



ITER-India, Institute for Plasma Research

Block A, Sangath SKYZ, Bhat- Motera Road, Koteshwar, Ahmedabad 380005 Gujarat,India.

www.iter-india.org

Email: ecrh.group@iter-india.org

Minor Fabrication Work

ENQUIRY - LOCAL

OFFICE COPY ENQUIRY NO : Enq/MF/3/ECRH
Date : 09/07/2021
Due Date : 20/07/2021 by 5:00 PM (IST)

We invite your rate/s for the following item/s. The Instructions to bidders and Terms & Conditions are attached herewith.

Important Note :

1. Quote with complete technical details.
2. Any clarification on this enquiry may be sought from ecrh.group@iter-india.org

Sr No.	Material Description	Quantity	Unit
1	Distribution Board 1	1	NOS
2	Distribution Board 2	1	NOS
3	Distribution Board 3	1	NOS
4	Supply & Laying of Perforated FRP Cable trays for 35m as per layout	1	SET
5	Laying & Termination of LV Cables in Cable trays per layout	1	SET

Note:

- (1) Bids in sealed envelope superscribed with Enquiry No., Date & Due Date should be submitted to "The Project Manager, ECRH, ITER-India" otherwise offer will be rejected.
- (2) Quotations in hard copy should be addressed to The Project Manager, ECRH Group, only at above address. Email quotations are not acceptable
- (3) Refer the the attachment for Detailed Scope of work & Technical Specifications
- (4) Required completion period is within FOUR Weeks from the date of order. Vendor must specify the completion period in the quotation.
- (5) Site to be visited and details to be entered as per Annexure 3 & to be submitted along with offer. Bidder can contact Mr. E. Sharan Dilip (M) 09705798798 before visiting the site.

Encl:- as above

Project Manager
(S. Laxmikant Rao)
ECRH
ITER-India

Note: This Enquiry is electronically generated and no signature is required.

TERMS AND CONDITIONS

1. The quotation and any order resulting from this enquiry shall be governed by our Conditions of Order and supplier quoting against this enquiry shall be deemed to have read and understood the same in total
2. Where counter terms and conditions have been offered by the Tenderer, the same shall not be deemed to have been accepted by ITER-India unless our specific written acceptance thereof is obtained.
3. Quotation: Your quotation superscripting our enquiry No., date, due date and brief description of item should be submitted in sealed envelope on or before the due date. Late/Delayed/incomplete quotations will not be considered. Envelopes received without Enquiry number, date, due date and brief description of item may be rejected.
4. The quoted prices should be firm for a period of 30 days from due date of bid submission. ITER-India is not bound to accept lowest rate/s. Bidder shall submit the price bid/offer on Bidder's letter head with official seal and sign on each page.
5. The bid documents shall be prepared in English language only
6. All pages of the bid documents shall be numbered. Each page of the bid document shall be stamped and initialized.
7. In the event of any date indicated above is a declared Holiday, the next working day with the same time limit shall become operative for the respective purpose mentioned herein
8. In case of deviation in payment terms including demand of advance other than specified in payment schedule and accepted by ITER-India, prevailing Prime Lending Rate (PLR) of SBI will be loaded for price comparison purpose
9. ITER-India and their authorized representatives may visit the Contractor/Sub-contractors if required as part of technical evaluation process
10. ITER-India reserves the right to place order on one or more parties.
11. Specifications: Material should be offered strictly conforming to our specifications/drawings, if any. Deviation, if any, should be clearly indicated by the supplier in their quotation. The Tenderer should also indicate the Make/Type number of the materials offered and catalogues, technical literature and samples, wherever necessary should accompany the quotation. Clarification/s on specifications/drawings should be obtained from Purchaser before submitting quotation.
12. Terms of Prices : Quotation should be submitted on door delivery basis, duly packed without extra charge wherever possible.
13. Unit rate/s should be valid throughout the validity of Purchase Order for addition/deletion purposes. Break-up of price should be furnished. The quoted price should not be subject to price escalation for whatsoever reasons. The quoted price shall be firm, fixed and non-revisable during the validity/ extended validity of Purchase Order.
14. Prices are required to be quoted according to the units indicated in the tender form/Enquiry. When Quotations are given in terms of units other than those specified in the tender form, relationship between the two sets of units must be furnished.
15. Tender should be free from Correction and Erasures. Corrections, if any, must be attested. All amounts shall be indicated both in words as well as in figures. Where there is difference between amounts quoted in words and figures, amount quoted in words shall prevail. Unsigned quotations will summarily be rejected.
16. ITER-India shall be under no obligation to accept the lowest or any tender and reserves the right of acceptance of the whole or any part of the tender or portion of the quantity offered and the tenderers shall supply the same at the rates quoted. ITER-India also reserves the right to split the order at its sole discretion
17. Delivery Date/Period: Delivery period is essence of the Order. Supplier must indicate the firm delivery date by which the materials will be dispatched / delivered by them from the date of our order.
18. Inspection: Materials on its arrival at ITER-India will be inspected by our Engineer/Stores In-Charge, and his decision in the matter will be final. However, where the items are required to be inspected at the Suppliers Premises, Supplier has to give advance notice to the Purchaser regarding readiness of the material to enable Purchase/Stores section to depute his representative for inspection.
19. Payment: Payment will be arranged for accepted materials only within 30 days from the date of acceptance of materials at ITER-India and receipt of error free bills in our accounts section, complete in all respects.
20. No correspondence will be entertained within 30 days from the date of receipt of material and bills, whichever is later.
21. Warranty: The Stores/Items offered should be guaranteed for a minimum period of twelve months from the date of acceptance, against defective materials, design, workmanship, operation or manufacture. For defects noticed and communicated during the Guarantee period, replacement/rectification should be arranged free of cost within a reasonable period of such notification. In case where our specifications call for a guarantee period more than 12 months specifically, then such a period shall apply.
22. The Contractor/Supplier shall at all times indemnify the purchaser against all claims which may be made in respect of the stores for infringement of any right protected by Patent, Registration of design or Trade Mark and shall take all risk of accidents or damage, which may cause failure of supply from whatever cause arising and the entire responsibility for sufficiency of all means used by him for the fulfillment of the Order.
23. Successful tenderer will have to furnish in the form a Bank Guarantee or in Indemnity Bond form as called for by the Purchaser towards adequate security for the materials/property provided/issued by the Purchaser as Free Issue Material for the due execution of the Order. Insurance for the Free Issue Material shall be arranged by the Supplier/Contractor at his risk and cost.
24. Non-compliance to tender specifications and/or tender scope and/or tender terms and conditions are liable for rejection. Decision of ITER-India in respect of non-compliance shall be final and binding on the bidders.
25. Canvassing in any form with regard to this tender will lead to rejection of the bid.
26. The Project Director, ITER-India reserves the right to accept or reject any quotations fully or partly or to cancel the enquiry without assigning any reasons.
27. This enquiry is not a commitment and the Purchaser reserves the right to reject or cancel any or all offers.
28. Jurisdiction: The Order shall be governed by the Laws of India for the time being in force. The Courts of Ahmedabad/Gandhinagar only shall have jurisdiction to deal with and decide any legal or dispute arising out of this Order.
29. Unsuccessful bidders will not be intimated about the results of the enquiry/tender.
30. Purchase will not be responsible for payment of any interest to the Supplier, in case of delay in releasing payment.
31. The price evaluation shall be carried out on Landed price including taxes, duties and all other applicable charges.

