ISO 9001:2015

VENUS Calibration & Instruments

# CERTIFICATE OF CALIBRATION

Certificate No : CC-23-24-NS-1800/02



| Customer Name & Address | | |
|---|---|---|
| M/s. Sree Dhanvantri Lab<br>Speciality Centre For Blood Disorders<br>Near Mohanraj Children Hospital,<br>213/64, 11nd Agraharam, Salem - 636 001. | SRF No | VCI-23-24-NS-1800 |
| | Date of Receipt | 08.11.2023 |
| | Date of Calibration | 08.11.2023 |
| | Due Date of Calibration | 07.11.2024 |
| | Date of Issue | 09.11.2023 |

**Details of Unit under Calibration**

| | | | |
|---|---|---|---|
| Description | Bio Chemistry Analyser | Make | Erba |
| Range | As Per Result | Model | Chem-5x |
| Resolution | As Per Result | Condition of UUC | Good |
| SL.No | N140840 | Instrument Location | -- |
| ID No. | -- | Cal. At | On Site |

| Environmental Condition | | | |
|---|---|---|---|
| Temperature(°C) | 25±5 | Humidity(%RH) | 30 - 75 |

**Standard Used**

| Sl. No. | Description | ID.No. / SI. No. | Certificate No. | Traceability | Valid till |
|---|---|---|---|---|---|
| 1 | Digital Multimeter | VCI-ET-DMM-001 | MSIR/410222/199-001 | MSIR India CC-3237 | 23.02.2024 |
| 2 | Digital Manometer | VCI-M-MM-047/ VEMN2008019 | JRPM-CF-2023-PRESS-CSRF-992-C-3183 | JRPM Calibration CC-2428 | 17.08.2024 |
| 3 | Digital Thermohygrometer | VCI-EE-HTM-01 | CC-23-24-L-305/01 | Venus Calibration CC-2725 | 28.09.2024 |
| 4 | Weighing Balance | VCI-M-PB-069 | CC-23-24-S-296/03 | Venus Calibration CC-2725 | 27.06.2024 |

**Results of Calibration**

| S.No | Parmeter | ESA Reading | Unit | Normal Range |
|---|---|---|---|---|
| 1 | Current | 276 | mA | 500 |
| 2 | Frequency | 49.1 | Hz | 49-50 |
| 3 | Mains Voltage Line - Neutral | 236.7 | Volts | 220-240 |
| 4 | Mains Voltage Line - Earth | 235.1 | Volts | 220-240 |
| 5 | Mains Voltage Neutral - Earth | 4.1 | Volts | < 7 |

**Remarks**

1. UUC is Defined as the Unit Under Calibration.
2. This Calibration Certificate relates only to the above UUC & Reported results are valid at the time of and under the stated conditions of measurements.
3. Calibration of the UUC are traceable to National / International Standards.
4. This report shall not be reproduced in full/ part without prior permission of Venus Calibration and Instruments.
5. The recalibration interval shall be determined on the user requirements.
6. Nabl-133 guidelines are adopted for use of NABL symbol.
7. The Measurement uncertainty is expressed at 95.45% confidence level with coverage factor $k$ =2.

Checked & Issued by:

R.Bhuvaneshwari

(Engineer - Calibration)

VENUS CALIBRATION & INSTRUMENTS CHENNAI 600 089

Authorised by:

C.Dhinakaran

(Technical/Quality Manager)

********END OF THE CERTIFICATE********

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| S.No | Parmeter | UUC Reading | Standard Reading | Error | Unit |
|---|---|---|---|---|---|
| 1 | Lamp Voltage | 11.72 | 19 | -7.28 | Volts |
| 2 | Detector Sensitivity | 0.0 | 0 | 0.00 | %Absorbance |
| 3 | Sipper Volume | 438.4 | 451 | -12.60 | µl |
| 4 | Peristaltic Pump Pressure | -14.44 | -14 | -0.44 | cmH2O |

