

Single Pole Monoblock:

Bus-bar Bushings up to 1kV and from 1.25kA to 5kA for Liquid Filled Transformers:

Designed and manufactured in accordance with BS EN50387:2002



TRI-LOC PTY LTD Trading in Australia as ZLIN ELECTRO PORCELAIN (ZEP) ABN 45 002 993 786 www.zep.com.au

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Introduction:

ZEP Bus-bar Bushings are designed for use in liquid filled transformers, pad mount, kiosk and industrial types.

The units mount directly through the tank wall.

Units are manufactured in accordance with BS EN 50387:2002 for use up to 1kV.

Units are available in current ratings as follows: 1250A, 1600A, 2000A, 2500A, 3150A, 4000A and 5000A

All units utilize high conductivity copper bus bars as a single conductor (no joints).

The bus bar length can be determined by the customer and drilled to customer specific requirements.

The units are simple to install and offer end users the ability to easily connect multiple cables, unlike standard porcelain LV bushings where palm extensions need to be added.

Applications:

These Bus bar bushings are suitable for operation under the following conditions:

- With both ends fully immersed in an insulating liquid
- One end fully or partially immersed in an insulating liquid and with the other end in air (indoor environment)
- Both ends in air (indoor environment) for special applications

Ratings:

Units are designed with a rated voltage U_r of 1000V (phase to phase)

Units are available with Standard values of rated current I_r as given below in amperes

1000 – 1600 – 2000 – 2500 – 3150 – 4000 – 5000

Units are designed with a minimum nominal creepage distance for bushing ends intended for use in air of 55mm

Dielectric Characteristics of the bushings are as follows:

Power-frequency withstand voltage (60s) dry = 10kV

Lightening impulse withstand voltage (1.2/50 μ s) = 20kV

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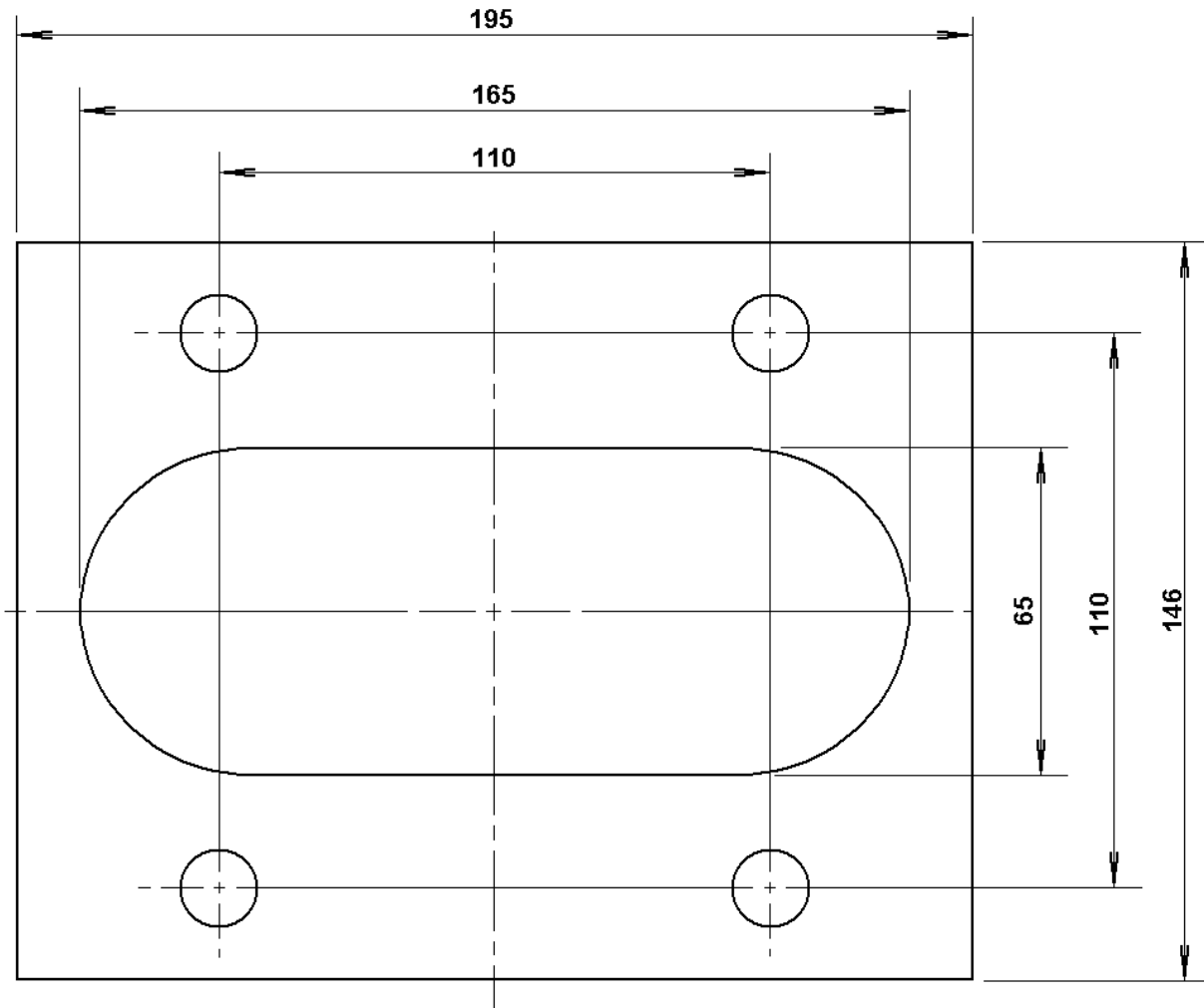
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Tank Mounting Detail:

