SITE COMPLETION CHECKLIST (SCC) PLANT INTERFACING WORK(PIW) (PRE-CABLING & INSTALLATION)					
Doc No.	**SCC PIW(PC)**	**Rev. No.**	**1**	**Date**	**5 JUNE 2020**

CONTRACT TITLE :

PEMBEKALAN, PEMASANGAN, PENGUJIAN DAN MULATUGAS FASILITI SCADA (RTU) UNTUK PROJEK SBU ASSET DEVELOPMENT DISTRIBUTION NETWORK DIVISION. TNB

CONTRACT NO. :	**TNB130/2024**	
CONTRACTOR :	**HASILWAN SDN BHD**	
DATE :	**04-03-2026**	
SUBSTATION NAME :	**PE LAMAN SDYN 2 NO.1 (VCB)**	
FUNCTIONAL LOCATION :	**NSBN/PCE/2182**	
SUBZONE :	**SEREMBAN**	
STATE :	**NEGERI SEMBILAN**	
WORK TYPE : **(Tick "✓" whichever applicable)**		**Plant Interfacing Work (PIW) VCB**
		Plant Interfacing Work (PIW) M-RMU
	✓	**INTEGRATED AD VCB**
		INTEGRATED AD M-RMU

SITE COMPLETION CHECKLIST (SCC)
PLANT INTERFACING WORK(PIW)
(PRE-CABLING & INSTALLATION)

Doc No.	SCC PIW(PC)	Rev. No.	1	Date	5 JUNE 2020

A1. SCC PIW (DURING PRE-CABLING & INSTALLATION)

CONTRACT NO. :	TNB130/2024
FUNCTIONAL LOCATION :	NSBN/PCE/2182
SUBSTATION NAME :	PE LAMAN SDYN 2 NO.1 (VCB)

Check boxes as follows: (✓) OK NI : Need Improvement (Pls. give comments at 'Remark' column)

No.	Description	OK	NI	REMARKS
1.	**Visual Checks on RCB**			
i.	RCB cabinet is properly mounted & aligned at the wall / designated area.	✓		
ii.	QR code / label is available inside RCB Cabinet. The information on QR label* is scanned & checked (according to SOW) [* If available for this contract]	✓		
iii.	All wirings to the terminal blocks are terminated tightly and terminal blocks are in good condition.	✓		
iv.	All cables shall be properly glanded at the cable entry points using proper glanding and sealing (to ensure no space/gap between the cable entry points/glands and the panel)	✓		
v.	For RCB Multi-pin with Interconnector cables, inspect condition of pins (not bended/broken/'sub-merged' in the holder).	✓		
vi.	For RCB Multi-pin with Interconnector cables, check pin no. assignment with signal arrangement.	✓		
vii.	For RCB Multi-pin with Interconnector cables, check DC Earth fault to Ground.	✓		
viii.	For RCB Multi-pin with Interconnector cables, check cable support to avoid stress on the connector side.	✓		
ix.	For RCB Multi-pin with Interconnector cables, ensure cables on both ends are connected to the correct feeder number.	✓		
2.	**Visual and Physical Checks on Cablings and Terminations**			
i.	All non-armoured cables shall be installed in rigid high impact PVC conduits, neatly secured in position and adequately supported where necessary in an approved manner.	✓		
ii.	The size of the PVC conduit shall be 25 mm in diameter and the colour of the conduit and fittings shall be orange. The conduits shall be fixed by means of saddles secured rigidly at intervals not exceeding 750 mm.	✓		
iii.	Cable supports/brackets/elbows shall be installed at intervals not greater than 1500 mm for vertical runs and not greater than 1000 mm for horizontal runs. The brackets shall be derusted, finished in a primer and coated with standard orange enamel. The brackets/elbows shall not be painted.	✓		
iv.	For armoured cables, cable supports, elbows, cleats, trays shall be used. All materials must be of galvanised type (of at least 1.2 mm in thickness).	✓		
v.	For each termination from VCB / MRMU / EFI / Battery Charger / AC point to RCB: (i) Core number shall be marked using ferrules (ferrules shall be of one character slip-on interlocking type only). (ii) Diameter of interlocking ferrules shall be 2.5 mm & preferred brand is Partex. (iii) "TRIP" ferrules (red colour) for trip circuits. No two or more plant panels shall share a common/same cable.All cables shall be properly labelled at both ends as per signal arrangement drawings using heat shrinkable labels or cable tags.	✓		
vi.	No two or more plant panels shall share a common/same cable.	✓		

Observations:

Checks conducted by: Contractor's Signature & Stamp:	Verified by: TNB's Representative Signature & Stamp:
Name: HASFARUDDIN	Name:
Date: 04-03-2026	Date: 04-03-2026

SITE COMPLETION CHECKLIST (SCC)
PLANT INTERFACING WORK(PIW)
(PRE-CABLING & INSTALLATION)

Doc No.	SCC PIW(PC)	Rev. No.	1	Date	5 JUNE 2020

A1. SCC PIW (DURING PRE-CABLING & INSTALLATION)

CONTRACT NO. :	TNB130/2024
FUNCTIONAL LOCATION :	NSBN/PCE/2182
SUBSTATION NAME :	PE LAMAN SDYN 2 NO.1 (VCB)

Check boxes as follows: (✓) OK NI : Need Improvement (Pls. give comments at 'Remark' column)

No.	Description	OK	NI	REMARKS
3.	**Visual Checks on Installations**			
a.	**Battery Charger (including Batteries)**			
i.	Mounted in stable condition & aligned at the designated area.	✓		
ii.	Use of proper Torque Wrench (11 Nm) for installation of batteries	✓		
iii.	QR Label Information is available inside Battery Charger Panel. Scanned and checked information on QR label* (according to SOW). [* If available for this contract]	✓		
b.	**Earth Fault Indicators (EFIs)**			
i.	Installed on a mounting board, at designated area with cable markings for each EFI.	✓		
ii.	Not more than 2 nos. of EFIs on the mounting board.	✓		
4.	**Site Drawings & Tests**			
i.	Hardcopy of Approved Drawings - Documents are available & placed inside RCB / RTU panel. [Note: Any changes to the drawings shall be updated in softcopy and passed to TNB as As-built drawings].	✓		
ii.	Hardcopy of **Mastersheet & Wiring List (Working Copies)** - Any changes shall be updated/written in the Mastersheet & Wiring List & **verified, signed and stamped by supervisor / representative** - Documents are available & placed inside RCB / RTU panel.	✓		

Observations:

Checks conducted by: Contractor's Signature & Stamp:	Verified by: TNB's Representative Signature & Stamp:
Name: HASFARUDDIN	Name:
Date: 04-03-2026	Date: 04-03-2026

4.6.5 Pin Assignments

Check boxes as follows: (✓) OK NI : Need Improvement (Pls. give comments at 'Remark' column)

Pin No	Signal Arrangement	Group	REMARKS
1	Earth point		Common point to earth the connector, RCB & switchgear
2	Gas low alarm indication point (if applicable)	Alarm	Voltage free contact. Closes when Gas Low Alarm operated w.r.t Common at Pin 15
3	Spare		Spare
4	LBS/CB Open Indication point	Status	+ve wetted for Aux Relay coil w.r.t Common at Pin 8
5	LBS/CB Close Indication point		+ve wetted for Aux Relay coil w.r.t Common at Pin 8
6	ES Open Indication point		+ve wetted for Aux Relay coil w.r.t Common at Pin 8
7	ES Close Indication point		+ve wetted for Aux Relay coil w.r.t Common at Pin 8
8	Common from plant (Return for Pin 4, 5, 6 & 7)		-ve wetted from plant
9	Local/Remote Indication point		Voltage free contact. Close when in Remote Position w.r.t Common at Pin 15
10	Trip circuit supervision alarm indication point	Alarm	Voltage free contact. Close when TCS operated w.r.t Common at Pin 15
11	Overcurrent trip indication point		Voltage free contact. Close when OC operated w.r.t Common at Pin 15
12	Earthfault trip indication point		Voltage free contact. Close when EF operated w.r.t Common at Pin 15
13	Protection relay common alarm indication point		Voltage free contact. Close when Protection relay common alarm (IRF + Comm Fail for CD) operated w.r.t Common at Pin 15
14	Current Differential trip indication		Voltage free contact. Close when Current Diff operated w.r.t Common at Pin 15
15	Common from plant (Return for Pin 9–14)		Voltage free contact common
16	Close Command common	Control	Close Command common
17	Close Command from Remote/Supervisory		HDIR contact w.r.t Common at Pin 16 for Close command
18	Open Command common		Open Command common
19	Close Command from Remote/Supervisory		HDIR contact w.r.t Common at Pin 18 for Close command

Observations:

Checks conducted by: Contractor's Signature & Stamp:	Verified by: TNB's Representative Signature & Stamp:
Name: HASFARUDDIN	Name:
Date: 04-03-2026	Date: 04-03-2026

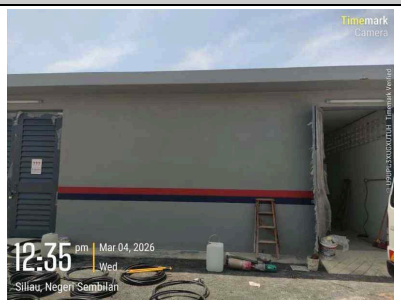
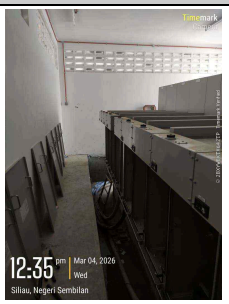
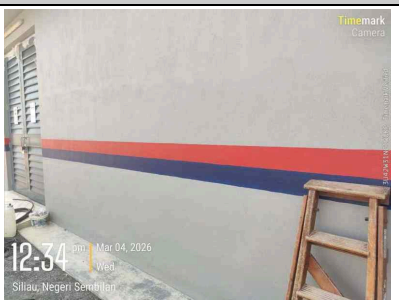
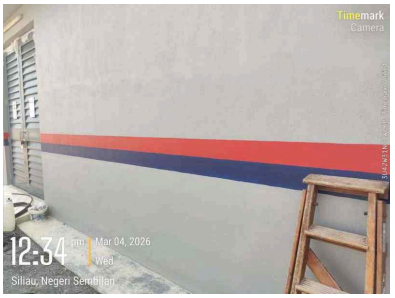
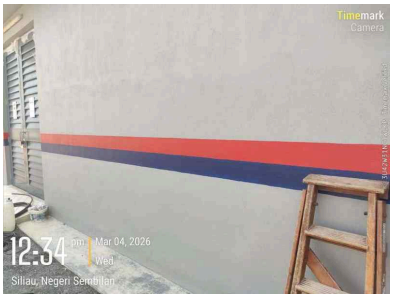
SITE COMPLETION CHECKLIST (SCC) PLANT INTERFACING WORK(PIW) (PRE-CABLING & INSTALLATION)	

