UPS Power Monitor User's Manual_Ver 1.17_C

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Introduction

This software is designed for monitoring and setting UPS. There are two ways to connect with UPS: RS_232 & RS_485. If using RS_485 communication, a "485-232-adaptor" is necessary to connect 485 port of UPS and computer's Serial port. If using RS_232 communication, a serial cable can be connected directly from UPS 232 port to the computer's Serial port.

1. Hardware Connection of UPS and PC

1.1 Serial Communication Introduction

1.1.1 Serial Communication Interface Introduction

There are two types 9 cores serial interfaces, one is 9 pins (Male type) interface, another one is 9 holes (Female type) interface. Their Figtures as below:



Fig 1-1. Male type interface (for RM060/120/200)



Fig 1-2. Female type interface (For the other products)

1.1.2 RS_232 Definition

1) Male type pins definition of RS_232 Port is shown in Fig 1-3.



Fig 1-3. Male type pins definition of RS_232 Port

pin2 RXD	
pin3 TXD	
pin5 GND	

2) Female type holes definition of RS_232 Port is shown in Fig 1-4.



Fig 1-4. Female type holes definition of RS_232 Port

pin2--- TXD pin3--- RXD pin5 --- GND

1.1.3 RS_485 Definition

The 9 cores RS_485 interfaces definition is shown in Fig 1-5.



Fig 1-5. RS_485 definition (For RM060/120/200)

pin2--- 485+/A pin3--- 485-/B pin5 --- GND

The 3 pins and 2 pins pluggable terminal block definition are shown in Fig 1-6.



Fig 1-6. RS_485 definition (For the other products)

1.2 Connection between UPS and PC

1.2.1 RS_232 Connection of UPS- PC Monitoring System

As usual, the desktop computer's serial communication port as shown on Fig 1-7. There is no serial communication port on the notebook computer. The users need a USB-RS_232 cable and install relative drive program at PC, as shown on Fig 1-8.



Fig 1-7. Desktop computer serial communication port



Fig 1-8. USB-RS_232 cable and drive program

(1) To communicate with standard RS_232 cable

The standard RS_232 cable as shown on the Fig 1-9. As usual, computer's serial communication port is male type. If your UPS's serial communication port is also male type, you can connect the computer and UPS with a crossed female-to-female terminal RS_232 cable. If your UPS's serial communication port is female type, you need a directly connected RS_232 cable with female-to-male terminal.



Fig 1-9. RS_232 cable

(2) To communicate with lead wire

The detailed way is shown on Fig 1-10:



Fig 1-10. PC RS_232 port to UPS RS_232 port

For example, if the PC RS_232 port is male type, UPS RS_232 is female type, the connection way is shown as below:



Fig 1-11. PC RS_232 port to UPS RS_232 port

1.2.2 RS_485 Connection of UPS- PC Monitoring System

The connection of **UPS- PC monitoring system** is shown in Fig. 1-12.

1) Connect the **485-232 adaptor** to **485-port of UPS** using a customized serial cable, which is an accessory of UPS.

NOTE: Pins definition of this Serial cable is different from a normal one.

2) Connect the serial port of PC to 232 port of 485-232-adaptor using a normal serial cable.



Fig 1-12. UPS and PC monitoring system connection

3) If there are more than one UPS connected, the communication bus of RS485 could be applied as below, please set the UPS with different address, and choose the right address when starting the software connection.



Fig 1-13. UPS and PC monitoring system connection via RS485 bus

1.2.3 USB Connection of UPS- PC Monitoring System

RMX series provide a USB (type B) interface, you can connect the computer and UPS with a standard USB cable.

2. Using UPS-Power-Monitor Software

2.1 Software Introduction

After Decompressing, the software can be used directly, need not install it. Please make sure that all 4 files should be put in the same directory, which are described as follows:

UPSPowerMTR.exe: Executable file

UPSPowerMTR.CHS: Language file

UPSPowerMTR.ENU: Language file

CLOSEAPP.EXE: Close application

As hardware connection finished, double click "UPS Power MTR.exe" to start it. Then Home is visible as shown in Fig 2-1. Left side of software window is **function selection menu**, right side is the **energy-flow-diagram**.



Fig 2-1. Home

2.2 UPS Setting on the LCD

It is necessary to set the UPS communication protocol as Modbus before using UPSPowerMTR.

Different UPS have different LCD, the setting is also different, detailed way as below:

2.2.1 Color Touch Screen

Color touch screen display as shown on Fig 2-2, communication setting way as below:

			Devic	e Add	ress	1		DATE & TIME		
ſ	RS	232 Protoc	col Selectio	on			li			
SNT	M	odbus	DWin			TD/T		LANGUAGE		
		Bau	drate					сомм.		
1200	2400	4800 9600 14400 19200								
·	The following is only needed for Modbus									
	Modbus Mode									
		ASCII	RTU	Ĩ				SERVICE		
		Modbu	s Parity				ŀ			
Nor	None Odd Even							RATE		
		Pleas	e Confirm	Setti	ngs	\checkmark		CONFIGURE		
Home	Cabinet	Module	Setting	ŗ.	Lo		Dperate	Scope		

Fig 2-2. Color touch screen display

a. Setting for RS_232:

Click the button **EVEN**, you will get setting manualal, then click the button communication setting page, as shown on Fig 2-2, and set each item step by step:

- 1) RS_232 Protocol Selection: Modbus;
- 2) Baudrate: 9600 or any other value, but it must is the same as monitoring software;
- 3) Modbus Mode: ASCII or RTU, but it must is the same as monitoring software;
- 4) Modbus Parity: None;
- 5) Device Address: 1;

Then click _____, setting finished.

b. Setting for RS_485:

Click the button , you will get setting manual, then click the button communication setting page, as shown on Fig 2-2, and set each item step by step:

- 1) RS_232 Protocol Selection: SNT;
- 2) Baudrate: 9600 or any other value, but it must is the same as monitoring software;
- 3) Modbus Mode: ASCII or RTU, but it must is the same as monitoring software;
- 4) Modbus Parity: None;
- 5) Device Address: 1 (If there are more than one UPS, please set the address to different number);

Then click

, setting finished.

c. Setting for USB:

The setting method of USB communication in the same way with RS_485, so the setting method of RS_485 can be referred.

Note: USB and RS_485 cannot be used at the same time.







сомм.

2.2.2 Monochrome Touch Screen

Monochrome touch screen display as shown on Fig 2-3, communication setting way as below:



Fig 2-3. Monochrome touch screen display

a. Setting for RS_232:

Note 1: UPS monitoring firmware version should be higher than 003.018. Note 2: It is not allowed to use RS_232 and RS_485 at same time.

