

www.iter-india.org

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ENQUIRY - FOREIGN

OFFICE COPY

ENQUIRY NO

: I-IEF19008

Date

: 14/08/2019

Due Date

: 24/09/2019 by 1,00 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. Please Send your offer, ALONG WITH DESCRIPTIVE LITERATURE / CATALOGUE for the following items which we are interested to import directly against Foreign Trade Policy 2015-2020. Kindly go through the terms & conditions printed overleaf. Please ensure that your quotation reaches this office not later than above mentioned due date.
- 2. If Packing Materials are of any kind of Plant Origin, valid Phytosanitary Certificate issued by an Authorised Officer at the Country of Origin of the consignment in the format prescribed under the International Plant Protection Convention of the Food and Agricultural Organization shall be sent along with the shipping documents. This is a mandatory requirement under Law enacted by the Govt. Of India. Deviation from this may result in holding of the consignment at customs causing delays which will be the sole responsibility of supplier.
- 3. Customs Duty Exemption Certificate: ITER-India can provide Custom Duty Exemption Certificate (CDEC) under the notification no. 39/96 dated 23/07/1996 as amended by notification no. 5/2012 custom dated 07/02/2012 (s. no.37) in order to avail such exemption indian party shall quote in foreign currency only on behalf of their foreign principal/supplier & purchaser shall place the order directly on foreign principal/supplier only. All expenses, except customs duty, towards procurement of the imported materials should be borne by the Contractor.
- 4. ITER-India, IPR is entitled to avail concessional rate of GST @ 5% (2.5% CGST and 2.5% SGST) as per Central Goods and Service Tax (CGST) Notification No. 45/2017-Central Tax (Rate) dated 14th November, 2017, State Goods and Service 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 for supply of Goods. Therefore, please consider GST in your quotation accordingly. (Applicable for indian bidder)

Sr No.	Material Description	Quantity	Unit
1	Supply of 22kV Soft Charging Device (Consisting 3×30Ω	1	NOS
	resistors & 3-pole vacuum contactor in a single enclosure)	4 na	
	including tests & documentation as per technical specification		

Note:

- (1) Submit your quotation AT THE ABOVE ADDRESS.
- (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 (Annexure C Price Bid format) ONLY else ITER-India may not consider your offer.
- (5) Refer to attached Annexure A for Technical Specifications & scope, Annexure B for Terms and Conditions, Annexure C Price Bid format and other details, Appendix B i.e. specification of offered product needs to be filled, signed & stamped by the bidder. Annexure A, Annexure B and Annexure C to be filled, signed and stamped. (To be signed & stamped on each & every page & this will be considered as bidder's acceptance on Annexure A, Annexure B, Annexure C)
- (6) Bidder also needs to submit General arrangement drawings & technical data sheet along with the offer.

- (7) Indian agent shall bid only on behalf of one Principal/OEM
- (8) Purchaser reserves the right to order on either FOB or DAP basis.
- (9) In a tender, either the Indian agent on behalf of the Principal/OEM or Principal/OEM itself can bid but both cannot bid simultaneously for the same item/product in the same enquiry.
- (10) IGST @ 5% is applicable for import which will also be considered for evaluation process.
- (11) Landed cost i.e. basic price + applicable taxes + applicable charges (eg. freight, Insurance, bank charges etc.) shall be taken for price comparison purpose.
- (12) Foreign exchange rate prevailing on the date of enquiry to be taken for price comparison purpose.

Encl:- as above

Rakhi Dharamdasani

OFFICER-I (PURCHASE & STORES)

ITER-India (IPR)

Annexure - A

TECHNICAL SPECIFICATION

FOR

22kV SOFT CHARGING DEVICE



Annexure - A

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Annexure - A

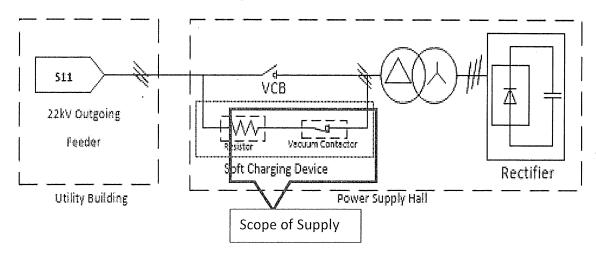
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1 TECHNICAL DESCRIPTIONS AND SPECIFICATIONS:

1.1 Scope

This specification describes the requirements of Design, manufacturing, testing & delivery of 3 phase 22kV Soft Charging Device (1 nos.) intended for *indoor installation* with major parts as listed below.

- 1. HV Resistor: -Metallic Resistance alloys.
- 2. Vacuum Contactor: 22kV Vacuum Contactor with remote operation functionalities.
- 3. Enclosure: IP 2X or higher, Steel enclosure.



Refer Appendix – A for detail on application and operating sequence.

1.2 Standards:

The latest revision/amendments of the following Codes and Standards shall be applicable for the equipment/material covered in this document. Equivalent international codes/standards may be applied if it exceeds in the requirements.

Sr. No	Applicable Standards	Description
1.	IEC 60071-1	Insulation Coordination Part-1: Definition, Principles and rules
2.	IEC 60071-2	Insulation Coordination Part-2: Application Guide
3.	IEC 62271-200	A.C Metal Enclosed Switchgear and Control gear for Rated Voltage above 1 kV and up to and including 52 kV
4.	IEC 60529	Degrees of Protection provided by Enclosures (IP code)
5.	IEC 60137	Insulated Bushings for Alternating Voltages above 1000 Volts.



