

# KKG Series Power Supply Communications Protocol

## 1. ISET<X>:<NR2>

Description: set current value

Example: ISET1: 2.5 set the current to be 2.5A

## 2. ISET<X>?

Description: query channel current setting value

Example: ISET1? return current setting value

## 3. VSET<X>:<NR2>

Description: set voltage value

Example: VSET1: 12.5 set the voltage to be 12.5V

## 4. VSET<X>?

Description: query channel voltage setting value

Example: VSET1? return voltage setting value

## 5. IOUT<X>?

Description: query channel current output value

Example: IOUT1? return current output value

## 6. VOUT<X>?

Description: query channel voltage output value

Example: VOUT1? return voltage output value

## 7. BEEP<Boolean>

Description: turn the buzzer ON or OFF

Example: BEEP1 turn the buzzer ON

## 8. OUT<Boolean>

Description: turn the output ON or OFF

Example: OUT1 turn the output ON

## 9. STATUS?

Description: query device status

BIT0 0=CC mode,1=CV mode

BIT1 remote compensation status

BIT2 external interface (including the external trigger and switch)

BIT3 reserve

BIT4 beep status

BIT5 OCP status

BIT6 output status

BIT7 OVP status

10. \*IDN?

Description: Returns the identification

Example: \*IDN?

return (Manufacturer,model name,SN)

11. RCL<NR1>

Description: Recalls a panel setting NR1 1-5

Example RCL4 Recalls the panel setting stored in memory number 4

12. RCLL

Description: recall LIST programming

Example RCLL recall LIST programming

13. SAV<NR1>

Description: Recalls a panel setting NR1 1-5

Example SAV4 Save the panel setting stored in memory number 4

14. LOCK<Boolean>

Description: lock buttons

Example: LOCK1 lock buttons

15. OCP:<NR2>

Description: set OCP current value

Example: OCP: 5.00 set OCP value to be 5A

16. OCP?

Description: query OCP current value

Example: OCP? return OCP current value

17. OCP<NR1>

Description: turn OCP ON or OFF

Example: OCP1 turn OCP ON

18. OVP:<NR2>

Description: set OVP voltage value

Example: OVP: 5.00 set OVP value to be 5V

19. OVP?

Description: query OVP voltage value

Example: OVP? return OVP voltage value

20. OVP<NR1>

Description: turn OVP ON or OFF

Example: OVP1 turn OVP ON

21. LIST00:<NR1>,<NR1>

Description: modify the number of repetitions and steps of the LIST. A repetition number of 0 means that it will always repeat up to 65535 times, and the maximum step is 15 and the minimum is 2.

Example: LIST00: 50,12 modify the number of repetitions of LIST to 50 times. and the step is 12.

22. LIST00?

Description: query the number of repetitions and steps of LIST

Example: LIST00? return the number of repetitions and steps of LIST

23. LIST<NR1>:<NR2>,<NR2>,<NR2>,<NR2>

Description: modify the step value of channel LIST

Example: LIST03: 12,3,1 set the voltage of the third step of LIST to be 12V and current to be 3A to run for 1 second.

24. LIST<NR1>?

Description: query LIST step value

Example: LIST03? query the content of the third step of LIST

25. TRIG:<Boolean>

Description: turn on and off the external trigger, and turn on the external trigger will automatically turn off the external switch function of the corresponding channel.

Example: TRIG: 1 turn on the external trigger

26. SENSE:<Boolean>

Description: turn on and off the external compensation

Example: SENSE: 1 turn on the external compensation

27. EXON:<Boolean>

Description: turn on and off the external switch, and turn on the external switch will automatically turn off the external trigger of the corresponding channel.

Example: EXON: 1 turn on the external switch

28. MAAU:<Boolean>

Description: turn on and off automatic mA/A

Example: MAAU: 1 turn on automatic mA/A

29. MAON:<Boolean>

Description: turn on and off mA

Example: MAAU: 1 turn mA on

30. AUTO:<Boolean>

Description: turn on and off the function of automatically setting voltage and current.

Example: AUTO: 1 turn on automatic settings.

### 31. MOUT<X>?

Description: query the current output value of channel mA and A. When the current is greater than the maximum value of mA, the value of A will be returned, and the value of mA will be returned when the current is less than the maximum value of mA.

Example: MOUT1? return the current output value of mA or A.

### 32. SOUT:<Boolean>

Description: turn on and off the output and save automatically.

Example: SOUT: 1 turn on the output and save it automatically.