TENDER DOCUMENT

NIT No. DLI/C&E/WI-665/523

FOR


VOLUME – 2C
(TENDER DRAWINGS)

ENGINEERING PROJECTS (INDIA) LIMITED
(A GOVT. OF INDIA ENTERPRISE)
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## Contents- (Volume-2)

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<table>
<thead>
<tr>
<th>S.No,</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Volume-2A   (General Specifications)</td>
</tr>
<tr>
<td></td>
<td>- Introduction</td>
</tr>
<tr>
<td></td>
<td>- General Requirements  (Project Synopsis, GTR, PG, Inspection &amp; Testing, Painting etc.)</td>
</tr>
<tr>
<td></td>
<td>- List of Approved Vendors</td>
</tr>
<tr>
<td></td>
<td>- List of Preferred makes</td>
</tr>
<tr>
<td>2</td>
<td>Volume-2B   (Technical Specs.)</td>
</tr>
<tr>
<td></td>
<td>- Scope of work</td>
</tr>
<tr>
<td></td>
<td>- Technical Spec. Chapter 4</td>
</tr>
<tr>
<td></td>
<td>- GS -9 Painting</td>
</tr>
<tr>
<td>3</td>
<td>Volume-2C   (Tender Drawings)</td>
</tr>
</tbody>
</table>
NOTES FOR LDB SLDB ELDB & ESLDB:

1.0 The LDB, ELDB, SLDB & ESLD shall be metal clad, suitable for 415/240V, 3 phase and neutral.

2.0 The LDB, ELDB, SLDB & ESLD shall be totally enclosed, dust & vermin proof and welded from back and side.

3.0 Enclosure class IP54 & IP 55 (with canopy) for outdoor installation.

4.0 Type of execution Single front, Installation Indoor / Outdoor (with canopy).

5.0 The LDB, ELDB, SLDB & ESLD shall be 2 mm thickness, CRCA Sheet steel.

6.0 The Cable entry - Incomer: - Bottom cable entry and Outgoing: - Top / Bottom cable entry.

7.0 The LDB, ELDB, SLDB & ESLD shall be One Incomer and outgoings.

8.0 All the components shall be accessible from front.

9.0 Access to the operating handle of the incoming isolating switch shall be from the front of the cubicle without opening the front door.

10.0 Operating knobs of outgoing MCBs shall be accessible only after opening the front door of the cubicle.

11.0 Protective insulated cover plate (3 mm thick Bakelite sheet) shall be provided inside the cubicle to shroud all the live parts.

12.0 Gland plate undrilled detachable gland plates (3 mm thick) shall be provided at the top and bottom with suitable gaskets for cable entry.

13.0 Neoprene rubber gasket shall be provided for all the doors, removable covers & between adjacent Covers, suitable locking devices.

14.0 Doors shall have concealed hinges.

15.0 Labelling Clear legible identification labels (anodized aluminium with white letters engraved on black background) with letter sizes of:

   - 5 mm for components and module

16.0 Danger board on front and rear sides in English, Hindi and local language.

17.0 Earthing two separate earthing terminals will be provided.

18.0 Limiting dimensions:
   - Width of SLDB: - 800 mm
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21.0 Isolating Equipment 3 pole ELCB, ELCB shall be of AC 23 duty category conforming to IS: 13947-1993 having fully shrouded contacts.

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23.0 Marking - Wiring will be properly marked as per relevant IS.

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25.0 Cable glands Double compression cable glands for receiving cables.
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12.0 Gland plate undrilled detachable gland plates (3 mm thick) shall be provided at the top and bottom with suitable gaskets for cable entry.

13.0 Neoprene rubber gasket shall be provided for all the doors, removable covers & between adjacent Covers, suitable locking devices.

14.0 Doors shall have concealed hinges.

15.0 Labelling Clear legible identification labels (anodized aluminium with white letters engraved on black background) with letter sizes of:

   - 5 mm for components and module name plates.

16.0 Danger board on front and rear sides in English, Hindi and local language.

17.0 Earthing two separate earthing terminals will be provided.

18.0 Limiting dimensions:

   - Width of SLDB: 800 mm
   - Depth of SLDB: 300 mm
   - Height of SLDB: 400 mm (min)


20.0 The Busbars Arrangement Three phase & neutral., Material High conductivity electrolytic aluminium alloy confirming to grade E91E as per IS-5082 - 1981. Busbar Rating shall be able to carry continuously the connected load (considering all derating factors) plus a 25% margin.

21.0 Isolating Equipment 3 pole ELCB, ELCB shall be of AC 23 duty category conforming to IS: 13947-1993 having fully shrouded contacts.

22.0 1.1Kv grade single core, black colour PVC insulated, stranded copper conductor of minimum size 2.5

23.0 Marking - Wiring will be properly marked as per relevant IS.

24.0 Terminals - Power & control terminals shall be segregated by insulating material like hylam / bakelite sheet, Terminals shall be ELMEX type suitable for connecting two cores of 2.5 sq.mm wires.

25.0 Cable glands Double compression cable glands for receiving cables.
7.0 MTPA EXPANSION
MECON LIMITED
BHILAI STEEL PLANT, BHILAI, CHHATTISGARH

NOTES FOR LDB SLDB ELDB & ESLDB :-
1.0 The LDB, ELDB, SLDB & ESLD shall be metal clad, suitable for 415/240V, 3 phase and neutral.
2.0 The LDB, ELDB, SLDB & ESLD shall be totally enclosed, dust & vermin proof and welded from back and side.
3.0 Enclosure class IP54 & IP 55 (with canopy) for outdoor installation.
4.0 Type of execution Single front, Installation Indoor / Outdoor (with canopy).
5.0 The LDB, ELDB, SLDB & ESLD shall be 2 mm thickness, CRCA Sheet steel.
6.0 The Cable entry - Incomer: - Bottom cable entry and Outgoing: - Top / Bottom cable entry.
7.0 The LDB, ELDB, SLDB & ESLD shall be One Incomer and outgoings.
8.0 All the components shall be accessible from front.
9.0 Access to the operating handle of the incoming isolating switch shall be from the front of the cubicle without opening the front door.
10.0 Operating knobs of outgoing MCBs shall be accessible only after opening the front door of the cubicle.
11.0 Protective insulated cover plate (3 mm thick Bakelite sheet) shall be provided inside the cubicle to shroud all the live parts.
12.0 Gland plate undrilled detachable gland plates (3 mm thick) shall be provided at the top and bottom with suitable gaskets for cable entry.
13.0 Neoprene rubber gasket shall be provided for all the doors, removable covers & between adjacent Covers, suitable locking devices.
14.0 Doors shall have concealed hinges.
15.0 Labelling Clear legible identification labels (anodized aluminium with white letters engraved on black background) with letter sizes of :- 5 mm for components and module name plates.
16.0 Danger board on front and rear sides in English, Hindi and local language.
17.0 Earthing two separate earthing terminals will be provided.
18.0 Limiting dimensions - Width of SLDB: - 800 mm
   - Depth of SLDB: - 300 mm
   - Height of SLDB: - 400 mm (min)
20.0 The Busbars Arrangement Three phase & neutral., Material High conductivity electrolytic aluminium alloy confirming to grade E91E as per IS-5082 -1981. Busbar Rating shall be able to carry continuously the connected load (considering all derating factors) plus a 25% margin
21.0 Isolating Equipment 3 pole ELCB, ELCB shall be of AC 23 duty category conforming to IS: 13947-1993 having fully shrouded contacts.
22.0 1.1Kv grade single core, black colour PVC insulated, stranded copper conductor of minimum size 2.5
23.0 Marking - Wiring will be properly marked as per relevant IS.
24.0 Terminals - Power & control terminals shall be segregated by insulating material like hylam / bakelite sheet, Terminals shall be ELMEX type suitable for connecting two cores of 2.5 sq.mm wires.
25.0 Cable glands Double compression cable glands for receiving cables.
NOTES FOR LDB SLDB ELDB & ESLDB: -

1.0 The LDB, ELDB, SLDB & ESLD shall be metal clad, suitable for 415/240V, 3 phase and neutral.

2.0 The LDB, ELDB, SLDB & ESLD shall be totally enclosed, dust & vermin proof and welded from back and side.

3.0 Enclosure class IP54 & IP 55 (with canopy) for outdoor installation.

4.0 Type of execution Single front, Installation Indoor / Outdoor (with canopy).

5.0 The LDB, ELDB, SLDB & ESLD shall be 2 mm thickness, CRCA Sheet steel.

6.0 The Cable entry - Incomer: Bottom cable entry and Outgoing: Top / Bottom cable entry.

7.0 The LDB, ELDB, SLDB & ESLD shall be One Incomer and outgoing.

8.0 All the components shall be accessible from front.

9.0 Access to the operating handle of the incoming isolating switch shall be from the front of the cubicle without opening the front door.

