

MODBUS Protocol for Energy Storage Inverter - Register Address Table

Note:
1. The register displayed in gray font is invalid for the energy storage inverter.
2. Magnification refers to the multiple of the actual value than the register value. If the magnification is 0.1, the actual value is the register value multiplied by 0.1.

Address	Length	English Name	R/W	Magnification	Unit	Display Format	Signed/Unsigned	Minimum	Maximum	Default	Remark
P00 Product Information Area											
A	1	MinorVersion	R	1	-	%d	Unsigned			Reserved	Product type 00 (domestic controller) 01 (controller for street light) 03 (grid-connected inverter) 04 (all-in-one solar charger inverter) 05 (power frequency off-grid)
B	1	MachType	R	1	-	%d	Unsigned				
C	8	ProductInfoReversed01	R	1	-	%s	Unsigned			Reserved	
14	2	SoftWareVersion	R	1	-	%d	Unsigned			0×0014: APP version (e.g.,100 for V1.00) 0×0015: BOOTLOADER version (e.g.,100 for V1.00), reserved	
16	2	HardWareVersion	R	1	-	%d	Unsigned			0×0016: control panel version (e.g.,100 for V1.00) 0×0017: power amplifier board version (e.g.,100 for V1.00), reserved	
18	2	ProductInfoReversed02	R	1	-	%x	Unsigned			Reserved	
1A	1	Rs485Addr	R	1	-	%d	Unsigned			Rs485 address, which is read-only	
1B	1	MachModelNum2	R	1	-	%d	Unsigned				
1C	2	RS485Version	R	1	-	%x	Unsigned			0×001C: protocol version (e.g.,100 for V1.00) 0×001D: reserved	
1E	2	ManufactureDate	R	1	-	%x	Unsigned			0×001E: high byte: year, low byte: month 0×001F: high byte: day, low byte: hour	
20	1	ProductAreaCode	R	1	-	%x	Unsigned			0: Shenzhen 1: Dongguan	
21	20	CpuBuidTime	R	1	-	%s	Unsigned			String format, with the low bytes of each register valid and the high bytes invalid	
35	20	ProductSNStr	R	1	-	%s	Unsigned			String format, with the low bytes of each register valid and the high bytes invalid	
49	1	ProductInfoReversed03	R	1	-	%x	Unsigned				
P01 DC Data Area											
100	1	BatSoc	R	1	-	%d	Unsigned			Percentage of remaining battery power	
101	1	BatVolt	R	0.1	V	%.1fV	Unsigned			Battery voltage (e.g., 485 for 48.5 V)	
102	1	ChargeCurr	R	0.1	A	%.1fA	Signed			Battery current (e.g., 500 for 50.0A) Current greater than 0 indicates discharging; and current less than 0 indicates charging.	
103	1	DeviceBatTemper	R	0.1	°C	%.1fC	Signed			Battery temperature	
104	1	Battery SOH	R	0.1	V	%.1fV	Unsigned			Reserved	
105	1	Battery rated capacity	R	0.01	A	%.2fA	Unsigned			Reserved	
106	1	Battery remain capacity	R	1	W	%d	Unsigned			Reserved	
107	1	Pv1Volt	R	0.1	V	%.1fV	Unsigned			Voltage of PV panel 1	
108	1	Pv1Curr	R	0.1	A	%.1fA	Unsigned			Current of PV panel 1	
109	1	Pv1ChargePower	R	1	W	%d	Unsigned			Power of PV panel 1	
10A	1	PvTotalPower	R	1	-	%d	Unsigned			Total PV power 0×0000: Charge off 0×0001: Quick charge 0×0002: Const voltage charge 0×0004: Float charge 0×0005: Reserved 0×0006: Li battery activate 0×0008: Full	
10B	1	ChargeState	R	1	-	%d	Unsigned				
10C	1	BatteryCycleCount	R	2	-	%d	Unsigned				
10D	1	DeDataReversed04	R	1	-	%d	Unsigned			Reserved	
10E	1	ChargePower	R	1	W	%dW	Unsigned			PV charging power + AC charging power	
10F	1	Pv2Volt	R	0.1	V	%.1fV	Unsigned			Voltage of PV panel 2	
110	1	Pv2Curr	R	0.1	A	%.1fA	Unsigned			Current of PV panel 2	
111	1	Pv2ChargePower	R	1	W	%d	Unsigned			Power of PV panel 2	
112	1	BatBmsVolt	R	0.1	V	%.1fV	无				
113	1	BatBmsCurr	R	0.1	A	%.1fA	无				
114	1	BatBmsTemp	R	0.1	°C	%.1fC	有				
115	1	BatBmsChgLimitVolt	R	0.1	V	%.1fV	无				
116	1	BatBmsChgLimitCurr	R	0.1	A	%.1fA	无				
117	1	BatBmsDchgLimitCurr	R	0.1	A	%.1fA	无				
118	1	BmsAlarmH	R	1	-	%x	无				
119	1	BmsAlarmL	R	1	-	%x	无				
11A	1	BmsProtectH	R	1	-	%x	无				
11B	1	BmsProtectL	R	1	-	%x	无				
P02 Inverter Data Area											
200	4	CurrErrReg	R	1	-	%x	Unsigned			Each fault bit represents a fault, with a total of 64 bits. This register is used by the internal debugging.	
204	4	CurrFoode	R	1	-	%d	Unsigned			There are four addresses. Each address stores a fault code corresponding to the current fault. Four fault codes can be displayed at the same time. 0 indicates no fault. If there are two faults, battery under-voltage and inverter overload, the following information is displayed: 0×204: 01 0×205: 14 0×206: 00 0×207: 00	
208	4	ReservedInvData0	R	2	-	%x	Unsigned			Reserved	
20C	3	SysDateTime	RW	1	-	%zdt	Unsigned			0×020C: high byte: year, low byte: month 0×020D: high byte: day, low byte: hour 0×020E: high byte: minute, low byte: second The register can be set to adjust the RTC clock.	