The UPS monitoring firmware version can be gotten by: click **[[]** first at LCD display home page, then click



b. Setting for RS_485: Comm Set Modbus 1) click at the home page of UPS LCD display, then click then click to set communication protocol as "Modbus". ProtoSet 2) click to enter protocol setting manual; Mode ASCII 3) click to enter Modbus setting manual, then click to set Modbus communication mode as "ASCII" mode, you can also choose "RTU" mode, but it must is the same as monitoring software; Address 4) back to protocol setting manual, click to set Modbus device address ; BaudRate 5) back to protocol setting manual, click to set Modbus Baud rate as "9600", you can also choose other value, but it must is the same as monitoring software; Parity 6) back to protocol setting manual, click to set Modbus parity bit as "None". Comm Set SNT , back to protocol choose page, click to set current RS_232 communication 7) click protocol as "SNT".

c. Setting for USB:

The setting method of USB communication in the same way with RS_485, so the setting method of RS_485 can be referred.

Note:

1. USB and RS_485 cannot be used at the same time.

2. Only RMX series have USB interface.

2.2.3 Small LCD

The LCD display as shown Fig 2-4:



Fig 2-4 Small LCD

Note 1: Your UPS rectifier version must be advanced than Version 001.001 when using RS_232. Note 2: Port RS_485 is forbidden to use when using RS_232.

Select

icon in the main display interface of UPS LCD, then enter "Version" interface, then you will see

UPS REC version.

a. The way to set Port RS_232 of UPS as below:

- 1) Select *icon in the LCD of UPS to enter "COMM. SET" interface;*
- 2) In the "COMM. SET" interface, set current communication protocol to "ModBus";
- 3) In the "MODBUS SET" interface, set Modbus communication mode to "ASCII" or "RTU", set device address to "1", set baud rate to "9600" or other, as shown on Fig 2-5:



Fig 2-5 Modbus Setting

b. The way to set Port RS_485 of UPS

The way to set Port RS_485 of UPS as below:

1) Select **I** icon in the LCD of UPS to enter "COMM. SET" interface;

2) In the "COMM. SET" interface, set current communication protocol to "SNT";

3) In the "MODBUS SET" interface, set Modbus communication mode to "ASCII" or "RTU", set device address to "1", set baud rate to "9600" or other, as shown on Fig 2-5:

Note: No RS_485 interface on the HT31 10~20kVA and HT11 6~20kVA UPS.

2.2.4 1/1T (1-3KVA) series Setting

1/1T (1-3KVA) UPS LCD display as shown on Fig 2-6:



Fig 2-6. 1/1T (1-3KVA) LCD Display

Setting for RS_232 interface of 1/1T (1-3KVA) UPS

1) Press "ON/OFF" and "FUNC" at same time for 5 seconds, then will enter UPS function setting manual;

2) Press "ON/OFF" to select **FUNC**" to modify the number to be "0CC", it means that the current communication protocol is "Modbus".

Note: No RS_485 interface on 1/1T (1-3KVA) UPS.

2.3 Connecting UPS with Power MTR

To start monitoring UPS, UPS type, Protocol, Address, Baud rate, Serial port number need be set correctly, Click the button **"Connect"** to make the software communicate with UPS.

After a few seconds, if hardware connection and the software setting are correct, status bar at the bottom of the window should display "**UPS connected**", as shown in Fig 2-7. If not, please check hardware and your setting.

When connected, clicking the button 'disconnect' will make the software disconnect with UPS.

The settings are as follows:

UPS type: Auto or choose a type according to your UPS.(Note, some old UPS do not support auto choose)

Baud rate: Auto, you can also choose other value, but it must is the same as UPS

Protocol: MODBUS_ASCII or MODBUS_RTU, it must is the same as UPS

Address: set to the same address as the equipment being accessed.

Note 1: "UPS type" must be set correctly.

Note 2: The software can scan serial port numbers of computer. If there is only one serial port for computer, no need to choose.



Fig 2-7. UPS connected

Once UPS is connected, UPS status and data are shown on PC. Clicking the menu items on the left side of the window, corresponding data will be shown.

2.4 UPS Power MTR system setting

Click the button at the top-right corner of UPS Power MTR or right click system tray icon and choose 'Setting' $\frac{\text{Setting}}{\text{Exit}}$, then a system setting dialog will popup, as shown in Fig 2-8. In this dialog, you can set the action

when click close button, and you also can set the password if you like, the initial password is 12345678.

Setting	
Window Setting	
Minimizing to the system tray	when close
	Set
Password Setting	
Please Enter Old Password	
Please Enter New Password	
Please Enter New Password Agai	in
	Set

Fig 2-8. Setting

3 Function selection menu

3.1 Introduction

The MTR software has the functions of monitoring, setting and control of the UPS, the functions are shown as below.



3.2 Home

Home Page display the **energy-flow-diagram** and information of main input voltage, bypass voltage, output voltage and battery voltage. The interface appears to be two different types according to the UPS model selected. Type A with 1/1T(1-3KVA)、 1/1T (6-20KVA)、 3/1T (10-20KVA) selected as is shown in Fig.3-1; Type B with other type selected as is shown in Fig.3-2.



Fig.3-1 Homepage-Type A



Fig.3-2 Homepage-Type B

3.3 BypassData

This page is to show the data of **UPS bypass input**, including voltage, current, frequency and power factor, as shown in Fig.3-3.

UPS POWER I	TR					
						÷
Home						
BypassData		Bypass Dat	a			Bypass input voltage
MainIpData OutputData			А	В	С	300
BatteryData		Volt(V)	224.5	224.3	223.8	250
CabStatus		Curr(A)	0.0	0.0	0.0	200
UnitStatus		Freq(Hz)	50.03	50.03	50.03	
HisLogDown		PF	1.00	1.00	1.00	150
SCodeDown						100
RateSetting						50
ServSetting DetectAdjust						30
ControlCmd						0
FwProgram	~					
UPS type 3/3R(0kVA) 🔻	Prote	ocol MOI	DBUS ASCII	Address
Baud rate 9600		~	Port	No. COM	14	Disconnect
S Connected	2	015-11-11 13:	51:40			

Fig.3-3 Bypass Data

3.4 MainIpData

This page is to show the data of **UPS main input**, also including voltage, current, frequency and power factor, as shown in Fig.3-4.

lome	^					
ypassData		Main Data				
lainIpData				В	С	Main input voltage
hutputData			A			
atteryData		Volt(V)	224.4	224.2	223.7	250
abStatus		Curr(A)	2.1	2.0	2.2	200
nitStatus		Freq(Hz)	50.02	50.02	50.02	
isLogDown		PF	0.98	0.98	0.98	150
CodeDown						100
ateSetting						
ervSetting						50
etectAdjust						0
ontrolCmd						13:42:42 13:44:12 13:45:51 13:47:26 13:49:04 13:50:42 13:52:2
wProgram						
wProgram	⊻					
PS type 3/3R		0kVA) 🔻	Prote	ocol MOI	DBUS ASCII	Address 🗌 💦 🎽

Fig.3-4 Main Input Data

3.5 OutputData

This page is to show the data of **UPS output**, including voltage, current, frequency, power factor, power, and load percents, as shown in Fig.3-5.

