

www.iter-india.org

## ITER-India, Institute for Plasma Research

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## **ENQUIRY – LOCAL (Reminder-1)**

OFFICE COPY

**ENQUIRY NO** 

: I-IEN20021

Date

: 22/07/2020

Due Date

: 04/08/2020 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. Enquiry No., Date & Due Date should appear on the envelope otherwise your offer will be rejected.

2. Address quotation only to the Purchase officer.

3. ITER-India, IPR is entitled to avail concessional rate of GST @ 5% (2.5% CGST and 2.5% SGST) as per Central Goods and Services Tax (CGST) Notification No. 45/2017-Central Tax (Rate) dated 14th November, 2017, State Goods and Services Tax (SGST) Notification No. 45/2017 – State Tax (Rate) dated 15th November, 2017 and IGST @5% as per Notification No. 47/2017-Integrated Tax (Rate) dated 14th November, 2017. Therefore, please consider GST in your quotation accordingly.

Sr No.	Material Description	Quantity	Unit
1	POWER DISTRIBUTION UNIT	1	NOS

#### Note:

- (1) Submit your quotation duly signed and stamped in a sealed envelope AT THE ABOVE ADDRESS. You can also submit password protection quotation duly stamped and signed in soft copy through email sent to toc@iter-india.org only along with Password so as to open the document. It is mandatory to mention the mobile no. of your contact person in vour quotation.
- (2) Any clarification on this enquiry may be sought from the Purchase Officer, ITER-India
- (3) Quote with complete technical details.
- (4) Quotation should invariably be submitted in the attached format (Quotation Format) ONLY else ITER-India may not consider your offer.
- (5) Payment shall be made within 30 days from the date of final acceptance of ordered items of purchaser's site and on receipt of error free invoice and other necessary documents at our end.
- (6) Technical Specifications, Scope of work and supply are given in attached Annexure-I (Pages-7).
- (7) Bidders are requested to filled the Bidder's compliance column in the Technical specification as per attached Annexure-I (duly signed and stamped) and return back along with the enquiry documents. Bidders also need to submit BOM and data sheet of offered devices including enclosure.
- (8) Bidder under the category of MSE (Micro & Small Enterprise) for the quoted item shall attach MSE certificate. Under MSE category, only manufacturers for goods and Service Providers for Services are eligible under the policy. Traders are excluded from the purview of this Policy.

Encl:- as above

Rakhi Dharamdasani

OFFICER-I (PURCHASE & STORES)

ITER-India (IPR)

#### **TERMS AND CONDITIONS**

- 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
- 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
- Quotation: Your quotation superscripting our enquiry No., date, due date and brief description of item should be submitted to the Purchase Officer, ITER-India 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. The quoted prices should be firm for a period of 90 days from due date for placing order. ITER-India is not bound to accept lowest rate/s. Biddershall submit the price bid/offer on Bidder's letter head with official seal and sign on each page.
- The bid documents shall be prepared in English language only
- All pages of the bid documents shall be numbered. Each page of the bid document shall be stamped and initialized. 5.
- 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 and the respective purpose mentioned herein the respective purpose mentioned herein and the respective purp
- 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
- ITER-India and their authorized representatives may visit the Contractor/Sub-contractors if required as part of technical evaluation process 8.
- ITER-India reserves the right to place order on one or more parties.
- 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 Purchase Officer before submitting quotation.
- 11. Terms of Prices: Quotation should be submitted on door delivery basis, duly packed & insured without extra charge wherever possible. In the case of Indian suppliers, the material is to be delivered at our stores free of charge duly packed & insured.
- 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.
- 13. 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.
- 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.
- 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 lowest or any tender antenderers shall supply the same at the rates quoted. ITER-India also reserves the right to split the order at its sole discretion.
- 16. Octroi is not applicable at present.
- 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
- 18. Delivery period shall be clearly indicated against each item separately.
- 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.
- 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.
- 21. No correspondence will be entertained within 30 days from the date of receipt of material and bills, whichever is later.
- 22. 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.
- 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 designor Trade Markandshall 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.
- 24. 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.
- 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.
- 26. Canvassing in any form with regard to this tender will lead to rejection of the bid.
- 27. 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.
- 28. This enquiry is not a commitment and the Purchaser reserves the right to reject or cancel any or all offers.
- 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.
- 30. Unsuccessful bidders will not be intimated about the results of the enquiry/tender.
- 31. Purchase will not be responsible for payment of any interest to the Supplier, in case of delay in releasing payment.
- 32. The price evaluation shall be carried out on Landed price.