20F	1	GridOnRemainTime	R	1	s	%d	Unsigned				

Address	Length	English Name	R/W	Magnification	Unit	Display Format	Signed/Unsigned	Minimum	Maximum	Default	Remark
210	1	MachineState	R	1	-	%d	Unsigned				0: Power-on delay 1: Standby state 2: Initialization 3: Soft start 4: AC power operation 5: Inverter operation 6: Inverter to AC power 7: AC power to inverter 8: Battery activation 9: Manual shutdown 10: Fault Split-phase all-in-one machines and European standard single-phase 8~12K machines are as follows: 0: Initialization 1: Standby state 2: AC power operation 3: Inverter operation
211	1	PriorityFlag	R	1	-	%d	Unsigned				0: Users have not entered password 1: The password of users is entered 4: The password of the manufacturer is entered
212	1	BusVoltSum	R	0.1	V	%.1fV	Unsigned				
213	1	GridVoltA	R	0.1	V	%.1fV	Unsigned				AC power phase-A voltage
214	1	GridCurrA	R	0.1	A	%.1fA	Unsigned				AC power phase-A current
215	1	GridFreq	R	0.01	Hz	%.2fHz	Unsigned				AC power frequency
216	1	InvVoltA	R	0.1	V	%.1fV	Unsigned				Inverter phase-A output voltage
217	1	InvCurrA	R	0.1	A	%.1fA	Unsigned				Inverter phase-A inductive current
218	1	InvFreq	R	0.01	Hz	%.2fHz	Unsigned				
219	1	LoadCurrA	R	0.1	A	%.1fA	Unsigned				Load side phase-A current
21A	1	LoadPF	R	0.01	-	%.2f	Signed				Unused
21B	1	LoadActivePowerA	R	1	W	%dW	Unsigned				Phase-A load active power
21C	1	LoadApparentPowerA	R	1	VA	%dVA	Unsigned				Phase-A load apparent power
21D	1	InvDcVolt	R	1	mV	%dmV	Signed				Unused
21E	1	LineChgCurr	R	0.1	A	%.1fA	Unsigned				Charging current from the AC power on the battery side
21F	1	LoadRatioA	R	1	%	%d%	Unsigned				Phase-A load ratio
220	1	Tempera	R	0.1	°C	%.1f°C	Signed				Cooling-fin DC-DC temperature
221	1	Temperb	R	0.1	°C	%.1f°C	Signed				Cooling-fin DC-AC temperature
222	1	Temperc	R	0.1	°C	%.1f°C	Signed				Transformer temperature
223	1	Temperd	R	0.1	°C	%.1f°C	Signed				Ambient temperature
224	1	Ibuck1	R	0.1	A	%.1fA	Unsigned				Charging current from the PV power on the battery side
225	1	ParallCurrRms	R	0.1	A	%.1fA	Unsigned				High-pressure parallel use
226	1	Invaultstate	R	1	-	%d	Unsigned				Available for customized models only
227	1	ChargeStatus	R	1	-	%d	Unsigned				Available for customized models only
228	1	PBusVolt	R	0.1	V	%.1fV	Unsigned				Suitable for the split-phase all-in-one machine and European standard machine of 10 kW
229	1	NBusVolt	R	0.1	V	%.1fV	Unsigned				Suitable for the split-phase all-in-one machine and European standard machine of 10 kW
22A	1	GridVoltB	R	0.1	V	%.1fV	Unsigned				AC power phase-B voltage
22B	1	GridVoltC	R	0.1	V	%.1fV	Unsigned				AC power phase-C voltage
22C	1	InvVoltB	R	0.1	V	%.1fV	Unsigned				Inverter phase-B output voltage
22D	1	InvVoltC	R	0.1	V	%.1fV	Unsigned				Inverter phase-C output voltage
22E	1	InvCurrB	R	0.1	A	%.1fA	Unsigned				Inverter phase-B inductive current
22F	1	InvCurrC	R	0.1	A	%.1fA	Unsigned				Inverter phase-C inductive current
230	1	LoadCurrB	R	0.1	A	%.1fA	Unsigned				Load side phase-B current
231	1	LoadCurrC	R	0.1	A	%.1fA	Unsigned				Load side phase-C current
232	1	LoadActivePowerB	R	1	W	%dW	Unsigned				
233	1	LoadActivePowerC	R	1	W	%dW	Unsigned				
234	1	LoadReactivePowerB	R	1	VA	%dVA	Unsigned				
235	1	LoadReactivePowerC	R	1	VA	%dVA	Unsigned				
236	1	LoadRatioB	R	1	%	%d%	Unsigned				Phase-B load ratio
237	1	LoadRatioC	R	1	%	%d%	Unsigned				Phase-C load ratio
238	1	GridCurrB	R	0.1	A	%.1fA	Unsigned				AC power phase-B current
239	1	GridCurrC	R	0.1	A	%.1fA	Unsigned				AC power phase-C current
23A	1	GridActivePowerA	R	1	A	%dW	Signed				Greater than 0 for power of grid connection; Less than 0 for power of grid consumption
23B	1	GridActivePowerB	R	1	A	%dW	Signed				Greater than 0 for power of grid connection; Less than 0 for power of grid consumption
23C	1	GridActivePowerC	R	1	A	%dW	Signed				Greater than 0 for power of grid connection; Less than 0 for power of grid consumption
23D	1	GridApparentPowerA	R	1	VA	%dVA	Unsigned				
23E	1	GridApparentPowerB	R	1	VA	%dVA	Unsigned				
23F	1	GridApparentPowerC	R	1	VA	%dVA	Unsigned				
240	1	HomeLoadActivePowerA	R	1	W	%dW	Unsigned				
241	1	HomeLoadActivePowerB	R	1	W	%dW	Unsigned				
242	1	HomeLoadActivePowerC	R	1	W	%dW	Unsigned				
243	1	Active power of A/L1 phase minor load	R	1	W	%dW	Unsigned				
244	1	Active power of B/L2 phase minor load	R	1	W	%dW	Unsigned				
245	1	Active power of C/L3 phase minor load	R	1	W	%dW	Unsigned				
P03 Device Control Area											
DF00	1	CmdPowerOnOff	W	1	-	%x	Unsigned				0: Off 1: on Others: no action
DF01	1	CmdMachineReset	W	1	-	%x	Unsigned				1: Reset Others: no action 0×AA: restoring 0×BB: clear the statistics (power statistics) 0×CC: clearing the fault history
DF02	1	CmdRestoreFactorySetting	W	1	-	%x	Unsigned				Others: no action Restore factory set values to clear all cumulative data and restore parameters to the default state, and restart to take effect.
DF03	1	Arc fault clear	W	1	-	%x	Unsigned				0: Ignore 1: clear
DF04	1	CmdReserved01	W	1	-	%x	Unsigned				Reserved
DF05	1	CmdReserved02	W	1	-	%x	Unsigned				Reserved
DF06	2	UpgradeCmd	W	1	-	%x	Unsigned				Firmware upgrade command
DF08	1	CmdReserved03	W	1	-	%x	Unsigned				Reserved
DF09	3	CmdReserved04	W	1	-	%x	Unsigned				Reserved
DF0C	1	CmdReserved05	W	1	-	%x	Unsigned				Reserved
DF0D	1	BattEqualChglmmediate	W	1		%d	Unsigned				0: disabled 1: enabled
P04 Debug Data Area											
DF20	1	DebugCmdPoint	RW	1	-	%d	Unsigned				
DF21	24	DebugData	RW	1	-	%d	Unsigned				
DF39	1	Coeff_BuckV_Kp	RW	1	-	%d	Unsigned	0	32767	4096	
DF3A	1	Coeff_BuckV_Ki	RW	1	-	%d	Unsigned	0	32767	4096	
DF3B	1	Coeff_BuckI_Kp	RW	1	-	%d	Unsigned	0	32767	4096	