Home BypassData MainIpData	^	Output Data				System output voltage
OutputData			А	В	С	300
BatteryData		Volt(V)	220.3	220.3	220.3	250
CabStatus		Curr(A)	0.0	0.0	0.0	200
UnitStatus	Ξ	Freq(Hz)	50.03	50.03	50.03	
HisLogDown		PF	0.97	0.97	0.97	150
SCodeDown		Power S(kVA)	0.0	0.0	0.0	100
RateSetting		Power P(kW)	0.0	0.0	0.0	50
ServSetting DetectAdjust		Power Q(kVar)	0.0	0.0	0.0	
ControlCmd		Load(%)	0.0	0.0	0.0	0 13:43:31 13:45:01 13:46:40 13:48:15 13:49:53 13:51:31 13:53:09
FwProgram	~					
UPS type 3/3R	10-200	DkVA) 🔽 Pro	tocol 🚺	MODBUS	_ASCII 🔽	Address 📃 💦
Baud rate 9600		- Por	t No.		-	Disconnect

Fig.3-5 Output Data

3.6 BatteryData

This page is to show the data of **UPS Battery**, including voltage, charge/discharge current, capacity and remind time. The capacity and remind time data are effective when UPS is discharge, as shown in Fig.3-6.

ome										
ome ypassData	<u>^</u>	-Battery Data								
iainIpData		Sumiy Suit					Battery	voltage		
utputData			POS	NEG	300		· · · · · · · · · · · · · · · · · · ·			
atteryData		Voltage(V)	253.6	253.7	250					
abStatus		Current(A)	2.0	1.7	200					
nitStatus	=	Capacity(%)	100.0		200					
isLogDown		RmdTime(min)			150					
CodeDown		BattTemp.(oC)	20.0		100					
ateSetting										
rvSetting		2			50					
etectAdjust					0 +					
ontrolCmd					13:44:04 1	3:45:34 13:	47:12 13:	48:50 13:50	0:28 13:52:00	5 13:53:44
wProgram	~									

Fig.3-6 Battery Data

3.7 CabStatus

This page is to show the status for the cabinet. As it's shown in Fig 3-7, the description in the yellow frame indicates the status listed in the red frame. Take the first row as an example, the 'By UPS' in the yellow frame indicate the power supply source is UPS.

ITR						
^	Cabinet Status					_
	SupplySrc	By UPS	BypOvLd	No	BypVoltFail	No
	BattSts	Boost	BypOvLdTout	No	BattTestSts	No
	EPO	Not EPO	BypUntrack	No	BattMaintSts	No
	OnUpsBanned	No	TxTimeLmt	No	MaintCbSts	Open
	ManualByp	No	OpShorted	No	InvOnLess	No
	BattVoltLow	No	GenInput	No	IpNeutralLost	No
	BattReverse	No	InputFail	No	BypFanFail	No
	BattEOD	No	BypSeqFail	No		
~	Monitor Version	133.003.00	54			
						Ø
		Cabinet Status SupplySrc BattSts EPO OnUpsBanned ManualByp BattVoltLow BattReverse BattEOD Monitor Version	Cabinet Status SupplySrc By UPS BattSts Boost EPO Not EPO OnUpsBanned No ManualByp No BattVoltLow No BattEOD No Monitor Version 33 , 003 , 00 MONTOR VERSION 30 , 00	Cabinet Status SupplySrc By UPS BypOvLd BattSts Boost BypOvLdTout EPO Not EPO BypUntrack OnUpsBanned No TxTimeLmt ManualByp No OpShorted BattFold No GenInput BattEOD No BypSeqFail Monitor Version 33 . 003 . 064 V	Cabinet Status SupplySrc By UPS BypOvLd No BattSts Boost BypOvLdTout No EPO Not EPO BypUntrack No OnUpsBanned No TxTimeLmt No ManualByp No OpShorted No BattReverse No InputF ail No BattEOD No BypSeqF ail No Monitor Version 33 - 003 - 064 V V Xddress	Cabinet Status SupplySrc By UPS BypOvLd No BypVoltFail BattSts Boost BypOvLdTout No BattTestSts EPO Not EPO BypUntrack No BattMaintSts OnUpsBanned No TxTimeLmt No MaintCbSts ManualByp No OpShorted No InvOnLess BattReverse No InputFail No BypFanFail BattEOD No BypSeqFail No V V Protocol MODBUS_ASCH Address

Fig.3-7 Cabinet Status

Cabinet status items explanation:

Display Items	Means
SupplySrc	System power supply source. Available states: None, By UPS, Bypass.

BattSts	The work status of battery. Available states: Not Work, Float, Boost, Discharge.
EPO	Emergency power off. Available states: Not EPO, EPO.
OnUpsBanned	Whether UPS power on is banned. Available states: No, Yes.
ManualalByp	Whether transfer to bypass mode manually. Available states: No, Yes.
BattVoltLow	Whether battery voltage is low. Available states: No, Yes.
BattReverse	Whether battery reversed connected. Available states: No, Yes.
BattEOD	Whether battery End Of Discharge occurred. Available states: No, Yes.
BypOvLd	Whether bypass over load. Available states: No, Yes.
BypOvLdTout	Whether bypass over load timeout. Available states: No, Yes.
BypUntrack	Whether bypass frequency untrack occurred. Available states: No, Yes.
TxTimeLmt	Whether the times of transfer to bypass reach its limit. Available states: No, Yes.
OpShorted	Whether Output short circuit occurred. Available states: No, Yes.
GenInput	Whether generator input. Available states: No, Yes.
InputFail	Whether input fail occurred. Available states: No, Yes.
BypSeqFail	Whether bypass sequence fail. Available states: No, Yes.
BypVoltFail	Whether bypass voltage fail. Available states: No, Yes.
BattTestSts	Battery test status. Available states: No, Ok., Fail, Testing
BattMaintSts	Battery maintenance status. Available states: No, Ok., Fail, Maintaining
MaintCbSts	Maintain CB status. Available states:Open, Close.
InvOnLess	Whether Inverter Capacity is less than required. Available states: No, Yes.
IpNeutralLost	Whether input neutral lost. Available states: No, Yes.
BypFanFail	Whether bypass fan fail. Available states: No, Yes.

