

1009 Series Transformer Mounted Secondary LV Bushings

1.2 kV, 30 kV BIL (Air/Oil)

Conductivity: 99.99 %

Current Rating: 1600 to 3100 Amp (Max)



Use:

1009 Series Transformer Mounted LV Bushings are designed for use as secondary bushings in liquid filled transformer bushings. Units are available for both outdoor (UV exposed) and enclosed applications. The 1009 Series bushing is designed for use in ambient temperatures ranging from -50°C to 155°C and at a maximum continuous rating of 110°C. Current ratings are based on 65°C rise above ambient and are typical for sidewall mounting with shanks below oil level. Current carrying capacity is affected by mounting and termination methods.

Construction:

1009 Series Secondary Bushings are constructed of C110 electrolytic grade copper with silver brazed connections for maximum conductivity. Insulation is Bis-A cast epoxy for enclosed applications. The flange is provided with a gasket groove rather than a flat gasket surface, which eliminates any slippage of the gasket during mounting. Outdoor units are supplied with Cycloaliphatic epoxy material. 1009 Series bushings are designed for external clamping applications.

Custom Options:

1009 Series Secondary Bushings are easily customized for non-standard applications. Spade and stud options can be adapted to suit customer requirements for easy installation in existing equipment.

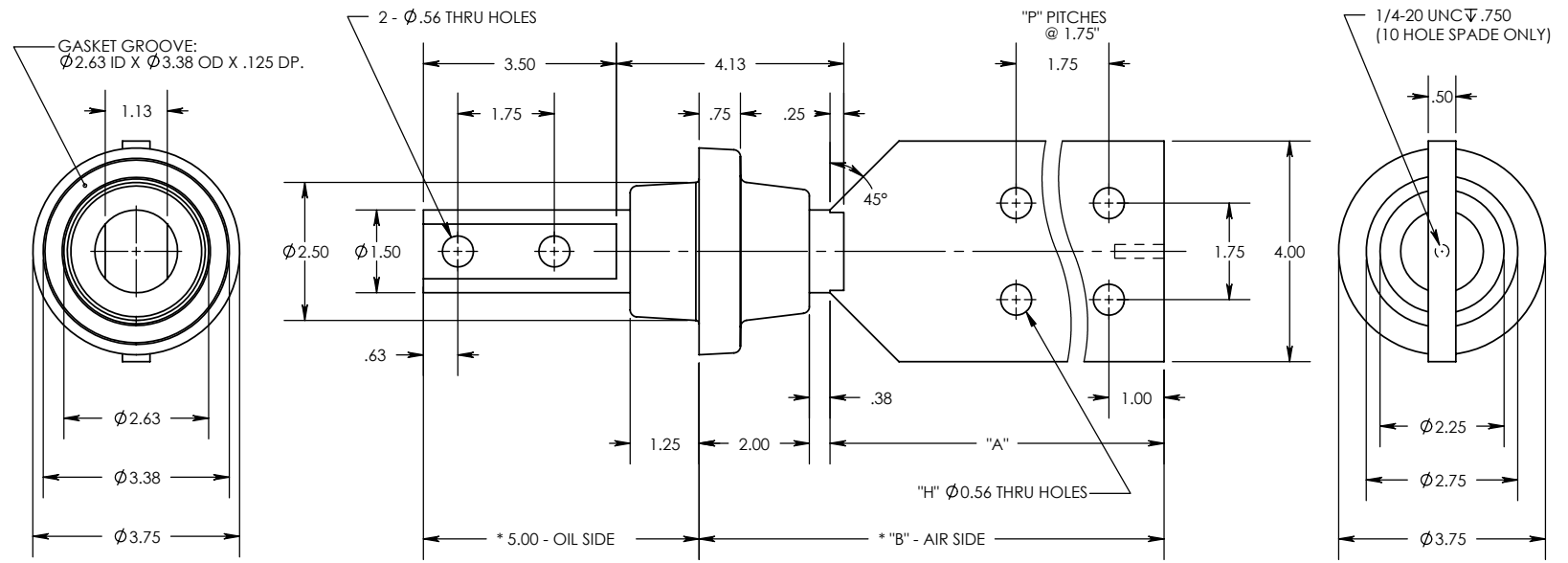
Engineered Power Components Ltd.
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R2L 2B9

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CAD FILE: 1000 SERIES
 DWG. NO. 10-090-000



NOTES:
 1. ALL UNSPECIFIED RADII TO BE R0.125
 2. ALL CONTACT SURFACES TO BE CLEAN & FREE FROM FLASH
 3. WEIGHT: SUFFIX 001, 9.2 LBS.; 003, 11.3 LBS.