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6.	IEC 60273	Characteristics of Indoor and Outdoor Post Insulators for	
		Systems with Nominal Voltages greater than 1000 volts	
7.	IEC 60168	Tests on Indoor and Outdoor Post Insulators of Ceramic Material or Glass for Systems with Nominal Voltages greater than 1000 volts	
8.	IEC 62271-106	High voltage alternating current contactors	
	ANSI/IEEE 32	Requirements, Terminology and Test Procedures for	
		Neutral Grounding Devices.	

1.3 Design & Construction Requirements

1.3.1 General Requirements for soft charging device

- 1. The Soft charging Device (SCD) shall meet or exceed the requirements of this specification in all aspects.
- 2. Insulation coordination for overall assembly shall be in accordance with IEC 60071-1, 60071-2.

1.3.2 HV Resistor:

Following are the technical specification for HV resistor

Sr. No	Technical Specification	Technical Particular	
1.	Application	Short time current limiting resistor	
2.	Resistor element material	Non corrosive, high temperature resistance	
		alloy	
3.	Resistance at 20°C	$30 \Omega \pm 10\%$ (Manufacturing tolerance)	
4.	Short time current rating	100A RMS for 10 sec	
5.	Duty Cycle	100 A/10 sec every 3600sec	
6.	Maximum Temperature Rise	Permissible as per IEEE 32	
7.	Resistance at hot stage	< 60 Ω	
8.	Short circuit current rating	5kA for 1sec	
9.	Short time voltage drop across	12.7 kV _{rms} for 100ms	
	resistor		
10.	System Insulation Class	24 kV _{rms}	
11.	Dielectric Test Voltage for 60	50 kV _{rms} or higher	
	seconds		
12.	Configuration	$30 \Omega \times 3$ (Nos.) for three phases of 22kV	
		system	
13.	Applicable standard	IEEE 32	

1.3.3 Vacuum Contactor:

Following are the technical specification for vacuum contactor.

Sr. No Technical Specification Technical Particular	
---	--



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1.	Utilization category	AC-3
2.	Switching Medium	Vacuum
3.	No. of pole	3 Pole
4.	Rated Voltage	$24kV_{rms}$
5.	Rated operational current	$\geq 200 A_{rms}$
6.	Rated making current	Minimum 1 kA
7.	Rated short-time withstand current	≥ 8 kA
	for 1sec	
8.	Operating mechanism	Electromagnetic operating mechanism.
9.	Operating voltage for control coil	230V AC, 50 Hz
10.	Aux. contact	4NO, 4NC, potential free auxiliary contact
11.	Applicable standard	IEC 62271-106

Vacuum contactors should have latch mechanism to control closing and opening operation.

1.3.4 Enclosure:

Following are the technical specification for enclosure.

Sr. No	Technical Specification	Technical Particular	
1.	Enclosure	Single enclosure to house 30 Ω ×3 (Nos.)	
		resistors and 3 Pole vacuum contactor	
2.	Location	Indoor	
3.	Enclosure Material	Hot-Dip Galvanized Steel	
4.	Paint Shade	RAL 7035 or similar	
5.	Protection Degree	IP 2X or higher (as per IEC 60529)	
6.	Isolated terminals for HV incoming	On bushings (preferred on same side)	
	and HV outgoing.		
7.	Voltage class for	$24kV_{rms}$	
	Insulators/Bushing		
8.	Overall Dimensions	L 2000mm (Approx.)	
		W 2000mm (Approx.)	
		H 2000mm (maximum)	

- 1. The enclosure shall have four lifting eyebolts on top with minimum hole diameter of 20mm for balanced lifting.
- 2. Earthing pads of the enclosure shall be provided outside, fitted opposite to each other with connectors suitable for termination of 50×5mm earthing bus bars.
- 3. For easy movement of enclosure unit on floor, enclosure shall be provided with sturdy wheels with jacking bolts for fixing.
- 4. Isolated terminals for HV incoming & outgoing should be on sides (Preferred on same side), top/bottom terminals to be avoided.

1.4 Test:

The following Routine Tests to be performed in acc. to ANSI/IEEE Std 32-1972 and IEC 60071-1:



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- 1. Visual check for dimensions, good workmanship and supply completeness
- 2. Measurement of resistance value (cold)
- 3. Insulation resistance test
- 4. Dielectric strength test of SCD assembly
- 5. Dielectric test of LV circuits if involved
- 6. Functional test of components
- 7. Weight measurement
- 8. Test certificate from OEM for vacuum contactor.

<u>ITER-India</u> is not envisaging any witness of test at Factory, routine test report should be sent for review/approval to ITER-India before dispatching the SCD.

Similarly, presence of supplier's representative is not envisaged for site works at ITER-India Lab Building, Institute For Plasma Research, Near Mother Dairy, Bhat Village, Gandhinagar. Installation, operation, maintenance document should be provided defining the process/sequence to ease the installation of SCD at ITER-India site by ITER-India team. This should include tests necessary to comprehend the health of device before putting in to service. Maintenance schedule should be clearly defined with monthly/quarterly/annual frequency.

Appendix – A: Application Note

Energizing transformer along with AC/DC converter modules draws very high current from grid for few seconds (~10sec). SCD (Soft charging device) has to limit this high current to predetermine values while absorbing & dissipating a huge amount of energy, this ensures controlled flow of current to have gradual charging of rectifier DC link.

SCD is a combination of HV resistors and vacuum contactor which has close correspondence to NGRs with vacuum contactor widely used in earthing of generators.

