



CC - 3237

CALIBRATION CERTIFICATE

MCAL/FOR/QD-12

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PRF #	: MCAL/PRF/0623189	Date of Calibration	: 16-Jun-2023
Certificate #	: MSIR/410623/189-001	Recom. Due Date	: 15-Jun-2024

DETAILS OF USER CUSTOMER		ULR #	: CC323723000008441F
M/S. SHIFA HOSPITAL, #59, Pattukottai Road, Adirampattinam, Tanjavur Dist. Tamil Nadu-614 701		Calibrated at	: On-site
		Date of Receipt	: 16-Jun-2023
		Cond. On Receipt	: Satisfactory
		Date of Issue	: 22-Jun-2023

DETAILS OF TEST / UNIT UNDER CALIBRATION			
Description	: Centrifuge	Identification #	: CF-01
Range	: 100 to 5250 RPM	Serial #	: ZCHN-24221
Cal. / Working Range	: --	Make	: Remi
Least Count	: 100 RPM	Model #	: R-8C
Location	: --	Accuracy	: As Per Manual

DETAILS OF MASTER INSTRUMENT USED			
Description (Range)	Identification #	Valid upto (Due Date)	Traceability Certificate #
Digital Tachometer	MCAL/INS/OP-02	12-Sep-2023	MSIR/410922/100-001

MFC #	: MCAL/MFC/OP-02
Details of Env.	: Temperature : 25±10°C Relative Humidity : 60±20 % RH

CALIBRATION RESULTS				
<i>Parameter : Acceleration & Speed</i>				
Sl. #	Test Readings (RPM)	Standard Readings (RPM)	Error (RPM)	Uncertainty ± (RPM)
1.	102	103.2	-1.2	2.4
2.	506	508.5	-2.5	2.4
3.	1023	1027.0	-4.0	8.3
4.	3041	3048.2	-7.2	8.3
5.	5250	5259.8	-9.8	8.3

Issued by :
MCAL - Engineer
SANGEETHA. BAuthorised by :
Technical Manager
KAMALANATHAN V**MSIR INDIA PRIVATE LIMITED**

(The Madras Science and Industrial Resources)

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Certificate # MSIR/410623/189-001

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DETAILS OF TEST / UNIT UNDER CALIBRATION

Description	: Digital Timer	Identification #	: CF-01/DT-01
Range	: 0 to 60 Min	Serial #	: ZCHN-24221
Cal. / Working Range	: --	Make	: Remi
Least Count	: 1 Min	Model #	: R-8C
Location	: --	Accuracy	: As Per Manual

DETAILS OF MASTER INSTRUMENT USED

Description (Range)	Identification #	Valid upto (Due Date)	Traceability Certificate #
Digital Timer	MCAL/INS/ET-08	16-Oct-2023	MSIR/411022/111-001

MFC #	: MCAL/MFC/ET-12
Details of Env.	: Temperature : 25±10°C Relative Humidity : 40-70 % RH

CALIBRATION RESULTS*Parameter : Electro-Technical*

Sl. #	Test Readings				Standard Readings				Error Sec	Uncertainty ± (Sec)
	Hr	Min	Sec	1/100s	Hr	Min	Sec	1/100s		
1.	0	5	0	0	0	5	0	8	-0.08	0.23
2.	0	10	0	0	0	10	0	15	-0.15	0.23
3.	0	30	0	0	0	30	0	27	-0.27	0.23
4.	0	45	0	0	0	45	0	45	-0.45	0.23
5.	0	60	0	0	0	60	0	66	-0.66	0.23

Remarks

1. The reported Expanded Uncertainty is calculated at 95.45 % C.L with coverage factor k=2.
2. The reported readings are average of three readings.

Issued by :
MCAL - Engineer
SANGEETHA. BAuthorised by :
Technical Manager
KAMALANATHAN.V

★★★ End of Certificate ★★★

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