Doc No.	SCC PIW(PC)	Rev. No.	1	Date	5 JUNE 2020

A2. PICTURES (BEFORE & AFTER DURING PRE-CABLING & INSTALLATION)

CONTRACT NO. :	TNB130/2024
FUNCTIONAL LOCATION :	NSBN/PCE/2182
SUBSTATION NAME :	PE LAMAN SDYN 2 NO.1 (VCB)

BEFORE INSTALLATION

		
OVERALL PICTURE OF SUBSTATION OUTER WALL (WITH SUBSTATION NAME)	OVERVIEW OF SWITCHGEAR (WITHOUT PRE-CABLING)	DESIGNATED SPACE/WALL FOR REMOTE CONTROL BOX INSTALLATION
		
DESIGNATED SPACE/WALL FOR BATTERY CHARGER INSTALLATION	EXISTING EFI(s) OR DESIGNATED SPACE/WALL FOR EFI INSTALLATION	EXISTING EFI(s) OR DESIGNATED SPACE/WALL FOR EFI INSTALLATION SECOND PIC (IF ANY)

SITE COMPLETION CHECKLIST (SCC) PLANT INTERFACING WORK(PIW) (PRE-CABLING & INSTALLATION)	

Doc No.	SCC PIW(PC)	Rev. No.	1	Date	5 JUNE 2020

A2. PICTURES (BEFORE & AFTER DURING PRE-CABLING & INSTALLATION)

CONTRACT NO. :	TNB130/2024
FUNCTIONAL LOCATION :	NSBN/PCE/2182
SUBSTATION NAME :	PE LAMAN SDYN 2 NO.1 (VCB)

AFTER INSTALLATION

		
OVERALL PICTURE OF SUBSTATION OUTER WALL (WITH SUBSTATION NAME)	OVERVIEW OF SWITCHGEAR (WITH COMPLETED PRE-CABLING)	REMOTE CONTROL BOX (AFTER INSTALLATION)
		
BATTERY CHARGER (AFTER INSTALLATION)	EFI(s) (AFTER INSTALLATION)	EFI(s) (AFTER INSTALLATION) SECOND PICTURE (IF ANY)

SITE COMPLETION CHECKLIST PLANT INTERFACING WORK(PIW) (SHUTDOWN)					
Doc No.	**SCC PIW(SD)**	**Rev. No.**	**1**	**Date**	**5 JUNE 2020**

CONTRACT TITLE :

PEMBEKALAN, PEMASANGAN, PENGUJIAN DAN MULATUGAS FASILITI SCADA (RTU) UNTUK PROJEK SBU ASSET DEVELOPMENT DISTRIBUTION NETWORK DIVISION. TNB

CONTRACT NO. :	**TNB130/2024**	
CONTRACTOR :	**HASILWAN SDN BHD**	
DATE :	**08-03-2026**	
SUBSTATION NAME :	**PE LAMAN SDYN 2 NO.1 (VCB)**	
FUNCTIONAL LOCATION :	**NSBN/PCE/2182**	
SUBZONE :	**SEREMBAN**	
STATE :	**NEGERI SEMBILAN**	
WORK TYPE : **(Tick "✓" whichever applicable)**		**Plant Interfacing Work (PIW) VCB**
		Plant Interfacing Work (PIW) M-RMU
	✓	**INTEGRATED AD VCB**
		INTEGRATED AD M-RMU

SITE COMPLETION CHECKLIST
PLANT INTERFACING WORK(PIW)
(SHUTDOWN)

Doc No.	SCC PIW(SD)	Rev. No.	1	Date	5 JUNE 2020

A1. SITE COMPLETION CHECKLIST FOR PLANT INTERFACING WORK (SHUTDOWN)

CONTRACT NO. :	TNB130/2024
FUNCTIONAL LOCATION :	NSBN/PCE/2182
SUBSTATION NAME :	PE LAMAN SDYN 2 NO.1 (VCB)

Check boxes as follows: (✓) OK NI : Need Improvement (Pls. give comments at 'Remark' column)

No.	Description	OK	NI	REMARKS
1.	**Visual Checks on RCB**			
i.	Printed stencils (black text on white, with laminated tape) are completed and put for station name / numberings at: • Remote Control Box (RCB)'s Door Panel • Link numbers for feeders in the RCB	✓		
ii.	SCADA-ready Stickers are sticked next to Local/Remote Switches	✓		
iii.	All feeders' labellings tally with switchgears at site.	✓		
iv.	All Local/Remote switches are at Remote position at switchgears	✓		
v.	All non-armoured cables (including EFI CT cable) shall be installed in rigid high impact PVC conduits, neatly secured in position and adequately supported where necessary in an approved manner.	✓		
vi.	All wirings to the terminal blocks are wired according to Cable Schedule, terminated tightly and terminal blocks are in good condition.	✓		
vii.	All cables shall be properly glanded at the cable entry points using proper glanding and sealing (to ensure no space/gap between the cable entry points/glands and the panel)	✓		
2.	**Visual Checks on Installations**			
a.	**Battery Charger (including Batteries)**			
i.	All wirings to the terminal blocks are terminated tightly and terminal blocks are in good condition.	✓		
ii.	Relevant Stickers for Battery Charger are available.	✓		
iii.	All tests for Battery Charger are conducted & Test results recorded in Test Forms accordingly.	✓		
b.	**Earth Fault Indicators (EFIs)**			
i.	Printed stencils (black text on white, with laminated tape) are available for numbering on the mounting board.	✓		
ii.	EFI CT cables from EFI to Switchgears are laid, terminated & clamped.	✓		
3.	**Site Drawings & Tests**			
i.	Hardcopy of Approved Drawings - Documents are available & placed inside RCB / RTU panel. [Note: Any changes to the drawings shall be **updated in softcopy** and passed to TNB as As-built drawings].	✓		
ii.	Hardcopy of **Mastersheet & Wiring List (Working Copies)** - Any changes shall be updated/written in the Mastersheet & Wiring List & **verified, signed and stamped by supervisor / representative** - Documents are available & placed inside RCB / RTU panel.	✓		
iii.	Check & verify all necessary tests are performed as required & have passed.	✓		

Observations:

Checks conducted by: Contractor's Signature & Stamp:	Verified by: TNB's Representative Signature & Stamp:
Name: HASFARUDDIN	Name:
Date: 08-03-2026	Date: 08-03-2026

SITE COMPLETION CHECKLIST
PLANT INTERFACING WORK(PIW)
(SHUTDOWN)

Doc No.	SCC PIW(SD)	Rev. No.	1	Date	5 JUNE 2020

A1. SCC PIW (DURING PRE-CABLING & INSTALLATION)

CONTRACT NO. :	TNB130/2024
FUNCTIONAL LOCATION :	NSBN/PCE/2182
SUBSTATION NAME :	PE LAMAN SDYN 2 NO.1 (VCB)

Remote Control Box	Brand	MULTIPIN SATRIA					
	Type	Multipin	✓	Conventional			
	Serial Number	RCB 1 Serial Number	2C21026/50/1730				
		RCB 2 Serial Number	2C21026/50/1721				
		RCB 3 Serial Number					
Battery Charger	Brand	BERKAT INSAF					
	Serial Number	11193-11020					
Earth Fault Indicator	Serial Number	EFI-1:	1623 410	EFI-6:	1623 399	EFI-11:	
		EFI-2:	1623 407	EFI-7:	1610 737	EFI-12:	
		EFI-3:	1623 406	EFI-8:		EFI-13:	
		EFI-4:	1623 394	EFI-9:		EFI-14:	
		EFI-5:	1623 408	EFI-10:		EFI-15:	
Switchgear	Brand	TOSHIBA					
	Configuration:	VCB					

Observations:

Checks conducted by: Contractor's Signature & Stamp:	Verified by: TNB's Representative Signature & Stamp:
Name: HASFARUDDIN	Name:
Date: 08-03-2026	Date: 08-03-2026

SITE COMPLETION CHECKLIST PLANT INTERFACING WORK(PIW) (SHUTDOWN)	

Doc No.	SCC PIW(SD)	Rev. No.	1	Date	5 JUNE 2020

CONTRACT NO. :	TNB130/2024
FUNCTIONAL LOCATION :	NSBN/PCE/2182
SUBSTATION NAME :	PE LAMAN SDYN 2 NO.1 (VCB)

Note: Please sketch the building layout and the location of:

a. RCB panel

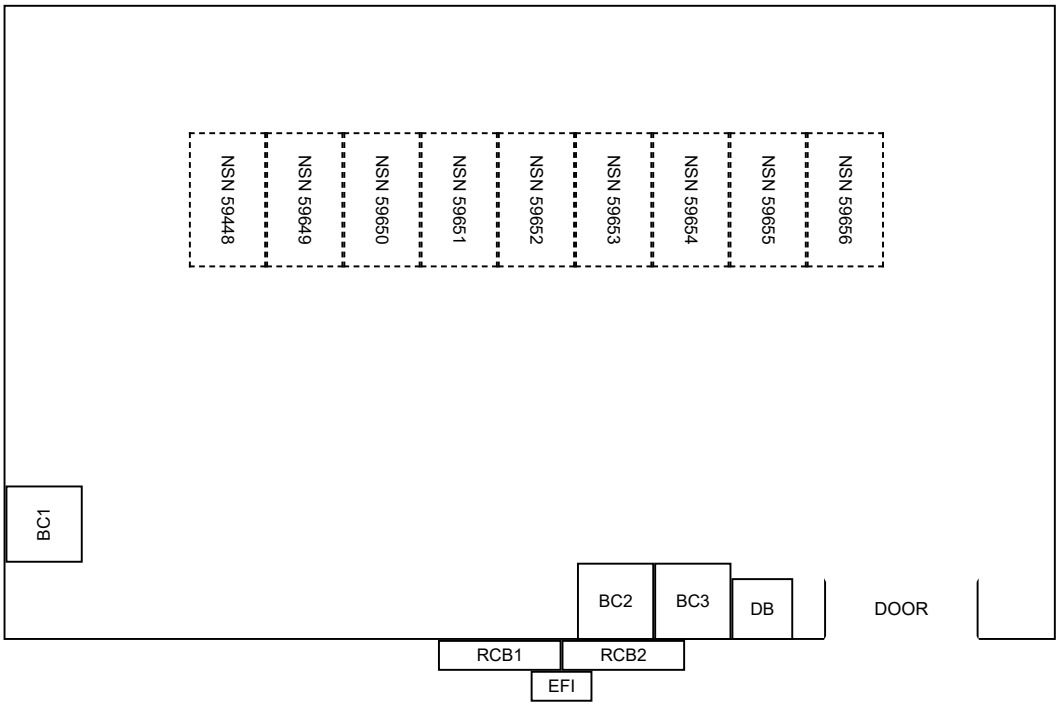
b. Battery Charger

c. EFIs location

d. Switchgear Panel

e. RTU Panel

SITE DRAWING:



SITE ACCEPTANCE TEST (SAT) PLANT INTERFACING WORK (PIW) VCB - SHUTDOWN					
Doc No.	**SAT PIW - VCB**	**Rev. No.**	**1**	**Date**	**5 JUNE 2020**

CONTRACT TITLE :

PEMBEKALAN, PEMASANGAN, PENGUJIAN DAN MULATUGAS FASILITI SCADA (RTU) UNTUK PROJEK SBU ASSET DEVELOPMENT DISTRIBUTION NETWORK DIVISION. TNB

CONTRACT NO. :	**TNB130/2024**
CONTRACTOR :	**HASILWAN SDN BHD**
DATE :	**08-03-2026**
SUBSTATION NAME :	**PE LAMAN SDYN 2 NO.1 (VCB)**
FUNCTIONAL LOCATION :	**NSBN/PCE/2182**
SUBZONE :	**SEREMBAN**
STATE :	**NEGERI SEMBILAN**

SITE ACCEPTANCE TEST (SAT)
PLANT INTERFACING WORK (PIW) VCB - SHUTDOWN

Doc No.	SAT PIW - VCB	Rev. No.	1	Date	5 JUNE 2020

A4. TERMINATION CONTINUITY TEST (RCB MULTIPIN SATRIA)

4. Conduct Point-to-point Cable Termination Continuity Tests.
5. Conduct Short to Ground (Leakage) test for each connector pin.
6. Record test results in **[1] Termination Continuity Test Sheet**.

[1]	**TERMINATION CONTINUITY TEST SHEET**
Feeder No.:	NSN 59648
Feeder Name:	TX 1000KVA (EWT)

19 cores, 1.5 mm sq, armoured (Alarm & Control cables) *Note: Please add/edit according to station's requirement

Cable No.	Core No.	Signal	From	To	Termination Continuity Test	Short to Ground (Leakage) Test	REMARKS
LBS-1	1	Earth	RCB	SG PANEL	✓	Not applicable	
LBS-1	2	Gas Low Alarm	RCB	SG PANEL	✓	✓	
LBS-1	3	Spare	RCB	SG PANEL	✓	✓	
LBS-1	4	LBS Status Open	RCB	SG PANEL	✓	✓	
LBS-1	5	LBS Status Close	RCB	SG PANEL	✓	✓	
LBS-1	6	Earth Switch Status Open	RCB	SG PANEL	✓	✓	
LBS-1	7	Earth Switch Status Close	RCB	SG PANEL	✓	✓	
LBS-1	8	Common Return Pin (4,5,6,7)	RCB	SG PANEL	✓	✓	
LBS-1	9	Local / Remote Indication	RCB	SG PANEL	✓	✓	
LBS-1	10	Trip Circuit Supervision	RCB	SG PANEL	✓	✓	
LBS-1	11	Overcurrent	RCB	SG PANEL	✓	✓	
LBS-1	12	Earth Fault	RCB	SG PANEL	✓	✓	
LBS-1	13	IRF & Comm Fail	RCB	SG PANEL	✓	✓	
LBS-1	14	Current Diff / Spare	RCB	SG PANEL	✓	✓	
LBS-1	15	Common Return Pin (9–14)	RCB	SG PANEL	✓	✓	
LBS-1	16	Command From R/S Common	RCB	SG PANEL	✓	✓	
LBS-1	17	Command From R/S Close	RCB	SG PANEL	✓	✓	
LBS-1	18	Command From R/S Common	RCB	SG PANEL	✓	✓	
LBS-1	19	Command From R/S Open	RCB	SG PANEL	✓	✓	

2-pair, twisted, 1.5 mm sq, armoured (Analog cables)

Cable No.	Core No.	Signal	From	To	Test Result	REMARKS
1B		Amp +	RCB	SG PANEL	✓	
1B		Amp -	RCB	SG PANEL	✓	
1B		Spare	RCB	SG PANEL		
1B		Spare	RCB	SG PANEL		

4 cores, 1.0 mm sq, non-armoured (EFI signal cables)

Cable No.	Core No.	Signal	From	To	Test Result	REMARKS
EFI1	1	Common	EFI	RCB	✓	
EFI1	2	EFI Indication	EFI	RCB	✓	
EFI1	3	CO-Common	EFI	RCB	✓	
EFI1	4	EFI Reset	EFI	RCB	✓	

Test Observations:

Test Result: PASS ☑ FAIL ☐

Checks conducted by: Contractor's Signature & Stamp:	Verified by: TNB's Representative Signature & Stamp:
Name: HASFARUDDIN	Name:
Date: 08-03-2026	Date: 08-03-2026

SITE ACCEPTANCE TEST (SAT)
PLANT INTERFACING WORK (PIW) VCB - SHUTDOWN

Doc No.	SAT PIW - VCB	Rev. No.	1	Date	5 JUNE 2020

A4. TERMINATION CONTINUITY TEST (RCB MULTIPIN SATRIA)

4. Conduct Point-to-point Cable Termination Continuity Tests.
5. Conduct Short to Ground (Leakage) test for each connector pin.
6. Record test results in **[1] Termination Continuity Test Sheet**.

[1]	**TERMINATION CONTINUITY TEST SHEET**
Feeder No.:	NSN 59649
Feeder Name:	SPARE

19 cores, 1.5 mm sq, armoured (Alarm & Control cables) *Note: Please add/edit according to station's requirement

Cable No.	Core No.	Signal	From	To	Termination Continuity Test	Short to Ground (Leakage) Test	REMARKS
LBS-2	1	Earth	RCB	SG PANEL	✓	Not applicable	
LBS-2	2	Gas Low Alarm	RCB	SG PANEL	✓	✓	
LBS-2	3	Spare	RCB	SG PANEL	✓	✓	
LBS-2	4	LBS Status Open	RCB	SG PANEL	✓	✓	
LBS-2	5	LBS Status Close	RCB	SG PANEL	✓	✓	
LBS-2	6	Earth Switch Status Open	RCB	SG PANEL	✓	✓	
LBS-2	7	Earth Switch Status Close	RCB	SG PANEL	✓	✓	
LBS-2	8	Common Return Pin (4,5,6,7)	RCB	SG PANEL	✓	✓	
LBS-2	9	Local / Remote Indication	RCB	SG PANEL	✓	✓	
LBS-2	10	Trip Circuit Supervision	RCB	SG PANEL	✓	✓	
LBS-2	11	Overcurrent	RCB	SG PANEL	✓	✓	
LBS-2	12	Earth Fault	RCB	SG PANEL	✓	✓	
LBS-2	13	IRF & Comm Fail	RCB	SG PANEL	✓	✓	
LBS-2	14	Current Diff / Spare	RCB	SG PANEL	✓	✓	
LBS-2	15	Common Return Pin (9–14)	RCB	SG PANEL	✓	✓	
LBS-2	16	Command From R/S Common	RCB	SG PANEL	✓	✓	
LBS-2	17	Command From R/S Close	RCB	SG PANEL	✓	✓	
LBS-2	18	Command From R/S Common	RCB	SG PANEL	✓	✓	
LBS-2	19	Command From R/S Open	RCB	SG PANEL	✓	✓	

2-pair, twisted, 1.5 mm sq, armoured (Analog cables)

Cable No.	Core No.	Signal	From	To	Test Result	REMARKS
2B		Amp +	RCB	SG PANEL	✓	
2B		Amp -	RCB	SG PANEL	✓	
2B		Spare	RCB	SG PANEL		
2B		Spare	RCB	SG PANEL		

4 cores, 1.0 mm sq, non-armoured (EFI signal cables)

Cable No.	Core No.	Signal	From	To	Test Result	REMARKS
EFI2	1	Common	EFI	RCB	✓	
EFI2	2	EFI Indication	EFI	RCB	✓	
EFI2	3	CO-Common	EFI	RCB	✓	
EFI2	4	EFI Reset	EFI	RCB	✓	

Test Observations:

Test Result: PASS ☑ FAIL ☐

Checks conducted by: Contractor's Signature & Stamp:	Verified by: TNB's Representative Signature & Stamp:
Name: HASFARUDDIN	Name:
Date: 08-03-2026	Date: 08-03-2026

SITE ACCEPTANCE TEST (SAT)
PLANT INTERFACING WORK (PIW) VCB - SHUTDOWN

Doc No.	SAT PIW - VCB	Rev. No.	1	Date	5 JUNE 2020

A4. TERMINATION CONTINUITY TEST (RCB MULTIPIN SATRIA)

4. Conduct Point-to-point Cable Termination Continuity Tests.
5. Conduct Short to Ground (Leakage) test for each connector pin.
6. Record test results in **[1] Termination Continuity Test Sheet**.