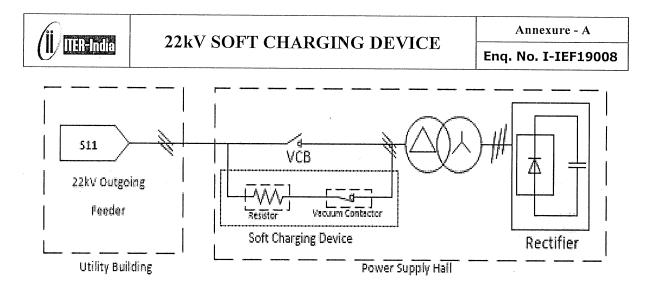
In a proposed scheme,

22kV input supply will be provided to transformer rectifier unit through a VCB. During charging SCD (similar to NGR) will be used in parallel to VCB to limit the high current drawn by system.

It is proposed to utilize standard Neutral Ground Resistor (NGR) as SCD for this application along with few exceptions;

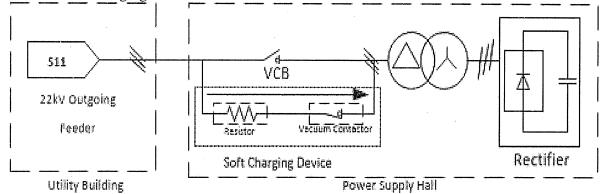
- SCD to have all incoming and outgoing terminals isolated for 22kV operation
- Vacuum contactor to be used for initial charging through series resistor.
- SCD will have frequent operations on daily basis.

Below is the one line diagram for the proposed scheme.



Operational sequence for the SCD is as shown below,

At the turn ON: - Closing of vacuum contactor: series resistor of SCD limits the charging current.



After 10s, VCB is closed and soft charging device is bypassed and system operates continuously.

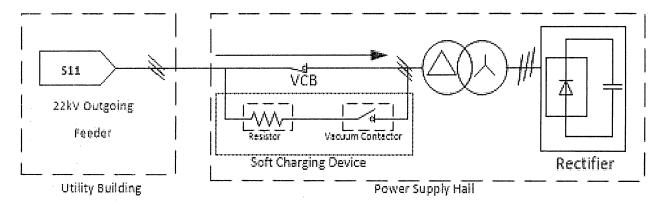


Figure 1 Operation scheme for SCD



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> At the end of the session, VCB will be turned OFF/Opened followed by opening of bypass contactor, to allow next charging cycle.

Operation sequence are controlled through hardwire interlock and status monitoring system to prevent illicit operation.



Annexure - A

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Appendix B: Specification for the offered product

(To be filled, signed, stamped by the bidder and submitted along with bid)