DF3C	1	Coeff_BuckI_Ki	RW	1	-	%d	Unsigned	0	32767	4096	
DF3D	1	Coeff_InvV_Kp	RW	1	-	%d	Unsigned	0	32767	4096	

Address	Length	English Name	R/W	Magnification	Unit	Display Format	Signed/Unsigned	Minimum	Maximum	Default	Remark
DF3E	1	Coeff_InV_V_Ki	RW	1	-	%d	Unsigned	0	32767	4096	
DF3F	1	Coeff_InV_Kp	RW	1	-	%d	Unsigned	0	32767	4096	
DF40	1	Coeff_InV_Ki	RW	1	-	%d	Unsigned	0	32767	4096	
DF41	1	Coeff_pfcbus_Kp	RW	1	-	%d	Unsigned	0	32767	4096	Pfc current loop parameter Kp of generation-2 all-in-one solar charger inverter
DF42	1	Coeff_pfcbus_Ki	RW	1	-	%d	Unsigned	0	32767	4096	
DF43	1	Coeff_PLL_Kp	RW	1	-	%d	Unsigned	0	32767	4096	Pfc current loop parameter Ki of generation-2 all-in-one solar charger inverter
DF44	1	Coeff_PLL_Ki	RW	1	-	%d	Signed	0	32767	4096	
DF45	1	Coeff_BusV_Kp	RW	1	-	%d	Unsigned	0	32767	4096	
DF46	1	Coeff_BusV_Ki	RW	1	-	%d	Unsigned	0	32767	4096	
DF47	1	Coeff_ChgV_Kp	RW	1	-	%d	Unsigned	0	32767	4096	
DF48	1	Coeff_ChgV_Ki	RW	1	-	%d	Unsigned	0	32767	4096	
DF49	1	Coeff_ChgI_Kp	RW	1	-	%d	Unsigned	0	32767	4096	
DF4A	1	Coeff_ChgI_Ki	RW	1	-	%d	Unsigned	0	32767	4096	
DF4B	1	ServiceBuckPwmDutySet1	RW	1	-	%d	Signed	-800	800	0	
DF4C	1	ServiceBuckPwmDutySet2	RW	1	%	%d%	Unsigned	0	90	30	
DF4D	1	ServiceLineChgSwFreqSet	RW	1	kHz	%dkHz	Unsigned	0	120	55	
DF4E	1	ServiceLineChgPwmDutySet	RW	1	%	%d%	Unsigned	0	55	25	
DF4F	1	ServicePushPullDutySet	RW	1	%	%d%	Unsigned	0	55	30	
DF50	1	InvVoltDeCompValue	RW	1	%	%d%	Signed	-300	300	0	
DF51	1	ServiceFanPwmDutySet	RW	1	%	%d	Unsigned	0	90	80	
DF52	1	ServiceInvLineRelaySw	RW	1	-	%d	Unsigned	0	1	0	
DF53	1	ServicePvBatRelaySw	RW	1	-	%d	Unsigned	0	1	0	
DF54	1	ServiceCBCDacPos	RW	1	-	%d	Unsigned	512	4096	0	Default output voltage of 230 V (2 kW)
DF55	1	ServiceCBCDacNeg	RW	1	-	%d	Unsigned	0	512	0	Default output voltage of 230 V (3kW)
DF56	1	LogPrintEnable	RW	1	-	%d	Unsigned	0	1	0	
DF57	1	VbusTargetSet	RW	0.1	V	%.1fV	Unsigned	100	480	360	
DF58	1	Coeff_LineChgV_Kp	RW	1	-	%d	Unsigned	0	32767	4096	
DF59	1	Coeff_LineChgV_Ki	RW	1	-	%d	Unsigned	0	32767	4096	
DF5A	1	Coeff_pfccurr_Kp	RW	1	-	%d	Unsigned	0	32767	4096	
DF5B	1	Coeff_pfccurr_Ki	RW	1	-	%d	Unsigned	0	32767	4096	
DF5C	4	SysBitFlag	RW	1	-	%d	Unsigned				
DF60	8	LoopCtrlGroupKp	RW	1	-	%d	Signed	0	32767	4096	
DF68	8	LoopCtrlGroupKi	RW	1	-	%d	Signed	0	32767	4096	
DF70	1	ParamReserved0	RW	1	-	%d	Unsigned	0	32767	4096	
DF71	1	ParamReserved1	RW	1	-	%d	Unsigned	0	32767	4096	

P05 Setting Area for Battery-related Parameters

E000	1	BatParmReserved0	RW	1	-	%d	Unsigned	0	1	0	
E001	1	PvChgCurrSet	RW	0.1	A	%dA	Unsigned	0	150	80	PV charging current limit. Generation-1 machine: 50 A, generation-2 machine: 60 A, and generation-3 machine: 80 A~100 A
E002	1	BatRateCap	RW	1	AH	%dAH	Unsigned	0	400	100	
E003	1	BatRateVolt	RW	1	V	%dV	Unsigned	12	255	48	12: 12 V 24: 24 V 36: 36 V 48: 48 V 0: User define 1: SLD 2: FLD 3: GEL 4: Lithium iron phosphate x 14 5: Lithium iron phosphate x 15 6: Lithium iron phosphate x 16 7: Lithium iron phosphate x 7 8: Lithium iron phosphate x 8 9: Lithium iron phosphate x 9 10: Ternary lithium x 7 11: Ternary lithium x 8 12: Ternary lithium x 13 13: Ternary lithium x 14
E005	1	BatOverVolt	RW	0.1	V	%.1fV	Unsigned	9	15.5	15.5	Battery charging over-voltage protection point (converted to the voltage corresponding to 12 V, followed by the same battery voltage)
E006	1	BatChgLimitVolt	RW	0.1	V	%.1fV	Unsigned	9	15.5	14.4	Over-charging protection voltage
E007	1	BatConstChgVolt	RW	0.1	V	%.1fV	Unsigned	9	15.5	14.4	Equalizing charging voltage
E008	1	BatImprovChgVolt	RW	0.1	V	%.1fV	Unsigned	9	15.5	14.4	Lead-acid battery is prohibited from boost charge, and lithium battery is prohibited from over-charging voltage.
E009	1	BatFloatChgVolt	RW	0.1	V	%.1fV	Unsigned	9	15.5	14	For lead-acid battery
E00A	1	BatImprovChgBackVolt	RW	0.1	V	%.1fV	Unsigned	9	15.5	13.2	After the battery enters floating charging, the battery voltage is lower than the judged point again, and the battery enters boost charge again.
E00B	1	BatOverDischgBackVolt	RW	0.1	V	%.1fV	Unsigned	9	15.5	12.6	After the battery is protected from over-discharge and under-voltage, it is returned to the discharged state.
E00C	1	BatUnderVolt	RW	0.1	V	%.1fV	Unsigned	9	15.5	11	Alarming of low battery voltage without load cut-off
E00D	1	BatOverDischgVolt	RW	0.1	V	%.1fV	Unsigned	9	15.5	12.2	Alarming of low battery voltage with load cut-off
E00E	1	BatDischgLimitVolt	RW	0.1	V	%.1fV	Unsigned	9	15.5	11.2	During the battery over-discharge delay, the battery voltage is lower than the judged point, and then the load is off at once.
E00F	1	BatStopSOC	RW	1	-	%d%	Unsigned	0	100	5	Discharge cut-off SOC
E010	1	BatOverDischgDelayTime	RW	1	S	%dS	Unsigned	0	120	60	
E011	1	BatConstChgTime	RW	1	Min	%dmin	Unsigned	0	900	120	
E012	1	BatImprovChgTime	RW	1	Min	%dmin	Unsigned	10	900	120	
E013	1	BatConstChgGapTime	RW	1	day	%dDay	Unsigned	0	255	30	
E014	1	CoeffTemperCompen	RW	1	mV/°C/2 V	%d	Signed	0	10	5	Invalid
E015	1	ChgMaxTemper	RW	1	°C	%d	Signed	-40	100	60	Invalid
E016	1	ChgMinTemper	RW	1	°C	%d	Signed	-40	100	-30	Invalid
E017	1	DisChgMaxTemper	RW	1	°C	%d	Signed	-40	100	60	Invalid
E018	1	DisChgMinTemper	RW	1	°C	%d	Signed	-40	100	-30	Invalid
E019	1	HeatBatStartTemper	RW	1	°C	%d	Signed	-40	100	0	Invalid
E01A	1	HeatBatStopTemper	RW	1	°C	%d	Signed	-40	100	5	Invalid
E01B	1	BatSwitchDeVolt	RW	0.1	V	%.1fV	Unsigned	9	15.5	11.5	The load is switched to the AC power when the battery voltage falls below this judged point. Only the lithium battery is effective, and when the current of constant-voltage charging state is lower than this value, the charging is stopped.
