Number	Variable name	Program variable name	Function code(hex)	Address	Description	Unit	Times
					Real-time data（read-only）0x3500-35FF		
B1	Grid charging input voltage	UP-ElectricChrgInVolt1	04（read）	3500	AC-DC Charging module - the AC input voltage	V	100
B2	Grid charging output voltage	UP-ElectricChrgOutVolt1	04（read）	3505	AC-DC Charging module - the DC output voltage	V	100
B3	Grid charging output current	UP-ElectricChrgOutCur1	04（read）	3506	AC-DC Charging module - the DC output current	A	100
B4	Grid charging output power L	UP-ElectricChrgOutPowL1	04（read）	3507	AC-DC Charging module - the DC output power	W	100
B5	Grid charging output power H	UP-ElectricChrgOutPowH1	04（read）	3508		W	100
B6	Grid total generated energy L	UP-ElectricAggChrgL1	04（read）	350F	Cleared after accumulated overflow	KWH	100
B7	Grid total generated energy H	UP-ElectricAggChrgH1	04（read）	3510		KWH	100
B8	Grid charging device state	UP-ElectricChrgSta1	04（read）	3511	D15-D14: 00H Input voltage normal, 01H Input voltage low, 02H Input voltage high, D13～D12,output power.00-lowload，01-middle，02-rated，03-overload D11: Short circuit D9: Over temp. D8: Output voltage abnormal D1: 0 Normal，1 error		1
B9	Grid charging device temp.	UP-ElectricChrgTemp1	04（read）	3512	Grid charging device measures the temperature obtained by own sensor	℃	100
B10	Array input voltage	UP-PvInVolt1	04（read）	3519	Photovoltaic cell array terminal voltage	V	100
B11	Array input current	UP-PvInCur1	04（read）	351A	Photovoltaic cell array terminal current	A	100
B12	Array input power L	UP-PvInPowL1	04（read）	351B	Photovoltaic cell array terminal power L	W	100
B13	Array input power H	UP-PvInPowH1	04（read）	351C	Photovoltaic cell array terminal power H	W	100
B14	Array output voltage	UP-PvOutVolt1	04（read）	351D	Usually refers to the output voltage of the battery terminal	V	100
B15	Array output current	UP-PvOutCur1	04（read）	351E	Usually refers to the output current of the battery terminal	A	100
B16	Array output power L	UP-PvOutPowL1	04（read）	351F	Usually refers to the output power of the battery end（L）	W	100
B17	Array output power H	UP-PvOutPowH1	04（read）	3520	Usually refers to the output power of the battery end（H）	W	100
B18	Array total generated energy L	UP-PvAggChrgL1	04（read）	3527	Photovoltaic battery array cumulative charge account（L）	KWH	100
B19	Array total generated energy H	UP-PvAggChrgH1	04（read）	3528	Photovoltaic battery array cumulative charge account（H）	KWH	100

B20	Array charging device state	UP-PvChrgStat1	04（read）	3529	D15～D14 Input voltage state。00 Input voltage normal，01 no access 02H Input voltage high，03H Input voltage error D13: Charging MOSFET is short circuit. D12: Charging or Anti-reverse MOSFET is open circuit. D11: Anti-reverse MOSFET is short circuit. D10: Input is over current. D1: 0 Normal，1 error D3～D2charging state 00H No charging,01H Float,02H Boost, 03H Equalization The state of cut-in or cut-out determines whether to cut-in or cut-out according to the input power of the array. (0 is cut-out)		1
B21	Array charging device temp.		04（read）	352C	The device measures the sampling temperature of the power device heat sink through own sensor	℃	100
B22	Inverter input voltage	UP-InverterInVolt	04（read）	352F	DC-AC Discharge module - current voltage at the input side	V	100
B23	Inverter output voltage	UP-InverterOutVolt	04（read）	3533	DC-AC Discharge module - current voltage at the output side	V	100
B24	Inverter output current	UP-InverterOutCur	04（read）	3534	DC-AC Discharge module - current current at the output side	A	100
B25	Inverter output state	UP-InverterOutSta	04（read）	3535	D15-D14: 00H Input voltage normal, 01H Input voltage low, 02H Input voltage high, D13～D12,output power.00-lowload，01-middle，02-rated，03-overload D11: Short circuit D9: Over temp. D8: Output voltage abnormal D1: 0 Normal，1 error Switching state judges whether to turn on or off according to the actual voltage of the Inverter output		1