[1]	**TERMINATION CONTINUITY TEST SHEET**
Feeder No.:	NSN 59650
Feeder Name:	PPU ARA2 CB07

19 cores, 1.5 mm sq, armoured (Alarm & Control cables) *Note: Please add/edit according to station's requirement

Cable No.	Core No.	Signal	From	To	Termination Continuity Test	Short to Ground (Leakage) Test	REMARKS
LBS-3	1	Earth	RCB	SG PANEL	✓	Not applicable	
LBS-3	2	Gas Low Alarm	RCB	SG PANEL	✓	✓	
LBS-3	3	Spare	RCB	SG PANEL	✓	✓	
LBS-3	4	LBS Status Open	RCB	SG PANEL	✓	✓	
LBS-3	5	LBS Status Close	RCB	SG PANEL	✓	✓	
LBS-3	6	Earth Switch Status Open	RCB	SG PANEL	✓	✓	
LBS-3	7	Earth Switch Status Close	RCB	SG PANEL	✓	✓	
LBS-3	8	Common Return Pin (4,5,6,7)	RCB	SG PANEL	✓	✓	
LBS-3	9	Local / Remote Indication	RCB	SG PANEL	✓	✓	
LBS-3	10	Trip Circuit Supervision	RCB	SG PANEL	✓	✓	
LBS-3	11	Overcurrent	RCB	SG PANEL	✓	✓	
LBS-3	12	Earth Fault	RCB	SG PANEL	✓	✓	
LBS-3	13	IRF & Comm Fail	RCB	SG PANEL	✓	✓	
LBS-3	14	Current Diff / Spare	RCB	SG PANEL	✓	✓	
LBS-3	15	Common Return Pin (9–14)	RCB	SG PANEL	✓	✓	
LBS-3	16	Command From R/S Common	RCB	SG PANEL	✓	✓	
LBS-3	17	Command From R/S Close	RCB	SG PANEL	✓	✓	
LBS-3	18	Command From R/S Common	RCB	SG PANEL	✓	✓	
LBS-3	19	Command From R/S Open	RCB	SG PANEL	✓	✓	

2-pair, twisted, 1.5 mm sq, armoured (Analog cables)

Cable No.	Core No.	Signal	From	To	Test Result	REMARKS
3B		Amp +	RCB	SG PANEL	✓	
3B		Amp -	RCB	SG PANEL	✓	
3B		Spare	RCB	SG PANEL		
3B		Spare	RCB	SG PANEL		

4 cores, 1.0 mm sq, non-armoured (EFI signal cables)

Cable No.	Core No.	Signal	From	To	Test Result	REMARKS
EFI3	1	Common	EFI	RCB	✓	
EFI3	2	EFI Indication	EFI	RCB	✓	
EFI3	3	CO-Common	EFI	RCB	✓	
EFI3	4	EFI Reset	EFI	RCB	✓	

Test Observations:

Test Result: PASS ☑ FAIL ☐

Checks conducted by: Contractor's Signature & Stamp:	Verified by: TNB's Representative Signature & Stamp:
Name: HASFARUDDIN	Name:
Date: 08-03-2026	Date: 08-03-2026

SITE ACCEPTANCE TEST (SAT)
PLANT INTERFACING WORK (PIW) VCB - SHUTDOWN

Doc No.	SAT PIW - VCB	Rev. No.	1	Date	5 JUNE 2020

A4. TERMINATION CONTINUITY TEST (RCB MULTIPIN SATRIA)

4. Conduct Point-to-point Cable Termination Continuity Tests.
5. Conduct Short to Ground (Leakage) test for each connector pin.
6. Record test results in **[1] Termination Continuity Test Sheet**.

[1]	**TERMINATION CONTINUITY TEST SHEET**
Feeder No.:	NSN 59651
Feeder Name:	SPARE

19 cores, 1.5 mm sq, armoured (Alarm & Control cables) *Note: Please add/edit according to station's requirement

Cable No.	Core No.	Signal	From	To	Termination Continuity Test	Short to Ground (Leakage) Test	REMARKS
LBS-4	1	Earth	RCB	SG PANEL	✓	Not applicable	
LBS-4	2	Gas Low Alarm	RCB	SG PANEL	✓	✓	
LBS-4	3	Spare	RCB	SG PANEL	✓	✓	
LBS-4	4	LBS Status Open	RCB	SG PANEL	✓	✓	
LBS-4	5	LBS Status Close	RCB	SG PANEL	✓	✓	
LBS-4	6	Earth Switch Status Open	RCB	SG PANEL	✓	✓	
LBS-4	7	Earth Switch Status Close	RCB	SG PANEL	✓	✓	
LBS-4	8	Common Return Pin (4,5,6,7)	RCB	SG PANEL	✓	✓	
LBS-4	9	Local / Remote Indication	RCB	SG PANEL	✓	✓	
LBS-4	10	Trip Circuit Supervision	RCB	SG PANEL	✓	✓	
LBS-4	11	Overcurrent	RCB	SG PANEL	✓	✓	
LBS-4	12	Earth Fault	RCB	SG PANEL	✓	✓	
LBS-4	13	IRF & Comm Fail	RCB	SG PANEL	✓	✓	
LBS-4	14	Current Diff / Spare	RCB	SG PANEL	✓	✓	
LBS-4	15	Common Return Pin (9–14)	RCB	SG PANEL	✓	✓	
LBS-4	16	Command From R/S Common	RCB	SG PANEL	✓	✓	
LBS-4	17	Command From R/S Close	RCB	SG PANEL	✓	✓	
LBS-4	18	Command From R/S Common	RCB	SG PANEL	✓	✓	
LBS-4	19	Command From R/S Open	RCB	SG PANEL	✓	✓	

2-pair, twisted, 1.5 mm sq, armoured (Analog cables)

Cable No.	Core No.	Signal	From	To	Test Result	REMARKS
4B		Amp +	RCB	SG PANEL	✓	
4B		Amp -	RCB	SG PANEL	✓	
4B		Spare	RCB	SG PANEL		
4B		Spare	RCB	SG PANEL		

4 cores, 1.0 mm sq, non-armoured (EFI signal cables)

Cable No.	Core No.	Signal	From	To	Test Result	REMARKS
EFI4	1	Common	EFI	RCB	✓	
EFI4	2	EFI Indication	EFI	RCB	✓	
EFI4	3	CO-Common	EFI	RCB	✓	
EFI4	4	EFI Reset	EFI	RCB	✓	

Test Observations:

Test Result: PASS ☑ FAIL ☐

Checks conducted by: Contractor's Signature & Stamp:	Verified by: TNB's Representative Signature & Stamp:
Name: HASFARUDDIN	Name:
Date: 08-03-2026	Date: 08-03-2026

SITE ACCEPTANCE TEST (SAT)
PLANT INTERFACING WORK (PIW) VCB - SHUTDOWN

Doc No.	SAT PIW - VCB	Rev. No.	1	Date	5 JUNE 2020

A4. TERMINATION CONTINUITY TEST (RCB MULTIPIN SATRIA)

4. Conduct Point-to-point Cable Termination Continuity Tests.
5. Conduct Short to Ground (Leakage) test for each connector pin.
6. Record test results in **[1] Termination Continuity Test Sheet**.

[1]	**TERMINATION CONTINUITY TEST SHEET**
Feeder No.:	NSN 59652
Feeder Name:	BUS SECTION

19 cores, 1.5 mm sq, armoured (Alarm & Control cables) *Note: Please add/edit according to station's requirement

Cable No.	Core No.	Signal	From	To	Termination Continuity Test	Short to Ground (Leakage) Test	REMARKS
LBS-5	1	Earth	RCB	SG PANEL	✓	Not applicable	
LBS-5	2	Gas Low Alarm	RCB	SG PANEL	✓	✓	
LBS-5	3	Spare	RCB	SG PANEL	✓	✓	
LBS-5	4	LBS Status Open	RCB	SG PANEL	✓	✓	
LBS-5	5	LBS Status Close	RCB	SG PANEL	✓	✓	
LBS-5	6	Earth Switch Status Open	RCB	SG PANEL	✓	✓	
LBS-5	7	Earth Switch Status Close	RCB	SG PANEL	✓	✓	
LBS-5	8	Common Return Pin (4,5,6,7)	RCB	SG PANEL	✓	✓	
LBS-5	9	Local / Remote Indication	RCB	SG PANEL	✓	✓	
LBS-5	10	Trip Circuit Supervision	RCB	SG PANEL	✓	✓	
LBS-5	11	Overcurrent	RCB	SG PANEL	✓	✓	
LBS-5	12	Earth Fault	RCB	SG PANEL	✓	✓	
LBS-5	13	IRF & Comm Fail	RCB	SG PANEL	✓	✓	
LBS-5	14	Current Diff / Spare	RCB	SG PANEL	✓	✓	
LBS-5	15	Common Return Pin (9–14)	RCB	SG PANEL	✓	✓	
LBS-5	16	Command From R/S Common	RCB	SG PANEL	✓	✓	
LBS-5	17	Command From R/S Close	RCB	SG PANEL	✓	✓	
LBS-5	18	Command From R/S Common	RCB	SG PANEL	✓	✓	
LBS-5	19	Command From R/S Open	RCB	SG PANEL	✓	✓	

2-pair, twisted, 1.5 mm sq, armoured (Analog cables)

Cable No.	Core No.	Signal	From	To	Test Result	REMARKS
5B		Amp +	RCB	SG PANEL	✓	
5B		Amp -	RCB	SG PANEL	✓	
5B		Spare	RCB	SG PANEL		
5B		Spare	RCB	SG PANEL		

4 cores, 1.0 mm sq, non-armoured (EFI signal cables)

Cable No.	Core No.	Signal	From	To	Test Result	REMARKS
EFI5	1	Common	EFI	RCB	✓	
EFI5	2	EFI Indication	EFI	RCB	✓	
EFI5	3	CO-Common	EFI	RCB	✓	
EFI5	4	EFI Reset	EFI	RCB	✓	

Test Observations:

Test Result: PASS ☑ FAIL ☐

Checks conducted by: Contractor's Signature & Stamp:	Verified by: TNB's Representative Signature & Stamp:
Name: HASFARUDDIN	Name:
Date: 08-03-2026	Date: 08-03-2026

SITE ACCEPTANCE TEST (SAT)
PLANT INTERFACING WORK (PIW) VCB - SHUTDOWN

Doc No.	SAT PIW - VCB	Rev. No.	1	Date	5 JUNE 2020

A4. TERMINATION CONTINUITY TEST (RCB MULTIPIN SATRIA)

4. Conduct Point-to-point Cable Termination Continuity Tests.
5. Conduct Short to Ground (Leakage) test for each connector pin.
6. Record test results in **[1] Termination Continuity Test Sheet**.