3.8 UnitStatus

As shown in Fig 3-8,by selecting the button of 'Unit Status' and 'Module Data', users can see the status information and analog value of the online module respectively.

The 'Unit Status' page can up to show 30 modules. By dragging the horizontal scroll bar, user can view all the

information of the modules. For the mark, the "V" indicates the normal operation; the mark" indicates fault occur.

												*
Home	^	Unit Status Module Da	ta									
BypassData			U_1	U_2	U_3	U_4	U_5	U_6	U_7	U_8	U_9	U_10
MainIpData OutputData		Rectifier Fail	V	V	V	V	V	V	V	V	V	V
BatteryData		Inverter Fail	V	V	V	V	V	V	V	V	V	V
CabStatus		Rectifier Over Temp.	V	V	V	V	V	V	V	V	V	V
UnitStatus		Fan Fail	V	V	V	V	V	V	V	V	V	V
HisLogDown		Over Load	V	V	V	V	V	V	V	V	V	V
SCodeDown		Over Load Timeout	V	V	V	V	V	V	V	V	V	V
RateSetting		Inverter Over Temp.	V	V	V	V	V	V	V	V	V	V
ServSetting DetectAdjust		Inverter Protect	V	V	V	V	V	V	V	V	V	V
ControlCmd FwProgram	~											
UPS type 3/3R(10-200kVA) V Protocol MODBUS_ASCII V Address I Baud rate 9600 V Port No. COM4 V Disconnect												

Fig3-8 Status Unit page

The "Module Data" displays the analog value of the current selected module As is shown in Fig 3-9, the number in the red frame is the selected module. By pulling-down menu in the yellow frame and confirm click, users can change the information displayed for different module.

a ups pover 1	TR				_	
Home	^	Unit Status Module Data				
BypassData		Main Input Voltage Phase A(V)	223.8	Output Active Power Phase B(kW)	0.0	^
MainIpData OutputData		Main Input Voltage Phase B(V)	224.1	Output Active Power Phase C(kW)	0.0	
BatteryData		Main Input Voltage Phase C(V)	224.4	Output Reactive Power Phase A(kVar)	0.0	
CabStatus		Main Input Current Phase A(A)	0.0	Output Reactive Power Phase B(kVar)	0.0	
UnitStatus	≡	Main Input Current Phase B(A)	0.0	Output Reactive Power Phase C(kVar)	0.0	
HisLogDown		Main Input Current Phase C(A)	0.0	Output Load Percentage Phase A(%)	0.0	
SCodeDown		Main Input Frequency Phase A(Hz)	50.06	Output Load Percentage Phase B(%)	0.0	
RateSetting		Main Input Frequency Phase B(Hz)	50.06	Output Load Percentage Phase C(%)	0.0	
ServSetting DetectAdjust		Main Input Frequency Phase C(Hz)	50.06	Fan Running Time (hour)	0	~
ControlCmd FwProgram	~	Module ID	•	Set		
UPS type 3/3R(10-200kVA) - Protocol MODBUS_ASCII - Address						
Baud rate 9600		Port No. COM4	Y	Disconnect		
S Connected		2015-11-11 14:01:50				

Fig 3-9 Module Data

3.9 Hislog Down

UPS history log can be downloaded to PC on this page. Click 'Download' to download history log from UPS

which then would be displayed on PC. Click 'Save' to save history log to PC as a file. It's shown in Fig.3-11.

UPS POWER	IITR							×
Home	<u>^</u>							
BypassData		59	45	04#Comm Node Join	Set	2015-11-05 17:24:33		^
MainIpData OutputData		60	45	03#Comm Node Join	Set	2015-11-05 17:24:33		
BatteryData		61	45	02#Comm Node Join	Set	2015-11-05 17:24:33		
CabStatus		62	45	01#Comm Node Join	Set	2015-11-05 17:24:33		
UnitStatus	=	63	6	Batt Connected	Set	2015-11-05 17:24:33		
HisLogDown		64	3	Batt Boost	Set	2015-11-05 17:24:33		
SCodeDown		65	0	Load On UPS	Set	2015-11-05 17:24:33		
RateSetting		66	45	10#Comm Node Join	Set	2015-11-05 09:55:10	_	-
ServSetting DetectAdjust ControlCmd FwProgram	~	, Downloadin Download		om the UPS, the UPS data will not up	date, and may	take a few minutes, please be patient Save as local file	Save	
UPS type 3/3R Baud rate 960		0kVA) 🔽	Prot Port	ocol MODBUS_ASCII 丈	Address Di	sconnect	Ø	0
S Connected	2	015-11-11 14	:08:17					

Fig.3-11 Hislog Down

3.10 ScodeDown

"SCode download" interface is shown in Fig 3-12. The SCode can be downloaded to the grid on the left by simply clicking the "Download" button, and click "Save" to save the SCode to the local computer.

If you want to analyze the SCode that was download from UPS, you can input it to the box on the right and click the button "Analyze" then the "Analyze dialog window" will show as Fig3-13.

There are three methods to input the SCode into the SCode box :

(a) Double-click the SCode title on the left, the SCode will be copy to the SCode box, as shown in Fig 3-12.

(b) Save the SCode to the local file and copy it to the SCode box.

(c) Directly type the SCode to the SCode box, make sure the format is as same as the one on the left box. Normally you can copy and paste from the SCode file.

Home BypassData	SCode download 01 SCode 01# 2014-06-26 15:30:58	01 SCode 01# 2014-06-26 15	30:58
MainlpData OutputData BatteryData CabStatus UnitStatus HisLogDown SCodeDown RateSetting ServSetting	S0: 1020-4001-0001-1120 Double click the S1: 0000-0000-1101-1007 SCode title to A0: 1100-0000-0000-1100 copy it to right A1: 0000-0000-1100-0000 cdit box A2: 0000-0000-0000-0000 A3: 0000-0010-0010-0000 A3: 0000-0010-0010-0000 A4: 0000-0000-0000 A5: 0000-0000-0000 A5: 0000-0000-0000 Q2 SCode 01# 2014-06-26 15:21:46 Y	S0: 1020-4001-0001-1120 S1: 0000-0000-1101-1007 A0: 1100-0000-0000-1110 A1: 0000-0000-1100-0000 A2: 0000-0000-0000-0000 A3: 0000-0010-0010-0000 A4: 0000-0000-0000-0000 A5: 0000-0000-0000-0000	
DetectAdjust ControlCmd FwProgram	Downloading SCode from the UPS, the UPS data will not update, and may take a few minutes, please be patient Download	If you want analyze the S-code, please in the memo above and click the Analyze be Save as local file Save	
UPS type 3/3R(10- Baud rate 9600	100kVA) Protocol MODBUS_ASCII A Port No. COM4	ddress	Ö.