FORMAT FOR SUBMISSION OF QUOTATION

Enquiry No. : Enq/MF/3/ECRH
Name Of Party : OFFICE COPY
Quotation No. & Date :
Due on : 20/07/2021 by 5:00 PM (IST)

Sr No.	Material Description	Qty	Unit	Rate	Total
1	Distribution Board 1	1	NOS		
2	Distribution Board 2	1	NOS		
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4	Supply & Laying of Perforated FRP Cable trays for 35m as per layout	1	SET		
5	Laying & Termination of LV Cables in Cable trays per layout	1	SET		
				Grand Total	

COMMERCIAL TERMS & CONDITIONS *

Sr.No	Description	Bidder's Compliance [Comply Yes/No (In case of No Please provide details)]
1	Validity Period (Refer Sr.No. 4 Of Terms and Condition)	
2	Warranty (Refer Sr.No. 21 Of Terms and Condition)	
3	GST No. (To Specify)	
4	Udhyog Aadhar No. & Category (Micro/Small/Medium Enterprise)	
5	Discount(if any)	
6	HSN/ SAC Code (To specify)	
7	GST Extra (Specify)	
8	Delivery Basis: Free Door Delivery	
9	Work Completion period which is FOUR (4) weeks from date of work order.	
10	Payment: Payment will be arranged after the inspection & final acceptance of the works carried-out by the contractor, within 30 days from the date of final acceptance by ITER-India and receipt of error free bills, complete in all respects.	

* Fill in the applicable details

Place:

Authorised Signatory:

Date:

Company Seal



SUPPLY, INSTALLATION & COMMISSIONING OF ELECTRICAL DBS & CABLING WORKS AT ITER-INDIA-ECRH LABORATORY

[Document subtitle]



JUNE 30, 2021
ECRH, ITER-INDIA
[Company address]

Contents

1. Scope of Work.....	2
1.1 Design, Fabrication, Supply, Installation & commissioning of the Electrical DBs.....	2
1.1.1 Single Line Diagram of DB-1 (Electrical DB).....	3
1.1.2 Single Line Diagram of DB-2 (Mechanical DB).....	3
1.1.3 Single Line Diagram of UPS DB.....	4
1.2 Laying of FRP/GRP Cable Trays as per the layout provided.	6
1.3 Laying of LV Cables 4C & 2C XLPE Insulated PVC Shielded Cables	7
2. Important Notes on scope of work	9
3. Precautions that must be followed during the work in Site.....	9
4. Work completion Schedule	9
5. Final Acceptance Criteria.....	10
6. Work Location:.....	10
7. Site Visit:.....	10
8. Bid Submission:	10

