WHAT IS CLAIMED IS:

1. A power management method, applied in an electronic device charged by a power adapter via a charging cable, and comprising:

determining a temperature of a charging interface, wherein the charging interface comprises at least one of an interface of the power adapter for electric connection with the charging cable, an interface of the charging cable for electric connection with the power adapter, an interface of the charging cable for electric connection with the electronic device, and an interface of the electronic device for electric connection with the charging cable; and

managing power of the electronic device according to the temperature of the charging interface,

wherein, determining the temperature of the charging interface comprises:

determining a temperature of a contact plate in the charging interface by a temperature measurement element disposed in the charging interface; and

the temperature measurement element and the contact plate are disposed on a same thermal conductive substrate, and the temperature measurement element has a preset spacing with the contact plate.

2. The method according to claim 1, wherein, there are a plurality of temperature measurement elements and a plurality of contact plates disposed in the charging interface, there is a one-to-one correspondence between the plurality of contact plates and the plurality of temperature measurement elements, and each contact plate is configured to transmit charging current.

3. The method according to claim 2, wherein, when the charging interface comprises the interface of the electronic device for electric connection with the charging cable, the plurality of temperature measurement elements comprise a first temperature measurement element disposed in the interface of the electronic device and configured to determine a temperature of the interface of the electronic device, and determining the temperature of the charging interface comprises:

determining the temperature of the charging interface according to the temperature of the interface of the electronic device determined by the first temperature measurement element.

4. The method according to any one of claims 2-3, wherein, when the charging interface comprises the interface of the charging cable for electric connection with the power adapter, the plurality of temperature measurement elements comprise a second temperature measurement element disposed in the interface of the charging cable for electric connection with the power adapter, and determining the temperature of the charging interface comprises:

receiving a first temperature indication information indicating a temperature of the interface of the charging cable for electric connection with the power adapter sent by the charging cable, in which the temperature of the interface of the charging cable for electric connection with the power adapter is detected by the second temperature measurement element; and

determining the temperature of the charging interface according to the first temperature indication information.

5. The method according to any one of claims 2-4, wherein, when the charging interface comprises the interface of the charging cable for electric connection with the electronic device, the plurality of temperature measurement elements comprise a third temperature measurement element disposed in the interface of the charging cable for electric connection with the electronic device, and determining the temperature of the charging interface comprises:

receiving a second temperature indication information indicating a temperature of the interface of the charging cable for electric connection with the electronic device sent by the charging cable, in which the temperature of the interface of the charging cable for electric connection with the electronic device is detected by the third temperature measurement element; and

determining the temperature of the charging interface according to the second temperature indication information.

6. The method according to any one of claims 2-5, wherein, when the charging interface comprises the interface of the power adapter for electric connection with the charging cable, the plurality of temperature measurement elements comprise a fourth temperature measurement element disposed in the interface of the power adapter, and determining the temperature of the charging interface comprises:

receiving a third temperature indication information indicating a temperature of the interface of the power adapter sent by the power adapter via the charging cable, in which the temperature of the interface of the power adapter is detected by the fourth temperature measurement element; and

determining the temperature of the charging interface according to the third temperature indication information.

7. The method according to any one of claims 1-6, wherein, managing power of the electronic device comprises:

when the temperature of the charging interface is greater than or equal to a first temperature threshold, sending an instruction to the power adapter via the charging cable for instructing the power adapter to reduce a current value of charging current or reduce a voltage value of the charging current; or

when the temperature of the charging interface is greater than or equal to a second temperature threshold, forbidding charging a rechargeable battery in the electronic device or forbidding providing power to electronic components of the electronic device, in which the second temperature threshold is greater than the first temperature threshold.