10.0 Operating knobs of outgoing MCBs shall be accessible only after opening the front door of the cubicle.

11.0 Protective insulated cover plate (3 mm thick Bakelite sheet) shall be provided inside the cubicle to shroud all the live parts.

12.0 Gland plate undrilled detachable gland plates (3 mm thick) shall be provided at the top and bottom with suitable gaskets for cable entry.

13.0 Neoprene rubber gasket shall be provided for all the doors, removable covers & between adjacent Covers, suitable locking devices.

14.0 Doors shall have concealed hinges.

15.0 Labelling Clear legible identification labels (anodized aluminium with white letters engraved on black background) with letter sizes of:- 5 mm for components and module name plates.

16.0 Danger board on front and rear sides in English, Hindi and local language.

17.0 Earthing two separate earthing terminals will be provided.

18.0 Limiting dimensions -
   - Width of SLDB: 800 mm
   - Depth of SLDB: 300 mm
   - Height of SLDB: 400 mm (min)


20.0 The Busbars Arrangement Three phase & neutral., Material High conductivity electrolytic aluminium alloy confirming to grade E91E as per IS-5082 -1981. Busbar Rating shall be able to carry continuously the connected load (considering all derating factors) plus a 25% margin.

21.0 Isolating Equipment 3 pole ELCB, ELCB shall be of AC 23 duty category conforming to IS: 13947-1993 having fully shrouded contacts.

22.0 1.1Kv grade single core, black colour PVC insulated, stranded copper conductor of minimum size 2.5.

23.0 Marking - Wiring will be properly marked as per relevant IS.

24.0 Terminals - Power & control terminals shall be segregated by insulating material like hylam / bakelite sheet, Terminals shall be ELMEX type suitable for connecting two cores of 2.5 sq.mm wires.

25.0 Cable glands Double compression cable glands for receiving cables.

FOR TENDER PURPOSE ONLY
DRAWING TO BE READ IN CONJUNCTION WITH TS/GTS.
NOTES FOR LDB SLDB ELDB & ESLDB:

1.0 The LDB, ELDB, SLDB & ESLD shall be metal clad, suitable for 415/240V, 3 phase and neutral.

2.0 The LDB, ELDB, SLDB & ESLD shall be totally enclosed, dust & vermin proof and welded from back and side.

3.0 Enclosure class IP54 & IP 55 (with canopy) for outdoor installation.

4.0 Type of execution Single front, Installation Indoor / Outdoor (with canopy).

5.0 The LDB, ELDB, SLDB & ESLD shall be 2 mm thickness, CRCA Sheet steel.

6.0 The Cable entry - Incomer: Bottom cable entry and Outgoing: Top / Bottom cable entry.

7.0 The LDB, ELDB, SLDB & ESLD shall be One Incomer and outgoings.

8.0 All the components shall be accessible from front.

9.0 Access to the operating handle of the incoming isolating switch shall be from the front of the cubicle without opening the front door.

10.0 Operating knobs of outgoing MCBs shall be accessible only after opening the front door of the cubicle.

11.0 Protective insulated cover plate (3 mm thick Bakelite sheet) shall be provided inside the cubicle to shroud all the live parts.

12.0 Gland plate undrilled detachable gland plates (3 mm thick) shall be provided at the top and bottom with suitable gaskets for cable entry.

13.0 Neoprene rubber gasket shall be provided for all the doors, removable covers & between adjacent Covers, suitable locking devices.

14.0 Doors shall have concealed hinges.

15.0 Labelling Clear legible identification labels (anodized aluminium with white letters engraved on black background) with letter sizes of :- 5 mm for components and module name plates.

16.0 Danger board on front and rear sides in English, Hindi and local language.

17.0 Earthing two separate earthing terminals will be provided.

18.0 Limiting dimensions:
   - Width of SLDB: 800 mm
   - Depth of SLDB: 300 mm
   - Height of SLDB: 400 mm (min)


20.0 The Busbars Arrangement Three phase & neutral, Material High conductivity electrolytic aluminium alloy confirming to grade E91E as per IS-5082 -1981. Busbar Rating shall be able to carry continuously the connected load (considering all derating factors) plus a 25% margin.

21.0 Isolating Equipment 3 pole ELCB, ELCB shall be of AC 23 duty category conforming to IS: 13947-1993 having fully shrouded contacts.

22.0 1.1Kv grade single core, black colour PVC insulated, stranded copper conductor of minimum size 2.5

23.0 Marking - Wiring will be properly marked as per relevant IS.

24.0 Terminals - Power & control terminals shall be segregated by insulating material like hylam / bakelite sheet, Terminals shall be ELMEX type suitable for connecting two cores of 2.5 sq.mm wires.

25.0 Cable glands Double compression cable glands for receiving cables.
NOTES FOR LDB SLDB ELDB & ESLDB:

1.0 The LDB, ELDB, SLDB & ESLD shall be metal clad, suitable for 415/240V, 3 phase and neutral.

2.0 The LDB, ELDB, SLDB & ESLD shall be totally enclosed, dust & vermin proof and welded from back and side.

3.0 Enclosure class IP54 & IP55 (with canopy) for outdoor installation.

4.0 Type of execution Single front, Installation Indoor / Outdoor (with canopy).

5.0 The LDB, ELDB, SLDB & ESLD shall be 2 mm thickness, CRCA Sheet steel.

6.0 The Cable entry - Incomer: - Bottom cable entry and Outgoing: - Top / Bottom cable entry.

7.0 The LDB, ELDB, SLDB & ESLD shall be One Incomer and outgoings.

8.0 All the components shall be accessible from front.

9.0 Access to the operating handle of the incoming isolating switch shall be from the front of the cubicle without opening the front door.

10.0 Operating knobs of outgoing MCBs shall be accessible only after opening the front door of the cubicle.

11.0 Protective insulated cover plate (3 mm thick Bakelite sheet) shall be provided inside the cubicle to shroud all the live parts.

12.0 Gland plate undrilled detachable gland plates (3 mm thick) shall be provided at the top and bottom with suitable gaskets for cable entry.

13.0 Neoprene rubber gasket shall be provided for all the doors, removable covers & between adjacent Covers, suitable locking devices.

14.0 Doors shall have concealed hinges.

15.0 Labelling Clear legible identification labels (anodized aluminium with white letters engraved on black background) with letter sizes of :- 5 mm for components and module name plates.

16.0 Danger board on front and rear sides in English, Hindi and local language.

17.0 Earthing two separate earthing terminals will be provided.

18.0 Limiting dimensions:
   - Width of SLDB: - 800 mm
   - Depth of SLDB: - 300 mm
   - Height of SLDB: - 400 mm (min)


20.0 The Busbars Arrangement Three phase & neutral., Material High conductivity electrolytic aluminium alloy confirming to grade E91E as per IS-5082 - 1981. Busbar Rating shall be able to carry continuously the connected load (considering all derating factors) plus a 25% margin.

21.0 Isolating Equipment 3 pole ELCB, ELCB shall be of AC 23 duty category conforming to IS: 13947-1993 having fully shrouded contacts.

22.0 1.1 Kv grade single core, black colour PVC insulated, stranded copper conductor of minimum size 2.5 sq.mm.

23.0 Marking - Wiring will be properly marked as per relevant IS.

24.0 Terminals - Power & control terminals shall be segregated by insulating material like hylam / bakelite sheet, Terminals shall be ELMEX type suitable for connecting two cores of 2.5 sq.mm wires.

