



PURCHASE SPECIFICATION

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Page 1 of 5

Group: Traction Engineering

Technical specification for 3 Pole Output Contactor for Hotel Load Converter

Code No.: TI0668121459

Purchase specification for 3 Pole Output Contactor for Hotel Load Converter

Revision History Sheet

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

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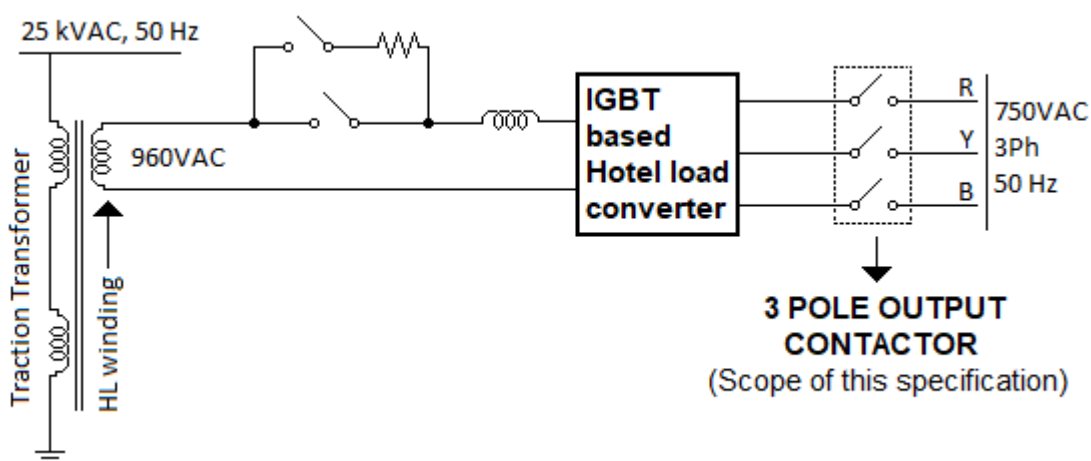
Technical specification for 3 Pole Output Contactor for Hotel Load Converter

1. Introduction

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

2. Function

This contactor shall be used in IGBT based Hotel Load Converter at the output. 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 connections	As applicable
3.	Adaptor plate (if mounting footprint s different than as mentioned in this specification clause 6.	1 Nos

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4. Specifications
4.1 Electrical Characteristics:

	Parameter	Value
1.	Max Operational Voltage [V_{AC}]:	800
2.	Max Current per pole at 75°C [A]:	400
3.	Number of Poles:	3 NO
4.	Control Voltage Rating:	110 VDC
5.	Auxiliary Contact:	2 NO + 2 NC
6.	Mounting Position:	Horizontal

4.2 Mechanical Characteristics:

	Parameter	Value
1.	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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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. Documentation

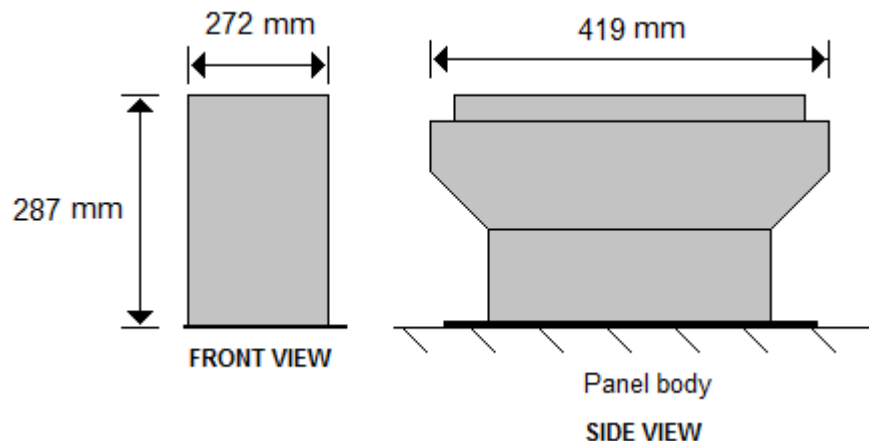
Following documents to be submitted along with the technical offer.

