

## REQUEST FOR QUOTATION



**BHARAT HEAVY ELECTRICALS LIMITED**  
 Electronics Division  
 PB No. 2606, Mysore Road Bangalore - 560026  
 INDIA

RFQ NUMBER:  
AKSPROP154

Due Date/Day: 17.03.2026 TUE  
Time : 13:00 HRS

RFQ DATE :  
02.03.2026

MMI:PU:RF:003

(address for communication) :

(for all correspondence)

Purchase Executive : ABHISHEK  
 Phone : 26998102  
 Fax : 00918026989215  
 E-mail: singh.abhishek@bhel.in

1) This RFQ is for entering into Rate contract (RC) with BHEL for the tendered item. Validity of the RC will be 1 year from the award of rate contract. Firm orders will be placed during the tenure of rate contract. Prices will remain firm till the validity of RC or till the completion of supplies against the Purchase Orders placed against this rate contract whichever is later. Please note that these quantities are projections based on the current business scenario and expected orders from customers. In the eventuality of business not coming through, BHEL is not obligated to exhaust the ordering of RC quantities.

2) Reverse Auction Clause: BHEL shall be resorting to Reverse Auction (RA) (Guidelines as available on www.bhel.com) for this tender. RA shall be conducted among all the techno-commercially qualified bidders. Price bids of all techno-commercially qualified bidders shall be opened and same shall be considered as initial bids of bidders in RA. In case any bidder(s) do(es) not participate in online Reverse Auction, their sealed envelope price bid along with applicable loading, if any, shall be considered for ranking.

Sl No.	Description	Qty	Unit	Delivery qty	Delivery Date
1	TI0668104201 CONTACTOR 3P 150A 415VAC 80KW * HSN/SAC : 3921  CONTACTOR 3P 150A 415VAC 80KW As per PSPEC PS/445/2716	1,000	NO	1,000	20.06.2026
2	TI0668104210 CONTACTOR 3P 225A 415VAC 110KW * HSN/SAC : 9032  CONTACTOR 3P 225A 415VAC 110KW As per PSPEC PS/445/2716	250	NO	250	20.06.2026

Total Number of Items - 2

- 1.
- 2.

**NOTES:**

1. This RFQ is governed by:
  - a) INSTRUCTIONS TO BIDDERS/SELLERS and GENERAL CONDITIONS OF CONTRACT FOR PURCHASE available at <http://edn.bhel.com> (RFQ-PO Terms & Conditions)
  - b) Any other specific Terms and Conditions mentioned.

\* The HSN/SAC no mentioned against the line items in the RFQ are indicative only.

For and On behalf of BHEL.

ABHISHEK  
 Control Equipment

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## 1. SCOPE

The Pre-Qualification Requirement document specifies the requirements to be met by the vendors (hereafter called Bidder) who wish to participate in the tender for supply of **power contactors for rolling stock applications**. This PQR should be read in conjunction with the Purchase Technical Specification **PS/445/2716 R00 dtd 29.01.2021**.

## 2. CREDENTIAL

- a) The Bidder should be Manufacturer or authorized dealer / supplier of – **power contactors** used in Rolling Stock applications. Documentary proof like relevant POs / invoice copies, valid authorization certificate etc shall be provided along with the offer.
- b) The Rolling Stock Applications under consideration shall include Locomotive, EMU, MEMU, Metro Trains, High Speed Trains, Train sets, Inspection Cars and Special Track Machines.
- c) For the vendors outside India, documentary proof for usage of the product in rolling stock applications shall be submitted. Acceptance of such certification shall be at BHEL's discretion.
- d) The Bidder should not be under the category of "hold" or "blacklisted" by any of the BHEL units/ any Govt of India PSU/ Govt of India/ statutory bodies of any state Govt as on date of bid submission. A declaration to this effect shall be submitted along with the offer.

## 3. QUALITY SYSTEM

- a) The manufacturer should have valid ISO 9001:2015 or latest certification covering the manufacturing and testing of the subject item
- b) The manufacturer should possess a clearly laid down quality Assurance Plan for the product covering the following aspects  
Organization Chart, clearly indication the quality control set up  
Qualification of key personnel and officials deployed in the quality control cell.
- c) Process Flow Chart indicating process of manufacture for an individual product or for a family of products, if the process is same.
- d) Quality Assurance System – Inspection and Testing plan to cover
  - Incoming material
  - Process control
  - Product control
  - System control
  - Testing facility
- e) Stage inspection details shall include the inspection procedure, inspection parameters, method of testing/ test procedure, sample sizes for destructive & non-destructive testing etc.
- f) Calibration scheme and status of calibration of test equipment  
The process, testing and measuring equipment shall be duly calibrated by approved agency and the validity of calibration should be current.

