	

\* If information in this CMC is presented in non-SI units, the conversion factors stated in NIST Special Publication 811 "Guide for the Use of the International System of Units (SI)" apply.

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<b>Electrical – DC/LF</b>			
AC Current - Measure <sup>4</sup> @ 50 Hz/60 Hz	600 mA to 900 mA 900 mA to 1 A 1 A to 10 A	4.2 mA 90 mA 250 mA	Using Precision Multimeter by direct method based on Procedure: DM/CP/E/11
AC Voltage – Measure <sup>4</sup> @ 50/60 Hz	100 mV to 150 mV 150 mV to 750 mV 750 mV to 2 V 2 V to 100 V 100 V to 1000 V	1.2 mV 7.7 mV 0.06 V 0.15 V 1.4 V	Using Precision Multimeter by Direct method based on Procedure: DM/CP/E/07
DC Current – Measure <sup>4</sup>	10 µA to 50 µA 50 µA to 350 µA 350 µA to 1 mA 1 mA to 200 mA 200 mA to 600 mA 600 mA to 900 mA 900 mA to 10 A	0.48 µA 2.1 µA 9 µA 0.3 mA 1 mA 4.6 mA 0.06 A	Using Precision Multimeter by Direct Method based on Procedure: DM/CP/E/08
DC Voltage – Measure <sup>4</sup>	10 mV to 80 mV 80 mV to 450 mV 1 V to 2 V 2 V to 5 V 5 V to 10 V 10 V to 20 V 20 V to 200 V 200 V to 500 V 500 V to 1000 V	0.02 mV 0.12 mV 2.1 mV 1.6 mV 5.6 mV 8.6 mV 35 mV 69 mV 98 mV	Using Precision Multimeter by Direct Method based on Procedure: DM/CP/E/08
DC Voltage - Generate <sup>3</sup>	0.2 V to 1 V 1 V to 200 V 200 V to 1000 V	0.74 V 0.58 V 0.60 V	Using Multi Product Calibrator by Direct method Procedure: DM/CP/E/04 (Euramet CG-15)
AC Voltage Generate <sup>3</sup> @ 50Hz to 1 kHz	0.5 V to 1 V 1 V to 2 V 2 V to 5 V 5 V to 10 V 10 V to 15 V 15 V to 20 V 20 V to 100 V 100 V to 200 V 200 V to 500 V 500 V to 1000 V	3.5 mV 6.9 mV 18 mV 35 mV 53 mV 70 mV 0.35 V 0.70 V 1.8 V 3.5 V	Using Multi Product Calibrator by Direct Method Procedure: DM/CP/E/01 (Euramet CG-15)
AC Current Coil- Generate <sup>3</sup> @ 50Hz to 1 kHz	10 A to 20 A 20 A to 50 A 50 A to 200 A 200 A to 500 A 500 A to 600 A	0.62 A 1 A 1.3 A 8.7 A 10 A	Using Multi Product Calibrator by Direct Method Procedure: DM/CP/E/05 (Euramet CG-15)

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MEASURED QUANTITY or DEVICE TYPE CALIBRATED	RANGE	UNCERTAINTY <sup>1,2</sup> (±)	CALIBRATION METHOD OR PROCEDURE, STANDARD EQUIPMENT (OPTIONAL)
DC Current Coil - Generate <sup>3</sup>	10 A to 50 A 50 A to 200 A 200 A to 600 A	0.71 A 1.5 A 3.5 A	Using Multi Product Calibrator by Direct Method Procedure: DM/CP/E/02 (Euramet CG-15)
DC Current - Generate <sup>3</sup>	0.1 mA to 1 mA 1 mA to 2 mA 2 mA to 10 mA 10 mA to 20 mA 20 mA to 200 mA 200 mA to 2 A 2 A to 10 A	0.58 µA 4.8 µA 23 µA 46 µA 0.02 mA 0.06 mA 0.11 mA	Using Multi Product Calibrator by Direct method Procedure: DM/CP/E/02 (Euramet CG-15)
AC Current – Generate <sup>3</sup> @ 50Hz to 1 kHz	0.1 mA to 1 mA 1 mA to 2 mA 2 mA to 10 mA 10 mA to 20 mA 20 mA to 100 mA 200 mA to 2 A 2 A to 5 A 5 A to 10 A	2.3 µA 4.8 µA 23 µA 46 µA 0.23 mA 5.9 mA 14 mA 28 mA	Using Multi Product Calibrator by Direct Method Procedure: DM/CP/E/045 (Euramet CG-15)
Frequency - Generate <sup>3</sup>	0 Hz to 1000 Hz	0.12 Hz	Using Multi Product Calibrator by Direct Method Procedure: DM/CP/E/06 (Euramet CG-15)
Resistance - Measure <sup>4</sup>	100 Ω to 1 kΩ 1 kΩ to 10 kΩ 10 kΩ to 100 kΩ 100 kΩ to 1 MΩ 1 MΩ to 11 MΩ	5.8 Ω 8.2 Ω 63 Ω 6.8 kΩ 0.26 MΩ	Using Precision Multimeter by Direct Method based on Procedure: DM/CP/E/09
Resistance – Generate <sup>3</sup>	1 Ω to 10 Ω 10 Ω to 100 Ω 100 Ω to 5 kΩ 10 kΩ to 50 kΩ 50 kΩ to 100 kΩ 100 kΩ to 1 MΩ 1 MΩ to 5 MΩ 5 MΩ to 10 MΩ 10 MΩ to 100 MΩ	0.058 Ω 0.0014 Ω 0.0037 kΩ 0.0062 kΩ 0.012 kΩ 0.13 kΩ 0.0023 MΩ 0.0039 MΩ 0.0075 MΩ	By Using Standard Decade box by direct method Procedure: DM/CP/E/03 (Euramet CG-15)
<b>Time and Frequency</b>			
Tachometer (Non-Contact)	2700 rpm to 5000 rpm 5000 rpm to 24999 rpm 24999 rpm to 59990 rpm	3.3 rpm 2.8 rpm 2.0 rpm	Using Multi Product Calibrator by Direct method Procedure: DM/CP/E/14 (ASTM F2046)

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<sup>1</sup>The uncertainty covered by the Calibration and Measurement Capability (CMC) is expressed as the expanded uncertainty having a coverage probability of approximately 95 %. It is the smallest measurement uncertainty that a laboratory can achieve within its scope of accreditation when performing calibrations of a best existing device. The measurement uncertainty reported on a calibration certificate may be greater than that provided in the CMC due to the behavior of the calibration item and other factors that may contribute to the uncertainty of a specific calibration.

<sup>2</sup>When uncertainty is stated in relative terms (such as percent, a multiplier expressed as a decimal fraction or in scientific notation), it is in relation to instrument reading or instrument output, as appropriate, unless otherwise indicated.

<sup>3</sup>Capability is suitable for the calibration of measuring devices in the stated ranges.

<sup>4</sup>Capability is suitable for the calibration of devices intended to generate the indicated quantity in the stated ranges.