MATERIAL:
 1. E01 - BISPHENOL-A EPOXY (GREY), 0.82 LBS
 2. C110 GRADE COPPER

SPECIFICATIONS:
 1. BASIC IMPULSE LEVEL 30KV
 2. MAXIMUM CURRENT RATING..... 3010 AMPS
 3. TEMPERATURE CLASSIFICATION..... -50°C TO 155°C

PRODUCT SELECTION GUIDE								
TERMINAL STYLE (AIR SIDE)				PART NUMBERS	PLATING TYPES			
"A"	"B"	"H"	"P"		TIN	SILVER	NONE	
7.88	10.25	6	2	10-090-001 0A E01	T	S	N	
11.38	13.75	10	4	10-090-003 0A E01	T	S	N	

0	1
REVISIONS	4.00" TERMINAL WAS 3.50" REVISED WEIGHT DB 09-05-2000

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES. TOLERANCES ARE:
 ONE PLACE MM ±0.50
 TWO PLACE MM ±0.25
 TWO PLACE DEC. ±0.020
 THREE PLACE DEC. ±0.010
 ANGLES 1°
 TEMPERATURE ±5°C
 VOLTAGE ±5%
 AMPERAGE ±5%
 RESISTANCE ±5%

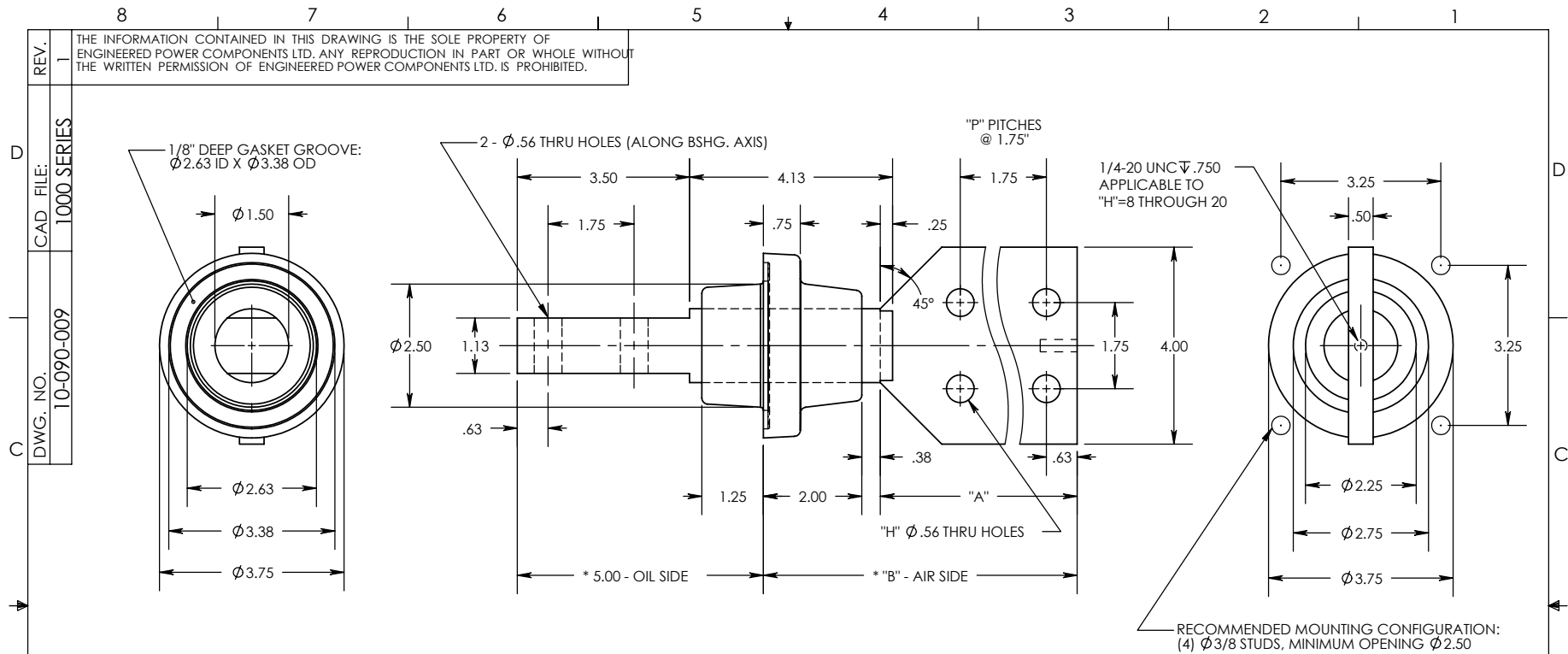
CAD GENERATED DRAWING, DO NOT MANUALLY UPDATE.
 APPROVALS DATE
 DRAWN BY: DB 17/03/2000
 CHECKED BY:
 ENGINEERING