1. Scope of Work

1.1 Design, Fabrication, Supply, Installation & commissioning of the Electrical DBs

- A. The vendor should carry out Design and Fabrication of Electrical Distribution Boards/Panels as per specifications & SLD.
- B. The vendor should prepare & submit the GA drawings for ITER-India review & Approval.
- C. The DBs/Panels should be of metal clad enclosed and to be fabricated out of high quality CRCA sheet with thickness not less than 2.5mm or more as per IS-513, free-standing compartmentalized, modular type and shall be dust and vermin proof.
- D. The structural strength of the panel shall be such as to withstand its ultimate mechanical load (including all the individual units mounted in it) without any deformity to panel. The base of panel shall ensure proper loading on MS Channels which can withstand the whole load of the panel without any failure, and those shall be of heavy duty.
- E. Lifting facilities shall be provided by removable eyebolt, located at the top of the Panel for ease of transportation.
- F. All the sharp edges of the Panel should be rounded/ chamfered off. All types of screws, nuts, bolts and washers used in the assembly must be of zinc passivated type.
- G. The Panel and associated parts should be painted by surface coating comprising pre-treatment, Electrostatic Powder Spraying & curing.
- H. The mounting main incomer MCCB & feeder MCBs should have sufficient space for cable termination.
- I. The cable & busbar alley & should have sufficient space for cable termination & clear identification.
- J. The Panel shall be coated using Siemens Grey shade (RAL 7032) with a coarse texture.
- K. The Panel shall be fully covered except for cable gland plates on top & bottom sides.
- L. The Panel should have Multi-function meter having feature to display Voltage, Current, Power (kVA, KW & kVAR) of all phases and should have indicative pilot lamps for incoming phases with respective colors.
- M. The vendor shall inform the fabrication process & inspection dates well in advance to the ITER-India.
- N. ITER-India representative at his/her discretion may visit the workshop during fabrications & may suggest corrections if any. And Inspection and testing will be carried out by ITER-India representative, if needed.
- O. The vendor should carry out Installation and Commissioning of the tested panels at ECRH, ITER-India, at Institute for Plasma Research, Gandhinagar Campus.
- P. Electrical & UPS DBs are of wall mounting type while the mechanical DB is of floor mounting type.
- Q. The mechanical DBs is to be mounted on 600mm of support structure of appropriate channel sizes are under the scope of supply.

