

ภาคผนวก ญ

Preventive Maintenance Electrical System 2025



PREVENTIVE MAINTENANCE ELECTRICAL SYSTEM 2025

ERECTION SITE:

HYATT REGENCY BANGKOK SUKHUMVIT

CUSTOMER:

HYATT REGENCY BANGKOK SUKHUMVIT

Preventive Maintenance Report 28 September 2025

ESSI ENERGY GROUP CO., LTD.

1 Soi Ramkhamhaeng 164 Sub 16,
Minburi Sub-District
Minburi District
Bangkok 10510
Hotline 0881696156

Report prepared by: Apichat M.

A blue ink signature of Apichat M. is written over a circular stamp.

Date: **28 September 2025**

Introduction

This test and inspection is preventive maintenance at **Hyatt Regency Bangkok Sukhumvit.**

The objective of this preventive maintenance is to ensure that all tested electrical equipment still are in good condition and to find out any damaged and / or unsafe condition.

This test and inspection were performed during **28 September 2025** all test & inspection result and any comment have been recorded in this test report.

Table of content

Introduction	2
Table of content.....	3
Scope of Work	4
Content	6
Conclusion	8
Suggestion / Recommendations	9
Photograph	11
Test Sheet	20

Scope of Work

1. Ring Main Unit

1. Inspection and cleaning the cubicle.
2. Retightening power cable termination / ground cable.
3. Operation the switch-disconnector / circuit breaker several time (3-5 time) to make mechanism movement.
4. Test interlocking mechanism.
5. Trip test protection relay (if any)

2. Transformer (dry type)

1. General inspection and cleaning.
2. Bushing condition check.
3. Grounding connection check.
4. Retighten with torque wrench (busing connection).
5. Insulation resistance.
6. Motor fan function test.
7. Temperature controller function test.

3. Air Circuit Breaker

1. Cleaning the air circuit breaker and relubricating the operating mechanism.
2. Cleaning and check Arc-chuter.
3. Insulation check.
4. Rack-in / rack-out circuit breaker.
5. Trip unit function test. (Protection unit).
6. Parameter checking and recording of protective relay
7. Contact resistance test.

4. LV Switchboard

1. Cleaning all panel.
2. Retorque the busbar at main incoming and between panel.
3. Insulation test.
4. Metering check.
5. General condition check.
6. Grounding connection check.
7. Busbar check.
8. Fuse and fuse bases check.

5. Capacitor Bank

1. Inspect for physical damage, broken insulation.
2. Tightness of connection wiring.
3. Cleaning.
4. Operating function.
5. Capacitive or current measurement.

6. Automatic Transfer Switch & EMDB Panel

1. Cleaning all panel.
2. General and physical check MCCB or ACB.
3. Cleaning and relubricating the operating mechanism.
4. Retorque at connection of MCCB and busbar or cable.
5. Insulation test.
6. Trip unit function test.
7. Function test step by step.
8. General wiring control check.

7. DB Panel

1. Cleaning all panel.
2. Retorque busbar and cable connection at main incoming and between panel.
3. Retorque at connection of MCCB and busbar or cable.
4. Metering check.
5. General condition check.
6. Grounding connection check.
7. Busbar check and retorque.
8. Fuse and fuse bases check.

8. Plug-In Unit

1. Inspect for physical damage, broken insulation.
2. Tightness of connection beaker and busbar.
3. Check ground connection.
4. Cleaning.
5. Operating function test.

Content

Hyatt Regency Bangkok Sukhumvit

-  RMU Room (Floor 1)
 -  RMU. (PRI)
-  Electrical Room (Floor 3)
 -  RMU. (SEC)
 -  Transformer
 -  TR.1
 -  TR.2
 -  LV Switchboard MDB.1
 -  ACB MAIN FROM TR.1
 -  ACB DB. B
 -  ACB FOR.1A
 -  ACB CAP.1
 -  ACB TIE
 -  MCCB FOR ODD FLOOR
 -  MCCB DB. G
 -  MCCB DB.2
 -  MCCB SPARE
 -  MCCB SPARE
 -  MCCB SPARE
 -  MCCB MCC.WHP
 -  MCCB MCC.PP
 -  MCCB FDP.1
 -  LV CAP. BANK1
 -  LV Switchboard MDB.2
 -  ACB MAIN FROM TR.2
 -  ACB MCC.AC1
 -  ACB MCC.AC3
 -  MCCB FOR EVEN FLOOR
 -  MCCB SPARE
 -  MCCB SPARE
 -  LV Switchboard MDB.E
 -  ACB ATS NORMAL
 -  ACB ATS EMERGENCY
 -  ACB MCCEAC2
 -  ACB CAP.2
 -  MCCB DBELV.1 ELEVATOR
 -  MCCB DBELV.3 ELEVATOR
 -  MCCB DB. E2
 -  MCCB DBELV.6 ELEVATOR
 -  MCCB DB. E6
 -  MCCB SPARE
 -  MCCB DB. E5
 -  MCCB DB. E7
 -  MCCB DB. E11
 -  MCCB MCC.ESN1

-
-  MCCB DBELV.2 ELEVATOR
 -  MCCB DBELV.4 ELEVATOR
 -  MCCB SPARE
 -  MCCB DB. EB
 -  MCCB DB. EG
 -  MCCB DB. E3
 -  MCCB DB. E4
 -  LV CAP. BANK2
 -  LV Switchboard FDP.1
 -  MCCB ATS NORMAL
 -  MCCB ATS EMERGENCY
 -  MCCB MCC.EFP
 -  MCCB DBEL V.5
 -  MCCB MCC.EACR
 -  MCCB MCC.EAC2
 -  MCCB MCC.EAC6
 -  MCCB SPARE
 -  LV Switchboard GCP.1
 -  ACB TO MDB.E
 -  MCCB TO FDP.1
 -  Ground

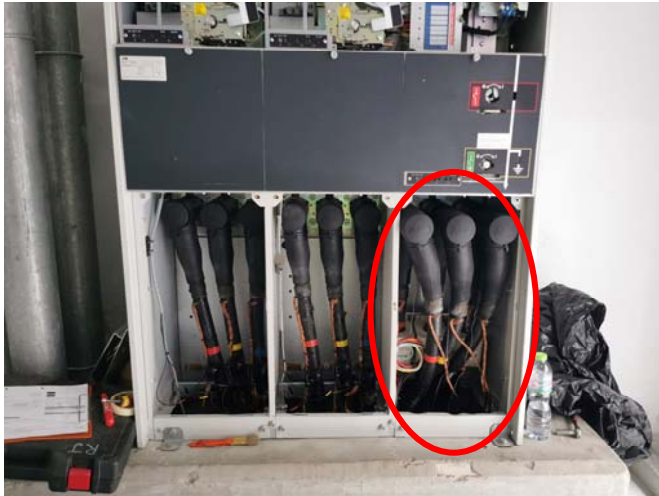
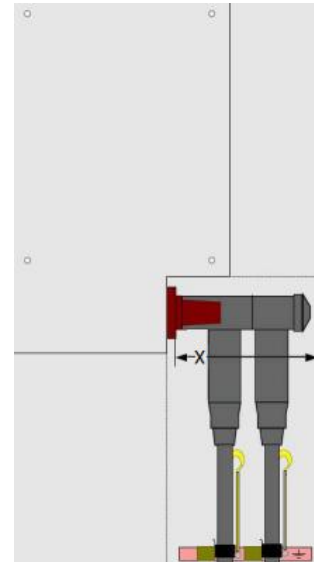
Conclusion

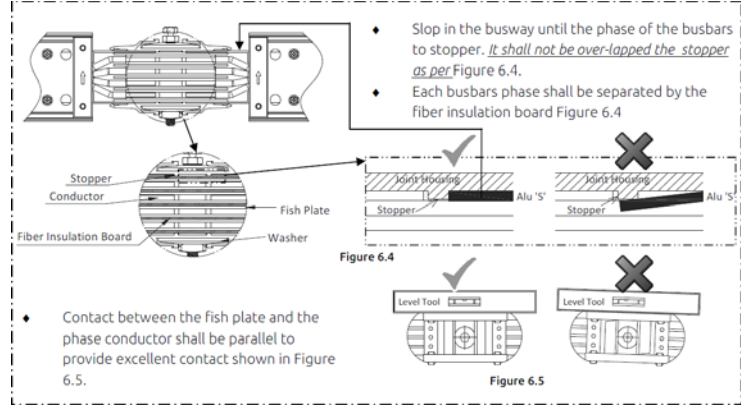
From results of test & inspection, all of defected equipments are shown in table below.

Item	Equipments	Status	Faulty list	Corrective Action	Remark
1	● CAP. BANK2 / Capacitor / Brand : ABB Type : CLMD63 Qn: 60 kVar Un : 415 V	Abnormal	- Capacitor Step No.3,8,10 เสื่อมสภาพ	ควรทำการเปลี่ยน Capacitor ใหม่ ☐ แก้ไขโดยเร่งด่วน ☐ แก้ไขภายใน.....เดือน ☒ ควรวางแผนเปลี่ยนอุปกรณ์ ☐ ตรวจสอบอุปกรณ์เป็นระยะ	วันที่ใช้งาน : 

Suggestion / Recommendations

From results of test & inspection, all of suggestion/recommendations are shown in table below.

Item	Description	Detail	Suggestion/Recommendation
1	- Ring Main Unit (PRI) / Floor 1: - Brand: ABB - Model: SAFEPLUS - Type: CCV	Ring Main Unit ชั้น 1 พบว่าหัวสายของ Feeder Outgoing "V" ซึ่งเป็นหัวสายแบบ Double connect นั้น การติดตั้งหัวสายชุด Double นี้ไม่มีตัวล็อคสายเคเบิล ซึ่งทำให้สายตึงและรั้ง ซึ่งแรงดึงสายที่ตึงนี้อาจจะส่งผลให้หัวสายหรือบุชซึ่ง Crack เสียหายหรือเกิดการ Short circuit ได้ 	แนะนำให้ทำการแก้ไข โดยให้มีตัวล็อคสายและยึดสายให้แน่นเป็นแนวตรง เพื่อป้องกันการดึงรั้งของสาย ซึ่งอาจจะส่งผลให้หัวสายมีปัญหาและเกิดการ Short circuit ในอนาคตได้ 

Item	Description	Detail	Suggestion/Recommendation
2	BUSDUCT: Brand: POWERDUCT	ลักษณะของการติดตั้ง Jointing Busduct ตามชั้นต่างๆ Alignment ไม่ตรง (ชั้น 11,12,14,16,17,19,20,22,23,24,27) ซึ่งคู่มือการติดตั้งใช้งานของบัสดักได้แสดงให้เห็นว่าควรจะต้องติดตั้งให้ Alignment ตรง 	แนะนำให้ทำการแก้ไข Alignment ของบัสดักให้ตรง ซึ่งการติดตั้งที่เอียงแบบนี้จะส่งผลให้บัสดักมีปัญหาความร้อนที่จุดต่อได้และอาจส่งผลให้เกิดการ Short circuit ของบัสดักในอนาคตได้ 

Photograph

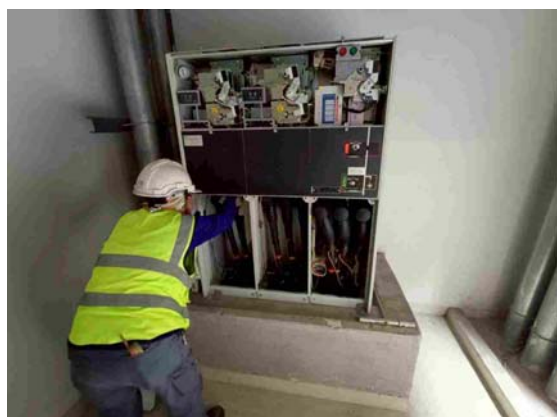
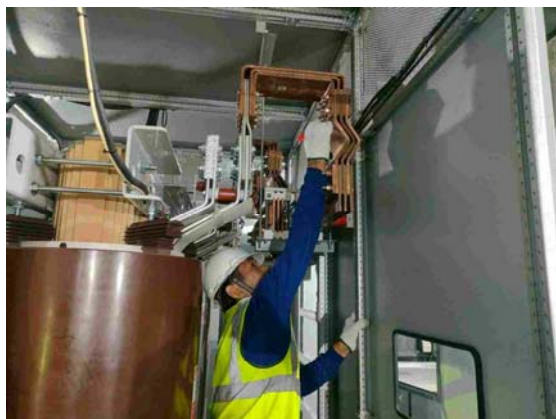
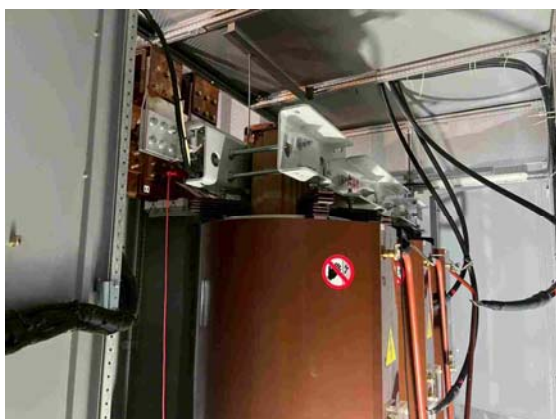
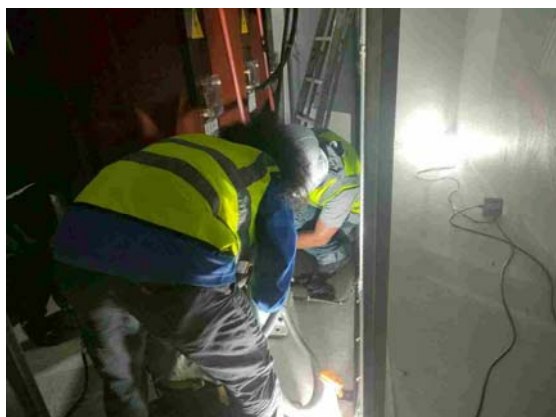


Photo 1-2-3-4 : ภาพของการตัดระบบไฟฟ้าและตรวจสอบ
RMU ขณะทำ Preventive Maintenance



Photo 5-6-7-8-9-10-11-12 : ภาพแสดงการทำความสะอาด
และทดสอบหม้อแปลงขณะทำ Preventive Maintenance





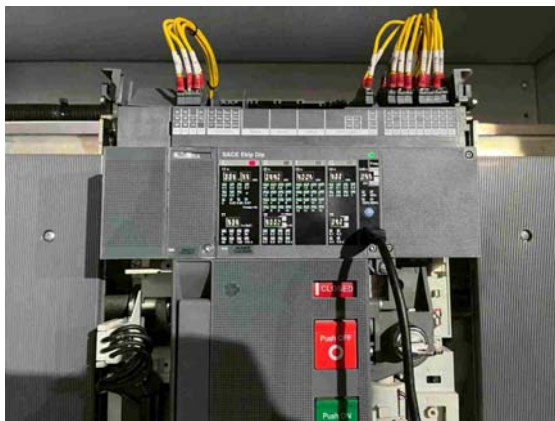
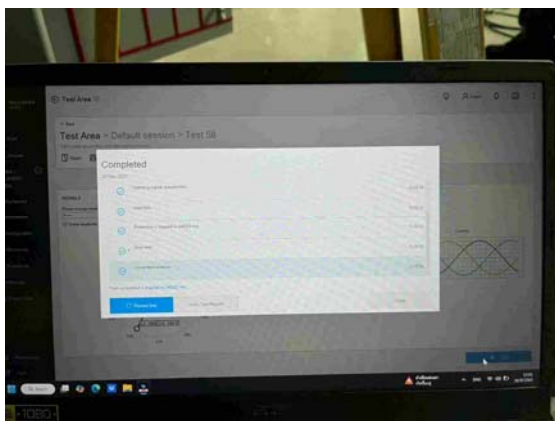
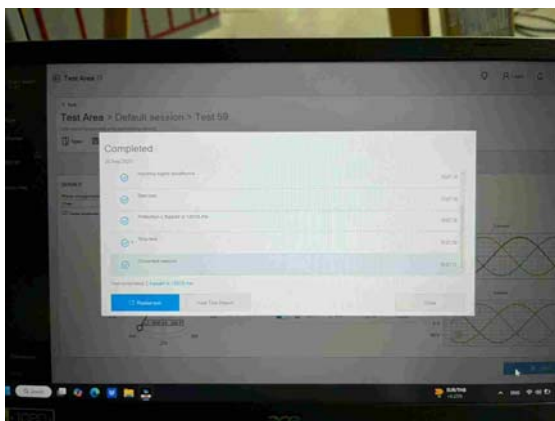


Photo 13-14-15-16-17-18-19-20 : ภาพแสดงการทดสอบ

Air Circuit Breaker ขณะทำ Preventive Maintenance



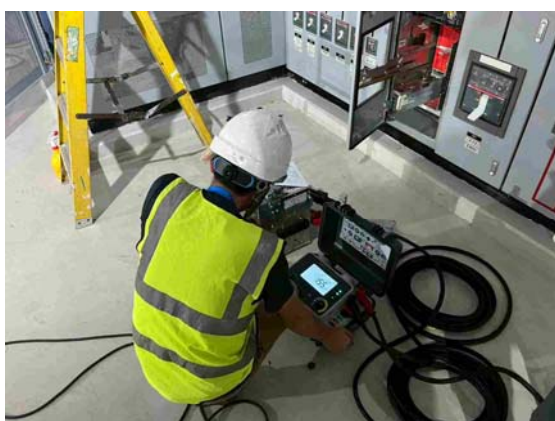




Photo 21-22-23-24-25-26-27-28 : ภาพแสดงการทำ

Preventive Maintenance ตู้ LV MDB, EMDB, Cap. Bank, MCCB โดยการ Inspection, Cleaning, Tightening torque, Insulation resistance test