#### **4. GENERAL REQUIREMENTS**

- a) It is preferred that the bidder is the manufacturer of this item. If the bidder is importing some portion of the components, then minimum value addition in India shall be 20%. Bidder to confirm this in the offer. Value addition less than 20% is not acceptable. A declaration to this effect shall be submitted along with the offer.
- b) The technical bid of bidders, which qualify technically but are not approved for the subject item by the Customer Approving Authority, shall be referred by BHEL to the customer Approving Authority for approval with intimation to the bidder. Consequent to the decision of Customer Approving Authority, the bidder shall be added to the vendor list of the subject item for future tenders. Concurrently BHEL shall consider placing developmental order on the bidder after assessing the capability of the bidder to manufacture / develop the subject item. However, BHEL shall treat the offer as "Not meeting" Pre-Qualification Criteria for the subject tender.
- c) The Customer Approving Authority shall be RDSO/CLW/BLW/PLW/ICF/RCF/MCF or any other agency as designated by the Customer.
- d) The bidder should possess a valid type test report, not older than five years, as per relevant standards mentioned in the specification with respect to time during the bid submission in case of catalog items. In case of custom made items, a bidder can submit the type test report of an item of similar or higher rating with a declaration for conducting the type test in case of award of order or developmental order. The bidder can also submit the test reports conducted in their own facility with the document of their lab accreditation. However, BHEL reserve it's right to insist on conducting the Type test again in a laboratory of it's choice.
- e) For the bid of vendors already qualified and appearing in BHEL's source list, the requirement of type test report and proof of supply shall not be applicable.

#### **5. DOCUMENTATION TO BE SUBMITTED ALONG WITH OFFER**

- a) Documentary proof for experience as per clause 2.a
- b) Clause by Clause compliance to the technical specification
- c) Declaration regarding status as per clause 2.d
- d) Declaration on MII (Make in India) as per clause 3.a
- e) Declaration for conducting Type Test as per clause 3.d



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**PURCHASE SPECIFICATION**  
**GROUP: TRACTION ENGINEERING**

P.S NO. : PS/445/2716

REV. NO: 00

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**REVISION HISTORY SHEET**

REV. NO.	DATE	NATURE OF CHANGE	REASONS	PREPARED BY	APPROVED BY
00	29.01.21	FIRST ISSUE	--	--	--

THIS DOCUMENT IS A SPECIFICATION CUM DATA SHEET. VENDOR TO FILL UP ALL CONFIRMATIONS AND DATA AS REQUIRED AND SUBMIT THE SAME TO BHEL / EDN, BANGALORE. ANY DEVIATIONS TO THIS DOCUMENT TO BE BROUGHT OUT CLEARLY BY VENDOR.

REVISIONS 00 DT: 29.01.2021

APPROVED BY: 

PREPARED BY:

ISSUED BY

DATE

Sadat U K



TE

29.01.2021



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**PURCHASE SPECIFICATION**  
**GROUP: TRACTION ENGINEERING**

P.S NO. : PS/445/2716

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**SPECIFICATION FOR**  
**POWER CONTACTORS**



