

Certificate No. 24PTP\_0104240367

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## **Certificate of Calibration**

EQUIPMENT : ELECTROSURGICAL UNITS, MONOPOLAR, ARGON-

ENHANCED COAGULATION

ID CODE : PTP01136

MANUFACTURER : ERBE

MODEL : APC 2

SERIAL No. : 11362015

LOCATION : Gastrointestinal & Liver Center

SUBMITTED BY : PHYATHAI PHAHOLYOTHIN HOSPITAL

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

Tel: 02-271-7000 Fax: -

CALIBRATED DATE : 26 APRIL 2024

ISSUE DATE : 1 MAY 2024

Kanittha.

KANITTHA SRIPRAPAD

Approved by :

PHUWASIN YIWKIM

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### **CONDITION OF THIS RESULT OF TEST**

Performed by:

#### 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



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MANUFACTURER : ERBE

MODEL : APC 2

SERIAL No. : 11362015

DATE OF CALIBRATION : 26 APRIL 2024

ENVIRONMENT : TEMPERATURE 25 °C

RELATIVE HUMIDITY 55 %

### PROCEDURE USED:

This instrument was calibration by comparison with standard

### **MEASURMENT RESULT:**

Without Adjustment	Before Adjustment	After Adjustment
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Energy Monopolar/Cut				
UUC* Setting	Standard Reading	Error	% Error	Uncertainty
(Watt)	(Watt)	(Watt)	(%)	(Watt)
20	17.80	-2.20	-11.00	± 1.1547
50	43.80	-6.20	-12.40	± 2.8868
100	86.60	-13.40	-13.40	± 5.7737
150	129.00	-21.00	-14.00	± 8.6605
200	172.00	-28.00	-14.00	± 11.5473

Energy Monopolar/Coag				
UUC* Setting	Standard Reading	Error	% Error	Uncertainty
(Watt)	(Watt)	(Watt)	(%)	(Watt)
20	18.80	-1.20	-6.00	± 1.1547
50	45.80	-4.20	-8.40	± 2.8868
80	71.90	-8.10	-10.13	± 4.6189
100	90.30	-9.70	-9.70	± 5.7737
120	108.00	-12.00	-10.00	± 6.9284

Energy Bipolar				
UUC* Setting	Standard Reading	Error	% Error	Uncertainty
(Watt)	(Watt)	(Watt)	(%)	(Watt)
10	9.80	-0.20	-2.00	± 0.5774
30	28.20	-1.80	-6.00	± 1.7321



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Energy Bipolar (Continues)				
UUC* Setting	Standard Reading	Error	% Error	Uncertainty
(Watt)	(Watt)	(Watt)	(%)	(Watt)
50	47.50	-2.50	-5.00	± 2.8868
80	75.80	-4.20	-5.25	± 4.6189
120	114.00	-6.00	-5.00	± 6.9284

#### **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