E01C	1	StopChgCurrSet	RW	0.1	A	%.1fA	Unsigned	0	10	2	When the SOC capacity is greater than or equal to this value, charging is stopped, and it is valid for BMS communication.
E01D	1	StopChgSocSet	RW	1	%	%d	Unsigned	0	100	100	With the alarming of low SOC capacity, it is valid for BMS communication.
E01E	1	BatSocLowAlarm	RW	1	%	%d	Unsigned	0	100	15	In SBU mode, the AC power is applied when the SOC capacity is less than or equal to the value.
E01F	1	BatSocSwToLine	RW	1	%	%d	Unsigned	0	100	10	In SBU mode, the inverter is applied when the SOC capacity is greater than or equal to the value.
E020	1	BatSocSwToBatt	RW	1	%	%d	Unsigned	1	100	100	
E021	1	BatDischgMaxCurrSet	RW	1	A	%.1fA	Unsigned	0	200	100	
E022	1	BattVoltSwToInv	RW	0.1	V	%.1fV	Unsigned	9	15.5	14	When the battery voltage is higher than the judged point, the inverter is switched back.
E023	1	BattEqualChgTimeout	RW	1	min	%dmin	Unsigned	5	900	240	Increment+5
E024	1	LiBattActiveCurrSet	RW	0.1	A	%.1fA	Unsigned	0	20	8	
E025	1	BMSChgLCMode	RW	1		%d	Unsigned	0	2	1	
E026	1	ChargeStartTime1	RW	1	h/m	%d	Unsigned	0	5947	0	Hours and minutes: 23*256+59=5,947
E027	1	ChargeEndTime1	RW	1	h/m	%d	Unsigned	0	5947	0	Hours and minutes: 23*256+59=5,947
E028	1	ChargeStartTime2	RW	1	h/m	%d	Unsigned	0	5947	0	Hours and minutes: 23*256+59=5,947
E029	1	ChargeEndTime2	RW	1	h/m	%d	Unsigned	0	5947	0	Hours and minutes: 23*256+59=5,947
E02A	1	ChargeStartTime3	RW	1	h/m	%d	Unsigned	0	5947	0	Hours and minutes: 23*256+59=5,947
E02B	1	ChargeEndTime3	RW	1	h/m	%d	Unsigned	0	5947	0	Hours and minutes: 23*256+59=5,947

Address	Length	English Name	R/W	Magnification	Unit	Display Format	Signed/Unsigned	Minimum	Maximum	Default	Remark
E02C	1	OnTimeChargeEn	RW	1	-	%d	Unsigned	0	1	0	0: disabled; 1: enabled
E02D	1	DischgStartTime1	RW	1	h/m	%d	Unsigned	0	5947	0	Hours and minutes: 23*256+59=5,947
E02E	1	DischgEndTime1	RW	1	h/m	%d	Unsigned	0	5947	0	Hours and minutes: 23*256+59=5,947
E02F	1	DischgStartTime2	RW	1	h/m	%d	Unsigned	0	5947	0	Hours and minutes: 23*256+59=5,947
E030	1	DischgEndTime2	RW	1	h/m	%d	Unsigned	0	5947	0	Hours and minutes: 23*256+59=5,947
E031	1	DischgStartTime3	RW	1	h/m	%d	Unsigned	0	5947	0	Hours and minutes: 23*256+59=5,947
E032	1	DischgEndTime3	RW	1	h/m	%d	Unsigned	0	5947	0	Hours and minutes: 23*256+59=5,947
E033	1	OnTimeDischgEn	RW	1	-	%d	Unsigned	0	1	0	0: disabled; 1: enabled
E034	3	BatParmReserved2	RW	1	-	%d	Unsigned	0	-	0	
E037	1	InvToGridEn	RW	1	-	%d	Unsigned	0	3	0	0: off-grid mode (banned) 1: grid-connected mode 2: ACout anti-reverse flow 3: ACin anti-reverse flow
E038	1	LeakageCurrDtcEn	RW	1	-	%d	Unsigned	0	1	0	0: disabled; 1: enabled
E039	1	PvPowerPrioritySet	RW	1	-	%d	Unsigned	0	2	0	0: charging priority 1: load priority
E03A	1	BattTemperCompEn	RW	1	-	%d	Unsigned	0	1	0	0: disabled 1: enabled
E03B	1	TimedChg1StopSOC	RW	1	%	%d	Unsigned	0	100	100	During charging period, the charging is stopped when SOC is greater than the specified value.
E03C	1	TimedChg2StopSOC	RW	1	%	%d	Unsigned	0	100	100	
E03D	1	TimedChg3StopSOC	RW	1	%	%d	Unsigned	0	100	100	
E03E	1	TimedDchg1StopSOC	RW	1	%	%d	Unsigned	0	100	80	During discharging period, the discharging is stopped when SOC is less than the specified value.
E03F	1	TimedDchg2StopSOC	RW	1	%	%d	Unsigned	0	100	60	
E040	1	TimedDchg3StopSOC	RW	1	%	%d	Unsigned	0	100	10	
E041	1	TimedChg1StopVolt	RW	0.1	W	%.1fV	Unsigned	40	59.5	57.6	
E042	1	TimedChg2StopVolt	RW	0.1	W	%.1fV	Unsigned	40	59.5	57.6	
E043	1	TimedChg3StopVolt	RW	0.1	W	%.1fV	Unsigned	40	59.5	57.6	
E044	1	TimedDchg1StopVolt	RW	0.1	W	%.1fV	Unsigned	40	59.5	42	
E045	1	TimedDchg2StopVolt	RW	0.1	W	%.1fV	Unsigned	40	59.5	42	
E046	1	TimedDchg3StopVolt	RW	0.1	W	%.1fV	Unsigned	40	59.5	42	
E047	1	TimedDchg1MaxPower	RW	1	W	%d	Unsigned	0	12000	6000	
E048	1	TimedDchg2MaxPower	RW	1	W	%d	Unsigned	0	12000	6000	
E049	1	TimedDchg3MaxPower	RW	1	W	%d	Unsigned	0	12000	6000	
E04A	1	TimedChg1MaxPower	RW	1	W	%d	Unsigned	0	12000	6000	
E04B	1	TimedChg2MaxPower	RW	1	W	%d	Unsigned	0	12000	6000	
E04C	1	TimedChg3MaxPower	RW	1	W	%d	Unsigned	0	12000	6000	
E04D	1	TimedChgSource	RW	1		%d	Unsigned	0	7	0	Bit00: AC power during the charging period 1, 0: disabled, 1: enabled Bit01: electric generator during the charging period 1, 0: disabled, 1: enabled Bit02: AC power during the charging period 2, 0: disabled, 1: enabled Bit03: electric generator during the charging period 2, 0: disabled, 1: enabled Bit04: AC power during the charging period 3, 0: disabled, 1: enabled Bit05: electric generator during the charging period 3, 0: disabled, 1: enabled
P06 Factory Setting Area for Inverter Parameters											
E100	1	CorrectCoeffProtect	RW	1	-	%x	Unsigned	0	65535	0	The adjustment coefficient is a percentage, the bottom layer defines the maximum percentage, and the adjustment value is added to the original coefficient value. If the default value is 0, the value is not adjusted.
E101	1	CorrectCoeffVpv1	RW	0.001	-	%.3f	Signed	-0.2	0.2	0	
E102	1	CorrectCoeffVpv2	RW	0.001	-	%.3f	Signed	-0.2	0.2	0	
E103	1	CorrectCoeffIpv1	RW	0.001	-	%.3f	Signed	-0.2	0.2	0	The adjustment coefficient is a percentage, the bottom layer defines the maximum percentage, and the adjustment value is added to the original coefficient value. If the default value is 0, the value is not adjusted.