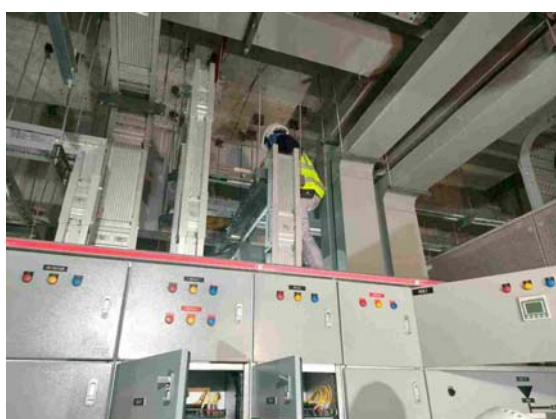
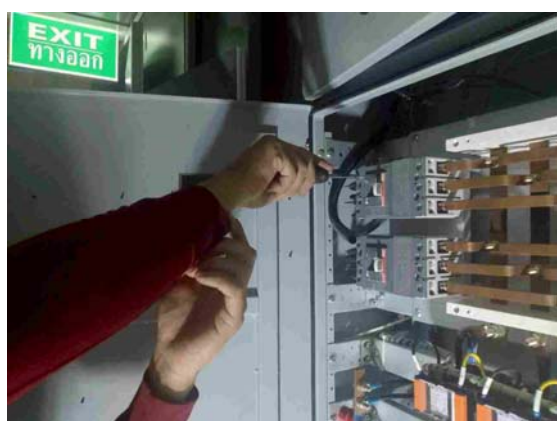
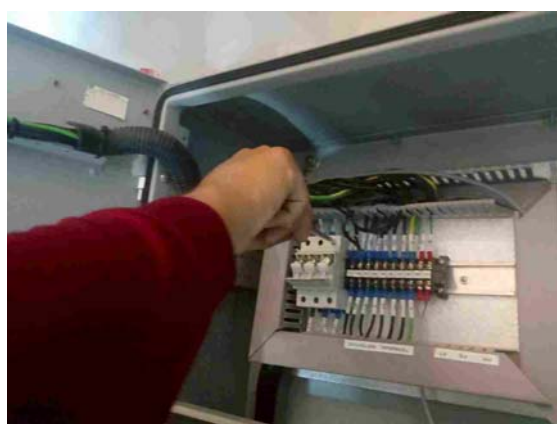


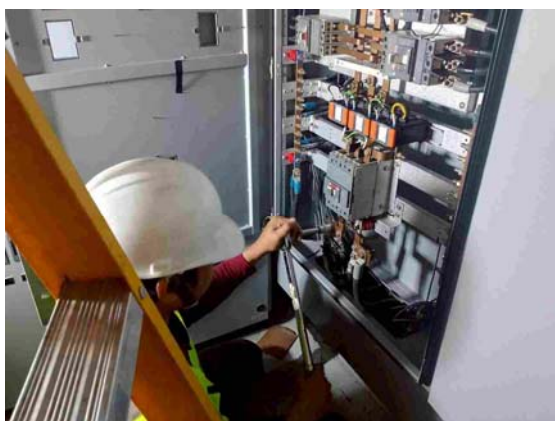
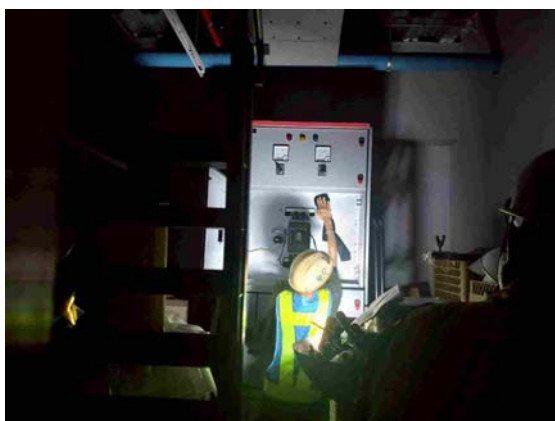
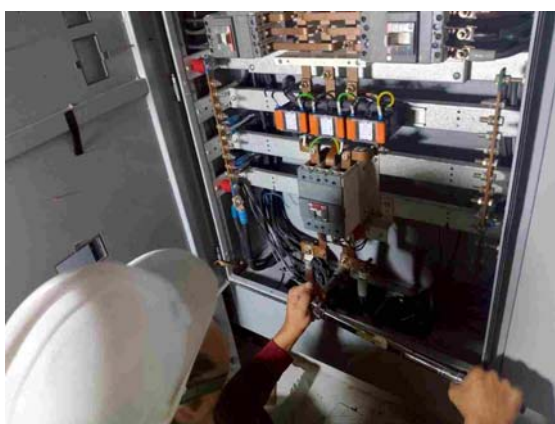




Photo 29-30-31-32-33-34-35-36 : ภาพแสดงการทำ

Preventive Maintenance ตู้ LV DB, EMDB, Cap. Bank,
MCCB โดยการ Inspection, Cleaning, Tightening torque,
Insulation resistance test





Test Sheet

Here below are the reports of maintenance jobs which have been performed.



ESSI ENERGY GROUP CO., LTD.

1.RMU

ESSI ENERGY GROUP CO., LTD.



FIELD INSPECTION AND TEST RECORD



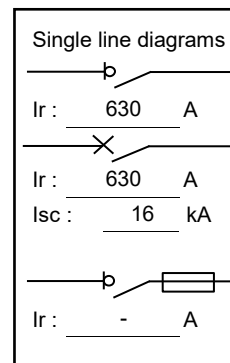
RING MAIN UNIT

BANGKOK SUKHUMVIT

PROJECT	: Preventive Maintenance	LOCATION	: RMU Room (Floor 1)
ERECTION SITE	: Hyatt Regency Bangkok Sukhumvit	CUBICLE NAME	: RMU. (PRI)
CUSTOMER	: Hyatt Regency Bangkok Sukhumvit	FUNCTION MODULE	: 3

TECHNICAL DATA

Manufacture	ABB	Rated current (Ir)	630	A
Model	SAFEPLUS	Serial Number.	501436980/3001-001	
Multifunction config.	CCV	Short-circuit current (Isc)	16	kA
Year	2016-03	Short-time withstand current		
Rated voltage (Ur)	24	kV		
Insulation vottage				
• Power frequency w/s (Ud)	50	kV		
• Lightning impulse w/s(Up)	125	kV		
Frequency (fr)	50	Hz		
Standards	IEC 62271-200			
		• Short-time current (Ik)	21/16	kA
		• Duration of short-circuit (tk)	3	s
		SF6 gas absolute pressure	0.14	MPa
		Brand of fuses	-	
		Model of fuse	-	
		Rate: - Ir: - I1: - I3: -		



Bushing of function Unit :	1 st	2 nd	3 rd	4 th	5 th
Connection	Plug in :	☐	☐	☐	☐
Type	Bolted :	☒	☒	☒	☐

VISUAL INSPECTION AND FUNCTION TEST

☒ 1 st Function	Feeder Name:	INC.1	In of function:	630	A
	Function Unit:	C	Type of Protection:	-	
			Checked	N/A	Notes
	Cleaning Termination and Ring Main Unit		☒	☐	
	Grease and Lubricant Mechanism Operation		☒	☐	
	Check SF6 Indicator		☒	☐	
	Check Voltage Indicator		☒	☐	
	Check Connection Ground Point		☒	☐	
	Function Operation test Manual On/Off		☒	☐	
	Function test trip Mitop (By Protection Relay)		☐	☒	
	• Option in function	☐ Shunt trip coil	☐ Motor mechanism	☐ Undervoltage coil	
Remark :					

☒ 2nd Function	Feeder Name:	INC.2	In of function:	630	A
	Function Unit:	C	Type of Protection:	-	
			Checked	N/A	Notes
	Cleaning Termination and Ring Main Unit		☒	☐	
	Grease and Lubricant Mechanism Operation		☒	☐	
	Check SF6 Indicator		☒	☐	
	Check Voltage Indicator		☒	☐	
	Check Connection Ground Point		☒	☐	
	Function Operation test Manual On/Off		☒	☐	
	Function test trip Mitop (By Protection Relay)		☐	☒	
	• Option in function	☐ Shunt trip coil	☐ Motor mechanism	☐ Undervoltage coil	
Remark :					

Responsibility	Tested by	Witnessed by
Company	ESSI ENERGY GROUP CO., LTD.	Hyatt Regency Bangkok Sukhumvit
Name	Apichat Moonee	
Signature	<i>Apichat Moonee</i>	
Date	28 September 2025	

ESSI ENERGY GROUP CO., LTD.



FIELD INSPECTION AND TEST RECORD



RING MAIN UNIT

BANGKOK SUKHUMVIT

PROJECT : Preventive Maintenance	LOCATION : Electrical Room (Floor 3)
ERECTION SITE : Hyatt Regency Bangkok Sukhumvit	CUBICLE NAME : RMU. (SEC)
CUSTOMER : Hyatt Regency Bangkok Sukhumvit	FUNCTION MODULE : 3

TECHNICAL DATA

Manufacture : ABB Model : SafePlus Multifunction config. : CFF Year : 2016-09 Rated voltage (Ur) : 24 kV Insulation vottage : • Power frequency w/s (Ud) : 50 kV • Lightning impulse w/s(Up) : 125 kV Frequency (fr) : 50 Hz Standards : IEC 62271-200	Rated current (Ir) : 630 A Serial Number. : 501556596/1001-001 Short-circuit current (Isc) : - kA Short-time withstand current : • Short-time current (Ik) : 16 kA • Duration of short-circuit (tk) : 3 s SF6 gas absolute pressure : 0.14 MPa Brand of fuses : SIBA Model of fuse : 30 022 13.100 Rate: Ir: 100 A I1: 63 kA I3: 320 A	Single line diagrams
---	---	---

Bushing of function Unit :		1 st	2 nd	3 rd	4 th	5 th
Connection Type	Plug in :	☐	☐	☐	☐	☐
	Bolted :	☒	☒	☒	☐	☐

VISUAL INSPECTION AND FUNCTION TEST

☒ 1 st Function	Feeder Name: INC.1 Function Unit: C	In of function: 630 A Type of Protection: -	<table border="0"> <tr> <th>Checked</th> <th>N/A</th> <th>Notes</th> </tr> <tr> <td>☒</td> <td>☐</td> <td></td> </tr> <tr> <td>☒</td> <td>☐</td> <td></td> </tr> <tr> <td>☒</td> <td>☐</td> <td></td> </tr> <tr> <td>☒</td> <td>☐</td> <td></td> </tr> <tr> <td>☒</td> <td>☐</td> <td></td> </tr> <tr> <td>☒</td> <td>☐</td> <td></td> </tr> <tr> <td>☐</td> <td>☒</td> <td></td> </tr> </table>	Checked	N/A	Notes	☒	☐		☒	☐		☒	☐		☒	☐		☒	☐		☒	☐		☐	☒	
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Cleaning Termination and Ring Main Unit Grease and Lubricant Mechanism Operation Check SF6 Indicator Check Voltage Indicator Check Connection Ground Point Function Operation test Manual On/Off Function test trip Mitop (By Protection Relay) • Option in function ☐ Shunt trip coil ☐ Motor mechanism ☐ Undervoltage coil																											
Remark : _____																											

☒ 2nd Function	Feeder Name: OUT. TR.1 Function Unit: F	In of function: 630 A Type of Protection: FUSE	<table border="0"> <tr> <th>Checked</th> <th>N/A</th> <th>Notes</th> </tr> <tr> <td>☒</td> <td>☐</td> <td></td> </tr> <tr> <td>☒</td> <td>☐</td> <td></td> </tr> <tr> <td>☒</td> <td>☐</td> <td></td> </tr> <tr> <td>☒</td> <td>☐</td> <td></td> </tr> <tr> <td>☒</td> <td>☐</td> <td></td> </tr> <tr> <td>☒</td> <td>☐</td> <td></td> </tr> <tr> <td>☐</td> <td>☒</td> <td></td> </tr> </table>	Checked	N/A	Notes	☒	☐		☒	☐		☒	☐		☒	☐		☒	☐		☒	☐		☐	☒	
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Cleaning Termination and Ring Main Unit Grease and Lubricant Mechanism Operation Check SF6 Indicator Check Voltage Indicator Check Connection Ground Point Function Operation test Manual On/Off Function test trip Mitop (By Protection Relay) • Option in function ☐ Shunt trip coil ☐ Motor mechanism ☐ Undervoltage coil																											
Remark : _____																											

Responsibility	Tested by	Witnessed by
Company	ESSI ENERGY GROUP CO., LTD.	Hyatt Regency Bangkok Sukhumvit
Name	Apichat Moonee	
Signature	<i>Apichat Moonee</i>	
Date	28 September 2025	

ESSI ENERGY GROUP CO., LTD.



FIELD INSPECTION AND TEST RECORD



RING MAIN UNIT

BANGKOK SUKHUMVIT

PROJECT : Preventive Maintenance	LOCATION : Electrical Room (Floor 3)
ERECTION SITE : Hyatt Regency Bangkok Sukhumvit	CUBICLE NAME : RMU. (SEC)
CUSTOMER : Hyatt Regency Bangkok Sukhumvit	FUNCTION MODULE : 3

☒ 3rd Function Feeder Name: OUT. TR.2 In of function: 630 A

Function Unit: F Type of Protection: FUSE

	Checked	N/A	Notes
Cleaning Termination and Ring Main Unit	☒	☐	
Grease and Lubricant Mechanism Operation	☒	☐	
Check SF6 Indicator	☒	☐	
Check Voltage Indicator	☒	☐	
Check Connection Ground Point	☒	☐	
Function Operation test Manual On/Off	☒	☐	
Function test trip Mitop (By Protection Relay)	☐	☒	

• Option in function ☐ Shunt trip coil ☐ Motor mechanism ☐ Undervoltage coil

Remark : _____

☐ 4th Function Feeder Name: _____ In of function: _____ A

Function Unit: _____ Type of Protection: _____

	Checked	N/A	Notes
Cleaning Termination and Ring Main Unit	☐	☐	
Grease and Lubricant Mechanism Operation	☐	☐	
Check SF6 Indicator	☐	☐	
Check Voltage Indicator	☐	☐	
Check Connection Ground Point	☐	☐	
Function Operation test Manual On/Off	☐	☐	
Function test trip Mitop (By Protection Relay)	☐	☐	

• Option in function ☐ Shunt trip coil ☐ Motor mechanism ☐ Undervoltage coil

Remark : _____

☐ 5th Function Feeder Name: _____ In of function: _____ A

Function Unit: _____ Type of Protection: _____

	Checked	N/A	Notes
Cleaning Termination and Ring Main Unit	☐	☐	
Grease and Lubricant Mechanism Operation	☐	☐	
Check SF6 Indicator	☐	☐	
Check Voltage Indicator	☐	☐	
Check Connection Ground Point	☐	☐	
Function Operation test Manual On/Off	☐	☐	
Function test trip Mitop (By Protection Relay)	☐	☐	

• Option in function ☐ Shunt trip coil ☐ Motor mechanism ☐ Undervoltage coil

Remark : _____

Responsibility	Tested by	Witnessed by
Company	ESSI ENERGY GROUP CO., LTD.	Hyatt Regency Bangkok Sukhumvit
Name	Apichat Moonee	
Signature	<i>Apichat Moonee</i>	
Date	28 September 2025	



ESSI ENERGY GROUP CO., LTD.

2.TRANSFORMER

ESSI ENERGY GROUP CO., LTD.



FIELD INSPECTION AND TEST RECORD



BANGKOK SUKHUMVIT

TRANSFORMER

PROJECT	: Preventive Maintenance	LOCATION	: Electrical Room (Floor 3)
ERECTION SITE	: Hyatt Regency Bangkok Sukhumvit	TR. NAME	: TR.1
CUSTOMER	: Hyatt Regency Bangkok Sukhumvit		

TECHNICAL DATA

Manufacture	ABB	Serial No.	1LKR1245421
Type	CAST RESIN	Type of cooling	AN/AF
Standard	IEC 60076-11	Weight	5300 kg.
Year of manufacture	2016.10	Tap position	1
Rated frequency	50 Hz	LI withstand (HV/LV)	125 / - kV
Vector-group symbol	Dyn11	AC withstand (HV/LV)	50 / 3 kV
Rated power (AN/AF)	2500/3500 KVA	Impedance (AN/AF)	6.04 / 8.46 %
Rated voltage HV	24000 V	Insulation Class (HV/LV)	F / F
Rated voltage LV	416 V	IP Code of Enclosure	IP00
Rated current HV (AN/AF)	60.1/84.2 A	C / E / F Class	C1 / E2 / F1
Rated current LV (AN/AF)	3469.7/4857.5 A	Temp. Rise (HV/LV)	100 / 100 K

TAP	HV	LV
1	24000	416/240
2	23400	416/240
3	22800	416/240
4	22200	416/240
5	21600	416/240

VISUAL INSPECTION AND FUNCTION TEST

	Pass	Not pass
1. Transformer installed according to design and manufacturer's instructions	☒	☐
2. Transformer undamaged and clean .	☒	☐
3. Check that all valves are set at right position	☒	☐
4. Check that the distance between phases and phase to earth are sufficient.	☒	☐
5. Bushing undamaged and clean.	☒	☐
6. Check that all air release plugs vented.	☒	☐
7. Wiring and cabling check, cable and terminal fastened properly.	☒	☐

INSULATION RESISTANCE MEASUREMENT

Instrument : Megger Model MIT515 Serial no. : 13117

Test connection	Test voltage (Vdc)	Insulation resistance (MΩ)	Criteria (MΩ)
HV to GND	2500	173,300	≥ 1000
HV to LV	2500	278,500	≥ 1000

Standard Reference : IEC 60076

Humidity : 85 % Amb. Temp. : 28 °C

Responsibility	Tested by	Witnessed by
Company	ESSI ENERGY GROUP CO., LTD.	Hyatt Regency Bangkok Sukhumvit
Name	Apichat Moonee	
Signature	<i>Apichat Moonee</i>	
Date	28 September 2025	

ESSI ENERGY GROUP CO., LTD.



