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481155/2021/HEP-TXM20513
764433/2022/HEP-TXM20500

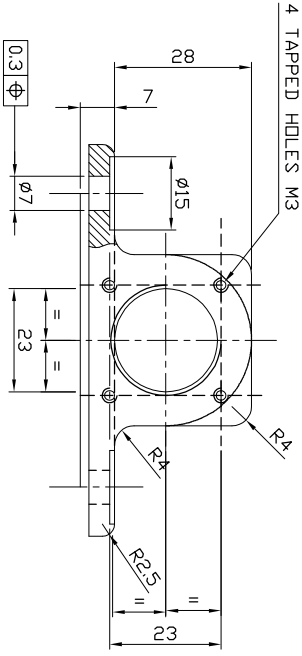
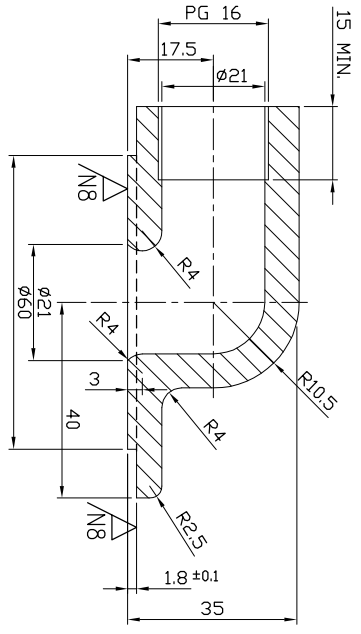
INVENTORY NO. SIGN. & DATE REF. DRG. NO.

450 49 10 545 01 60 050
DRG. NO. 3

FIRST ANGLE PROJECTION

(ALL DIMENSIONS ARE IN mm)

TOOL LIST		
IT.	TOOL	DESCRIPTION
001	1577895	DRILL PLATE $\phi 7$
001	1578298	DRILL JIG FOR M3 HOLES



NOTES:-

1. REMOVE ALL SHARP EDGES.
2. SURFACE TO BE SPOT FACED BY MILLING.
3. THIS IS SIMILAR TO CLW DRG. NO. 31WD.096.076 (ALT-1)

001			001	THERMO COUPLE HSG CAST		34450164053				KG 0.36												
59	64	65	75	78	79	25	27	29	58	59	60	77	79	31	34		45	55	56	58	65	72
QTY																						
VAR 00	REMARKS		VAR. NO.	ITEM NO.	DESCRIPTION		STD	DRAWING NO.					32	33	46	MATL. SPECN.	54 C	55 A	56 B	UNIT W.T.		
																			</			

ADDITIONAL INFORMATION
SIM COMP. DRG. 3EHM311884
STATUS OF DRAWING

TYPE OF PRODUCT
OR
NAME OF CUSTOMER/PROJECT

6FRA-6068
INDUCTION MOTOR

DISTRIBUTION OF PRINTS
TME-1, TXM-3, TNX-1,



NAME SIGN DATE NO. OF VAR.

REV.	DATE	ALTERED	SDB	REV.	DATE	ALTERED
03	10.07.18	CHECKED	ABHJIT	02	19.01.11	CHECKED
03	10.07.18	APPROVED	ABHJIT			APPROVED
ZONE	PG 16 CORRECTED.			ZONE	TOOL LIST WAS NOT ON.	

REV.	DATE	ALTERED	RBV
01	12.10.10	CHECKED	KD
01	12.10.10	APPROVED	KD
ZONE	NOTE-3 MODIFIED.		

REV.	DATE	ALTERED	RBV
01	12.10.10	CHECKED	KD
01	12.10.10	APPROVED	KD
ZONE	NOTE-3 MODIFIED.		

REV.	DATE	ALTERED	RBV
01	12.10.10	CHECKED	KD
01	12.10.10	APPROVED	KD
ZONE	NOTE-3 MODIFIED.		

SIZE A3

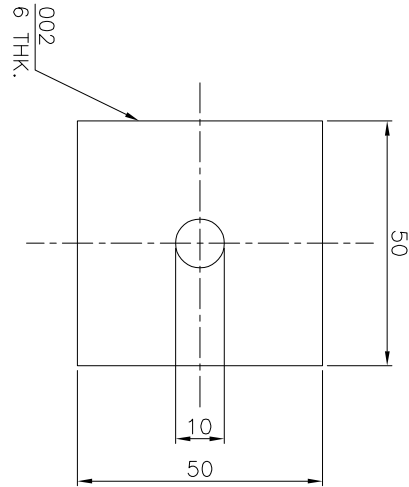
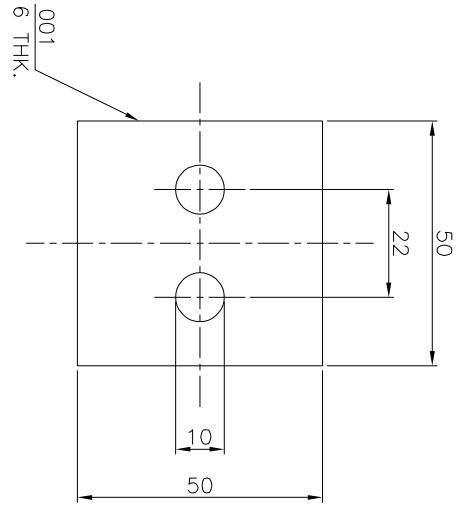
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481155/2021/HEP-TXM20513
764433/2022/HEP-TXM20500