1.1.1 Single Line Diagram of DB-1 (Electrical DB)

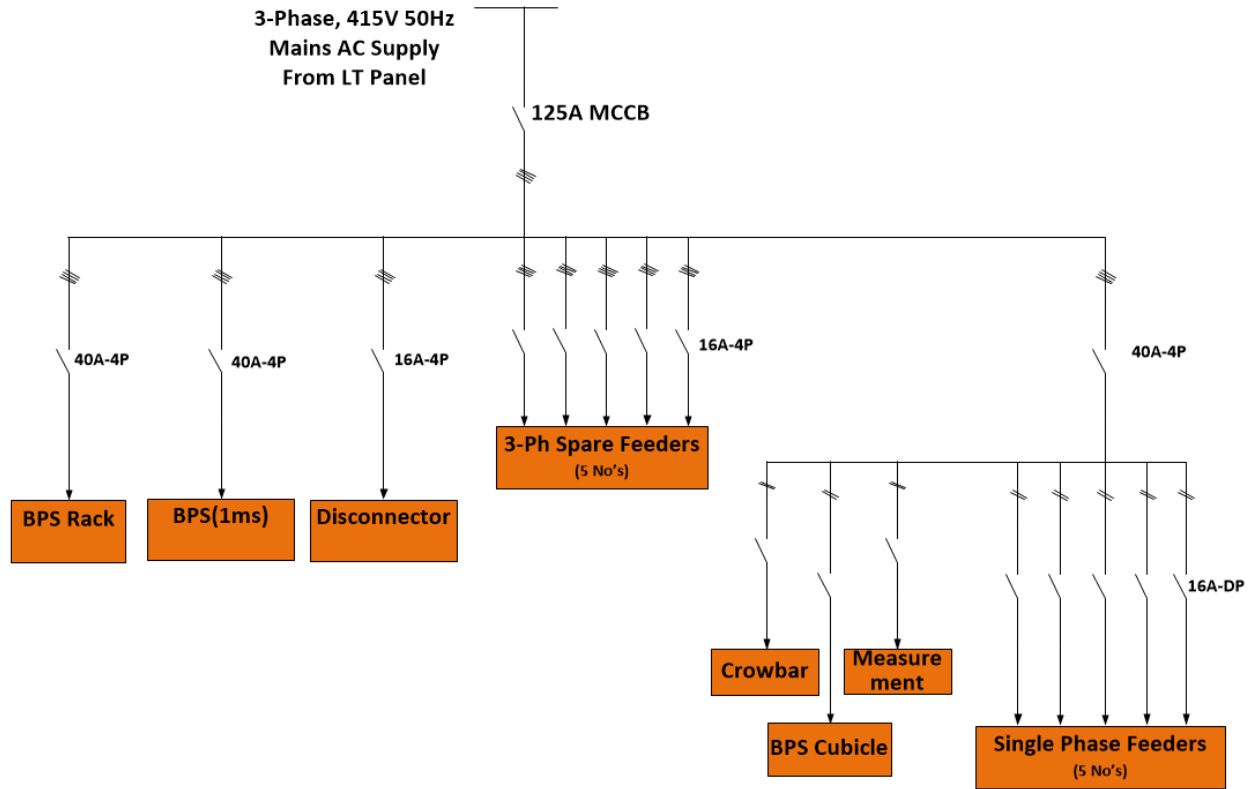


Figure 1 Electrical DB (DB-1) Single Line Diagram

1.1.2 Single Line Diagram of DB-2 (Mechanical DB)

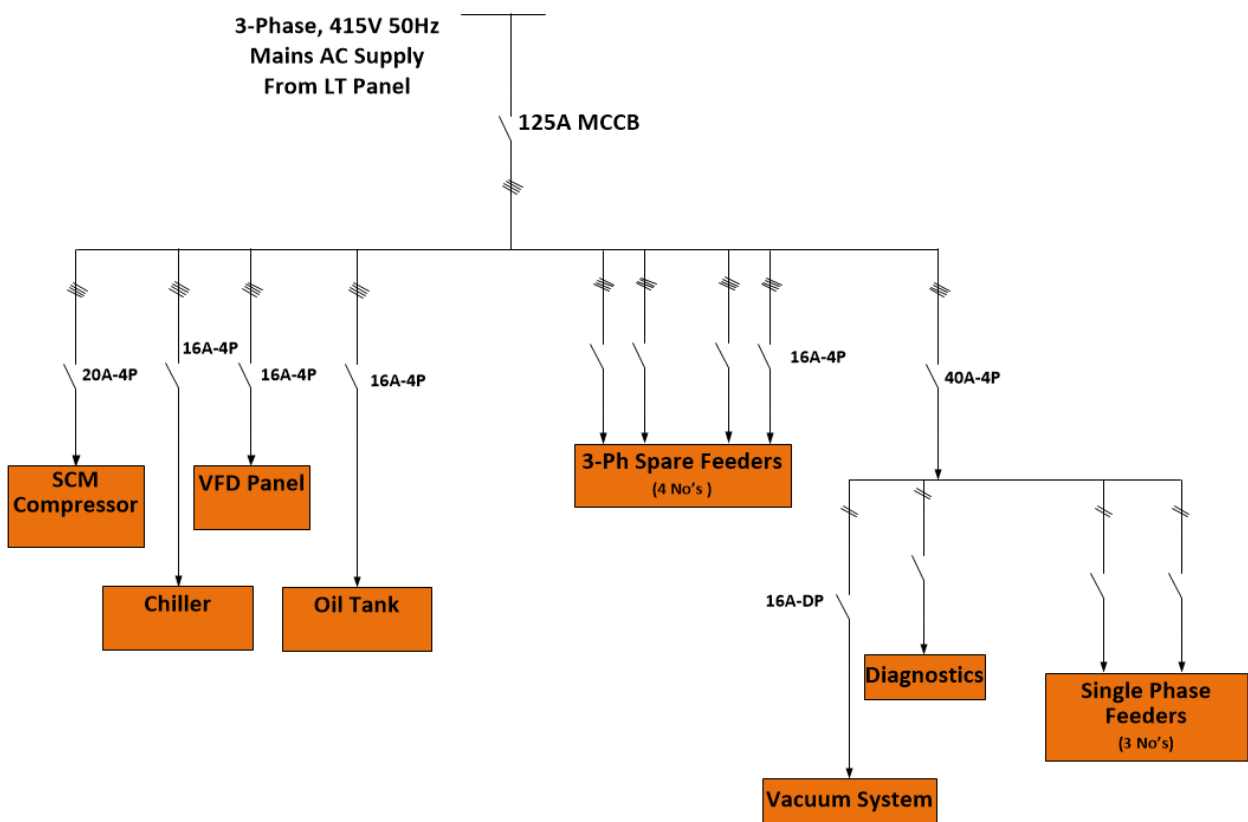


Figure 2 Mechanical DB (DB-2) Single Line Diagram

1.1.3 Single Line Diagram of UPS DB

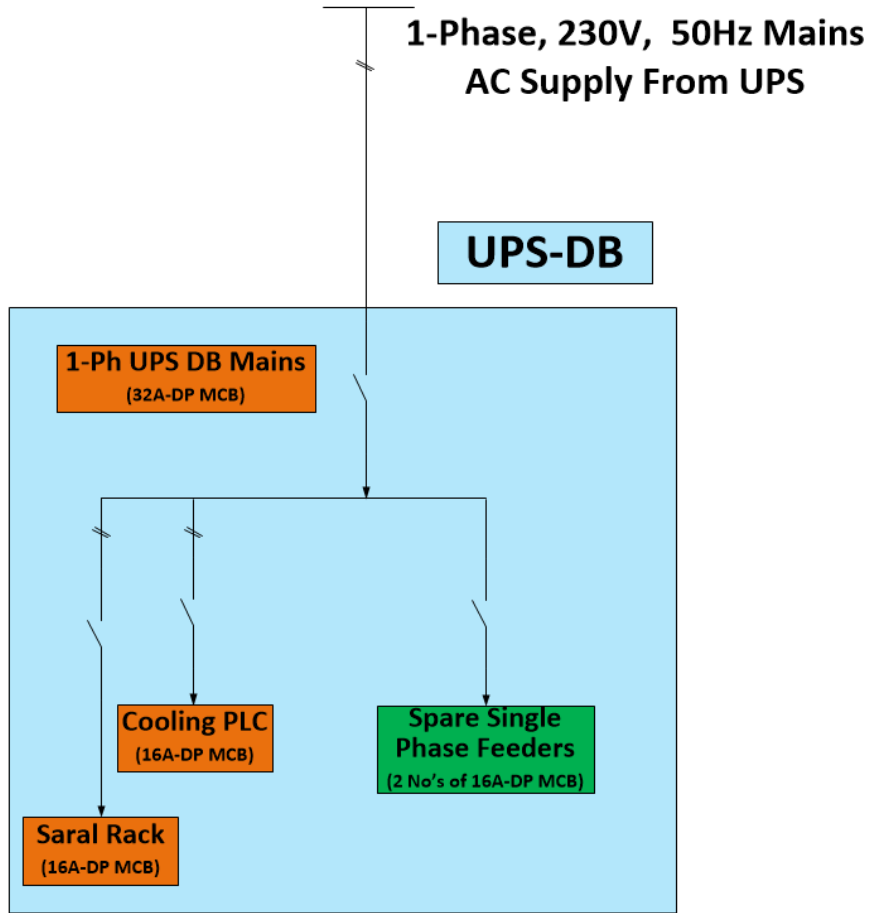


Figure 3 UPS (DB-3) Single Line Diagram

1.2 Laying of FRP/GRP Cable Trays as per the layout provided.

- A. Procuring perforated FRP/GRP Cable Trays of 150mm x 100mm x 3mm with cover, for the length of 35m.
- B. The colour of FRP/GRP tray shall be of gray colour to match the existing cable trays.
- C. Size of perforations size shall be nominal to avoid the entry of rodents & other dust.
- D. Cutting & preparing the cable tray supports / brackets made of non-magnetic materials such as SS / FRP / GRP etc.,
- E. Support angles shall be adequate to accommodate the weight of cables trays & cables combined used to mount the cable trays on the floor (raised floor brackets) & wall respectively.
- F. Affixing of the cable tray supports & installing the cable trays on the cable tray supports with appropriate clamping measures.
- G. Route#1 has path on only floor, while Route#2 has path on both floor & wall.
- H. Affixing of the cable tray top covers.
- I. Clearing the site area post the completion of the work.

