



PURCHASE SPECIFICATION

OF

HEAT SINK OF WRE & GG module

For

3x100kVA Auxiliary Converter of WAG9/WAP5 Loco



SPECIFICATION NO. : PS407236

REVISION NO. : REV 00

DATE OF REVISION : 10/06/2017

	Name:	Designation	Signature:
Prepared By:	Ankur Saxena	Sr. Design Engineer	
Approved By	S.K.Biswas	Sr. DGM	



Bharat Heavy Electricals Limited, Bhopal Control Equipment Engineering Division

1. SCOPE :

This specification applies to the requirement of Heat sinks for Rectifier (GG) & Inverter (WRE) modules of 3x100kVA

2. CONTEXT:

Items are Aluminum Heat sinks with Insulating Island (as per drg. no HIET110179R0007 & HIET210277R0003 respectively) for 3-Phase Electric Loco. These are special types of Aluminum Heat sink with more than 99% Aluminum content and also with Electrically Insulating Islands on it. Because of insulating Island, Power electronics devices like GTO's & Thyristors at different potentials can be mounted on a single Heat sink. The insulating islands provide insulation of 33kV.

The heat sinks are shown in the assembly of Rectifier and inverter modules. Details of other assembly items have been suppressed for better viewing.

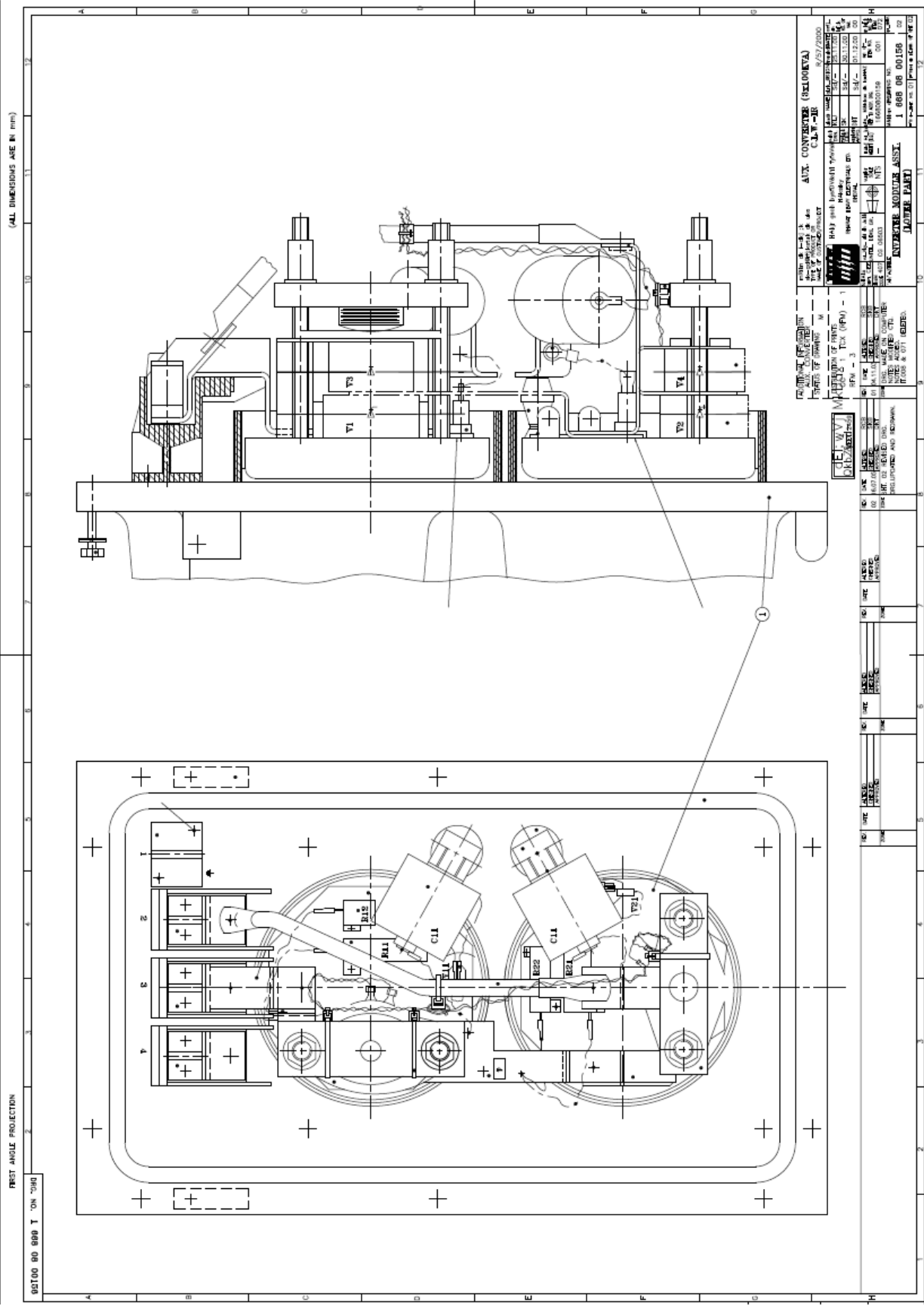


Bharat Heavy Electricals Limited, Bhopal Control Equipment Engineering Division

FIRST ANGLE PROJECTION

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S. NO.	QTY	DESCRIPTION	MATERIAL	UNIT	REMARKS	DRAWING NO.	REV.
2	B.O.	642 SW 1/2" BUSH	DN7984/ BN3311			BP01752212	
14	B.O.	641 SW 1/2" BUSH	DN7984/ BN3311			BP01752202	
2	B.O.	640 GATE TIE					
3	B.O.	638 GATE RULER					
2	B.O.	637 CONN. PIN	3 668 08 00448 02				
2	B.O.	636 CONN. PIN	3 668 08 00448 02				
2	B.O.	635 CONN. PIN	3 668 08 00448 02				
2	B.O.	634 CONN. PIN	3 668 08 00448 02				
