



CALIBRATION LABORATORY CO., LTD.

2/10-11, 14, 55 Soi Prasert Manukit 29 Yaek 4, Prasert Manukit Rd., Ladphrao, Bangkok 10230
Tel. 02-578-0353-4 Fax: 02-578-2672 www.cal-laboratory.com Email:sale@cal-laboratory.com



REPORT OF CALIBRATION

FOR

NOMENCLATURE : REFRIGERATOR
MANUFACTURER : S-COOL
MODEL / TYPE : SS-HA-112 V2
SERIAL NO. : 22111408[LA-0014]
LOCATION SITE : LABORATORY
DATE OF CALIBRATION : 04 April 2023

ENVIRONMENT CONDITIONS :

Temperature : 24 °C to 25 °C

Relative Humidity : 48% to 51 %

PROCEDURE USED :

This instrument was calibrated under procedure No. WI-305-165 according to TLAS G-20-1/02-08 as calibration guidelines.
The calibration was performed by using Hydra Data Logger which maintained by the Calibration Laboratory Co., Ltd.

REFERENCE STANDARD USED :

Hydra Data Logger, Fluke Model 2620 S/N: 5592550.

TRACEABILITY :

The measurements are traceable to International System of Units (SI), through Calibration Laboratory Co., Ltd.
Certificate No. Q22066550, Due Date 07 July 2023.

UNCERTAINTY :

The reported expanded uncertainty of measurement is stated as the standard uncertainty multiplied by the coverage factor complies with the table which for a normal distribution corresponds to a coverage probability of approximately 95 %.
It has been evaluated according to the "Evaluation of the Uncertainty of Measurement in Calibration (EA-4/02 M:2022)"

Certificate No. Q23031266

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CERTIFICATE OF CALIBRATION

FOR

NOMENCLATURE : REFRIGERATOR
MANUFACTURER : S-COOL
MODEL / TYPE : SS-HA-112 V2
SERIAL NO. : 22111408[LA-0014]
CLID. NO. : 332300655
JOB CONTROL NO. : 230321031266

CUSTOMER : ENVIRONMENTAL MEASUREMENTS CO., LTD.

5/45 BAAN KLANG KRUNG BIZ TOWN, SOI SRINAGARINDRA 46/1 (PRAMOTE),
NONG BON SUB-DISTRICT, PRAWET DISTRICT, BANGKOK 10250

DATE OF RECEIVED : 21 March 2023

DATE OF ISSUED : 08 April 2023

Report of calibration screening must not be taken in part. Except complete. Without the approval of the Calibration Laboratory Co., Ltd.

Calibrated By :

Wenick Inchaisri
Calibration Engineer



Approved By :

Authorized Signatory
08 April 2023

This Calibration Certificate documents the traceability to national standards, which realize the units of measurement according to the International System of Units (SI)

Certificate No. Q23031266

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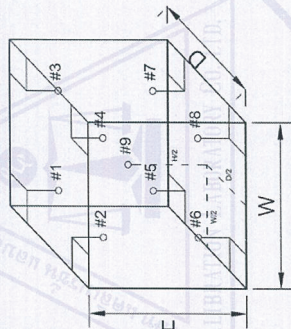
CALIBRATION DATA

2. TEMPERATURE DISTRIBUTION

DUC			Measured Temperature (°C)@Probe No.9 is Ref.									Uncertainty ± (°C)	Coverage factor <i>k</i>
Setting (°C)	Indicating (°C)		1	2	3	4	5	6	7	8	9		
4.0	4.0		7.98	8.13	7.53	7.39	7.46	7.66	7.01	7.05	7.63	2.00	

Technical Note : W = 100 cm, D = 40 cm, H = 123 cm.

The Scope of Accredited TS1 Certificate No. 23-1-B0092 Issue 01 Page 129 of 138



This report is valid for the above stated instrument/s only.

End of Certificate





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REPORT OF CALIBRATION

FOR

NOMENCLATURE : REFRIGERATOR
MANUFACTURER : S-COOL
MODEL / TYPE : SS-HA-112
SERIAL NO. : 21091450[LA-0013]
LOCATION SITE : 1st FLOOR
DATE OF CALIBRATION : 04 April 2023

ENVIRONMENT CONDITIONS :

Temperature : 30 °C to 31 °C Relative Humidity : 50% to 53 %

PROCEDURE USED :

This instrument was calibrated under procedure No. WI-305-165 according to TLAS G-20-1/02-08 as calibration guidelines.
The calibration was performed by using Hydra Data Logger which maintained by the Calibration Laboratory Co., Ltd.