# FORMAT FOR SUBMISSION OF QUOTATION

Enquiry No.

: I-IEN20021

Name Of Party

: OFFICE COPY

Quotation No. & Date

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Due on

: 04/08/2020 by 5:00 PM (IST)

Sr No.	Material Description	Qty	Unit	Rate	Total
1	POWER DISTRIBUTION UNIT	1	NOS		
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## **COMMERCIAL TERMS & CONDITIONS \***

Sr.No	Description	Bidder's Compliance
1	Free Door delivery	
2	Packing & Forwading (To Specify, if any)	
3	Safe Delivery Charges (Please mention if not included in rate mention above)	and an action of the control of the
4	Delivery Period (1.5 Months from Purchase Order Date)	Comply Yes/No (In case of No Please provide details)
5	Payment:ITER-India payment terms will apply (Refer Sr. No. 5 of Note)	Comply Yes/No (In case of No Please provide details)
6	Warranty (Refer Sr. No. 22 of Terms and Conditions)	Comply Yes/No (In case of No Please provide details)
7	Validity Period (Refer Sr.No. 3 Of Terms and Condition)	Comply Yes/No (In case of No Please provide details)
8	GST (Not to be included in quoted rates)	
9	GST(Refer Sr.No.3 of Important Note)	Comply Yes/No (In case of No Please provide details)
10	GST Registration No. (To specify)	·
11	HSN Code	
12	Udhyog Aadhar No. & Category (Micro/Small Enterprise)	
13	Discount (If any)	
14	Remarks	
	to the first transfer	

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Authorised Signatory:

Date:

**Company Seal** 



Enq.No.: I-IEN20021

Date: 25.06.2020

### **Technical specification for LV distribution board**

#### 1. SCOPE OF SUPPLY:

The scope of work includes Fabrication, Assembly, Testing and Supply of LV distribution board incompliance with IEC 61439, incorporating Enclosure, LV switchgear, wiring and mounting accessories as per technical specification.

#### 2. CODE AND STANDARDS:

The fabrication and assembly of the distribution board in compliance with following standard

IEC 61439	Low voltage switchgear and controlgear assemblies
IEC 60947	Low voltage switchgear and controlgear
IEC 60364	Low voltage electrical installation
IEC 60038	Standard voltages
IEC 60446	Basic and safety principles for man-machine interface, marking and identification - Identification of conductors by colours or numerals
IEC 60479	Effects of current on human beings and livestock
IEC 60664	Insulation coordination for equipment within low-voltage system
IEC 60755	General requirements for residual current operated protective devices

#### 3. TECHNICAL REQUIREMENT:

- LV distribution board shall be dimensioned to accommodate LV switchgear (viz. MCB, RCCB, Surge arrestor), temperature scanner, Relays and contactors as per detail provided in Annex-A (table A.1 & A.2)
- BoM listed under table A.1 is supplier's scope, while BoM listed in table A.2 shall be provided by purchaser for assembly and wiring
- LV switchgears have to be procured by supplier. In addition, supplier has to provide mounting provision and wiring for other electronics items. Refer Annex A for more detail.
- All device shall be mounted on DIN rail.
- Internal layout, electrical and safety clearance shall be as in compliance to IEC 61439
- Supplier has to provide GA drawing, electrical diagrames, BoM and datasheet for offered device and accessories for approval. Manufacturing shall commence only after approval from purchaser.
- Cable end shall be prepared with adequate size copper cable lugs and terminated to Terminal blocks for connection with external system.



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- Accessible live terminals of the assembly shall be adequately protected for direct and indirect contact as per IEC 61439 and IEC 60364. ,
- Wires and device inside distribution board shall be provided with identification tags.
- Earthing busbar (ETP copper) shall be provided inside enclosure for equipotential connection. It should have clamps for Main terminal and for internal PE conductor including spares
- Indicator lamps to show presence of input voltage at the distribution board shall be provided on door panel.
- Mode selector switch with indicator lamps and push-button shall be provided on door (refer Table A.2 for detail).
- Metallic stand to place distribution board on raised height is also included in supply; Height of stand shall be 300mm and dimension suitable to enclosure.
- Input supply to the distribution board shall be provided by 6mm2, copper conductor, 3P+N cable
- Approximate overall dimension of the distribution board shall be ~800mm (W)x400mm(D)x2000mm(H). However, supplier shall workout distribution board dimension based on IEC 61439 and manufacturing standard practises.