| Test Number | Test Standard | Test | Condition | Filter Selection | Reading Value | Reading Unit | Polarity | Neutral | Earth | Applied Parts |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Earth Bonding | Earth Bond Voltage | Normal | AC+DC | 0.1709 | Ω | Normal | Closed | Closed | All |
| 2 | | Leakage:Earth | Normal | AC+DC | 137.32 | µA | Normal | Closed | Closed | All |
| 3 | | Leakage:Earth | Normal | AC+DC | 129.77 | µA | Reversed | Closed | Closed | All |
| 4 | | Leakage:Enclosure | Normal | AC+DC | 0.00 | µA | Normal | Closed | Open | All |
| 5 | | Leakage:Enclosure | Normal | AC+DC | 0.00 | µA | Reversed | Closed | Closed | All |
| 6 | | Leakage:Earth | SFC | AC+DC | 268.24 | µA | Normal | Open | Closed | All |
| 7 | | Leakage:Earth | SFC | AC+DC | 256.54 | µA | Reversed | Open | Closed | All |
| 8 | | Leakage:Enclosure | SFC | AC+DC | 140.07 | µA | Normal | Closed | Open | All |
| 9 | | Leakage:Enclosure | SFC | AC+DC | 145.54 | µA | Reversed | Closed | Open | All |
| 10 | | Current | Normal | AC+DC | 0.128 | Amps | Normal | Closed | Closed | All |
| 11 | | Frequency | Normal | AC+DC | 54 | Hz | Normal | Closed | Closed | All |
| 12 | | Mains Voltage: Live to Neutral | Normal | AC+DC | 227.5 | V | Normal | Closed | Closed | All |
| 13 | | Mains Voltage: Live to Earth | Normal | AC+DC | 221 | V | Normal | Closed | Closed | All |
| 14 | | Mains Voltage: Neutral to Earth | Normal | AC+DC | 4.7 | V | Normal | Closed | Closed | All |
| 15 | IEC62353 | Equipment Leakage | Direct Method | AC+DC | 165.63 | µA | Normal | Closed | Closed | All |
| 16 | | Equipment Leakage | Direct Method | AC+DC | 165.24 | µA | Reversed | Closed | Closed | All |
| 17 | NFPA-99 | Ground Leakage | Normal | AC+DC | 140.77 | µA | Normal | Closed | Closed | All |
| 18 | | Ground Leakage | Normal | AC+DC | 137.01 | µA | Reversed | Closed | Closed | All |
| 19 | | Ground Leakage | SFC | AC+DC | 270.55 | µA | Normal | Open | Closed | All |
| 20 | | Ground Leakage | SFC | AC+DC | 270.84 | µA | Reversed | Open | Closed | All |
| 21 | | Chassis Leakage | Normal | AC+DC | 0.01 | µA | Normal | Closed | Closed | All |
| 22 | | Chassis Leakage | Normal | AC+DC | 0.01 | µA | Reversed | Closed | Closed | All |
| 23 | | Chassis Leakage | SFC | AC+DC | 142.15 | µA | Normal | Closed | Open | All |
| 24 | | Chassis Leakage | SFC | AC+DC | 138.85 | µA | Reversed | Closed | Open | All |

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| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 25 | IEC61010 | Touch Leakage | Normal | AC+DC | 0.01 | µA | Normal | Closed | Closed | All |
| 26 | | Touch Leakage | Normal | AC+DC | 0.00 | µA | Reversed | Closed | Closed | All |
| 27 | | Touch Voltage | Normal | AC+DC | 2.74 | V | Normal | Closed | Closed | All |
| 28 | | Touch Voltage | Normal | AC+DC | 2.75 | V | Reversed | Closed | Closed | All |
| 29 | | Touch Leakage | SFC | AC+DC | 133.27 | µA | Normal | Closed | Open | All |
| 30 | | Touch Leakage | SFC | AC+DC | 132.32 | µA | Reversed | Closed | Open | All |
| 31 | | Touch Voltage | SFC | AC+DC | 2.726 | V | Normal | Closed | Open | All |
| 32 | | Touch Voltage | SFC | AC+DC | 2.7 | V | Reversed | Closed | Open | All |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 33 | Insulation Testing | Insulation Resistance | Normal | AC+DC | >20 | MΩ | Normal | Closed | Closed | All |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 34 | Point to Point Testing | Point to Point Earth Bond Test | Normal | AC+DC | >19.9 | Ω | Normal | Closed | Closed | All |
| 35 | | Point to Point Leakage Test | Normal | AC+DC | 0 | mA | Normal | Closed | Closed | All |
| 36 | | Standard Insulation Test | Normal | AC+DC | >20 | MΩ | Normal | Closed | Closed | All |

| | | | |
|---|---|---|---|
| Test Passed | Yes | Test On | 08.11.2023 |

Checked & Issued by:

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