



山特**3C3 EX UPS** **RS232**通讯协议

PROTOCOL COMMAND

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一. 硬件 Hardware:

BAUD RATE : 2400 bps
 DATA LENGTH : 8 bits
 STOP BIT : 1 bits
 PARITY : NONE

二、命令

Commands :

Q2	Q2,XX	Status inquiry 2
WA	WA,XX	KW and KVA
S<n>	S<n>,XX	Shutdown

Computer: **Q2** <cr>

UPS:

**MMM.M MMM.M MMM.M NNN.N PPP.P PPP.P PPP.P QQQ QQQ QQQ RR.R
 SSS.S TT.T b7b6b5b4b3b2b1b0**

Input Voltage:

MMM.M M is an integer number 0 to 9. The Unit is Volt. Three Phases will represent Phase R-S-T in sequence

I/P fault voltage:

Output Voltage:

NNN.N N is an integer number 0 to 9. The Unit is Volt.
PPP.P P is an integer number 0 to 9. The Unit is Volt.

Output Current:

Three Phases will represent Phase R-S-T in sequence
QQQ QQQ is a percent of maximum current , not an absolute value.

I/P frequency:

Three Phases will represent Phase R-S-T in sequence
RR.R R is an integer number ranging from 0 to 9. The unit is Hz.

Battery voltage:

SSS.S S is an integer number ranging from 0 to 9.

Temperature:

UPS Status:

TT.T T is an integer number ranging from 0 to 9. The unit is degree of centigrade.
<b7b6b5b4b3b2b1b0>. Where <bn> is a binary number „0“ or „1“.



UPS status :

byte	Description
7	1 : Utility Fail (Immediate)
6	1 : Battery Low
5	1 : Bypass/Boost Active
4	1 : UPS Failed
3	1 : UPS Type is Standby (0 is On_line)
2	1 : Test in Progress
1	1 : Shutdown Active
0	Reserved (always 0)

Stop Byte:

<cr>

KW and KVA command

Computer: WA <cr>

UPS:

WWW.W WWW.W WWW.W VVV.V VVV.V VVV.V TTT.T SSS.S AAA.A AAA.A
AAA.A QQQ b7b6b5b4b3b2b1b0 <cr>

The first of the UPS respond is very similar to the existing inquiry Q2 however

Output complex power:

Output power:

WWW.W W is an integer number 0 to 9. The Unit is KW. R phase. Three Phases will represent Phase R-S-T in sequence

Total power:

VVV.V V is an integer number 0 to 9. The Unit is KVA. R phase. Three Phases will represent Phase R-S-T in sequence

TTT.T T is an integer number 0 to 9. The Unit is KW. Include of three phase R,S,&T real power.

Total complex power:

Output current:

SSS.S S is an integer number 0 to 9. The unit is KVA. Include of three phase R,S,&T complex power.

AAA.A A is an integer number 0 to 9. The unit is A. R phase. Three Phases will represent Phase R-S-T in sequence

O/P load:

UPS Status:



QQQ QQQ is maximum of W% or VA%. VA% is a percent of maximum VA. W% is a percent of maximum real power.

b7b6b5b4b3b2b1b0 The same of Q2UPS status :

Stop Byte:

<cr>

Shutdown command :

Computer: **S<n><cr>**

UPS: **Shut UPS output off in <n> minutes.**

The UPS output will be off in <n> minutes, even if the utility is present.

But if the battery under occur before <n> minutes, the output is turned off immediately.

After UPS shut down, the controller of UPS monitors the utility. If the utility is there, the UPS will wait for 10 seconds and connect the utility to output.

<n> is a number ranging from .2, .3, ..., 01, 02, ..., to 10.

For example : S.3<cr> --- shut out put off in (.3) minutes