Fig 3-12 Scode Download

"Analyze dialog window" as shown in Fig 3-13, the failure will be shown in red in order to attract attention. For

the mark ?, it means the parameter is not detected, the mark X it indicates the data is out of range.

SC a	de Ar	aly	ze		
1			Output Power Source	UPS	<u>^</u>
2		1	Rectifier Status	OFF	
3		1	Inverter Status	Normal Work	
4			Bypass Status	Abnormal	
5			Battery Status	Discharging	
6		2	Input CB Status	Open	
7		-	Bypass CB Status	Open	
8	S0		Output CB Status	Close	
9	30		Maintenance CB Status	Open	
10		3	Postive Battery String CB Status	Open	
11		2	Negative Battery String CB Status	Open	
12			Postive Battery String Connect Status	Connect	
13			Negative Battery String Connect Status	Connect	
14		4	Inverter On Allow Status	Disable	
15		4	Inverter Working Status	Supplying	
16			Generator Connect Status	Disconnect	
17			Service Mode	No	
18		1	Inverter Ready Capacity	Enough	~

Fig 3-13 Scode analyze

3.11 RateSetting

"RateSetting" page is for factory use. A password is needed for the access to the page.

3.11.1 RateSettings

"RateSettings" menu can set the rated system voltage and frequency. The values in red rectangle are currently used by UPS, while in yellow rectangle are the new values to be set. Click button "set" can save the data to the UPS, as is shown in Fig.3-14.

ups pover atr				
Home Approximate A	RateSettings InputVolt 220 InputFreq 50 OutputVolt 220 OutputFreq 50	220 Syscode Setting1 50 33/31(1) 220 AutoBoost 50 NotTxTLmt PFFlag(9) PFExterm(E)	(3)	n Setting 3072 Set by bit
ControlCmd FwProgram <mark>↓</mark>			Set	
UPS type 3/3R(10-20 Baud rate 9600	00kVA) Protocol Port No.	MODBUS_ASCII Addre:	ss 1 Disconnect	Ø,
UPS Connected	2015-11-11 14:19:32			

Fig 3-14 RateSetting

Contents	Description
InputVolt	The system rated input voltage(V)
InputFreq	The system rated input frequency(Hz)
OutputVolt	The system rated output voltage(V)
OutputFreq	The system rated output frequency(Hz)

3.11.2 Syscode setting 1

The syscode setting 1 is set by bit. Different bit may has different meaning to different model of UPS. Users can check or uncheck the checkbox and click "Set" to save the setting to the UPS. As is shown in Fig3-15.

Syscode Setting1	Syscode Setting2	UPS Informatio	n Setting					
Cut 3/1(1)	PFExte	erm(E)						
🗖 AutoBoost	AutoBoost(2)							
🗖 AutoMaint	(3)							
NotTxTLmt	NotTxTLmt(5)							
PFF1ag(9)								
□ OvLdToutExt(B) Set by bit								

Fig3-15 Syscode setting1

System code is set by bit, described as follows:

Setting items	Choose (1)		Not choose (0)
	Single pha	se output (Do no	ot choose this	
Out 3/1	function	unless cont	firmed by	3 phase output
	manufactu	rer)		
AutoBoost:	Enable bat	tery auto boost		Disable battery auto boost
AutoMaint:	Enable bat	tery auto maintena	ince	Disable battery auto maintenance
NotT-TI	No avritati	na limit ta hurrana	times	Switching limit to bypass (5 tims per
NotTxTLmt:	No switching limit to bypass times			hour)
FreqSelfAdpt:	Enable frequency self adaptive function			Disable frequency self adaptive function
	Combine	with PFExtern to	set different	
	output PF.			
	PFFlag	PFExterm	PF	
PFFlag:	0	0	0.8	
	0	1	0.7	
	1	0	0.9	
	1	1	1	
PFExterm:	See PFFla	g		See PFFlag
OvLdToutExt(B)	dToutExt(B) Long inverter overload time			Short inverter overload time

Note: Different UPS model has different system code.

3.11.3 Syscode setting 2

The syscode setting 2 is set by bit. Different bit may has different meaning to different model of UPS. Users can check or uncheck the checkbox and click "Set" to save the setting to the UPS. As is shown in Fig3-15.

Syscode Setting1	Syscode Setting2	UPS Inform	ation Setting
□ RB(0)□ ButtFncPw□ DispLLVolt		-	
NeutralLos	tClr(4)		
			12 Set by bit
		Set	

Fig 3-16 Syscode setting 2

System code is set by bit, described as follows:

Setting items	Choose (1)	Not choose (0)	
RB:	Set UPS mode as RB(In-built battery pack)	Not RB mode	
ButtFncPwdL1:	Set monochrome touch LCD function page	Set monochrome touch LCD function page	
ButtrncPwal1:	password for 1 level	password for 2 level	
DispLLVolt:	Display line voltage	Not display line voltage	
NeutralLostClr:	Neutral line lost auto clear faults	Normal logic	
EpoNormClose: Epo terminal normal close		Epo terminal normal open	
PFExterm: See System code 1 PFFlag		See System code 1 PFFlag	

3.11.4 UPS information setting

The UPS information setting include : UPS Mode, UPS Type, Company Name, as is shown in Fig3-17. You can set the UPS Type and Company Name by input it in right edit, then click set button.

Syscode Setting1 Syscode Setting2	UPS Information Setting
UPS Mode	
UPS Type	
Company Name	

Fig 3-17 UPS information setting

3.12 ServSetting

In the "ServSetting" menu, a password is needed before entering. The submenu "System Setting", "Battery Setting", "Customization", "DryContactSet" are for factory use, the "Warning Set" and "Shutdown setting" are for customer use.

3.12.1 System Setting

"System Setting" interface is shown as Fig3-18. The values in red rectangle are currently used by UPS, while in yellow rectangle are the new values to be set. Click "Set" to send new values to UPS. In the system Settings page, click the "SaveAll" button can save all the data and setting to the local disk, also the data can be restored to the monitoring software from the local disk by clicking the "Recover".