FIELD INSPECTION AND TEST RECORD



BANGKOK SUKHUMVIT

TRANSFORMER

PROJECT : Preventive Maintenance ERECTION SITE : Hyatt Regency Bangkok Sukhumvit CUSTOMER : Hyatt Regency Bangkok Sukhumvit	LOCATION : Electrical Room (Floor 3) TR. NAME : TR.1
--	---

TEMPERATURE MONITORING

Manufacture : NEURON TECH
 Type : KN804

Setting :

Alarm = 110 °C Trip = 130 °C Fan (On) = 90 °C Fan (Off) = 80 °C

TEMPERATURE MEASUREMENT

Function	Actual Temperature (°C)
Ph. A	41
Ph. B	47
Ph. C	43

TRIP TEST

Function				Result		
				Pass	Not pass	N/A
Temperature trip to	☐ RMU	☒ ACB		☒	☐	☐

Remark :

Responsibility	Tested by	Witnessed by
Company	ESSI ENERGY GROUP CO., LTD.	Hyatt Regency Bangkok Sukhumvit
Name	Apichat Moonee	
Signature	<i>Apichat Moonee</i>	
Date	28 September 2025	

ESSI ENERGY GROUP CO., LTD.



FIELD INSPECTION AND TEST RECORD



BANGKOK SUKHUMVIT

TRANSFORMER

PROJECT	: Preventive Maintenance	LOCATION	: Electrical Room (Floor 3)
ERECTION SITE	: Hyatt Regency Bangkok Sukhumvit	TR. NAME	: TR.2
CUSTOMER	: Hyatt Regency Bangkok Sukhumvit		

TECHNICAL DATA

Manufacture	ABB	Serial No.	1LKR1245422
Type	CAST RESIN	Type of cooling	AN/AF
Standard	IEC 60076-11	Weight	5300 kg.
Year of manufacture	2016.10	Tap position	1
Rated frequency	50 Hz	LI withstand (HV/LV)	125 / - kV
Vector-group symbol	Dyn11	AC withstand (HV/LV)	50 / 3 kV
Rated power (AN/AF)	2500/3500 KVA	Impedance (AN/AF)	6.01 / 8.41 %
Rated voltage HV	24000 V	Insulation Class (HV/LV)	F / F
Rated voltage LV	416 V	IP Code of Enclosure	IP00
Rated current HV (AN/AF)	60.1/84.2 A	C / E / F Class	C1 / E2 / F1
Rated current LV (AN/AF)	3469.7/4857.5 A	Temp. Rise (HV/LV)	100 / 100 K

TAP	HV	LV
1	24000	416/240
2	23400	416/240
3	22800	416/240
4	22200	416/240
5	21600	416/240

VISUAL INSPECTION AND FUNCTION TEST

	Pass	Not pass
1. Transformer installed according to design and manufacturer's instructions	☒	☐
2. Transformer undamaged and clean .	☒	☐
3. Check that all valves are set at right position	☒	☐
4. Check that the distance between phases and phase to earth are sufficient.	☒	☐
5. Bushing undamaged and clean.	☒	☐
6. Check that all air release plugs vented.	☒	☐
7. Wiring and cabling check, cable and terminal fastened properly.	☒	☐

INSULATION RESISTANCE MEASUREMENT

Instrument : Megger Model MIT515 Serial no. : 13117

Test connection	Test voltage (Vdc)	Insulation resistance (MΩ)	Criteria (MΩ)
HV to GND	2500	158,200	≥ 1000
HV to LV	2500	172,300	≥ 1000

Standard Reference : IEC 60076

Humidity : 85 % Amb. Temp. : 28 °C

Responsibility	Tested by	Witnessed by
Company	ESSI ENERGY GROUP CO., LTD.	Hyatt Regency Bangkok Sukhumvit
Name	Apichat Moonee	
Signature	<i>Apichat Moonee</i>	
Date	28 September 2025	

ESSI ENERGY GROUP CO., LTD.



FIELD INSPECTION AND TEST RECORD



BANGKOK SUKHUMVIT

TRANSFORMER

PROJECT : Preventive Maintenance ERECTION SITE : Hyatt Regency Bangkok Sukhumvit CUSTOMER : Hyatt Regency Bangkok Sukhumvit	LOCATION : Electrical Room (Floor 3) TR. NAME : TR.2
--	---

TEMPERATURE MONITORING

Manufacture : NEURON TECH
 Type : KN804

Setting :

Alarm	Trip	Fan (On)	Fan (Off)
= 110 °C	= 130 °C	= 90 °C	= 80 °C

TEMPERATURE MEASUREMENT

Function	Actual Temperature (°C)
Ph. A	50
Ph. B	54
Ph. C	47

TRIP TEST

Function				Result		
				Pass	Not pass	N/A
Temperature trip to	☐ RMU	☒ ACB		☒	☐	☐

Remark :

Responsibility	Tested by	Witnessed by
Company	ESSI ENERGY GROUP CO., LTD.	Hyatt Regency Bangkok Sukhumvit
Name	Apichat Moonee	
Signature	<i>Apichat Moonee</i>	
Date	28 September 2025	



ESSI ENERGY GROUP CO., LTD.

3.MDB.1

ESSI ENERGY GROUP CO., LTD.



FIELD INSPECTION AND TEST RECORD



LV SWITCHBOARD

BANGKOK SUKHUMVIT

PROJECT : Preventive Maintenance	LOCATION : Electrical Room (Floor 3)
ERECTION SITE : Hyatt Regency Bangkok Sukhumvit	CUBICLE NAME : MDB.1
CUSTOMER : Hyatt Regency Bangkok Sukhumvit	

VISUAL INSPECTION

	Normal	Abnormal
1. Cleaning all panel	☒	☐
2. Re-torque the busbar at main incoming and between panel	☒	☐
3. Re-torque at connection of MCCB and busbar or cable	☒	☐
4. Insulation test	☒	☐
5. Metering check	☒	☐
6. General condition check	☒	☐
7. Grounding condition check	☒	☐
8. Busbar check and re-torque	☒	☐
9. Fuse and fuse bases check	☒	☐

INSULATION RESISTANCE MEASUREMENT

Instrument : Megger Model MIT515 Serial no. : 13117

Test connection	Test voltage (Vdc)	Insulation resistance (MΩ)	Minimum Insulation Resistance
A-B	500	239	1.0 MΩ
B-C		129	
C-A		343	
A-Gnd.		708	
B-Gnd.		863	
C-Gnd.		915	

Reference : IEC 60364-6 Standards

Humidity : 85 % Amb. Temp. : 28 °C

Remark : _____

Responsibility	Tested by	Witnessed by
Company	ESSI ENERGY GROUP CO., LTD.	Hyatt Regency Bangkok Sukhumvit
Name	Apichat Moonee	
Signature	<i>Apichat Moonee</i>	
Date	28 September 2025	



FIELD INSPECTION AND TEST RECORD



BANGKOK SUKHUMVIT

AIR CIRCUIT BREAKER (ABB)

PROJECT	: Preventive Maintenance	LOCATION	: Electrical Room (Floor 3)
ERECTION SITE	: Hyatt Regency Bangkok Sukhumvit	CUBICLE NAME	: MDB.1
CUSTOMER	: Hyatt Regency Bangkok Sukhumvit	FEEDER	: FROM TR.1

TECHNICAL DATA

Manufacture	ABB	Trip Device	☒ EKIP Dip	☐ EKIP Touch
Type	SACE E6.2H		☐ PR121/P	☐ PR122/P
Ampere Trip (In)	6300	A	☐ 66 kA	☐ 75 kA
Serial no.	BGC1008745	Icu	☐ 85 kA	☒ 100 kA
Ue	690	V	☒ 3P	☐ 4P
Frequency	50/60	Hz	☐ Fixed	☒ Draw-out
Standard	IEC 60947-2	Frame		

1. Accessories

1.1 Under voltage trip device (MN)	☐ 100/130 VAC/VDC	☒ 200-250 VAC/VDC	☐ Other
1.2 Shunt trip device (MX)	☐ 100/130 VAC/VDC	☒ 200-250 VAC/VDC	☐ Other
1.3 Closing coil (XF)	☐ 100/130 VAC/VDC	☒ 200-250 VAC/VDC	☐ Other
1.4 Motor charger device (MCH)	☐ 100/130 VAC/VDC	☒ 200-250 VAC/VDC	☐ Other

2. Electronic Trip Device Setting

Electronic trip device setting	Setting value	
Long time (I1)	1	
Long time delay (T1)	24	
Short time (I2)	4	
Short time delay (T2)	0.4	☒ $t=k/I^2$ ☐ $t=k$
Instantaneous (I3)	6	
Ground fault (I4)	0.3	
Ground fault time delay (T4)	0.4	☒ $t=k/I^2$ ☐ $t=k$

3. Operating and Inspect

Operating and Inspect	Result		
	Pass	Not pass	N/A
Manual charge spring	☒	☐	☐
Manual closing operation	☒	☐	☐
Manual opening operation	☒	☐	☐
Check moving part	☒	☐	☐
Check LV auxiliaries plug	☒	☐	☐
Cleaning arc chute chamber	☒	☐	☐
Characteristics of electronic trip device	☒	☐	☐

Responsibility	Tested by	Witnessed by
Company	ESSI ENERGY GROUP CO., LTD.	Hyatt Regency Bangkok Sukhumvit
Name	Apichat Moonee	
Signature	<i>Apichat Moonee</i>	
Date	28 September 2025	



FIELD INSPECTION AND TEST RECORD



AIR CIRCUIT BREAKER (ABB)

BANGKOK SUKHUMVIT

PROJECT	: Preventive Maintenance	LOCATION	: Electrical Room (Floor 3)
ERECTION SITE	: Hyatt Regency Bangkok Sukhumvit	CUBICLE NAME	: MDB.1
CUSTOMER	: Hyatt Regency Bangkok Sukhumvit	FEEDER	: FROM TR.1

4. Testing Result of Electronic Trip Device

Instrument : ABB EKIP Test kit Serial no. : -

Function	Inject Current	Should be Time (Sec)	Operating Time (Sec)	Trip Indicator	
				Passed	Failed
Long time	3xI1	24.000	24.022	☒	☐
Short time	5xI2	1.600	1.608	☒	☐
Instantaneous	7xI3	<0.03	0.015	☒	☐
Ground fault	2xI4	0.500	0.501	☒	☐

$$t = (9t_1) / (I_f/I_1)^2$$

$$t = (100t_2) / (I_f)^2$$

$$t < 30 \text{ ms}$$

$$t = 2 / (I_f/I_4)^2$$

5. Testing Result of Contact Resistance

Instrument : Chauvin Model C.A 6240 Serial no. : 162470

Phase	Test current (Adc)	Contact resistance ($\mu\Omega$)	Calculate Watt loss (Watts)	Accept. Watt loss (Watts)
A	10	12	476	1550
B		12	476	
C		13	516	
N				

6. Testing Result of Insulation Resistance

Instrument : Megger Model MIT515 Serial no. : 13117

Test Voltage (Vdc)	Insulation Resistance (M Ω)		Recommended Minimum Insulation Resistance
500	Interrupter A :	29,200	100 M Ω
	Interrupter B :	28,300	
	Interrupter C :	30,800	
	Interrupter N :		
	A to B+C+N+Gnd. :	30,000	
	B to C+A+N+Gnd. :	31,000	
	C to A+B+N+Gnd. :	30,100	
	N to A+B+C+Gnd. :		

Refer.: ANSI/NETA MTS-2011

Humidity : 85 % Amb. Temp. : 28 °C

OVERALL TEST RESULT ☒ **PASS** ☐ **NOT PASS**

Remark : _____

Responsibility	Tested by	Witnessed by
Company	ESSI ENERGY GROUP CO., LTD.	Hyatt Regency Bangkok Sukhumvit
Name	Apichat Moonee	
Signature	<i>Apichat Moonee</i>	
Date	28 September 2025	



FIELD INSPECTION AND TEST RECORD



BANGKOK SUKHUMVIT

AIR CIRCUIT BREAKER (ABB)

PROJECT	: Preventive Maintenance	LOCATION	: Electrical Room (Floor 3)
ERECTION SITE	: Hyatt Regency Bangkok Sukhumvit	CUBICLE NAME	: MDB.1
CUSTOMER	: Hyatt Regency Bangkok Sukhumvit	FEEDER	: DB.B

TECHNICAL DATA

Manufacture	ABB	Trip Device	☒ EKIP Dip	☐ EKIP Touch
Type	SACE E2.2N		☐ PR121/P	☐ PR122/P
Ampere Trip (In)	1250 A	Icu	☒ 66 kA	☐ 75 kA
Serial no.	BG9B001531		☐ 85 kA	☐ 100 kA
Ue	690 V	Pole	☒ 3P	☐ 4P
Frequency	50/60 Hz	Frame	☐ Fixed	☒ Draw-out
Standard	IEC 60947-2			

1. Accessories

1.1 Under voltage trip device (MN)	☐ 100/130 VAC/VDC	☐ 200-250 VAC/VDC	☐ Other
1.2 Shunt trip device (MX)	☐ 100/130 VAC/VDC	☒ 200-250 VAC/VDC	☐ Other
1.3 Closing coil (XF)	☐ 100/130 VAC/VDC	☒ 200-250 VAC/VDC	☐ Other
1.4 Motor charger device (MCH)	☐ 100/130 VAC/VDC	☒ 200-250 VAC/VDC	☐ Other

2. Electronic Trip Device Setting

Electronic trip device setting	Setting value	
Long time (I1)	0.8	
Long time delay (T1)	12	
Short time (I2)	4	
Short time delay (T2)	0.3	☒ $t=k/I^2$ ☐ $t=k$
Instantaneous (I3)	6	
Ground fault (I4)	0.3	
Ground fault time delay (T4)	0.4	☒ $t=k/I^2$ ☐ $t=k$

3. Operating and Inspect

Operating and Inspect	Result		
	Pass	Not pass	N/A
Manual charge spring	☒	☐	☐
Manual closing operation	☒	☐	☐
Manual opening operation	☒	☐	☐
Check moving part	☒	☐	☐
Check LV auxiliaries plug	☒	☐	☐
Cleaning arc chute chamber	☒	☐	☐
Characteristics of electronic trip device	☒	☐	☐

Responsibility	Tested by	Witnessed by
Company	ESSI ENERGY GROUP CO., LTD.	Hyatt Regency Bangkok Sukhumvit
Name	Apichat Moonee	
Signature	<i>Apichat Moonee</i>	
Date	28 September 2025	

ESSI ENERGY GROUP CO., LTD.



FIELD INSPECTION AND TEST RECORD



BANGKOK SUKHUMVIT

AIR CIRCUIT BREAKER (ABB)

PROJECT	: Preventive Maintenance	LOCATION	: Electrical Room (Floor 3)
ERECTION SITE	: Hyatt Regency Bangkok Sukhumvit	CUBICLE NAME	: MDB.1
CUSTOMER	: Hyatt Regency Bangkok Sukhumvit	FEEDER	: DB.B

4. Testing Result of Electronic Trip Device

Instrument : ABB EKIP Test kit Serial no. : -

Function	Inject Current	Should be Time (Sec)	Operating Time (Sec)	Trip Indicator	
				Passed	Failed
Long time	3xI1	12.000	12.031	☒	☐
Short time	5xI2	1.200	1.207	☒	☐
Instantaneous	7xI3	<0.03	0.016	☒	☐
Ground fault	2xI4	0.500	0.503	☒	☐

$$t = (9t_1) / (I_f/I_1)^2$$

$$t = (100t_2) / (I_f)^2$$

$$t < 30 \text{ ms}$$

$$t = 2 / (I_f/I_4)^2$$

5. Testing Result of Contact Resistance

Instrument : Chauvin Model C.A 6240 Serial no. : 162470

Phase	Test current (Adc)	Contact resistance ($\mu\Omega$)	Calculate Watt loss (Watts)	Accept. Watt loss (Watts)
A	10	23	36	176
B		29	45	
C		25	39	
N				

6. Testing Result of Insulation Resistance

Instrument : Megger Model MIT515 Serial no. : 13117

Test Voltage (Vdc)	Insulation Resistance (M Ω)		Recommended Minimum Insulation Resistance
500	Interrupter A :	18,700	100 M Ω
	Interrupter B :	16,150	
	Interrupter C :	13,950	
	Interrupter N :		
	A to B+C+N+Gnd. :	15,200	
	B to C+A+N+Gnd. :	15,800	
	C to A+B+N+Gnd. :	18,900	
	N to A+B+C+Gnd. :		

Refer.: ANSI/NETA MTS-2011

Humidity : 85 % Amb. Temp. : 28 °C

OVERALL TEST RESULT ☒ **PASS** ☐ **NOT PASS**

Remark : _____

Responsibility	Tested by	Witnessed by
Company	ESSI ENERGY GROUP CO., LTD.	Hyatt Regency Bangkok Sukhumvit
Name	Apichat Moonee	
Signature	<i>Apichat Moonee</i>	
Date	28 September 2025	



FIELD INSPECTION AND TEST RECORD



BANGKOK SUKHUMVIT

AIR CIRCUIT BREAKER (ABB)

PROJECT	: Preventive Maintenance	LOCATION	: Electrical Room (Floor 3)
ERECTION SITE	: Hyatt Regency Bangkok Sukhumvit	CUBICLE NAME	: MDB.1
CUSTOMER	: Hyatt Regency Bangkok Sukhumvit	FEEDER	: FOR 1A

TECHNICAL DATA

Manufacture	ABB	Trip Device	☒ EKIP Dip	☐ EKIP Touch
Type	SACE E2.2N		☐ PR121/P	☐ PR122/P
Ampere Trip (In)	2500 A	Icu	☒ 66 kA	☐ 75 kA
Serial no.	BFCB001520		☐ 85 kA	☐ 100 kA
Ue	690 V	Pole	☒ 3P	☐ 4P
Frequency	50/60 Hz	Frame	☐ Fixed	☒ Draw-out
Standard	IEC 60947-2			

1. Accessories

1.1 Under voltage trip device (MN)	☐ 100/130 VAC/VDC	☐ 200-250 VAC/VDC	☐ Other
1.2 Shunt trip device (MX)	☐ 100/130 VAC/VDC	☒ 200-250 VAC/VDC	☐ Other
1.3 Closing coil (XF)	☐ 100/130 VAC/VDC	☒ 200-250 VAC/VDC	☐ Other
1.4 Motor charger device (MCH)	☐ 100/130 VAC/VDC	☒ 200-250 VAC/VDC	☐ Other

2. Electronic Trip Device Setting

Electronic trip device setting	Setting value	
Long time (I1)	1	
Long time delay (T1)	12	
Short time (I2)	4	
Short time delay (T2)	0.3	☒ $t=k/I^2$ ☐ $t=k$
Instantaneous (I3)	6	
Ground fault (I4)	0.3	
Ground fault time delay (T4)	0.4	☒ $t=k/I^2$ ☐ $t=k$

3. Operating and Inspect

Operating and Inspect	Result		
	Pass	Not pass	N/A
Manual charge spring	☒	☐	☐
Manual closing operation	☒	☐	☐
Manual opening operation	☒	☐	☐
Check moving part	☒	☐	☐
Check LV auxiliaries plug	☒	☐	☐
Cleaning arc chute chamber	☒	☐	☐
Characteristics of electronic trip device	☒	☐	☐

Responsibility	Tested by	Witnessed by
Company	ESSI ENERGY GROUP CO., LTD.	Hyatt Regency Bangkok Sukhumvit
Name	Apichat Moonee	
Signature	<i>Apichat Moonee</i>	
Date	28 September 2025	

ESSI ENERGY GROUP CO., LTD.