E104	1	CorrectCoeffIpv2	RW	0.001	-	%.3f	Signed	-0.2	0.2	0	
E105	1	CorrectCoeffVbus	RW	0.001	-	%.3f	Signed	-0.2	0.2	0	
E106	1	CorrectCoeffVbat	RW	0.001	-	%.3f	Signed	-0.2	0.2	0	The adjustment coefficient is a percentage, the bottom layer defines the maximum percentage, and the adjustment value is added to the original coefficient value. If the default value is 0, the value is not adjusted.
E107	1	CorrectCoeffIbat	RW	0.001	-	%.3f	Signed	-0.2	0.2	0	
E108	1	CorrectCoeffVInvA	RW	0.001	-	%.3f	Signed	-0.2	0.2	0	
E109	1	CorrectCoeffIloadA	RW	0.001	-	%.3f	Signed	-0.2	0.2	0	The adjustment coefficient is a percentage, the bottom layer defines the maximum percentage, and the adjustment value is added to the original coefficient value. If the default value is 0, the value is not adjusted.
E10A	1	CorrectCoeffIInvA	RW	0.001	-	%.3f	Signed	-0.2	0.2	0	
E10B	1	CorrectCoeffVLineA	RW	0.001	-	%.3f	Signed	-0.2	0.2	0	
E10C	1	CorrectCoeffIlinechg	RW	0.001	-	%.3f	Signed	-0.2	0.2	0	The adjustment coefficient is a percentage, the bottom layer defines the maximum percentage, and the adjustment value is added to the original coefficient value. If the default value is 0, the value is not adjusted.
E10D	1	CorrectCoeffLineFreq	RW	1	-	%d	Signed	-32768	32767	0	
E10E	1	CorrectCoeffInvFreq	RW	1	-	%d	Signed	-32768	32767	0	
E10F	1	CorrectCoeffParallCurr	RW	0.001	-	%.3f	Signed	-0.2	0.2	0	Models with external CT use this register to calibrate the external CT current sampling coefficient.
E110	1	VinvDcRegValueA	RW	1		%d	有	-1500	1500	0	
E111	1	VinvDcRegValueB	RW	1		%d	有	-1500	1500	0	
E112	1	VinvDcRegValueC	RW	1		%d	有	-1500	1500	0	
E113	1	workmode	RW	1	-	%d	Unsigned	0	10	0	Operating mode: 0: normal mode 1: aging mode
E114	1	IsetPv1	RW	0.1	A	%.1fA	Unsigned	0	25	22	
E115	1	IsetPv2	RW	0.1	A	%.1fA	Unsigned	0	25	22	
E116	1	MachModelNum	RW	1	-	%d	Unsigned	0	500	1	See Customer ID Zone and Model Code Maintenance Table .
E117	1	CustomerId	RW	1	-	%d	Unsigned	0	100	0	
E118	1	PowerRate	RW	0.1	Kw	%.1fkW	Unsigned	1	150	35	
E119	4	FaultEnable	RW	1	-	%d	Unsigned	0	65535	0	Fault bit enabled (set by bit)
E11D	2	FuncEnable	RW	1	-	%d	Unsigned	0	65535	0	Fault bit enabled (set by bit)
E11F	1	PvVoltRate	RW	1	V	%dV	Unsigned	100	600	550	Maximum rated PV voltage
E120	1	PvChargeCurrRate	RW	0.1	A	%.1fA	Unsigned	60	200	100	Maximum charging current on the battery side
E121	1	InvOverCurrIntLevel	RW	1	%	%d	Unsigned	0	200	135	For current limiting of inverter software
E122	1	InvOverCurrIntTime	RW	1	Ts	%dT _s	Unsigned	0	100	2	Protection time, Ts (power frequency cycle)
E123	1	BusOverVoltIntLevel	RW	0.1	V	%.1fV	Unsigned	0	550	400	
E124	1	BusOverVoltIntTime	RW	1	Ts	%dT _s	Unsigned	0	100	5	

Address	Length	English Name	R/W	Magnification	Unit	Display Format	Signed/Unsigned	Minimum	Maximum	Default	Remark
E125	1	InvCurrRmsOCLLevel1	RW	0.1	A	%1fA	Unsigned	0	40	18	
E126	1	InvCurrRmsOCLTime1	RW	20	mS	%dmS	Unsigned	20	500	120	
E127	1	InvCurrRmsOCLLevel2	RW	0.1	A	%1fA	Unsigned	0	40	17	
E128	1	InvCurrRmsOCLTime2	RW	20	mS	%dmS	Unsigned	20	500	120	
E129	1	InvShortProtectCurrSet	RW	0.1	A	%1fA	Unsigned	0	100	20	
E12A	1	InvShortProtectVoltSet	RW	0.1	V	%1fV	Unsigned	0	550	50	
E12B	1	InvShortProtectTimeTs	RW	1	Ts	%dT	Unsigned	0	500	10	
E12C	1	InvOverLoadPercent1	RW	0.1	%	%.1P%	Unsigned	0	150	115	
E12D	1	InvOverLoadTime1	RW	1	S	%dS	Unsigned	10	300	120	
E12E	1	InvOverLoadPercent2	RW	0.1	%	%.1P%	Unsigned	0	150	125	
E12F	1	InvOverLoadTime2	RW	1	S	%dS	Unsigned	10	300	60	
E130	1	InvTemperOverPoint	RW	0.1	°C	%.1f°C	Unsigned	80.0	130	95	
E131	1	PushTempOverPoint	RW	0.1	°C	%.1f°C	Unsigned	80.0	130	87	
E132	1	CorrectCoeffVPBus	RW	0.001	-	%3f	Signed	-0.2	0.2	0	The adjustment coefficient is a percentage, the bottom layer defines the maximum percentage, and the adjustment value is added to the original coefficient value. If the default value is 0, the value is not adjusted.
E133	1	CorrectCoeffVNBus	RW	0.001	-	%3f	Signed	-0.2	0.2	0	The adjustment coefficient is a percentage, the bottom layer defines the maximum percentage, and the adjustment value is added to the original coefficient value. If the default value is 0, the value is not adjusted.
E134	1	CorrectCoeffVInvB	RW	0.001	-	%3f	Signed	-0.2	0.2	0	The adjustment coefficient is a percentage, the bottom layer defines the maximum percentage, and the adjustment value is added to the original coefficient value. If the default value is 0, the value is not adjusted.
E135	1	CorrectCoeffVInvC	RW	0.001	-	%3f	Signed	-0.2	0.2	0	The adjustment coefficient is a percentage, the bottom layer defines the maximum percentage, and the adjustment value is added to the original coefficient value. If the default value is 0, the value is not adjusted.
E136	1	CorrectCoeffILoadB	RW	0.001	-	%3f	Signed	-0.2	0.2	0	The adjustment coefficient is a percentage, the bottom layer defines the maximum percentage, and the adjustment value is added to the original coefficient value. If the default value is 0, the value is not adjusted.
E137	1	CorrectCoeffILoadC	RW	0.001	-	%3f	Signed	-0.2	0.2	0	The adjustment coefficient is a percentage, the bottom layer defines the maximum percentage, and the adjustment value is added to the original coefficient value. If the default value is 0, the value is not adjusted.
E138	1	CorrectCoeffIInvB	RW	0.001	-	%3f	Signed	-0.2	0.2	0	The adjustment coefficient is a percentage, the bottom layer defines the maximum percentage, and the adjustment value is added to the original coefficient value. If the default value is 0, the value is not adjusted.
