What is claimed is:

1. A ferrite busbar assembly, comprising:

a ferrite core having an inner space;

a terminal extending through the inner space; and

a housing enclosing the ferrite core to the terminal, wherein:

the housing is made out of an elastomeric material;

the housing is configured to seal the inner space;

the housing is unitary;

a first end of the terminal protrudes from a first side of the housing; and

a second end of the terminal protrudes from a second side of the housing;

wherein the ferrite core is 75% or more of a length of the ferrite busbar assembly in a z-axis direction, the z-axis direction extending from the second side of the housing to a third side of the housing opposite of the second side of the housing.

2. The ferrite busbar assembly of claim 1, wherein the housing is made out of thermoplastic elastomer (TPE) or silicone.

3. The ferrite busbar assembly of claim 1, wherein:

~~the housing is unitary; and~~

at least a portion of the housing and a portion of the terminal together fill the inner space of the ferrite core.

4. The ferrite busbar assembly of claim 1, wherein:

~~the housing is unitary; and~~

the housing surrounds and contacts an outer surface of the ferrite core, the outer surface being opposite to an inner surface that defines the inner space.

5. The ferrite busbar assembly of claim 1, wherein at least a portion of the ferrite core is exposed at the second side of the housing.

6. The ferrite busbar assembly of claim 1, wherein the ferrite core has a first side and a second side opposite the first side, and the second side of the ferrite core is flush with at least a portion of the housing at the second side.

7. The ferrite busbar assembly of claim 1, wherein the second side of the housing covers at least a portion of a bottom surface of the ferrite core.

8. The ferrite busbar assembly of claim 1, further comprising a bracket coupled to and protruding from the housing.

9. The ferrite busbar assembly of claim 8, wherein the bracket includes a first extension that protrudes from a third side of the housing which is opposite the first side of the housing such that the first extension of the bracket and the first end of the terminal extend in opposite directions.

10. The ferrite busbar assembly of claim 8, wherein the bracket includes a second extension and a third extension which protrude from opposite sides of the housing.

11. The ferrite busbar assembly of claim 1, wherein the ferrite busbar assembly does not include any seals or gaskets separate from the housing.

12. The ferrite busbar assembly of claim 1, wherein the ferrite busbar assembly does not include any clips or fasteners coupling the ferrite core to the housing.

13. The ferrite busbar assembly of claim 1, wherein the housing is unitary and is overmolded over the terminal and the ferrite core to fill the inner space of the ferrite core and cover an outer surface of the ferrite core.

~~14. The ferrite busbar assembly of claim 13, wherein the housing is overmolded at a pressure of less than 20 megapascals (MPa).~~

~~15.~~14. A ferrite busbar assembly, comprising:

a ferrite core having an inner space, an inner surface defining the inner space, and an outer surface opposite the inner surface;

a terminal extending through the inner space and having a first end and a second end;

a housing that is unitary and configured to fill the inner space to secure the terminal to the ferrite core and cover the inner and outer surfaces of the ferrite core, wherein the first end of the terminal protrudes from a first side of the housing and a second end of the terminal protrudes from a bottom side of the housing; and

a bracket including a plate protruding from a second side of the housing, the first and second sides of the housing being perpendicular to the bottom side of the housing, wherein:

the plate has a fastener hole configured to receive a fastener; and

the ferrite core, the terminal, and the bracket are embedded in the housing.

~~16.~~15. The ferrite busbar assembly of claim ~~1~~5~~4~~, wherein the housing is made out o~~f a~~n ~~elastomeric~~a thermoplastic elastomer (TPE) or silicone ~~-~~material to seal the inner space of the ferrite core.

~~17.~~16. A method of manufacturing a ferrite busbar assembly, comprising:

positioning a terminal through an inner space of a ferrite core;

maintaining a position of the ferrite core with respect to the terminal; and

injecting an overmold material at a predetermined pressure to cover an outer side of the ferrite core and to fill the inner space of the ferrite core to seal the inner space and secure the terminal to the ferrite core, wherein the predetermined pressure is less than 5 megapascals (MPa).

~~18.~~17. The method of claim 1~~7~~6, wherein the overmold material is a thermoplastic elastomer (TPE) or silicone.

~~19.The method of claim 17, wherein the overmold material is a thermoplastic elastomer (TPE) or silicone.~~

~~19.~~ 18. The method of claim ~~19~~17, wherein the predetermined pressure is 2 MPa.

~~20.~~19. The ferrite busbar assembly of claim 1, wherein the second side of the housing includes a protrusion that surrounds or covers a portion of the ferrite core.