8. An electronic device, comprising:

a rechargeable battery;

an interface, configured to perform an electric connection with a charging cable, to acquire direct current from a power adapter via the charging cable, and to charge the rechargeable battery by using the direct current;

a processor, configured to determine a temperature of a charging interface, and to control the interface or the rechargeable battery of the electronic device according to the temperature of the charging interface, so as to manage power of the electronic

device, wherein, the charging interface comprises at least one of an interface of the power adapter for electric connection with the charging cable, an interface of the charging cable for electric connection with the power adapter, an interface of the charging cable for electric connection with the electronic device, and the interface of the electronic device;

the electronic device further comprises:

a temperature measurement element disposed in the charging interface, and the processor is configured to determine a temperature of a contact plate in the charging interface by the temperature measurement element; and

the temperature measurement element and the contact plate are disposed on a same thermal conductive substrate, and the temperature measurement element has a preset spacing with the contact plate.

9. The electronic device according to claim 8, wherein, there are a plurality of temperature measurement elements and a plurality of contact plates disposed in the charging interface, there is a one-to-one correspondence between the plurality of temperature measurement elements and the plurality of contact plates, each contact plate is configured to transmit charging current.

10. The electronic device according to claim 8 or 9, wherein, the thermal conductive substrate is made of metal.

11. The electronic device according to any of claims 8-10, wherein, an insulating thermal conductive layer is disposed between the temperature measurement element and the thermal conductive substrate; or

an insulating thermal conductive layer is disposed between the contact plate and the thermal conductive substrate.

12. The electronic device according to any of claims 9-11, wherein,

when the charging interface comprises the interface of the electronic device, the plurality of temperature measurement elements comprise a first temperature

measurement element disposed in the interface of the electronic device and configured to determine a temperature of the interface of the electronic device; and

the processor is configured to determine the temperature of the charging interface according to the temperature of the interface of the electronic device determined by the first temperature measurement element.

13. The electronic device according to any one of claims 9-12, wherein, when the charging interface comprises the interface of the charging cable for electric connection with the power adapter, the plurality of temperature measurement elements comprise a second temperature measurement element disposed in the interface of the charging cable for electric connection with the power adapter;

the electronic device further comprises:

a receiver, configured to receive a first temperature indication information indicating a temperature of the interface of the charging cable for electric connection with the power adapter sent by the charging cable, in which the temperature of the interface of the charging cable for electric connection with the power adapter is detected by the second temperature measurement element; and

the processor is configured to determine the temperature of the charging interface according to the first temperature indication information.

14. The electronic device according to any one of claims 9-13, wherein, when the charging interface comprises the interface of the charging cable for electric connection with the electronic device, the plurality of temperature measurement elements comprise a third temperature measurement element disposed in the interface of the charging cable for electric connection with the electronic device;

the electronic device further comprises:

a receiver, configured to receive a second temperature indication information indicating a temperature of the interface of the charging cable for electric connection with the electronic device sent by the charging cable, in which the temperature of the interface of the charging cable for electric connection with the electronic device is detected by the third temperature measurement element; and

the processor is configured to determine the temperature of the charging interface according to the second temperature indication information.

15. The electronic device according to any one of claims 9-14, wherein, when the charging interface comprises the interface of the power adapter for electric connection with the charging cable, the plurality of temperature measurement elements comprise a fourth temperature measurement element disposed in the interface of the power adapter;

the electronic device further comprises:

a receiver, configured to receive a third temperature indication information indicating a temperature of the interface of the power adapter sent by the power adapter via the charging cable, in which the temperature of the interface of the power adapter is detected by the fourth temperature measurement element; and

the processor is configured to determine the temperature of the charging interface according to the third temperature indication information.

16. The electronic device according to any one of claims 8-15, wherein, the processor is configured to:

when the temperature of the charging interface is greater than or equal to a first temperature threshold, send an instruction to the power adapter via the charging cable for instructing the power adapter to reduce a current value of charging current or reduce a voltage value of the charging current; or

when the temperature of the charging interface is greater than or equal to a second temperature threshold, forbid charging a rechargeable battery in the electronic device or forbid providing power to electronic components of the electronic device, in which the second temperature threshold is greater than the first temperature threshold.