E139	1	CorrectCoeffIInvC	RW	0.001	-	%3f	Signed	-0.2	0.2	0	The adjustment coefficient is a percentage, the bottom layer defines the maximum percentage, and the adjustment value is added to the original coefficient value. If the default value is 0, the value is not adjusted.
E13A	1	CorrectCoeffVLineB	RW	0.001	-	%3f	Signed	-0.2	0.2	0	The adjustment coefficient is a percentage, the bottom layer defines the maximum percentage, and the adjustment value is added to the original coefficient value. If the default value is 0, the value is not adjusted.
E13B	1	CorrectCoeffVLineC	RW	0.001	-	%3f	Signed	-0.2	0.2	0	The adjustment coefficient is a percentage, the bottom layer defines the maximum percentage, and the adjustment value is added to the original coefficient value. If the default value is 0, the value is not adjusted.
E13C	1	CorrectCoeffVGenA	RW	0.001	-	%3f	Signed	-0.2	0.2	0	
E13D	1	CorrectCoeffVGenB	RW	0.001	-	%3f	Signed	-0.2	0.2	0	
E13E	1	CorrectCoeffVGenC	RW	0.001	-	%3f	Signed	-0.2	0.2	0	
E13F	1	CorrectCoeffCt1	RW	0.001	-	%3f	Signed	-0.2	0.2	0	
E140	1	CorrectCoeffCt2	RW	0.001	-	%3f	Signed	-0.2	0.2	0	
E141	1	CorrectCoeffCt3	RW	0.001	-	%3f	Signed	-0.2	0.2	0	
E142	1	CorrectCoeffSecLoadCurrA	RW	0.001	-	%3f	Signed	-0.2	0.2	0	
E143	1	CorrectCoeffSecLoadCurrB	RW	0.001	-	%3f	Signed	-0.2	0.2	0	
E144	1	CorrectCoeffSecLoadCurrC	RW	0.001	-	%3f	Signed	-0.2	0.2	0	
E145	1	FactoryParamReserved	RW	1		%d	Signed	0	1	0	
P07 User Setting Area for Inverter Parameters											
E200	1	Rs485AddrSet	RW	1	-	%d	Unsigned	1	254	1	Integer (1 to 254)
E201	1	ParallMode	RW	1	-	%d	Unsigned	0	7	0	0: single machine 1: single-phase parallel 2: two-phase parallel 3: two-phase parallel 120 4: two-phase parallel 180 5: three-phase A 6: three-phase B 7: three-phase C
E202	1	PassWordSet	W	1	-	%d	Unsigned	0	65535	0	The password consists of four decimal digits. If the parameter is 0, there is no password. Keyboard passwords can be changed by keyboard and communication.
E203	1	PassWordInput	W	1	-	%d	Unsigned	0	65535	0	
E204	1	OutputPriority	RW	1	-	%d	Unsigned	0	2	1	0: solar 1: line 2: sbu
E205	1	IbattLineChgLimit	RW	0.1	A	%1fA	Unsigned	0	200	60	Maximum charging current limit for AC power charging
E206	1	BattEqualChgEnable	RW	1	V	%d	Unsigned	0	1	0	
E207	1	N_G_FuncEn	RW	1		%d	Unsigned	0	1	0	N and PE ground cable short circuit enabled (only available on some models)
E208	1	OutputVoltSet	RW	0.1	V	%1fV	Unsigned	100	264	120	
E209	1	OutputFreqSet	RW	0.01	Hz	%2fHz	Unsigned	45	65	50	
E20A	1	MaxChgCurr	RW	0.1	A	%1fA	Unsigned	0	200	80	
E20B	1	AcVoltRange	RW	1		%d	Unsigned	0	1	1	0: wide band (APL) 1: narrow band (UPS)
E20C	1	PowerSavingMode	RW	1		%d	Unsigned	0	1	0	0: disabled 1: enabled
E20D	1	AutoRestartOvLoad	RW	1		%d	Unsigned	0	1	1	0: disabled 1: enabled
E20E	1	AutoRestartOvTemper	RW	1		%d	Unsigned	0	1	1	0: disabled 1: enabled
E20F	1	ChgSourcePriority	RW	1		%d	Unsigned	0	3	2	0: PV priority (AC power charging available when PV fails) 1: AC power priority (PV charging available when AC power fails) 2: hybrid mode (AC power and PV charging at the same time, with PV priority) 3: PV only
E210	1	AlarmEnable	RW	1		%d	Unsigned	0	1	1	0: disabled 1: enabled
E211	1	AlarmEnWhenSourceLoss	RW	1		%d	Unsigned	0	1	1	0: disabled 1: enabled
E212	1	BypEnableWhenOvLoad	RW	1		%d	Unsigned	0	1	1	0: disabled 1: enabled
E213	1	RecordFaultEnable	RW	1		%d	Unsigned	0	1	1	0: disabled 1: enabled
E214	1	BmsErrStopEnable	RW	1		%d	Unsigned	0	1	0	0: disabled 1: enabled
E215	1	BmsCommEnable	RW	1		%d	Unsigned	0	2	0	0: disabled 1: 485-BMS enabled 2: CAN-BMS enabled
E216	1	DcLoadSwitch	RW	1		%d	Unsigned	0	1	0	0: off, 1: on
E217	1	InvParamSetReserved01	RW	1		%d	Unsigned	0	0	0	Reserved
E218	1	DeratePower	RW	1		%001fW	Unsigned	1000	15000	0	Reduction of machine power rating
E219	1	InvParamSetReserved02	R	1		%d	Unsigned	0	1	0	
E21A	1	GeneratorChgDisable	R	1		%d	Unsigned	0	1	0	Generator charging by default (can be disabled)
E21B	1	Rs485BmsProtocol	RW	1		%d	Unsigned	0	30	7	
E21C	1	MaxLineCurrent	RW	0.1		%1fA	Unsigned	0	100	40	Only for some custom models (ancient style ship of RGSC)

Address	Length	English Name	R/W	Magnification	Unit	Display Format	Signed/Unsigned	Minimum	Maximum	Default	Remark
E21D	1	MaxLinePower	RW	1		%d	Unsigned	0	65535	50	Peak clipping power of grid 50: 500 W Only for single split-phase machine; 0: single-phase connection, 1: three-phase connection, 2: split-phase connection
E21E	1	OutputPhaseSet	RW	1		%d	Unsigned	0	2	0	
E21F	1	GenWorkMode	RW	1		%d	Unsigned	0	1	0	
E220	1	GenChgMaxCurr	RW	0.1	A	%1fA	Unsigned	0	100	40	
E221	1	GenRatePower	RW	1		%d	Unsigned	0	65535	6000	
P08 Setting Area for Inverter Grid-connection Parameters											
E400	1	GridActivePowerSet	RW	1	W	%d	Unsigned	0	65000	0	Only suitable for models supporting grid-connection, with the adjustment range of -80~100 and 80~100
E401	1	GridPISet	RW	0.001		%3f	Signed	-1	1	1	
E402	1	GridQset	RW	1	%	%d	Signed	-100	100	0	Grid-connection reactive power setting
E403	1	GridStandard	RW	1		%d	Signed	0	100	100	Grid-connection standard setting
E404	1	GridUVLevel1	RW	0.1	V	%1f	Unsigned	0	270	184	
E405	1	GridUVTime1	RW	20	mS	%d	Unsigned	20	600000	120	