HV Resistor: 1. Resistance at 20°C $30 \Omega \times 3 \text{ (Nos.)} \pm 10\%$ (Manufacturing tolerance) 2. Resistor element material Non corrosive, high temperature resistance alloy 3. Short time current rating $100 A \text{ RMS}$ for 10 sec 4. Duty Cycle $100 A/10 \text{ sec every } 3600 \text{ sec}$ 5. Maximum Temperature Rise Permissible as per IEEE 32 6. Resistance at hot stage 50Ω 7. Short circuit current rating 12.7kV_{rms} for 100ms 8. Short time voltage drop across resistor 12.7kV_{rms} for 100ms 9. System Insulation Level 24 kV_{rms} 10. Dielectric Test Voltage for 60 seconds 50 kV_{rms} or higher 11. Configuration $30 \Omega \times 3 \text{ (Nos.)}$ for three phases of 22kV system Vacuum Contactor: 12. Make and Model No 13. Switching Medium Vacuum 14. No. of pole 3 Pole 15. Rated Voltage 24 kV_{rms} 16. Rated operational current for Isec 17. Rated	Sr. No	Technical Specification	ITER-India Specifications	Vendor Specifications
Contactor Co	IV Resi	stor:		L
material temperature resistance alloy 3. Short time current rating 100A RMS for 10 sec 4. Duty Cycle 100 A/10 sec every 3600sec 5. Maximum Temperature Rise 6. Resistance at hot stage < 60 Ω 7. Short circuit current rating 8. Short time voltage drop across resistor 9. System Insulation Level 24 kV _{rms} 10. Dielectric Test Voltage for 60 seconds 11. Configuration 30 Ω × 3 (Nos.) for three phases of 22kV system Vacuum Contactor: 12. Make and Model No 13. Switching Medium Vacuum 14. No. of pole 3 Pole 15. Rated Voltage 24kV _{rms} 16. Rated operational current current 2200A _{rms} 17. Rated making current Minimum 1 kA 18. Rated short-time withstand current for I sec 19. Operating mechanism Electromagnetic operating mechanism. 20. Operating voltage for control coil 230 V AC, 50 Hz				
4. Duty Cycle 100 A/10 sec every 3600sec 5. Maximum Temperature Rise Permissible as per IEEE 32 6. Resistance at hot stage < 60 Ω	2.	material	temperature resistance alloy	
 S. Maximum Temperature Rise Resistance at hot stage Short circuit current rating Short time voltage drop across resistor System Insulation Level Dielectric Test Voltage for 60 seconds Configuration Configuration Wacuum Contactor: Make and Model No Switching Medium No. of pole Rated Voltage Rated Operational current Rated making current Rated short-time withstand current for 1sec Operating mechanism Coperating voltage for control coil Permissible as per IEEE 32 SkA for 1sec 12. KA for 1sec 12. 7k V_{rms} for 100ms 10. 00ms 12. 7k V_{rms} 10. kV_{rms} or higher 10. kV	3.	Short time current rating	100A RMS for 10 sec	
Rise	4.		100 A/10 sec every 3600sec	
7. Short circuit current rating 8. Short time voltage drop across resistor 9. System Insulation Level 24 kV _{rms} 10. Dielectric Test Voltage for 60 seconds 11. Configuration 30 Ω ×3 (Nos.) for three phases of 22kV system Vacuum Contactor: 12. Make and Model No 13. Switching Medium Vacuum 14. No. of pole 3 Pole 15. Rated Voltage 24kV _{rms} 16. Rated operational current Current 17. Rated making current Minimum 1 kA 18. Rated short-time withstand current for I sec 19. Operating mechanism Electromagnetic operating mechanism. 20. Operating voltage for control coil 24 kV _{rms} 12. Make and Model No 13. Switching Medium Vacuum 3 Pole 24kV _{rms} ≥ 200A _{rms} ≥ 200A _{rms} Electromagnetic operating mechanism.	5.	-	Permissible as per IEEE 32	
rating 12.7kV _{rms} for 100ms 8. Short time voltage drop across resistor 12.7kV _{rms} for 100ms 9. System Insulation Level for 60 seconds 24 kV _{rms} 11. Configuration 30 Ω ×3 (Nos.) for three phases of 22kV system Vacuum Contactor: 12. Make and Model No 13. Switching Medium Vacuum 14. No. of pole 3 Pole 15. Rated Voltage 24kV _{rms} 16. Rated operational current ≥ 200A _{rms} 17. Rated making current Minimum 1 kA 18. Rated short-time withstand current for Isec ≥ 8 kA 19. Operating mechanism Electromagnetic operating mechanism. 20. Operating voltage for control coil 230V AC, 50 Hz	6.	Resistance at hot stage	< 60 Ω	
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	7.		5kA for 1sec	
10. Dielectric Test Voltage for 60 seconds 11. Configuration 30 Ω ×3 (Nos.) for three phases of 22kV system Vacuum Contactor: 12. Make and Model No 13. Switching Medium 14. No. of pole 15. Rated Voltage 16. Rated operational current 17. Rated making current 18. Rated short-time withstand current for 1 sec 19. Operating mechanism 20. Operating voltage for control coil 20 Vacuum 30 Ω ×3 (Nos.) for three phases of 22kV system 20 Vacuum 30 Ω ×3 (Nos.) for three phases of 22kV system 20 Vacuum 30 Ω ×3 (Nos.) for three phases of 22kV system 20 Vacuum 30 Ω ×3 (Nos.) for three phases of 22kV system 20 Vacuum 30 Ω ×3 (Nos.) for three phases of 22kV system 20 Vacuum 30 Ω ×3 (Nos.) for three phases of 22kV system 20 Vacuum 30 Ω ×3 (Nos.) for three phases of 22kV system 20 Vacuum 30 Ω ×3 (Nos.) for three phases of 22kV system 20 Vacuum 30 Ω ×3 (Nos.) for three phases of 22kV system 20 Vacuum 30 Ω ×3 (Nos.) for three phases of 22kV system 20 Vacuum 21. Vacuum 22 Vacuum 23 Vacuum 24 Vrms 24 Vorms 24 Vorms 24 Vrms 24 Vorms 25 Vorms 26 Vorms 27 Vorms 27 Vorms 28 Vorms 28 Vorms 28 Vorms 29 Vorms 20 Vorms 20 Vorms 20 Vorms 20 Vorms 21 Vorms 22 Vorms 23 Vorms 24 Vorms 25 Vorms 26 Vorms 27 Vorms 27 Vorms 28 Vorms 28 Vorms 28 Vorms 29 Vorms 20 Vorms 20 Vorms 20 Vorms 20 Vorms 20 Vorms 21 Vorms 22 Vorms 23 Vorms 24 Vorms 25 Vorms 26 Vorms 27 Vorms 27 Vorms 28 Vorms 28 Vorms 29 Vorms 20 Vorms 21 Vorms 20 Vorms 20 Vorms 21 Vorms 21 Vorms 22 Vorms 24 Vorms 25 Vorms 26 Vorms 27 Vorms 27 Vorms 27 Vorms 28 Vorms 28 Vorms 29 Vorms 20 Vorm	8.		12.7kV _{rms} for 100ms	
for 60 seconds 11. Configuration 30 Ω ×3 (Nos.) for three phases of 22kV system Vacuum Contactor: 12. Make and Model No 13. Switching Medium Vacuum 14. No. of pole 3 Pole 15. Rated Voltage 24kV _{rms} 16. Rated operational current ≥ 200A _{rms} 17. Rated making current Minimum 1 kA 18. Rated short-time withstand current for 1sec ≥ 8 kA 19. Operating mechanism Electromagnetic operating mechanism. 20. Operating voltage for control coil 230V AC, 50 Hz	9.	System Insulation Level	24 kV _{rms}	
Phases of 22kV system Vacuum Contactor: 12. Make and Model No 13. Switching Medium Vacuum 14. No. of pole 3 Pole 15. Rated Voltage 24kVrms 16. Rated operational current ≥ 200Arms 17. Rated making current Minimum 1 kA 18. Rated short-time withstand current for 1 sec ≥ 8 kA 19. Operating mechanism Electromagnetic operating mechanism. 20. Operating voltage for control coil 230V AC, 50 Hz	10.		50 kV _{rms} or higher	
12. Make and Model No 13. Switching Medium 14. No. of pole 15. Rated Voltage 16. Rated operational current 17. Rated making current 18. Rated short-time withstand current for 1 sec 19. Operating mechanism 20. Operating voltage for control coil 2 Pole 24kV _{rms} 24kV _{rms} 20. Vacuum Ninimum 1 kA 2 8 kA Electromagnetic operating mechanism. 230V AC, 50 Hz	11.	Configuration		
13. Switching Medium 14. No. of pole 15. Rated Voltage 16. Rated operational current 17. Rated making current 18. Rated short-time withstand current for 1 sec 19. Operating mechanism 20. Operating voltage for control coil Vacuum 2 Pole 24kV _{rms} ≥ 200A _{rms} Minimum 1 kA ≥ 8 kA Electromagnetic operating mechanism.	acuum	Contactor:		
14. No. of pole 3 Pole 15. Rated Voltage 24kV _{rms} 16. Rated operational current ≥ 200A _{rms} 17. Rated making current Minimum 1 kA 18. Rated short-time withstand current for 1sec ≥ 8 kA 19. Operating mechanism Electromagnetic operating mechanism. 20. Operating voltage for control coil 230V AC, 50 Hz	12.	Make and Model No		
15. Rated Voltage 16. Rated operational current 17. Rated making current 18. Rated short-time withstand current for 1 sec 19. Operating mechanism 20. Operating voltage for control coil 24kV _{rms} ≥ 200A _{rms} Minimum 1 kA ≥ 8 kA Electromagnetic operating mechanism. 230V AC, 50 Hz	13.	Switching Medium	Vacuum	
16. Rated operational current ≥ 200A _{rms} 17. Rated making current Minimum 1 kA 18. Rated short-time withstand current for 1 sec 19. Operating mechanism Electromagnetic operating mechanism. 20. Operating voltage for control coil 200 ≥ 200A _{rms} ≥ 200A _{rms} ≥ 8 kA ≥ 8 kA Electromagnetic operating mechanism.	14.		3 Pole	
16. Rated operational current ≥ 200A _{rms} 17. Rated making current Minimum 1 kA 18. Rated short-time ≥ 8 kA withstand current for 1 sec 19. Operating mechanism Electromagnetic operating mechanism. 20. Operating voltage for control coil 200 ≥ 200 A _{rms} 210 ≥ 200 A _{rms} 220 × 30	15.	Rated Voltage	24kV _{rms}	
18. Rated short-time withstand current for 1sec 19. Operating mechanism Electromagnetic operating mechanism. 20. Operating voltage for control coil 230V AC, 50 Hz	16.	Rated operational		
withstand current for 1sec 19. Operating mechanism Electromagnetic operating mechanism. 20. Operating voltage for control coil 230V AC, 50 Hz	17.	Rated making current	Minimum 1 kA	
mechanism. 20. Operating voltage for control coil mechanism. 230V AC, 50 Hz	18.	withstand current for	≥ 8 kA	
control coil	19.	Operating mechanism		
21. Aux. contact 4NO, 4NC, potential free	20.		230V AC, 50 Hz	
auxil477iary contact	21.	Aux. contact	4NO, 4NC, potential free auxil477iary contact	