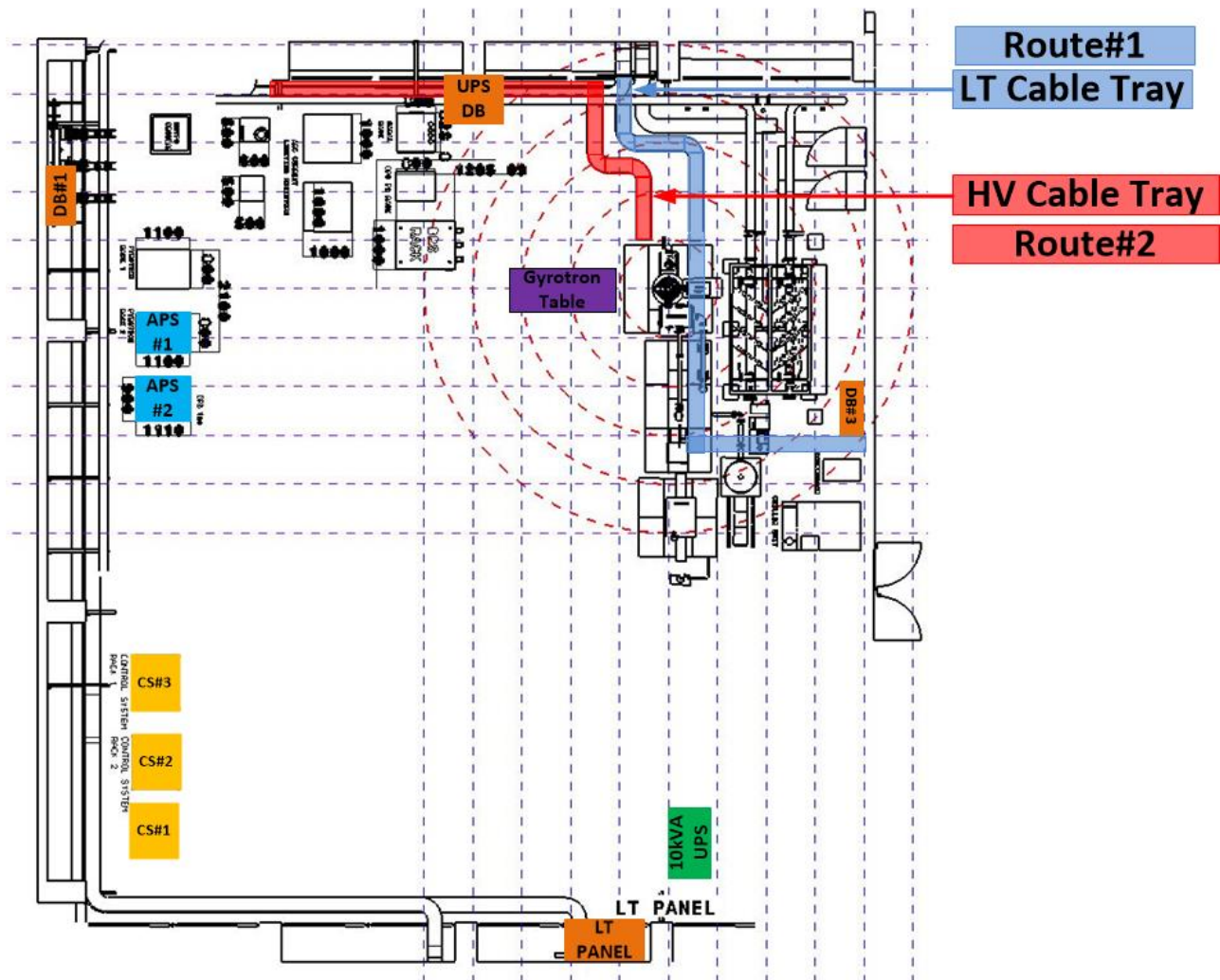


Figure 5 Cable Tray routes



Figure 6 Example Image of Cable Tray with Cover

1.3 Laying of LV Cables 4C & 2C XLPE Insulated PVC Shielded Cables

- A. ITER-India will provide following Free Issue Material (FIM) only during the execution period, other materials such as tools, jigs, accessories etc., are to be arranged by the contractor.
 - i. 4C-25 mm² XLPE Insulated PVC Shielded Cables
 - ii. 2C-25 mm² XLPE Insulated PVC Shielded Cables
 - iii. 1C-300 mm²PVC Insulated Cables
 - iv. 1C-10 mm²PVC Insulated Cables
- B. Unwinding of Copper cable from the cable drum.
- C. Cutting & preparing the cables as per the feeder schedule mentioned below.
- D. Removal of the cable tray top covers for laying the cable.
- E. Laying of the prepared feeder cables in to the installed cable trays.
- F. Tagging of the each cable at both ends as per the feeder schedule.
- G. Suitable PVC glands for the panel entry points.
- H. Preparation of the cable terminations on both ends with proper size of copper lugs.
- I. Cables must be laid neatly with clamping/bunching at regular intervals throughout the cable tray.
- J. Cables must be laid neatly & aesthetic manner.
- K. Affixing of the cable tray top covers.
- L. Clearing the site area post the completion of the work.

Schedule of Feeders for 3-Ph 415V Supply

S.No	Name of Feeder	Cable Size	Starting Point	Ending Point	Approx. Length
1.	APS Rack#1 Feeder	4C-25 mm ²	LT Panel	APS #1	29m+7m
2.	APS Rack#2 Feeder	4C-25 mm ²	LT Panel	APS #2	28m+7m
3.	Elec. Utilities Feeder	4C-25 mm ²	LT Panel	DB#1	31m+7m
4.	Mech. Utilities Feeder	4C-25 mm ²	LT Panel	DB#2	35m+7m

Schedule of 2C-25.0 mm² Auxiliary Power Supply Cables

S.No	Name of Feeder	Cable Size	Starting Point	Ending Point	Total Length
1.	UPS O/G Feeder#1	3C-6 mm ²	UPS	CS Rack#1	20m+7m
2.	UPS O/G Feeder#2	3C-6 mm ²	UPS	CS Rack#2	20m+7m

3.	UPS O/G Feeder#2	3C-6 mm ²	UPS	CS Rack#3	20m+7m
4.	UPS O/G Feeder#3	2C-25 mm ²	UPS	UPS DB	45m+7m
5.	CCPS-Swp Feeder	2C-25 mm ²	APS #2	Gyrotron Table	20m+7m
6.	FPS Feeder	2C-25 mm ²	APS #2	FPS Transformer	11.5m+7m
7.	GCPS Feeder	2C-25 mm ²	APS #1	Gyrotron Table	21m+7m
8.	CCPS-DC Feeder	2C-25 mm ²	APS #1	Gyrotron Table	21m+7m
9.	SCMPS (Double run)	1C-300 mm ²	Gyrotron Table	21m+7m	
10.	Earthing Cable	1C-10 mm ²	Throughout the LV Cable Tray		150m