DRG. NO.3 445 01 64 051

FIRST ANGLE PROJECTION

(ALL DIMENSIONS ARE IN mm)



NOTE:—

1. IT. 001 & 002 TO BE MADE FROM SILICONE RUBBER.

QTY.	VAR.	ITEM	DESCRIPTION	STD	DRAWING NO.	VAR.	IT. NO.	MATL. CODE	UNIT WT.	QTY.	ZONE
00		NO.				32	33	46	54	68	71
VAR.		NO.						MATL. SPCN.			
001		003	LOWER FOAMED GASKET 6TKx50x50						KG	0.02	
001		002	UPPER FOAMED GASKET 6TKx50x50						KG	0.02	
001		001	LOWER FOAMED GASKET 6TKx50x50						KG	0.02	

ADDITIONAL INFORMATION SIM COMP. DRG. HMMT412426 STATUS OF DRAWING DISTRIBUTION OF PRINTS TME-1, TXM-3, TNX-1,
--

TYPE OF PRODUCT OR NAME OF CUSTOMER / PROJECT						GFRA-6068	
BHARAT HEAVY ELECTRICALS LTD. BHOPAL							
INDUCTION MOTOR FOR AC LOCO							
	NAME	SIGN	DATE	NO. OF VAR.			
DRN.	R.B.V.	-SD-	09/09/10				
CMD.	D.K.	-SD-	09/09/10				
APPD.	V.R.	-SD-	09/09/10				

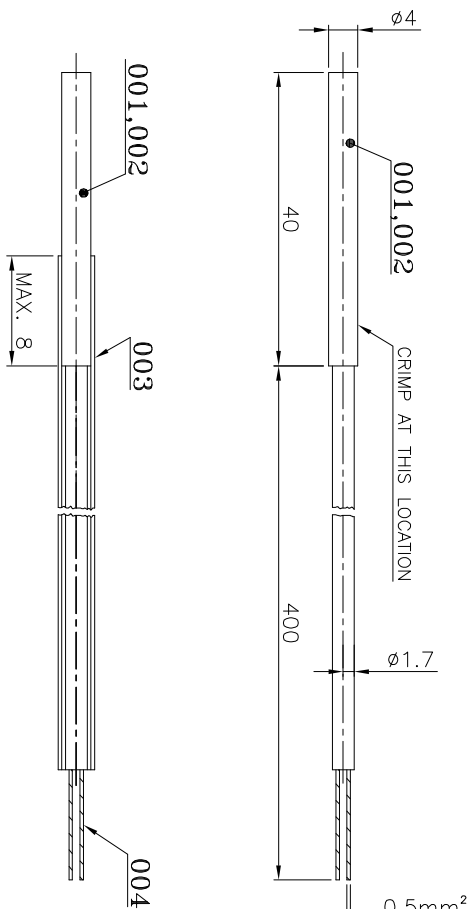
[illegible]

SIZE A3

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481155/2021/HEP-TXM20513
764433/2022/HEP-TXM20500

3/2022/HEP-TXM20500		REF. DRG. NO.
INVENTORY NO.	SIGN. & DATE	



DRG. NO.3 445 01 64 052

FIRST ANGLE PROJECTION

(ALL DIMENSIONS ARE IN mm)