The drawing below shows the tank mounting detail required for mounting the bushing:



NOTE:

It is important that the tank face to which the bushing is being mounted is flat with a maximum deviation of 0.5mm on both axis across the length and height of the mounting face.

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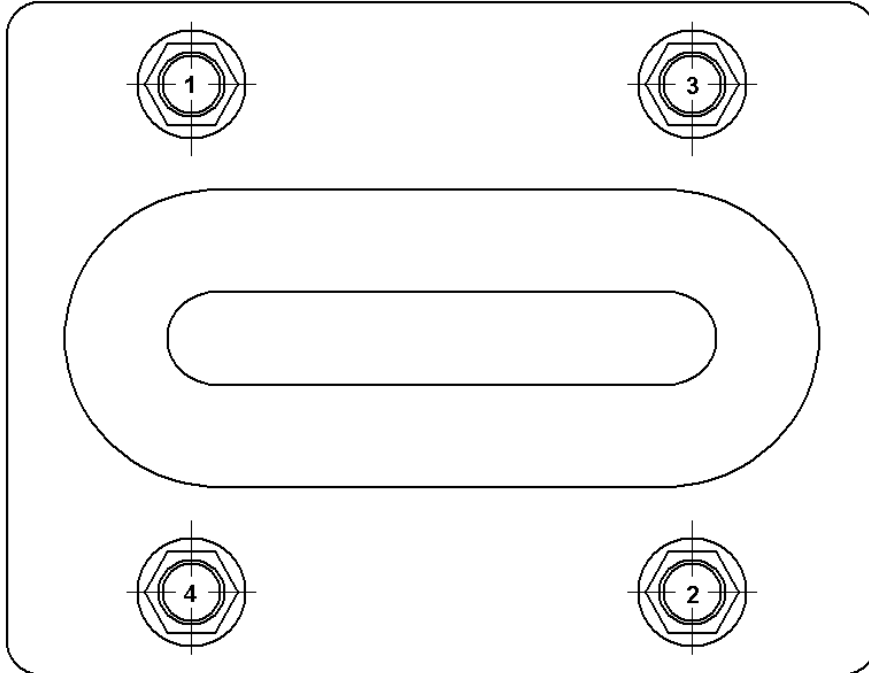
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Tightening Sequence and Torque:

Figure 1.



ZEP recommends a tightening torque of 40Nm on the M12 studs during assembly of the bushing onto the transformer tank in the sequence as shown.

On the first pass the nuts should be tightened to 10Nm and on the second pass tightened to 40Nm.

Routine Tests:

The ZEP ranges of Bus-bar Bushings are routinely tested as follows:

Oil Leakage Sample Test:

Of each batch of units manufactured a sample of 2% of units manufactured are selected for sample testing and subjected to an oil leakage test.

The oil used complies with the requirements of BS148 as is heated to 75° C and maintained for 6 hours at a pressure of 1 Bar on the transformer side of the assembly with the other side exposed to atmosphere.

Air Leakage Test:

Each unit manufactured is subjected to an air leakage test for 1 hour a pressure of 1 Bar on the other side exposed to atmosphere.

All information contained herein subject to change without notice

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