🛃 UPS POVER III	IR			
				*
-				
Home BypassData	^	System Setting Battery Setting Customization	WarningSet Shutdown Se	etting
MainIpData				
OutputData		System Mode	Single	Single
BatteryData		United Number	1	1
CabStatus		System ID	0	0
UnitStatus	Ξ	-		
HisLogDown		Adjusted Output Voltage	220	220
SCodeDown RateSetting		Frequency Slew Rate	2.1	2.1
ServSetting		Frequency Synchronization Window	3.0	3.0
DetectAdjust		LCD Time(Min)	30	30 -
ControlCmd			<u> </u>	
FwProgram	~		SaveA11 Recove	r Set
UPS type 3/3R(1	10-20		Address 1	
Baud rate 9600		Port No. COM4	Disconnect]
UPS Connected	2	015-11-11 16:37:51		

Fig 3-18 System Setting

The items of System Setting are	described as follows(Different	UPS type may have different items):

Setting item	Description					
	Set the operation modes of UPS.					
	Single : Single mode					
Parallel : Parallel mode SingleECO: ECO mode in single unit ParallelECO: ECO mode in parallel system LBS : Load Bus Synchronizer installed for dual bus system						
					System Mode	more detail of the technical doc of LBS.
						ParallelLBS : Dual bus system built up with parallel units, see
						more detail of the technical doc of LBS
	Selfaging : Selfaging mode, see more detail of technical doc of					
	selfaging.					
	The selected operation mode could be active after confirmed by					
	the button of "Set".					
United Number	Set the number of UPS in parallel system					

	Set the ID of UPS in parallel system	
System ID	For parallel system, the ID starts from 0.	
Adjusted Output Voltage	Adjusted output voltage, Unit: V	
Frequency Slew Rate	Slew rate of track, Unit: Hz/s	
Frequency Synchronization Window	Frequency Synchronization window, Unit: Hz	
LCD Time(Min)	Set the time of LCD screen saver, Unit: Min	
Logo Show Time(s)	Set logo page show time	
	Set the number of N+X redundant modules	
	If the redundant modules are less than the set number, there could	
De deux deux Me de la Neuvel en	be an alarm of "Lost Redundancy".	
Redundant Module Number	For example, if 5 modules installed ,the redundant module number	
	is set to 2, if the load rate is higher than 60%, there could be an	
	alarm.	
Bypass Voltage UP Limited (%)	Set bypass voltage up limited	
Bypass Voltage Down Limited (%)	Set bypass voltage down limited	
Bypass Frequency Limited (Hz)	Set the range of frequency fluctuation, Unit: Hz	
Battery Transfer to Main Delay(s)	Set the delay time from battery transfer to main	
	Set system auto start mode after EOD, that means, after battery	
	EOD, when the AC input recover ,the system should behave as	
	below:	
System Auto Start Mode After EOD	Normal: auto restart and transfer to inverter mode	
	BypOnly: auto restart of rectifier, but the inverter does not start,	
	the system stay on bypass	
	NoneOp: no any action with just the controller and LCD are active	
	Used in Aging mode to set aging current from 30%-100% of	
Aging Current(%)	nominal current. See more detail of the technical doc of selfaging.	
	Enable or disable fan speed 3 level	
	Yes: There are 3 levels of fan speed according to the load rate	
Fan Speed 3 Level Enable	(slow, medium, fast)	
	No: There are 2 levels of fan speed according to the load rate	
	(medium, fast)	
	Enable or disable UPS lost phase work	
Allow Lost Phase Work	Yes: If one of the phases lost, rectifier could continue to work if	
	only the current is lower than the set limit.	
	No: Rectifier will stop if one phase lost.	
	Set temperature rise (outlet temperature to inlet temperature) limit	
Temperature Rise Limit Level	level, there are different settings according to the product, please do	
	not change the value unless confirmed by the manufacturer.	
Inlet Temperature Level	Set inlet temperature level. It's about the internal control logic and	
	please do not change this setting.	
	Enable or disable motor mode. This function is used for motor	
	application.	
Motor Mode	Yes: System start with inverter (not bypass), with a current limit	
	and different control algorism.	
	No: System start with bypass as normal.	

	Enable or disable frequency convertor mode, this allow the system			
	operates as a frequency converter.			
Frequency Convertor Mode	Yes: Operates as a frequency converter and disable the alarm of			
	bypass frequency fail.			
	No: Normal mode			
	Enable or disable bypass backfeed protected			
Bypass Backfeed Protected Enable	Yes :Enable the bypass Backfeed detection			
	No :Disable the bypass Backfeed detection			
	Enable or disable input overvoltage fast detection.			
Input Overvolt Fast Check Enable	This function is used for the applications that unexpected transient			
	spike of input presents in the input. It could be more sensitive to the			
	spike and transfer to battery mode in case of any abnormal voltage.			
Charger Fail Alarm Enable	Enable or disable charger fail alarm			
Module Fan Maintenance Period	Set the maintenance period of module fan			
Bypass Fan Maintenance Period	Set the maintenance period of bypass fan			
Module Capacitor Maintenance Period	Set the maintenance period of module capacitor			
	Set if disable charger when generator switch in			
Generator In Charger Off Enable	Yes : Disable the charger if a generator is connected			
	No : Enable the charger if a generator is connected			
Sandam Time	Launch the system time of PC to the controller, it's only available			
System Time	for the monochrome LCD.			

3.12.2 Battery Setting

"Battery Setting" interface is shown in Fig3-19. The values in red rectangle are the current parameter of UPS, while in yellow rectangle are the new values to be set. Click "Set" to send new values to UPS.

UPS POVER ITR				
				\$
Home 📤 BypassData	System Setting Battery Setting Customization	WarningSet DryContactS	et	
MainIpData OutputData	Battery Type	VRLA	VRLA	<u></u>
BatteryData CabStatus	Battery Number	40	40 💌	=
UnitStatus HisLogDown	Battery AH Float Charge Voltage/Cell(V)	2.25	100 2.25	
SCodeDown	Boost Charge Voltage/Cell(V)	2.25	2.25	
RateSetting ServSetting	EOD Voltage/Cell, @ 0.6C Current(V)	1.65	1.65 💌	
DetectAdjust ControlCmd	EOD Voltage/Cell, @ 0.15C Current(V)	1.75	1.75	~
FwProgram 🗸			Set	
UPS type 3/3RX(10-		Address 1		0
Baud rate 9600	Port No. COM4	Disconnect		
UPS Connected 2	015-11-11 16:47:59			

Fig3-19 Battery Setting

The items of Battery Setting are described as follows(Different UPS type may have different items):

