


# REQUEST FOR QUOTATION - ONLINE BIDDING

	<b>BHARAT HEAVY ELECTRICALS LIMITED</b> Electronics Division PB No. 2606, Mysore Road Bangalore - 560026 INDIA	<b>RFQ NUMBER:</b> AKSEHLC001  <b>RFQ DATE :</b> 22.07.2022	<b>Due Date/Day:</b> 04.08.2022 THU <b>Time</b> : 13:00 HRS
MMI:PU:RF:003			
Please submit your lowest quotation subject to our terms and conditions attached for the material mentioned below. "Quotation to be submitted in E Procurement portal only"		(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](http://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	TI0668085452 AC LINE CONTACTOR * HSN/SAC : 8532 <div style="background-color: black; height: 15px; width: 350px; margin-bottom: 2px;"></div> <div style="background-color: black; height: 15px; width: 100px; margin-bottom: 2px;"></div> <div style="background-color: black; height: 15px; width: 350px; margin-bottom: 2px;"></div> <div style="background-color: black; height: 15px; width: 30px; margin-bottom: 2px;"></div> <div style="background-color: black; height: 15px; width: 350px; margin-bottom: 2px;"></div> <div style="background-color: black; height: 15px; width: 100px; margin-bottom: 2px;"></div> Test Certificate Rated Current: 900A; No of Contacts: 1NO; Coil Voltage: 110VDC; Aux. Contacts: 2NO+ 2NC; Vendor shall provide mating connector for Control Circuit and Auxiliary Contacts.  As per Specification PS4452751 Rev No 00	100	NO	100	<div style="background-color: black; width: 60px; height: 15px;"></div>

Total Number of Items - 1


- 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. of offers are required to furnish authorization letter for the same.
  2. Tender Result can be viewed in the website.
- \* The HSN/SAC no mentioned against the line items in the RFQ are indicative only.

For and On behalf of BHEL.

ABHISHEK  
Control Equipment

	<b>PRE-QUALIFICATION CRITERIA (PQC)</b> <b>for AC Line Contactor</b> <b>Group: Traction Engineering</b>			Ref.: HLC/PQC/ACLC	
				Rev. No.: 00	
				Page 01 of 01	
<div>COPYRIGHT AND CONFIDENTIAL</div> <div>The information on this document is the property of BHARAT HEAVY ELECTRICALS LIMITED. It must not be used directly or indirectly in anyway detrimental to the interest of the company.</div>	<b>1. Pre-qualification Criteria</b>				
	1.1 The bidder should be manufacturer/supplier of contactors for use in rolling stock application (locomotive/EMU/Metro) in India or abroad.				
	1.2 The bidder should be an “Approved” vendor of RDSO/CLW/Indian Railways. If not, the bidder shall approach and submit its credentials to RDSO/CLW/Indian railways and obtain approval within a period of one month from the date of tender opening. The approval shall be for usage of offered contactors in Hotel Load Converter project. If approval is not received within this period, BHEL shall treat the offer as <i>"Not meeting Pre-qualification criteria"</i> and offer shall be rejected. <i>Extension beyond one month will not be given for whatsoever reason.</i>				
	1.3 It is preferred that the bidder is the manufacturer of this item. If the bidder is importing the item, then minimum value addition in India shall be 20%. Bidder to confirm this in the offer. Value addition less than 20% is not acceptable.				
	1.4 Bidder should possess valid type test report for the item, not older than five years, conducted at an accredited laboratory as per standards mentioned in the specification at the time of bid submission.				
<b>2. Documents to be submitted:</b>					
2.1 Proof of manufacture/supply of the item for rolling stock application (locomotive/EMU/Metro) in India or abroad directly or through any agency.					
2.2 Copy of type test report.					
2.3 Clause by clause compliance to technical specification as mentioned in clause no. 3.1.					
<b>3. Reference documents:</b>					
3.1 Purchase-cum-Technical Specification No PS/445/2751, Rev. No. 00 for AC Line Contactor for Hotel Load Converter.					
Rev.	00		Approved by:		
			Venkateshalu K		
			Prepared by:	Department:	Date:
			Girish Chand	Traction Engg.	21.02.2021



# PURCHASE SPECIFICATION

P. S. No.: PS/445/2751

Rev. No.: 00

Page 1 of 6

Group: Traction Engineering

## Purchase specification for AC Line Contactor for Hotel Load Converter

Code No.: TI0668085452

## Purchase specification for AC Line Contactor for Hotel Load Converter

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### Revision History

Rev. No.	Date	Nature of Issue	Reasons	Prepared By	Approved By
00	22.02.2022	First issue		Girish Chand	Venkateshalu K

Revision 00

Approved by:

Venkateshalu K

Prepared by:

Girish Chand

Issued by:

Traction Engg.