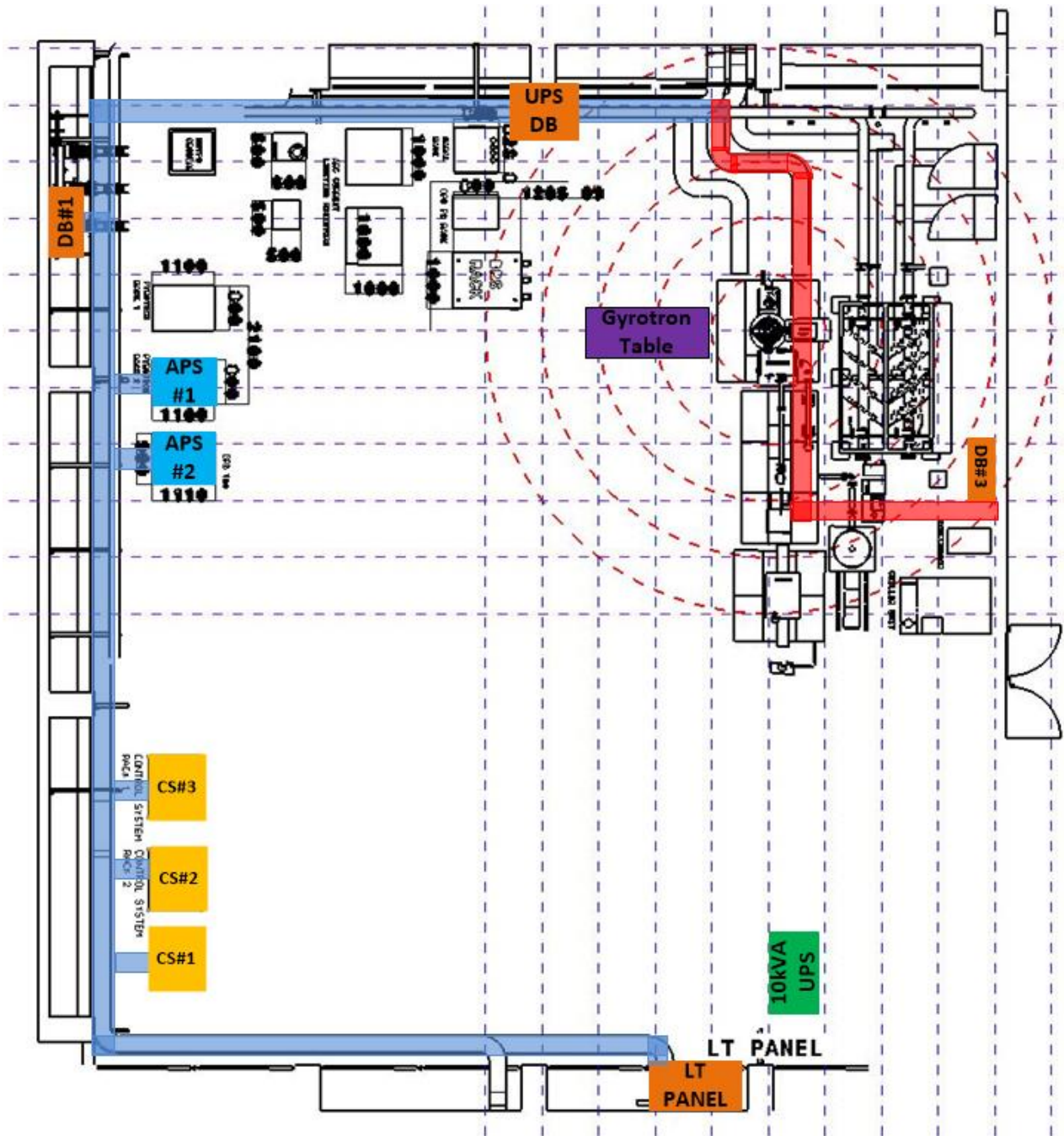


Figure 7 LV cable laying routes from various points (LT Panel, UPS, APS, & DBs)

2. Important Notes on scope of work

- A. Bidder are advised to get understand the work-scope thoroughly & shall discuss/consult with ITER-India's representative, if required prior to the submitting the quote.
- B. Work executed & product delivered under the work shall have warranty of 1 year from the date of final acceptance. If anything is required to rework within this warranty period the contactor shall do it at free of cost to ITER-India
- C. All the cable glands, cable bunching accessories, cable ties, tagging tools, tags etc., are under the scope of supply and should be new items and of reputed makes are to be used.
- D. Quality check of the work done as per acceptance criteria given.
- E. Contractor shall ensure that the work conducted at the site should be of professional standard & reflect sound workmanship skills.

3. Precautions that must be followed during the work in Site

- A. All the visiting/working personnel should submit the declaration signifying that they're healthy, have no symptoms and not infected with Covid-19 prior to working in site.
- B. All the visiting/working personnel of contractor should wear mask & practice COVID-19 appropriate behavior at all times when in IPR campus.
- C. The contractor is required to take necessary measures to ensure the safety of personnel & equipment. The contractor is fully responsible for the safety of the man, materials & machinery while executing the site work. Site safety norms are to be followed at all times.
- D. Work should be done only in the presence of ITER-India representative(s).
- E. Scratches, dents and tool marks are not allowed on the LV Cable's surfaces, Panels & other equipment in site.
- F. Safety of the working personnel is the responsibility of the contractor.