Setting item	Description
	27

D. 4. T.	Set the type of battery used by your UPS.			
Battery Type	VLRA or Lithium-ion battery is available.			
Battery Number	Set battery number			
	Set battery AH			
Battery AH	Pay attention that the max charging current is limited to 0.2*AH			
	Set the float charge voltage of battery cell			
Float Charge Voltage /Cell(V)	Calculate the charging voltage as below,			
	Vchg= cell voltage*6*battery number			
	Set the boost charge voltage of battery cell			
Boost Charge Voltage/Cell(V)	Normally it's recommended no higher than 2.35V/cell.			
EOD Voltage/Cell, @ 0.6C Current(V)	EOD voltage of Battery cell at 0.6c			
EOD Voltage/Cell, @ 0.15C Current(V)	EOD voltage of Battery cell at 0.15c			
	Set charge current limit.			
Charge Current Percent Limit %	Calculate the charging current as below			
	Ichg= Set Percentage %*Pout/(2.35*6*battery number)			
	Battery temperature compensate, unit: mV/°C			
Battery Temperature Compensate	Optional battery temperature sensor is needed.			
Boost Charge Time Limit	Boost charge time limit, unit: hour			
	Auto boost period, unit: hour.			
Auto Boost Period	The parameter is only valid after enable the function of Auto Boost.			
	Auto maintenance discharge period, unit: hour			
Auto Maintenance Discharge Period	The parameter is only valid after enable the function of Auto			
	Maintenance.			
Deer Discharge Time	Deep discharge time, unit: hour			
Deep Discharge Time	It's only valid for single phase UPS.			
No Dottom: Dotoot Doriod	No battery detect period, unit: minute			
No Battery Detect Period	It's only valid for single phase UPS.			
No Pottomy Datast Time	No battery detect time, unit: minute			
No Battery Detect Time	It's only valid for single phase UPS.			
Critical Pattery Temperature	Critical battery temperature, unit: °C			
Critical Battery Temperature	Set the battery temperature limit for alarm.			
Critical Battery Ambient Temperature	Critical battery ambient temperature, unit: °C			
Critical Battery Ambient Temperature	Set the ambient temperature for alarm.			
Charge module current limit	Set the max charging current of each charging module, unit:A.			

3.12.3 Customization

"Customization" interface is shown in Fig3-20. The CustomCode on the left is set by bit, check or uncheck the box and click the "Set" button can send the data to the UPS; CustomCode on the right set the load level and rotation time of sleeping and waking.

Home System Setting Battery Setting Customization WarningSet DryContactSet BypassData CustomCode MainIpData Tx2InvIntEnable(0) RemoteEpoDisable(9) BatteryData ModOnOffEnable(1) BypOvTmpForbidBypt CabStatus SleepEnable(2) NoBattery(B) UnitStatus DeepSleepEnable(3) Reserved(C) HisLogDown SciLcdEnable(5) Reserved(D) ScodeDown SciLcdEnable(5) Reserved(F) ServSetting InletOvTmpAlmEn(6) Reserved(F) PototAdjust ForbidTx2Byp(7) LocalEpoDisable(8) 128 UPS type Statk100-600kVA Protocol MODBUS_ASCI Address	UPS POVER MTR	
ControlCmd FwProgram v UPS type 3/3RX(10-600kVA v Protocol MODBUS_ASCII v Address 1	BypassData MainIpData OutputData BatteryData CabStatus UnitStatus HisLogDown SCodeDown RateSetting ServSetting	CustomCode Tx2InvIntEnable(0) RemoteEpoDisable(9) ModOnOffEnable(1) BypOvTmpForbidBypi SleepEnable(2) NoBattery(B) DeepSleepEnable(3) Reserved(C) Reserved(4) Reserved(D) SciLcdEnable(5) Reserved(E) InletOvTmpAlmEn(6) Reserved(F) ForbidTx2Byp(7) ForbidTx2Byp(7)
		Set
Baud rate 1900 Port No. COMP Disconnect	UPS type 3/3RX(10 Baud rate 9600	.600kVAI Protocol MODBUS_ASCII Address Port No. COM4 Disconnect

Fig3-20 Customization

c	Checked	Unchecked	
	This function enable interrupt transfer		
	to inverter, it should be manually		
	operated and may lead to an		
Tx2InvIntEnable	interruption during transfer.	Disable interrupt transfer to inverter	
	Enable the individual operations of		
	module power on/off.		
	With this setting, operations shown in		
	"ControlCmd>Module operation		
ModOnOffEnable	command" could be available.	Disable module power on/off	
SleepEnable	Enable sleep mode.	Disable sleep mode.	
	Enable deep sleep mode.		
	This setting should be enabled		
	together with the "SleepEnable"		
DeepSleepEnable	setting.	Disable deep sleep	
	Enable KoreaEco(Korea nonstandard)		
KoreaEco	This is an option for special model.	Disable KoreaEco	
SciLcdEnable	Configurate Lcd as serial port screen	Configurate Lcd as blue and white screen	
	Enable two phase output		
2PhasOut	It's only valid for special model.	Disable two phase output	
	Enable used as one phase output		
usedAsOne	It's only valid for special model.	Disable used as one phase output	
ForbidTx2Byp	Forbid transfer to bypass	Not forbid transfer to bypass	
EpoDisable	Disable EPO	Enable EPO	
LocalEpoDisable	Disable local EPO	Enable local EPO	
RemoteEPODisable	Disable remote EPO	Enable remote EPO	
BypOvTmpForbidByp	Forbidden the bypass output if bypass	Bypass over temperature not forbid bypass	

	over temperature.						
	Disable the detection of "Battery not	Enable	the	detection	of	"Battery	not
NoBattery	connected"	connecte	ed"				

CustomCode on the right is described as the following table

Contents	Meaning	Note
Sleeping Load Rate	Setting the sleeping load rate	
Interval Time for sleeping	Setting the interval for the sleeping	The period of rotation for the sleep modules.

3.12.4 WarningSet

The "WarningSet" is shown in Fig 3-21. If the selected event occurs, there appears a warning window of the PC. The switch of beeper can control the buzzing. Click the "SelectAll" button to select all the events and click the "ClearAll" to uncheck all the events.

Notes: This warning setting is only about the warning of the PC, NOT THE HISTORY LOG OF UPS ITSELF.