Date:

22.02.2022

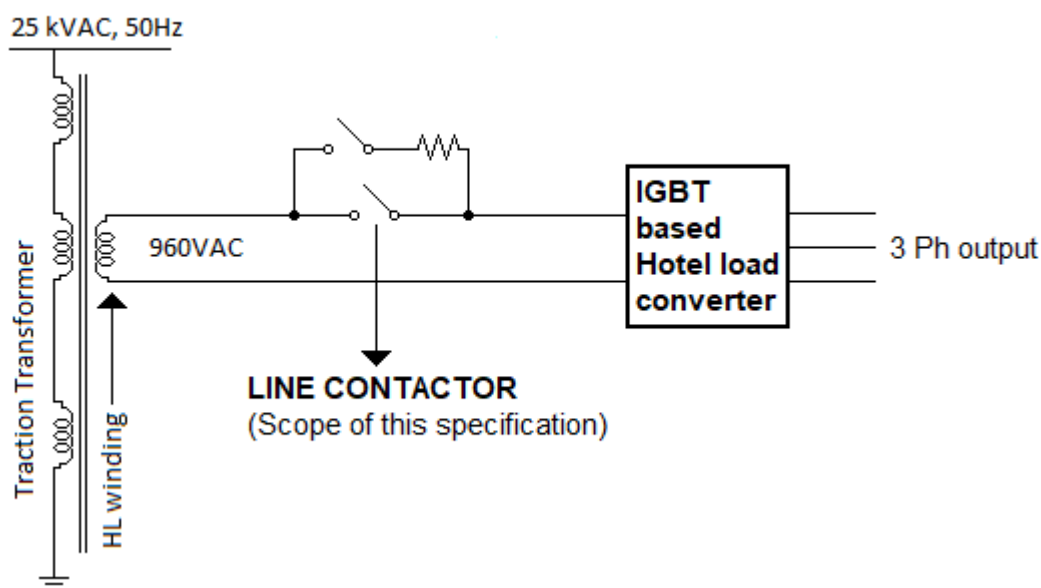
**Purchase specification for AC Line Contactor for Hotel Load Converter**

**1. Introduction**

A magnetically operated single pole line contactor for use in rolling stock application.

**2. Function**

This contactor shall be mounted at the input of IGBT based Hotel Load Converter. The Hotel Load Converter is mounted inside locomotive.



**3. Scope of supply**

Following shall be the scope of supply.

	Item Description	Quantity
1.	Line contactor	1 Nos
2.	Mating connector (if applicable) for control connection	As applicable
3.	Adaptor plate (if mounting footprint s different than as mentioned in this specification clause 6.	1 Nos

Revision 00

Approved by:

Venkateshalu K

*Venkateshalu K*

Prepared by:

Girish Chand

*Girish Chand*

Issued by:

Traction Engg.

Date:

22.02.2022

**Purchase specification for AC Line Contactor for Hotel Load Converter**
**4. Specifications**
**4.1 Electrical Characteristics:**

	Parameter	Value
1.	Max Operational Voltage [ $V_{AC}$ ]:	1500
2.	Max Current at 75°C [A]:	800
3.	Number of Poles:	1 NO
4.	Control Voltage Rating:	110 VDC
5.	Auxiliary Contact:	2 NO + 2 NC
6.	Rated Insulation Voltage [V]:	2000
7.	Mounting Position:	Vertical

**4.2 Mechanical Characteristics:**

	Parameter	Value
1.	Mechanical Endurance (cycles):	2x10 <sup>6</sup>
2.	Shock and Vibrations (IEC-61373):	Cat.1 - Class B

**4.3 Environmental Conditions:**

	Parameter	Value
1.	Stock Temperature Range:	-50°C to +85°C
2.	Operational Temperature Range:	-40°C to +75°C
3.	Pollution Degree - Overvoltage Category (EN 50124-1):	PD3 / OV3
4.	Max Altitude without Performance Derating [m]:	1500

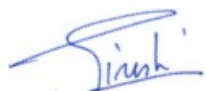
**4.4 Applicable standards:**

1	IEC 60077	Railway applications – Electric equipment for rolling stock
2	EN 50124-1	Railway applications – Insulation coordination – Part 1: Basic requirements – Clearances and creepage distances for all electrical and electronic equipment
3	IEC 61373	Railway applications – Rolling stock equipment – Shock and vibration tests