[1]	**TERMINATION CONTINUITY TEST SHEET**
Feeder No.:	NSN 59653
Feeder Name:	PE LAMAN SDYN NO.3 (VCB)

19 cores, 1.5 mm sq, armoured (Alarm & Control cables) *Note: Please add/edit according to station's requirement

Cable No.	Core No.	Signal	From	To	Termination Continuity Test	Short to Ground (Leakage) Test	REMARKS
LBS-6	1	Earth	RCB	SG PANEL	✓	Not applicable	
LBS-6	2	Gas Low Alarm	RCB	SG PANEL	✓	✓	
LBS-6	3	Spare	RCB	SG PANEL	✓	✓	
LBS-6	4	LBS Status Open	RCB	SG PANEL	✓	✓	
LBS-6	5	LBS Status Close	RCB	SG PANEL	✓	✓	
LBS-6	6	Earth Switch Status Open	RCB	SG PANEL	✓	✓	
LBS-6	7	Earth Switch Status Close	RCB	SG PANEL	✓	✓	
LBS-6	8	Common Return Pin (4,5,6,7)	RCB	SG PANEL	✓	✓	
LBS-6	9	Local / Remote Indication	RCB	SG PANEL	✓	✓	
LBS-6	10	Trip Circuit Supervision	RCB	SG PANEL	✓	✓	
LBS-6	11	Overcurrent	RCB	SG PANEL	✓	✓	
LBS-6	12	Earth Fault	RCB	SG PANEL	✓	✓	
LBS-6	13	IRF & Comm Fail	RCB	SG PANEL	✓	✓	
LBS-6	14	Current Diff / Spare	RCB	SG PANEL	✓	✓	
LBS-6	15	Common Return Pin (9–14)	RCB	SG PANEL	✓	✓	
LBS-6	16	Command From R/S Common	RCB	SG PANEL	✓	✓	
LBS-6	17	Command From R/S Close	RCB	SG PANEL	✓	✓	
LBS-6	18	Command From R/S Common	RCB	SG PANEL	✓	✓	
LBS-6	19	Command From R/S Open	RCB	SG PANEL	✓	✓	

2-pair, twisted, 1.5 mm sq, armoured (Analog cables)

Cable No.	Core No.	Signal	From	To	Test Result	REMARKS
6B		Amp +	RCB	SG PANEL	✓	
6B		Amp -	RCB	SG PANEL	✓	
6B		Spare	RCB	SG PANEL		
6B		Spare	RCB	SG PANEL		

4 cores, 1.0 mm sq, non-armoured (EFI signal cables)

Cable No.	Core No.	Signal	From	To	Test Result	REMARKS
EFI6	1	Common	EFI	RCB	✓	
EFI6	2	EFI Indication	EFI	RCB	✓	
EFI6	3	CO-Common	EFI	RCB	✓	
EFI6	4	EFI Reset	EFI	RCB	✓	

Test Observations:

Test Result: PASS ☑ FAIL ☐

Checks conducted by: Contractor's Signature & Stamp:	Verified by: TNB's Representative Signature & Stamp:
Name: HASFARUDDIN	Name:
Date: 08-03-2026	Date: 08-03-2026

SITE ACCEPTANCE TEST (SAT)
PLANT INTERFACING WORK (PIW) VCB - SHUTDOWN

Doc No.	SAT PIW - VCB	Rev. No.	1	Date	5 JUNE 2020

A4. TERMINATION CONTINUITY TEST (RCB MULTIPIN SATRIA)

4. Conduct Point-to-point Cable Termination Continuity Tests.
5. Conduct Short to Ground (Leakage) test for each connector pin.
6. Record test results in **[1] Termination Continuity Test Sheet**.

[1]	**TERMINATION CONTINUITY TEST SHEET**
Feeder No.:	NSN 59654
Feeder Name:	SPARE

19 cores, 1.5 mm sq, armoured (Alarm & Control cables) *Note: Please add/edit according to station's requirement

Cable No.	Core No.	Signal	From	To	Termination Continuity Test	Short to Ground (Leakage) Test	REMARKS
LBS-7	1	Earth	RCB	SG PANEL	✓	Not applicable	
LBS-7	2	Gas Low Alarm	RCB	SG PANEL	✓	✓	
LBS-7	3	Spare	RCB	SG PANEL	✓	✓	
LBS-7	4	LBS Status Open	RCB	SG PANEL	✓	✓	
LBS-7	5	LBS Status Close	RCB	SG PANEL	✓	✓	
LBS-7	6	Earth Switch Status Open	RCB	SG PANEL	✓	✓	
LBS-7	7	Earth Switch Status Close	RCB	SG PANEL	✓	✓	
LBS-7	8	Common Return Pin (4,5,6,7)	RCB	SG PANEL	✓	✓	
LBS-7	9	Local / Remote Indication	RCB	SG PANEL	✓	✓	
LBS-7	10	Trip Circuit Supervision	RCB	SG PANEL	✓	✓	
LBS-7	11	Overcurrent	RCB	SG PANEL	✓	✓	
LBS-7	12	Earth Fault	RCB	SG PANEL	✓	✓	
LBS-7	13	IRF & Comm Fail	RCB	SG PANEL	✓	✓	
LBS-7	14	Current Diff / Spare	RCB	SG PANEL	✓	✓	
LBS-7	15	Common Return Pin (9–14)	RCB	SG PANEL	✓	✓	
LBS-7	16	Command From R/S Common	RCB	SG PANEL	✓	✓	
LBS-7	17	Command From R/S Close	RCB	SG PANEL	✓	✓	
LBS-7	18	Command From R/S Common	RCB	SG PANEL	✓	✓	
LBS-7	19	Command From R/S Open	RCB	SG PANEL	✓	✓	

2-pair, twisted, 1.5 mm sq, armoured (Analog cables)

Cable No.	Core No.	Signal	From	To	Test Result	REMARKS
7B		Amp +	RCB	SG PANEL	✓	
7B		Amp -	RCB	SG PANEL	✓	
7B		Spare	RCB	SG PANEL		
7B		Spare	RCB	SG PANEL		

4 cores, 1.0 mm sq, non-armoured (EFI signal cables)

Cable No.	Core No.	Signal	From	To	Test Result	REMARKS
EFI7	1	Common	EFI	RCB	✓	
EFI7	2	EFI Indication	EFI	RCB	✓	
EFI7	3	CO-Common	EFI	RCB	✓	
EFI7	4	EFI Reset	EFI	RCB	✓	

Test Observations:

Test Result: PASS ☑ FAIL ☐

Checks conducted by: Contractor's Signature & Stamp:	Verified by: TNB's Representative Signature & Stamp:
Name: HASFARUDDIN	Name:
Date: 08-03-2026	Date: 08-03-2026

SITE ACCEPTANCE TEST (SAT)
PLANT INTERFACING WORK (PIW) VCB - SHUTDOWN

Doc No.	SAT PIW - VCB	Rev. No.	1	Date	5 JUNE 2020

A4. TERMINATION CONTINUITY TEST (RCB MULTIPIN SATRIA)

4. Conduct Point-to-point Cable Termination Continuity Tests.
5. Conduct Short to Ground (Leakage) test for each connector pin.
6. Record test results in **[1] Termination Continuity Test Sheet**.

[1]	**TERMINATION CONTINUITY TEST SHEET**
Feeder No.:	NSN 59655
Feeder Name:	SPARE

19 cores, 1.5 mm sq, armoured (Alarm & Control cables) *Note: Please add/edit according to station's requirement

Cable No.	Core No.	Signal	From	To	Termination Continuity Test	Short to Ground (Leakage) Test	REMARKS
LBS-8	1	Earth	RCB	SG PANEL	✓	Not applicable	
LBS-8	2	Gas Low Alarm	RCB	SG PANEL	✓	✓	
LBS-8	3	Spare	RCB	SG PANEL	✓	✓	
LBS-8	4	LBS Status Open	RCB	SG PANEL	✓	✓	
LBS-8	5	LBS Status Close	RCB	SG PANEL	✓	✓	
LBS-8	6	Earth Switch Status Open	RCB	SG PANEL	✓	✓	
LBS-8	7	Earth Switch Status Close	RCB	SG PANEL	✓	✓	
LBS-8	8	Common Return Pin (4,5,6,7)	RCB	SG PANEL	✓	✓	
LBS-8	9	Local / Remote Indication	RCB	SG PANEL	✓	✓	
LBS-8	10	Trip Circuit Supervision	RCB	SG PANEL	✓	✓	
LBS-8	11	Overcurrent	RCB	SG PANEL	✓	✓	
LBS-8	12	Earth Fault	RCB	SG PANEL	✓	✓	
LBS-8	13	IRF & Comm Fail	RCB	SG PANEL	✓	✓	
LBS-8	14	Current Diff / Spare	RCB	SG PANEL	✓	✓	
LBS-8	15	Common Return Pin (9–14)	RCB	SG PANEL	✓	✓	
LBS-8	16	Command From R/S Common	RCB	SG PANEL	✓	✓	
LBS-8	17	Command From R/S Close	RCB	SG PANEL	✓	✓	
LBS-8	18	Command From R/S Common	RCB	SG PANEL	✓	✓	
LBS-8	19	Command From R/S Open	RCB	SG PANEL	✓	✓	

2-pair, twisted, 1.5 mm sq, armoured (Analog cables)

Cable No.	Core No.	Signal	From	To	Test Result	REMARKS
8B		Amp +	RCB	SG PANEL	✓	
8B		Amp -	RCB	SG PANEL	✓	
8B		Spare	RCB	SG PANEL		
8B		Spare	RCB	SG PANEL		

4 cores, 1.0 mm sq, non-armoured (EFI signal cables)

Cable No.	Core No.	Signal	From	To	Test Result	REMARKS
EFI8	1	Common	EFI	RCB	✓	
EFI8	2	EFI Indication	EFI	RCB	✓	
EFI8	3	CO-Common	EFI	RCB	✓	
EFI8	4	EFI Reset	EFI	RCB	✓	

Test Observations:

Test Result: PASS ☑ FAIL ☐

Checks conducted by: Contractor's Signature & Stamp:	Verified by: TNB's Representative Signature & Stamp:
Name: HASFARUDDIN	Name:
Date: 08-03-2026	Date: 08-03-2026

SITE ACCEPTANCE TEST (SAT)
PLANT INTERFACING WORK (PIW) VCB - SHUTDOWN

Doc No.	SAT PIW - VCB	Rev. No.	1	Date	5 JUNE 2020

A4. TERMINATION CONTINUITY TEST (RCB MULTIPIN SATRIA)

4. Conduct Point-to-point Cable Termination Continuity Tests.
5. Conduct Short to Ground (Leakage) test for each connector pin.
6. Record test results in **[1] Termination Continuity Test Sheet**.