1002 SERIES - 1.2 kV
 LV BUSHING
 3010 AMP (MAX.)

REF. * STATISTICAL DIMENSION
 NO. OF SAMPLES [2]

TOOLING REF. T10-090	SIZE A	DWG. NO. 10-090-000	REV. 1
PRODUCT GROUP 1009 SERIES	SCALE 1:3	CAD FILE: 1000 SERIES	SHEET 1 OF 1

8 7 6 5 4 3 2 1




PRODUCT SELECTION GUIDE

TERMINAL STYLE (AIR SIDE)				PART NUMBERS	PLATING TYPES		
"A"	"B"	"H"	"P"		TIN	SILVER	NONE
4.00	6.38	4	1	10-090-009 1A E01	T	S	N
5.75	8.13	6	2	10-090-010 1A E01	T	S	N
7.50	9.88	8	3	10-090-011 1A E01	T	S	N
9.25	11.63	10	4	10-090-012 1A E01	T	S	N
11.00	13.38	12	5	10-090-013 1A E01	T	S	N
12.75	15.13	14	6	10-090-014 1A E01	T	S	N
14.50	16.88	16	7	10-090-015 1A E01	T	S	N
16.25	18.63	18	8	10-090-016 1A E01	T	S	N
18.00	20.38	20	9	10-090-017 1A E01	T	S	N

- NOTES:
 1. ALL UNSPECIFIED RADII TO BE R0.125
 2. ALL CONTACT SURFACES TO BE CLEAN & FREE FROM FLASH

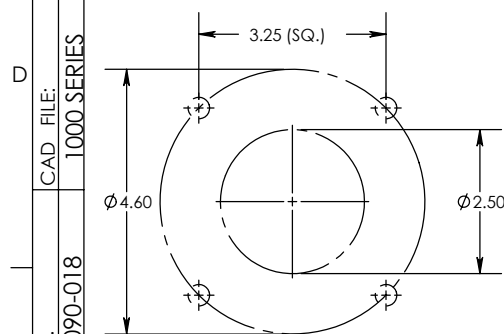
- MATERIAL:
 1. E01 - BISPHENOL-A EPOXY, GREY
 2. C110 GRADE COPPER

- SPECIFICATIONS:
 1. BASIC IMPULSE LEVEL 30KV
 2. CURRENT RATING..... 1600 TO 2200 AMPS
 3. TEMPERATURE CLASSIFICATION..... -50°C TO 155°C