25.0 Cable glands Double compression cable glands for receiving cables.

FOR TENDER PURPOSE ONLY
DRAWING TO BE READ IN CONJUNCTION WITH TS/GTS.
**NOTES FOR LDB, SLDB, ELDB & ESLDB:**

1. The LDB, ELDB, SLDB & ESLD shall be metal clad, suitable for 415/240V, 3 phase and neutral.
2. The LDB, ELDB, SLDB & ESLD shall be totally enclosed, dust & vermin proof and welded from back and side.
3. Enclosure class IP54 & IP 55 (with canopy) for outdoor installation.
4. Type of execution Single front, Installation Indoor / Outdoor (with canopy).
5. The LDB, ELDB, SLDB & ESLD shall be 2 mm thickness, CRCA Sheet steel.
6. The Cable entry - Incomer: - Bottom cable entry and Outgoing: - Top / Bottom cable entry.
7. The LDB, ELDB, SLDB & ESLD shall be One Incomer and outgoings.
8. All the components shall be accessible from front.
9. Access to the operating handle of the incoming isolating switch shall be from the front of the cubicle without opening the front door.
10. Operating knobs of outgoing MCBs shall be accessible only after opening the front door of the cubicle.
11. Protective insulated cover plate (3 mm thick Bakelite sheet) shall be provided inside the cubicle to shroud all the live parts.
12. Gland plate undrilled detachable gland plates (3 mm thick) shall be provided at the top and bottom with suitable gaskets for cable entry.
13. Neoprene rubber gasket shall be provided for all the doors, removable covers & between adjacent Covers, suitable locking devices.
14. Doors shall have concealed hinges.
15. Labelling Clear legible identification labels (anodized aluminium with white letters engraved on black background) with letter sizes of: 5 mm for components and module name plates.
16. Danger board on front and rear sides in English, Hindi and local language.
17. Earthing two separate earthing terminals will be provided.
18. Limiting dimensions:
   - Width of SLDB: - 800 mm
   - Depth of SLDB: - 300 mm
   - Height of SLDB: - 400 mm (min)
20. The Busbars Arrangement Three phase & neutral., Material High conductivity electrolytic aluminium alloy confirming to grade E91E as per IS-5082 -1981. Busbar Rating shall be able to carry continuously the connected load (considering all derating factors) plus a 25% margin.
22. 1.1Kv grade single core, black colour PVC insulated, stranded copper conductor of minimum size 2.5
23. Marking - Wiring will be properly marked as per relevant IS.
24. Terminals - Power & control terminals shall be segregated by insulating material like hylam / bakelite sheet, Terminals shall be ELMEX type suitable for connecting two cores of 2.5 sq.mm wires.
25. Cable glands Double compression cable glands for receiving cables.

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**FOR TENDER PURPOSE ONLY**

**DRAWING TO BE READ IN CONJUNCTION WITH TS/GTS.**
7.0 MTPA EXPANSION
MECON LIMITED
BHILAI STEEL PLANT, BHILAI, CHHATTISGARH

NOTES FOR LDB SLDB ELDB & ESLDB -

1.0 The LDB, ELDB, SLDB & ESLD shall be metal clad, suitable for 415/240V, 3 phase and neutral.
2.0 The LDB, ELDB, SLDB & ESLD shall be totally enclosed, dust & vermin proof and welded from back and side.
3.0 Enclosure class IP54 & IP 55 (with canopy) for outdoor installation.
4.0 Type of execution Single front, Installation Indoor / Outdoor (with canopy).
5.0 The LDB, ELDB, SLDB & ESLD shall be 2 mm thickness, CRCA Sheet steel.
6.0 The Cable entry - Incomer: Bottom cable entry and Outgoing: Top / Bottom cable entry.
7.0 The LDB, ELDB, SLDB & ESLD shall be One Incomer and outgoings.
8.0 All the components shall be accessible from front.
9.0 Access to the operating handle of the incoming isolating switch shall be from the front of the cubicle without opening the front door.
10.0 Operating knobs of outgoing MCBs shall be accessible only after opening the front door of the cubicle.
11.0 Protective insulated cover plate (3 mm thick Bakelite sheet) shall be provided inside the cubicle to shroud all the live parts.
12.0 Gland plate undrilled detachable gland plates (3 mm thick) shall be provided at the top and bottom with suitable gaskets for cable entry.
13.0 Neoprene rubber gasket shall be provided for all the doors, removable covers & between adjacent Covers, suitable locking devices.
14.0 Doors shall have concealed hinges.
15.0 Labelling Clear legible identification labels (anodized aluminium with white letters engraved on black background) with letter sizes of:
   5 mm for components and module name plates.
16.0 Danger board on front and rear sides in English, Hindi and local language.
17.0 Earthing two separate earthing terminals will be provided.
18.0 Limiting dimensions -
   Width of SLDB: 800 mm
   Depth of SLDB: 300 mm
   Height of SLDB: 400 mm (min)
20.0 The Busbars Arrangement Three phase & neutral. Material High conductivity electrolytic aluminium alloy confirming to grade E91E as per IS-5082 -1981. Busbar Rating shall be able to carry continuously the connected load (considering all derating factors) plus a 25% margin
21.0 Isolating Equipment 3 pole ELCB, ELCB shall be of AC 23 duty category conforming to IS: 13947-1993 having fully shrouded contacts.
22.0 1.1Kv grade single core, black colour PVC insulated, stranded copper conductor of minimum size 2.5 sq.mm
23.0 Marking - Wiring will be properly marked as per relevant IS.
24.0 Terminals - Power & control terminals shall be segregated by insulating material like hylam / bakelite sheet, Terminals shall be ELMEX type suitable for connecting two cores of 2.5 sq.mm wires.
25.0 Cable glands Double compression cable glands for receiving cables.

FOR TENDER PURPOSE ONLY
DRAWING TO BE READ IN CONJUNCTION WITH TS/GTS.
NOTES FOR LDB SLDB ELDB & ESLDB -

1.0 The LDB, ELDB, SLDB & ESLD shall be metal clad, suitable for 415/240V, 3 phase and neutral.

2.0 The LDB, ELDB, SLDB & ESLD shall be totally enclosed, dust & vermin proof and welded from back and side.

3.0 Enclosure class IP54 & IP 55 (with canopy) for outdoor installation.

4.0 Type of execution Single front, Installation Indoor / Outdoor (with canopy).

5.0 The LDB, ELDB, SLDB & ESLD shall be 2 mm thickness, CRCA Sheet steel.

6.0 The Cable entry - Incomer: - Bottom cable entry and Outgoing: - Top / Bottom cable entry.

7.0 The LDB, ELDB, SLDB & ESLD shall be One Incomer and outgoings.

8.0 All the components shall be accessible from front.

9.0 Access to the operating handle of the incoming isolating switch shall be from the front of the cubicle without opening the front door.

10.0 Operating knobs of outgoing MCBs shall be accessible only after opening the front door of the cubicle.

11.0 Protective insulated cover plate (3 mm thick Bakelite sheet) shall be provided inside the cubicle to shroud all the live parts.

12.0 Gland plate undrilled detachable gland plates (3 mm thick) shall be provided at the top and bottom with suitable gaskets for cable entry.

13.0 Neoprene rubber gasket shall be provided for all the doors, removable covers & between adjacent Covers, suitable locking devices.

14.0 Doors shall have concealed hinges.

15.0 Labelling Clear legible identification labels (anodized aluminium with white letters engraved on black background) with letter sizes of:

- 5 mm for components and module name plates.

16.0 Danger board on front and rear sides in English, Hindi and local language.

17.0 Earthing two separate earthing terminals will be provided.

18.0 Limiting dimensions:

- Width of SLDB: - 800 mm
- Depth of SLDB: - 300 mm
- Height of SLDB: - 400 mm (min)


20.0 The Busbars Arrangement Three phase & neutral., Material High conductivity electrolytic aluminium alloy confirming to grade E91E as per IS-5082 -1981. Busbar Rating shall be able to carry continuously the connected load (considering all derating factors) plus a 25% margin.

21.0 Isolating Equipment 3 pole ELCB, ELCB shall be of AC 23 duty category conforming to IS: 13947-1993 having fully shrouded contacts.

22.0 1.1Kv grade single core, black colour PVC insulated, stranded copper conductor of minimum size 2.5

23.0 Marking - Wiring will be properly marked as per relevant IS.

24.0 Terminals - Power & control terminals shall be segregated by insulating material like hylam / bakelite sheet, Terminals shall be ELMEX type suitable for connecting two cores of 2.5 sq.mm wires.