[1]	**TERMINATION CONTINUITY TEST SHEET**
Feeder No.:	NSN 59656
Feeder Name:	SPARE

19 cores, 1.5 mm sq, armoured (Alarm & Control cables) *Note: Please add/edit according to station's requirement

Cable No.	Core No.	Signal	From	To	Termination Continuity Test	Short to Ground (Leakage) Test	REMARKS
LBS-9	1	Earth	RCB	SG PANEL	✓	Not applicable	
LBS-9	2	Gas Low Alarm	RCB	SG PANEL	✓	✓	
LBS-9	3	Spare	RCB	SG PANEL	✓	✓	
LBS-9	4	LBS Status Open	RCB	SG PANEL	✓	✓	
LBS-9	5	LBS Status Close	RCB	SG PANEL	✓	✓	
LBS-9	6	Earth Switch Status Open	RCB	SG PANEL	✓	✓	
LBS-9	7	Earth Switch Status Close	RCB	SG PANEL	✓	✓	
LBS-9	8	Common Return Pin (4,5,6,7)	RCB	SG PANEL	✓	✓	
LBS-9	9	Local / Remote Indication	RCB	SG PANEL	✓	✓	
LBS-9	10	Trip Circuit Supervision	RCB	SG PANEL	✓	✓	
LBS-9	11	Overcurrent	RCB	SG PANEL	✓	✓	
LBS-9	12	Earth Fault	RCB	SG PANEL	✓	✓	
LBS-9	13	IRF & Comm Fail	RCB	SG PANEL	✓	✓	
LBS-9	14	Current Diff / Spare	RCB	SG PANEL	✓	✓	
LBS-9	15	Common Return Pin (9–14)	RCB	SG PANEL	✓	✓	
LBS-9	16	Command From R/S Common	RCB	SG PANEL	✓	✓	
LBS-9	17	Command From R/S Close	RCB	SG PANEL	✓	✓	
LBS-9	18	Command From R/S Common	RCB	SG PANEL	✓	✓	
LBS-9	19	Command From R/S Open	RCB	SG PANEL	✓	✓	

2-pair, twisted, 1.5 mm sq, armoured (Analog cables)

Cable No.	Core No.	Signal	From	To	Test Result	REMARKS
9B		Amp +	RCB	SG PANEL	✓	
9B		Amp -	RCB	SG PANEL	✓	
9B		Spare	RCB	SG PANEL		
9B		Spare	RCB	SG PANEL		

4 cores, 1.0 mm sq, non-armoured (EFI signal cables)

Cable No.	Core No.	Signal	From	To	Test Result	REMARKS
EFI9	1	Common	EFI	RCB	✓	
EFI9	2	EFI Indication	EFI	RCB	✓	
EFI9	3	CO-Common	EFI	RCB	✓	
EFI9	4	EFI Reset	EFI	RCB	✓	

Test Observations:

Test Result: PASS ☑ FAIL ☐

Checks conducted by: Contractor's Signature & Stamp:	Verified by: TNB's Representative Signature & Stamp:
Name: HASFARUDDIN	Name:
Date: 08-03-2026	Date: 08-03-2026

SITE ACCEPTANCE TEST (SAT)
PLANT INTERFACING WORK (PIW) VCB - SHUTDOWN

Doc No.	SAT PIW - VCB	Rev. No.	1	Date	5 JUNE 2020

A1. TERMINATION CONTINUITY TEST (RCB MULTIPIN SATRIA)

1. Conduct Point-to-point Cable Termination Continuity Tests.
2. Record test results in [1] Termination Continuity Test Sheet.

[1]	TERMINATION CONTINUITY TEST SHEET
PE Name:	PE LAMAN SDYN 2 NO.1 (VCB)

4 cores, 4 mm sq (coloured armoured) - AC cable for Battery Charger

Cable No.	Core No.	Signal	From	To	Test Result	REMARKS
AC-BC1	RED	Line	DB	BC	✓	
AC-BC1	BLUE	Neutral	DB	BC	✓	
AC-BC1	YELLOW	Earth	DB	BC	✓	
AC-BC1	BLACK	Spare	DB	BC	✓	

4 cores, 1.5 mm sq, armoured (Battery Charger alarms)

Cable No.	Core No.	Signal	From	To	Test Result	REMARKS
BC1	1	Common	BC	RCB	✓	
BC1	2	Battery Charger Alarm 1	BC	RCB	✓	
BC1	3	Common	BC	RCB	✓	
BC1	4	AC Fail	BC	RCB	✓	
BC2	1	Common	BC	RCB	✓	
BC2	2	Battery Charger Alarm 1	BC	RCB	✓	
BC2	3	Common	BC	RCB	✓	
BC2	4	AC Fail	BC	RCB	✓	

2 cores, 2.5 mm sq, armoured (DC Cable)

Cable No.	Core No.	Signal	From	To	Test Result	REMARKS
BC1 - RCB	RED	+30VDC	BC	RCB	✓	
BC1 - RCB	BLACK	-30VDC	BC	RCB	✓	

Test Observations:

Test Result: PASS ☑ FAIL ☐

Checks conducted by: Contractor's Signature & Stamp:	Verified by: TNB's Representative Signature & Stamp:
Name: HASFARUDDIN	Name:
Date: 08-03-2026	Date: 08-03-2026

SITE ACCEPTANCE TEST (SAT)
PLANT INTERFACING WORK (PIW) VCB - SHUTDOWN

Doc No.	SAT PIW - VCB	Rev. No.	1	Date	5 JUNE 2020

A2. RCB CONTROL OPERATION INTERLOCK TEST

1. Conduct Point-to-point Cable Termination Continuity Tests.
2. Record test results in [1] Termination Continuity Test Sheet.

[2]	RCB CONTROL OPERATION INTERLOCK TEST SHEET			
PE Name:	PE LAMAN SDYN 2 NO.1 (VCB)			
RCB brand:	MULTIPIN SATRIA			
RCB type:	RCB Conventional		RCB Multi-pin	✓

Test Conditions:
i. The Earth Switch is at ON position (at all times) during the tests.
ii. The test is conducted with the breaker at half-racked in position at the VCB switchgear cubicle (Test Position)
iii. The breaker Test Plug is inserted into the switchgear cubicle connector to activate the Control Operation..
iv. To connect 30 Vdc supply for status indication change at RCB (from dry contact to wet contact)

1. Test Conducted at the Switchgear:

Breaker Local/Remote Position	Breaker Trip/Close Switch		Test Result ("✓" Passed / "X" Failed)
	TRIP	CLOSE	
LOCAL	✓	✓	✓
REMOTE	X	X	✓

2. Test Conducted at the RCB

Breaker L/R Position	RCB R/S Position	RCB Trip/Close Switch		Test Result (" ✓ " - Passed / " X " - Failed)
		TRIP	CLOSE	
LOCAL	REMOTE	X	X	✓
LOCAL	SUPERVISORY	X	X	✓
REMOTE	REMOTE	✓	✓	✓
REMOTE	SUPERVISORY	X	X	✓

Test Observations:

Test Result: PASS ☑ FAIL ☐

Checks conducted by: Contractor's Signature & Stamp:	Verified by: TNB's Representative Signature & Stamp:
Name: HASFARUDDIN	Name:
Date: 08-03-2026	Date: 08-03-2026

Nama Aktiviti: PENGUJIAN MULATUGAS SISTEM 30VDC LOW MAINTENANCE

Pencawang	: PE LAMAN SDYN 2 NO.1 (VCB)	**Jenama charger / model**	: BERKAT INSAF
Tarikh Mulatugas	: 2026-03-08	**Serial no charger**	: 11193-11020
Bilangan Charger	: 1	**Bulan/Tahun Penghantaran**	: 2026-08
Kegunaan DC	: RTU	**Jenama bateri / model**	: SAFT UP1M40-4
Jika VCB, Bilangan VCB	:	**Bulan/Tahun Pembuatan**	: 2026-07