NOTES:-

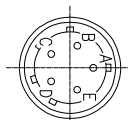
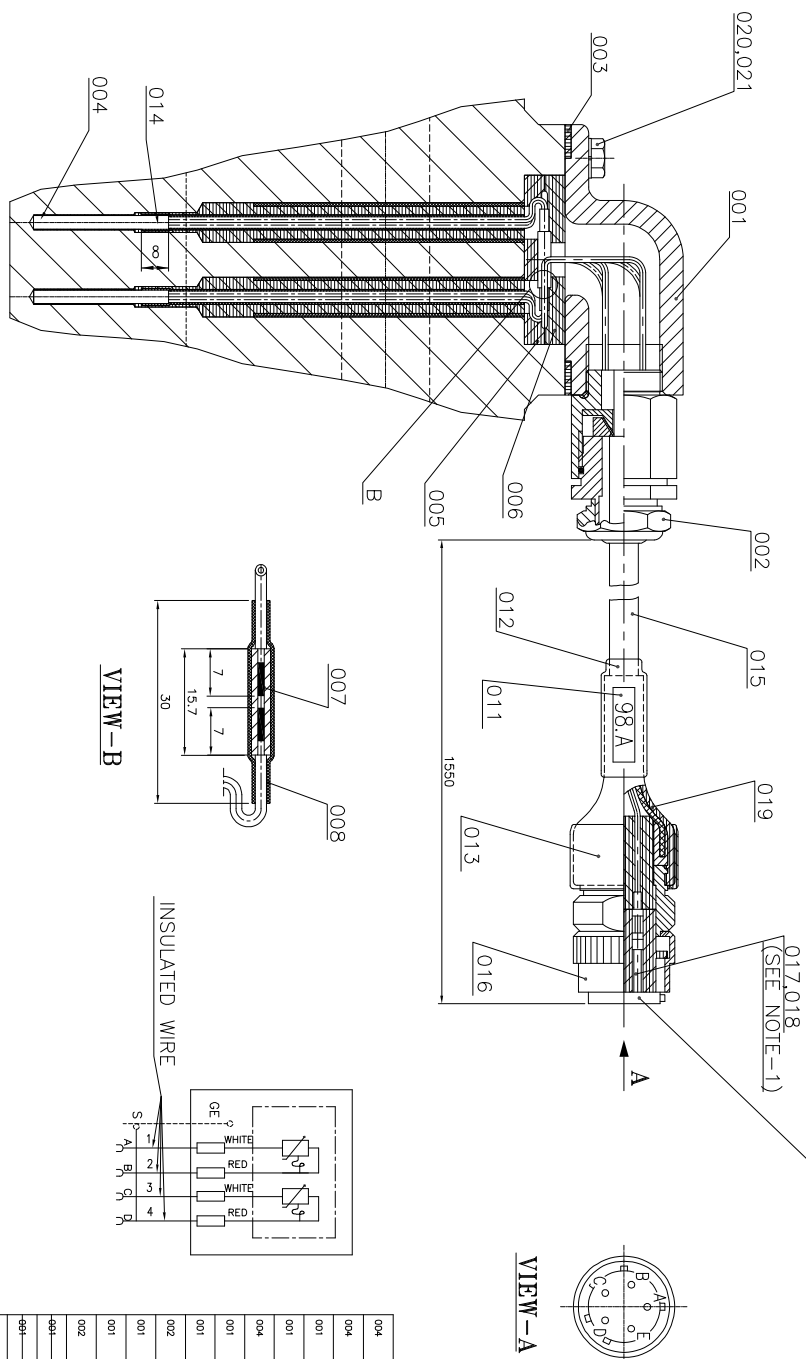
- (1) TYPE: ANTIMAGNETIC
TYPE: TRT-PT100/B/2 ACCORDING TO DIN/IEC 60751 Cl. B
- (2) OPERATING TEMPERATURE RANGE 250°C.
- (3) SENSOR SOCKET: STAINLESS STEEL.
- (4) C.U. STRAND – SILVER PLATED, 0.5mm² PTFE INSULATION DESIGNATION
DIN/IEC 60751–3.6
- (5) TEMPERATURE SENSOR PROBE (PT 100) SHOULD BE AS PER LATEST
MASTER LIST OF APPROVED SUPPLIER FOR THREE PHASE ELECTRIC
LOCO COMPONENTS CLW/MLAS/3-PHASE.

[illegible][illegible]

SIZE A3

SIZE A4

764433/2022/HEP-TXM20500




SEE NOTE-4

NOTES:-

1. INSERT BLENDED CABLE CORP. IN CONTACT P/N-
2. FILLING UP CONNECTOR AS PER A48-1H1B 660602-
3. SHORTEN CABLE TO 200 MM-
4. CONTACTS TO BE PROTECTED WITH PLASTIC COVER.
5. ALTERNATE CABLE TYPE: RABOX TENNIS TM/5-ENG-2X2X0.5 MM² CAN BE USED FOR IT. 015-
6. FOR MATERIAL DETAILS REFER SPECN. NO. IM10421
7. THIS DRG. IS SIMILAR TO CLW DRG NO. JEHA 311882 ALT-4.

[illegible]

NAME OF CUSTOMER/PROJECT	INDUCTION MOTOR FOR AC LOCO		
	DEFA-600B		
TYPE OF PRODUCT OR	INDUCTION MOTOR		
STATUS DRWG. NO., REV., J111882	SIN DRWG. NO., REV., J111882		
STATUS OF DRAWING	SIN DRWG. NO., REV., J111882		
DISTRIBUTION OF PRINTS	SIN DRWG. NO., REV., J111882		
ME-1, PM-3, IN-1,	SIN DRWG. NO., REV., J111882		
 BHARAT HEAVY ELECTRICALS LTD. BROOAL	NAME	SON	DATE
	DRW. E.V.	-50	04.03.10
	CHD. D.C.	-50	04.03.10