E406	1	GridUVResumLevel1	RW	0.1	V	%1f	Unsigned	0	270	198	
E407	1	GridUVResumTime1	RW	20	mS	%d	Unsigned	20	600000	120	
E408	1	GridUVLevel2	RW	0.1	V	%1f	Unsigned	0	270	184	
E409	1	GridUVTime2	RW	20	mS	%d	Unsigned	20	600000	120	
E40A	1	GridUVResumLevel2	RW	0.1	V	%1f	Unsigned	0	270	198	
E40B	1	GridUVResumTime2	RW	20	mS	%d	Unsigned	20	600000	120	
E40C	1	GridOVLLevel1	RW	0.1	V	%1f	Unsigned	0	270	280	
E40D	1	GridOVTTime1	RW	20	mS	%d	Unsigned	20	600000	120	
E40E	1	GridOVRResumLevel1	RW	0.1	V	%1f	Unsigned	0	320	270	
E40F	1	GridOVRResumTime1	RW	20	mS	%d	Unsigned	20	600000	120	
E410	1	GridOVLLevel2	RW	0.1	V	%1f	Unsigned	0	320	280	
E411	1	GridOVTTime2	RW	20	mS	%d	Unsigned	20	600000	120	
E412	1	GridOVRResumLevel2	RW	0.1	V	%1f	Unsigned	0	320	270	
E413	1	GridOVRResumTime2	RW	20	mS	%d	Unsigned	20	600000	120	
E414	1	GridUFLLevel1	RW	0.01	Hz	%2f	Unsigned	0	65	47	
E415	1	GridUFTTime1	RW	20	mS	%d	Unsigned	20	600000	120	
E416	1	GridUFRResumLevel1	RW	0.01	Hz	%2f	Unsigned	0	65	48	
E417	1	GridUFRResumTime1	RW	20	mS	%d	Unsigned	20	600000	120	
E418	1	GridUFLLevel2	RW	0.01	Hz	%2f	Unsigned	0	65	47	
E419	1	GridUFTTime2	RW	20	mS	%d	Unsigned	20	600000	120	
E41A	1	GridUFRResumLevel2	RW	0.01	Hz	%2f	Unsigned	0	65	48	
E41B	1	GridUFRResumTime2	RW	20	mS	%d	Unsigned	20	600000	120	
E41C	1	GridOFLLevel1	RW	0.01	Hz	%2f	Unsigned	0	65	52.5	
E41D	1	GridOFTTime1	RW	20	mS	%d	Unsigned	20	600000	120	
E41E	1	GridOFRResumLevel1	RW	0.01	Hz	%2f	Unsigned	0	65	51	
E41F	1	GridOFRResumTime1	RW	20	mS	%d	Unsigned	20	600000	120	
E420	1	GridOFLLevel2	RW	0.01	Hz	%2f	Unsigned	0	65	52.5	
E421	1	GridOFTTime2	RW	20	mS	%d	Unsigned	20	600000	120	
E422	1	GridOFRResumLevel2	RW	0.01	Hz	%2f	Unsigned	0	65	51	
E423	1	GridOFRResumTime2	RW	20	mS	%d	Unsigned	20	600000	120	
E424	1	ReConnectGridTime	RW	1	S	%d	Unsigned	0	600	60	
E425	1	IsoCheckEn	RW	1		%d	Unsigned	0	1	1	
E426	1	IsoProtectPoint	RW	1		%d	Unsigned	10	65535	15	
E427	1	GridFuncEnable	RW	1		%d	Unsigned	0	65535	0	
E428	1	GridStandUserMode	RW	1		%d	Unsigned	0	1	0	
E429	1	Cei021AutoTestStep	RW	1		%d	Unsigned	0	65535	0	
E42A	1	BattForGridPowerEn	RW	1		%d	Unsigned	0	3	0	0: Battery is not discharged. 1: Battery discharges to UPS loads. 2: Battery discharges to home loads. 3: Grid connection participates in electricity sales.
E42B	1	ExCiRatio	RW	1		%d	Unsigned	0	5000	1000	
E42C	1	ZeroExportPower	RW	1	W	%d	Unsigned	0	500	20	
E42D	1	ReConnPowerRamp	RW	1	S	%d	Unsigned	0	1000	60	When it is in the anti-reverse current function, the input target power is set for the grid.
E42E	1	WattPFCurveEnable	RW	1		%d	Unsigned	0	1	0	Rising rate of reconnection power
E42F	1	HLVRTEnable	RW	1		%d	Unsigned	0	1	0	
E430	1	Cei021AutoTestStart	RW	1		%d	Unsigned	0	1	0	
E431	1	AfciEnable	RW	1		%d	Unsigned	0	1	0	
E432	1	NormalConnDlyTsec	RW	1	S	%d	Signed	0	1000	30	
E433	1	NormalConnPwrRampTsec	RW	1	S	%d	Unsigned	0	1000	30	
E434	1	ConnVoltLow	RW	0.1	V	%1f	Unsigned	0	320	110	
E435	1	ConnVoltHigh	RW	0.1	V	%1f	Unsigned	0	320	140	
E436	1	ConnFreqLow	RW	0.01	Hz	%2f	Unsigned	40	70	60	
E437	1	ConnFreqHigh	RW	0.01	Hz	%2f	Unsigned	40	70	60	
E438	1	CT auto detect enable	RW	1		%d	Unsigned	0	1	0	
E439	1	CT manual setting	RW	1		%d	Unsigned	0	2	0	
E43A	1	GridFuncEnable1	RW	1		%d	Unsigned	0	65535	0	
E43B	1	DRMS_Enable	RW	1		%d	Unsigned	0	1	0	0:disable 1:enable
P09 Power Statistics Historical Data											
F000	7	PVEnergyLast7day	R	0.1	kWh	%1fkWh	Unsigned				The power data for each day occupies one register, so for example, if today is September 27, the PV power generation data for the last 7 days is as follows: F000: power generation on September 26 (yesterday) F001: power generation on September 25 (two days ago) F002: power generation on September 24 F006: power generation on September 20
F007	7	BatChgEnergyLast7day	R	1	AH	%dAH	Unsigned				
F00E	7	BatDisChgEnergyLast7day	R	1	AH	%dAH	Unsigned				
F015	7	LineChgEnergyLast7day	R	1	AH	%dAH	Unsigned				
F01C	7	LoadConsumLast7day	R	0.1	kWh	%1fkWh	Unsigned				
F023	7	LoadConsumFromLineLast7day	R	0.1	kWh	%1fkWh	Unsigned				
F02A	2	EnergyStatisticsDay	R	0.1	kWh	%1fkWh	Unsigned				
F02C	1	GeneratEnergyToGridToday	R	0.1	kWh	%1fkWh	Unsigned				
F02D	1	BatChgAHToday	R	1	AH	%d	Unsigned				The amount of battery charge today (AH)
F02E	1	BatDischgAHToday	R	1	AH	%d	Unsigned				The amount of battery discharge today (AH)
F02F	1	GeneratEnergyToday	R	0.1	kWh	%1fkWh	Unsigned				The amount of PV power generation today
F030	1	UsedEnergyToday	R	0.1	kWh	%1fkWh	Unsigned				The energy consumed by the load today
F031	1	WorkDaysTotal	R	1	d	%d	Unsigned				
F032	2	GridEnergyTotal	R	0.1	kWh	%1fkWh	Unsigned				Cumulative value of power generated to the grid
F034	2	BatChgAHTotal	R	1	AH	%d	Unsigned				
F036	2	BatDischgAHTotal	R	1	AH	%d	Unsigned				
F038	2	GeneratEnergyTotal	R	0.1	kWh	%1fkWh	Unsigned				
F03A	2	UsedEnergyTotal	R	0.1	kWh	%1fkWh	Unsigned				
F03C	1	LineChgEnergyTday	R	1	AH	%d	Unsigned				AC charging power (AH) for the day
F03D	1	LoadConsumLineTday	R	0.1	kWh	%1fkWh	Unsigned				
F03E	1	InvWorkTimeToday	R	1	min	%dmin	Unsigned				
F03F	1	LineWorkTimeToday	R	1	min	%dmin	Unsigned				
F040	3	PowerOnTime	R	1		%d	Unsigned				Refer to the time register for the current time format.