FIELD INSPECTION AND TEST RECORD



AIR CIRCUIT BREAKER (ABB)

BANGKOK SUKHUMVIT

PROJECT	: Preventive Maintenance	LOCATION	: Electrical Room (Floor 3)
ERECTION SITE	: Hyatt Regency Bangkok Sukhumvit	CUBICLE NAME	: MDB.1
CUSTOMER	: Hyatt Regency Bangkok Sukhumvit	FEEDER	: FOR 1A

4. Testing Result of Electronic Trip Device

Instrument : ABB EKIP Test kit Serial no. : -

Function	Inject Current	Should be Time (Sec)	Operating Time (Sec)	Trip Indicator	
				Passed	Failed
Long time	3xI1	12.000	12.028	☒	☐
Short time	5xI2	1.200	1.207	☒	☐
Instantaneous	7xI3	<0.03	0.015	☒	☐
Ground fault	2xI4	0.500	0.503	☒	☐

$$t = (9t_1) / (I_f/I_1)^2$$

$$t = (100t_2) / (I_f)^2$$

$$t < 30 \text{ ms}$$

$$t = 2 / (I_f/I_4)^2$$

5. Testing Result of Contact Resistance

Instrument : Chauvin Model C.A 6240 Serial no. : 162470

Phase	Test current (Adc)	Contact resistance ($\mu\Omega$)	Calculate Watt loss (Watts)	Accept. Watt loss (Watts)
A	10	19	119	550
B		20	125	
C		23	144	
N				

6. Testing Result of Insulation Resistance

Instrument : Megger Model MIT515 Serial no. : 13117

Test Voltage (Vdc)	Insulation Resistance (M Ω)		Recommended Minimum Insulation Resistance
500	Interrupter A :	29,700	100 M Ω
	Interrupter B :	28,800	
	Interrupter C :	36,000	
	Interrupter N :		
	A to B+C+N+Gnd. :	39,500	
	B to C+A+N+Gnd. :	40,400	
	C to A+B+N+Gnd. :	41,100	
	N to A+B+C+Gnd. :		

Refer.: ANSI/NETA MTS-2011

Humidity : 85 % Amb. Temp. : 28 °C

OVERALL TEST RESULT ☒ **PASS** ☐ **NOT PASS**

Remark : _____

Responsibility	Tested by	Witnessed by
Company	ESSI ENERGY GROUP CO., LTD.	Hyatt Regency Bangkok Sukhumvit
Name	Apichat Moonee	
Signature	<i>Apichat Moonee</i>	
Date	28 September 2025	



FIELD INSPECTION AND TEST RECORD



BANGKOK SUKHUMVIT

AIR CIRCUIT BREAKER (ABB)

PROJECT	: Preventive Maintenance	LOCATION	: Electrical Room (Floor 3)
ERECTION SITE	: Hyatt Regency Bangkok Sukhumvit	CUBICLE NAME	: MDB.1
CUSTOMER	: Hyatt Regency Bangkok Sukhumvit	FEEDER	: CAP.1

TECHNICAL DATA

Manufacture	ABB	Trip Device	☒ EKIP Dip	☐ EKIP Touch
Type	SACE E2.2N		☐ PR121/P	☐ PR122/P
Ampere Trip (In)	1600 A	Icu	☒ 66 kA	☐ 75 kA
Serial no.	BG9B001622		☐ 85 kA	☐ 100 kA
Ue	690 V	Pole	☒ 3P	☐ 4P
Frequency	50/60 Hz	Frame	☐ Fixed	☒ Draw-out
Standard	IEC 60947-2			

1. Accessories

1.1 Under voltage trip device (MN)	☐ 100/130 VAC/VDC	☐ 200-250 VAC/VDC	☐ Other
1.2 Shunt trip device (MX)	☐ 100/130 VAC/VDC	☐ 200-250 VAC/VDC	☐ Other
1.3 Closing coil (XF)	☐ 100/130 VAC/VDC	☐ 200-250 VAC/VDC	☐ Other
1.4 Motor charger device (MCH)	☐ 100/130 VAC/VDC	☐ 200-250 VAC/VDC	☐ Other

2. Electronic Trip Device Setting

Electronic trip device setting	Setting value	
Long time (I1)	1	
Long time delay (T1)	12	
Short time (I2)	4	
Short time delay (T2)	0.3	☒ $t=k/I^2$ ☐ $t=k$
Instantaneous (I3)	6	
Ground fault (I4)	0.3	
Ground fault time delay (T4)	0.4	☒ $t=k/I^2$ ☐ $t=k$

3. Operating and Inspect

Operating and Inspect	Result		
	Pass	Not pass	N/A
Manual charge spring	☒	☐	☐
Manual closing operation	☒	☐	☐
Manual opening operation	☒	☐	☐
Check moving part	☒	☐	☐
Check LV auxiliaries plug	☒	☐	☐
Cleaning arc chute chamber	☒	☐	☐
Characteristics of electronic trip device	☒	☐	☐

Responsibility	Tested by	Witnessed by
Company	ESSI ENERGY GROUP CO., LTD.	Hyatt Regency Bangkok Sukhumvit
Name	Apichat Moonee	
Signature	<i>Apichat Moonee</i>	
Date	28 September 2025	

ESSI ENERGY GROUP CO., LTD.



FIELD INSPECTION AND TEST RECORD



BANGKOK SUKHUMVIT

AIR CIRCUIT BREAKER (ABB)

PROJECT	: Preventive Maintenance	LOCATION	: Electrical Room (Floor 3)
ERECTION SITE	: Hyatt Regency Bangkok Sukhumvit	CUBICLE NAME	: MDB.1
CUSTOMER	: Hyatt Regency Bangkok Sukhumvit	FEEDER	: CAP.1

4. Testing Result of Electronic Trip Device

Instrument : ABB EKIP Test kit Serial no. : -

Function	Inject Current	Should be Time (Sec)	Operating Time (Sec)	Trip Indicator	
				Passed	Failed
Long time	3xI1	12.000	12.031	☒	☐
Short time	5xI2	1.200	1.209	☒	☐
Instantaneous	7xI3	<0.03	0.016	☒	☐
Ground fault	2xI4	0.500	0.501	☒	☐

$$t = (9t_1) / (I_f/I_1)^2$$

$$t = (100t_2) / (I_f)^2$$

$$t < 30 \text{ ms}$$

$$t = 2 / (I_f/I_4)^2$$

5. Testing Result of Contact Resistance

Instrument : Chauvin Model C.A 6240 Serial no. : 162470

Phase	Test current (Adc)	Contact resistance ($\mu\Omega$)	Calculate Watt loss (Watts)	Accept. Watt loss (Watts)
A	10	17	44	288
B		18	46	
C		16	41	
N				

6. Testing Result of Insulation Resistance

Instrument : Megger Model MIT515 Serial no. : 13117

Test Voltage (Vdc)	Insulation Resistance (M Ω)		Recommended Minimum Insulation Resistance
500	Interrupter A :	18,310	100 M Ω
	Interrupter B :	15,250	
	Interrupter C :	18,000	
	Interrupter N :		
	A to B+C+N+Gnd. :	13,490	
	B to C+A+N+Gnd. :	10,400	
	C to A+B+N+Gnd. :	10,450	
	N to A+B+C+Gnd. :		

Refer.: ANSI/NETA MTS-2011

Humidity : 85 % Amb. Temp. : 28 °C

OVERALL TEST RESULT ☒ **PASS** ☐ **NOT PASS**

Remark : _____

Responsibility	Tested by	Witnessed by
Company	ESSI ENERGY GROUP CO., LTD.	Hyatt Regency Bangkok Sukhumvit
Name	Apichat Moonee	
Signature	<i>Apichat Moonee</i>	
Date	28 September 2025	



FIELD INSPECTION AND TEST RECORD



BANGKOK SUKHUMVIT

AIR CIRCUIT BREAKER (ABB)

PROJECT	: Preventive Maintenance	LOCATION	: Electrical Room (Floor 3)
ERECTION SITE	: Hyatt Regency Bangkok Sukhumvit	CUBICLE NAME	: MDB.1
CUSTOMER	: Hyatt Regency Bangkok Sukhumvit	FEEDER	: TIE ACB

TECHNICAL DATA

Manufacture	ABB	Trip Device	☒ EKIP Dip	☐ EKIP Touch
Type	SACE E6.2H		☐ PR121/P	☐ PR122/P
Ampere Trip (In)	6300	A	☐ 66 kA	☐ 75 kA
Serial no.	BGC1008744	Icu	☐ 85 kA	☒ 100 kA
Ue	690	V	☒ 3P	☐ 4P
Frequency	50/60	Hz	☐ Fixed	☒ Draw-out
Standard	IEC 60947-2	Frame		

1. Accessories

1.1 Under voltage trip device (MN)	☐ 100/130 VAC/VDC	☒ 200-250 VAC/VDC	☐ Other
1.2 Shunt trip device (MX)	☐ 100/130 VAC/VDC	☐ 200-250 VAC/VDC	☐ Other
1.3 Closing coil (XF)	☐ 100/130 VAC/VDC	☐ 200-250 VAC/VDC	☐ Other
1.4 Motor charger device (MCH)	☐ 100/130 VAC/VDC	☒ 200-250 VAC/VDC	☐ Other

2. Electronic Trip Device Setting

Electronic trip device setting	Setting value	
Long time (I1)	1	
Long time delay (T1)	24	
Short time (I2)	4	
Short time delay (T2)	0.4	☒ $t=k/I^2$ ☐ $t=k$
Instantaneous (I3)	6	
Ground fault (I4)	0.3	
Ground fault time delay (T4)	0.4	☒ $t=k/I^2$ ☐ $t=k$

3. Operating and Inspect

Operating and Inspect	Result		
	Pass	Not pass	N/A
Manual charge spring	☒	☐	☐
Manual closing operation	☒	☐	☐
Manual opening operation	☒	☐	☐
Check moving part	☒	☐	☐
Check LV auxiliaries plug	☒	☐	☐
Cleaning arc chute chamber	☒	☐	☐
Characteristics of electronic trip device	☒	☐	☐

Responsibility	Tested by	Witnessed by
Company	ESSI ENERGY GROUP CO., LTD.	Hyatt Regency Bangkok Sukhumvit
Name	Apichat Moonee	
Signature	<i>Apichat Moonee</i>	
Date	28 September 2025	

ESSI ENERGY GROUP CO., LTD.



FIELD INSPECTION AND TEST RECORD



AIR CIRCUIT BREAKER (ABB)

BANGKOK SUKHUMVIT

PROJECT	: Preventive Maintenance	LOCATION	: Electrical Room (Floor 3)
ERECTION SITE	: Hyatt Regency Bangkok Sukhumvit	CUBICLE NAME	: MDB.1
CUSTOMER	: Hyatt Regency Bangkok Sukhumvit	FEEDER	: TIE ACB

4. Testing Result of Electronic Trip Device

Instrument : ABB EKIP Test kit Serial no. : -

Function	Inject Current	Should be Time (Sec)	Operating Time (Sec)	Trip Indicator	
				Passed	Failed
Long time	3xI1	24.000	24.029	☒	☐
Short time	5xI2	1.600	1.605	☒	☐
Instantaneous	7xI3	<0.03	0.018	☒	☐
Ground fault	2xI4	0.500	0.500	☒	☐

$$t = (9t_1) / (I_f/I_1)^2$$

$$t = (100t_2) / (I_f)^2$$

$$t < 30 \text{ ms}$$

$$t = 2 / (I_f/I_4)^2$$

5. Testing Result of Contact Resistance

Instrument : Chauvin Model C.A 6240 Serial no. : 162470

Phase	Test current (Adc)	Contact resistance ($\mu\Omega$)	Calculate Watt loss (Watts)	Accept. Watt loss (Watts)
A	10	13	516	1550
B		12	476	
C		12	476	
N				

6. Testing Result of Insulation Resistance

Instrument : Megger Model MIT515 Serial no. : 13117

Test Voltage (Vdc)	Insulation Resistance (M Ω)		Recommended Minimum Insulation Resistance
500	Interrupter A :	187,500	100 M Ω
	Interrupter B :	23,100	
	Interrupter C :	18,710	
	Interrupter N :		
	A to B+C+N+Gnd. :	29,450	
	B to C+A+N+Gnd. :	21,600	
	C to A+B+N+Gnd. :	25,000	
	N to A+B+C+Gnd. :		

Refer.: ANSI/NETA MTS-2011

Humidity : 85 % Amb. Temp. : 28 °C

OVERALL TEST RESULT ☒ **PASS** ☐ **NOT PASS**

Remark : _____

Responsibility	Tested by	Witnessed by
Company	ESSI ENERGY GROUP CO., LTD.	Hyatt Regency Bangkok Sukhumvit
Name	Apichat Moonee	
Signature	<i>Apichat Moonee</i>	
Date	28 September 2025	

ESSI ENERGY GROUP CO., LTD.



FIELD INSPECTION AND TEST RECORD



MOLD CASE CIRCUIT BREAKER

PROJECT : Preventive Maintenance ERECTION SITE : Hyatt Regency Bangkok Sukhumvit CUSTOMER : Hyatt Regency Bangkok Sukhumvit	LOCATION : Electrical Room (Floor 3) CUBICLE NAME : MDB.1
--	--

VISUAL INSPECTION AND FUNCTION TEST

Checked

- | | |
|--|-------------------------------------|
| 1. Mold case Circuit breaker undamaged and clean | ☒ |
| 2. All Fastenings checked | ☒ |

Feeder Name	Manufacture	Type	Rating (A)	Test trip	
				Pass	Not Pass
FOR ODD FLOOR	ABB	SACE T6H800	800	☒	☐
DB.G	ABB	SACE T6H800	800	☒	☐
DB.2	ABB	Tmax T5H400	400	☒	☐
SPARE	ABB	Tmax T5H400	400	☒	☐
SPARE	ABB	Tmax T5H400	400	☒	☐
SPARE	ABB	Tmax T5H400	400	☒	☐
MCC.WHP	ABB	Tmax XT4H160	160	☒	☐
MCC.PP	ABB	Tmax XT1H160	100	☒	☐
FDP.1	ABB	Tmax T7H1000	1000	☒	☐

Remark : _____

Responsibility	Tested by	Witnessed by
Company	ESSI ENERGY GROUP CO., LTD.	Hyatt Regency Bangkok Sukhumvit
Name	Apichat Moonee	
Signature	<i>Apichat Moonee</i>	
Date	28 September 2025	



FIELD INSPECTION AND TEST RECORD



MOLD CASE CIRCUIT BREAKER

PROJECT	: Preventive Maintenance	LOCATION	: Electrical Room (Floor 3)
ERECTION SITE	: Hyatt Regency Bangkok Sukhumvit	CUBICLE NAME	: MDB.1
CUSTOMER	: Hyatt Regency Bangkok Sukhumvit	FEEDER	: FDP.1

1. TECHNICAL DATA

Manufacture	ABB	Ampere Trip (In)	1000 A
Type	Tmax T7H1000	Electronic Trip Device	SACE PR331/P-LSIG
Serial No.	BGAB001573		

2. Electronic Trip Device Setting

Electronic trip device setting	Setting value
Long time (I1)	1
Long time delay (T1)	12
Short time (I2)	4.2
Short time delay (T2)	0.3
Instantaneous (I3)	6
Ground fault (I4)	0.3
Ground fault time delay (T4)	0.4

☒ $t=k/I^2$ ☐ $t=k$

☒ $t=k/I^2$ ☐ $t=k$

3. Testing Result of Electronic Trip Device

Instrument : ABB EKIP Test kit Serial no. : -

Function	Inject Current	Should be Time (Sec)	Operating Time (Sec)	Trip Indicator		
				Passed	Failed	
Long time	3xI1	12.000	12.015	☒	☐	$t = (9t1) / (If/I1)^2$
Short time	5xI2	1.200	1.196	☒	☐	$t = (100t2) / (If)^2$
Instantaneous	10xI3	<0.03	0.013	☒	☐	$t < 30 \text{ ms}$
Ground fault	2xI4	0.500	0.496	☒	☐	$t = 2 / (If/I4)^2$

Remark : _____

Responsibility	Tested by	Witnessed by
Company	ESSI ENERGY GROUP CO., LTD.	Hyatt Regency Bangkok Sukhumvit
Name	Apichat Moonee	
Signature	<i>Apichat Moonee</i>	
Date	28 September 2025	

ESSI ENERGY GROUP CO., LTD.



