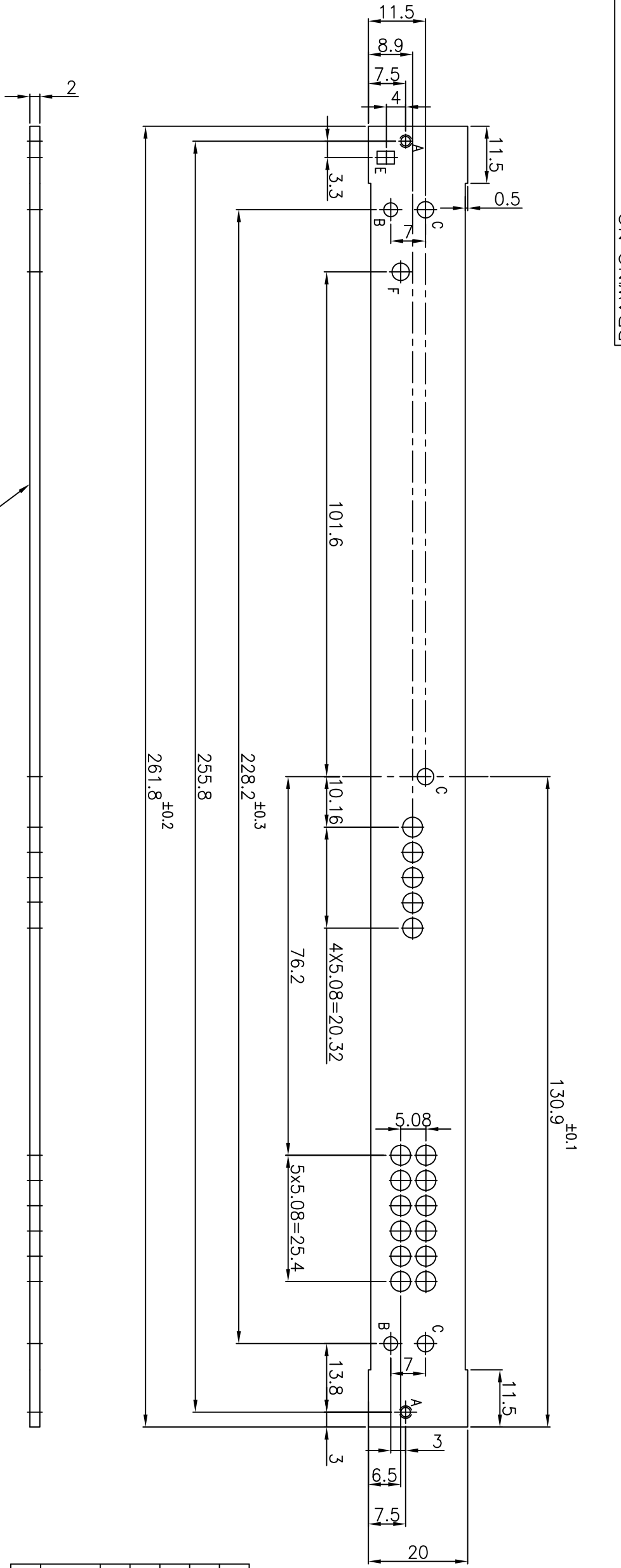


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00409 03 692 03 60400
DRAWING ON



NOTE:-

1. DEBURR LOOSE BURRS ON THE SHARP CUT EDGES.
2. SHARP EDGES & CORNERS SHALL NOT BE ROUNDED OFF.
3. APPLY LIGHT SCOTCH BRITE FINISH ON REAR SIDE.
4. FINISH : POWDER COATED TO DARK GRAY COLOUR ON FRONT SURFACE AND ALL CUT EDGES EXCEPT REAR SIDE 60 TO 70 MICRONS THK., AS PER ED0851799., COLOUR SHADE : SHADE 671 OF IS 5.
5. SCREEN PRINTING DETAIL :
 - a) SCREEN REFERENCE : 36920360400 REV 04
 - b) HEIGHT OF THE LETTERS 2mm.
 - c) ALL PRINTING TO BE DONE IN WHITE COLOUR.
6. PACKING : COMPONENT SHOULD TO BE SUPPLIED IN A POLYTHINE COVER TO AVOID SCRATCHES.