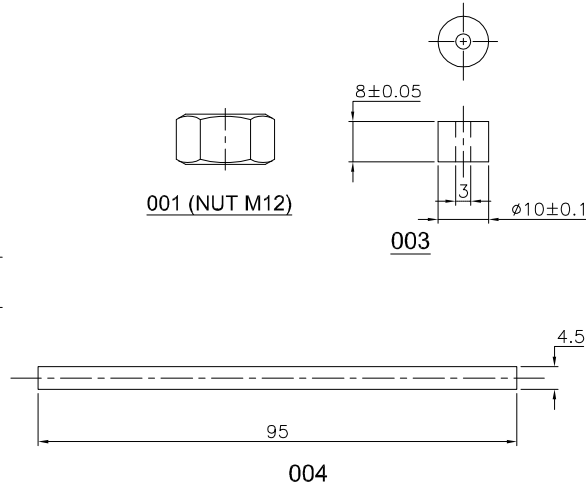
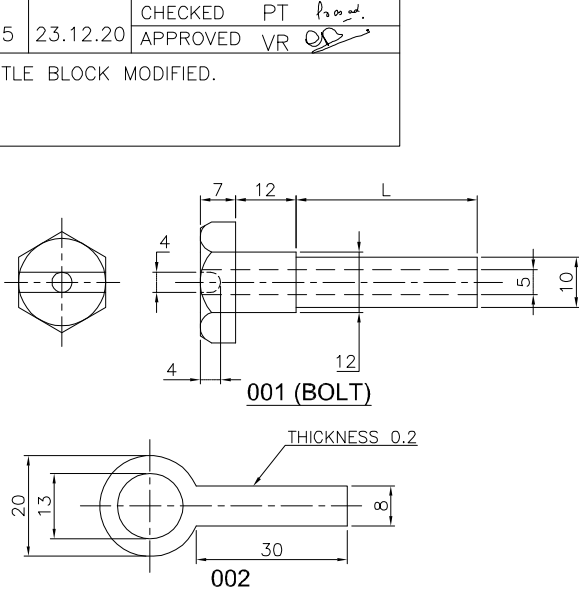
REV./DATE	ALTERED	REV.	CHKD.	DATE	UNIT	QMS.	OK	SOLE	WARRANT	REF. TO ASSY. PGM.	ITEM NO.	ITEM	REV.	U
01	7.8.80	CHECKED	KINDA	0					(A.S.)	3 445 01 64 056	001	ITEM	001	01
IN TITLE BLOCK REF. IT. NO.														
21 WAS 11.														
TITLE														
TEMPERATURE SENSOR ASSY.														
DRAWING NO. 1 445 01 64 051														
REV. 03														

SIZE A1

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REV.	DATE	ALTERED	<i>Pragat</i>	REV.	DATE	ALTERED	SUNIL	ADDITIONAL INFORMATION	4TWD.096.163	
02	28.05.13	CHECKED	<i>Pragat</i>	01	06.09.11	CHECKED	DK	STATUS OF DRAWING	DISTRIBUTION TME- 1, TXM-3 OF PRINTS TNX-1	
		APPROVED	<i>Pragat</i>			APPROVED	MEENAKSHI			
LENGTH OF ITEM 001 REVISED INLINE WITH DRG. NO. 04453166053 R03 & 04453164051 R04.				IN BOM VAR.01 WAS NOT ON. NOTE-4 WAS NOT ON.						
REV.	DATE	ALTERED	<i>Pragat</i>	REV.	DATE	ALTERED	<i>Pragat</i>	STYLE LIST		
03	28.11.13	CHECKED	<i>Pragat</i>	04	31.07.14	CHECKED	<i>Pragat</i>	VAR.NO.	DESCRIPTION	ST.NO.
		APPROVED	<i>Pragat</i>			00	HEX.NUT (KIT FOR TEMP SENSOR ASSY.)	BP9094727617		
IN TABLE DIM.54.5±0.2(FRA) & 96.5±0.2 (FXA) WERE 11.5±0.2 & 26.5±0.2.				STYLE TABLE ADDED.				01	HEX.NUT (KIT FOR TEMP SENSOR ASSY.)	BP9094730855
REV.	DATE	ALTERED	VK <i>Pragat</i>							
05	23.12.20	CHECKED	PT <i>Pragat</i>							
		APPROVED	VR <i>Pragat</i>							
TITLE BLOCK MODIFIED.										


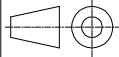
Technical drawing of a hex nut. The drawing shows a top view and a side view. The top view is a hexagon with a central hole. The side view shows the hexagonal shape with a dimension line indicating a width of 8±0.05. The drawing is labeled with '8±0.05' and includes a crosshair symbol.