2	B.O.	633 STD. WASH	4 669 21 90081 001				
2	B.O.	632 STD. WASH	4 668 08 00613 001				
4	B.O.	631 WASHER					
1	B.O.	630 STD. WASH	4 669 21 90081 013			BP01752203	
1	B.O.	629 CONTACT BRG	4 668 08 00608 001				
1	B.O.	628 BUS BAR	4 668 08 00604 003				
3	B.O.	627 SPACER TUBE	4 668 08 00811 002				
2	B.O.	626 SPACER TUBE	4 668 08 00811 001				
1	B.O.	625 BUSH	4 668 08 00604 002				
1	B.O.	624 TAPPING GARNET	4 669 08 00363 001				
2	B.O.	623 GATE TIE	4 668 08 00443 01				
2	B.O.	622 GATE TIE	3 668 08 00443 003				
2	B.O.	621 BRACKET	4 668 08 00601 001				
2	B.O.	620 BRACKET FOR CAPACITOR	4 668 08 00602 001				
1	B.O.	619 BUS BAR	4 668 08 00600 001				
12	B.O.	618 NUTS				BP01752140	
12	B.O.	617 SCREW				BP01752140	
1	B.O.	616 BUS BAR	3 668 08 00447 002				
1	B.O.	615 BUS BAR	3 668 08 00606 001				
4	B.O.	614 WALE CONTACT ASY.	4 669 08 00445 001				
1	B.O.	613 CONTACT CONTACT	4 668 08 00591 001				
2	B.O.	612 BUS BAR	4 669 08 00459 002				
1	B.O.	611 GATE CIRCUIT ASY.	1 668 08 00155 001				
1	B.O.	610 NUT	HECT1077900207			BP02752844	
8	B.O.	609 CONTACT PAPER	4 668 08 00608 001				
2	B.O.	608 CAPACITOR					
4	B.O.	607 CONTACT					
1	B.O.	606 NUT	4 668 08 00607 001			BP02752844	
1	B.O.	605 SUPPORTING	3 668 08 00436 001				
1	B.O.	604 SUPPORTING	3 668 08 00436 001				
4	B.O.	603 TO PIN TYPE-1	3 668 08 00106 01				
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AVR CONTROLLER (R2/51/2000) C.L.W.-1E	
DESIGNER: C.L.W. DRAWN: C.L.W. CHECKED: C.L.W. DATE: 01.12.2000	REVISIONS: 01 REVISIONS: 02 REVISIONS: 03 REVISIONS: 04 REVISIONS: 05 REVISIONS: 06 REVISIONS: 07 REVISIONS: 08 REVISIONS: 09 REVISIONS: 10 REVISIONS: 11 REVISIONS: 12
DEPARTMENT CONTROL EQUIPMENT ENGINEERING DIVISION	
PROJECT NO. 1. 668 06 00156	

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