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22.	Configuration	Single enclosure to house 30	
		$\Omega \times 3$ (Nos.) resistors and 3	
		Pole vacuum contactor	
9.	Protection Degree	IP 2X or higher	
23.	Enclosure Material	Hot-Dip Galvanized Steel	
24.	Paint Shade	RAL 7035 or similar	
25.	Isolated terminals for	On bushings (preferred on	
	HV incoming and HV	same side)	
	outgoing.		
26.	Overall Dimensions	L 2000mm (Approx.)	
		W 2000mm (Approx.)	
		H 2000mm (maximum)	
27.	Weight		

Note:

1. Bidder has to submit General Arrangement drawing and technical data-sheet along with the offer



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Annexure-B

Title	22kV SOFT CHARGING DEVICE
Sub Title	Annexure-B: Terms and Conditions



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Annexure-B

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Annexure-B

1 Terms and Conditions

Following are the Terms and Conditions to this tender. The Purchase Order (PO) resulting from this tender shall be governed by the terms and conditions given in this part. Bidders submitting the bid against this tender shall be deemed to have read and understood the same in total.

1.1 General provisions of the Purchase Order

1.1.1 Language

1.1.1.1 The ruling language of the Purchase Order and language for documentation and communication shall be English.

1.1.2 Governing Law

1.1.2.1 The Purchase Order shall be construed and shall be governed by the laws of India.

1.1.3 Jurisdiction

- 1.1.3.1 The Courts in Ahmedabad (Gujarat State, India) shall only have exclusive jurisdiction to deal with all the matters related to this Purchase Order.
- 1.1.4 Sub-contracting, subletting or assignment of Purchase Order
 - 1.1.4.1 The Supplier shall not sub-contract, sublet, transfer or assign the Purchase Order or any major part thereof, without the prior written consent of the purchaser. However, such consent shall not be unreasonably withheld by the Purchaser, if such items/equipment are not normally manufactured by the Supplier. Such assignment or subletting shall not relieve the Supplier from any contractual obligation or responsibility under the Purchase Order.
 - 1.1.4.2 In case the Supplier sublets, transfers or assigns any major part of the Purchase Order with the prior written consent of the Purchaser, all payments to the Sub-Contractor shall be the responsibility of the Supplier and any requests from such Sub-Contractor shall not be entertained by the Purchaser.
 - 1.1.4.3 The Supplier shall be responsible for coordination of all activities with his sub-contractors / and his suppliers.

1.2 Purchase Order Scope and Completion Time

- 1.2.1 Scope of Supply and Technical Specifications:
 - 1.2.1.1 Annexure-I of this tender/enquiry specifies the **scope of supply, technical specifications** and other details of deliverables to be covered under this Purchase Order.
 - 1.2.1.2 Bid/Quotation should be submitted in the following manner:

In respect of Foreign Bidders: The price/s quoted should be on FOB (seaport in supplier's country) basis as per INCOTERMS 2010. The Foreign bidder shall also quote for DAP ITER-India charges as asked separately in price bid format.

The price/s quoted shall be inclusive of all applicable taxes, levies, duties arising in the bidder's/manufacturer's country or any other country/ies except India.



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Annexure-B

In respect of Indigenous bidders: The price/s quoted should be on Door Delivery freight paid basis inclusive of cost of insurance and unloading of items at purchaser's site. The price/s quoted should be exclusive of all applicable Indian taxes, levies, duties which are to be mentioned in the price bid at the prevailing rates.