T M TYPE	LENGTH IN mm (L)
6 FRA 6068	54.5±0.2
6 FXA 7059	96.5±0.2

NOTES :-

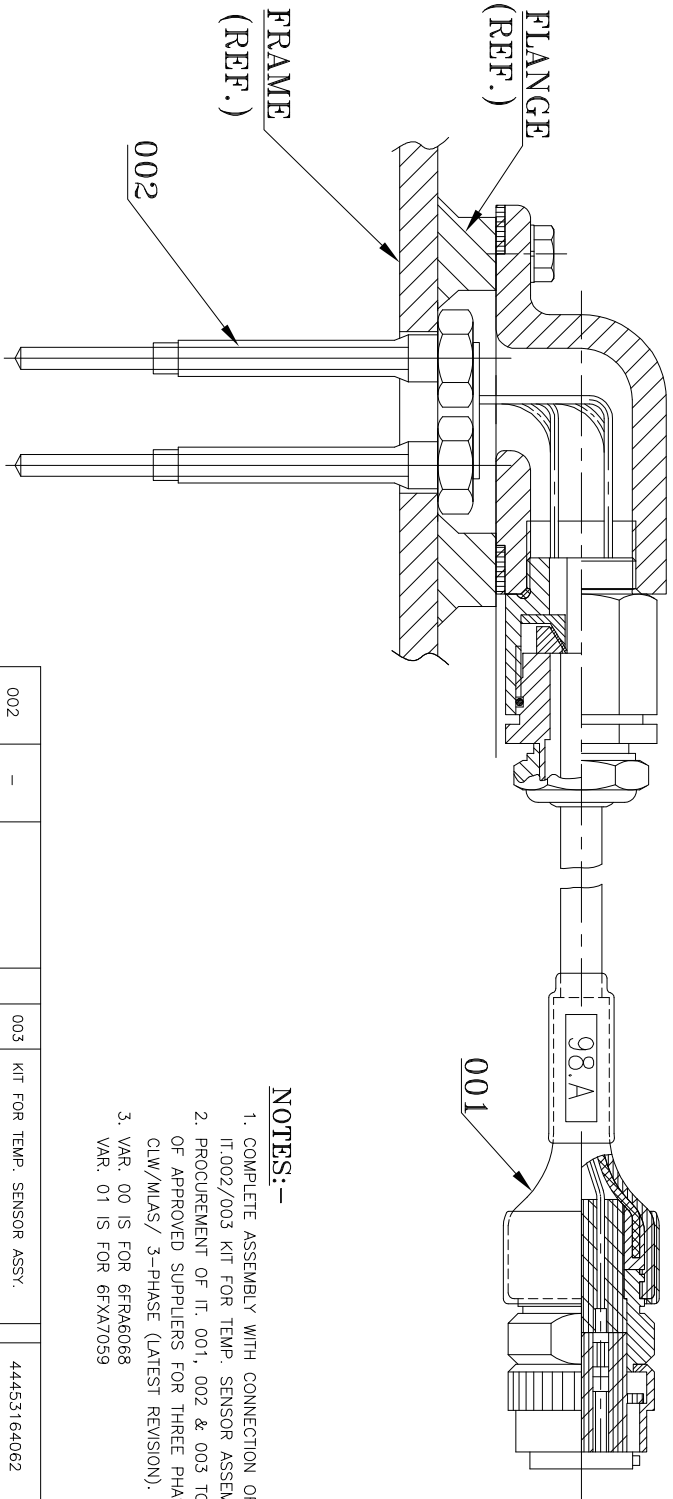
- ALL DIMENSIONS ARE IN mm.
- THIS IS A COMMON DRAWING TO 6FRA 6068 AND 6FXA 7059.
- ONE SAMPLE MUST BE SUPPLIED FOR FITMENT AND APPROVAL BEFORE BULK SUPPLY.
- VAR.00 FOR 6FRA-6068, VAR.01 FOR 6FXA-7059.

001	001		004	SLEEVE			HIGH INSULATION FLEXIBLE COTTON SLEEVE				
001	001		003	BUSH			HIGH INSULATION HARD EPOXY FIBRS	KG	R.Q.		
001	001		002	LOCKING PLATE			HIGH FLEXIBLE CORROSION FREE TIN/STEEL	KG	0.06		
001	001		001	HEX.HD. BOLTM12 170Gr:4.6 ALONG WITH HEX NUT M12			PHOSPHATED IS 1334(P-2)92	KG			
VAR. O1	VAR. OO		ITEM NO.	DESCRIPTION	DRAWING	STD	MATL. SPECN.	A C	UNIT	UNIT WT. QTY.	
CARD TYPE 3 → 28				CARD TYPE 1 → 28			→ CARD TYPE 2				
<div><div><div>बी.सच.ई.एल.</div><div></div></div><div>BHARAT HEAVY ELECTRICALS LTD. BHOPAL</div></div>								NAME	SIGN	DATE	NO.OF VAR. 01
							DRN.	ASWINI J.	-sd-	09-09-10	
							CKD.	D.K.	-sd-	09-09-10	
							APPD.	A.S.	-sd-	09-09-10	
DEPT. TME	UNTOL. DIMS. GR.			SCALE	WEIGHT(KG)	REF.TO ASSY.DRG.		ITEM NO.	NO.OF ITEM 004		
CODE 405	M			NTS	0.7	34450164056		002 003			
TITLE KIT FOR TEMP SENSOR ASSY. 6FRA6068/6FXA7059							DRAWING NO. 44453164062			REV 05	
							SHT.NO	01	NO.OF.SHT.	01	

FIRST ANGLE PROJECTION

(ALL DIMENSIONS ARE IN mm)

DRG. NO. 950 49 10 544 3

**NOTES:-**

1. COMPLETE ASSEMBLY WITH CONNECTION OF IT.001 TEMPERATURE SENSOR ASSY. & IT.002/003 KIT FOR TEMP. SENSOR ASSEMBLY TO BE SUPPLIED.
2. PROCUREMENT OF IT. 001, 002 & 003 TO BE DONE AS PER MASTER LIST OF APPROVED SUPPLIERS FOR THREE PHASE ELECTRIC LOCO COMPONENTS CLW/MLAS/ 3--PHASE (LATEST REVISION).
3. VAR. 00 IS FOR 6FRA6068
VAR. 01 IS FOR 6FXA7059

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REF. DRG. NO.