INVENTORY NO.	SIGN & DATE	REF. DRG.NO.
		HIER325217

REV.	DATE	ALTERED	SHEEBA	REV.	DATE	ALTERED	DINAMANI
04	08.05.12	CHECKED	SVM/NAGAPPA	03	08.06.99	CHECKED	N.B.M
		APPROVED	RAVINDRAN K G			APPROVED	RAVINDRAN K G

REV.	DATE	ALTERED	SHEEBA	REV.	DATE	ALTERED	DINAMANI
04	08.05.12	CHECKED	SVM/NAGAPPA	03	08.06.99	CHECKED	N.B.M
		APPROVED	RAVINDRAN K G			APPROVED	RAVINDRAN K G

ITEM No.	DESCRIPTION	DRAWING NO.	ITEM No.	MATERIAL CODE	UT.Wt. (kgs)	QTY.
01	2x20x261.8 Lg AL ALLOY SHEET			AA1231714050	0.026	
				AA12314		

NAME	SIGN.	DATE	No. OF VAR
MARUTI G		13.04.93	
P.J.K		17.04.93	
M.T.R		05.05.93	

DEPT. SAE	FOR UNSPECIFIED-TOLERANCES	SCALE	WEIGHT(Kg)	REF. TO ASSY. DRG.	ITEM NO.	No. OF ITEM
406	REFER ED 0230499	1:1		2 692 03 00401		

TITLE	DRAWING NO.	SHEET NO.	NO. OF SHEETS
FRONT PLATE DRILLING DETAIL/ SCREEN PRINTING	3 692 03 60400	01	02

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INVENTORY NO.	SIGN & DATE	REF. DRG.NO. HIER 456512
---------------	-------------	-----------------------------

DRAWING NO. 3 692 03 60400

REV.	DATE	ALTERED CHECKED APPROVED	REV.	DATE	ALTERED SHEEBA CHECKED N.B.M APPROVED RAVINDRAN K G
1			04	08.05.12	
2			03	08.06.99	
3					
4					
5					

FAIL

U₁ U₂ U₃ U₄ U₅ U₆

R₁ R₂ R₃ R₄ R₅ R₆

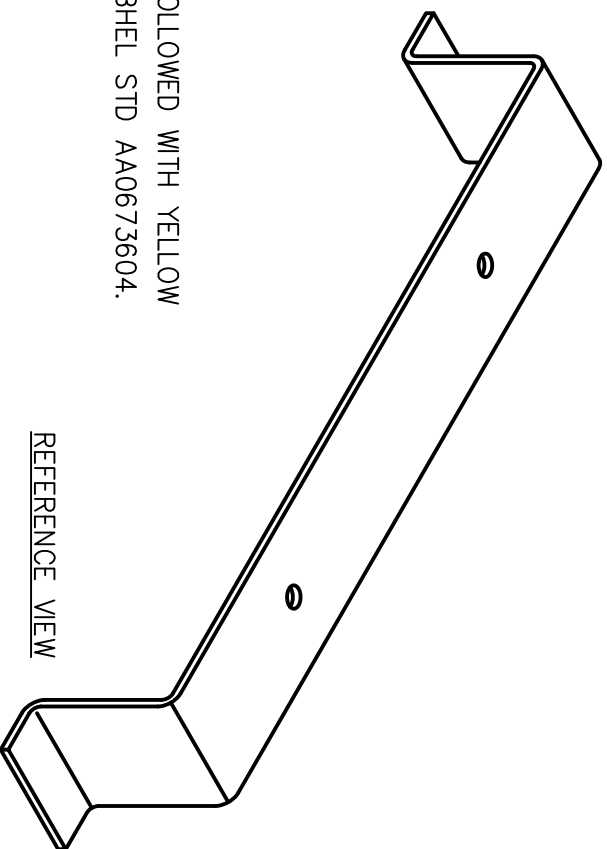
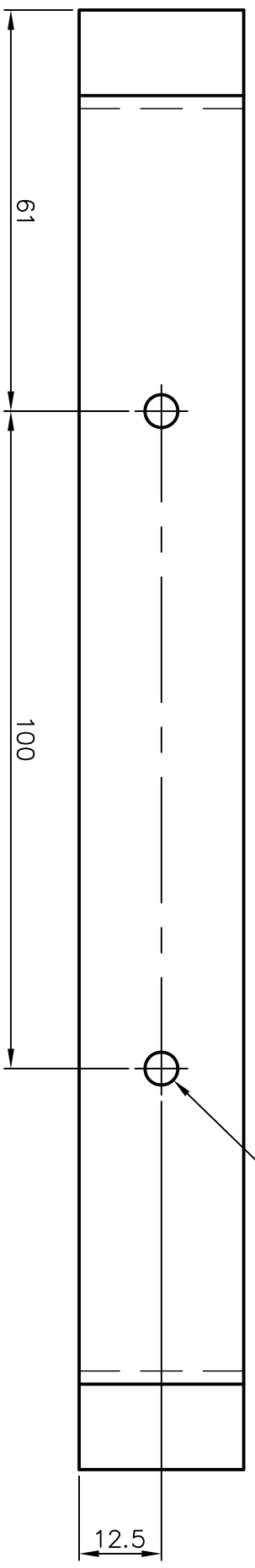
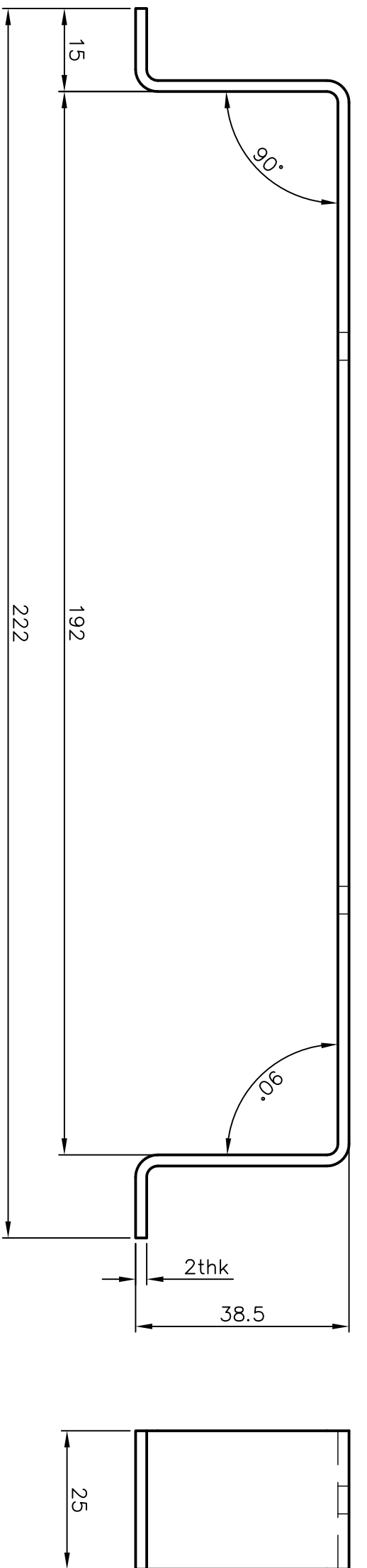
SCREEN PRINTING DETAIL

QTY.	ITEM No.	DESCRIPTION	DRAWING NO.	ITEM No.	MATERIAL CODE	UT.Wt. (kgs)

CARD TYPE-1 CARD TYPE 2

TYPE OF PRODUCT OR NAME OF CUSTOMER/PROJECT		69203GB1AA UN0661A- V1	
DEPT. SAE 406		FOR UNSPECIFIED-TOLERANCES REFER ED 0230499	
Bharat Heavy Electricals Limited. Electronics Division, Bangalore		SCALE 1:1	
DRN MARUTI G	NAME	SIGN.	DATE
CKD P.J.K			17.03.93
APPD M.T.R			18.03.93
			05.05.93
TITTLE FRONT PLATE DRILLING DETAIL/ SCREEN PRINTING		DRAWING NO. 3 692 03 60400	
REV. 04		NO. OF SHEETS 02	

72009 92 269 2
DRAWING NO.



- NOTE:-
1. DEBURR ALL THE SHARP EDGES.
 - *2. MATERIAL:- 2 thk CRCS SHEET.
 3. FINISH:- ZINC PLATED TO 0.013THK AND FOLLOWED WITH YELLOW TRIVALENT PASSIVATION AS PER BHEL STD AA0673604.

REFERENCE VIEW

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

REV.	DATE	ALTERED CHECKED APPROVED	REV.	DATE	ALTERED CHECKED APPROVED	REV.	DATE	ALTERED CHECKED APPROVED
1								

QTY. No.	ITEM No.	DESCRIPTION	DRAWING NO.	ITEM No.	MATERIAL CODE	UT.Wt. (kgs)
	01	*				

CARD TYPE 2
TYPE OF PRODUCT OR NAME OF CUSTOMER/PROJECT



BHARAT HEAVY ELECTRICALS LIMITED.
ELECTRONICS DIVISION, BANGALORE

DRN	NAME	SIGN.	DATE	No. OF VAR
CKD	PALLAVI C		08.07.2022	
APPD	VISHNU RAJ		08.07.2022	

DEPT. SAE	FOR UNSPECIFIED-TOLERANCES	SCALE	WEIGHT(Kg)	REF. TO ASSY. DRG.	ITEM NO.	No. OF ITEM
406	REFER ED 0230499	1:1				

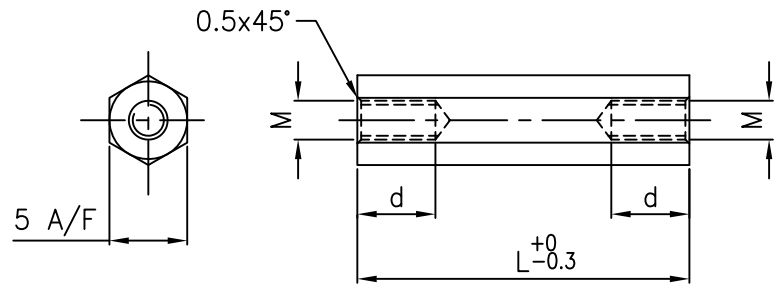
TITLE	DRAWING NO.	REV.
MOUNTING BRACKET FOR BCU	3 692 36 60027	00

SHEET NO. 01	NO. OF SHEETS 01
--------------	------------------

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REV. 03	DATE 10.09.12	ALTERED MARUTI G CHECKED MASIMADE APPROVED RAVI KG	REV. 05	DATE 28.03.15	ALTERED PALLAVI.C CHECKED VISHNU RAJ APPROVED RAVI KG	REV. 04	DATE 12.02.2015	ALTERED PALLAVI C CHECKED VISHNU RAJ APPROVED KSP
ITEM-02 L-74 WAS 65			ITEM No. 08 ADDED			ITEM Nos. 06 & 07 ADDED		



IT. No.	L	M	d	CODE No.
01	13	M3	THROUGH TAPPED HOLE	E92036192101
02	74	M3	10	E92036192102
03	49.5	M3	10	E92036192103
04	49	M3	10	E92036192104
05	32	M2.5	10	E92036192105
06	19	M3	6	
07	35	M3	10	
08	28	M2.5	8	

NOTE :

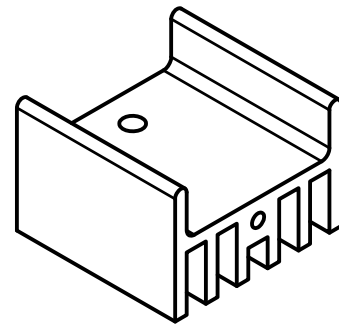
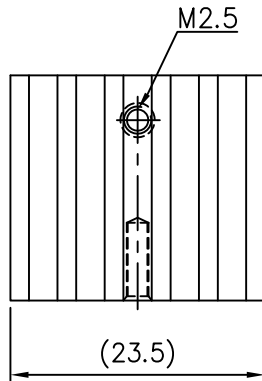
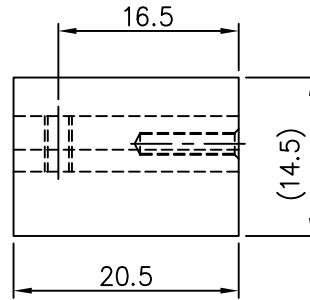
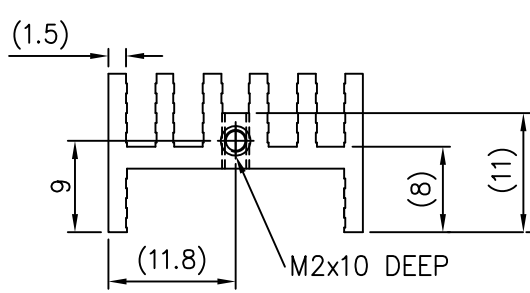
1. DEBURR THE SHARP EDGES.
2. NICKEL PLATED TO 0.005 Thk., AS PER ED55687.
3. A QTY. OF 25 No.'s ARE PACKED IN POLYTHENE COVER.

REF. DRG. NO.	01	BRASS BAR 5A/F						
	AA12114							
QTY.	ITEM NO.	DESCRIPTION	DRAWING No.	ITEM	MATERIAL CODE	A	UNIT Wt. (Kgs.)	
				VAR.	MATERIAL SPECN.	C	QTY.	
SIGN & DATE		BHARAT HEAVY ELECTRICALS LIMITED. ELECTRONICS DIVISION, BANGALORE	DRN	NAME	SIGN.	DATE	No. OF VAR	
			CKD	MANJUNATH SV	Sd/-	18/02/08		
			APPD	NAGAPPA M	Sd/-	18/02/08		
			APPD	RAVINDRAN KG	Sd/-	18/02/08		
INVENTORY NO.	DEPT. SAE	FOR UNSPECIFIED TOLERANCES REFER ED 0230499		SCALE	WEIGHT (Kg)	REF. TO ASSY. DRG.	ITEM NO.	No. OF ITEM
	CODE 406			N.T.S				
TITLE				DRAWING NO.				REV.
HEX SPACER				4 692 03 61921				05
			SHEET NO.	01	NO. OF SHEETS		01	

REV.	DATE	ALTERED	REV.	DATE	ALTERED	MANJUNATH SV	REV.	DATE	ALTERED	NAGARAJUK
		CHECKED	02	03/03/17	CHECKED	VISHNU RAJ	01	03.11.2012	CHECKED	KSP
		APPROVED			APPROVED	PRABHAKAR KS			APPROVED	KGR

ALLUMINIUM ALLOY GRADE ADDED

DIMN 16.5 ADDED.



ISOMETRIC VIEW


NOTE :1. DEBUR THE SHARP EDGES.

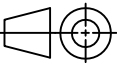
2. HEAT SINK FINS WITH SERRATION'S ARE ALSO ALLOWED.

MATERIAL : HEAT SINK-ALUMINIUM ALLOY GRADE 6063 T6.

FINISH : SODA WASH AND BLACK ANODIZED TO 8 TO 10 MICRONS THICK.

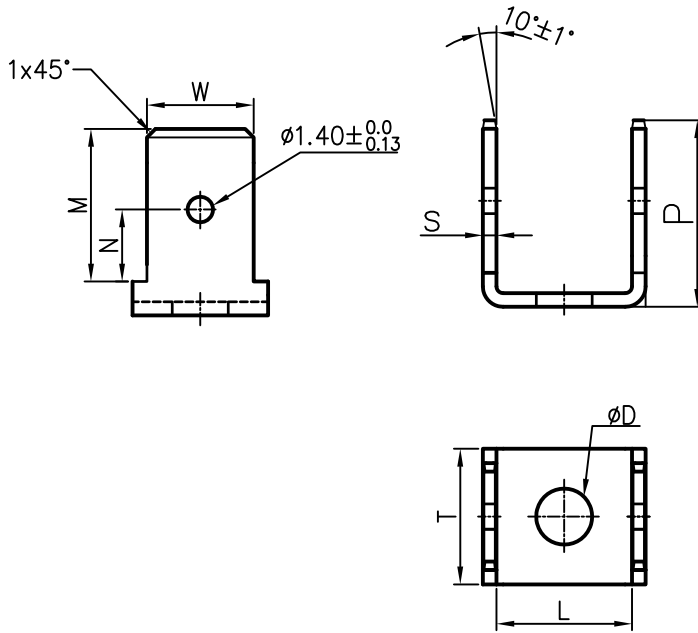
REF. DRG.NO.	01	HEAT SINK 14.5x23.5 - 20.5LG		*				
	QTY.	ITEM NO.	DESCRIPTION	DRAWING No.	ITEM	MATERIAL CODE	A	UNIT Wt. (Kgs.)
					VAR.	MATERIAL SPECN.	C	QTY.

SIGN & DATE		BHARAT HEAVY ELECTRICALS LIMITED. ELECTRONICS DIVISION, BANGALORE	DRN	G. MARUTI	Sd/-	04.02.06	No. OF VAR
			CKD	NAGARAJU K	Sd/-	04.02.06	
			APPD	KG RAVINDRAN	Sd/-	04.02.06	

INVENTORY NO.	DEPT. SAE	FOR UNSPECIFIED TOLERANCES REFER ED 0230499		SCALE	WEIGHT (Kg)	REF. TO ASSY. DRG.	ITEM NO.	No. OF ITEM
	CODE 406			1:1				-

TITLE	DRAWING NO.	REV.
HEAT SINK MACHINED	4 692 32 10001	03
	SHEET NO. 01	NO. OF SHEETS 01

REV.	DATE	ALTERED	NAGARAJUK/HCP	REV.	DATE	ALTERED	ADDITIONAL INFORMATION
04	22.05.06	CHECKED	NAGARAJU K			CHECKED	
		APPROVED	KG RAVINDRAN			APPROVED	
REDRAWN IN AUTOCAD TO UPLOAD IN WRENCH				STATUS OF DRAWING			
				DISTRIBUTION OF PRINTS			




ISOMETRIC VIEW
(FOR REFERENCE ONLY)
(NOT TO SCALE)

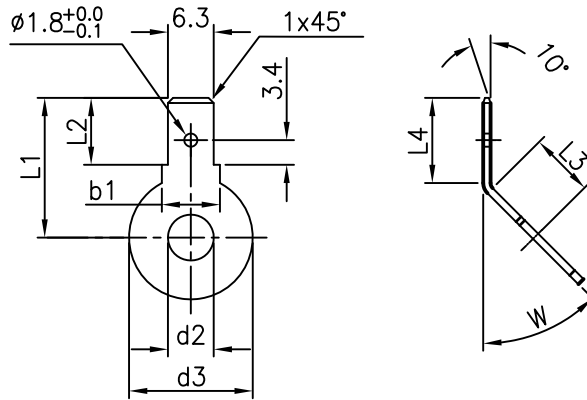
DIMENSION TABLE									AMP REFERENCE
ITEM NO.	P	S	ØD	M	N	W	T	L	
01.	11.5	0.51	3.3	6.86	3.18±0.08	4.75	6.73	6.99	AMP-42115-5
02.	11	0.81	4.11	7.92±0.3	3.40	6.35	8	10.54	AMP-140614
03.	11.5	0.8	3.3	7.92±0.13	3.40	6.35	8	6.99	AMP-17001-2

NOTE: -1.DEBUR THE SHARP EDGES.

FINISH: ELECTRO TIN PLATED TO 0.013THICK.
FOR CLEANING & PREPARATION OF SURFACE REFER ED0673699 & PLATING AS PER STANDARD ED0673696

REF. DRG.NO.	01 TO 03	BRASS STRIP	AA-12102				
	REMARKS	ITEM NO.	DESCRIPTION	STD.	A C UNIT	UNIT Wt.(Kg) QUANTITY	
SIGN & DATE	 BHARAT HEAVY ELECTRICALS LIMITED. ELECTRONICS DIVISION, BANGALORE	DRN	M.MADDURAIH	SIGN.	DATE	No. OF VAR	
		CKD	DINAMANI		12.06.78		
		APPD	KHEDKAR		12.06.78		
INVENTORY NO.	DEPT. SAE	FOR UNSPECIFIED TOLERANCES REFER ED 0230499	SCALE 3:1	WEIGHT (Kg)	REF. TO ASSY. DRG.	ITEM NO.	No. OF ITEM
	CODE 406						
TITLE				DRAWING NO.		REV.	
FASTENING TAB				4 699 58 01039		04	
			SHEET NO.	01	NO. OF SHEETS	01	

REV. 04	DATE 31.01.2011	ALTERED NAGARAJUK CHECKED KS PRABHAKAR APPROVED KG RAVINDRAN	REV. 02	DATE 25.11.94	ALTERED DINAMANI CHECKED AS APPROVED AS	REV. 03	DATE 12.06.08	ALTERED NAGARAJU/AGR CHECKED KS PRABHAKAR APPROVED KG.RAVINDRAN
DIMN L2 WAS L3.			FINISH WAS TIN PLATED			REDRAWN IN AUTOCAD TO UPLOAD IN WRENCH		



ITEM No.	d2	d3	L1	L2	L3	L4	b1	W	REF	CODE/NO.
01	6.3	17	18.5	8	8.5	10	8	45°	GHW 12698 123 - 011	CN9082166011
02	8.4	17	18.5	8	8.5	10	8	45°	GHW 11774 123 - 011	CN9082166020
03	10.5	17	18.5	8	8.5	10	8	45°	GHW 12691 123 - 011	CN9082166038



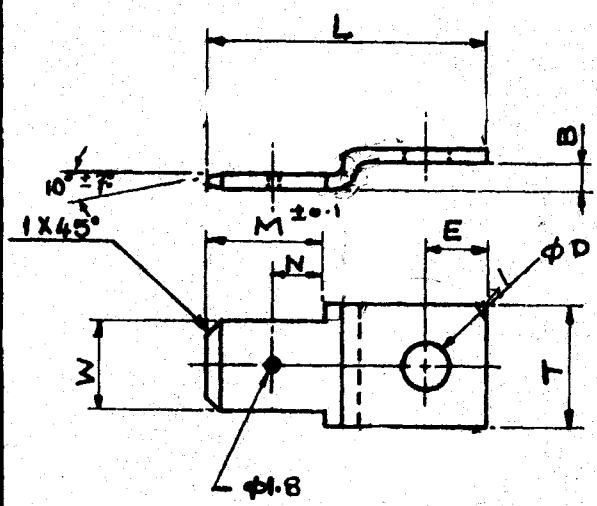
ISOMETRIC VIEW
(FOR REFERENCE ONLY)
(NOT TO SCALE)

FINISH: - HOT ALKALINE TIN PLATED TO 0.005
THK (MIN) WITH 0.002 TO 0.003
THK. NICKEL UNDER COAT

REF. DRG. NO.	ALL	0.8THK. 1/2 HARD BRASS STRIP								
	QTY.	ITEM NO.	DESCRIPTION	DRAWING No.	ITEM	MATERIAL CODE	A	UNIT Wt. (Kgs.)		
					VAR.	MATERIAL SPECN.	C	QTY.		
SIGN & DATE		BHARAT HEAVY ELECTRICALS LIMITED. ELECTRONICS DIVISION, BANGALORE			DRN	M.MADDURAIHAH		DATE	15.5.78	No. OF VAR
					CKD	DINAMANI		DATE	19.5.78	
					APPD	PGK		DATE	19.5.78	
INVENTORY NO.	DEPT. SAE	FOR UNSPECIFIED TOLERANCES REFER ED 0230499		SCALE	1:1	WEIGHT (Kg)	REF. TO ASSY. DRG.	ITEM NO.	No. OF ITEM	
	CODE 406									
TITLE					DRAWING NO.					
FASTENING TAB					4 699 58 01044					
					SHEET NO. 01		NO. OF SHEETS 01			
							REV.		04	

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REV. 04	DATE 25-11-94	ALTERED	BY (S.S.)	REV. 03	DATE 5-2-79	ALTERED	BY (K.K.)	DISTRIBUTION OF PRINTS	
FINISH WAS TIN PLATED				MATERIAL SPECIFICATION WAS NOT ON.				OFFICE COPY	1
								PROD. PLANNING	3
								TECH. SECTION	1
								QUALITY CONTROL	1



ITEM NR	CODE NO.
01	CN 9082161010
02	CN 9082161028

ITEM NO.	D	M	N	E	W	T	B	L
01	3.0	7.9	3.4	4.0	6.3	8	1.7	18.4
02	4.1	7.9	3.4	4.0	6.3	8	1.7	18.4

NOTE: 1. FINISH:- HOT ALKALINE TIN PLATED TO 0.005 THICK (MIN) WITH 0.002 TO 0.003 THICK NICKEL UNDERCOAT
 2. TOLERANCES UNLESS SPECIFIED AS PER 'MEDIUM' AA0230208

QTY. BASIC		UNIT OF QTY.	DESCRIPTION	ITEM No.	STD.	DRAWING NO.	MATERIAL CODE	A	COMP GROUP	UNIT WEIGHT (Kg)	DI
VAR. ANT	VAR. ANT	R.M. UNIT QTY					MATERIAL SPECN.	C		QUANTITY	BMI/GASP
CARD TYPE 2						CARD TYPE 1					

BHARAT HEAVY ELECTRICALS LIMITED

BANGALORE

DEPT. SAE	CODE 406	SCALE	WEIGHT (Kg)	REF. TO ASSY. ORG	ITEM No.
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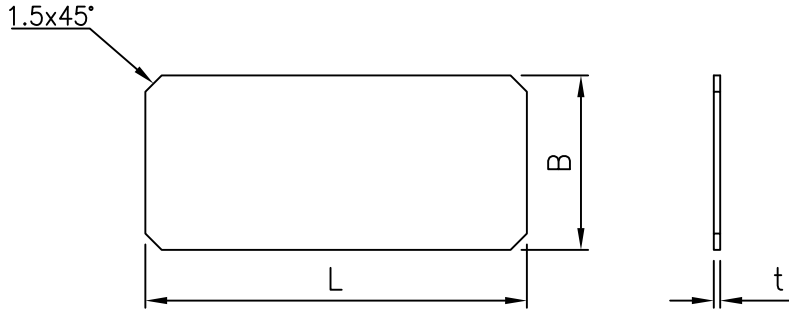
<p>TITLE</p> <h2 style="text-align: center;">FASTENING TAB</h2>	DRAWN	NAME	SIGN.	DATE
	CHECKED	DHAMANI		19-5-78
	APPROVED	PGK		19-5-78

DIMENSIONS TO BE CONTROLLED WITHIN LIMITS AS SHOWN MACHINING TOLERANCE ± 0.25 mm UNLESS OTHERWISE SHOWN NON-MACHINING TOLERANCE \pm	CARD CODE	DRAWING NO. <h2 style="text-align: center;">4-699 58-01047</h2>
	SHEET NO. 1	NO. OF SHEETS 1

SIZE A4

0706


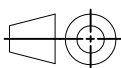
REV.	DATE	ALTERED	REV.	DATE	ALTERED	REV.	DATE	ALTERED	
		CHECKED	03	11.05.12	CHECKED	02	04.10.02	CHECKED	
		APPROVED			APPROVED			APPROVED	
		SHEEBA			SVM/NBM		NAGARAJU K		
		RAVINDRAN K G					G.MURALI		
				IT. No.06 ADDED REVISED & REDRAWN TO UPLOAD IN WRENCH			MATL SPEC: AA 22415 DELETED		



NOTE:-

1. DEBUR THE SHARP EDGES.
2. FINISH:-NATURAL

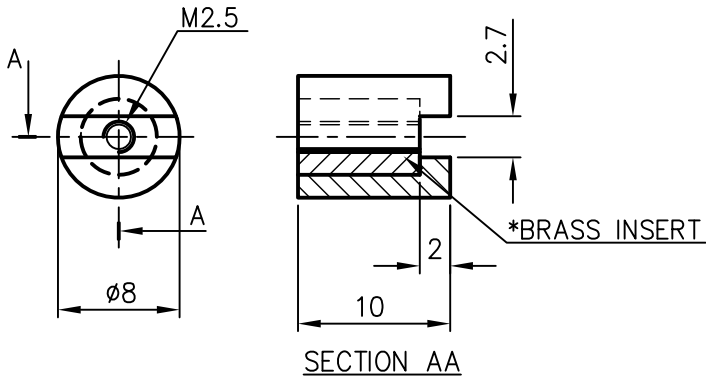
ITEM No.	DIMENSIONS			CODE NUMBER
	L	B	t	
01	35	16	0.6	DV0692225005
02	35	25	0.6	DV0692225013
03	58	11	0.6	DV0692228047
04	80	15	0.6	E99580149904
05	33	10	0.6	E99580149905
06	90	10	0.6	DV0692030085

REF. DRG.NO.	ALL	FR4 GLASS EPOXY SHEET						
	QTY.	ITEM NO.	DESCRIPTION	DRAWING No.	ITEM	MATERIAL CODE	A	UNIT Wt. (Kgs.)
					VAR.	MATERIAL SPECN.	C	QTY.
SIGN & DATE		BHARAT HEAVY ELECTRICALS LIMITED. ELECTRONICS DIVISION, BANGALORE	DRN	NAME	SIGN.	DATE	No. OF VAR	
			CKD	G.MARUTI		01.07.2000		
			APPD	DINAMANI		01.07.2000		
INVENTORY NO.	DEPT. SAE	FOR UNSPECIFIED TOLERANCES REFER ED 0230499		SCALE	WEIGHT (Kg)	REF. TO ASSY. DRG.	ITEM NO.	No. OF ITEM
	CODE 406			N.T.S				
TITLE				DRAWING NO.			REV.	
INSULATION SHEET				4 699 58 01499			03	
				SHEET NO.	01	NO. OF SHEETS	01	

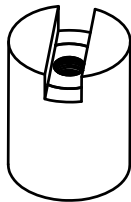
REV. 03	DATE 18.09.06	ALTERED CHECKED APPROVED	MARUTHI G/V&P NAGARAJU K KG RAVINDRAN	REV. 04	DATE 30.09.2022	ALTERED CHECKED APPROVED	PALLAVI C VISHNU RAJ VISHNU RAJ	REV.	DATE	ALTERED CHECKED APPROVED
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REDRAWN IN AUTOCAD TO UPLOAD IN WRENCH.