25.0 Cable glands Double compression cable glands for receiving cables.
NOTES FOR LDB SLDB ELDB & ESLDB:

1.0 The LDB, ELDB, SLDB & ESLD shall be metal clad, suitable for 415/240V, 3 phase and neutral.

2.0 The LDB, ELDB, SLDB & ESLD shall be totally enclosed, dust & vermin proof and welded from back and side.

3.0 Enclosure class IP54 & IP 55 (with canopy) for outdoor installation.

4.0 Type of execution Single front, Installation Indoor / Outdoor (with canopy).

5.0 The LDB, ELDB, SLDB & ESLD shall be 2 mm thickness, CRCA Sheet steel.

6.0 The Cable entry - Incomer: - Bottom cable entry and Outgoing: - Top / Bottom cable entry.

7.0 The LDB, ELDB, SLDB & ESLD shall be One Incomer and outgoings.

8.0 All the components shall be accessible from front.

9.0 Access to the operating handle of the incoming isolating switch shall be from the front of the cubicle without opening the front door.

10.0 Operating knobs of outgoing MCBs shall be accessible only after opening the front door of the cubicle.

11.0 Protective insulated cover plate (3 mm thick Bakelite sheet) shall be provided inside the cubicle to shroud all the live parts.

12.0 Gland plate undrilled detachable gland plates (3 mm thick) shall be provided at the top and bottom with suitable gaskets for cable entry.

13.0 Neoprene rubber gasket shall be provided for all the doors, removable covers & between adjacent Covers, suitable locking devices.

14.0 Doors shall have concealed hinges.

15.0 Labelling Clear legible identification labels (anodized aluminium with white letters engraved on black background) with letter sizes of :- 5 mm for components and module name plates.

16.0 Danger board on front and rear sides in English, Hindi and local language.

17.0 Earthing two separate earthing terminals will be provided.

18.0 Limiting dimensions - Width of SLDB: - 800 mm - Depth of SLDB: - 300 mm - Height of SLDB: - 400 mm (min)


20.0 The Busbars Arrangement Three phase & neutral., Material High conductivity electrolytic aluminium alloy confirming to grade E91E as per IS-5082 -1981. Busbar Rating shall be able to carry continuously the connected load (considering all derating factors) plus a 25% margin

21.0 Isolating Equipment 3 pole ELCB, ELCB shall be of AC 23 duty category conforming to IS: 13947-1993 having fully shrouded contacts.

22.0 1.1Kv grade single core, black colour PVC insulated, stranded copper conductor of minimum size 2.5

23.0 Marking - Wiring will be properly marked as per relevant IS.

24.0 Terminals - Power & control terminals shall be segregated by insulating material like hylam / bakelite sheet, Terminals shall be ELMEX type suitable for connecting two cores of 2.5 sq.mm wires.

25.0 Cable glands Double compression cable glands for receiving cables.
NOTES FOR LDB SLDB ELDB & ESLDB:

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3.0 Enclosure class IP54 & IP55 (with canopy) for outdoor installation.
4.0 Type of execution Single front, Installation Indoor / Outdoor (with canopy).
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6.0 The Cable entry - Incomer: Bottom cable entry and Outgoing: Top / Bottom cable entry.
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8.0 All the components shall be accessible from front.
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12.0 Gland plate undrilled detachable gland plates (3 mm thick) shall be provided at the top and bottom with suitable gaskets for cable entry.
13.0 Neoprene rubber gasket shall be provided for all the doors, removable covers & between adjacent Covers, suitable locking devices.
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16.0 Danger board on front and rear sides in English, Hindi and local language.
17.0 Earthing two separate earthing terminals will be provided.
18.0 Limiting dimensions:
   - Width of SLDB: 800 mm
   - Depth of SLDB: 300 mm
   - Height of SLDB: 400 mm (min)
20.0 The Busbars Arrangement Three phase & neutral., Material High conductivity electrolytic aluminium alloy confirming to grade E91E as per IS-5082 -1981. Busbar Rating shall be able to carry continuously the connected load (considering all derating factors) plus a 25% margin.
21.0 Isolating Equipment 3 pole ELCB, ELCB shall be of AC 23 duty category conforming to IS: 13947-1993 having fully shrouded contacts.
22.0 1.1Kv grade single core, black colour PVC insulated, stranded copper conductor of minimum size 2.5
23.0 Marking - Wiring will be properly marked as per relevant IS.
24.0 Terminals - Power & control terminals shall be segregated by insulating material like hylam / bakelite sheet, Terminals shall be ELMEX type suitable for connecting two cores of 2.5 sq.mm wires.
25.0 Cable glands Double compression cable glands for receiving cables.

FOR TENDER PURPOSE ONLY
DRAWING TO BE READ IN CONJUNCTION WITH TS/GTS.
1. The LDB, ELDB, SLDB & ESLD shall be metal clad, suitable for 415/240V, 3 phase and neutral.
2. The LDB, ELDB, SLDB & ESLD shall be totally enclosed, dust & vermin proof and welded from back and side.
3. Enclosure class IP54 & IP 55 (with canopy) for outdoor installation.
4. Type of execution Single front, Installation Indoor / Outdoor (with canopy).
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11. Protective insulated cover plate (3 mm thick Bakelite sheet) shall be provided inside the cubicle to shroud all the live parts.
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13. Neoprene rubber gasket shall be provided for all the doors, removable covers & between adjacent Covers, suitable locking devices.
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   - 5 mm for components and module name plates.
16. Danger board on front and rear sides in English, Hindi and local language.
17. Earthing two separate earthing terminals will be provided.
18. Limiting dimensions:
   - Width of SLDB: 800 mm
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   - Height of SLDB: 400 mm (min)
20. The Busbars Arrangement Three phase & neutral, Material High conductivity electrolytic aluminium alloy confirming to grade E91E as per IS-5082 -1981. Busbar Rating shall be able to carry continuously the connected load (considering all derating factors) plus a 25% margin.
22. 1.1Kv grade single core, black colour PVC insulated, stranded copper conductor of minimum size 2.5.
23. Marking - Wiring will be properly marked as per relevant IS.
24. Terminals - Power & control terminals shall be segregated by insulating material like hylam / bakelite sheet, Terminals shall be ELMEX type suitable for connecting two cores of 2.5 sq.mm wires.
25. Cable glands Double compression cable glands for receiving cables.
NOTES FOR LDB SLDB ELDB & ESLDB:

1.0 The LDB, ELDB, SLDB & ESLDB shall be metal clad, suitable for 415/240V, 3 phase and neutral.
2.0 The LDB, ELDB, SLDB & ESLDB shall be totally enclosed, dust & vermin proof and welded from back and side.
3.0 Enclosure class IP54 & IP 55 (with canopy) for outdoor installation.
4.0 Type of execution Single front, Installation Indoor / Outdoor (with canopy).
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6.0 The Cable entry - Incomer: - Bottom cable entry and Outgoing: - Top / Bottom cable entry.
7.0 The LDB, ELDB, SLDB & ESLD shall be One Incomer and outgoings.
8.0 All the components shall be accessible from front.
9.0 Access to the operating handle of the incoming isolating switch shall be from the front of the cubicle without opening the front door.
10.0 Operating knobs of outgoing MCBs shall be accessible only after opening the front door of the cubicle.
11.0 Protective insulated cover plate (3 mm thick Bakelite sheet) shall be provided inside the cubicle to shroud all the live parts.
12.0 Gland plate undrilled detachable gland plates (3 mm thick) shall be provided at the top and bottom with suitable gaskets for cable entry.
13.0 Neoprene rubber gasket shall be provided for all the doors, removable covers & between adjacent Covers, suitable locking devices.
14.0 Doors shall have concealed hinges.
15.0 Labelling Clear legible identification labels (anodized aluminium with white letters engraved on black background) with letter sizes of:
   - 5 mm for components and module name plates.
16.0 Danger board on front and rear sides in English, Hindi and local language.
17.0 Earthing two separate earthing terminals will be provided.
18.0 Limiting dimensions:
   - Width of SLDB: - 800 mm
   - Depth of SLDB: - 300 mm
   - Height of SLDB: - 400 mm (min)
20.0 The Busbars Arrangement Three phase & neutral, Material High conductivity electrolytic aluminium alloy confirming to grade E91E as per IS-5082 -1981. Busbar Rating shall be able to carry continuously the connected load (considering all derating factors) plus a 25% margin.
21.0 Isolating Equipment 3 pole ELCB, ELCB shall be of AC 23 duty category conforming to IS: 13947-1993 having fully shrouded contacts.
22.0 1.1Kv grade single core, black colour PVC insulated, stranded copper conductor of minimum size 2.5 sq.mm.
23.0 Marking - Wiring will be properly marked as per relevant IS.
24.0 Terminals - Power & control terminals shall be segregated by insulating material like hylam / bakelite sheet, Terminals shall be ELMEX type suitable for connecting two cores of 2.5 sq.mm wires.
25.0 Cable glands Double compression cable glands for receiving cables.
NOTES FOR LDB SLDB ELDB & ESLDB:

1. The LDB, ELDB, SLDB & ESLD shall be metal clad, suitable for 415/240V, 3 phase and neutral.
2. The LDB, ELDB, SLDB & ESLD shall be totally enclosed, dust & vermin proof and welded from back and side.
3. Enclosure class IP54 & IP 55 (with canopy) for outdoor installation.
4. Type of execution Single front, Installation Indoor / Outdoor (with canopy).
5. The LDB, ELDB, SLDB & ESLD shall be 2 mm thickness, CRCA Sheet steel.
6. The Cable entry - Incomer: - Bottom cable entry and Outgoing: - Top / Bottom cable entry.
7. The LDB, ELDB, SLDB & ESLD shall be One Incomer and outgoings.
8. All the components shall be accessible from front.
9. Access to the operating handle of the incoming isolating switch shall be from the front of the cubicle without opening the front door.
10. Operating knobs of outgoing MCBs shall be accessible only after opening the front door of the cubicle.
11. Protective insulated cover plate (3 mm thick Bakelite sheet) shall be provided inside the cubicle to shroud all the live parts.
12. Gland plate undrilled detachable gland plates (3 mm thick) shall be provided at the top and bottom with suitable gaskets for cable entry.
13. Neoprene rubber gasket shall be provided for all the doors, removable covers & between adjacent Covers, suitable locking devices.
14. Doors shall have concealed hinges.
15. Labelling Clear legible identification labels (anodized aluminium with white letters engraved on black background) with letter sizes of:
   - 5 mm for components and module name plates.
16. Danger board on front and rear sides in English, Hindi and local language.
17. Earthing two separate earthing terminals will be provided.
18. Limiting dimensions:
   - Width of SLDB: - 800 mm
   - Depth of SLDB: - 300 mm
   - Height of SLDB: - 400 mm (min)
20. The Busbars Arrangement Three phase & neutral., Material High conductivity electrolytic aluminium alloy confirming to grade E91E as per IS-5082 -1981. Busbar Rating shall be able to carry continuously the connected load (considering all derating factors) plus a 25% margin.
22. 1.1Kv grade single core, black colour PVC insulated, stranded copper conductor of minimum size 2.5 mm².
23. Marking - Wiring will be properly marked as per relevant IS.
24. Terminals - Power & control terminals shall be segregated by insulating material like hylam / bakelite sheet, Terminals shall  be ELMEX type suitable for connecting two cores of 2.5 mm² wires.
25. Cable glands Double compression cable glands for receiving cables.

FOR TENDER PURPOSE ONLY
DRAWING TO BE READ IN CONJUNCTION WITH TS/GTS.
NOTES FOR LDB SLDB ELDB & ESLDB -

1.0 The LDB, ELDB, SLDB & ESLD shall be metal clad, suitable for 415/240V, 3 phase and neutral.

2.0 The LDB, ELDB, SLDB & ESLD shall be totally enclosed, dust & vermin proof and welded from back and side.

3.0 Enclosure class IP54 & IP 55 (with canopy) for outdoor installation.

4.0 Type of execution Single front, Installation Indoor / Outdoor (with canopy).

5.0 The LDB, ELDB, SLDB & ESLD shall be 2 mm thickness, CRCA Sheet steel.

6.0 The Cable entry - Incomer: - Bottom cable entry and Outgoing: - Top / Bottom cable entry.

7.0 The LDB, ELDB, SLDB & ESLD shall be One Incomer and outgoings.

8.0 All the components shall be accessible from front.

9.0 Access to the operating handle of the incoming isolating switch shall be from the front of the cubicle without opening the front door.

10.0 Operating knobs of outgoing MCBs shall be accessible only after opening the front door of the cubicle.

11.0 Protective insulated cover plate (3 mm thick Bakelite sheet) shall be provided inside the cubicle to shroud all the live parts.

12.0 Gland plate undrilled detachable gland plates (3 mm thick) shall be provided at the top and bottom with suitable gaskets for cable entry.

13.0 Neoprene rubber gasket shall be provided for all the doors, removable covers & between adjacent Covers, suitable locking devices.

14.0 Doors shall have concealed hinges.

15.0 Labelling Clear legible identification labels (anodized aluminium with white letters engraved on black background) with letter sizes of:- 5 mm for components and module name plates.

16.0 Danger board on front and rear sides in English, Hindi and local language.

17.0 Earthing two separate earthing terminals will be provided.

18.0 Limiting dimensions - Width of SLDB: - 800 mm Depth of SLDB: - 300 mm Height of SLDB: - 400 mm (min)


20.0 The Busbars Arrangement Three phase & neutral., Material High conductivity electrolytic aluminium alloy confirming to grade E91E as per IS-5082 -1981. Busbar Rating shall be able to carry continuously the connected load (considering all derating factors) plus a 25% margin.

21.0 Isolating Equipment 3 pole ELCB, ELCB shall be of AC 23 duty category conforming to IS: 13947-1993 having fully shrouded contacts.

22.0 1.1Kv grade single core, black colour PVC insulated, stranded copper conductor of minimum size 2.5

23.0 Marking - Wiring will be properly marked as per relevant IS.

24.0 Terminals - Power & control terminals shall be segregated by insulating material like hylam / bakelite sheet, Terminals shall be ELMEX type suitable for connecting two cores of 2.5

25.0 Cable glands Double compression cable glands for receiving cables.
7.0 MTPA EXPANSION
MECON LIMITED
BHILAI STEEL PLANT, BHILAI, CHHATTISGARH

NOTES FOR LDB SLDB ELDB & ESLDB:

1.0 The LDB, ELDB, SLDB & ESLD shall be metal clad, suitable for 415/240V, 3 phase and neutral.

2.0 The LDB, ELDB, SLDB & ESLD shall be totally enclosed, dust & vermin proof and welded from back and side.

3.0 Enclosure class IP54 & IP 55 (with canopy) for outdoor installation.

4.0 Type of execution Single front, Installation Indoor / Outdoor (with canopy).

5.0 The LDB, ELDB, SLDB & ESLD shall be 2 mm thickness, CRCA Sheet steel.

6.0 The Cable entry - Incomer: - Bottom cable entry and Outgoing: - Top / Bottom cable entry.

7.0 The LDB, ELDB, SLDB & ESLD shall be One Incomer and outgoings.

8.0 All the components shall be accessible from front.

9.0 Access to the operating handle of the incoming isolating switch shall be from the front of the cubicle without opening the front door.

10.0 Operating knobs of outgoing MCBs shall be accessible only after opening the front door of the cubicle.

11.0 Protective insulated cover plate (3 mm thick Bakelite sheet) shall be provided inside the cubicle to shroud all the live parts.

12.0 Gland plate undrilled detachable gland plates (3 mm thick) shall be provided at the top and bottom with suitable gaskets for cable entry.

13.0 Neoprene rubber gasket shall be provided for all the doors, removable covers & between adjacent Covers, suitable locking devices.

14.0 Doors shall have concealed hinges.

15.0 Labelling Clear legible identification labels (anodized aluminium with white letters engraved on black background) with letter sizes of.

16.0 Danger board on front and rear sides in English, Hindi and local language.

17.0 Earthing two separate earthing terminals will be provided.

18.0 Limiting dimensions:
   Width of SLDB: - 800 mm
   Depth of SLDB: - 300 mm
   Height of SLDB: - 400 mm (min)


20.0 The Busbars Arrangement Three phase & neutral., Material High conductivity electrolytic aluminium alloy confirming to grade E91E as per IS-5082 -1981. Busbar Rating shall be able to carry continuously the connected load (considering all derating factors) plus a 25% margin.

21.0 Isolating Equipment 3 pole ELCB, ELCB shall be of AC 23 duty category conforming to IS: 13947-1993 having fully shrouded contacts.

