WHAT IS CLAIMED IS:

1. An electric assembly (1), comprising:

a box (100);

an electric control module (200), the electric control module (200) being arranged on the box (100); and

an electric motor (400), the electric motor (400) being arranged on the box (100), and the electric motor (400) comprising:

a casing (410);

an N wire connection assembly (420), one end (4201) of the N wire connection assembly (420) being configured to connect to a battery pack (900);

an end cover (430), the end cover (430) being arranged at one end of the casing (410) and configured to block the casing (410), and an opening (431) allowing a part of the N wire connection assembly (420) to pass through being formed in the end cover (430); and

windings (440) of three phases, the windings (440) of three phases being arranged in the casing (410), a first end (4401) of each of the windings (440) of three phases being connected with the electric control module (200), and a second end (4402) of each of the windings (440) of three phases being connected with a junction and then connected with an other end (4202) of the N wire connection assembly (420),

wherein the N wire connection assembly (420) comprises:

an N wire (421), a first end (4211) of the N wire (421) being connected with the second end (4402) of each of the windings (440) of three phases;

an N wire adapter (422), a first end (4221) of the N wire adapter (422) being connected with a second end (4212) of the N wire (421), and a second end (4222) of the N wire adapter (422) passing through the opening (431); and

an N wire terminal block (423), a first end (4231) of the N wire terminal block (423) being connected with a second end (4212) of the N wire (421), and a second end (4232) of the N wire terminal block (423) being connected with an N wire copper bar (210) of the electric control module (200).

2. The electric assembly (1) according to claim 1, wherein a Hall (220) is arranged to extend through the N wire copper bar (210), and the Hall (220) is connected with the electric control module (200) through a signal wire.

3. The electric assembly (1) according to claim 1 or 2, further comprising:

a contactor (500), a first end (5001) of the contactor (500) being configured to connect to the battery pack (900), and a second end (5002) of the contactor (500) being configured to connect to the N wire connection assembly (420).

4. The electric assembly (1) according to claim 1 or 2, further comprising:

an N wire nose (424), the N wire adapter (422) passing through the opening (431) to connect with the N wire nose (424), and the N wire nose (424) being configured to connect to the battery pack (900) through a lead wire.

5. The electric assembly (1) according to claim 4, wherein the electric motor (400) further comprises:

an N wire fixing base (450), the N wire fixing base (450) being mounted to the end cover (430),

wherein the N wire adapter (422) comprises a first connector (451), and the first connector (451) is inserted into the N wire fixing base (450).

6. The electric assembly (1) according to claim 5, wherein the N wire nose (424) comprises:

a second connector (425), the second connector (425) being connected with the first connector (451).

7. The electric assembly (1) according to claim 6, wherein the electric motor (400) further comprises:

an N wire mounting and dismounting cover (460), a side of the N wire fixing base (450) facing away from the end cover (430) being provided with a mounting and dismounting port (452), the N wire mounting and dismounting cover (460) being mounted to the N wire fixing base (450) and covering the mounting and dismounting port (452), and the mounting and dismounting port (452) being configured to mount and dismount at least one of the first connector (451) and the second connector (425).

8. The electric assembly (1) according to claim 7, wherein the electric motor (400) further comprises:

a first sealing ring (470), the first sealing ring (470) surrounding the opening (431) and being arranged between the N wire fixing base (450) and the end cover (430); and

a second sealing ring (480), the second sealing ring (480) surrounding the mounting and dismounting port (452) and being arranged between the N wire fixing base (450) and the N wire mounting and dismounting cover (460).

9. The electric assembly (1) according to any one of claims 1 to 2 and 4 to 8, further comprising:

a three-phase wire connection assembly (600), the three-phase wire connection assembly (600) comprising:

a three-phase wire (610), the three-phase wire (610) being connected with each of the windings (440) of three phases; and

a three-phase wire terminal block (620), the three-phase wire terminal block (620) being connected with the electric control module (200), and the three-phase wire terminal block (620) and the N wire terminal block (423) being integrally formed.

10. The electric assembly (1) according to claim 9, wherein a peripheral surface of one end of the casing (410) close to the end cover (430) is provided with an electric motor terminal block slot (411), the three-phase wire terminal block (620) passing through the electric motor terminal block slot (411) and being fixedly mounted to the casing (410), one end of the three-phase wire terminal block (620) connected with the electric motor (400) passing through the electric motor terminal block slot (411) and entering a cavity formed by the end cover (430) and the casing (410), and one end of the three-phase wire terminal block (620) connected with the electric control module (200) protrudes from the electric motor terminal block slot (411).

11. The electric assembly (1) according to claim 10, further comprising:

a third sealing ring (700), the third sealing ring (700) surrounding the electric motor terminal block slot (411) and being located between the three-phase wire terminal block (620) and the end cover (430).

12. The electric assembly (1) according to any one of claims 1 to 11, further

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comprising:

a water channel cover plate (800), the water channel cover plate (800) being provided with a first water channel (810), the box (100) being provided with a second water channel (110) and a third water channel (120), and the water channel cover plate (800) being connected with the box (100) and covering the second water channel (110) and the third water channel (120).

13. The electric assembly (1) according to claim 12, further comprising:

a power module (300), the power module (300) being arranged on the box (100),

wherein the first water channel (810) is in communication with the second water channel (110) and the third water channel (120), the electric assembly (1) further comprising:

a water inlet pipe (130), the water inlet pipe (130) being adapted to be in communication with the second water channel (110); and

a water outlet pipe (140), the water outlet pipe (140) being adapted to be in communication with the third water channel (120),

wherein a cooling liquid in the second water channel (110) is adapted to flow into the first water channel (810) to dissipate heat for the electric control module (200), and a cooling liquid in the first water channel (810) is adapted to flow into the third water channel (120) to dissipate heat for the power module (300).

14. The electric assembly (1) according to claim 13, wherein the third water channel (120) comprises:

a transition section (121), the transition section (121) being brought into communication with the first water channel (810); and

an annular section (122), the annular section (122) surrounding the power module (300) and being configured to dissipate heat for the power module (300).

15. The electric assembly (1) according to claim 14, wherein one end of the annular section (122) is connected with one end of the transition section (121), and an other end of the annular section (122) is provided with a water outlet hole (123), wherein a depth of the annular section (122) is greater than a depth of the second water channel (110) and a depth of the transition section (121).

16. A vehicle (1000), comprising the electric assembly (1) according to any one of claims 1 to 15.