CLAIMS

What is claimed is:

1. A charging device, comprising:

a liquid cooled cable having a gun end and a station end, comprising:

a first insulating tube, having a first channel;

a second insulating tube, having a second channel and a braided copper mesh, the second channel being located in the braided copper mesh, a braiding density of the braided copper mesh ranges from 70% to 90%;

a tape, covering the first insulating tube and the second insulating tube;

a filler, located in the tape and filled between the first insulating tube and the second insulating tube, wherein the filler fills the tape and occupies the whole space formed in the tape; and

a sheath, covering the tape;

a charging gun, connected to the gun end of the liquid cooled cable and comprising a gun connector and a first liquid return channel, the gun connector being electrically connected to the braided copper mesh, and the first liquid return channel communicating to the first channel and the second channel;

a charging station, comprising:

a cooling module, comprising a liquid inlet and a liquid outlet, the liquid inlet being connected to the station end of the liquid cooled cable and communicating to the first channel; and

a charging module;

a station connector, comprising a second liquid return channel and a connection part, one end of the second liquid return channel communicating to the second channel, and the connection part being connected to the station end of the liquid cooled cable and electrically connected to the braided copper mesh; and

a communicating pipe, two ends of the communicating pipe respectively communicating to the other end of the second liquid return channel and the liquid outlet of the cooling module.

2. The charging device according to claim 1, wherein the liquid cooled cable comprises two first insulating tubes and two second insulating tubes.

3. The charging device according to claim 1, wherein the gun connector further comprises:

a gun connector body, the first liquid return channel being located in the gun connector body;

a gun connection part, connected to the gun connector body;

a first end part, communicating to one end of the first liquid return channel and electrically connected to the braided copper mesh;

a second end part, communicating to the other end of the first liquid return channel and communicating to the first channel; and

a lid, connected to the gun connector body and covering the first liquid return channel.

4. The charging device according to claim 3, further comprising a first ferrule, having one end connected to the first end part and the other end connected to the braided copper mesh.

5. The charging device according to claim 4, further comprising a first crimping member and two first anti-leakage rings, wherein one of the first anti-leakage rings is sleeved outside the braided copper mesh and located at a joint between the first ferrule and the braided copper mesh, the other first anti-leakage ring is sleeved on the first end part, and the first crimping member is sleeved on the braided copper mesh, the first end part and the two first anti-leakage rings.

6. The charging device according to claim 1, wherein the station connector further comprises:

a station connector body, the second liquid return channel being located in the station connector body, and the connection part communicating to one end of the second liquid return channel and being electrically connected to the braided copper mesh;

an adapting part, communicating to the other end of the second liquid return channel and communicating to the communicating pipe;

a station connection part, connected to the station connector body and electrically connected to the charging module; and

a cover plate, connected to the station connector body and covering the second liquid return channel.

7. The charging device according to claim 6, further comprising a second ferrule, having one end connected to the connection part and the other end connected to the braided copper mesh.

8. The charging device according to claim 7, further comprising a second crimping member and two second anti-leakage rings, wherein one of the second anti-leakage rings is sleeved outside the braided copper mesh and located at a joint between the second ferrule and the braided copper mesh, the other second anti-leakage ring is sleeved on the connection part, and the second crimping member is sleeved on the braided copper mesh, the connection part and the two second anti-leakage rings.

9. The charging device according to claim 1, wherein the braided copper mesh is a double-layer braided structure or a multi-layer braided structure.

10. A liquid cooled cable having a gun end and a station end, comprising:

a first insulating tube, having a first channel;

a second insulating tube, having a second channel and a braided copper mesh, the second channel being located in the braided copper mesh, a braiding density of the braided copper mesh ranges from 70% to 90%;

a tape, covering the first insulating tube and the second insulating tube;

a filler, located in the tape and filled between the first insulating tube and the second insulating tube, wherein the filler fills the tape and occupies the whole space formed in the tape; and

a sheath, covering the tape.

11. The liquid cooled cable according to claim 10, wherein a charging gun is connected to the gun end of the liquid cooled cable, the charging gun comprising a gun connector and a first liquid return channel, the gun connector being electrically connected to the braided copper mesh, and the first liquid return channel communicating to the first channel and the second channel.

12. The liquid cooled cable according to claim 10, wherein a station connector is connected to the station end of the liquid cooled cable, the station connector comprising a second liquid return channel and a connection part, one end of the second liquid return channel communicating to the second channel, and the connection part being electrically connected to the braided copper mesh.

13. The liquid cooled cable according to claim 10, wherein the liquid cooled cable further comprises two first insulating tubes and two second insulating tubes.

14. The liquid cooled cable according to claim 13, wherein a charging gun is connected to the gun end of the liquid cooled cable, the charging gun comprising two gun connectors and two first liquid return channels, each of the gun connectors being electrically connected to one of the braided copper meshes, and each of first liquid return channels communicating to one of the first channels and one of the second channels.

15. The liquid cooled cable according to claim 13, wherein two station connectors are connected to the station end of the liquid cooled cable, each of the station connectors comprising a second liquid return channel and a connection part, one end of the second liquid return channel communicating to one of the second channels, and the connection part being electrically connected to one of the braided copper meshes.

16. The liquid cooled cable according to claim 10, wherein the braided copper mesh is a double-layer braided structure or a multi-layer braided structure.