22.0 1.1Kv grade single core, black colour PVC insulated, stranded copper conductor of minimum size 2.5 sq.mm.

23.0 Marking - Wiring will be properly marked as per relevant IS.

24.0 Terminals - Power & control terminals shall be segregated by insulating material like hylam / bakelite sheet, Terminals shall be ELMEX type suitable for connecting two cores of 2.5 sq.mm wires.

25.0 Cable glands Double compression cable glands for receiving cables.
7.0 MTPA EXPANSION
MECON LIMITED
BHILAI STEEL PLANT, BHILAI, CHHATTISGARH

NOTES FOR LDB SLDB ELDB & ESLDB:

1.0  The LDB, ELDB, SLDB & ESLD shall be metal clad, suitable for 415/240V, 3 phase and neutral.

2.0  The LDB, ELDB, SLDB & ESLD shall be totally enclosed, dust & vermin proof and welded from back and side.

3.0  Enclosure class IP54 & IP 55 (with canopy) for outdoor installation.

4.0  Type of execution Single front, Installation Indoor / Outdoor (with canopy).

5.0  The LDB, ELDB, SLDB & ESLD shall be 2 mm thickness, CRCA Sheet steel.

6.0  The Cable entry - Incomer: - Bottom cable entry and Outgoing: - Top / Bottom cable entry.

7.0  The LDB, ELDB, SLDB & ESLD shall be One Incomer and outgoings.

8.0  All the components shall be accessible from front.

9.0  Access to the operating handle of the incoming isolating switch shall be from the front of the cubicle without opening the front door.

10.0 Operating knobs of outgoing MCBs shall be accessible only after opening the front door of the cubicle.

11.0 Protective insulated cover plate (3 mm thick Bakelite sheet) shall be provided inside the cubicle to shroud all the live parts.

12.0 Gland plate undrilled detachable gland plates (3 mm thick) shall be provided at the top and bottom with suitable gaskets for cable entry.

13.0 Neoprene rubber gasket shall be provided for all the doors, removable covers & between adjacent Covers, suitable locking devices.

14.0 Doors shall have concealed hinges.

15.0 Labelling Clear legible identification labels (anodized aluminium with white letters engraved on black background) with letter sizes of:

5 mm for components and module name plates.

16.0 Danger board on front and rear sides in English, Hindi and local language.

17.0 Earthing two separate earthing terminals will be provided.

18.0 Limiting dimensions:

- Width of SLDB: 800 mm
- Depth of SLDB: 300 mm
- Height of SLDB: 400 mm (min)


20.0 The Busbars Arrangement Three phase & neutral., Material High conductivity electrolytic aluminium alloy confirming to grade E91E as per IS-5082 -1981. Busbar Rating shall be able to carry continuously the connected load (considering all derating factors) plus a 25% margin.

21.0 Isolating Equipment 3 pole ELCB, ELCB shall be of AC 23 duty category conforming to IS: 13947-1993 having fully shrouded contacts.

22.0 1.1Kv grade single core, black colour PVC insulated, stranded copper conductor of minimum size 2.5

23.0 Marking - Wiring will be properly marked as per relevant IS.

24.0 Terminals - Power & control terminals shall be segregated by insulating material like hylam / bakelite sheet, Terminals shall be ELMEX type suitable for connecting two cores of 2.5 sq.mm wires.

25.0 Cable glands Double compression cable glands for receiving cables.
NOTES FOR LDB SLDB ELDB & ESLDB:

1.0 The LDB, ELDB, SLDB & ESLD shall be metal clad, suitable for 415/240V, 3 phase and neutral.

2.0 The LDB, ELDB, SLDB & ESLD shall be totally enclosed, dust & vermin proof and welded from back and side.

3.0 Enclosure class IP54 & IP 55 (with canopy) for outdoor installation.

4.0 Type of execution Single front, Installation Indoor / Outdoor (with canopy).

5.0 The LDB, ELDB, SLDB & ESLD shall be 2 mm thickness, CRCA Sheet steel.

6.0 The Cable entry - Incomer: Bottom cable entry and Outgoing: Top / Bottom cable entry.

7.0 The LDB, ELDB, SLDB & ESLD shall be One Incomer and outgoings.

8.0 All the components shall be accessible from front.

9.0 Access to the operating handle of the incoming isolating switch shall be from the front of the cubicle without opening the front door.

10.0 Operating knobs of outgoing MCBs shall be accessible only after opening the front door of the cubicle.

11.0 Protective insulated cover plate (3 mm thick Bakelite sheet) shall be provided inside the cubicle to shroud all the live parts.

12.0 Gland plate undrilled detachable gland plates (3 mm thick) shall be provided at the top and bottom with suitable gaskets for cable entry.

13.0 Neoprene rubber gasket shall be provided for all the doors, removable covers & between adjacent Covers, suitable locking devices.

14.0 Doors shall have concealed hinges.

15.0 Labelling Clear legible identification labels (anodized aluminium with white letters engraved on black background) with letter sizes of:

- 5 mm for components and module name plates.

16.0 Danger board on front and rear sides in English, Hindi and local language.

17.0 Earthing two separate earthing terminals will be provided.

18.0 Limiting dimensions:

- Width of SLDB: 800 mm
- Depth of SLDB: 300 mm
- Height of SLDB: 400 mm (min)


20.0 The Busbars Arrangement Three phase & neutral., Material High conductivity electrolytic aluminium alloy confirming to grade E91E as per IS-5082 -1981. Busbar Rating shall be able to carry continuously the connected load (considering all derating factors) plus a 25% margin.

21.0 Isolating Equipment 3 pole ELCB, ELCB shall be of AC 23 duty category conforming to IS: 13947-1993 having fully shrouded contacts.

22.0 1.1Kv grade single core, black colour PVC insulated, stranded copper conductor of minimum size 2.5

23.0 Marking - Wiring will be properly marked as per relevant IS.

24.0 Terminals - Power & control terminals shall be segregated by insulating material like hylam / bakelite sheet, Terminals shall be ELMEX type suitable for connecting two cores of 2.5 sq.mm wires.

25.0 Cable glands Double compression cable glands for receiving cables.
1.0 The LDB, ELDB, SLDB & ESLD shall be metal clad, suitable for 415/240V, 3 phase and neutral.

2.0 The LDB, ELDB, SLDB & ESLD shall be totally enclosed, dust & vermin proof and welded from back and side.

3.0 Enclosure class IP54 & IP 55 (with canopy) for outdoor installation.

4.0 Type of execution Single front, Installation Indoor / Outdoor (with canopy).

5.0 The LDB, ELDB, SLDB & ESLD shall be 2 mm thickness, CRCA Sheet steel.

6.0 The Cable entry - Incomer: - Bottom cable entry and Outgoing: - Top / Bottom cable entry.

7.0 The LDB, ELDB, SLDB & ESLD shall be One Incomer and outgoings.

8.0 All the components shall be accessible from front.

9.0 Access to the operating handle of the incoming isolating switch shall be from the front of the cubicle without opening the front door.

10.0 Operating knobs of outgoing MCBs shall be accessible only after opening the front door of the cubicle.

11.0 Protective insulated cover plate (3 mm thick Bakelite sheet) shall be provided inside the cubicle to shroud all the live parts.

12.0 Gland plate undrilled detachable gland plates (3 mm thick) shall be provided at the top and bottom with suitable gaskets for cable entry.

13.0 Neoprene rubber gasket shall be provided for all the doors, removable covers & between adjacent Covers, suitable locking devices.

14.0 Doors shall have concealed hinges.

15.0 Labelling Clear legible identification labels (anodized aluminium with white letters engraved on black background) with letter sizes of :- 5 mm for components and module name plates.

16.0 Danger board on front and rear sides in English, Hindi and local language.

17.0 Earthing two separate earthing terminals will be provided.

18.0 Limiting dimensions -
   - Width of SLDB: - 800 mm
   - Depth of SLDB: - 300 mm
   - Height of SLDB: - 400 mm (min)


20.0 The Busbars Arrangement Three phase & neutral., Material High conductivity electrolytic aluminium alloy confirming to grade E91E as per IS-5082 -1981.

21.0 Isolating Equipment 3 pole ELCB, ELCB shall be of AC 23 duty category conforming to IS: 13947-1993 having fully shrouded contacts.