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**PURCHASE SPECIFICATION**  
**GROUP: TRACTION ENGINEERING**

P.S NO. : PS/445/2716

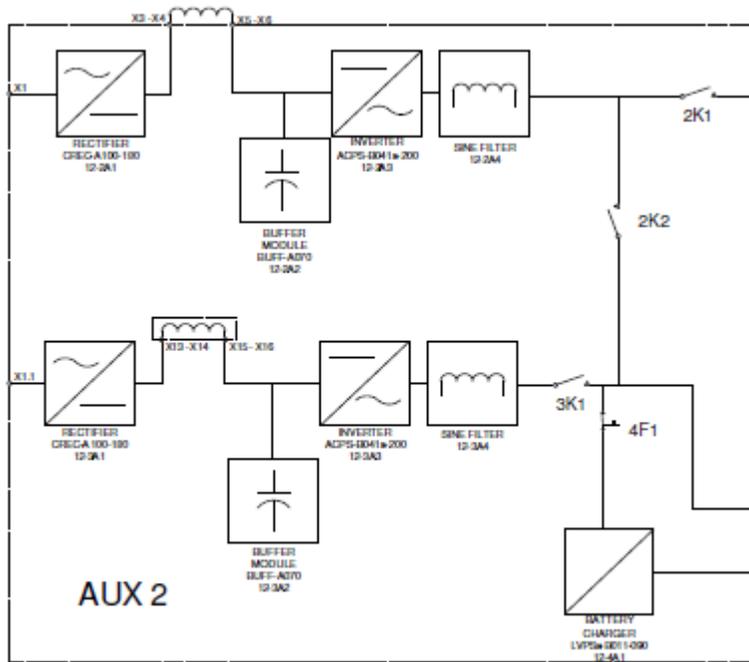
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**1.0 INTRODUCTION:**

The Auxiliary converter employs Power Contactors for Load rearrangement in the event of a converter isolation. Three power contactors are housed in the Auxiliary Converter-2 panel- One rated for 225A and the other two rated for 150A.

**2.0 FUNCTION:**



Load changeover in case of isolation of any one of the converter is done automatically by the auxiliary converter electronics with the aid of contactors.

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**PURCHASE SPECIFICATION**  
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**3.0 COMPONENTS**

Normally the contactor unit consists of replaceable units like the operating coil, Auxiliary contacts and Protection for operating coil. It is preferred to have replaceable units for attending field failures.

**4.0 CHARACTERISTICS- Contactor 150A**

SI No	Characteristic	Value	Unit / Remark
1	No of Poles	3	
2	Rated Operational Voltage	1000	Vac
3	Rated operational Current	150	A
4	Power in KW	80	KW
5	Rated Impulse Withstand Voltage	8	KV
6	Rated Short Time Withstand current Icw for 10s	1200	A
7	Power Dissipation Per Pole	8	W
8	Ambient Temperature for operation	-5 to 55	°C
9	Auxiliary Contacts	3 NO + 5 NC	
10	Coil Operating Range	77 to 137.5	Vdc
11	Coil Protection	Varistor	
12	Operating Time		
	Opeing	30 to 50	mS
	Closing	30 to 40	mS
13	Mechanical Durability	10	Mcycles
14	Operating rate	60	Cycles/Hr
15	Utilization Category	AC-3	Motor Loads

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**5.0 CHARACTERISTICS – Contactor 225A**

SI No	Characteristic	Value	Unit / Remark
1	No of Poles	3	
2	Rated Operational Voltage	1000	Vac
3	Rated operational Current	225	A
4	Power in KW	110	KW
5	Rated Impulse Withstand Voltage	8	KV
6	Rated Short Time Withstand current Icw for 10s	1800	A
7	Power Dissipation Per Pole	16	W
8	Ambient Temperature for operation	-5 to 55	°C
9	Auxiliary Contacts	3 NO + 5 NC	
10	Coil Operating Range	77 to 137.5	Vdc
11	Coil Protection	Varistor	
12	Operating Time		
	Opeing	30 to 50	mS
	Closing	30 to 40	mS
13	Mechanical Durability	10	Mcycles
14	Operating rate	60	Cycles/Hr
15	Utilization Category	AC-3	Motor Loads

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**PURCHASE SPECIFICATION**  
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**6.0 MECHANICAL DIMENSION**

To be specified by the supplier

**7.0 INSPECTION**

The type test reports from a NABL accredited laboratory to be provided along with the technical offer. For series supplies, Routine test reports are to be provided.

**8.0 APPLICABLE NORMATIVE STANDARD**

The offered system shall generally conform to the following normative standards

IEC 60529 for IP68 protection

EN 50121-2 EMC: Emissions to external environments

IEC60077 Rules for equipment for onboard rail vehicles

IEC-61373 Electric Railway Equipment-Rolling Stock-Shock & Vibrations Requirements

IEC 60947 Low Voltage Switchgear and Control gear

**Note: Bidder shall provide necessary mounting brackets with hardware to install the contactor in existing BHEL panel, if required.**

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