SIGN. & DATE

INVENTORY NO.

REV.	DATE	ALTERED CHECKED APPD.

REV.	DATE	ALTERED CHECKED APPD.

VAR. 01	VAR. 00	REMARKS	VAR. NO.	ITEM NO.	DESCRIPTION	DWG. NO.	VAR. NO.	ITEM NO.	UNIT WT.	QTY.	ZONE
002	-			003	KIT FOR TEMP. SENSOR ASSY.	44453164062	01		kg		
-	002			002	KIT FOR TEMP. SENSOR ASSY.	44453164062	00		kg	-	
001	001			001	TEMPERATURE SENSOR ASSY.	14450164051	00		kg	-	

DMD Dwg 1 → 28

28 → DMD Dwg 1

28

DMD Dwg 2

ADDITIONAL INFORMATION**STATUS OF DRAWING****DISTRIBUTION OF PRINTS**

TME - 1 TXM - 4

TNX - 1

**TYPE OF PRODUCT OR
NAME OF CUSTOMER/PROJECT**

6FRA6068 / 6FXA7059

BHARAT HEAVY ELECTRICALS LTD.
BHO PAL

DEPT. T.M.E.

GRADE OF UN.TOL.

CODE 405



SCALE

WEIGHT(K.G.)

0.88

REF. TO ASSY.DRG.

ITEM NO.

NO. OF ITEM

TITLE

COMPLETE TEMPERATURE SENSOR ASSY.

DRAWING NO.


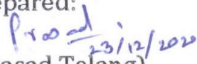
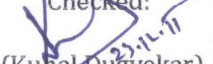

3 445 01 64 056

REV.

00

SHT. NO. 01

NO. OF SHT. 01

	 PRODUCT STANDARD TME DIVISION, BHOPAL TME 2011	TM 10421 REV 01 PAGE: 01 OF 06																																				
COPYRIGHT AND CONFIDENTIAL The information on this document is the property of BHARAT HEAVY ELECTRICALS LIMITED It must not be used directly or indirectly in any way detrimental to the interest of the company	<u>TEMPERATURE SENSOR ASSEMBLY FOR TRACTION MOTOR TYPE 6FRA6068 & 6FXA7059</u>																																					
	<u>1. GENERAL</u> <p>This specification is made for procurement of Temperature Sensor Assembly for 3 phase Traction motors type 6FRA6068 & 6FXA7059.</p> <p>The sensors are to be fitted in holes provided in the stator of the motor for recording the temperature of the motor during service. The temperature sensor assembly consists of two (02) nos. Resistance Temperature Detectors – PT100 (RTD) (Resistance Element) with required cables, connectors and other mechanical items. The details of the item are as per drawing no. 14450164051. This specification is to supplement the afore mentioned drawing.</p>																																					
	<u>2. SERVICE CONDITION</u> <table border="1" data-bbox="253 783 1495 1619"> <thead> <tr> <th>S. No.</th> <th>Description</th> <th>Remarks</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Location of Temperature sensor assembly</td> <td>Outer surface of Stator of Motors</td> </tr> <tr> <td>2</td> <td>Maximum Atmospheric Temperature</td> <td>+70°C (in Sun) and +50°C (in shade)</td> </tr> <tr> <td>3</td> <td>Ambient Temperature (Operating)</td> <td>-20°C to +70°C</td> </tr> <tr> <td>4</td> <td>Ambient Temperature (Storage)</td> <td>-30°C to +80°C</td> </tr> <tr> <td>5</td> <td>Normal Humidity</td> <td>60%</td> </tr> <tr> <td>6</td> <td>Maximum Humidity</td> <td>100% saturation during rainy season.</td> </tr> <tr> <td>7</td> <td>Altitude</td> <td>Nominal 160 meter above sea level (a.s.l.) Range 0 to 1000 meter above sea level</td> </tr> <tr> <td>8</td> <td>Rain fall</td> <td>Very heavy in certain areas. The Equipment should be designed in such a way as to withstand its running at 10 Km/h. in flood water level of 102 mm above rail level.</td> </tr> <tr> <td>9</td> <td>Atmosphere during hot weather</td> <td>Extremely dusty and desert terrain in certain Areas.</td> </tr> <tr> <td>10</td> <td>Coastal Areas</td> <td>Equipment will be designed to work even in coastal areas in humid and salty laden.</td> </tr> <tr> <td>11</td> <td>Vibration</td> <td>The equipment sub-system and their mounting arrangement will be designed to withstand vibration and shock in countered in service as specified in correspondence unless otherwise prescribed.</td> </tr> </tbody> </table>			S. No.	Description	Remarks	1	Location of Temperature sensor assembly	Outer surface of Stator of Motors	2	Maximum Atmospheric Temperature	+70°C (in Sun) and +50°C (in shade)	3	Ambient Temperature (Operating)	-20°C to +70°C	4	Ambient Temperature (Storage)	-30°C to +80°C	5	Normal Humidity	60%	6	Maximum Humidity	100% saturation during rainy season.	7	Altitude	Nominal 160 meter above sea level (a.s.l.) Range 0 to 1000 meter above sea level	8	Rain fall	Very heavy in certain areas. The Equipment should be designed in such a way as to withstand its running at 10 Km/h. in flood water level of 102 mm above rail level.	9	Atmosphere during hot weather	Extremely dusty and desert terrain in certain Areas.	10	Coastal Areas	Equipment will be designed to work even in coastal areas in humid and salty laden.	11	Vibration
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Revision: 01 Dt: 23/12/2020	Distribution TME TXM TNX	Qty 1 2 1	Approved: Prepared:  (Prasad Telang) Checked:  (Kunal Dugvekar) Date: 23/12/2020  (Vikas Rawtiya)																																			