FIELD INSPECTION AND TEST RECORD



BANGKOK SUKHUMVIT

CAPACITOR BANK

PROJECT	: Preventive Maintenance	LOCATION	: Electrical Room (Floor 3)
ERECTION SITE	: Hyatt Regency Bangkok Sukhumvit	CUBICLE NAME	: CAP.1
CUSTOMER	: Hyatt Regency Bangkok Sukhumvit		

TECHNICAL DATA

Capacitor Manufacture	ABB	Power Factor Controller Mfg.	ABB
Type	CLMD63	Power Factor Controller Model.	RVC12
Rated Power	60 kVar	Serial No.	336288
Rated voltage	415 V	PF.Setting	0.95
Rated frequency	50 Hz	CT. Ratio	6000/5 A
Magnetic Type	ABB / AF140-30	Power Fuse Rate	160 A
Cn	- μF		

VISUAL INSPECTION AND FUNCTION TEST

1. Equipment and steel frame undamaged and cleaned	☒
2. Name plate data is compliance with drawing and specification	☒
3. All Fastenings checked	☒
4. Safety clearance checked	☒

MEASUREMENT

Instrument : Digital multimeter Fluke Model 179 Serial no. : 23770566

Step No.	Rate Power (kVar)	Rate Fuse (A)	Measurement Capacitance (μF)			Result
			Phase A-B	Phase B-C	Phase C-A	
1	60	160	598	596	596	PASSED
2	60	160	600	596	596	PASSED
3	60	160	599	599	598	PASSED
4	60	160	597	595	597	PASSED
5	60	160	600	602	598	PASSED
6	60	160	594	594	596	PASSED
7	60	160	599	595	598	PASSED
8	60	160	601	596	596	PASSED
9	60	160	601	597	600	PASSED
10	60	160	597	595	598	PASSED
11	60	160	597	595	589	PASSED
12	60	160	592	592	595	PASSED

Reference : IEC 60831-1 Standards (-5%, +15% for unit and banks up to 100 kVA / -0%, +10% for unit and banks above 100 kVA)

Reference from Formula

$$\text{Normal Current} = \frac{\text{kVar}}{V_{L-L} \times \sqrt{3}}$$

$$\text{Rated normal current} = \underline{83.47} \text{ A} \quad (\text{ควรมีค่าอยู่ระหว่าง } 75.1 - 91.8 \text{ A})$$

$$\text{Normal Capacitance} = \underline{554.47} \text{ μF} \quad (\text{ควรมีค่าอยู่ระหว่าง } 499.0 - 609.9 \text{ μF})$$

Remark :

Responsibility	Tested by	Witnessed by
Company	ESSI ENERGY GROUP CO., LTD.	Hyatt Regency Bangkok Sukhumvit
Name	Apichat Moonee	
Signature	<i>Apichat Moonee</i>	
Date	28 September 2025	



ESSI ENERGY GROUP CO., LTD.

4.MDB.2

ESSI ENERGY GROUP CO., LTD.



FIELD INSPECTION AND TEST RECORD



LV SWITCHBOARD

BANGKOK SUKHUMVIT

PROJECT : Preventive Maintenance	LOCATION : Electrical Room (Floor 3)
ERECTION SITE : Hyatt Regency Bangkok Sukhumvit	CUBICLE NAME : MDB.2
CUSTOMER : Hyatt Regency Bangkok Sukhumvit	

VISUAL INSPECTION

	Normal	Abnormal
1. Cleaning all panel	☒	☐
2. Re-torque the busbar at main incoming and between panel	☒	☐
3. Re-torque at connection of MCCB and busbar or cable	☒	☐
4. Insulation test	☒	☐
5. Metering check	☒	☐
6. General condition check	☒	☐
7. Grounding condition check	☒	☐
8. Busbar check and re-torque	☒	☐
9. Fuse and fuse bases check	☒	☐

INSULATION RESISTANCE MEASUREMENT

Instrument : Megger Model MIT515 Serial no. : 13117

Test connection	Test voltage (Vdc)	Insulation resistance (MΩ)	Minimum Insulation Resistance
A-B	500	3,870	1.0 MΩ
B-C		2,460	
C-A		5,940	
A-Gnd.		3,670	
B-Gnd.		3,680	
C-Gnd.		3,930	

Reference : IEC 60364-6 Standards

Humidity : 85 % Amb. Temp. : 28 °C

Remark : _____

Responsibility	Tested by	Witnessed by
Company	ESSI ENERGY GROUP CO., LTD.	Hyatt Regency Bangkok Sukhumvit
Name	Apichat Moonee	
Signature	<i>Apichat Moonee</i>	
Date	28 September 2025	



FIELD INSPECTION AND TEST RECORD



BANGKOK SUKHUMVIT

AIR CIRCUIT BREAKER (ABB)

PROJECT	: Preventive Maintenance	LOCATION	: Electrical Room (Floor 3)
ERECTION SITE	: Hyatt Regency Bangkok Sukhumvit	CUBICLE NAME	: MDB.2
CUSTOMER	: Hyatt Regency Bangkok Sukhumvit	FEEDER	: FROM TR.2

TECHNICAL DATA

Manufacture	ABB	Trip Device	☒ EKIP Dip	☐ EKIP Touch
Type	SACE E6.2H		☐ PR121/P	☐ PR122/P
Ampere Trip (In)	6300 A	Icu	☐ 66 kA	☐ 75 kA
Serial no.	BGC1008743		☐ 85 kA	☒ 100 kA
Ue	690 V	Pole	☒ 3P	☐ 4P
Frequency	50/60 Hz	Frame	☐ Fixed	☒ Draw-out
Standard	IEC 60947-2			

1. Accessories

1.1 Under voltage trip device (MN)	☐ 100/130 VAC/VDC	☒ 200-250 VAC/VDC	☐ Other
1.2 Shunt trip device (MX)	☐ 100/130 VAC/VDC	☒ 200-250 VAC/VDC	☐ Other
1.3 Closing coil (XF)	☐ 100/130 VAC/VDC	☒ 200-250 VAC/VDC	☐ Other
1.4 Motor charger device (MCH)	☐ 100/130 VAC/VDC	☒ 200-250 VAC/VDC	☐ Other

2. Electronic Trip Device Setting

Electronic trip device setting	Setting value	
Long time (I1)	1	
Long time delay (T1)	24	
Short time (I2)	4	
Short time delay (T2)	0.4	☒ $t=k/I^2$ ☐ $t=k$
Instantaneous (I3)	6	
Ground fault (I4)	0.3	
Ground fault time delay (T4)	0.4	☒ $t=k/I^2$ ☐ $t=k$

3. Operating and Inspect

Operating and Inspect	Result		
	Pass	Not pass	N/A
Manual charge spring	☒	☐	☐
Manual closing operation	☒	☐	☐
Manual opening operation	☒	☐	☐
Check moving part	☒	☐	☐
Check LV auxiliaries plug	☒	☐	☐
Cleaning arc chute chamber	☒	☐	☐
Characteristics of electronic trip device	☒	☐	☐

Responsibility	Tested by	Witnessed by
Company	ESSI ENERGY GROUP CO., LTD.	Hyatt Regency Bangkok Sukhumvit
Name	Apichat Moonee	
Signature	<i>Apichat Moonee</i>	
Date	28 September 2025	



FIELD INSPECTION AND TEST RECORD



AIR CIRCUIT BREAKER (ABB)

BANGKOK SUKHUMVIT

PROJECT	: Preventive Maintenance	LOCATION	: Electrical Room (Floor 3)
ERECTION SITE	: Hyatt Regency Bangkok Sukhumvit	CUBICLE NAME	: MDB.2
CUSTOMER	: Hyatt Regency Bangkok Sukhumvit	FEEDER	: FROM TR.2

4. Testing Result of Electronic Trip Device

Instrument : ABB EKIP Test kit Serial no. : -

Function	Inject Current	Should be Time (Sec)	Operating Time (Sec)	Trip Indicator	
				Passed	Failed
Long time	3xI1	24.000	24.026	☒	☐
Short time	5xI2	1.600	1.605	☒	☐
Instantaneous	7xI3	<0.03	0.018	☒	☐
Ground fault	2xI4	0.500	0.502	☒	☐

$$t = (9t_1) / (I_f/I_1)^2$$

$$t = (100t_2) / (I_f)^2$$

$$t < 30 \text{ ms}$$

$$t = 2 / (I_f/I_4)^2$$

5. Testing Result of Contact Resistance

Instrument : Chauvin Model C.A 6240 Serial no. : 162470

Phase	Test current (Adc)	Contact resistance ($\mu\Omega$)	Calculate Watt loss (Watts)	Accept. Watt loss (Watts)
A	10	12	476	1550
B		13	516	
C		13	516	
N				

6. Testing Result of Insulation Resistance

Instrument : Megger Model MIT515 Serial no. : 13117

Test Voltage (Vdc)	Insulation Resistance (M Ω)		Recommended Minimum Insulation Resistance
500	Interrupter A :	25,400	100 M Ω
	Interrupter B :	20,900	
	Interrupter C :	23,400	
	Interrupter N :		
	A to B+C+N+Gnd. :	21,600	
	B to C+A+N+Gnd. :	21,800	
	C to A+B+N+Gnd. :	20,800	
	N to A+B+C+Gnd. :		

Refer.: ANSI/NETA MTS-2011

Humidity : 85 % Amb. Temp. : 28 °C

OVERALL TEST RESULT ☒ **PASS** ☐ **NOT PASS**

Remark : _____

Responsibility	Tested by	Witnessed by
Company	ESSI ENERGY GROUP CO., LTD.	Hyatt Regency Bangkok Sukhumvit
Name	Apichat Moonee	
Signature	<i>Apichat Moonee</i>	
Date	28 September 2025	



FIELD INSPECTION AND TEST RECORD



BANGKOK SUKHUMVIT

AIR CIRCUIT BREAKER (ABB)

PROJECT	: Preventive Maintenance	LOCATION	: Electrical Room (Floor 3)
ERECTION SITE	: Hyatt Regency Bangkok Sukhumvit	CUBICLE NAME	: MDB.2
CUSTOMER	: Hyatt Regency Bangkok Sukhumvit	FEEDER	: MCC.AC1

TECHNICAL DATA

Manufacture	ABB	Trip Device	☒ EKIP Dip	☐ EKIP Touch
Type	SACE E2.2N		☐ PR121/P	☐ PR122/P
Ampere Trip (In)	1250 A	Icu	☒ 66 kA	☐ 75 kA
Serial no.	BGA3000275		☐ 85 kA	☐ 100 kA
Ue	690 V	Pole	☒ 3P	☐ 4P
Frequency	50/60 Hz	Frame	☐ Fixed	☒ Draw-out
Standard	IEC 60947-2			

1. Accessories

1.1 Under voltage trip device (MN)	☐ 100/130 VAC/VDC	☐ 200-250 VAC/VDC	☐ Other
1.2 Shunt trip device (MX)	☐ 100/130 VAC/VDC	☒ 200-250 VAC/VDC	☐ Other
1.3 Closing coil (XF)	☐ 100/130 VAC/VDC	☒ 200-250 VAC/VDC	☐ Other
1.4 Motor charger device (MCH)	☐ 100/130 VAC/VDC	☒ 200-250 VAC/VDC	☐ Other

2. Electronic Trip Device Setting

Electronic trip device setting	Setting value	
Long time (I1)	1	
Long time delay (T1)	12	
Short time (I2)	5	
Short time delay (T2)	0.3	☒ $t=k/I^2$ ☐ $t=k$
Instantaneous (I3)	7	
Ground fault (I4)	0.2	
Ground fault time delay (T4)	0.2	☒ $t=k/I^2$ ☐ $t=k$

3. Operating and Inspect

Operating and Inspect	Result		
	Pass	Not pass	N/A
Manual charge spring	☒	☐	☐
Manual closing operation	☒	☐	☐
Manual opening operation	☒	☐	☐
Check moving part	☒	☐	☐
Check LV auxiliaries plug	☒	☐	☐
Cleaning arc chute chamber	☒	☐	☐
Characteristics of electronic trip device	☒	☐	☐

Responsibility	Tested by	Witnessed by
Company	ESSI ENERGY GROUP CO., LTD.	Hyatt Regency Bangkok Sukhumvit
Name	Apichat Moonee	
Signature	<i>Apichat Moonee</i>	
Date	28 September 2025	



FIELD INSPECTION AND TEST RECORD



AIR CIRCUIT BREAKER (ABB)

BANGKOK SUKHUMVIT

PROJECT	: Preventive Maintenance	LOCATION	: Electrical Room (Floor 3)
ERECTION SITE	: Hyatt Regency Bangkok Sukhumvit	CUBICLE NAME	: MDB.2
CUSTOMER	: Hyatt Regency Bangkok Sukhumvit	FEEDER	: MCC.AC1

4. Testing Result of Electronic Trip Device

Instrument : ABB EKIP Test kit Serial no. : -

Function	Inject Current	Should be Time (Sec)	Operating Time (Sec)	Trip Indicator	
				Passed	Failed
Long time	3xI1	12.000	12.026	☒	☐
Short time	6xI2	0.833	0.835	☒	☐
Instantaneous	8xI3	<0.03	0.016	☒	☐
Ground fault	2xI4	0.500	0.500	☒	☐

$$t = (9t_1) / (I_f/I_1)^2$$

$$t = (100t_2) / (I_f)^2$$

$$t < 30 \text{ ms}$$

$$t = 2 / (I_f/I_4)^2$$

5. Testing Result of Contact Resistance

Instrument : Chauvin Model C.A 6240 Serial no. : 162470

Phase	Test current (Adc)	Contact resistance ($\mu\Omega$)	Calculate Watt loss (Watts)	Accept. Watt loss (Watts)
A	10	14	22	176
B		17	27	
C		15	23	
N				

6. Testing Result of Insulation Resistance

Instrument : Megger Model MIT515 Serial no. : 13117

Test Voltage (Vdc)	Insulation Resistance (M Ω)		Recommended Minimum Insulation Resistance
500	Interrupter A :	22,000	100 M Ω
	Interrupter B :	22,800	
	Interrupter C :	24,100	
	Interrupter N :		
	A to B+C+N+Gnd. :	17,680	
	B to C+A+N+Gnd. :	19,590	
	C to A+B+N+Gnd. :	17,850	
	N to A+B+C+Gnd. :		

Refer.: ANSI/NETA MTS-2011

Humidity : 85 % Amb. Temp. : 28 °C

OVERALL TEST RESULT ☒ **PASS** ☐ **NOT PASS**

Remark : _____

Responsibility	Tested by	Witnessed by
Company	ESSI ENERGY GROUP CO., LTD.	Hyatt Regency Bangkok Sukhumvit
Name	Apichat Moonee	
Signature	<i>Apichat Moonee</i>	
Date	28 September 2025	



FIELD INSPECTION AND TEST RECORD



BANGKOK SUKHUMVIT

AIR CIRCUIT BREAKER (ABB)

PROJECT	: Preventive Maintenance	LOCATION	: Electrical Room (Floor 3)
ERECTION SITE	: Hyatt Regency Bangkok Sukhumvit	CUBICLE NAME	: MDB.2
CUSTOMER	: Hyatt Regency Bangkok Sukhumvit	FEEDER	: MCC.AC3

TECHNICAL DATA

Manufacture	ABB	Trip Device	☒ EKIP Dip	☐ EKIP Touch
Type	SACE E2.2N		☐ PR121/P	☐ PR122/P
Ampere Trip (In)	1250 A	Icu	☒ 66 kA	☐ 75 kA
Serial no.	BGAB001775		☐ 85 kA	☐ 100 kA
Ue	690 V	Pole	☒ 3P	☐ 4P
Frequency	50/60 Hz	Frame	☐ Fixed	☒ Draw-out
Standard	IEC 60947-2			

1. Accessories

1.1 Under voltage trip device (MN)	☐ 100/130 VAC/VDC	☐ 200-250 VAC/VDC	☐ Other
1.2 Shunt trip device (MX)	☐ 100/130 VAC/VDC	☒ 200-250 VAC/VDC	☐ Other
1.3 Closing coil (XF)	☐ 100/130 VAC/VDC	☒ 200-250 VAC/VDC	☐ Other
1.4 Motor charger device (MCH)	☐ 100/130 VAC/VDC	☒ 200-250 VAC/VDC	☐ Other

2. Electronic Trip Device Setting

Electronic trip device setting	Setting value	
Long time (I1)	1	
Long time delay (T1)	12	
Short time (I2)	5	
Short time delay (T2)	0.3	☒ $t=k/I^2$ ☐ $t=k$
Instantaneous (I3)	7	
Ground fault (I4)	0.2	
Ground fault time delay (T4)	0.2	☒ $t=k/I^2$ ☐ $t=k$