17. A power management device, applied in a power adapter charging an electronic device via a charging cable and comprising:

a determining unit, configured to determine a temperature of a charging interface, in which the charging interface comprises at least one of an interface of the power adapter for electric connection with the charging cable, an interface of the charging cable for electric connection with the power adapter, an interface of the charging cable

for electric connection with the electronic device, and an interface of the electronic device for electric connection with the charging cable; and

a control unit, configured to control a charging to the electronic device according to the temperature of the charging interface,

wherein,

the determining unit is configured to determine a temperature of a contact plate in the charging interface by a temperature measurement element disposed in the charging interface, and

the temperature measurement element and the contact plate are disposed on a same thermal conductive substrate, and the temperature measurement element has a preset spacing with the contact plate.

18. The device according to claim 17, wherein, there are a plurality of temperature measurement elements and a plurality of contact plates disposed in the charging interface, there is a one-to-one correspondence between the plurality of temperature measurement elements and the plurality of contact plates, and each contact plate is configured to transmit charging current.

19. The device according to claim 17 or 18, wherein, the thermal conductive substrate is made of metal; and

an insulating thermal conductive layer is disposed between the temperature measurement element and the thermal conductive substrate; or an insulating thermal conductive layer is disposed between the contact plate and the thermal conductive substrate.

20. The device according to any of claims 18-19, wherein, when the charging interface comprises the interface of the power adapter for electric connection with the charging cable, the plurality of temperature measurement elements comprise a first temperature measurement element disposed in the interface of the electronic device and configured to determine a temperature of the interface of the electronic device, and the determining unit is configured to determine the temperature of the charging interface

according to the temperature of the interface of the electronic device determined by the first temperature measurement element.

21. The device according to any one of claims 18-20, wherein, when the charging interface comprises the interface of the charging cable for electric connection with the power adapter, the plurality of temperature measurement elements comprise a second temperature measurement element disposed in the interface of the charging cable for electric connection with the power adapter;

the device further comprises:

a receiving unit, configured to receive a first temperature indication information indicating a temperature of the interface of the charging cable for electric connection with the power adapter sent by the charging cable, in which the temperature of the interface of the charging cable for electric connection with the power adapter is detected by the second temperature measurement element; and

the determining unit is configured to determine the temperature of the charging interface according to the first temperature indication information.

22. The device according to any of claims 18-21, wherein, when the charging interface comprises the interface of the charging cable for electric connection with the electronic device, the plurality of temperature measurement elements comprise a third temperature measurement element disposed in the interface of the charging cable for electric connection with the electronic device;

the device further comprises:

a receiving unit, configured to receive a second temperature indication information indicating a temperature of the interface of the charging cable for electric connection with the electronic device sent by the charging cable, in which the temperature of the interface of the charging cable for electric connection with the electronic device is detected by the third temperature measurement element; and

the determining unit is configured to determine the temperature of the charging interface according to the second temperature indication information.

23. The device according to any of claims 18-22, wherein, when the charging interface comprises the interface of the electronic device for electric connection with the charging cable, the plurality of temperature measurement elements comprise a fourth temperature measurement element disposed in the interface of the power adapter;

the device further comprises:

a receiving unit, configured to receive a third temperature indication information indicating a temperature of the interface of the electronic device sent by the electronic device via the charging cable, in which the temperature of the interface of the electronic device is detected by the fourth temperature measurement element; and

the determining unit is configured to determine the temperature of the charging interface according to the third temperature indication information.

24. The device according to any of claims 17-23, wherein, the control unit is configured to:

when the temperature of the charging interface is greater than or equal to a first temperature threshold, reduce a current value of the charging current or reduce a voltage value of the charging current; and

when the temperature of the charging interface is greater than or equal to a second temperature threshold, forbid outputting the charging current, in which the second temperature threshold is greater than the first temperature threshold.