TME 2011

PRODUCT STANDARD
TME DIVISION, BHOPAL

TM 10421

REV 01

PAGE: 02 OF 06

3. CONFORMING STANDARDS

The Temperature Sensor shall conform to the requirements as per IEC 60751 & 60721-3-5 or its latest updates /equivalents.

4. SCOPE OF SUPPLY


All the items mentioned below are in the scope of supply against this specification. All the items are to be as per dimensions and details called in respective drawings.


5. TECHNICAL DESCRIPTION:


S. No	Technical Description	Qty. / Equipment
1	Thermo-Couple Housing (Machined)	01 No.
2	Cable Fitting PG16 Earth	01 No.
3	Gasket 2.4 X 80 X 80	01 No.
4	Resistance Element	02 No
5	Lower Foamed Gasket	01 No.
6	Upper Foamed Gasket	01 No.
7	Press Plug Connector 1.3X15.7	06 N0s.
8	Adhesive Shrink Sleeve, Dia 8/2, length: 4x30 mm	120 mm
9	Designation Strip SK 8	01 No.
10	Shrink Sleeve 19 X 0.35 Color - Transparent	40 mm
11	Shrink Sleeve 38.1X0.43 Color - Yellow	30 mm
12	Protective Layer Flex Tube 4X0.5-SI/GL1 length 460mm in two equal piece	02 Nos.
13	Cable 2x2x0.5 SCR Length CA - 1650mm	01 No.
14	Plug	01 No.
	Contact socket GR 16 1 mm ²	05 Nos.
	Dummy plug GR16BL	01 No.
15	Perform Shrink part GR 18	01 No.
16	Hex.HD.SCR.M6X19-8.8/ZN to IS:1364 (Part-II)'92	04 Nos
17	Spring washer B6 (BBBB-Brand) to IS: 3063 phosphated	04 Nos.


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COPYRIGHT AND CONFIDENTIAL The information on this document is the property of BHARAT HEAVY ELECTRICALS LIMITED It must not be used directly or indirectly in any way detrimental to the interest of the company		<p><u>5.1 THERMO-COUPLE HOUSING (MACHINED)</u> This item is to be manufactured as per Drawing No. 34450164054.</p> <p><u>5.2 CABLE FITTING PG-16 EARTH</u> This is a cable gland made of brass, machined with good finish and nickel plated. The gland is provided with PG-16 thread (as per DIN 40430) for mounting.</p> <p><u>5.3 GASKETS</u> This Gasket should be made of silicon rubber. Dimensions as mentioned in drawing no. 4450164051.</p> <p><u>5.4 RESISTANCE ELEMENT</u> The resistance element to be TRT-PTI00/B/2 according DIN/IEC 60751 Cl. B with accuracy tolerance Class "B" which to be housed in side a solid stainless steel bar (Not tube). The operating temperature range 250°C. The connections of RTD is through PTFE insulated cable of length as per drawing no 34450164052. The exit point of stainless steel housing to be crimped to hold tightly the PTFE cables. The RTD elements should be imported from OEM (M/s AG Almetra AG or M/s UST Germany). The TC, GC or OEM's invoice. Bill of entry & tacking no. to be submitted by the supplier at the time of inspection and as & when asked by BHEL.</p> <p>Type : Antimagnetic Type: TRT PT-100/B/2 according to specification DIN/IEC 60751 Cl. B Operating Temperature Range: 250°C. Sensor socket : Stainless steel Cu-Strand : Silver plated, 0.5 MM2 PTFE Insulation designation DIN/IEC 60751 3.6 Qty/TM = 02 Nos.</p> <p><u>5.5 & 5.6 LOWER & UPPER FOAMED GASKET</u> These gasket to be made of silicon rubber, compressible by hand. Material should not be deformed in temperature index (-) 40 C to (+) 200 C. For dimension, refer drawing no. 34450164051.</p> <p><u>5.7 PRESS PLUG CONNECTOR</u> This item (press plug connector 1.3 X 15.7 mm) is like standard ferule used for crimped connection. This item to be made of copper with Tin plating.</p> <p><u>5.8 ADHESIVE SHRINK SLEEVE</u> This is heat shrinkable sleeve of diameter 6 or 8 mm with a shrink ratio of 1:4 or 1:3 respectively. This item to be procured from reputed source.</p> <p><u>5.9 DESIGNATION STRIP</u> This item is for marking designation/ make of supplier</p>	