B26	Inverter output apparent power L	UP-InverterOutApparentPowL	04（read）	3536	Inverter output apparent power	W	100
B27	Inverter output apparent power H	UP-InverterOutApparentPowH	04（read）	3537		W	100
B28	Inverter output frequency	UP-InverterOutFrq	04（read）	353B	DC-AC current frequency at the output side	HZ	100
B29	Battery voltage	UP-BattVolt	04（read）	354C	System current battery voltage	V	100
B30	Battery temp.	UP-BattTemp	04（read）	354F	The battery temperature measured by the device through own sensor	℃	100
B31	Battery capacity	UP-BatSOC	04（read）	3550	Percentage of remaining battery power	AH	1
B32	Battery state	UP-BattStat	04（read）	3553	D3-D0: 00H Normal ,01H Over Voltage. , 02H Under Voltage, 03H Over discharge, 04H Fault D7-D4: 00H Normal, 01H Over Temp.(Higher than the warning settings), 02H Low Temp.(Lower than the warning settings) D8: Battery inner resistance abnormal 1,normal 0 D15: 1-Wrong identification for rated voltage		1
B33	Bypass voltage	UP-ByPassVolt	04（read）	3558	Inverter bypass voltage	V	100
B34	Bypass current	UP-ByPassCur	04（read）	3559	Inverter bypass current	A	100
B35	Bypass power L	UP-ByPassPowL	04（read）	355A	Inverter bypass power	W	100
B36	Bypass power H	UP-ByPassPowH	04（read）	355B		W	100

Nu mb er	Variable name	Program variable name	Function code(hex)	Add ress	Description	Uni t	Ti me s
Setting parameter（read or write）0x9600-96FF
C1	Backlight time	UP-SysBackLightDel aySec	03（read）10（write）	960 0	LCD backlight illumination delays the number of seconds after this setting is turned off	S	10 0
C2	Buzzer alarm	UP-SysBuzzerAlarm DelaySec	03（read）10（write）	960 1	Buzzer alarm time, 0 means no work, 1 means alarm.		1
C3	Temp. unit	UP-SysTempUnit	03（read）10（write）	960 2	0001H degrees Celsius, 0000H Fahrenheit		1
C4	Dry contact on battery voltage	UP-SysDryOnVolt	03（read）10（write）	960 3	43.2-48.0V，According to the battery voltage, the dry contact is closed below this value.	V	10 0
C5	Dry contact off battery voltage	UP-SysDryOffVolt	03（read）10（write）	960 4	48.0V-**53.0V**，According to the battery voltage, the dry contact is disconnected above this value.（53.0V）	V	10 0
C6	Stop subCharging module charging voltage	UP-SysStopSubChrg Volt	03（read）10（write）	960 5	When the battery voltage is higher than this value, the auxiliary charging module stops charging (in the mains priority case, the battery voltage is higher than this value, the solar auxiliary charging is turned off; or the PV voltage is higher than this value, the mains auxiliary charging is turned off)	V	10 0
C7	Restart subCharging module charging voltage	UP-SysRecSubChrg Volt	03（read）10（write）	960 6	Battery voltage is lower than this value, the auxiliary charging module starts charging (in the mains priority, the battery voltage is lower than this value, the solar auxiliary charging is turned on; or the PV priority is lower, the battery voltage is lower than this value, the mains auxiliary charging is turned on)	V	10 0
C8	Battery type	f	03（read）10（write）	960 7	0001H Sealed, 0002H GEL, 0003H Flooded, 0004H LiFePO4 battery, 0005H MnNiCo ternary battery , 0000H, User, user defined		1
C9	Battery capacity	UP-SysBattCap	03（read）10（write）	960 8	The nominal capacity of the battery (group) used in the system	AH	1
C10	System charging boost hold time	UP-SysChrgBoostH oldTime	03（read）10（write）	960 B	The cumulative number of minutes that the battery is continuously maintained above the boost voltage. Usually 60-120 minutes. The cumulative process is set to a time length of 1.5 times the value.	Mi nut e	1