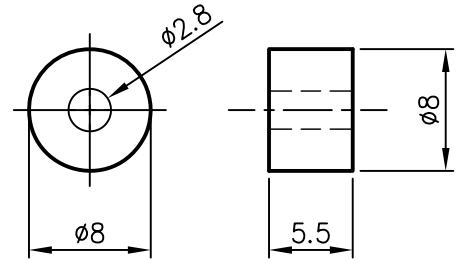
ITEM NO. 02 ADDED



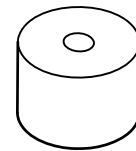
ITEM NO.01



REFERENCE VIEW



ITEM NO.02



REFERENCE VIEW

IT.NO	L	THREAD SIZE	MATERIAL CODE
01	10	2.5	E99580235001
02	5.5	-	E99580235002

NOTE:- 1. ITEM SHALL BE FREE FROM FLASHES
BURRS AND SURFACE SHOULD BE SMOOTH.
2. BRASS INSERT OUTSIDE DIAMETER
NEED NOT BE CHECKED.
FINISH:- BLACK IN COLOUR.

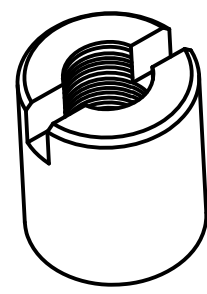
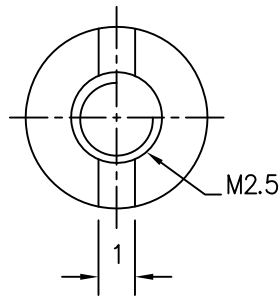
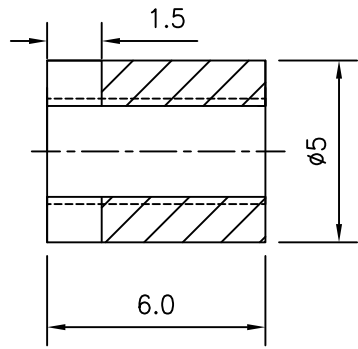
REF. DRG.NO.	01	NYLON-6 (GLASS FILLED)						
	QTY.	ITEM NO.	DESCRIPTION	DRAWING No.	ITEM	MATERIAL CODE	UNIT Wt. (Kgs.)	
SIGN & DATE		BHARAT HEAVY ELECTRICALS LIMITED. ELECTRONICS DIVISION, BANGALORE	DRN	G.MARUTHI	SIGN.	DATE	No. OF VAR	
			CKD	DINAMANI		03.04.97		
INVENTORY NO.	DEPT. SAE	FOR UNSPECIFIED TOLERANCES REFER ED 0230499		SCALE	WEIGHT (Kg)	REF. TO ASSY. DRG.	ITEM NO.	No. OF ITEM
	CODE 406			3.3:1&1:1				
TITLE				DRAWING NO.			REV.	
DISTANCE PIECE				4 699 58 02350			04	
				SHEET NO.	01	NO. OF SHEETS	01	

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REV.	DATE	ALTERED	REV.	DATE	ALTERED	REV.	DATE	ALTERED
		CHECKED			CHECKED	01	21.11.07	CHECKED NAGARAJUK
		APPROVED			APPROVED			APPROVED KG RAVINDRAN

REDRAWN IN AUTOCAD
TO UPDATE IN WRENCH.



ISOMETRIC VIEW
FOR REFERANCE ONLY



SCALE: - 1:1

NOTE: - 1. DEBURR SHARP EDGES

FINISH: - ZINC PLATED AND PASSIVATED TO 0.005THK.
AS PER ED0673695 & ED 673697.

REF. DRG.NO.	01	BAR BRT. ST.CLD DRN.RND ø5x6LG		AA1010212010		
	QTY.	ITEM NO.	DESCRIPTION	DRAWING No.	ITEM	UNIT Wt. (Kgs.)
					MATERIAL CODE	A
					MATERIAL SPECN.	C
						QTY.

SIGN & DATE		BHARAT HEAVY ELECTRICALS LIMITED. ELECTRONICS DIVISION, BANGALORE	DRN	NAME	SIGN.	DATE	No. OF VAR
			CKD	NAVEEN		1.12.01	
				DINAMANI		1.12.01	
			APPD	MURALI		1.12.01	

INVENTORY NO.	DEPT. SAE	FOR UNSPECIFIED TOLERANCES REFER ED 0230499		SCALE 5:1	WEIGHT (Kg)	REF. TO ASSY. DRG.	ITEM NO.	No. OF ITEM
	CODE 406							
TITLE						DRAWING NO.	REV.	
SPACER						4 699 58 02365	01	
						SHEET NO. 01	NO. OF SHEETS 01	