F043	3	LastEquaChgTime	R	1		%d	Unsigned				Refer to the time register for the current time format.
F046	2	LineChgEnergyTotal	R	1	AH	%d	Unsigned				
F048	2	LoadConsumLineTotal	R	0.1	kWh	%1fkWh	Unsigned				Cumulative load power consumed from the battery side
F04A	1	InvWorkTimeTotal	R	1	h	%dh	Unsigned				
F04B	1	LineWorkTimeTotal	R	1	h	%dh	Unsigned				
F04C	1	LineChgKwHTday	R	1		%d	Unsigned				
F04D	1	BatChgkWhToday	R	0.1	kWh	%1fkWh	无				The energy of battery charge today (kWh)
F04E	1	BatDischgkWhToday	R	0.1	kWh	%1fkWh	无				The energy of battery discharge today (kWh)
F04F	2	BatChgkWhTotal	R	0.1	kWh	%1fkWh	无				The energy of battery charge total (kWh)
F051	2	BatDischgkWhTotal	R	0.1	kWh	%1fkWh	无				The energy of battery discharge total (kWh)
F053	1	EnergyReserved3	R	1		%d	无				

Address	Length	English Name	R/W	Magnification	Unit	Display Format	Signed/Unsigned	Minimum	Maximum	Default	Remark	
P10 Fault Record												
F800	16	FaultHistoryRecord00	RW	1		%d	Unsigned				Each fault record occupies 16 addresses, storing a total of 16 fault records. Internal data format definition for fault record: (defined by internal offset address) 0x00 : Fault code; see the instruction manual for specific definition of fault code. If the fault code is 0, it means that the fault record is invalid. 0x01-0x03 : The time when the fault code occurs (there is no time for generation-1 machines). 0x04-0x0F : Data packets captured when a fault occurs, with a total of 12 data.	
F810	16	FaultHistoryRecord01	RW	1		%d	Unsigned					
F820	16	FaultHistoryRecord02	RW	1		%d	Unsigned					
F830	16	FaultHistoryRecord03	RW	1		%d	Unsigned					
F840	16	FaultHistoryRecord04	RW	1		%d	Unsigned					
F850	16	FaultHistoryRecord05	RW	1		%d	Unsigned					
F860	16	FaultHistoryRecord06	RW	1		%d	Unsigned					
F870	16	FaultHistoryRecord07	RW	1		%d	Unsigned					
F880	16	FaultHistoryRecord08	RW	1		%d	Unsigned					
F890	16	FaultHistoryRecord09	RW	1		%d	Unsigned					
F8A0	16	FaultHistoryRecord10	RW	1		%d	Unsigned					
F8B0	16	FaultHistoryRecord11	RW	1		%d	Unsigned					
F8C0	16	FaultHistoryRecord12	RW	1		%d	Unsigned					
F8D0	16	FaultHistoryRecord13	RW	1		%d	Unsigned					
F8E0	16	FaultHistoryRecord14	RW	1		%d	Unsigned					
F8F0	16	FaultHistoryRecord15	RW	1		%d	Unsigned					
F900	16	FaultHistoryRecord16	RW	1		%d	Unsigned					
F910	16	FaultHistoryRecord17	RW	1		%d	Unsigned					
F920	16	FaultHistoryRecord18	RW	1		%d	Unsigned					
F930	16	FaultHistoryRecord19	RW	1		%d	Unsigned					
F940	16	FaultHistoryRecord20	RW	1		%d	Unsigned					
F950	16	FaultHistoryRecord21	RW	1		%d	Unsigned					
F960	16	FaultHistoryRecord22	RW	1		%d	Unsigned					
F970	16	FaultHistoryRecord23	RW	1		%d	Unsigned					
F980	16	FaultHistoryRecord24	RW	1		%d	Unsigned					
F990	16	FaultHistoryRecord25	RW	1		%d	Unsigned					
F9A0	16	FaultHistoryRecord26	RW	1		%d	Unsigned					
F9B0	16	FaultHistoryRecord27	RW	1		%d	Unsigned					
F9C0	16	FaultHistoryRecord28	RW	1		%d	Unsigned					
F9D0	16	FaultHistoryRecord29	RW	1		%d	Unsigned					
F9E0	16	FaultHistoryRecord30	RW	1		%d	Unsigned					
F9F0	16	FaultHistoryRecord31	RW	1		%d	Unsigned					
FA00	16	AutoTestRecord	RW	1		%d	Unsigned					
FA10	1	RecordReserved0	R	1		%d	Unsigned					
FA11	1	RecordReserved1	R	1		%d	Unsigned					
END												
Note: The 0×0438-0×439 is the online upgrade command entry address.												

4. Unit and Dimension Description

Physical Quantity	Unit	Magnification	Description
Voltage (including AC and DC)	V	10	16-bit unsigned integer ranging from 0 to 65,535, corresponding to 0 V to 6,553.5 V
Current (including AC and DC)	A	10	16-bit unsigned integer ranging from 0 to 65,535, corresponding to 0 A to 6,553.5 A 16-bit signed integer ranging from -32,767 to 32,767, corresponding to -3,276.7 A to 3,276.7 A
Frequency	Hz	100	16-bit unsigned integer ranging from 0 to 65,535, corresponding to 0 Hz to 655.35 Hz
Power (including AC and DC)	W	1	16-bit unsigned integer ranging from 0 to 65,535, corresponding to 0 W to 65,535 W
Power factor	/	1000	16-bit signed integer ranging from -32,767 to 32,767 (e.g., 998 indicates a power factor of 0.998; and -900 (0xFC7C) indicates a power factor of -0.900.)
AC side capacity	kWh	10	16-bit unsigned integer ranging from 0 to 65,535, corresponding to 0 kWh to 6,553.5 kWh; 32-bit unsigned integer ranging from 0 to 4,294,967,295, corresponding to 0 kWh to 429,496,729.5 kWh; (e.g., 1 indicates 0.1 kWh and 10 indicates 1 KWH)
Battery side capacity	AH	1	16-bit unsigned integer ranging from 0 to 65,535, corresponding to 0 AH to 65,535 AH; 32-bit unsigned integer ranging from 0 to 4,294,967,295, corresponding to 0 AH to 4,294,967,295 AH
Temperature	°C	10	16-bit signed integer ranging from -32,767 to 32,767, corresponding to -3,276.7°C to 3,276.7°C
Battery set voltage	V	10	All battery set voltages in this protocol are in the unified dimension of 12 V batteries, that is, all battery set voltages are converted to the corresponding voltage of 12 V. If the rated voltage of the battery is 48 V and the actual set voltage is 57.6 V, the set value is 57.6 V/4=14.4 V, and the value converted for the register is 14.4*10=144.

Note: When 32-bit data occupies two registers, the data is stored in the register in small-endian mode, that is, the low bytes of data are in the low address of the register, and the high bytes are in the high address of the register. If the 32-bit data 0×12345678 is stored at 0×0001 and 0×0002, the order in the register table is 0×0001=0×5678 and 0×0002=0×1234.