C11	System charging boost voltage	UP-SysChrgVCtrl_B CV	03（read）10（write）	960 D	When the battery (group) terminal voltage is lower than the boost recovery voltage, a constant voltage current-limiting charging voltage is used to ensure the battery (group) is full, which is called a boost voltage. The charging is generally 1 to 3 hours, usually 2 hours. After the lifting is completed, it should be transferred to the floating charging stage.	V	10 0
C12	System charging float voltage	UP-SysChrgVCtrl_F CV	03（read）10（write）	960 E	After the battery (group) completes the equalization or boost charging phase, it enters the floating charging phase, at which time the battery (group) target voltage maintained by the controller is the floating charging voltage, and the battery (group) is always maintained at the voltage.	V	10 0
C13	System charging boost recovery voltage	UP-SysChrgVCtrl_B CV	03（read）10（write）	960 F	System charging boost recovery voltage	V	10 0
C14	Charging priority mode	UP-ChrgPriorityMo de	03（read）10（write）	961 6	Four charging modes 2 solar priority charging mode 4 grid and solar charging mode 8 solar charging mode only 1 grid priority charging mode		1
C15	Total charging current	UP-SysAggChrgCur	03（read）10（write）	961 7	Grid charging current + solar charging current, this current is the sum of grid and PV current, the actual charging current can not exceed this set value	A	10 0

Number	Variable name	Program variable name	Function code(hex)	Address	Description		
C16	DC-AC module low voltage disconnection voltage	UP-DcAc_LVD	03（read）10（write）	9621	In order to prevent the battery (group) from being over-discharged and ensuring that it has a certain residual capacity (generally 10-40%), the battery (group) terminal voltage of 20% of the remaining capacity is usually taken as the low-voltage disconnection voltage. When the battery (group) terminal voltage drops to the set value, the all-in-one disconnects the load output.	V	100
C17	DC-AC module low voltage disconnection recovery voltage	UP-DcAc_LVR	03（read）10（write）	9622	When the battery (group) terminal voltage is higher than the voltage, the low-voltage disconnection action is eliminated, and the load output is restored. This voltage value is the low voltage disconnect recovery voltage.	V	100
C18	DC-AC module overvoltage disconnection recovery voltage	UP-DcAc_OVR	03（read）10（write）	9623	Calculated based on other quantities. The measured battery voltage is lower than the discharge and charging of this voltage recovery system.	V	100
C19	DC-AC module overvoltage disconnection voltage	UP-DcAc_OVD	03（read）10（write）	9624	The measured battery voltage exceeds this voltage to turn off the system's discharge and charge	V	100

Number	Variable name	Program variable name	Function code(hex)	Address	Description
Switch					
D1	Clear generated statistics	UP-bClrStat	01(read)05（write）	0100	0-1（0 unable，1 able）
D2	clear error	UP-bClrErrors	01(read)05（write）	0101	0-1（0 OFF，1 ON）
D3	Output priority mode	UP-bOutPriorMode	01(read)05（write）	0104	0 Battery priority power supply mode (inverter priority) 1 Grid bypass priority power supply mode (grid priority)
D4	Inverter output energy-saving mode	UP-bOutPriorMode	01(read)05（write）	0105	1 enter power-saving mode 0 exit power-saving mode
D5	Load output switch	UP-bDevOutOnOff	01(read)05（write）	0106	1 Inverter turns on 0 Inverter turns off
D6	Local/Remote control	UP-bLocalRemoteCtrl	01(read)05（write）	0108	1 Remote 0 Local（Default local switch and power-saving mode enable after power off）
D7	System reset switch	UP-bSysResetOnOff	01(read)05（write）	010A	0 no reset，1reset
D8	PV charging switch	UP-bPvChrgOnOff	01(read)05（write）	010B	1 controller open charging 0 controller close charging
D9	Grid charging switch	UP-bGridSupplyChrgOnOff	01(read)05（write）	010C	1 ACDC open charging 0 ACDC close charging
Discrete					
E1	Inverter bypass	UP-bByPassSta	02（read）	2100	1-grid，0-no grid（Inverter whether has grid）
E2	Day/Night	UP-bNight	02（read）	2101	0-Night，1-Day