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 Venkateshalu K
 
**Prepared by:**

 Girish Chand
 
**Issued by:**

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22.02.2022

**Purchase specification for AC Line Contactor for Hotel Load Converter**

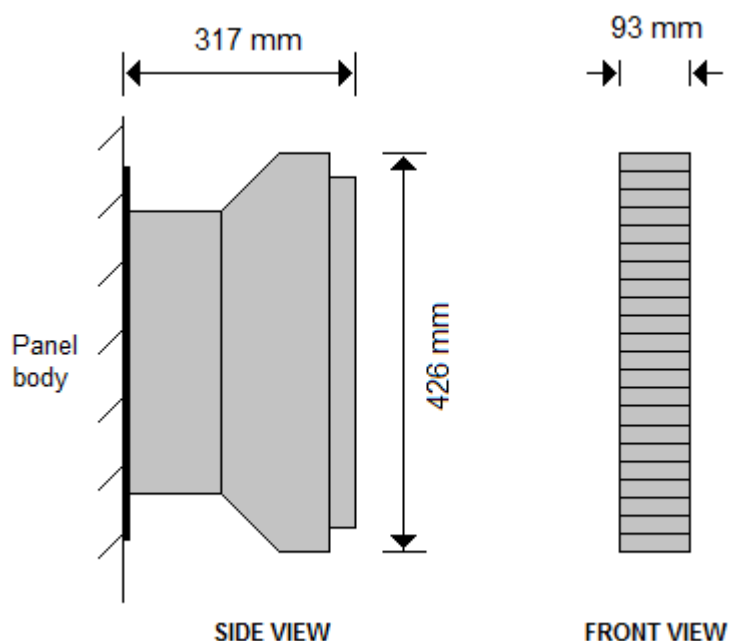
**5. Tests and Inspection**

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

**6. Mechanical Dimensions**

**6.1 Limiting dimensions**

Limiting dimensions of the contactor (along with adaptor plate if applicable) should be as close to as shown below:



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Prepared by:

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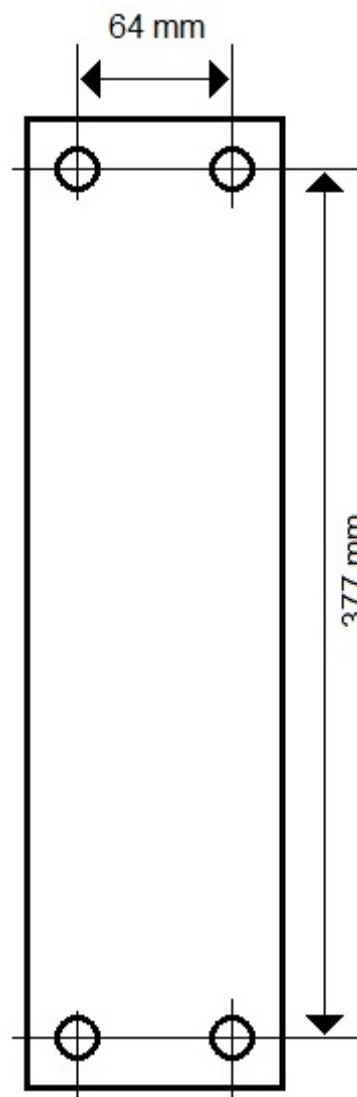
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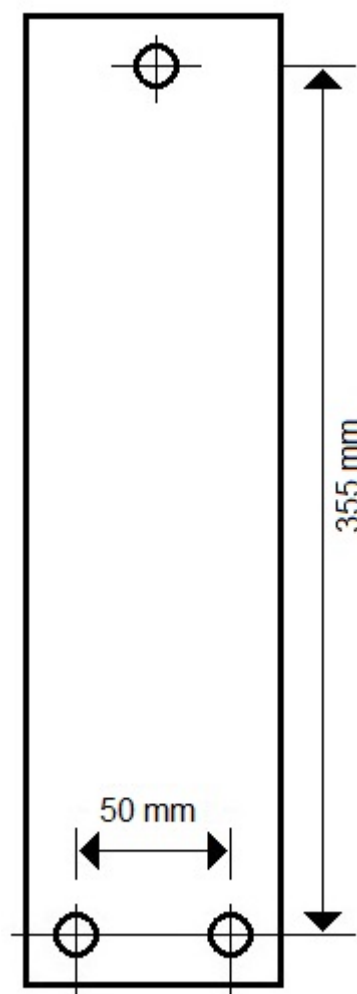
**6.2 Mounting footprint**

The mounting footprint of the contactor shall match any of the shown below. If not, suitable adaptor plate should be provided along with the contactor.



Mounting holes 4x Ø9

Mounting footprint 1



Mounting holes 4x Ø9

Mounting footprint 2

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Revision 00

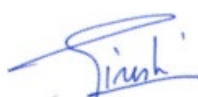
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## PURCHASE SPECIFICATION

P. S. No.: PS/445/2751

Rev. No.: 00

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Group: Traction Engineering

### Purchase specification for AC Line Contactor for Hotel Load Converter

#### 7. Documentation

Following documents to be submitted along with the technical offer.

1. Datasheet including OGA of the offered contactor
2. 3-D model in .stp/.igs format to check for fitment inside BHEL panel
3. Type test reports, including shock and vibration test

Revision

00

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