Sr. No	Technical Specificat Characteristics	Requirement		
3r. NO 1.	Type of distribution board	Floor standing.		
т.	Type of distribution board	To be placed on raised stand (to allow		
		cable entry from bottom), single door		
2.	Applicable design standard	IEC 61439 and IEC 60947		
3.	Rated operational voltage	415 Vac three-phase		
3.	Rated operational voltage	230 Vac single-phase		
4.	Number of Phase	3 PH + N + PE		
<del>4.</del> 5.	Rated frequency	50Hz + 1%		
5. 6.	System earthing	П		
	Dimension of the distribution board	Suitable to items as per Annex A		
	Internal separation	Form 1		
9.	LV switchgear	Rating as per Annex A, Table A.1		
Э.	LV Switchgear	Device shall be from Schneider/		
		Siemens, or equivalent make only.		
10.	Cable entry/Exit	Through gland plate, bottom of the		
10.	Cubic chary, Exit	enclosure		
11.	Distribution board access	Front		
12.	Enclosure make	Rittal / Schneider / Siemens of		
12.	Enclosed a mana	equivalent make only.		
13.	Indicator to show presence of input voltages	Require on front door for L1,L2,L3		
14.	Indicator, selection switch and Pushbutton	Require on front door		
		(refer table A.2)		
15.	Internal wiring	Copper wire, flame retardant		
		Cross section area:		
		- 2.5 mm <sup>2</sup> for connection		
		between ICMAIN to ICL1,ICL2		
		& ICL3		



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	Technical Specification					
Sr. No	Characteristics	Requirement				
		<ul> <li>1.5mm2 for remaining circuit</li> </ul>				
16.	Cable color	L1- red				
		L2- yellow				
		L3- blue				
		N- Black				
		PE- Combined Yellow-Green				
		Control - as per respective line				
		conductor				
17.	Color code for terminal block	For L1,L2,L3,N as per cable color				
		PE- Combined Yellow-Green				
		Control – Other than above color				
		Product compliance to relevant IEC				
		standard				
18.	wire duct (inside enclosure)	In grey color				
		Product compliance to relevant IEC				
		standard				
19.	Quantity	1 Nos Distribution board along with				
		stand as per technical specification.				
20.	Delivery time	1.5 month from Purchase order				

### 4. TESTING AND DISPATCH:

Following test shall be performed at supplier works.

- Insulation resistance test for power circuit, during the test electronic circuit, contactor may be bypassed
- Functional test; Test shall be performed by applying rated voltage to the distribution board. Indicators and voltage presence shall be verified by multi-meter at various location
- Verification of GA. BoM and wiring

After successful acceptance of Distribution board manufacturer has to dispatch the distributing board with proper packing.

Purchaser reserve the right to witness the above test at supplier works.



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### Annexure - A

Table: A.1 Bill of Material (in supplier scope)

Load ID	Tag detail <sup>1</sup>	Equipment Name	I/P V	Circuit breaker rating	Pole	RCD rating
Incoming	circuit					
F1	tbd	Cylindrical fuse	415	32 A (Fuse)	3P+N	-
ICL1	tbd	Indicator – RED color	230	-	-	-
ICL2	tbd	Indicator – Yellow color	230	-	_	-
ICL3	tbd	Indicator – Blue color	230	-	-	_
ICMAIN	tbd	Incomer breaker	415	25	3P+N	100mA
ICSA	tbd	Surge arrester	350	Type -2+3	3P +N	
Internal c	listribution	- 1				1
ICL1	tbd	L1 (Incomer for load on L1)	230	16	1P+N	30mA
L1.1	tbd	TRF-1	230	2	1P+N	-
L1.2	tbd	TRF-1	230	4	1P+N	- "
SA1	tbd	Surge arrester	350	Type - 3	1P+N	-
L1.3	tbd	Relay for soft charging	230	2	1P+N	-
L1.4	tbd	ECC - 1	230	10	1P+N	-
Internal c	listribution	- 2	I		<u> </u>	
ICL2	tbd	L2 (Incomer for load on L2)	230	16	1P+N	30mA
L2.1	tbd	TRF-2	230	2	1P+N	-
L2.2	tbd	TRF-2	230	4	1P+N	-
SA2	tbd	Surge arrester	350	Type -3	1P+N	-
L2.3	tbd	Relay for disconnector	230	2	1P+N	
L2.4	tbd	ECC - 2	230	10	1P+N	-
Internal c	listribution	- 3	<b></b>			
ICL3	tbd	L3 (Incomer for load on L3)	230	16	1P+N	30mA
L3.1	tbd	Output Disconnector	230	2	1P+N	-
L3.2	tbd	Output Disconnector	230	2	1P+N	-
L3.3	tbd	Earth switch	230	2	1P+N	-
L3.4	tbd	Cooling instrumentation	230	6	1P+N	-
L3.5	tbd	Soft charging system	230	4	1P+N	-
L3.6	tbd	MHVPS Aux.	230	4	1P+N	-
L3.7	tbd	Spare	230	4	1P+N	-
L3.8	tbd	Network switch	230	2	1P+N	-
L3.9	tbd	Socket outlet	230	6	1P+N	10mA
S.1	tbd	Socket (DIN mounted)	230	-	1P+N+PE	-

