DPM86xx Series Power Supply Communication Protocol

Overview

The structure of the control instruction is command line. The communication rate can be selected between seven baud rates (2400, 4800, 9600, 19200, 38400, 57600, 115200). The machine address code can be set in the range of 01-99. For the specific setting operation, please refer to the manual.

The command is sent by the PC, and the machine analyzes and executes ， when the address code is the same, the result is returned to the PC. When the address code is different, no information is returned. This is very suitable for the centralized control of multiple machines.

Send command format is as follows:

start symbol	address code	function symbol	function number	equal symbol	operand	comma	end code
:	01~99	w,r	00~99	=	0~65535	,	\r\n

1、The start symbol is ":"

2、The address code is the local address, and the setting range is 01~99.

3、 The function code is ‘w’ or ‘r’, indicating write or read.

4、The function number is the number for different functions, and the different values represent different parameter settings.

5、The operand is the operand of the command

6、Comma: Each operand is distinguished by ","

7.End code:The end of a command is ‘\r\n’, this is actually a return character, and a newline character in ASCII, hexadecimal representation is 0x0d, 0x0a.

I、w instruction

(1)10 command write voltage setting.

The format is :01w10=****,

"****" means a value, indicates the value of voltage setting.

For example: 01w10=1234,\r\n, indicates the voltage setting is: 12.34V

(2)11 command write current setting.

The format is :01w11=****,

"****" means a value, indicating the value of current setting.

For example: 01w11=2345, indicating the current setting is: 2.345A

(3) 12 command Output status setting

The format is :01w12=*,

"*" means a value, representing the output status

For example: :01w12=0, means to turn off the output

:01w12=1,\r\n, means to turn on the output.

(4)20 command Set both voltage and current settings

The format is :01w20=****,####,

"****" means the voltage setting, "####" means the current setting

For example: 01w20=1234, 2345, means the voltage and current setting: 12.34V, 2.345A

I、 r instruction

(1)00 command Read maximum output voltage

The format is :01r00=0,

For example: send :01r00=0, the return is :01r00=6000,indicates the maximum output voltage is 60V.

(2) 01 command Read maximum output current

The format is :01r01=0,

For example: send :01w01=0,

If the return is :01r01=8000, indicates the maximum output current of this model is 8A, and the corresponding model is DPM-8608.

If the return is :01r01=5000, indicates the maximum output current of this model is 5A, and the corresponding model is DPM-8605.

(3) 10 command Read the voltage setting

The format is :01r10=0,

For example: send :01w10=0, the return is :01r10=1234, indicates the voltage setting is 12.34V

(4) 11 command Read the current setting

The format is :01r11=0,

For example: send :01r11=0, the return is :01r11=2345, indicates the current setting is 2.345A

(5)12 command Read output status

The format is :01r12=0,

For example: send :01w12=0,

If the return is :01r12=0, indicates the output status is currently off.

If the return is :01r12=1,indicates the output state is currently on.

(6) 30 command Read output voltage measurement value

The format is :01r30=0,

For example: send :01r30=0, the return is :01r30=2345, indicates the measured value of the output voltage is 23.45V.

(7) 31 command Read the output current measurement value

The format is :01r31=0,

For example: send: 01r31=0, the return is :01r31=2345, indicates the measured value of the output current is 2.345A

(8)32 command Read CC or CV status

The format is :01r32=0,

For example: send :01w32=0,

If the return is :01r32=0, indicates constant voltage output(CV)

If the return is :01w32=1, indicates constant current output(CC)

(9)33 command Read temperature

The format is :01r33=0,

For example: send :01r33=0, the return is :01r33=30, Indicates that the internal temperature of the machine is 30 ° C