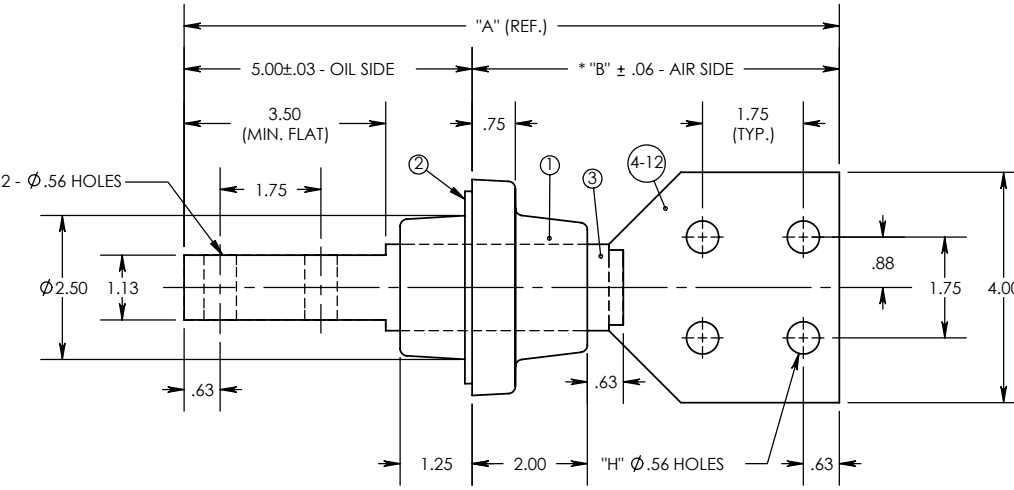
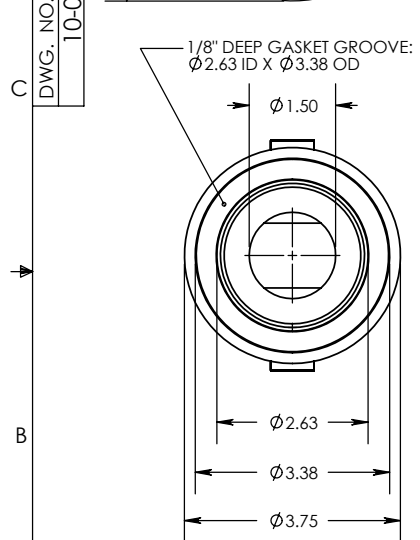
A	REVISIONS	0	1	UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES. TOLERANCES ARE: ONE PLACE MM ± 0.50 TWO PLACE MM ± 0.25 TWO PLACE DEC. ± 0.020 THREE PLACE DEC. ± 0.010 ANGLES $\pm 1^\circ$ TEMPERATURE $\pm 5^\circ\text{C}$ VOLTAGE $\pm 5\%$ AMPERAGE $\pm 5\%$ RESISTANCE $\pm 5\%$	CAD GENERATED DRAWING, DO NOT MANUALLY UPDATE. APPROVALS _____ DATE _____ DRAWN BY: DB 26/05/2001 CHECKED BY: _____ ENGINEERING _____	 <p>1002 SERIES - 1.2KV LV BUSHING 2200 AMP (MAX.)</p>
	REF.	C2	TERMINAL WAS 3.50" WIDE DB 06-04-2001			

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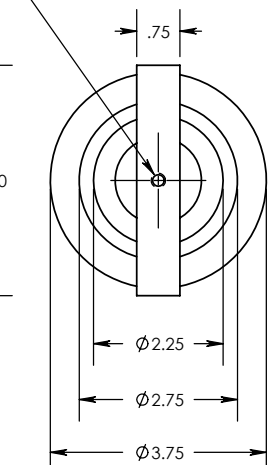
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RECOMMENDED MTG. TEMPLATE



1/4-20 UNC - 2B X .75 DP
 (12 THRU 20 HOLE OPTIONS ONLY)



ITEM NO.	QTY.	PART NO.	DESCRIPTION	EPC PART NO.	DIM "A"	DIM "B"	"H"
1	1	10-090	BUSHING, BIS-A EPOXY				
2	1	645-010-090-0	1/4" GASKET, NITRILE AB-364 D60				
3	1	10-090-018 A01	STUD, COPPER				
4	1	10-090-018 A02	SPADE (EXT) 4-HOLE, COPPER	10-090-018 0A E01T	11.38	6.38	4
5	1	10-090-019 A02	SPADE (EXT) 6-HOLE, COPPER	10-090-019 0A E01T	13.13	8.13	6
6	1	10-090-020 A02	SPADE (EXT) 8-HOLE, COPPER	10-090-020 0A E01T	14.88	9.88	8
7	1	10-090-021 A02	SPADE (EXT) 10-HOLE, COPPER	10-090-021 0A E01T	16.63	11.63	10
8	1	10-090-022 A02	SPADE (EXT) 12-HOLE, COPPER	10-090-022 0A E01T	18.38	13.38	12
9	1	10-090-023 A02	SPADE (EXT) 14-HOLE, COPPER	10-090-023 0A E01T	20.13	15.13	14
10	1	10-090-024 A02	SPADE (EXT) 16-HOLE, COPPER	10-090-024 0A E01T	21.88	16.88	16
11	1	10-090-025 A02	SPADE (EXT) 18-HOLE, COPPER	10-090-025 0A E01T	23.63	18.63	18
12	1	10-090-026 A02	SPADE (EXT) 20-HOLE, COPPER	10-090-026 0A E01T	25.38	20.38	20