3. Operating and Inspect

Operating and Inspect	Result		
	Pass	Not pass	N/A
Manual charge spring	☒	☐	☐
Manual closing operation	☒	☐	☐
Manual opening operation	☒	☐	☐
Check moving part	☒	☐	☐
Check LV auxiliaries plug	☒	☐	☐
Cleaning arc chute chamber	☒	☐	☐
Characteristics of electronic trip device	☒	☐	☐

Responsibility	Tested by	Witnessed by
Company	ESSI ENERGY GROUP CO., LTD.	Hyatt Regency Bangkok Sukhumvit
Name	Apichat Moonee	
Signature	<i>Apichat Moonee</i>	
Date	28 September 2025	



FIELD INSPECTION AND TEST RECORD



AIR CIRCUIT BREAKER (ABB)

BANGKOK SUKHUMVIT

PROJECT	: Preventive Maintenance	LOCATION	: Electrical Room (Floor 3)
ERECTION SITE	: Hyatt Regency Bangkok Sukhumvit	CUBICLE NAME	: MDB.2
CUSTOMER	: Hyatt Regency Bangkok Sukhumvit	FEEDER	: MCC.AC3

4. Testing Result of Electronic Trip Device

Instrument : ABB EKIP Test kit Serial no. : -

Function	Inject Current	Should be Time (Sec)	Operating Time (Sec)	Trip Indicator	
				Passed	Failed
Long time	3xI1	12.000	12.032	☒	☐
Short time	6xI2	0.833	0.837	☒	☐
Instantaneous	8xI3	<0.03	0.016	☒	☐
Ground fault	2xI4	0.500	0.502	☒	☐

$$t = (9t_1) / (I_f/I_1)^2$$

$$t = (100t_2) / (I_f)^2$$

$$t < 30 \text{ ms}$$

$$t = 2 / (I_f/I_4)^2$$

5. Testing Result of Contact Resistance

Instrument : Chauvin Model C.A 6240 Serial no. : 162470

Phase	Test current (Adc)	Contact resistance ($\mu\Omega$)	Calculate Watt loss (Watts)	Accept. Watt loss (Watts)
A	10	20	31	176
B		21	33	
C		20	31	
N				

6. Testing Result of Insulation Resistance

Instrument : Megger Model MIT515 Serial no. : 13117

Test Voltage (Vdc)	Insulation Resistance (M Ω)		Recommended Minimum Insulation Resistance
500	Interrupter A :	58,500	100 M Ω
	Interrupter B :	23,000	
	Interrupter C :	23,900	
	Interrupter N :		
	A to B+C+N+Gnd. :	17,350	
	B to C+A+N+Gnd. :	19,300	
	C to A+B+N+Gnd. :	20,200	
	N to A+B+C+Gnd. :		

Refer.: ANSI/NETA MTS-2011

Humidity : 85 % Amb. Temp. : 28 °C

OVERALL TEST RESULT ☒ **PASS** ☐ **NOT PASS**

Remark : _____

Responsibility	Tested by	Witnessed by
Company	ESSI ENERGY GROUP CO., LTD.	Hyatt Regency Bangkok Sukhumvit
Name	Apichat Moonee	
Signature	<i>Apichat Moonee</i>	
Date	28 September 2025	

ESSI ENERGY GROUP CO., LTD.



FIELD INSPECTION AND TEST RECORD



MOLD CASE CIRCUIT BREAKER

PROJECT : Preventive Maintenance **LOCATION** : Electrical Room (Floor 3)
ERECTION SITE : Hyatt Regency Bangkok Sukhumvit **CUBICLE NAME** : MDB.2
CUSTOMER : Hyatt Regency Bangkok Sukhumvit

VISUAL INSPECTION AND FUNCTION TEST

Checked

1. Mold case Circuit breaker undamaged and clean
2. All Fastenings checked



Feeder Name	Manufacture	Type	Rating (A)	Test trip	
				Pass	Not Pass
FOR EVEN FLOOR	ABB	SACE T6H800	800	☒	☐
SPARE	ABB	Tmax XT4H250	250	☒	☐
SPARE	ABB	Tmax XT4H250	250	☒	☐

Remark : _____

Responsibility	Tested by	Witnessed by
Company	ESSI ENERGY GROUP CO., LTD.	Hyatt Regency Bangkok Sukhumvit
Name	Apichat Moonee	
Signature	<i>Apichat Moonee</i>	
Date	28 September 2025	

ESSI ENERGY GROUP CO., LTD.



FIELD INSPECTION AND TEST RECORD



BANGKOK SUKHUMVIT

CAPACITOR BANK

PROJECT	: Preventive Maintenance	LOCATION	: Electrical Room (Floor 3)
ERECTION SITE	: Hyatt Regency Bangkok Sukhumvit	CUBICLE NAME	: CAP.2
CUSTOMER	: Hyatt Regency Bangkok Sukhumvit		

TECHNICAL DATA

Capacitor Manufacture	ABB	Power Factor Controller Mfg.	ABB
Type	CLMD63	Power Factor Controller Model.	RVC12
Rated Power	60 kVar	Serial No.	336459
Rated voltage	415 V	PF.Setting	0.95
Rated frequency	50 Hz	CT. Ratio	6000/5 A
Magnetic Type	ABB / AF140-30	Power Fuse Rate	160 A
Cn	- μF		

VISUAL INSPECTION AND FUNCTION TEST

1. Equipment and steel frame undamaged and cleaned	Checked ☒
2. Name plate data is compliance with drawing and specification	Checked ☒
3. All Fastenings checked	Checked ☒
4. Safety clearance checked	Checked ☒

MEASUREMENT

Instrument : Digital multimeter Fluke Model 179 Serial no. : 23770566

Step No.	Rate Power (kVar)	Rate Fuse (A)	Measurement Capacitance (μF)			Result
			Phase A-B	Phase B-C	Phase C-A	
1	60	160	507	551	558	PASSED
2	60	160	636	631	629	PASSED
3	60	160	534	471	474	FAILED FROM DETERIORATE
4	60	160	570	566	573	PASSED
5	60	160	574	570	575	PASSED
6	60	160	628	631	631	PASSED
7	60	160	574	572	574	PASSED
8	60	160	544	489	540	FAILED FROM DETERIORATE
9	60	160	574	567	571	PASSED
10	60	160	557	555	499	FAILED FROM DETERIORATE
11	60	160	573	573	569	PASSED
12	60	160	574	574	566	PASSED

Reference : IEC 60831-1 Standards (-5%, +15% for unit and banks up to 100 kVA / -0%, +10% for unit and banks above 100 kVA)

Reference from Formula

$$\text{Normal Current} = \frac{\text{kVar}}{V_{L-L} \times \sqrt{3}}$$

$$\text{Rated normal current} = \frac{83.47}{\text{A}} \quad (\text{ควรมีค่าอยู่ระหว่าง } 75.1 - 91.8 \text{ A})$$

$$\text{Normal Capacitance} = \frac{554.47}{\mu\text{F}} \quad (\text{ควรมีค่าอยู่ระหว่าง } 499.0 - 609.9 \mu\text{F})$$

Remark : - Capacitor Step No.3,8,10 เสื่อมสภาพ
- Capacitor Step No.2,6 เปลี่ยนใหม่

Responsibility	Tested by	Witnessed by
Company	ESSI ENERGY GROUP CO., LTD.	Hyatt Regency Bangkok Sukhumvit
Name	Apichat Moonee	
Signature	<i>Apichat Moonee</i>	
Date	28 September 2025	



ESSI ENERGY GROUP CO., LTD.

5.MDB.E

ESSI ENERGY GROUP CO., LTD.



FIELD INSPECTION AND TEST RECORD



BANGKOK SUKHUMVIT

LV SWITCHBOARD

PROJECT : Preventive Maintenance ERECTION SITE : Hyatt Regency Bangkok Sukhumvit CUSTOMER : Hyatt Regency Bangkok Sukhumvit	LOCATION : Electrical Room (Floor 3) CUBICLE NAME : MDB.E
--	--

VISUAL INSPECTION

	Normal	Abnormal	
1. Cleaning all panel	☒	☐	
2. Re-torque the busbar at main incoming and between panel	☒	☐	
3. Re-torque at connection of MCCB and busbar or cable	☒	☐	
4. Insulation test	☒	☐	
5. Metering check	☒	☐	
6. General condition check	☒	☐	
7. Grounding condition check	☒	☐	
8. Busbar check and re-torque	☒	☐	
9. Fuse and fuse bases check	☒	☐	

INSULATION RESISTANCE MEASUREMENT

Instrument : Megger Model MIT515 Serial no. : 13117

Test connection	Test voltage (Vdc)	Insulation resistance (MΩ)	Minimum Insulation Resistance
A-B	500	154	1.0 MΩ
B-C		252	
C-A		365	
A-Gnd.		1,472	
B-Gnd.		1,430	
C-Gnd.		1,305	

Reference : IEC 60364-6 Standards

Humidity : 85 % Amb. Temp. : 28 °C

Remark : _____

Responsibility	Tested by	Witnessed by
Company	ESSI ENERGY GROUP CO., LTD.	Hyatt Regency Bangkok Sukhumvit
Name	Apichat Moonee	
Signature	<i>Apichat Moonee</i>	
Date	28 September 2025	



FIELD INSPECTION AND TEST RECORD



BANGKOK SUKHUMVIT

AIR CIRCUIT BREAKER (ABB)

PROJECT	: Preventive Maintenance	LOCATION	: Electrical Room (Floor 3)
ERECTION SITE	: Hyatt Regency Bangkok Sukhumvit	CUBICLE NAME	: MDB.E
CUSTOMER	: Hyatt Regency Bangkok Sukhumvit	FEEDER	: NORMAL ACB

TECHNICAL DATA

Manufacture	ABB	Trip Device	☒ EKIP Dip	☐ EKIP Touch
Type	SACE E2.2N		☐ PR121/P	☐ PR122/P
Ampere Trip (In)	2500 A	Icu	☒ 66 kA	☐ 75 kA
Serial no.	BG7B001321		☐ 85 kA	☐ 100 kA
Ue	690 V	Pole	☒ 3P	☐ 4P
Frequency	50/60 Hz	Frame	☒ Fixed	☐ Draw-out
Standard	IEC 60947-2			

1. Accessories

1.1 Under voltage trip device (MN)	☐ 100/130 VAC/VDC	☐ 200-250 VAC/VDC	☐ Other
1.2 Shunt trip device (MX)	☐ 100/130 VAC/VDC	☒ 200-250 VAC/VDC	☐ Other
1.3 Closing coil (XF)	☐ 100/130 VAC/VDC	☒ 200-250 VAC/VDC	☐ Other
1.4 Motor charger device (MCH)	☐ 100/130 VAC/VDC	☒ 200-250 VAC/VDC	☐ Other

2. Electronic Trip Device Setting

Electronic trip device setting	Setting value	
Long time (I1)	0.8	
Long time delay (T1)	12	
Short time (I2)		
Short time delay (T2)		☐ $t=k/I^2$ ☐ $t=k$
Instantaneous (I3)	6	
Ground fault (I4)		
Ground fault time delay (T4)		☐ $t=k/I^2$ ☐ $t=k$

3. Operating and Inspect

Operating and Inspect	Result		
	Pass	Not pass	N/A
Manual charge spring	☒	☐	☐
Manual closing operation	☒	☐	☐
Manual opening operation	☒	☐	☐
Check moving part	☒	☐	☐
Check LV auxiliaries plug	☒	☐	☐
Cleaning arc chute chamber	☒	☐	☐
Characteristics of electronic trip device	☒	☐	☐

Responsibility	Tested by	Witnessed by
Company	ESSI ENERGY GROUP CO., LTD.	Hyatt Regency Bangkok Sukhumvit
Name	Apichat Moonee	
Signature	<i>Apichat Moonee</i>	
Date	28 September 2025	



FIELD INSPECTION AND TEST RECORD



AIR CIRCUIT BREAKER (ABB)

BANGKOK SUKHUMVIT

PROJECT	: Preventive Maintenance	LOCATION	: Electrical Room (Floor 3)
ERECTION SITE	: Hyatt Regency Bangkok Sukhumvit	CUBICLE NAME	: MDB.E
CUSTOMER	: Hyatt Regency Bangkok Sukhumvit	FEEDER	: NORMAL ACB

4. Testing Result of Electronic Trip Device

Instrument : ABB EKIP Test kit Serial no. : -

Function	Inject Current	Should be Time (Sec)	Operating Time (Sec)	Trip Indicator	
				Passed	Failed
Long time	3xI1	12.000	12.025	☒	☐
Short time					
Instantaneous	7xI3	<0.03	0.018	☒	☐
Ground fault					

$$t = (9t_1) / (I_f/I_1)^2$$

$$t = (100t_2) / (I_f)^2$$

$$t < 30 \text{ ms}$$

$$t = 2 / (I_f/I_4)^2$$

5. Testing Result of Contact Resistance

Instrument : Chauvin Model C.A 6240 Serial no. : 162470

Phase	Test current (Adc)	Contact resistance ($\mu\Omega$)	Calculate Watt loss (Watts)	Accept. Watt loss (Watts)
A	10	12	75	267
B		13	81	
C		13	81	
N				

6. Testing Result of Insulation Resistance

Instrument : Megger Model MIT515 Serial no. : 13117

Test Voltage (Vdc)	Insulation Resistance (M Ω)		Recommended Minimum Insulation Resistance
500	Interrupter A :		100 M Ω
	Interrupter B :		
	Interrupter C :		
	Interrupter N :		
	A to B+C+N+Gnd. :		
	B to C+A+N+Gnd. :		
	C to A+B+N+Gnd. :		
	N to A+B+C+Gnd. :		

Refer.: ANSI/NETA MTS-2011

Humidity : - % Amb. Temp. : - °C

OVERALL TEST RESULT ☒ **PASS** ☐ **NOT PASS**

Remark : _____

Responsibility	Tested by	Witnessed by
Company	ESSI ENERGY GROUP CO., LTD.	Hyatt Regency Bangkok Sukhumvit
Name	Apichat Moonee	
Signature	<i>Apichat Moonee</i>	
Date	28 September 2025	



FIELD INSPECTION AND TEST RECORD



BANGKOK SUKHUMVIT

AIR CIRCUIT BREAKER (ABB)

PROJECT	: Preventive Maintenance	LOCATION	: Electrical Room (Floor 3)
ERECTION SITE	: Hyatt Regency Bangkok Sukhumvit	CUBICLE NAME	: MDB.E
CUSTOMER	: Hyatt Regency Bangkok Sukhumvit	FEEDER	: EMERGENCY ACB (FROM GCP.1)

TECHNICAL DATA

Manufacture	ABB	Trip Device	☒ EKIP Dip	☐ EKIP Touch
Type	SACE E2.2N		☐ PR121/P	☐ PR122/P
Ampere Trip (In)	2500 A	Icu	☒ 66 kA	☐ 75 kA
Serial no.	BG8B001218		☐ 85 kA	☐ 100 kA
Ue	690 V	Pole	☒ 3P	☐ 4P
Frequency	50/60 Hz	Frame	☒ Fixed	☐ Draw-out
Standard	IEC 60947-2			

1. Accessories

1.1 Under voltage trip device (MN)	☐ 100/130 VAC/VDC	☐ 200-250 VAC/VDC	☐ Other
1.2 Shunt trip device (MX)	☐ 100/130 VAC/VDC	☒ 200-250 VAC/VDC	☐ Other
1.3 Closing coil (XF)	☐ 100/130 VAC/VDC	☒ 200-250 VAC/VDC	☐ Other
1.4 Motor charger device (MCH)	☐ 100/130 VAC/VDC	☒ 200-250 VAC/VDC	☐ Other

2. Electronic Trip Device Setting

Electronic trip device setting	Setting value	
Long time (I1)	0.8	
Long time delay (T1)	12	
Short time (I2)		
Short time delay (T2)		☐ $t=k/I^2$ ☐ $t=k$
Instantaneous (I3)	6	
Ground fault (I4)		
Ground fault time delay (T4)		☐ $t=k/I^2$ ☐ $t=k$

3. Operating and Inspect

Operating and Inspect	Result		
	Pass	Not pass	N/A
Manual charge spring	☒	☐	☐
Manual closing operation	☒	☐	☐
Manual opening operation	☒	☐	☐
Check moving part	☒	☐	☐
Check LV auxiliaries plug	☒	☐	☐
Cleaning arc chute chamber	☒	☐	☐
Characteristics of electronic trip device	☒	☐	☐

Responsibility	Tested by	Witnessed by
Company	ESSI ENERGY GROUP CO., LTD.	Hyatt Regency Bangkok Sukhumvit
Name	Apichat Moonee	
Signature	<i>Apichat Moonee</i>	
Date	28 September 2025	

ESSI ENERGY GROUP CO., LTD.