4. List of Approved Makes

S.No	Name of the Component	Approved Makes
1.	Exhaust Fans	Schneider/Vents/ pfannenbergr/Crompton greaves /Havells /Almonard/Bajaj
2.	MCB's (all MCB be of type C 10kA)	Anchor/Schneider/L&T/Siemens/ABB/Panasonic/Legrand/C&S/Standard/Crompton Greaves/ Mitssubishi
3.	MCCBs (MCCB 25kA)	Siemens/ABB/L&T/C&S/Schneider/Legrand/GE/Hager/Mitssubishi
4.	Panel Meters	Schneider/L&T/Siemens/Conzerv/Rishab/MECO/C&S/AE/
5.	Wires Makes for internal panel wiring	Anchor/Finolex/Havells/RR Kabel/ Asmon /Mescab /L&T /KEI / Power flex
6.	Cable Glands & Dummies	Jainsons / Comet / Dowells / Prabath
7.	Cable Lugs	Jainsons / Comet / Dowells / Prabath
8.	Panel Lamp Fittings	Crompton/Bajaj/Halonix/Philips/Surya/Wipro/Havells/Syska/Panasonic/Eveready/Polycab
9.	Connector/Terminal Block	Wago/ Elemac/ Phoenix

Table 1 List of Approved Makes

Note: All the equipment and components/accessories required in the work-scope should be of brand new. And the cable tray supports (on floor & wall) should be of SS (non-magnetic).

5. Work completion Schedule

Work completion should not be delayed in any case beyond 4 weeks after getting confirmed order from ITER-INDIA.

Section	Title of Work	Duration
1.1	Delivery of DBs	2.5 Weeks
1.2	Laying of Cable Tray	0.5 Weeks
1.3	Laying of LV Cables	1 Weeks
Total Work Completion Time		4 Weeks

6. Final Acceptance Criteria

Final acceptance shall be given only after successful completion of following tests:

- A. Visual Inspection : The complete work will be visually inspected after completion of work.
- B. Testing : Testing of Panel & its Accessories
- C. Clearance of Site : The site must be cleared after completion of the work.

7. Work Location:

ECRH Lab is situated on 3rd floor, 13.725m from ground at ITER-India Lab Building, Institute for Plasma Research. All the work will be executed at the division mentioned below only.

**ECRH Lab,
ITER-India Lab Building,
Institute for Plasma Research Campus,
Bhat Village, Near Indira Bridge
Gandhinagar-382428, Gujarat – INDIA**

8. Site Visit:

Since the job is site specific, interested bidders are required to visit the site with prior appointment at-least one week in advance, on any working day between 9:30 AM to 5:30 PM (Mon-Fri) for better understanding the work scope before submitting the bid. The bidder may furnish necessary details as per the **Annexure-2** for entry permission in IPR for site visit.

9. Bid Submission:

Bidders need to submit the following documents along with their price bid. Failing which their bid may not be considered for evaluation.

- 1) Signed and stamped copies of the tender document as a proof of confirmation that the bidder has studied the tender document and agrees with the specified scope of work
- 2) A self-declaration letter (refer Annexure-1 below) stating that the bidder has indeed visited the site and acquainted with the site-specific requirements. And if awarded the job, he/she would complete the task within the stipulated duration (as 4 weeks from the date of the Work Order)
- 3) Price Bid as per the template.

Annexure-1: Self declaration

To
The Manager,
ECRH Group
ITER-India

Ref: Enquiry Number ----

Sub: Self declaration regarding the site visit

Dear Sir,

I confirm that I have visited the site and acquainted with the work scope before submitting the bid. And I also confirm that, if the job is awarded to me, I will complete the Job within the stipulated time (as per Service Order Schedule) on urgent and priority basis.

Signature -----

(Bidder Seal/Stamp)

(Name of the Bidder)

Date:

Annexure-2: Visitor Entry Permission

Institute for Plasma Research, Gandhinagar
Visitors Entry Permission Form (During Covid-19 restrictions)

1. Name of the Visitor* <i>* applicable to contractors as well</i>	
2. Arriving from place (state the exact location)	
3. Visitor's arrival & departure date and time	
4. Visitors organization name & address <i>If there are more than visitors/contract personnel for the same site-work contract please attach a list of their names and their individual travel history.</i>	
5. Purpose of visit	
6. Justification for inviting the visitor (State reasons of urgency)	
7. Travel history of persons for last 15 days (Domestic as well as international)	
8. Location within IPR campus where visitor will visit/work (Office, Labs etc.)	
9. Visitors have any health issue (yes /no) If yes, please specify the same	



ITER-India, Institute for Plasma Research
Block A, Sangath SKYZ, Bhat- Motera Road, Koteswar, Ahmedabad
380005 Gujarat, India.

ENQUIRY NO : Enq/MF/3/ECRH

Annexure -3 Site Visit Certificate

Date:

Enquiry / Bid No.	
Date	
Item Description	
Due Date for Bid submission	

This is to confirm that

Mr.

of Messrs.

has / have visited the site at ITER-India Lab, Institute for Plasma Research on

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to understand the scope of supply, work, technical specifications and get acquainted with the tender requirements related to above mentioned enquiry / tender.

Bidder's
Signature:
Date:

Coordinator, ITER-India, IPR

Signature:
Date: