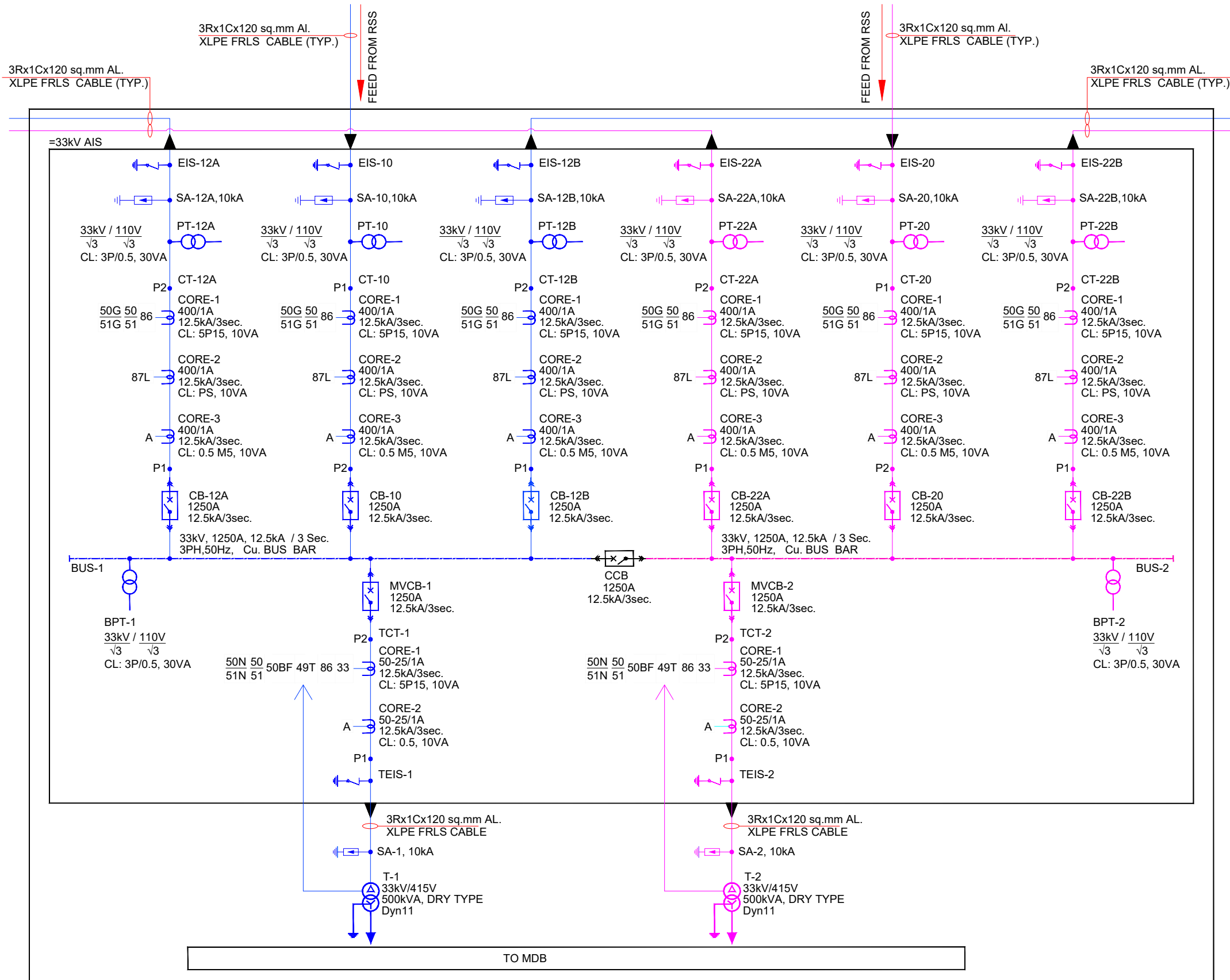




EQUIPMENT SPECIFICATION WITH BOQ:-

SR. NO.	DESCRIPTION	RATING
1	CIRCUIT BREAKER (LINE BAY)	CB, 1250A, 12.5kA/3sec.
2	CIRCUIT BREAKER (TRAFO. BAY)	MVCB, 1250A, 12.5kA/3sec.
3	CURRENT TRANSFORMER (RING FEEDER)	CORE 1: 400/1A, 12.5kA/3sec., 5P15, 10VA CORE 2: 400/1A, 12.5kA/3sec., PS, 10VA CORE 3: 400/1A, 12.5kA/3sec., 0.5 M5, 10VA
4	CURRENT TRANSFORMER (TRANSFORMER FEEDER)	CORE 1: 50-25/1A, 12.5kA/3sec., 5P15, 10VA CORE 2: 50-25/1A, 12.5kA/3sec., 0.5, 10VA
5	33kV AIS SWITCHGEAR PANEL WITH EARTHING ISOLATOR	EIS (LINE BAY) TEIS (TRAFO. BAY)
6	AUXILIARY TRANSFORMER	33kV/415V, 500kVA, Dyn11,
7	33kV CABLES	3Rx1Cx120 sq.mm AL. XLPE FRLS CABLE
8	SURGE ARRESTER	Phase to Earth - 36kV, 10kA Phase to Phase - 48kV, 10kA
9	POTENTIAL TRANSFORMER	33kV / 110V, 3CL: 3P/0.5, 30VA
10	BUS POTENTIAL TRANSFORMER	33kV / 110V, 3CL: 3P/0.5, 30VA

PROTECTION RELAYS (NUMERICAL RELAYS):-

SR. NO.	DESCRIPTION	ANSI RELAY NOMENCLATURE
1	BREAKER FAILURE OR LBB (LOCAL BREAKER BACK-UP)	50BF
2	TRANSFORMER WINDING TEMPERATURE PROTECTION	49T
3	DMT OVER CURRENT & EARTH FAULT PROTECTION	50/50N
4	IDMT OVER CURRENT & EARTH FAULT PROTECTION	51/51N
5	DMT OVER CURRENT & EARTH FAULT PROTECTION	50/50G
6	IDMT OVER CURRENT & EARTH FAULT PROTECTION	51/51G
7	LINE DIFFERENTIAL PROTECTION (PILOT WIRE)	87L
8	DIGITAL AMMETER	A
9	DOOR LIMIT SWITCH	33
10	MASTER TRIP RELAY (AUTO & SCADA RESET TYPE)	86

LEGENDS:-

SYMBOL	DESCRIPTION	CODE
	POTENTIAL TRANSFORMER	PT
	CURRENT TRANSFORMER	CT
	CIRCUIT BREAKER	MVCB
	EARTH ISOLATING SWITCH	EIS & TEIS
	AUXILIARY TRANSFORMER	AT
	SURGE ARRESTER	SA

NOTES:-

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REV	DATE	DESCRIPTION	Originator	Checked	Approved
R1	02-09-2024	SECOND SUBMISSION	KB	VS/RK	SK
R0	09-08-2024	FIRST SUBMISSION	KB	VS/RK	SK

K RIDE

DM / ELE / KRIDE Sr. DGM / ELE / KRIDE AGM / ELE / KRIDE

Certified that this document has been designed and checked in accordance with GC Quality Assurance Plan.

egis AECOM WSP
EGIS-AECOM-WSP

Senior Discipline Expert Chief Discipline Expert Project Director

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Detailed Design Consultant for design of Traction & Auxiliary Power Supply and Distribution for BSRP

SYSTRAM CONSULTING (INDIA) PVT. LTD.

10th and 11th Floor, Tower-B, 12/3, Vattika Mindspace, Mathura Road, NH2, Sector 27D, Faridabad, Haryana 121013

Drawn: K.Bisht Checked: V. Singh R.Kannan Approved: S. Kumar

Approved: S. Kumar

Client:



RAIL INFRASTRUCTURE DEVELOPMENT COMPANY (KARNATAKA) LIMITED

Project Title: Bengaluru Suburban Rail Project (BSRP)
(Detailed Design Consultant for design of Traction & Auxiliary Power Supply and Distribution for BSRP)

Corridor- 2

Drawing Title:

33 KV PROTECTION SINGLE LINE DIAGRAM OF ASS

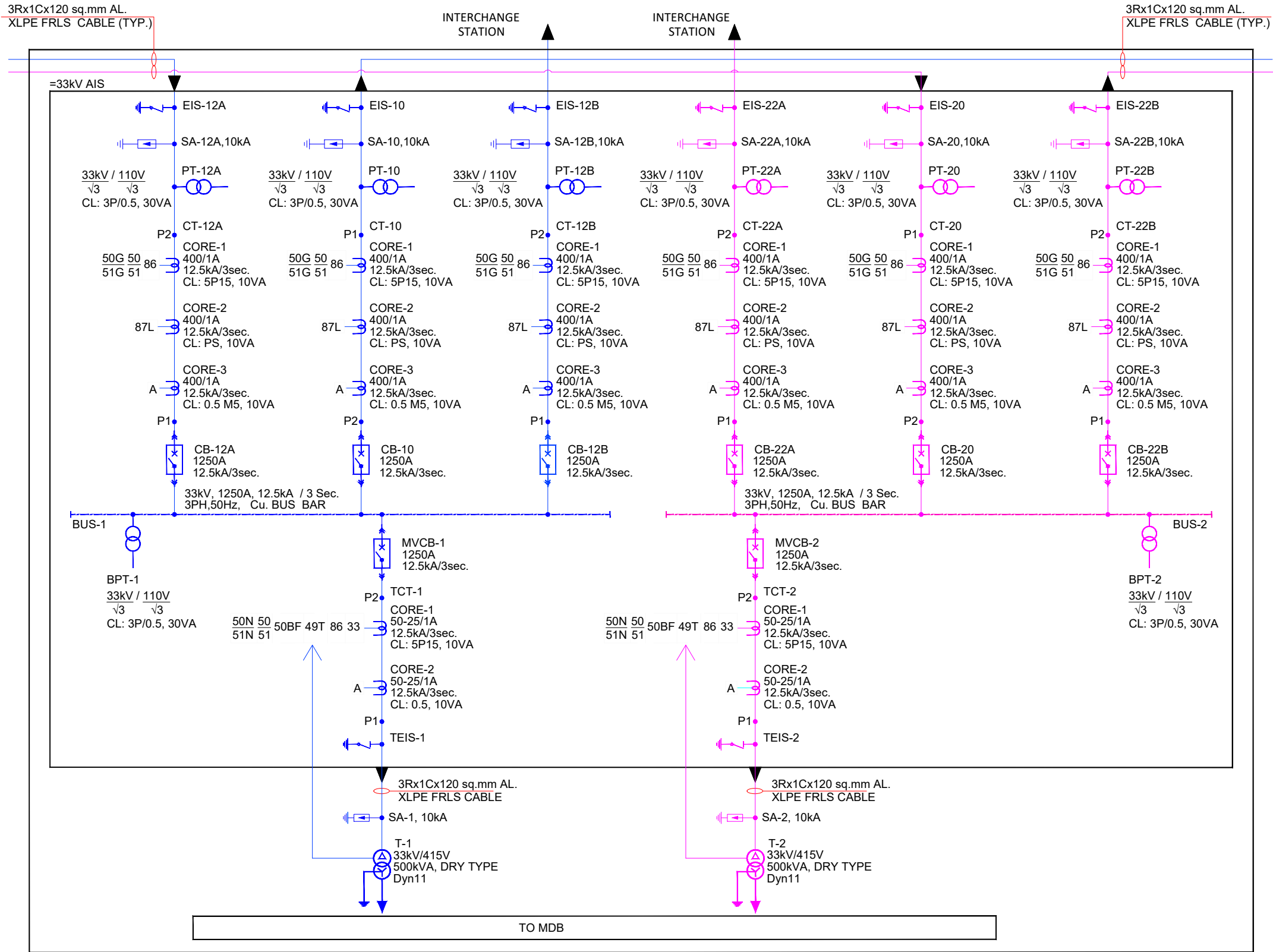
Sh. 1 of 3

Project Stage:

Tender Drawing

Paper Size: A1 Discipline: Power Supply & Traction System Date: 09/08/2024 Scale: TS/NTS

Drawing no.: KRDD01-TDR-GEN-GEN-TPS-DWG-00027 Revision: R1



EQUIPMENT SPECIFICATION WITH BOQ:-

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K RIDE

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Senior Discipline Expert Chief Discipline Expert Project Director

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Detailed Design Consultant for design of Traction & Auxiliary Power Supply and Distribution for BSRP

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Drawn: K.Bisht Checked: V. Singh Approved: S. Kumar

Client:



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Project Title: Bengaluru Suburban Rail Project (BSRP) (Detailed Design Consultant for design of Traction & Auxiliary Power Supply and Distribution for BSRP)

Corridor- 2

Drawing Title: 33 KV PROTECTION SINGLE LINE DIAGRAM OF ASS

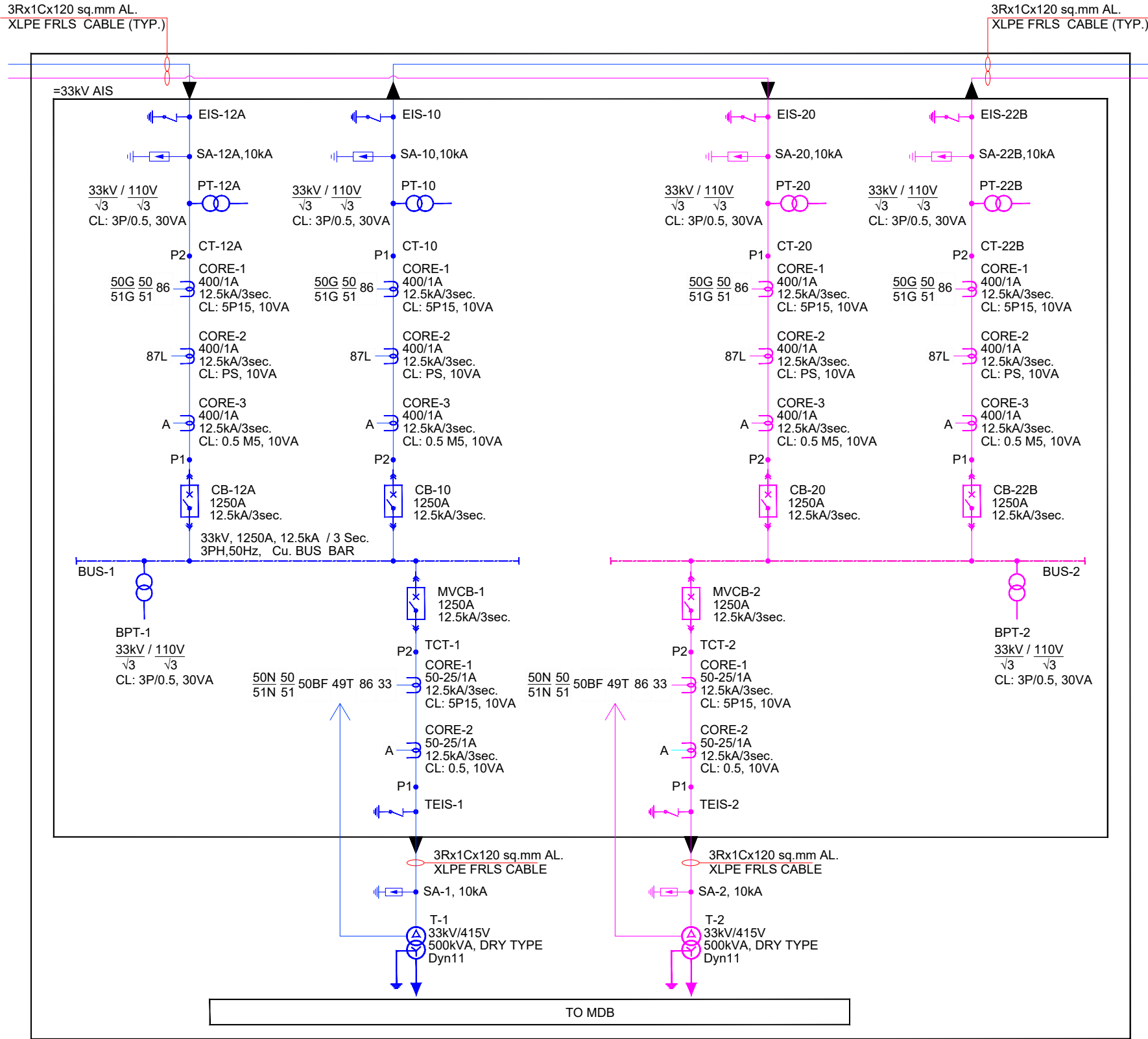
Sh. 2 of 3

Project Stage: Tender Drawing

Paper Size: A1 Discipline: Power Supply & Traction System Date: 09/08/2024 Scale: TS/NTS

Drawing no.: KRDD01-TDR-GEN-GEN-TPS-DWG-00027 Revision: R1

FOR TENDER PURPOSE ONLY



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Corridor- 2

Drawing Title: 33 KV PROTECTION SINGLE LINE DIAGRAM OF ASS Sh. 3 of 3
Project Stage: Tender Drawing

Paper Size: A1 Discipline: Power Supply & Traction System Date: 09/08/2024 Scale: TS/NTS
Drawing no.: KRDD01-TDR-GEN-GEN-TPS-DWG-00027 Revision: R1