Unit rate/s should be valid throughout the validity of Contract period 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 Contract.

Prices are required to be quoted according to the units indicated in the tender form. 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.

1.2.1 Insurance:

- 1.2.2.1 The foreign Contractor must take an appropriate insurance for all the Items delivered up to point of FOB against a risk of loss or damage during the transport. Proof of insurance to be submitted to I-I along with other shipping documents.
- 1.2.2.2 The Indian Contractor shall quote the price/s on Door Delivery basis inclusive of freight and insurance till delivery site.
- 1.2.2.3 Purchaser shall make arrangement for insuring the BLCs/Items from the point of FOB to the delivery site at its own costs (For Foreign Contractor). However, the foreign Contractor shall furnish the following details by email (scanned copy) and courier within one day from the date of shipment of Items:
 - 1. Port of sea shipment
 - 2. Clean on board bill of lading
 - 3. Number of packages with their dimensions and weight
 - 4. Shipment details, expected date of arrival
 - 5. Copy of Invoice (indicating therein country of origin / shipment)
 - 6. Phytosanitary certificate/Fumigation, ISPM 15 certificate approved by competent authority. (For Foreign Contractors)
 - 7. Insurance Certificate (upto FOB for foreign contractor)
 - 8. Dangerous cargo certificate (If applicable)

1.2.3 Bank charges:

For Foreign contractor- all the bank charges within India shall be borne by the Purchaser. Similarly all the bank charges outside India shall be borne by the Contractor. Subsequent amendment L/C charges (if applicable) will in the account of party who is responsible for such amendment.

For Indian Contractor, all bank charges shall be borne by the Contractor only.



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1.3 Purchase Order Price, Payment and Recoveries

1.3.1 Taxes and Duties

- i) In respect of Foreign Bidders: The price/s quoted shall be inclusive of all applicable taxes, levies, duties arising in the bidder's/manufacturer's country or any other country/ies except India. TDS will not be deducted from the invoices as raised by the Contractor.
- ii) In respect of Indigenous bidders: The price/s quoted shall be exclusive of all applicable Indian taxes, levies, duties which are to be mentioned in the Price Bid (Part-B) at the prevailing rates.
- 1.3.1.1 GST Registration: Bidder shall submit a copy of GST Registration certificate along with the bid (For Indian Bidders)
- 1.3.1.2 ITER-India, IPR is entitled to avail concessional rate of GST @ 5% for Supply of Goods as per below mentioned notifications.
 - a. Integrated Tax (IGST) as per Notification by Department of Revenue, Ministry of Finance, Govt. of India Notification No. 47/2017 Integrated Tax (Rate) dated 14th November, 2017 (For Indian and Foreign Bidders) IGST @ 5% is also applicable on the items imported by the purchaser.
 - b. Central Tax (CGST) as per Notification by Department of Revenue, Ministry of Finance, Govt. of India Notification No. 45/2017-Central Tax (Rate) dated 14th November, 2017 (For Indian Bidders)
 - c. State Tax (SGST) as per Finance Department, Govt. of Gujarat Notification No. 45/2017 State Tax (Rate) dated 15th November, 2017 (for Indian bidders)
 - ITER-India will issue GST exemption certificate along with the dispatch clearance note upon receipt of a written request for the same from the supplier (applicable for Indian Bidders)
- 1.3.1.3 Bidder shall submit copy of PAN Card along with the bid document.

1.3.1.4 TDS- Tax Deducted at Source (Applicable for Indian bidder):

TDS as per the prevailing rate in GST act will be applicable on the total P.O. value and the same shall be recovered from the Supplier's bill and necessary certificate will be issued to the Supplier. Bidder shall submit copy of PAN card along with the bid document.

1.3.1.5 **Custom Duty** -

ITER-India can provide Custom Duty Exemption Certificate (CDEC) under the notification no. 39/96 amended vide notification no. 5/2012 dated 7th Feb. 2012. In order to avail such exemption, Indian party shall quote in foreign currency on behalf of their foreign Principal/Supplier and purchaser shall place the order directly on foreign Principal/Supplier. In case the India party quotes in the Indian currency with condition of order placement to Indian party, then no such exemption shall be applicable.

- 1.3.1.6 In case, there is any other applicable taxes and duties, same should be informed by the bidder in the bid.
- 1.3.2 Mode of Payment and Payment terms:

ITER-India is fully funded by Government of India and the terms of payment are as follows:

1.3.2.1 Mode of Payment



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1.3.2.1.1 Payment shall be made within 30 days from the date of acceptance against each payment and on receipt of invoice & other documents complete in all respects.

Payment terms for Indigenous Contractor — Payment shall be made through RTGS/NEFT. Necessary mandate form for RTGS/NEFT will be provided at the time of Order.

Payment terms for Foreign Contractor - The payment will be arranged through sight draft State bank of India. However, other terms of payment like establishment of Letter of Credit (L/C)/Wire transfer may be considered by the Purchaser on such terms and conditions as may be agreed upon. (L/C will be opened through Purchaser's Bankers and all bank charges outside India to be borne by the Contractor).

Opening of L/C will be, subject to signing of a Contract, furnishing order acknowledgement and Supplier obtaining Export License, if applicable. In case Export License is not required, Supplier shall submit a declaration to this effect along with the Order Acknowledgement.

1.3.2.1.2 Payment terms

1.3.2.1.2 90% of the P.O. Value shall be paid against dispatch and submission of delivery documents as per 1.6.2.1. 10% of the P.O. value shall be paid against successful completion of acceptance testing at Purchaser's Site.