REFERENCE STANDARD USED :

Hydra Data Logger, Fluke Model 2620 S/N. 5592550.

TRACEABILITY :

The measurements are traceable to International System of Units (SI), through Calibration Laboratory Co., Ltd.
Certificate No. Q22066550, Due Date 07 July 2023.

UNCERTAINTY :

The reported expanded uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by the coverage factor complies with the table which for a normal distribution corresponds to a coverage probability of approximately 95 %.
It has been evaluated according to the "Evaluation of the Uncertainty of Measurement in Calibration (EA-4/02 M:2022)"

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CERTIFICATE OF CALIBRATION

FOR

NOMENCLATURE : REFRIGERATOR
MANUFACTURER : S-COOL
MODEL / TYPE : SS-HA-112
SERIAL NO. : 21091450[LA-0013]
CLID. NO. : 332300656
JOB CONTROL NO. : 230321031267

CUSTOMER :

ENVIRONMENTAL MEASUREMENTS CO., LTD.
5/45 BAAN KLANG KRUNG BIZ TOWN, SOI SRINAGARINDRA 46/1 (PRAMOTE),
NONG BON SUB-DISTRICT, PRAWET DISTRICT, BANGKOK 10250

DATE OF RECEIVED : 21 March 2023

DATE OF ISSUED : 08 April 2023

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Calibrated By :

Wenick Inchaisiri
Calibration Engineer



Approved By :

Authorized Signatory
08 April 2023

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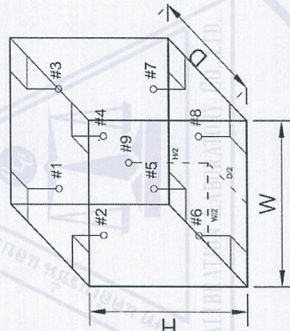
CALIBRATION DATA

2. TEMPERATURE DISTRIBUTION

DUC		Measured Temperature (°C) @ Probe No.9 is Ref.									Uncertainty ± (°C)	Coverage factor k
Setting (°C)	Indicating (°C)	1	2	3	4	5	6	7	8	9		
4.0	4.0	8.60	8.55	7.86	8.07	9.05	9.01	8.96	8.65	8.75	3.69	2.00

Technical Note : W = 100 cm, D = 40 cm, H = 123 cm.

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End of Certificate

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CONDITION OF CALIBRATION ITEM : GOOD

MEASUREMENT RESULTS : (X) without adjustment () adjustment

The table in the following gives the calibration results and associated measurement uncertainties of the measuring refrigerator.

CALIBRATION DATA

1. REFRIGERATOR PERFORMANCE

DUC		Measured Uniformity	Measured Stability	Measured Overall
Setting (°C)	Indicating (°C)	(°C)	(°C)	Variation (°C)
4.0	4.0	1.31	3.16	6.65

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REPORT OF CALIBRATION

FOR

NOMENCLATURE : REFRIGERATOR
MANUFACTURER : MEDICOOL
MODEL / TYPE : BB-117
SERIAL NO. : BB117-190725001 [LA-003]
LOCATION SITE : LABORATORY
DATE OF CALIBRATION : 04 April 2023

ENVIRONMENT CONDITIONS :

Temperature : 24 °C to 25 °C Relative Humidity : 48% to 51 %

PROCEDURE USED :

This instrument was calibrated under procedure No. WI-305-165 according to TLAS G-20-1/02-08 as calibration guidelines.
The calibration was performed by using Hydra Data Logger which maintained by the Calibration Laboratory Co., Ltd.

REFERENCE STANDARD USED :

Hydra Data Logger, Fluke Model 2620 S/N. 5592550.

TRACEABILITY :

The measurements are traceable to International System of Units (SI), through Calibration Laboratory Co., Ltd.
Certificate No. Q22066550, Due Date 07 July 2023.

UNCERTAINTY :

The reported expanded uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by the coverage factor complies with the table which for a normal distribution corresponds to a coverage probability of approximately 95 %.
It has been evaluated according to the "Evaluation of the Uncertainty of Measurement in Calibration (EA-4/02 M:2022)"

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CERTIFICATE OF CALIBRATION

FOR

NOMENCLATURE : REFRIGERATOR
MANUFACTURER : MEDICOOL
MODEL / TYPE : BB-117
SERIAL NO. : BB117-190725001 [LA-003]
CLID. NO. : 332100156
JOB CONTROL NO. : 230321031265

CUSTOMER : ENVIRONMENTAL MEASUREMENTS CO., LTD.