Activiti	**Keterangan Aktiviti**		**Tandakan (✓)**
1	Pastikan sistem DC telah siap dipasang kecuali kabel dari pengecas ke bateri & pengecas ke beban.		✓
2	Pastikan semua MCB pada pengecas bateri dalam keadaan terbuka (OFF).		✓
Activiti	**Keterangan Aktiviti**	**Julat Bacaan**	**Ambil Bacaan**
3	Semak bacaan voltan pembekal masuk AC (L-N) pada terminal blok pengecas bateri.	216 - 252 Vac	**240VAC**
Activiti	**Keterangan Aktiviti**		**Tandakan (✓)**
4	Pastikan Suis Mode berada dalam kedudukan Manual. Hidupkan (ON) MCB AC, Bateri & Beban.		✓
Activiti	**Keterangan Aktiviti**	**Julat Bacaan**	**Ambil Bacaan**
5	Pastikan LED Manual Float menyala. Ukur voltan pada terminal blok ke beban.	27 - 31.5 Vdc (terminal positive ke negative)	**33.20VDC**
6	Pusingkan suis ke Boost. Pastikan LED Manual Boost menyala. Ukur voltan pada terminal blok ke beban.	27 - 31.5 Vdc (terminal positive ke negative)	**34.10VDC**
"Jika julat voltan untuk Float atau Boost tidak dipatuhi,matikan (OFF) semua MCB. Laporkan dalam Sistem Maklumbalas Bahan(SMB) & hubungi pihak pembekal untuk pembaikan segera ditapak. "			
Activiti	**Keterangan Aktiviti**		**Tandakan (✓)**
7	Pusing semula suis ke Float. Pastikan LED Manual Float menyala.		✓
Activiti	**Keterangan Aktiviti**		**Tandakan (✓)**
8	**TEMPERATURE COMPENSATION (Float CHARGE MODE) Rekodkan juga bacaan & keputusan aktiviti 8(i) hingga 8(iv) pada pelekat mulatugas pada pintu pengecas.**	i) Ambil bacaan voltan pengecas bateri pada terminal blok ke bateri.	**33.20VDC**
		ii) Rekod bacaan suhu pada paparan LCD.	**30.0**
		iii) Rujuk Jadual Temperature Compensation pada pintu pengecas & rekodkan voltan Float Min & Max. — MIN	**33.03VDC**
		iii) Rujuk Jadual Temperature Compensation pada pintu pengecas & rekodkan voltan Float Min & Max. — MAX	**33.69VDC**
		iv)Adakah voltan 8(i) dalam julat voltan Float Min & Max? Ya(✓) atau Tidak(✗)	✓
Activiti	**Keterangan Aktiviti**		**Tandakan (✓)**
9	Pusingkan suis ke Boost. Pastikan LED Manual Boost menyala.		✓
Activiti	**Keterangan Aktiviti**		**Tandakan (✓)**
10	**TEMPERATURE COMPENSATION (Boost CHARGE MODE) Rekodkan juga bacaan & keputusan aktiviti 10(i) hingga 10(iv) pada pelekat mulatugas pada pintu pengecas."**	i) Ambil bacaan voltan pengecas bateri pada terminal blok ke bateri.	**33.10VDC**
		ii) Rekod bacaan suhu pada paparan LCD.	**30.0**
		iii) Rujuk Jadual Temperature Compensation pada pintu pengecas & rekodkan voltan Boost Min & Max. — MIN	**33.74VDC**
		iii) Rujuk Jadual Temperature Compensation pada pintu pengecas & rekodkan voltan Boost Min & Max. — MAX	**34.42VDC**
		iv)Adakah voltan 10(i) dalam julat voltan Boost Min & Max? Ya(✓) atau Tidak(✗)	✓
"Jika julat voltan untuk Float atau Boost pada no 8(iv) & 10(iv) tidak dipatuhi, laporkan dalam Sistem Maklumbalas Bahan(SMB) & hubungi pihak pembekal untuk pembaikan segera ditapak. Jika julat voltan untuk Float & Boost dipatuhi, teruskan ke langkah seterusnya."			
Activiti	**Keterangan Aktiviti**		**Tandakan (✓)**
11	Matikan (OFF) MCB pada pengecas bateri ke bateri & beban.		✓
12	Lengkapkan sambungan kabel dari pengecas ke bateri & pengecas ke beban.		✓
13	Hidupkan (ON) semula MCB pada pengecas bateri ke bateri & beban.		✓
14	Pusing suis Charger Selector Mode ke Manual & Boost. Pusing semula ke Auto. Pastikan LED Charger Auto Boost menyala.		✓
Pengecas akan bertukar ke Float secara Otomatik selepas 12 Jam.			

	: HASFARUDDIN		
Diuji Oleh		**Disahkan Oleh**	:
Tarikh	: 2026-03-08	**Tarikh**	: 2026-03-08
Analisa/Catatan	:		
Keputusan	: LULUS		
Perlu Tindakan Lanjutan	: TIDAK		
Tindakan Oleh	:		
Tarikh	:		

SENARAI SEMAK DAN UJIAN EFI UNTUK PROJEK DA / RECOMMISSION

Pencawang	: PE LAMAN SDYN 2 NO.1 (VCB)		
LITAR	: INCOMING SPARE	OUTGOING	PPU ARA2 CB07
NO. SIRI	: 1623 410	OUTGOING	1623 407
JENIS EFI	: EMG	OUTGOING	EMG

No	Ujian	Incoming	Outgoing	Komen
1	Test Kelip. Adakah EFI berfungsi dengan baik?	**OK**	**OK**	Lakukan test dan reset pada EFI tersebut. Untuk EFI endau semak External Indicator.
2	Adakah terdapat **LV SUPPLY** (230V) tersambung pada EFI?	**OK**	**OK**	Untuk jenama Cableroll 2310, jika tiada LV dipasang, perlu OFF kan bit 6 & 7
3	Bacaan bateri EFI : 3.6V Adakah bacaan voltan <3.0V?	**OK**	**OK**	Jika bacaan <3.0V bateri perlu ditukar
4	Ukurkan rintangan pada terminal CT pada EFI. Adakah CT yang terpasang pada kedudukan betul?	**OK**	**OK**	Sila lihat Lampiran 2 bagi contoh pemasangan CT yang betul. Nota: untuk menyemak penyambungan CT ke terminal EFI; bacaan dalam 20–30Ω atau kurang dari 100Ω (Cableroll & Endau) / 2.4kΩ (EMG)
5	Jalankan ujian secondary current injection pada CT menggunakan set Bowdens	**OK**	**OK**	Satu lilitan adalah arus sebanyak 10 A
6	Gunakan buzzer dan probe pada NO	**OK**	**OK**	Ada continuity jika jalankan current injection. Perlu keluarkan jumper jika ada

Tandakan 1 = Kedudukan bit pada DIP suis pada ON
Tandakan 0 = Kedudukan bit pada DIP suis pada OFF
(sila rujuk Lampiran 4 untuk definisi setiap bit)

Endau		
BIT NO	**INC**	**OUT**
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		

Soule Bardin			
	BIT NO	**INC**	**OUT**
S1 DIP SUIS	1		
	2		
	3		
	4		
S2 DIP SUIS	1		
	2		
	3		
	4		
	5		

CableTroll					
BIT NO	**INC**	**OUT**	**Kedudukan**	**INC**	**OUT**
1			1		
2			2		
3			3		
4			4		
5			5		
6			6		

EMG Easi-R					
DIP SUIS 1 (ATAS)	**INC**	**OUT**	**DIP SUIS 1 (BAWAH)**	**INC**	**OUT**
1	0	0	1	0	0
2	0	0	2	0	0
3	0	0	3	1	1
4	1	1	4	0	0
5	0	0	5	0	0
6	1	1	6	1	1

SENARAI SEMAK DAN UJIAN EFI UNTUK PROJEK DA / RECOMMISSION

Pencawang	: PE LAMAN SDYN 2 NO.1 (VCB)		
LITAR	: INCOMING SPARE	OUTGOING	PE LAMAN SDYN NO.3 (VCB)
NO. SIRI	: 1623 406	OUTGOING	1623 394
JENIS EFI	: EMG	OUTGOING	EMG

No	Ujian	Incoming	Outgoing	Komen
1	Test Kelip. Adakah EFI berfungsi dengan baik?	**OK**	**OK**	Lakukan test dan reset pada EFI tersebut. Untuk EFI endau semak External Indicator.
2	Adakah terdapat **LV SUPPLY** (230V) tersambung pada EFI?	**OK**	**OK**	Untuk jenama Cableroll 2310, jika tiada LV dipasang, perlu OFF kan bit 6 & 7
3	Bacaan bateri EFI : 3.6V Adakah bacaan voltan <3.0V?	**OK**	**OK**	Jika bacaan <3.0V bateri perlu ditukar
4	Ukurkan rintangan pada terminal CT pada EFI. Adakah CT yang terpasang pada kedudukan betul?	**OK**	**OK**	Sila lihat Lampiran 2 bagi contoh pemasangan CT yang betul. Nota: untuk menyemak penyambungan CT ke terminal EFI; bacaan dalam 20–30Ω atau kurang dari 100Ω (Cableroll & Endau) / 2.4kΩ (EMG)
5	Jalankan ujian secondary current injection pada CT menggunakan set Bowdens	**OK**	**OK**	Satu lilitan adalah arus sebanyak 10 A
6	Gunakan buzzer dan probe pada NO	**OK**	**OK**	Ada continuity jika jalankan current injection. Perlu keluarkan jumper jika ada

Tandakan 1 = Kedudukan bit pada DIP suis pada ON
Tandakan 0 = Kedudukan bit pada DIP suis pada OFF
(sila rujuk Lampiran 4 untuk definisi setiap bit)

Endau		
BIT NO	**INC**	**OUT**
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		

Soule Bardin			
	BIT NO	**INC**	**OUT**
S1 DIP SUIS	1		
	2		
	3		
	4		
S2 DIP SUIS	1		
	2		
	3		
	4		
	5		

CableTroll						
BIT NO	**INC**	**OUT**		**Kedudukan**	**INC**	**OUT**
1				1		
2				2		
3				3		
4				4		
5				5		
6				6		

EMG Easi-R						
DIP SUIS 1 (ATAS)	**INC**	**OUT**		**DIP SUIS 1 (BAWAH)**	**INC**	**OUT**
1	0	0		1	0	0
2	0	0		2	0	0
3	0	0		3	1	1
4	1	1		4	0	0
5	0	0		5	0	0
6	1	1		6	1	1

SENARAI SEMAK DAN UJIAN EFI UNTUK PROJEK DA / RECOMMISSION

Pencawang	: PE LAMAN SDYN 2 NO.1 (VCB)		
LITAR	: INCOMING SPARE	OUTGOING	SPARE
NO. SIRI	: 1623 408	OUTGOING	1623 399
JENIS EFI	: EMG	OUTGOING	EMG

No	Ujian	Incoming	Outgoing	Komen
1	Test Kelip. Adakah EFI berfungsi dengan baik?	**OK**	**OK**	Lakukan test dan reset pada EFI tersebut. Untuk EFI endau semak External Indicator.
2	Adakah terdapat **LV SUPPLY** (230V) tersambung pada EFI?	**OK**	**OK**	Untuk jenama Cableroll 2310, jika tiada LV dipasang, perlu OFF kan bit 6 & 7
3	Bacaan bateri EFI : 3.6V Adakah bacaan voltan <3.0V?	**OK**	**OK**	Jika bacaan <3.0V bateri perlu ditukar
4	Ukurkan rintangan pada terminal CT pada EFI. Adakah CT yang terpasang pada kedudukan betul?	**OK**	**OK**	Sila lihat Lampiran 2 bagi contoh pemasangan CT yang betul. Nota: untuk menyemak penyambungan CT ke terminal EFI; bacaan dalam 20–30Ω atau kurang dari 100Ω (Cableroll & Endau) / 2.4kΩ (EMG)
5	Jalankan ujian secondary current injection pada CT menggunakan set Bowdens	**OK**	**OK**	Satu lilitan adalah arus sebanyak 10 A
6	Gunakan buzzer dan probe pada NO	**OK**	**OK**	Ada continuity jika jalankan current injection. Perlu keluarkan jumper jika ada