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

7. Mechanical Dimensions

7.1 Limiting dimensions

Overall dimensions of the contactor (along with adaptor plate if applicable) shall be within the following limits:



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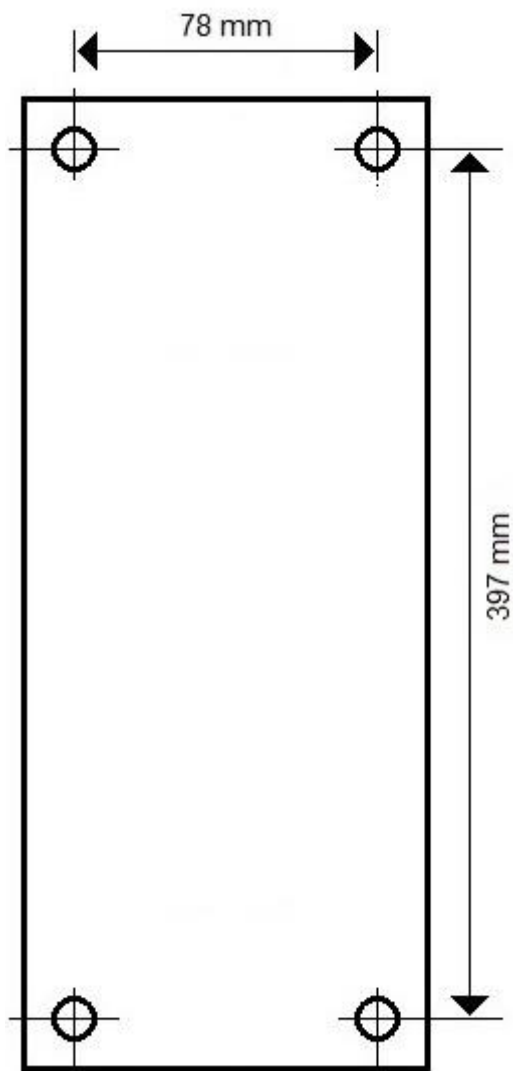
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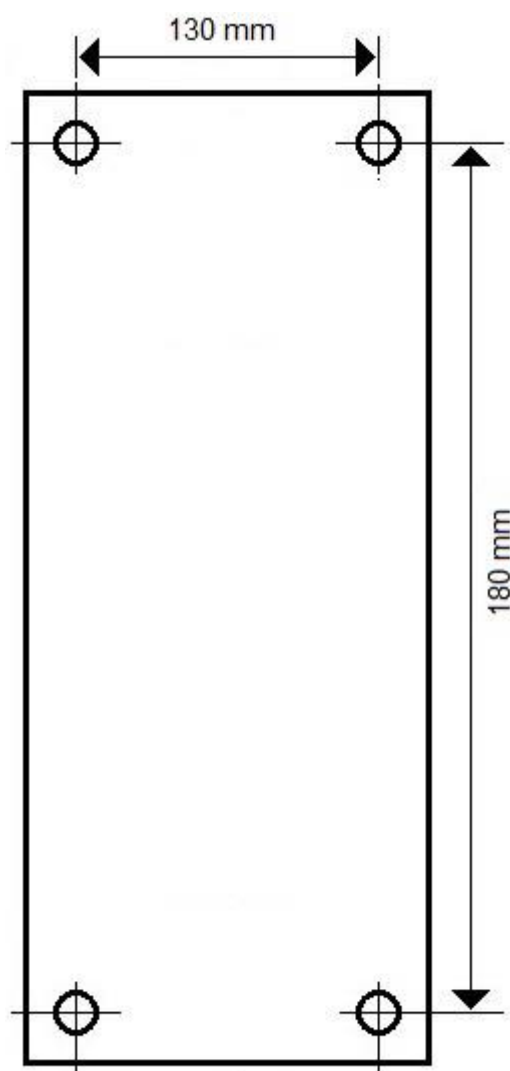
7.2 Mounting footprint

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



Mounting hole size: Ø11

Mounting footprint 1



Mounting hole size: Ø9

Mounting footprint 2

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