5/45 BAAN KLANG KRUNG BIZ TOWN, SOI SRINAGARINDRA 46/1 (PRAMOTE),
NONG BON SUB-DISTRICT, PRAWET DISTRICT, BANGKOK 10250

DATE OF RECEIVED : 21 March 2023 DATE OF ISSUED : 08 April 2023

Report of calibration screening must not be taken in part. Except complete. Without the approval of the Calibration Laboratory Co., Ltd.

Calibrated By : Wenick Inchaisri
Calibration Engineer



Approved By :

Authorized Signatory
08 April 2023

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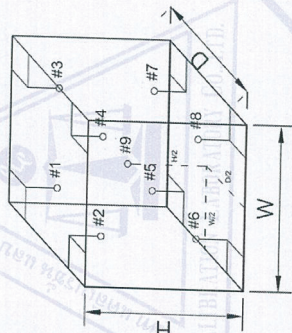
CALIBRATION DATA

2. TEMPERATURE DISTRIBUTION

DUC		Measured Temperature (°C) @ Probe No.9 is Ref.									Uncertainty ± (°C)	Coverage factor k
Setting (°C)	Indicating (°C)	1	2	3	4	5	6	7	8	9		
4.0	4.0	3.37	3.91	3.35	3.51	3.51	3.26	3.17	3.19	3.32	1.14	2.00

Technical Note : W = 50 cm, D = 50 cm, H = 120 cm.

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This report is valid for the above stated instrument/s only.

End of Certificate

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CLC

CONDITION OF CALIBRATION ITEM : GOOD

MEASUREMENT RESULTS : (X) without adjustment () adjustment

The table in the following gives the calibration results and associated measurement uncertainties of the measuring refrigerator.

CALIBRATION DATA

1. REFRIGERATOR PERFORMANCE

DUC		Measured Uniformity (°C)	Measured Stability (°C)	Measured Overall Variation (°C)
Setting (°C)	Indicating (°C)			
4.0	4.0	0.67	0.91	2.28

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REPORT OF CALIBRATION

FOR

NOMENCLATURE : INCUBATOR
MANUFACTURER : ACCUPLUS
MODEL / TYPE : SMART i250
SERIAL NO. : 2059-0718-0010[LA-002]
LOCATION SITE : LABORATORY
DATE OF CALIBRATION : 04 April 2023

ENVIRONMENT CONDITIONS :

Temperature : 24 °C to 25 °C Relative Humidity : 48% to 51 %

PROCEDURE USED :

This instrument was calibrated under procedure No. WI-305-165 according to TLAS G-20-1/02-08 as calibration guidelines.
The calibration was performed by using Hydra Data Logger which maintained by the Calibration Laboratory Co., Ltd.

REFERENCE STANDARD USED :

Hydra Data Logger, Fluke Model 2620 S/N. 5592550.

TRACEABILITY :

The measurements are traceable to International System of Units (SI) , through Calibration Laboratory Co., Ltd.
Certificate No. Q22066550, Due Date 07 July 2023.

UNCERTAINTY :

The reported expanded uncertainty of measurement is stated as the standard uncertainty multiplied by the coverage factor complies with the table which for a normal distribution corresponds to a coverage probability of approximately 95 %.
It has been evaluated according to the "Evaluation of the Uncertainty of Measurement in Calibration (EA-4/02 M:2022)"

Certificate No. Q23031264

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CERTIFICATE OF CALIBRATION

FOR

NOMENCLATURE : INCUBATOR
MANUFACTURER : ACCUPLUS
MODEL / TYPE : SMART i250
SERIAL NO. : 2059-0718-0010[LA-002]
CLID. NO. : 332100155
JOB CONTROL NO. : 230321031264

CUSTOMER : ENVIRONMENTAL MEASUREMENTS CO., LTD.

5/45 BAAN KLANG KRUNG BIZ TOWN, SOI SRINAGARINDRA 46/1 (PRAMOTE),
NONG BON SUB-DISTRICT, PRAWET DISTRICT, BANGKOK 10250

DATE OF RECEIVED : 21 March 2023

DATE OF ISSUED : 08 April 2023

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Calibrated By :

Wenick Inchaisri
Calibration Engineer



Approved By :

Authorized Signatory
08 April 2023

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