UPS POWER MIR	
Home <u>^</u> BypassData	System Setting Battery Setting Customization WarningSet DryContactSet
MainIpData OutputData	☑ BattNotConnected ☑ BypOvLoad ☑ BattVoltLow ☑ RecOvTemp.
BatteryData CabStatus	 ✓ MaintCBClosed ✓ BypOverLoadTout ✓ BattReverse ✓ UnitFanFail ✓ EPO ✓ BypFreqOvTrack ✓ IpNeutralLost ✓ OutputOvLoad
UnitStatus [≣] HisLogDown	🔽 GeneratorInput 🔽 ExceedTxTimeLmt 🔽 BypFanFail 🔽 InvOvLoadTout
SCodeDown	✓ UtilityAbnormal ✓ OutputShorted ✓ LostN+XRedundant ✓ InvOvTemp.
RateSetting ServSetting	 ✓ BypSequenceErr ✓ BattEOD ✓ EODSysInhibited ✓ InvProtect ✓ BypVoltAbnormal ✓ OnUpsInhibited ✓ RecFail ✓ ManualShutdown
DetectAdjust	💌 BypModuleFail 🔍 ManualTransferByp 🔽 InvFail
FwProgram 🗸	Beeper ON SelectAll ClearAll Set
UPS type 3/3RX(10	0.600kVA) Protocol MODBUS_ASCII V Address
Baud rate 9600	Port No. COM4 J Disconnect
5 Connected	2015-11-11 17:00:52

Fig 3-21 WarningSet

3.12.5 DryContactSet

"DryContactSet" interface is shown in Fig 3-22, The values in red rectangle are currently used by UPS, while in yellow rectangle are the new values to be set. Click "Set" to send new values to UPS.

UPS POWER MIR								
Home 🔶 BypassData			ing Customization	Warning		ContactSet		
MainIpData OutputData	InputDryCon J5 Mute	ntact	Mute	•	J6-1	tDryContact BCB Trip	BCB Trip	•
BatteryData CabStatus UnitStatus [≣]	J6-2 BCB S	tatus	BCB Status	•	J8	BCB Trip	BCB Trip	
HisLogDown SCodeDown	J7 Fault 0	llear	Fault Clear	•	J9	BCB Trip	BCB Trip	•
RateSetting ServSetting DetectAdjust					J10	BCB Trip	BCB Trip	
ControlCmd							Set	
UPS type 3/3R(10-20	00kVA) 🔻	Protocol	MODBUS_ASCII	-	Addres	5 1		50
Baud rate 9600	2015-11-11 17:2	Port No.	COM4	-	I	Disconnect		

Fig 3-22 DryContactSet

Notes: The list of dry contact signals is subject to change with the upgrade of firmware, for more details, contact your technical support from factory.

3.12.6 Shutdown Setting

Shutdown setting page include "Shutdown Setting" and "Shutdown time setting", this function only be allowed by the single phase 1-20K UPS.

Do not change the setting unless it's confirmed by the manufacturer.

🛃 UPS POWER IITR	
Home 🛆	System Setting Battery Setting Customization WarningSet Shutdown Setting
BypassData	System setting Battery setting Customization warningset ondrown octang
MainIpData	-Shutdown Setting
OutputData	Shutdown Enable
BatteryData	External programe need to be performed befor shutdown Browse
CabStatus	
UnitStatus	Display saved files on startup
HisLogDown	Shutdown time Setting
SCodeDown	When utility abnomal computer will shutdown by this time(Min)
RateSetting	When battery low voltage computer will shutdown by this time(Min)
ServSetting	
DetectAdjust	The upper-bound limit on the time to run external program(Min) 5
ControlCmd	Set
FwProgram 🗸	
UPS type 1/1T(1-3k	VA) 🔽 Protocol MODBUS_ASCII 🛫 Address I
Baud rate 9600	Port No. COM4 Disconnect
UPS Connected	2015-11-11 18:41:03

Fig 3-23 Shutdown Setting

3.13 DetectAdjust

This function is only for factory setting

3.14 ControlCmd

In the "ControlCmd" menu, a password is needed before entering. This page include "Function Key", "Test Command" and "Module Operation Command". For "Function Key" and "Test Command" parts, you can click the red button to execute corresponding command, then the command will be send to UPS. For "Module Operation Command" part, you can choose a module and choose a action then click "Done" button, so the command can be sent to UPS module.

UPS POWER MIR			
			с. С
MainIpData 🛆			^
OutputData	-Function Key		
BatteryData	Mute	🛑 Reset Battery History Data	
CabStatus	Fault Clear	🛑 Reset Dust Filter Using Time	
UnitStatus			
HisLogDown	🛑 Log Clear	🛑 Reset Bypass Fan Using Time	
SCodeDown	Manual Transfer to Bypass	eset All	
RateSetting			
ServSetting	-Test Command		
DetectAdjust	🔴 Battery Test	🔴 Manual Boost	
ControlCmd			
FwProgram	Battery Maintenance	🛑 Manual Float	
Help	🔴 Stop Test		
About 🗸			Y
UPS type 3/3R(10-20	00kVA) Protocol MODBUS_ASCII	Address 1	800
Baud rate 9600	Port No. COM4	Disconnect	
Data rate			and the second sec
UPS Connected	2015-11-11 18:54:51		

Fig.3-24 ControlCmd

3.15 FWProgram

This function is only for factory setting, disabled for users.

3.16 Help

Brief description of the software, as shown in Fig.3-25.

UPS POWER HIR		×
MainIpData OutputData BatteryData CabStatus	Instructions 1. This software applies to UPS monitoring, setting.	<u>^</u>
UnitStatus HisLogDown SCodeDown	 Before connecting UPS, need to know the modbus protocol data mode. (ASCII/RTU), address and baud rate. Hardware connections: UPS 485 interface connect to the computer using "485-232 Converter". Connect UPS: Set the "UPS type", "Protocol", "Address", "Baud 	11
RateSetting ServSetting DetectAdjust ControlCmd FwProgram	 rate" and "Port No." in the bottom of the window, then click "Connect". 5. Click on the menu item "Home" on the left of the window to view UPS running status, energy flow diagram and overall of the data. 6. Click on the menu item "***Data" on the left of the window to view 	
Help About 🗸	detailed data, such as clicking on the "BypassData" to see the bypass detailed data and bypass curve.	~
UPS type 3/3R(10-20 Baud rate 9600	0kVA) Protocol MODBUS_ASCII Address I Port No. COM4 Disconnect	Ø,
PS Connected 2	015-11-11 19:15:00	

Fig.3-25 Help

3.17 About

Version information of the software, as shown in Fig.3-26.

UPS POVER ITR	
MainIpData ▲ OutputData ■ BatteryData ■ CabStatus ■ UnitStatus ■ HisLogDown ■ ScodeDown ■ RateSetting ■ DetectAdjust ■ ControlCmd ■ FwProgram ■ Help ■ About ▼	Version 1.72.01_C
UPS type 3/3R(10-200) Baud rate 9600	WA) Protocol MODBUS_ASCII Address Port No. COM4 Disconnect
VPS Connected 201	15-11-11 19:15:44

Fig.3-26 About