1.4 Dispatch Clearance

1.4.1 Dispatch Clearance Note

After the review and approval of routine test report, a Dispatch Clearance Note shall be issued to the supplier by ITER-India. The units shall be dispatched only after receiving a dispatch clearance note from ITER-India. However, a clearance issued by ITER-India will not relieve the supplier from the liability of proper functioning of unit at ITER-India Site.

1.5 Packing & Labelling

1.5.1 Packing Instructions

- 1.5.1.1 The Supplier shall pack and crate all items/deliverables for road transportation in a manner so as to protect it from damage and deterioration during transportation. The Suppliers shall be held responsible for all damages due to improper or poor packing.
- 1.5.1.2 The Supplier shall provide suitable packing such as shock/vibration absorption material to avoid damage during transportation. The packing arrangement shall include (but not limited to) a necessary list of documentation and appropriate packing, markings, labelling, handling provisions for the items.
- 1.5.1.3 If Packing materials are of any kind of Plant Origin, valid Phytosanitary Certificate issued by an Authorised Officer at the Country of Origin of the consignment in the format prescribed under the International Plant Protection Convention of the Food and Agricultural Organisation shall be sent along with the shipping documents. This is a mandatory requirement under Law enacted by the Govt. Of India. Deviation from this may result in holding of the consignment at customs causing delays which will be the sole responsibility of supplier (applicable for foreign supplier)



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1.5.2 Marking & Labelling

- 1.5.2.1 All packages shall be clearly, legibly and durably marked for correct identification with uniform block letters (preferably with waterproof paint) on at least three sides with:
 - i. Delivery address (as communicated)
 - ii. Purchase Order Number and date
 - iii. Net and gross weights
 - iv. Sign showing 'SIDE UP'
 - v. Any handling and unpacking instructions, if considered necessary.

1.6 Delivery Basis

1.6.1 Delivery Schedule:

- 1) Delivery of items within 6 months from date of purchase order.
- a. The delivery of all the items shall be based on Free Door Delivery to (including freight and transit insurance) "ON-SITE" or "PURCHASER SITE" I.e ITER-India Lab Building, Institute for Plasma Research, Ground Floor, Power Supply Lab, Nr. Indira Bridge, Bhat Village, Gandhinagar-382428, Gujarat, India (For Indian Bidders).

1.6.2 Delivery Documents

- 1.6.2.1 The Supplier shall forward in advance to the Purchaser, by rapid Courier Service, following documents as detailed hereunder:
 - a. Original Commercial Invoice mentioning Country of Origin 03 Copies
 - b. Clean on Board Air Way Bill (For Foreign Contractors)/ Delivery challan (for Indian Contractor)
 - c. Despatch clearance as issued by Purchaser
 - d. Packing list 03 Copies
 - e. Factory Acceptance Report 01 Copy
 - f. Insurance proof upto FOB (For Foreign Contractors)
 - g. Phytosanitary certificate/Fumigation, ISPM 15 certificate approved by competent authority. (For Foreign Contractors)
 - h. Dangerous Cargo Certificate (if applicable)
- 1.6.2.2 The dispatch documents such as Invoice, delivery challan etc., shall bear the "PO Number", "PO Date", "Destination/Delivery address"

Demurrage / Wharfage

All demurrage, detention, storage, customs inspection, wharfage and allied expenses incurred by ITER-India, if any, due to delayed clearance of items in view of non-receipt, incomplete or delayed receipt by ITER-India of the shipment documents, misdeclaration/wrong declaration of cargo, errors/difference between materials/items specifications mentioned in shipping documents and physically on the materials/items shall be recovered from the payment due to the Contractor . ITER-India shall inform as soon as possible to contractor of such incidences in writing along with the necessary information.



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1.6.3 Transfer of Ownership and Title

- a. Transfer of ownership of the Items shall occur upon delivery of each shipment/shipments as per Incoterms 2010 basis (for Foreign Contractor) and upon successful completion of final acceptance test (For Indian Contractor).
- b. Transfer of Ownership from contractor to ITER-India as per incoterms or upon successful completion of final acceptance shall not in any way relieve the Contractor of its responsibilities and liabilities under the Contract.

1.6.4 Transfer of Risks

From commencement of the work under the Contract, the Contractor shall be responsible at his own risk for the care and custody including theft, damage due to any reasons, of the Items or any part thereof until their respective delivery/ Final acceptance (as applicable)

1.7 Warranty

1.7.1 Warranty

- 1.7.1.1 Supplier shall provide 1 year manufacturer warranty against manufacturing defects and material defects.
- 1.7.1.2 Supplier shall quote for additional (Optional) warranty for 1 year.
- 1.7.1.3 The Supplier shall warrant that the items supplied under this PO comply fully with the specifications laid down, for material, workmanship and performance. The items shall be new, unused and free from any defects.
- 1.7.1.4 If any supplied item is repaired/replaced during the warranty period, the Supplier shall warrant all such items for a further period of at least 12 months from the date of repair/replacement, or remaining original warranty period, whichever is longer.

1.8 Settlement of disputes and Arbitration

1.8.1 Settlement of Disputes

- 1.8.1.1 Any disputes or difference arising out of or in connection with the PO shall be to the extent possible settled amicably between the parties involving management from either side within sixty (60) days. If amicable settlement cannot be reached within sixty (60) days, then all disputed issues shall be settled by arbitration as per clause 1.8.2
- 1.8.1.2 Notwithstanding any reference to the arbitration as herein before provided (a) the Parties shall continue to perform their respective obligations under the PO with due diligence, unless they otherwise agree, (b) the Purchaser shall continue to pay any undisputed amount to the Supplier.

1.8.2 Arbitration

1.8.2.1 For Indian Bidders:

a. All disputes or differences arising out of or in connection with the Contract including the one connected with the validity of the contract or any part thereof, should be settled by bilateral discussions.