FIELD INSPECTION AND TEST RECORD



AIR CIRCUIT BREAKER (ABB)

BANGKOK SUKHUMVIT

PROJECT : Preventive Maintenance ERECTION SITE : Hyatt Regency Bangkok Sukhumvit CUSTOMER : Hyatt Regency Bangkok Sukhumvit	LOCATION : Electrical Room (Floor 3) CUBICLE NAME : MDB.E FEEDER : EMERGENCY ACB (FROM GCP.1)
--	--

4. Testing Result of Electronic Trip Device

Instrument : ABB EKIP Test kit Serial no. : -

Function	Inject Current	Should be Time (Sec)	Operating Time (Sec)	Trip Indicator	
				Passed	Failed
Long time	3xI1	12.000	12.024	☒	☐
Short time					
Instantaneous	7xI3	<0.03	0.018	☒	☐
Ground fault					

$t = (9t_1) / (I_f/I_1)^2$
 $t = (100t_2) / (I_f)^2$
 $t < 30 \text{ ms}$
 $t = 2 / (I_f/I_4)^2$

5. Testing Result of Contact Resistance

Instrument : Chauvin Model C.A 6240 Serial no. : 162470

Phase	Test current (Adc)	Contact resistance ($\mu\Omega$)	Calculate Watt loss (Watts)	Accept. Watt loss (Watts)
A	10	12	75	267
B		14	88	
C		12	75	
N				

6. Testing Result of Insulation Resistance

Instrument : Megger Model MIT515 Serial no. : 13117

Test Voltage (Vdc)	Insulation Resistance (M Ω)		Recommended Minimum Insulation Resistance
500	Interrupter A :		100 M Ω
	Interrupter B :		
	Interrupter C :		
	Interrupter N :		
	A to B+C+N+Gnd. :		
	B to C+A+N+Gnd. :		
	C to A+B+N+Gnd. :		
	N to A+B+C+Gnd. :		

Refer.: ANSI/NETA MTS-2011

Humidity : - % Amb. Temp. : - °C

OVERALL TEST RESULT ☒ **PASS** ☐ **NOT PASS**

Remark : _____

Responsibility	Tested by	Witnessed by
Company	ESSI ENERGY GROUP CO., LTD.	Hyatt Regency Bangkok Sukhumvit
Name	Apichat Moonee	
Signature	<i>Apichat Moonee</i>	
Date	28 September 2025	



FIELD INSPECTION AND TEST RECORD



BANGKOK SUKHUMVIT

AIR CIRCUIT BREAKER (ABB)

PROJECT	: Preventive Maintenance	LOCATION	: Electrical Room (Floor 3)
ERECTION SITE	: Hyatt Regency Bangkok Sukhumvit	CUBICLE NAME	: MDB.E
CUSTOMER	: Hyatt Regency Bangkok Sukhumvit	FEEDER	: MCCEAC2

TECHNICAL DATA

Manufacture	ABB	Trip Device	☒ EKIP Dip	☐ EKIP Touch
Type	SACE E2.2N		☐ PR121/P	☐ PR122/P
Ampere Trip (In)	1250 A	Icu	☒ 66 kA	☐ 75 kA
Serial no.	BGAB001776		☐ 85 kA	☐ 100 kA
Ue	690 V	Pole	☒ 3P	☐ 4P
Frequency	50/60 Hz	Frame	☐ Fixed	☒ Draw-out
Standard	IEC 60947-2			

1. Accessories

1.1 Under voltage trip device (MN)	☐ 100/130 VAC/VDC	☐ 200-250 VAC/VDC	☐ Other
1.2 Shunt trip device (MX)	☐ 100/130 VAC/VDC	☒ 200-250 VAC/VDC	☐ Other
1.3 Closing coil (XF)	☐ 100/130 VAC/VDC	☒ 200-250 VAC/VDC	☐ Other
1.4 Motor charger device (MCH)	☐ 100/130 VAC/VDC	☒ 200-250 VAC/VDC	☐ Other

2. Electronic Trip Device Setting

Electronic trip device setting	Setting value	
Long time (I1)	1	
Long time delay (T1)	12	
Short time (I2)	5	
Short time delay (T2)	0.3	☒ $t=k/I^2$ ☐ $t=k$
Instantaneous (I3)	7	
Ground fault (I4)	0.2	
Ground fault time delay (T4)	0.2	☒ $t=k/I^2$ ☐ $t=k$

3. Operating and Inspect

Operating and Inspect	Result		
	Pass	Not pass	N/A
Manual charge spring	☒	☐	☐
Manual closing operation	☒	☐	☐
Manual opening operation	☒	☐	☐
Check moving part	☒	☐	☐
Check LV auxiliaries plug	☒	☐	☐
Cleaning arc chute chamber	☒	☐	☐
Characteristics of electronic trip device	☒	☐	☐

Responsibility	Tested by	Witnessed by
Company	ESSI ENERGY GROUP CO., LTD.	Hyatt Regency Bangkok Sukhumvit
Name	Apichat Moonee	
Signature	<i>Apichat Moonee</i>	
Date	28 September 2025	

ESSI ENERGY GROUP CO., LTD.



FIELD INSPECTION AND TEST RECORD



BANGKOK SUKHUMVIT

AIR CIRCUIT BREAKER (ABB)

PROJECT	: Preventive Maintenance	LOCATION	: Electrical Room (Floor 3)
ERECTION SITE	: Hyatt Regency Bangkok Sukhumvit	CUBICLE NAME	: MDB.E
CUSTOMER	: Hyatt Regency Bangkok Sukhumvit	FEEDER	: MCCEAC2

4. Testing Result of Electronic Trip Device

Instrument : ABB EKIP Test kit Serial no. : -

Function	Inject Current	Should be Time (Sec)	Operating Time (Sec)	Trip Indicator	
				Passed	Failed
Long time	3xI1	12.000	12.028	☒	☐
Short time	6xI2	0.833	0.837	☒	☐
Instantaneous	8xI3	<0.03	0.018	☒	☐
Ground fault	2xI4	0.500	0.500	☒	☐

$t = (9t_1) / (I_f/I_1)^2$
 $t = (100t_2) / (I_f)^2$
 $t < 30 \text{ ms}$
 $t = 2 / (I_f/I_4)^2$

5. Testing Result of Contact Resistance

Instrument : Chauvin Model C.A 6240 Serial no. : 162470

Phase	Test current (Adc)	Contact resistance ($\mu\Omega$)	Calculate Watt loss (Watts)	Accept. Watt loss (Watts)
A	10	18	28	176
B		15	23	
C		16	25	
N				

6. Testing Result of Insulation Resistance

Instrument : Megger Model MIT515 Serial no. : 13117

Test Voltage (Vdc)	Insulation Resistance (M Ω)		Recommended Minimum Insulation Resistance
500	Interrupter A :	17,510	100 M Ω
	Interrupter B :	24,700	
	Interrupter C :	27,300	
	Interrupter N :		
	A to B+C+N+Gnd. :	15,960	
	B to C+A+N+Gnd. :	23,400	
	C to A+B+N+Gnd. :	16,900	
	N to A+B+C+Gnd. :		

Refer.: ANSI/NETA MTS-2011

Humidity : 85 % Amb. Temp. : 28 °C

OVERALL TEST RESULT ☒ **PASS** ☐ **NOT PASS**

Remark : _____

Responsibility	Tested by	Witnessed by
Company	ESSI ENERGY GROUP CO., LTD.	Hyatt Regency Bangkok Sukhumvit
Name	Apichat Moonee	
Signature	<i>Apichat Moonee</i>	
Date	28 September 2025	



FIELD INSPECTION AND TEST RECORD



BANGKOK SUKHUMVIT

AIR CIRCUIT BREAKER (ABB)

PROJECT	: Preventive Maintenance	LOCATION	: Electrical Room (Floor 3)
ERECTION SITE	: Hyatt Regency Bangkok Sukhumvit	CUBICLE NAME	: MDB.E
CUSTOMER	: Hyatt Regency Bangkok Sukhumvit	FEEDER	: CAP.2

TECHNICAL DATA

Manufacture	ABB	Trip Device	☒ EKIP Dip	☐ EKIP Touch
Type	SACE E2.2N		☐ PR121/P	☐ PR122/P
Ampere Trip (In)	1600	A	☒ 66 kA	☐ 75 kA
Serial no.	BG9B001624	Icu	☐ 85 kA	☐ 100 kA
Ue	690	V	☒ 3P	☐ 4P
Frequency	50/60	Hz	☐ Fixed	☒ Draw-out
Standard	IEC 60947-2	Frame		

1. Accessories

1.1 Under voltage trip device (MN)	☐ 100/130 VAC/VDC	☐ 200-250 VAC/VDC	☐ Other
1.2 Shunt trip device (MX)	☐ 100/130 VAC/VDC	☐ 200-250 VAC/VDC	☐ Other
1.3 Closing coil (XF)	☐ 100/130 VAC/VDC	☐ 200-250 VAC/VDC	☐ Other
1.4 Motor charger device (MCH)	☐ 100/130 VAC/VDC	☐ 200-250 VAC/VDC	☐ Other

2. Electronic Trip Device Setting

Electronic trip device setting	Setting value	
Long time (I1)	1	
Long time delay (T1)	12	
Short time (I2)	4	
Short time delay (T2)	0.3	☒ $t=k/I^2$ ☐ $t=k$
Instantaneous (I3)	6	
Ground fault (I4)	0.3	
Ground fault time delay (T4)	0.4	☒ $t=k/I^2$ ☐ $t=k$

3. Operating and Inspect

Operating and Inspect	Result		
	Pass	Not pass	N/A
Manual charge spring	☒	☐	☐
Manual closing operation	☒	☐	☐
Manual opening operation	☒	☐	☐
Check moving part	☒	☐	☐
Check LV auxiliaries plug	☒	☐	☐
Cleaning arc chute chamber	☒	☐	☐
Characteristics of electronic trip device	☒	☐	☐

Responsibility	Tested by	Witnessed by
Company	ESSI ENERGY GROUP CO., LTD.	Hyatt Regency Bangkok Sukhumvit
Name	Apichat Moonee	
Signature	<i>Apichat Moonee</i>	
Date	28 September 2025	

ESSI ENERGY GROUP CO., LTD.



FIELD INSPECTION AND TEST RECORD



AIR CIRCUIT BREAKER (ABB)

BANGKOK SUKHUMVIT

PROJECT	: Preventive Maintenance	LOCATION	: Electrical Room (Floor 3)
ERECTION SITE	: Hyatt Regency Bangkok Sukhumvit	CUBICLE NAME	: MDB.E
CUSTOMER	: Hyatt Regency Bangkok Sukhumvit	FEEDER	: CAP.2

4. Testing Result of Electronic Trip Device

Instrument : ABB EKIP Test kit Serial no. : -

Function	Inject Current	Should be Time (Sec)	Operating Time (Sec)	Trip Indicator	
				Passed	Failed
Long time	3xI1	12.000	12.025	☒	☐
Short time	5xI2	1.200	1.206	☒	☐
Instantaneous	7xI3	<0.03	0.016	☒	☐
Ground fault	2xI4	0.500	0.501	☒	☐

$$t = (9t_1) / (I_f/I_1)^2$$

$$t = (100t_2) / (I_f)^2$$

$$t < 30 \text{ ms}$$

$$t = 2 / (I_f/I_4)^2$$

5. Testing Result of Contact Resistance

Instrument : Chauvin Model C.A 6240 Serial no. : 162470

Phase	Test current (Adc)	Contact resistance ($\mu\Omega$)	Calculate Watt loss (Watts)	Accept. Watt loss (Watts)
A	10	16	41	288
B		18	46	
C		15	38	
N				

6. Testing Result of Insulation Resistance

Instrument : Megger Model MIT515 Serial no. : 13117

Test Voltage (Vdc)	Insulation Resistance (M Ω)		Recommended Minimum Insulation Resistance
500	Interrupter A :	20,300	100 M Ω
	Interrupter B :	19,790	
	Interrupter C :	25,700	
	Interrupter N :		
	A to B+C+N+Gnd. :	79,030	
	B to C+A+N+Gnd. :	22,000	
	C to A+B+N+Gnd. :	21,900	
	N to A+B+C+Gnd. :		

Refer.: ANSI/NETA MTS-2011

Humidity : 88 % Amb. Temp. : 28 °C

OVERALL TEST RESULT ☒ **PASS** ☐ **NOT PASS**

Remark : _____

Responsibility	Tested by	Witnessed by
Company	ESSI ENERGY GROUP CO., LTD.	Hyatt Regency Bangkok Sukhumvit
Name	Apichat Moonee	
Signature	<i>Apichat Moonee</i>	
Date	28 September 2025	

ESSI ENERGY GROUP CO., LTD.



FIELD INSPECTION AND TEST RECORD



MOLD CASE CIRCUIT BREAKER

BANGKOK SUKHUMVIT

PROJECT	: Preventive Maintenance	LOCATION	: Electrical Room (Floor 3)
ERECTION SITE	: Hyatt Regency Bangkok Sukhumvit	CUBICLE NAME	: MDB.E
CUSTOMER	: Hyatt Regency Bangkok Sukhumvit		

VISUAL INSPECTION AND FUNCTION TEST

Checked

1. Mold case Circuit breaker undamaged and clean
2. All Fastenings checked

☒
☒

Feeder Name	Manufacture	Type	Rating (A)	Test trip	
				Pass	Not Pass
DBELV.1 ELEVATOR	ABB	Tmax XT1H160	80	☒	☐
DBELV.3 ELEVATOR	ABB	Tmax XT1H160	100	☒	☐
DB.E2	ABB	Tmax XT1H160	100	☒	☐
DBELV.6 ELEVATOR	ABB	Tmax XT1H160	100	☒	☐
DB.E6	ABB	Tmax XT1H160	100	☒	☐
SPARE	ABB	Tmax XT1H160	100	☒	☐
DB.E5	ABB	Tmax XT4H250	200	☒	☐
DB.E7	ABB	Tmax XT4H250	200	☒	☐
DB.E11	ABB	Tmax XT4H250	200	☒	☐
MCC.ESN1	ABB	SACE T5H630	630	☒	☐
DBELV.2 ELEVATOR	ABB	Tmax XT4H160	80	☒	☐
DBELV.4 ELEVATOR	ABB	Tmax XT4H250	200	☒	☐
SPARE	ABB	Tmax XT4H160	125	☒	☐
DB.EB	ABB	Tmax XT4H250	250	☒	☐
DB.EG	ABB	Tmax XT4H250	250	☒	☐
DB.E3	ABB	Tmax XT4H160	160	☒	☐
DB.E4	ABB	Tmax XT4H250	250	☒	☐

Remark : _____

Responsibility	Tested by	Witnessed by
Company	ESSI ENERGY GROUP CO., LTD.	Hyatt Regency Bangkok Sukhumvit
Name	Apichat Moonee	
Signature	<i>Apichat Moonee</i>	
Date	28 September 2025	

ESSI ENERGY GROUP CO., LTD.



FIELD INSPECTION AND TEST RECORD



AUTOMATIC TRANSFER SWITCH FUNCTION TEST

BANGKOK SUKHUMVIT

PROJECT	: Preventive Maintenance	LOCATION	: Electrical Room (Floor 3)
ERECTION SITE	: Hyatt Regency Bangkok Sukhumvit	CUBICLE NAME	: MDB.E
CUSTOMER	: Hyatt Regency Bangkok Sukhumvit		

TECHNICAL DATA

ATS.Switching / CB. MFG.	ABB	ATS.Controller MFG.	ABB
QN. Switching /Type : Normal	SACE E2.2N	ATS.Controller Type.	ATS022
QR. Switching /Type : Reserv	SACE E2.2N	Frequency	50/60 Hz
		Voltage Un	220/240 V.

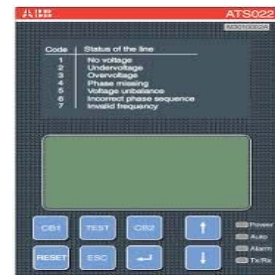
ATS.CONTROLLER SETTING

TS:	Opening delay of main line CB, after detection of fault in mains (generator is not in use).	1	Sec.
	Generator start delay, after detection of fault in mains (generator in use).		
TCE:	Closing delay of CB2 of line LN2.	2	Sec.
TBS:	Opening delay of emergency line CB, after detection of stabilised voltage on main line	60	Sec.
TCN:	Closing delay of CB1 of line LN1.	3	Sec.
TGOFF:	Generator switching off delay, after closure of main line CB.	300	Sec.
TC:	Delay in opening and closing of CB3 in Bus Tie application	3	Sec.
TL:	Delay in activation of outlet DO7, after detection of the fault on both lines LN1 and LN2.	0	Sec.

FUNCTION TESTING

EQUIPMENT CONDITION BEFORE TESTING

- Status of Circuit Breaker / Switch LN.1 (Normal)	Close
- Status of Circuit Breaker / Switch LN.2 (Reserv)	Open
- Status of ATS.Controller Mode	Automatic



FUNCTION TESTING "AUTO" MODE

Simulation	Time(Sec)	Indicator V.normal	Indicator V-Emer	LN.1	LN.2	GENERATOR
Normal Fail	1	Fail	Fail	Open	Open	Start Engine
	2	Fail	Healthy	Open	Close	Engine Run
Normal Back to Healthy	60	Healthy	Healthy	Open	Open	Engine Run
	3	Healthy	Healthy	Close	Open	Engine Run
	300	Healthy	Fail	Close	Open	Engine Stop

Perform	Not Perform
☒	☐
☒	☐
☒	☐
☒	☐
☒	☐

FUNCTION TESTING "MANUAL" MODE

	Perform	Not Perform
- Function test Manual mode " Manual Close LN1 "	☒	☐
- Function test Manual mode " Manual Close LN2 "	☒	☐
- Function test Manual mode " Manual OFF "	☒	☐
- Function test Manual mode " Manual TEST "	☒	☐

Remark :

Responsibility	Tested by	Witnessed by
Company	ESSI ENERGY GROUP CO., LTD.	Hyatt Regency Bangkok Sukhumvit
Name	Apichat Moonee	
Signature	<i>Apichat Moonee</i>	
Date	28 September 2025	



ESSI ENERGY GROUP CO., LTD.

6.FDP.1

ESSI ENERGY GROUP CO., LTD.