		 <p>PRODUCT STANDARD TME DIVISION, BHOPAL</p> <p>TME 2011</p>	<p>TM 10421</p> <p>REV 01</p> <p>PAGE: 04 OF 06</p>
<p>COPYRIGHT AND CONFIDENTIAL</p> <p>The information on this document is the property of BHARAT HEAVY ELECTRICALS LIMITED. It must not be used directly or indirectly in any way detrimental to the interest of the company</p>		<p><u>5.10 & 5.11 SHRINK SLEEVE</u> These are shrink sleeve of size 19 X 0.35 mm, transparent color & size 38.1 X 0.43 mm, yellow color.</p> <p><u>5.12 PROTECTIVE LAYER TUBE</u> This is a silicon rubber impregnated glass tube to be used as covering over the resistance element and crimped joints.</p> <p><u>5.13 CABLE</u> This is a 4 core cable with PTFE insulation with a temperature withstanding capacity of minimum 120°C. The cable to be procured from reputed source (i.e. OEM is M/s Huber + SUHNER) only. Length 1650 mm. CAB 2X2X0.5 SCR or RADOX TENUIS TW/S EMC 2X2X0.5 mm². This cable to be procured from standard source (OEM is M/s Huber + SUHNER) or from their authorized dealer only. Firm should mention the source of cable sheath, documentary evidence to be produce at the time of inspection/ supply.</p> <p><u>5.14 CONNECTOR</u> Item to form a Circular type connector. This connector has to be preferably procured from M/s ITT Cannon USA. If equivalent used, prior approval from Indian Railways (CLW)/ BHEL to be taken.</p> <p><u>5.15 PREFORME SHRINK PART GR 18</u> This item is to be supplier as per drawing no. 14450164051, item no. 019</p> <p><u>5.16 & 5.17 HARDWARE</u> All the hardware items should be procure form any one of the following make 1. Precision Fasteners Ltd. 2. Lakshmi Precisions (LPS) 3. Sundaram Fasteners (TVS) and all spring washer of M/s Forbes & Co. Ltd, Mumbai make or any other make subject to prior approval of Indian Railways (CLW)/ BHEL.</p> <p>All the non-metallic parts of Temperature sensor should be fire retardant /self extinguishing type as per IS:11731 or any other equivalent DIN, IEC standard.</p>	
		<p><u>6. MARKING</u> The cable shall be marked on adhesive labels on the reels. The adhesive sticker must contain the following details. i) Manufacturer or supplier's name; ii) P.O. No. & date iii) Make of Resistance Element ; iv) Batch No. & Mfg. Date v) Firm's identification must be engraved / stamped on the thermocouple housing & resistance.</p> <p><u>7. PACKING</u> Temperature Sensor Assly must be packed so that , they are covered and stored correctly with adequate protection against damages, contamination on the absorption of moisture/dust or any liquid.</p>	

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<p>COPYRIGHT AND CONFIDENTIAL</p> <p>The information on this document is the property of BHARAT HEAVY ELECTRICALS LIMITED It must not be used directly or indirectly in any way detrimental to the interest of the company</p>		<p><u>8. TESTING OF SAMPLE</u></p> <p>All testing shall be carried by supplier as per specification/ drawing as mentioned in the P.O. If any test required to be carried out from outside agency, necessary permission to be taken from BHEL & the cost of such type of testing should be bearded by the supplier.</p> <p><u>9. DEVIATIONS</u></p> <p>While submitting the offer, the tenderer shall furnish a list of deviation, if any, from this specification.</p> <p><u>Notes</u></p> <p>The following steps to be followed during manufacturing (Ref.: MS No. RDSO/2015/EL/MS/0437, Rev.'0' dated 06.01.2015)</p> <p>To ensure the pin E is earthed, Check the continuity between pin E and connector (male /female body)</p> <ol style="list-style-type: none"> 1. Insert wrapped shielding wire into one end of 1 sq.mm 2cm long copper tube butt connector and crimp the wrapped wire. 2. Take wrapped shielding wire of 1 sq.mm and adequate length separately whose one end reach up to female/male pin of connector and put other end into copper tube butt connector inside approximately 1 cm and crimped the wrapped wire at copper tube butt connector. 3. Crimp other end of taken wrapped shielding wire per 2 above on make or pin or both as the case may be. 4. Insert the 1.2 mm dia. heat shrinkable sleeve approximate 28mm length for covering the wrapped shielding Shrink the sleeve with the help of heat gun. 5. Insert the pin in to E' position of the make/female connector. 6. Close the end bell. 7. Cover the female /male connector with heat shrinkable sleeve "perform shrink part GR18" Shrink the sleeve with the help of heat gun. 	

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