- NOTES:
1. ALL UNSPECIFIED RADII TO BE R0.125
 2. ALL CONTACT SURFACES TO BE CLEAN & FREE FROM FLASH
 3. RATINGS BASED ON SIDE MOUNTED BUSHINGS WITH OIL IMMERSED SHANK AND SUITABLE TERMINATION AND LEAD CONNECTIONS

MATERIAL:

1. E01 - BISPHENOL-A EPOXY, GREY
2. HD ETP C11000 COPPER (CONDUCTOR), TIN PLATED

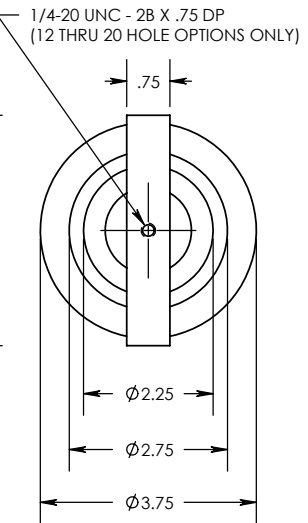
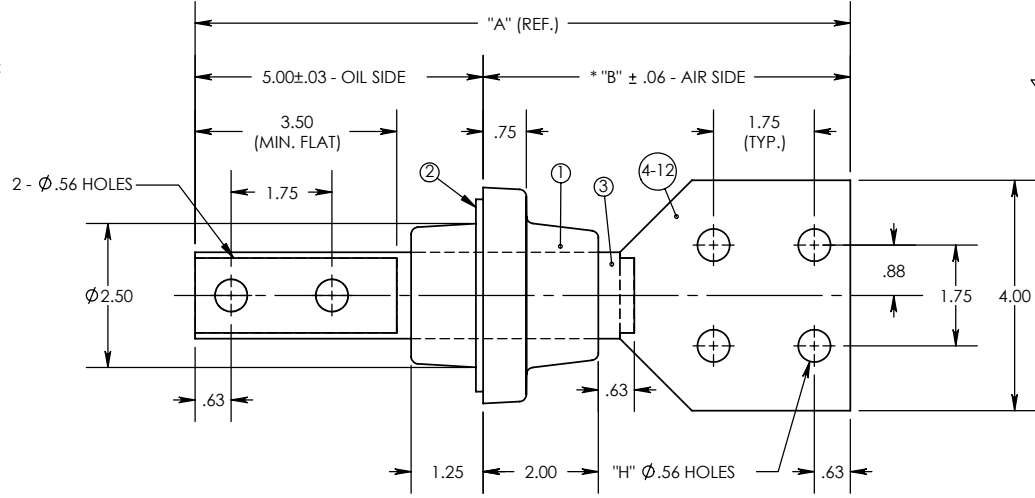
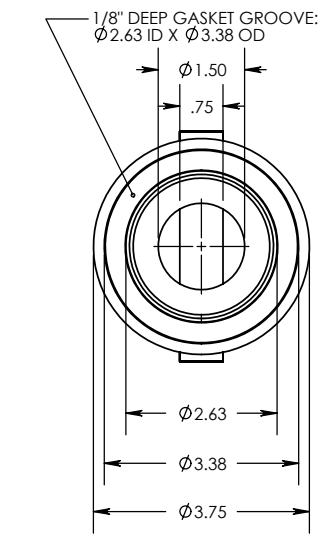
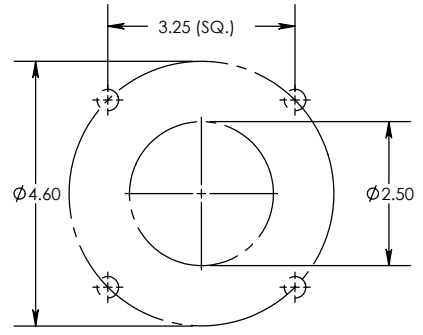
- SPECIFICATIONS:
1. BASIC IMPULSE LEVEL 30KV
 2. CURRENT RATING 3100 AMPS
 3. TEMPERATURE CLASSIFICATION..... -50°C TO 110°C