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- b. The Arbitration shall be conducted, in English, by two Arbitrators, one each nominated by the Purchaser and Contractor. In case, the said Arbitrators are not able to settle the dispute by themselves, the matter shall be referred to the Arbitrator mutually nominated by the Purchaser and the Contractor and whose decision shall be final and binding on both the parties. The sole Arbitrator shall have its seat in Ahmedabad. The arbitration proceedings shall be conducted under the Indian Arbitration and Conciliation (Amendment) Act, 2015 and the award of such Arbitration Tribunal shall be enforceable in Indian Courts only. The Courts of Ahmedabad, Gujarat shall only have exclusive jurisdiction to deal with and decide any legal or dispute arising out of the Contract.
- c. Each party shall bear its own cost of preparing and presenting its case. The cost of arbitration including the fees and expenses shall be shared equally by the parties, unless otherwise awarded by the sole arbitrator.
- d. The parties shall continue to perform their respective obligations under the Contract during the pendency of the arbitration proceedings except in so far as such obligations are the subject matter of the said arbitration proceedings.

1.8.2.2 For Foreign Bidders:

In the event of any dispute or difference arising under the Contract, the matter shall be referred to Arbitration in accordance to the rules of International Chamber of Commerce. The Arbitration shall be conducted, in English, by two Arbitrators, one each nominated by the Purchaser and Contractor. In case, the said Arbitrators are not able to settle the dispute by themselves, the matter shall be referred to the Arbitrator mutually nominated by the Purchaser and the Contractor and whose decision shall be final and binding on both the parties. The Arbitrator shall have its seat in Ahmedabad or such other place in India as may be mutually agreed to between the parties. Award of Arbitration Tribunal shall be enforceable in Indian courts only.

Either party may also, without waiving any remedy under this agreement, seek from any court having jurisdiction any interim or provisional relief that is necessary to protect the rights or property of that party, pending the arbitrator's determination of the merits of the controversy.



Annexure - C

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Annexure - C

Price bid Format:-

Sr. No	Description	Qty.	Unit Price (Mention currency)	Total Price (Mention currency)
1.	Supply of 22kV Soft Charging Device (Consisting 3×30Ω resistors & 3-pole vacuum contactor in single enclosure) on FOB seaport (In bidder's country) basis including tests & documentation as per technical specification	1 Nos.		
2.	Freight and Insurance from FOB sea port to DAP ITER-India, Gandhinagar, Gujarat			
			Total Price	

Notes:

- 1. Only OEM or their authorized Indian representatives (along with duly attested authorization letter from OEM) are allowed to quote.
- 2. For foreign bidders, all applicable taxes and duties outside India shall be included in the quoted price.
- 3. For Indian bidders, all applicable taxes and duties shall be quoted separately specifying applicable tax rates.
- 4. In case of deviations in payment terms proposed by the bidder and accepted by ITER-India, ITER-India shall appropriately load the price as per State Bank of India (SBI) Benchmark Prime Lending Rate as on due date of bid submission for price comparison purpose.
- 5. In case freight & Insurance are not quoted by the bidder as per Sr. No. 2 of Price Bid format, 10% of FOB price will be taken as freight charges & 1% as insurance charges for price comparison purpose.
- 6. The basis for the price comparison shall be the total landed price of items, including taxes & duties, freight charges (as applicable), insurance (as applicable). IGST@5% shall also be loaded for items to be imported by ITER-India.



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- 7. Reserve Bank of India (RBI) reference Exchange rate applicable on the due date of submission opening shall be applied for price comparison purpose.
- 8. Bidder must indicate the Currency without fail.
- 9. ITER-India on its discretion may select any of the optional items quoted by the bidder(s) and include in the purchase order, if opted by ITER-India.
- 10. Bidder shall submit the price bid on Bidder's letterhead with official seal and sign on each and every page of price bid format.
- 11. Total amount shall be indicated both in words as well as in figures. Where there is a difference between amounts quoted in words and figures, amount quoted in words shall prevail.
- 12. Custom clearance at Indian Sea port will be carried out by ITER-India.
- 13. This is a single part limited Tender & price bids shall be opened along with technical bids without presence of bidders.

Commercial Terms & Conditions:

Sr.No	Description	Bidder's Compliance
1	FOB port of shipment (To mention as per the INCOTERMS 2010)	
2	Delivery period (6 Months from the date of PO)	Comply Yes/No (In case of No Please provide details)
3	Mode of Shipment (By Sea) (FOB)	Comply Yes/No (In case of No Please provide details)
4	Payment (ITER-India payment terms will apply) (Refer Sr. No. 1.3.2.1.2 of Annexure B)	Comply Yes/No (In case of No Please provide details)
5	Warranty (Refer Sr. No. 1.7 of Annexure - B)	Comply Yes/No (In case of No Please provide details)
6	Validity period (90 days from the due date of bid submission)	
7	Discount (if any)	
8	Agency Commission (if payable to Indian Agent) (To Specify)	
9	Indian Agents: Those who are submitting offer on behalf of their principal must attach valid authorization letter issued by their Principal invariably.	
10	Packing & Forwarding (Seaworthy Packing)	Comply Yes/No (In case of No Please provide



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		details)
11	Packing & Forwarding (If not included in the above rate)	
12	GST No. (Applicable for Indian bidders)	
13	GST @ 5% Extra (If not mentioned in the above rates)	Comply Yes/No (In case of No Please provide details)
14	HSN Code	
15	Documentation Charges/Bank Charges (if any)	
16	Remarks	

Place:	Authorised Signatory:
Date:	Company Seal

^{*} Fill in the applicable details

* ITER-India (IPR) reserves the right to place order on FOB or DAP ITER-India. (Seaport (in bidder's country) as per INCOTERMS 2010 basis.