<sup>&</sup>lt;sup>1</sup> Refer note below for load ID detail



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SA3	tbd	Surge arrester	350	Type - 3	1P+N	-
L3.10	tbd	Relay for field device	230	2	1P+N	<b>-</b> 100 5

#### Note:

- Mains voltage indicator lamps shall be placed directly on input line with fuse
- Tripping characteristics for the LV switchgear shall be 'C'
- Short-circuit rating for the LV switchgear shall be 10kA
- Protection device for leakage current shall be a separate device
- LV Switchgear shall be in complies to respective IEC standard
- Load ID format shall be "52XXXX-XX-XXXX". Detail shall be provided during execution.

Table: A.2 Bill of material (For reference only)

Sr.	Device detail		Dimension			Part number	
No			(mm)	(mm)			
			Н	W	D		
1	Temperature scanner for TR	2	215	265	130	TR-8080-FO	
2	Relay card for temperature scanner	2	200	200	80	N.A	
3	Contactor Type AC	4	58	45	73	3RH21221AP00	
4	Contactor Type DC	4	58	45	73	3RH21221BM40	
5	Programmable relay	3	90	72	60	6ED1052-2FB08-0BA0	
6	Add on modules for item in sr. no 5						
6.1	Power supply module	1	90	18	60	6EP3330-6SB00-0AY0	
6.2	Analog modules	4	90	36	60	6ED1055-1MA00-0BA2	
7	Local remote switch	3				To be mount on door	
8	60mm emergency pushbutton	1				To be mount on door	
	Indicator lamp for pushbutton	1				To be mount on door	
9	Indicator lamp for Local/remote switch	6				To be mount on door	
10	Network converter	1	1U			Customized	

#### Note:

- Above items are available with purchaser, *Necessary mounting provision and wiring for above device is part of supply under this specification*
- No. of terminal block required for above items is ~70 Nos.
- Wiring diagram shall be provided by purchaser for items listed in table A.2



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# ${\sf Table-Technical\ compliance\ sheet\ for\ the\ offered\ product}$

(To be filled by the bidder and to be submitted along with bid)

Sr. No	Characteristic	Requirement	Offered specification
1.	Enclosure make and model number	IEC 61439 complied enclosure from Rittal / Schneider / Siemens, or equivalent make only	
2.	Access to the internal assembly	Front	
3.	Type of enclosure	Floor standing on raised frame (to allow cable entry from bottom), single door	
4.	LV switchgear rating	As per Annex A1.1 including supply of switchgear	
5.	Make of the LV switchgear	Schneider / Siemens, or equivalent make only	
6.	Provision for Switch and Indicators on door	-Input voltage presence indicator for three lines - Emergency push button - Local remote switch	
7.	Internal wiring	- Indicators for push button and switch copper wire, flame	
		retardant	
8.	Wiring gauge and color	2.5 mm² for connection between ICMAIN to ICL1,ICL2 & ICL3 1.5mm2 for remaining circuit	
9.	Wire color	L1- red L2- yellow L3- blue N- Black PE- Combined Yellow- Green Control - as per respective line conductor	
10.	Whether Terminal block and wiring ducts are considered as per technical specification?	As per sr. no 21 & 22 of technical specification	



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Sr. No	Characteristic	Requirement	Offered specification
11.	Mounting provision, terminal block and wiring for items mentioned in Annex A.2	Should be provided for items as per Annex A.2	
12.	Applicable standard for design	IEC 61439 and IEC 60947	
13.	Quantity	1 Nos Distribution board along with metallic stand as per technical specification	
14.	Delivery time	1.5 month from Purchase order date	

- Submit technical compliance sheet duly filled along with offer
- Submit data-sheet for offered enclosure including dimension
- Submit BoM and data-sheet for offered devices as specified in Table A.1

Name of Bidder:	
Sign of Bidder:	
Date:	
Seal	