A	REVISIONS	0	UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES. TOLERANCES ARE:	CAD GENERATED DRAWING, DO NOT MANUALLY UPDATE.	<p>1000 SERIES - 1.2KV LV BUSHING 3100 AMP (MAX.)</p>
	REF.	0	ONE PLACE MM ±0.50 TWO PLACE MM ±0.25 TWO PLACE DEC. ±0.020 THREE PLACE DEC. ±0.010 ANGLES 1° TEMPERATURE ±5°C VOLTAGE ±5% AMPERAGE ±5% RESISTANCE ±5%	APPROVALS: DB 02/07/2002 DRAWN BY: DB 02/07/2002 CHECKED BY: RM 28/08/2002 ENGINEERING: DB 28/08/2002	
			* STATISTICAL DIMENSION NO. OF SAMPLES [1]	TOOLING REF. T10-090-0	SIZE A DWG. NO. 10-090-018 REV. 0
				PRODUCT GROUP 1000 SERIES	SCALE: 3 SHEET 1 OF 1

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REV. 0
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CAD FILE: 1000 SERIES
 DWG. NO. 10-090-027




ITEM NO.	QTY.	PART NO.	DESCRIPTION	EPC PART NO.	DIM "A"	DIM "B"	"H"
1	1	10-090	BUSHING, BIS-A EPOXY				
2	1	645-010-090-0	1/4" GASKET, NITRILE AB-364 D60				
3	1	10-090-027 A01	STUD, COPPER				
4	1	10-090-018 A02	SPADE (EXT) 4-HOLE, COPPER	10-090-027 0A E01T	11.38	6.38	4
5	1	10-090-019 A02	SPADE (EXT) 6-HOLE, COPPER	10-090-028 0A E01T	13.13	8.13	6
6	1	10-090-020 A02	SPADE (EXT) 8-HOLE, COPPER	10-090-029 0A E01T	14.88	9.88	8
7	1	10-090-021 A02	SPADE (EXT) 10-HOLE, COPPER	10-090-030 0A E01T	16.63	11.63	10
8	1	10-090-022 A02	SPADE (EXT) 12-HOLE, COPPER	10-090-031 0A E01T	18.38	13.38	12
9	1	10-090-023 A02	SPADE (EXT) 14-HOLE, COPPER	10-090-032 0A E01T	20.13	15.13	14
10	1	10-090-024 A02	SPADE (EXT) 16-HOLE, COPPER	10-090-033 0A E01T	21.88	16.88	16
11	1	10-090-025 A02	SPADE (EXT) 18-HOLE, COPPER	10-090-034 0A E01T	23.63	18.63	18
12	1	10-090-026 A02	SPADE (EXT) 20-HOLE, COPPER	10-090-035 0A E01T	25.38	20.38	20