22.0 1.1Kv grade single core, black colour PVC insulated, stranded copper conductor of minimum size 2.5

23.0 Marking - Wiring will be properly marked as per relevant IS.

24.0 Terminals - Power & control terminals shall be segregated by insulating material like hylam / bakelite sheet, Terminals shall be ELMEX type suitable for connecting two cores of 2.5 sq.mm wires.

25.0 Cable glands Double compression cable glands for receiving cables.
1.0 The LDB, ELDB, SLDB & ESLD shall be metal clad, suitable for 415/240V, 3 phase and neutral.

2.0 The LDB, ELDB, SLDB & ESLD shall be totally enclosed, dust & vermin proof and welded from back and side.

3.0 Enclosure class IP54 & IP 55 (with canopy) for outdoor installation.

4.0 Type of execution Single front, Installation Indoor / Outdoor (with canopy).

5.0 The LDB, ELDB, SLDB & ESLD shall be 2 mm thickness, CRCA Sheet steel.

6.0 The Cable entry - Incomer: - Bottom cable entry and Outgoing: - Top / Bottom cable entry.

7.0 The LDB, ELDB, SLDB & ESLD shall be One Incomer and outgoings.

8.0 All the components shall be accessible from front.

9.0 Access to the operating handle of the incoming isolating switch shall be from the front of the cubicle without opening the front door.

10.0 Operating knobs of outgoing MCBs shall be accessible only after opening the front door of the cubicle.

11.0 Protective insulated cover plate (3 mm thick Bakelite sheet) shall be provided inside the cubicle to shroud all the live parts.

12.0 Gland plate undrilled detachable gland plates (3 mm thick) shall be provided at the top and bottom with suitable gaskets for cable entry.

13.0 Neoprene rubber gasket shall be provided for all the doors, removable covers & between adjacent Covers, suitable locking devices.

14.0 Doors shall have concealed hinges.

15.0 Labelling Clear legible identification labels (anodized aluminium with white letters engraved on black background) with letter sizes of: 5 mm for components and module name plates.

16.0 Danger board on front and rear sides in English, Hindi and local language.

17.0 Earthing two separate earthing terminals will be provided.

18.0 Limiting dimensions - Width of SLDB: - 800 mm
   - Depth of SLDB: - 300 mm
   - Height of SLDB: - 400 mm (min)


20.0 The Busbars Arrangement Three phase & neutral., Material High conductivity electrolytic aluminium alloy confirming to grade E91E as per IS-5082 -1981. Busbar Rating shall be able to carry continuously the connected load (considering all derating factors) plus a 25% margin.

21.0 Isolating Equipment 3 pole ELCB, ELCB shall be of AC 23 duty category conforming to IS: 13947-1993 having fully shrouded contacts.

22.0 1.1Kv grade single core, black colour PVC insulated, stranded copper conductor of minimum size 2.5

23.0 Marking - Wiring will be properly marked as per relevant IS.

24.0 Terminals - Power & control terminals shall be segregated by insulating material like hylam / bakelite sheet, Terminals shall be ELMEX type suitable for connecting two cores of 2.5 sq.mm wires.

25.0 Cable glands Double compression cable glands for receiving cables.

FOR TENDER PURPOSE ONLY
DRAWING TO BE READ IN CONJUNCTION WITH TS/GTS.
NOTES FOR LDB SLDB ELDB & ESLDB:

1.0 The LDB, ELDB, SLDB & ESLD shall be metal clad, suitable for 415/240V, 3 phase and neutral.

2.0 The LDB, ELDB, SLDB & ESLD shall be totally enclosed, dust & vermin proof and welded from back and side.

3.0 Enclosure class IP54 & IP 55 (with canopy) for outdoor installation.

4.0 Type of execution Single front, Installation Indoor / Outdoor (with canopy).

5.0 The LDB, ELDB, SLDB & ESLD shall be 2 mm thickness, CRCA Sheet steel.

6.0 The Cable entry - Incomer: - Bottom cable entry and Outgoing: - Top / Bottom cable entry.

7.0 The LDB, ELDB, SLDB & ESLD shall be One Incomer and outgoings.

8.0 All the components shall be accessible from front.

9.0 Access to the operating handle of the incoming isolating switch shall be from the front of the cubicle without opening the front door.

10.0 Operating knobs of outgoing MCBs shall be accessible only after opening the front door of the cubicle.

11.0 Protective insulated cover plate (3 mm thick Bakelite sheet) shall be provided inside the cubicle to shroud all the live parts.

12.0 Gland plate undrilled detachable gland plates (3 mm thick) shall be provided at the top and bottom with suitable gaskets for cable entry.

13.0 Neoprene rubber gasket shall be provided for all the doors, removable covers & between adjacent Covers, suitable locking devices.

14.0 Doors shall have concealed hinges.

15.0 Labelling Clear legible identification labels (anodized aluminium with white letters engraved on black background) with letter sizes of :- 5 mm for components and module name plates.

16.0 Danger board on front and rear sides in English, Hindi and local language.

17.0 Earthing two separate earthing terminals will be provided.

18.0 Limiting dimensions - Width of SLDB: - 800 mm
   - Depth of SLDB: - 300 mm
   - Height of SLDB: - 400 mm (min)


20.0 The Busbars Arrangement Three phase & neutral., Material High conductivity electrolytic aluminium alloy confirming to grade E91E as per IS-5082-1981. Busbar Rating shall be able to carry continuously the connected load (considering all derating factors) plus a 25% margin.

21.0 Isolating Equipment 3 pole ELCB, ELCB shall be of AC 23 duty category conforming to IS: 13947-1993 having fully shrouded contacts.

22.0 1.1Kv grade single core, black colour PVC insulated, stranded copper conductor of minimum size 2.5.

23.0 Marking - Wiring will be properly marked as per relevant IS.

24.0 Terminals - Power & control terminals shall be segregated by insulating material like hylam / bakelite sheet, Terminals shall be ELMEX type suitable for connecting two cores of 2.5 sq.mm wires.

25.0 Cable glands Double compression cable glands for receiving cables.

FOR TENDER PURPOSE ONLY
DRAWING TO BE READ IN CONJUNCTION WITH TS/GTS.
7.0 MTPA EXPANSION
MECON LIMITED
BHILAI STEEL PLANT, BHILAI, CHHATTISGARH

NOTES FOR LDB SLDB ELDB & ESLDB:

1.0 The LDB, ELDB, SLDB & ESLD shall be metal clad, suitable for 415/240V, 3 phase and neutral.

2.0 The LDB, ELDB, SLDB & ESLD shall be totally enclosed, dust & vermin proof and welded from back and side.

3.0 Enclosure class IP54 & IP 55 (with canopy) for outdoor installation.

4.0 Type of execution Single front, Installation Indoor / Outdoor (with canopy).

5.0 The LDB, ELDB, SLDB & ESLD shall be 2 mm thickness, CRCA Sheet steel.

6.0 Cable entry - Incomer: Bottom cable entry and Outgoing: Top / Bottom cable entry.

7.0 The LDB, ELDB, SLDB & ESLD shall be One Incomer and outgoings.

8.0 All the components shall be accessible from front.

9.0 Access to the operating handle of the incoming isolating switch shall be from the front of the cubicle without opening the front door.

10.0 Operating knobs of outgoing MCBs shall be accessible only after opening the front door of the cubicle.

11.0 Protective insulated cover plate (3 mm thick Bakelite sheet) shall be provided inside the cubicle to shroud all the live parts.

12.0 Gland plate undrilled detachable gland plates (3 mm thick) shall be provided at the top and bottom with suitable gaskets for cable entry.

13.0 Neoprene rubber gasket shall be provided for all the doors, removable covers & between adjacent Covers, suitable locking devices.

14.0 Doors shall have concealed hinges.

15.0 Labelling Clear legible identification labels (anodized aluminium with white letters engraved on black background) with letter sizes of:

- 5 mm for components and module name plates.

16.0 Danger board on front and rear sides in English, Hindi and local language.

17.0 Earthing two separate earthing terminals will be provided.

18.0 Limiting dimensions:

- Width of SLDB: 800 mm
- Depth of SLDB: 300 mm
- Height of SLDB: 400 mm (min)


20.0 The Busbars Arrangement Three phase & neutral, Material High conductivity electrolytic aluminium alloy confirming to grade E91E as per IS-5082-1981. Busbar Rating shall be able to carry continuously the connected load (considering all derating factors) plus a 25% margin

21.0 Isolating Equipment 3 pole ELCB, ELCB shall be of AC 23 duty category conforming to IS: 13947-1993 having fully shrouded contacts.

22.0 1.1Kv grade single core, black colour PVC insulated, stranded copper conductor of minimum size 2.5

23.0 Marking - Wiring will be properly marked as per relevant IS.

24.0 Terminals - Power & control terminals shall be segregated by insulating material like hylam / bakelite sheet, Terminals shall be ELMEX type suitable for connecting two cores of 2.5 sq.mm wires.

25.0 Cable glands Double compression cable glands for receiving cables.

FOR TENDER PURPOSE ONLY
DRAWING TO BE READ IN CONJUNCTION WITH TS/GTS.
1. The LDB, ELDB, SLDB & ESLD shall be metal clad, suitable for 415/240V, 3 phase and neutral.
2. The LDB, ELDB, SLDB & ESLD shall be totally enclosed, dust & vermin proof and welded from back and side.
3. Enclosure class IP54 & IP 55 (with canopy) for outdoor installation.
4. Type of execution Single front, Installation Indoor / Outdoor (with canopy).
5. The LDB, ELDB, SLDB & ESLD shall be 2 mm thickness, CRCA Sheet steel.
6. The Cable entry - Incomer: - Bottom cable entry and Outgoing: - Top / Bottom cable entry.
7. The LDB, ELDB, SLDB & ESLD shall be One Incomer and outgoings.
8. All the components shall be accessible from front.
9. Access to the operating handle of the incoming isolating switch shall be from the front of the cubicle without opening the front door.
10. Operating knobs of outgoing MCBs shall be accessible only after opening the front door of the cubicle.
11. Protective insulated cover plate (3 mm thick Bakelite sheet) shall be provided inside the cubicle to shroud all the live parts.
12. Gland plate undrilled detachable gland plates (3 mm thick) shall be provided at the top and bottom with suitable gaskets for cable entry.
13. Neoprene rubber gasket shall be provided for all the doors, removable covers & between adjacent Covers, suitable locking devices.
14. Doors shall have concealed hinges.
15. Labelling Clear legible identification labels (anodized aluminium with white letters engraved on black background) with letter sizes of:
   - 5 mm for components and module name plates.
16. Danger board on front and rear sides in English, Hindi and local language.
17. Earthing two separate earthing terminals will be provided.
18. Limiting dimensions:
   - Width of SLDB: - 800 mm
   - Depth of SLDB: - 300 mm
   - Height of SLDB: - 400 mm (min)
20. The Busbars Arrangement Three phase & neutral.
21. Material High conductivity electrolytic aluminium alloy confirming to grade E91E as per IS-5082-1981. Busbar Rating shall be able to carry continuously the connected load (considering all derating factors) plus a 25% margin.
22. Isolating Equipment 3 pole ELCB, ELCB shall be of AC 23 duty category conforming to IS: 13947-1993 having fully shrouded contacts.
23. Marking - Wiring will be properly marked as per relevant IS.
24. Terminals - Power & control terminals shall be segregated by insulating material like hylam / bakelite sheet, Terminals shall be ELMEX type suitable for connecting two cores of 2.5 sq.mm wires.
NOTES FOR LDB SLDB ELDB & ESLDB:

1.0 The LDB, ELDB, SLDB & ESLD shall be metal clad, suitable for 415/240V, 3 phase and neutral.

2.0 The LDB, ELDB, SLDB & ESLD shall be totally enclosed, dust & vermin proof and welded from back and side.

3.0 Enclosure class IP54 & IP 55 (with canopy) for outdoor installation.

4.0 Type of execution Single front, Installation Indoor / Outdoor (with canopy).

5.0 The LDB, ELDB, SLDB & ESLD shall be 2 mm thickness, CRCA Sheet steel.

6.0 The Cable entry: Incomer: - Bottom cable entry and Outgoing: - Top / Bottom cable entry.

7.0 The LDB, ELDB, SLDB & ESLD shall be One Incomer and outgoings.

8.0 All the components shall be accessible from front.

9.0 Access to the operating handle of the incoming isolating switch shall be from the front of the cubicle without opening the front door.

10.0 Operating knobs of outgoing MCBs shall be accessible only after opening the front door of the cubicle.

11.0 Protective insulated cover plate (3 mm thick Bakelite sheet) shall be provided inside the cubicle to shroud all the live parts.

12.0 Gland plate undrilled detachable gland plates (3 mm thick) shall be provided at the top and bottom with suitable gaskets for cable entry.

13.0 Neoprene rubber gasket shall be provided for all the doors, removable covers & between adjacent Covers, suitable locking devices.

14.0 Doors shall have concealed hinges.

15.0 Labelling Clear legible identification labels (anodized aluminium with white letters engraved on black background) with letter sizes of:
   - 5 mm for components and module name plates.

16.0 Danger board on front and rear sides in English, Hindi and local language.

17.0 Earthing two separate earthing terminals will be provided.

18.0 Limiting dimensions:
   - Width of SLDB: - 800 mm
   - Depth of SLDB: - 300 mm
   - Height of SLDB: - 400 mm (min)


20.0 The Busbars Arrangement Three phase & neutral., Material High conductivity electrolytic aluminium alloy confirming to grade E91E as per IS-5082-1981. Busbar Rating shall be able to carry continuously the connected load (considering all derating factors) plus a 25% margin.

21.0 Isolating Equipment 3 pole ELCB, ELCB shall be of AC 23 duty category conforming to IS: 13947-1993 having fully shrouded contacts.

22.0 1.1Kv grade single core, black colour PVC insulated, stranded copper conductor of minimum size 2.5

23.0 Marking - Wiring will be properly marked as per relevant IS.

24.0 Terminals - Power & control terminals shall be segregated by insulating material like hylam / bakelite sheet, Terminals shall be ELMEX type suitable for connecting two cores of 2.5 sq.mm wires.

25.0 Cable glands Double compression cable glands for receiving cables.

FOR TENDER PURPOSE ONLY
DRAWING TO BE READ IN CONJUNCTION WITH TS/GTS.
1.0 The LDB, ELDB, SLDB & ESLD shall be metal clad, suitable for 415/240V, 3 phase and neutral.

2.0 The LDB, ELDB, SLDB & ESLD shall be totally enclosed, dust & vermin proof and welded from back and side.

3.0 Enclosure class IP54 & IP 55 (with canopy) for outdoor installation.

4.0 Type of execution Single front, Installation Indoor / Outdoor (with canopy).

5.0 The LDB, ELDB, SLDB & ESLD shall be 2 mm thickness, CRCA Sheet steel.

6.0 The Cable entry - Incomer: Bottom cable entry and Outgoing: Top / Bottom cable entry.

7.0 The LDB, ELDB, SLDB & ESLD shall be One Incomer and outgoings.

8.0 All the components shall be accessible from front.

9.0 Access to the operating handle of the incoming isolating switch shall be from the front of the cubicle without opening the front door.

10.0 Operating knobs of outgoing MCBs shall be accessible only after opening the front door of the cubicle.

11.0 Protective insulated cover plate (3 mm thick Bakelite sheet) shall be provided inside the cubicle to shroud all the live parts.

12.0 Gland plate undrilled detachable gland plates (3 mm thick) shall be provided at the top and bottom with suitable gaskets for cable entry.

13.0 Neoprene rubber gasket shall be provided for all the doors, removable covers & between adjacent Covers, suitable locking devices.

14.0 Doors shall have concealed hinges.

15.0 Labelling Clear legible identification labels (anodized aluminium with white letters engraved on black background) with letter sizes of:

   5 mm for components and module name plates.

16.0 Danger board on front and rear sides in English, Hindi and local language.

17.0 Earthing two separate earthing terminals will be provided.

18.0 Limiting dimensions:
   - Width of SLDB: - 800 mm
   - Depth of SLDB: - 300 mm
   - Height of SLDB: - 400 mm (min)


20.0 The Busbars Arrangement Three phase & neutral., Material High conductivity electrolytic aluminium alloy confirming to grade E91E as per IS-5082 -1981. Busbar Rating shall be able to carry continuously the connected load (considering all derating factors) plus a 25% margin.

21.0 Isolating Equipment 3 pole ELCB, ELCB shall be of AC 23 duty category conforming to IS: 13947-1993 having fully shrouded contacts.

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