Tandakan 1 = Kedudukan bit pada DIP suis pada ON
Tandakan 0 = Kedudukan bit pada DIP suis pada OFF
(sila rujuk Lampiran 4 untuk definisi setiap bit)

Endau		
BIT NO	**INC**	**OUT**
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		

Soule Bardin			
	BIT NO	**INC**	**OUT**
S1 DIP SUIS	1		
	2		
	3		
	4		
S2 DIP SUIS	1		
	2		
	3		
	4		
	5		

CableTroll						
BIT NO	**INC**	**OUT**		**Kedudukan**	**INC**	**OUT**
1				1		
2				2		
3				3		
4				4		
5				5		
6				6		

EMG Easi-R						
DIP SUIS 1 (ATAS)	**INC**	**OUT**		**DIP SUIS 1 (BAWAH)**	**INC**	**OUT**
1	0	0		1	0	0
2	0	0		2	0	0
3	0	0		3	1	1
4	1	1		4	0	0
5	0	0		5	0	0
6	1	1		6	1	1

SENARAI SEMAK DAN UJIAN EFI UNTUK PROJEK DA / RECOMMISSION

Pencawang : PE LAMAN SDYN 2 NO.1 (VCB)
LITAR : INCOMING SPARE OUTGOING
NO. SIRI : 1610 737 OUTGOING
JENIS EFI : EMG OUTGOING

No	Ujian	Incoming	Outgoing	Komen
1	Test Kelip. Adakah EFI berfungsi dengan baik?	**OK**	**OK**	Lakukan test dan reset pada EFI tersebut. Untuk EFI endau semak External Indicator.
2	Adakah terdapat **LV SUPPLY** (230V) tersambung pada EFI?	**OK**	**OK**	Untuk jenama Cableroll 2310, jika tiada LV dipasang, perlu OFF kan bit 6 & 7
3	Bacaan bateri EFI : 3.6V Adakah bacaan voltan <3.0V?	**OK**	**OK**	Jika bacaan <3.0V bateri perlu ditukar
4	Ukurkan rintangan pada terminal CT pada EFI. Adakah CT yang terpasang pada kedudukan betul?	**OK**	**OK**	Sila lihat Lampiran 2 bagi contoh pemasangan CT yang betul. Nota: untuk menyemak penyambungan CT ke terminal EFI; bacaan dalam 20–30Ω atau kurang dari 100Ω (Cableroll & Endau) / 2.4kΩ (EMG)
5	Jalankan ujian secondary current injection pada CT menggunakan set Bowdens	**OK**	**OK**	Satu lilitan adalah arus sebanyak 10 A
6	Gunakan buzzer dan probe pada NO	**OK**	**OK**	Ada continuity jika jalankan current injection. Perlu keluarkan jumper jika ada

Tandakan 1 = Kedudukan bit pada DIP suis pada ON
Tandakan 0 = Kedudukan bit pada DIP suis pada OFF
(sila rujuk Lampiran 4 untuk definisi setiap bit)

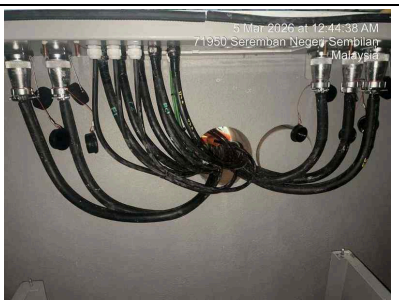
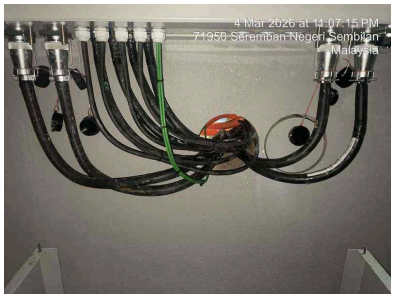
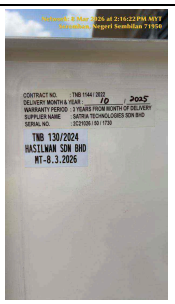
Endau		
BIT NO	**INC**	**OUT**
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		

Soule Bardin			
	BIT NO	**INC**	**OUT**
S1 DIP SUIS	1		
	2		
	3		
	4		
S2 DIP SUIS	1		
	2		
	3		
	4		
	5		

CableTroll					
BIT NO	**INC**	**OUT**	**Kedudukan**	**INC**	**OUT**
1			1		
2			2		
3			3		
4			4		
5			5		
6			6		

EMG Easi-R					
DIP SUIS 1 (ATAS)	**INC**	**OUT**	**DIP SUIS 1 (BAWAH)**	**INC**	**OUT**
1	0	0	1		
2	0	0	2		
3	0	0	3		
4	1	1	4		
5	0	0	5		
6	1	1	6		

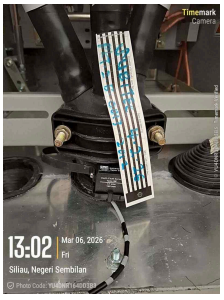
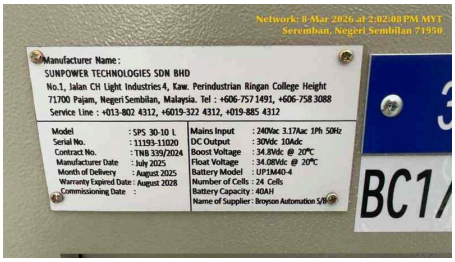
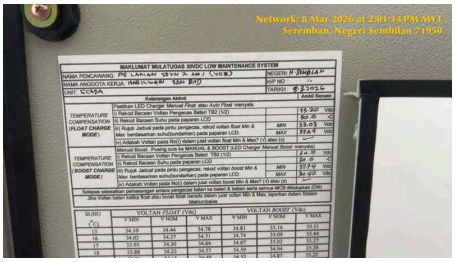
SITE ACCEPTANCE TEST (SAT) PLANT INTERFACING WORK (PIW) VCB - SHUTDOWN					
Doc No.	**SAT PIW - VCB**	**Rev. No.**	**1**	**Date**	**5 JUNE 2020**
A2. PICTURES (BEFORE & AFTER DURING PRE-CABLING & INSTALLATION)					
CONTRACT NO. :	TNB130/2024				
FUNCTIONAL LOCATION :	NSBN/PCE/2182				
SUBSTATION NAME :	PE LAMAN SDYN 2 NO.1 (VCB)				

		
OVERALL PICTURE OF SUBSTATION OUTER WALL (WITH SUBSTATION NAME)	SAMPLE OF COMPLETED MULTI-CORE CABLE TERMINATION (AT SWITCHGEAR'S SIDE)	SAMPLE OF COMPLETED MULTI-CORE CABLE TERMINATION (INSIDE RCB)
		
SAMPLE OF COMPLETED MULTI-CORE CABLE TERMINATION (INSIDE RCB) SECOND PICTURE (IF ANY)	SAMPLE OVERVIEW OF RCB'S SINGLE LINE DIAGRAM (COMPLETE WITH FEEDER NUMBERS)	SAMPLE OVERVIEW OF RCB'S SINGLE LINE DIAGRAM (COMPLETE WITH FEEDER NUMBERS) SECOND PICTURE (IF ANY)
		
OVERALL PICTURE OF WIRING LIST INSIDE RCB PANEL	OVERALL PICTURE OF RCB SCHEMATIC DIAGRAM INSIDE RCB PANEL	RCB (COMPLETE WARRANTY STICKER)

SITE ACCEPTANCE TEST (SAT) PLANT INTERFACING WORK (PIW) VCB - SHUTDOWN	

Doc No.	SAT PIW - VCB	Rev. No.	1	Date	5 JUNE 2020

A2. PICTURES (BEFORE & AFTER DURING PRE-CABLING & INSTALLATION)	
CONTRACT NO. :	TNB130/2024
FUNCTIONAL LOCATION :	NSBN/PCE/2182
SUBSTATION NAME :	PE LAMAN SDYN 2 NO.1 (VCB)

		
OVERVIEW OF EFI(s) AFTER INSTALLATION	OVERVIEW OF EFI(s) AFTER INSTALLATION SECOND PICTURE (IF ANY)	OVERVIEW OF EFI(s) AFTER INSTALLATION THIRD PICTURE (IF ANY)
		
SAMPLE EFI'S CT CABLE AT SWITCHGEAR (AFTER CLAMPED)	SAMPLE EFI'S CT CABLE AT SWITCHGEAR (AFTER CLAMPED) SECOND PICTURE (IF ANY)	SAMPLE EFI'S CT CABLE AT SWITCHGEAR (AFTER CLAMPED) THIRD PICTURE (IF ANY)
		
BATTERY CHARGER (COMPLETE WARRANTY STICKER)	OVERVIEW OF BATTERY CHARGER (COMPLETE WITH 30VDC LOW MAINTENANCE SYSTEM COMMISSIONING CHECKLIST) INSIDE BATTERY CHARGER	INDIVIDUAL EARTHING CONNECTIONS COMPLETED FOR I/O CABLES TO EARTH STUD AT RCB PANEL

SITE ACCEPTANCE TEST (SAT) PLANT INTERFACING WORK (PIW) VCB - SHUTDOWN	

Doc No.	SAT PIW - VCB	Rev. No.	1	Date	5 JUNE 2020

A2. PICTURES (BEFORE & AFTER DURING PRE-CABLING & INSTALLATION)	
CONTRACT NO. :	TNB130/2024
FUNCTIONAL LOCATION :	NSBN/PCE/2182
SUBSTATION NAME :	PE LAMAN SDYN 2 NO.1 (VCB)

		
INDIVIDUAL EARTHING CONNECTIONS COMPLETED FOR I/O CABLES TO EARTH STUD AT RCB PANEL SECOND PICTURE (IF ANY)	INDIVIDUAL EARTHING CONNECTIONS COMPLETED FOR I/O CABLES TO SWITCHGEAR TERMINATION BOX	INDIVIDUAL EARTHING CONNECTIONS COMPLETED FOR I/O CABLES TO SWITCHGEAR TERMINATION BOX SECOND PICTURE (IF ANY)

VERIFIED BY TNB

TNB Personnel:
Verified at: 06-04-2026 21:27:27