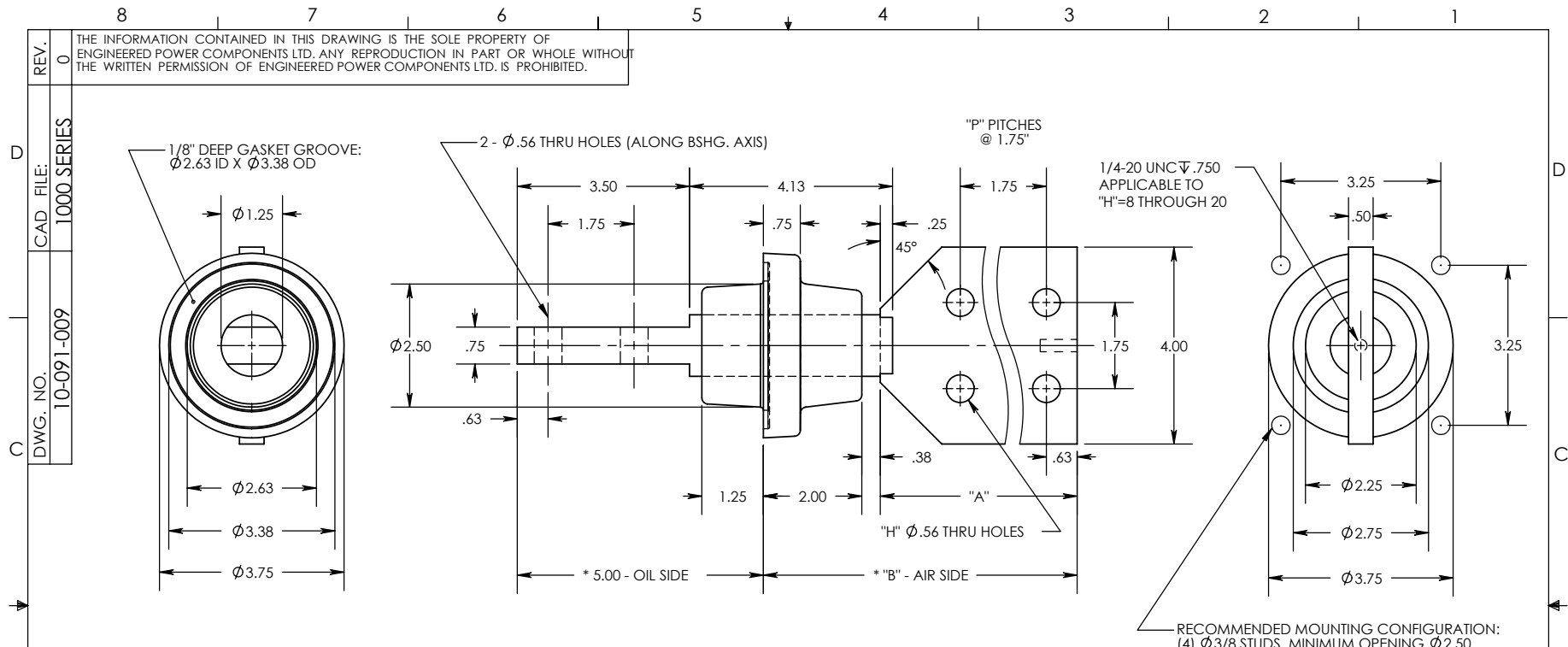
NOTES:
 1. ALL UNSPECIFIED RADII TO BE R0.125
 2. ALL CONTACT SURFACES TO BE CLEAN & FREE FROM FLASH
 3. RATINGS BASED ON SIDE MOUNTED BUSHINGS WITH OIL IMMERSED SHANK AND SUITABLE TERMINATION AND LEAD CONNECTIONS

MATERIAL:
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 2. HD ETP C11000 COPPER (CONDUCTOR), TIN PLATED

SPECIFICATIONS:
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 2. CURRENT RATING 3100 AMPS
 3. TEMPERATURE CLASSIFICATION..... -50°C TO 110°C

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	REF.	0			

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PRODUCT SELECTION GUIDE

TERMINAL STYLE (AIR SIDE)				PART NUMBERS	PLATING TYPES		
"A"	"B"	"H"	"P"		TIN	SILVER	NONE
4.00	6.38	4	1	10-091-009 0A E01	T	S	N
5.75	8.13	6	2	10-091-010 0A E01	T	S	N
7.50	9.88	8	3	10-091-011 0A E01	T	S	N
9.25	11.63	10	4	10-091-012 0A E01	T	S	N
11.00	13.38	12	5	10-091-013 0A E01	T	S	N
12.75	15.13	14	6	10-091-014 0A E01	T	S	N
14.50	16.88	16	7	10-091-015 0A E01	T	S	N
16.25	18.63	18	8	10-091-016 0A E01	T	S	N
18.00	20.38	20	9	10-091-017 0A E01	T	S	N

- NOTES:
 1. ALL UNSPECIFIED RADII TO BE R0.125
 2. ALL CONTACT SURFACES TO BE CLEAN & FREE FROM FLASH

- MATERIAL:
 1. E01 - BISPHENOL-A EPOXY, GREY
 2. C110 GRADE COPPER

- SPECIFICATIONS:
 1. BASIC IMPULSE LEVEL 30KV
 2. CURRENT RATING..... 1600 AMPS
 3. TEMPERATURE CLASSIFICATION..... -50°C TO 155°C

A	REVISIONS	0	UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES. TOLERANCES ARE: ONE PLACE MM ± 0.50 TWO PLACE MM ± 0.25 TWO PLACE DEC. ± 0.020 THREE PLACE DEC. ± 0.010 ANGLES 1° TEMPERATURE $\pm 5^\circ\text{C}$ VOLTAGE $\pm 5\%$ AMPERAGE $\pm 5\%$ RESISTANCE $\pm 5\%$	CAD GENERATED DRAWING, DO NOT MANUALLY UPDATE. APPROVALS: DB 07/06/2001 DRAWN BY: DB 07/06/2001 CHECKED BY: ENGINEERING	 <p>1009 SERIES - 1.2kV LV BUSHING 1600 AMP (MAX.)</p>
	REF.				