FIELD INSPECTION AND TEST RECORD



BANGKOK SUKHUMVIT

LV SWITCHBOARD

PROJECT : Preventive Maintenance ERECTION SITE : Hyatt Regency Bangkok Sukhumvit CUSTOMER : Hyatt Regency Bangkok Sukhumvit	LOCATION : Electrical Room (Floor 3) CUBICLE NAME : FDP.1
--	--

VISUAL INSPECTION

	Normal	Abnormal	
1. Cleaning all panel	☒	☐	
2. Re-torque the busbar at main incoming and between panel	☒	☐	
3. Re-torque at connection of MCCB and busbar or cable	☒	☐	
4. Insulation test	☒	☐	
5. Metering check	☒	☐	
6. General condition check	☒	☐	
7. Grounding condition check	☒	☐	
8. Busbar check and re-torque	☒	☐	
9. Fuse and fuse bases check	☒	☐	

INSULATION RESISTANCE MEASUREMENT

Instrument : Megger Model MIT515 Serial no. : 13117

Test connection	Test voltage (Vdc)	Insulation resistance (MΩ)	Minimum Insulation Resistance
A-B	1,000	569	1.0 MΩ
B-C		308	
C-A		734	
A-Gnd.		1,130	
B-Gnd.		1,070	
C-Gnd.		993	

Reference : IEC 60364-6 Standards

Humidity : 85 % Amb. Temp. : 28 °C

Remark : _____

Responsibility	Tested by	Witnessed by
Company	ESSI ENERGY GROUP CO., LTD.	Hyatt Regency Bangkok Sukhumvit
Name	Apichat Moonee	
Signature	<i>Apichat Moonee</i>	
Date	28 September 2025	

ESSI ENERGY GROUP CO., LTD.



FIELD INSPECTION AND TEST RECORD



MOLD CASE CIRCUIT BREAKER

PROJECT : Preventive Maintenance **LOCATION** : Electrical Room (Floor 3)
ERECTION SITE : Hyatt Regency Bangkok Sukhumvit **CUBICLE NAME** : FDP.1
CUSTOMER : Hyatt Regency Bangkok Sukhumvit

VISUAL INSPECTION AND FUNCTION TEST

Checked

1. Mold case Circuit breaker undamaged and clean
2. All Fastenings checked



Feeder Name	Manufacture	Type	Rating (A)	Test trip	
				Pass	Not Pass
FROM MDB.1 (ATS Normal)	ABB	Tmax T7H1000	1000	☒	☐
FROM GCP.1 (ATS Emergency)	ABB	Tmax T7H1000	1000	☒	☐
MCC.EFP	ABB	SACE T6H800	800	☒	☐
DBEL V.5	ABB	Tmax XT4H160	125	☒	☐
MCC.EACR	ABB	Tmax XT4H160	125	☒	☐
MCC.EAC2	ABB	Tmax XT2H160	50	☒	☐
MCC.EAC6	ABB	Tmax XT2H160	20	☒	☐
SPARE	ABB	Tmax XT2H160	100	☒	☐

Remark : _____

Responsibility	Tested by	Witnessed by
Company	ESSI ENERGY GROUP CO., LTD.	Hyatt Regency Bangkok Sukhumvit
Name	Apichat Moonee	
Signature	<i>Apichat Moonee</i>	
Date	28 September 2025	

ESSI ENERGY GROUP CO., LTD.



FIELD INSPECTION AND TEST RECORD



AUTOMATIC TRANSFER SWITCH FUNCTION TEST

BANGKOK SUKHUMVIT

PROJECT	: Preventive Maintenance	LOCATION	: Electrical Room (Floor 3)
ERECTION SITE	: Hyatt Regency Bangkok Sukhumvit	CUBICLE NAME	: FDP.1
CUSTOMER	: Hyatt Regency Bangkok Sukhumvit		

TECHNICAL DATA

ATS.Switching / CB. MFG.	ABB	ATS.Controller MFG.	ABB
QN. Switching /Type : Normal	Tmax T7H1000	ATS.Controller Type.	ATS022
QR. Switching /Type : Reserv	Tmax T7H1000	Frequency	50/60 Hz
		Voltage Un	220/240 V.

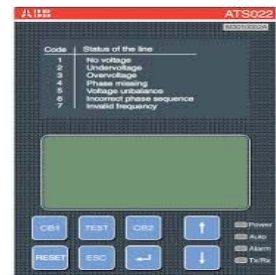
ATS.CONTROLLER SETTING

TS:	Opening delay of main line CB, after detection of fault in mains (generator is not in use).	1	Sec.
	Generator start delay, after detection of fault in mains (generator in use).		
TCE:	Closing delay of CB2 of line LN2.	2	Sec.
TBS:	Opening delay of emergency line CB, after detection of stabilised voltage on main line	60	Sec.
TCN:	Closing delay of CB1 of line LN1.	3	Sec.
TGOFF:	Generator switching off delay, after closure of main line CB.	300	Sec.
TC:	Delay in opening and closing of CB3 in Bus Tie application	3	Sec.
TL:	Delay in activation of outlet DO7, after detection of the fault on both lines LN1 and LN2.	0	Sec.

FUNCTION TESTING

EQUIPMENT CONDITION BEFORE TESTING

- Status of Circuit Breaker / Switch LN.1 (Normal)	Close
- Status of Circuit Breaker / Switch LN.2 (Reserv)	Open
- Status of ATS.Controller Mode	Automatic



FUNCTION TESTING "AUTO" MODE

Simulation	Time(Sec)	Indicator V.normal	Indicator V-Emer	LN.1	LN.2	GENERATOR
Normal Fail	1	Fail	Fail	Open	Open	Start Engine
	2	Fail	Healthy	Open	Close	Engine Run
Normal Back to Healthy	60	Healthy	Healthy	Open	Open	Engine Run
	3	Healthy	Healthy	Close	Open	Engine Run
	300	Healthy	Fail	Close	Open	Engine Stop

Perform	Not Perform
☒	☐
☒	☐
☒	☐
☒	☐
☒	☐

FUNCTION TESTING "MANUAL" MODE

	Perform	Not Perform
- Function test Manual mode " Manual Close LN1 "	☒	☐
- Function test Manual mode " Manual Close LN2 "	☒	☐
- Function test Manual mode " Manual OFF "	☒	☐
- Function test Manual mode " Manual TEST "	☒	☐

Remark :

Responsibility	Tested by	Witnessed by
Company	ESSI ENERGY GROUP CO., LTD.	Hyatt Regency Bangkok Sukhumvit
Name	Apichat Moonee	
Signature	<i>Apichat Moonee</i>	
Date	28 September 2025	



ESSI ENERGY GROUP CO., LTD.

7.GCP.1

ESSI ENERGY GROUP CO., LTD.



FIELD INSPECTION AND TEST RECORD



BANGKOK SUKHUMVIT

LV SWITCHBOARD

PROJECT : Preventive Maintenance	LOCATION : Electrical Room (Floor 3)
ERECTION SITE : Hyatt Regency Bangkok Sukhumvit	CUBICLE NAME : GCP.1
CUSTOMER : Hyatt Regency Bangkok Sukhumvit	

VISUAL INSPECTION

	Normal	Abnormal	
1. Cleaning all panel	☒	☐	
2. Re-torque the busbar at main incoming and between panel	☒	☐	
3. Re-torque at connection of MCCB and busbar or cable	☒	☐	
4. Insulation test	☒	☐	
5. Metering check	☒	☐	
6. General condition check	☒	☐	
7. Grounding condition check	☒	☐	
8. Busbar check and re-torque	☒	☐	
9. Fuse and fuse bases check	☒	☐	

INSULATION RESISTANCE MEASUREMENT

Instrument : Megger Model MIT515 Serial no. : 13117

Test connection	Test voltage (Vdc)	Insulation resistance (MΩ)	Minimum Insulation Resistance
A-B	500	5,980	1.0 MΩ
B-C		210	
C-A		6,260	
A-Gnd.		7,430	
B-Gnd.		144.6	
C-Gnd.		131.3	

Reference : IEC 60364-6 Standards

Humidity : 88 % Amb. Temp. : 28 °C

Remark : _____

Responsibility	Tested by	Witnessed by
Company	ESSI ENERGY GROUP CO., LTD.	Hyatt Regency Bangkok Sukhumvit
Name	Apichat Moonee	
Signature	<i>Apichat Moonee</i>	
Date	28 September 2025	



FIELD INSPECTION AND TEST RECORD



BANGKOK SUKHUMVIT

AIR CIRCUIT BREAKER (ABB)

PROJECT	: Preventive Maintenance	LOCATION	: Electrical Room (Floor 3)
ERECTION SITE	: Hyatt Regency Bangkok Sukhumvit	CUBICLE NAME	: GCP.1
CUSTOMER	: Hyatt Regency Bangkok Sukhumvit	FEEDER	: TO MDB.E

TECHNICAL DATA

Manufacture	ABB	Trip Device	☒ EKIP Dip	☐ EKIP Touch
Type	SACE E2.2N		☐ PR121/P	☐ PR122/P
Ampere Trip (In)	2500 A	Icu	☒ 66 kA	☐ 75 kA
Serial no.	BGC3000404		☐ 85 kA	☐ 100 kA
Ue	690 V	Pole	☒ 3P	☐ 4P
Frequency	50/60 Hz	Frame	☒ Fixed	☐ Draw-out
Standard	IEC 60947-2			

1. Accessories

1.1 Under voltage trip device (MN)	☐ 100/130 VAC/VDC	☐ 200-250 VAC/VDC	☐ Other
1.2 Shunt trip device (MX)	☐ 100/130 VAC/VDC	☒ 200-250 VAC/VDC	☐ Other
1.3 Closing coil (XF)	☐ 100/130 VAC/VDC	☐ 200-250 VAC/VDC	☐ Other
1.4 Motor charger device (MCH)	☐ 100/130 VAC/VDC	☐ 200-250 VAC/VDC	☐ Other

2. Electronic Trip Device Setting

Electronic trip device setting	Setting value	
Long time (I1)	0.8	
Long time delay (T1)	12	
Short time (I2)	6	
Short time delay (T2)	0.1	☐ $t=k/I^2$ ☒ $t=k$
Instantaneous (I3)	6	
Ground fault (I4)	0.8	
Ground fault time delay (T4)	0.4	☐ $t=k/I^2$ ☒ $t=k$

3. Operating and Inspect

Operating and Inspect	Result		
	Pass	Not pass	N/A
Manual charge spring	☒	☐	☐
Manual closing operation	☒	☐	☐
Manual opening operation	☒	☐	☐
Check moving part	☒	☐	☐
Check LV auxiliaries plug	☒	☐	☐
Cleaning arc chute chamber	☒	☐	☐
Characteristics of electronic trip device	☒	☐	☐

Responsibility	Tested by	Witnessed by
Company	ESSI ENERGY GROUP CO., LTD.	Hyatt Regency Bangkok Sukhumvit
Name	Apichat Moonee	
Signature	<i>Apichat Moonee</i>	
Date	28 September 2025	

ESSI ENERGY GROUP CO., LTD.



FIELD INSPECTION AND TEST RECORD



AIR CIRCUIT BREAKER (ABB)

BANGKOK SUKHUMVIT

PROJECT	: Preventive Maintenance	LOCATION	: Electrical Room (Floor 3)
ERECTION SITE	: Hyatt Regency Bangkok Sukhumvit	CUBICLE NAME	: GCP.1
CUSTOMER	: Hyatt Regency Bangkok Sukhumvit	FEEDER	: TO MDB.E

4. Testing Result of Electronic Trip Device

Instrument : ABB EKIP Test kit Serial no. : -

Function	Inject Current	Should be Time (Sec)	Operating Time (Sec)	Trip Indicator	
				Passed	Failed
Long time	3xI1	12.000	12.027	☒	☐
Short time					
Instantaneous	7xI3	<0.03	0.017	☒	☐
Ground fault					

$$t = (9t_1) / (I_f/I_1)^2$$

$$t = (100t_2) / (I_f)^2$$

$$t < 30 \text{ ms}$$

$$t = 2 / (I_f/I_4)^2$$

5. Testing Result of Contact Resistance

Instrument : Chauvin Model C.A 6240 Serial no. : 162470

Phase	Test current (Adc)	Contact resistance ($\mu\Omega$)	Calculate Watt loss (Watts)	Accept. Watt loss (Watts)
A	10	13	81	267
B		13	81	
C		12	75	
N				

6. Testing Result of Insulation Resistance

Instrument : Megger Model MIT515 Serial no. : 13117

Test Voltage (Vdc)	Insulation Resistance (M Ω)		Recommended Minimum Insulation Resistance
500	Interrupter A :		100 M Ω
	Interrupter B :		
	Interrupter C :		
	Interrupter N :		
	A to B+C+N+Gnd. :		
	B to C+A+N+Gnd. :		
	C to A+B+N+Gnd. :		
	N to A+B+C+Gnd. :		

Refer.: ANSI/NETA MTS-2011

Humidity : - % Amb. Temp. : - °C

OVERALL TEST RESULT ☒ **PASS** ☐ **NOT PASS**

Remark : _____

Responsibility	Tested by	Witnessed by
Company	ESSI ENERGY GROUP CO., LTD.	Hyatt Regency Bangkok Sukhumvit
Name	Apichat Moonee	
Signature	<i>Apichat Moonee</i>	
Date	28 September 2025	

ESSI ENERGY GROUP CO., LTD.



FIELD INSPECTION AND TEST RECORD



MOLD CASE CIRCUIT BREAKER

PROJECT : Preventive Maintenance **LOCATION** : Electrical Room (Floor 3)
ERECTION SITE : Hyatt Regency Bangkok Sukhumvit **CUBICLE NAME** : GCP.1
CUSTOMER : Hyatt Regency Bangkok Sukhumvit

VISUAL INSPECTION AND FUNCTION TEST

Checked

1. Mold case Circuit breaker undamaged and clean
2. All Fastenings checked



Feeder Name	Manufacture	Type	Rating (A)	Test trip	
				Pass	Not Pass
FDP.1	ABB	Tmax T7H1000	1000	☒	☐

Remark : _____

Responsibility	Tested by	Witnessed by
Company	ESSI ENERGY GROUP CO., LTD.	Hyatt Regency Bangkok Sukhumvit
Name	Apichat Moonee	
Signature	<i>Apichat Moonee</i>	
Date	28 September 2025	



FIELD INSPECTION AND TEST RECORD



MOLD CASE CIRCUIT BREAKER

PROJECT	: Preventive Maintenance	LOCATION	: Electrical Room (Floor 3)
ERECTION SITE	: Hyatt Regency Bangkok Sukhumvit	CUBICLE NAME	: GCP.1
CUSTOMER	: Hyatt Regency Bangkok Sukhumvit	FEEDER	: TO FDP.1

1. TECHNICAL DATA

Manufacture	ABB	Ampere Trip (In)	1000 A
Type	Tmax T7H1000	Electronic Trip Device	SACE PR331/P-LSIG
Serial No.	BH2B002143		

2. Electronic Trip Device Setting

Electronic trip device setting	Setting value
Long time (I1)	1
Long time delay (T1)	12
Short time (I2)	4.2
Short time delay (T2)	0.3
Instantaneous (I3)	6
Ground fault (I4)	0.3
Ground fault time delay (T4)	0.4

☒ $t=k/I^2$ ☐ $t=k$

☒ $t=k/I^2$ ☐ $t=k$

4. Testing Result of Electronic Trip Device

Instrument : ABB EKIP Test kit Serial no. : -

Function	Inject Current	Should be Time (Sec)	Operating Time (Sec)	Trip Indicator		
				Passed	Failed	
Long time	3xI1	12.000	12.018	☒	☐	$t = (9t1) / (If/I1)^2$
Short time	5xI2	1.200	1.199	☒	☐	$t = (100t2) / (If)^2$
Instantaneous	7xI3	<0.03	0.016	☒	☐	$t < 30 \text{ ms}$
Ground fault	2xI4	0.500	0.449	☒	☐	$t = 2 / (If/I4)^2$

Remark : _____

Responsibility	Tested by	Witnessed by
Company	ESSI ENERGY GROUP CO., LTD.	Hyatt Regency Bangkok Sukhumvit
Name	Apichat Moonee	
Signature	<i>Apichat Moonee</i>	
Date	28 September 2025	



ESSI ENERGY GROUP CO., LTD.

8.GROUND



FIELD INSPECTION AND TEST RECORD



BANGKOK SUKHUMVIT

GROUND RESISTANCE

PROJECT	: Preventive Maintenance	LOCATION	: Electrical Room (Floor 3)
ERECTION SITE	: Hyatt Regency Bangkok Sukhumvit	CUBICLE NAME	: Ground Point
CUSTOMER	: Hyatt Regency Bangkok Sukhumvit		

VISUAL INSPECTION AND FUNCTION TEST

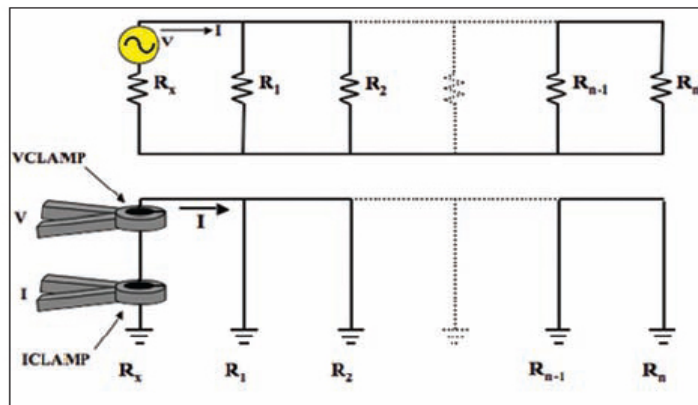
Checked

1. Grounding system welding joint performed properly



GROUNDING RESISTANCE MEASUREMENT

Instrument : Metrel Model MI3123 Serial no. : 22052502



Item	Location	Grounding Resistance (Ω)	Recommends
1	RMU.	3.17	< 5 Ω
2	TR.1	3.08	
3	TR.2	0.04	
4	MDB.1	0.02	
5	MDB.2	0.02	

Reference : NFPA & IEEE Standards Recommends a ground resistance value of 5.0 Ohm or less

Remark :

Responsibility	Tested by	Witnessed by
Company	ESSI ENERGY GROUP CO., LTD.	Hyatt Regency Bangkok Sukhumvit
Name	Apichat Moonee	
Signature	<i>Apichat Moonee</i>	
Date	28 September 2025	