

Certificate No. 24PTP_0104240379

Page 1 of 3

Certificate of Calibration

EQUIPMENT : ELECTROSURGICAL UNITS

ID CODE : PTP00571

MANUFACTURER : VALLEYLAB

MODEL : FORCE 2

SERIAL No. : 1080147002

LOCATION : Operating Room

SUBMITTED BY : PHYATHAI PHAHOLYOTHIN HOSPITAL

670/1 Phaholyothin Road, Samsen Nai, Phaya Thai, Bangkok 10400

Tel: 02-271-7000 Fax: -

CALIBRATED DATE : 29 APRIL 2024

ISSUE DATE : 1 MAY 2024

Performed by : Approved by : USANEE CHALONGPHOKSILCHAI PHUWASIN YIWKIM

This certificate may not be reproduced except in full unless permission for reproduction has been obtained in writing from the calibration.

CONDITION OF THIS RESULT OF TEST

1. REFERENCE STANDARD INSTRUMENT:

MASTERMANUFACTURERMODELSERIAL NO.CERTIFICATE NO.DUE DATEElectrosurgeryFluke BiomedicalQA-ES III572872623MD85221 Jun 2024Analyzer

2. THIS CERTIFICATION IS TRACEABLE TO:

- Technology Promotion Association (Thai-Japan)

3. THIS RESULT OF TEST WAS FOUND ACCURATE AS SHOW ON DATE AND PLACE OF TEST ONLY



Certificate No. 24PTP_0104240379

Page 2 of 3

Calibration Report

EQUIPMENT : ELECTROSURGICAL UNITS

ID CODE : PTP00571

MANUFACTURER : VALLEYLAB

MODEL : FORCE 2

SERIAL No. : 1080147002

DATE OF CALIBRATION : 29 APRIL 2024

ENVIRONMENT : TEMPERATURE 22 °C

RELATIVE HUMIDITY 55 %

PROCEDURE USED:

This instrument was calibration by comparison with standard

MEASURMENT RESULT:

/	Without Adjustment		Before Adjustment		After Adjustment
---	--------------------	--	-------------------	--	------------------

Energy Monopolar/Cut					
UUC* Setting	Standard Reading	Error	% Error	Uncertainty	
(Watt)	(Watt)	(Watt)	(%)	(Watt)	
20	18.80	-1.20	-6.00	± 1.1547	
50	48.90	-1.10	-2.20	± 2.8868	
100	96.40	-3.60	-3.60	± 5.7737	
200	184.00	-16.00	-8.00	± 11.5473	
300	267.00	-33.00	-11.00	± 17.3210	

Energy Monopolar/Coag					
UUC* Setting	Standard Reading	Error	% Error	Uncertainty	
(Watt)	(Watt)	(Watt)	(%)	(Watt)	
20	21.80	1.80	9.00	± 1.1547	
50	55.10	5.10	10.20	± 2.8868	
80	85.50	5.50	6.88	± 4.6189	
100	104.00	4.00	4.00	± 5.7737	
120	123.00	3.00	2.50	± 6.9284	

Energy Bipolar						
UUC* Setting	Standard Reading	Error	% Error	Uncertainty		
(Watt)	(Watt)	(Watt)	(%)	(Watt)		
10	8.80	-1.20	-12.00	± 0.5774		
30	28.50	-1.50	-5.00	± 1.7321		
50	46.90	-3.10	-6.20	± 2.8868		

FI-BME-NHS-CP-024/1 Rev.03 Page 2/3 Issued Date 20/07/2023



Certificate No. 24PTP_0104240379

Page 3 of 3

Calibration Report

EQUIPMENT : ELECTROSURGICAL UNITS

ID CODE : PTP00571

SERIAL No. : 1080147002

Energy Bipolar (Continues)						
UUC* Setting	Standard Reading	Error	% Error	Uncertainty		
(Watt)	(Watt)	(Watt)	(%)	(Watt)		
60	55.20	-4.80	-8.00	± 3.4642		
70	66.50	-3.50	-5.00	± 4.0416		

UUC*: Unit Under Calibration

The reported uncertainty of measurement was based on a standard uncertainty multiplied by a coverage factor k=2, providing a level of confidence of approximately 95%

FI-BME-NHS-CP-024/1 Rev.03 Page 3/3 Issued Date 20/07/2023