

Easy UPS 3L

Modbus Address Table

Read Function	Address	Parameter	Description	Format	Size	Gain	Unit
0x04	30004	Input freq.	Input frequency	unsigned int	2	0.1	Hz
0x04	30005	Input current phase A	Input current phase A	unsigned int	2	0.1	A
0x04	30006	Input current phase B	Input current phase B	unsigned int	2	0.1	A
0x04	30007	Input current phase C	Input current phase C	unsigned int	2	0.1	A
0x04	30008	Input PF_A	Input Power factor phase A	unsigned int	2	0.001	/
0x04	30009	Input PF_B	Input Power factor phase B	unsigned int	2	0.001	/
0x04	30010	Input PF_C	Input Power factor phase C	unsigned int	2	0.001	/
0x04	30014	Output frequency	Output frequency	unsigned int	2	0.1	Hz
0x04	30015	Output current phase A	Output current phase A	unsigned int	2	0.1	A
0x04	30016	Output current phase B	Output current phase B	unsigned int	2	0.1	A
0x04	30017	Output current phase C	Output current phase C	unsigned int	2	0.1	A
0x04	30018	Output kW phase A	Output kW phase A	unsigned int	2	0.1	kW
0x04	30019	Output kW phase B	Output kW phase B	unsigned int	2	0.1	kW
0x04	30020	Output kW phase C	Output kW phase C	unsigned int	2	0.1	kW
0x04	30021	Load rating phase A	Load percent phase A	unsigned int	2	1	%
0x04	30022	Load rating phase B	Load percent phase B	unsigned int	2	1	%
0x04	30023	Load rating phase C	Load percent phase C	unsigned int	2	1	%
0x04	30024	Output A phase load peak ratio	Output A phase load peak ratio	unsigned int	2	0.01	/
0x04	30025	Output B phase load peak ratio	Output B phase load peak ratio	unsigned int	2	0.01	/
0x04	30026	Output C phase load peak ratio	Output C phase load peak ratio	unsigned int	2	0.01	/
0x04	30030	Bypass frequency	Bypass frequency phase A	unsigned int	2	0.1	Hz
0x04	30031	Battery voltage positive	Battery voltage positive	unsigned int	2	0.1	V
0x04	30032	Battery voltage negative	Battery voltage negative	unsigned int	2	0.1	V
0x04	30033	Positive battery discharge current	Positive battery discharge current	unsigned int	2	0.1	A
0x04	30034	Negative battery discharge current	Negative battery discharge current	unsigned int	2	0.1	A

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0x04	30035	Positive battery charging current	Positive battery charging current	unsigned int	2	0.1	A
0x04	30036	Negative battery charging current	Negative battery charging current	unsigned int	2	0.1	A
0x04	30037	Battery capacity rate	Battery capacity	unsigned int	2	1	%
0x04	30038	Battery remain time	Battery backup time	unsigned int	2	1	Min
0x04	30039	Battery temp.	Battery temperature	unsigned int	2	0.1	°C
0x04	30040	Ambient temperature	Ambient temperature	unsigned int	2	0.1	°C
0x04	30047	Output kVA phase A	Output kVA phase A	unsigned int	2	0.1	kVA
0x04	30048	Output kVA phase B	Output kVA phase B	unsigned int	2	0.1	kVA
0x04	30049	Output kVA phase C	Output kVA phase C	unsigned int	2	0.1	kVA
0x04	30050	Input AB line voltage	Input AB line voltage	unsigned int	2	0.1	V
0x04	30051	Input BC line voltage	Input BC line voltage	unsigned int	2	0.1	V
0x04	30052	Input CA line voltage	Input CA line voltage	unsigned int	2	0.1	V
0x04	30053	Bypass AB line voltage	Bypass AB line voltage	unsigned int	2	0.1	V
0x04	30054	Bypass BC line voltage	Bypass BC line voltage	unsigned int	2	0.1	V
0x04	30055	Bypass CA line voltage	Bypass CA line voltage	unsigned int	2	0.1	V
0x04	30056	Output AB line voltage	Output AB line voltage	unsigned int	2	0.1	V
0x04	30057	Output BC line voltage	Output BC line voltage	unsigned int	2	0.1	V
0x04	30058	Output CA line voltage	Output CA line voltage	unsigned int	2	0.1	V
0x04	30071	UPS system status	UPS current running status	unsigned int	2	1	/
0x03	40002	Parallel ID	Set ID for UPS cabinet in the parallel	int	2	1	/
0x03	40007	Number of parallel UPSs	The total number of UPS in the system.	int	2	1	/
0x03	40008	Number of par. redundant UPSs	Parallel redundant number	int	2	1	/
0x03	40014	Output voltage compensation	Inverter output voltage trimming	int	2	1	‰
0x03	40015	Battery blocks per string	Number of battery blocks in string.	int	2	1	/
0x03	40017	All number of battery strings	Number of battery parallel groups	int	2	1	/
0x03	40021	Battery block capacity (Ah):	The rated capacity (AH) of a single battery	int	2	1	AH
0x03	40023	Maximum charge current	The maximum charge current rate for charger	int	2	0.01	/
0x03	40028	Float charge temp. compensation:	Float charge temp. compensation:	int	2	1	mV/Cell/°C
0x03	40031	System time setting (Year-Mon)	System time setting (Year-Mon)	bitwise	2	1	/
0x03	40032	System time setting (Day-Hour)	System time setting (Day-Hour)	bitwise	2	1	/
0x03	40033	System time setting (Min-Sec)	System time setting (Min-Sec)	bitwise	2	1	/
0x03	40035	Device ID (Modbus ID)	Device communication ID	int	2	1	/

Read Function	Address	Parameter	Description	Format	Size	Gain	Unit
0x03	40115	Number of battery 1 strings	Number of battery 1 parallel groups	int	2	1	/
0x03	40116	Number of battery 2 strings	Number of battery 2 parallel groups	int	2	1	/
0x03	40117	Number of battery 3 strings	Number of battery 3 parallel groups	int	2	1	/
0x03	40201	Output dry contact 1 set	D15:I/O Func 0:Open 1:Close D14~D8: Delay 0~127s D7~D0: Func 0~255: Details are as follow: 0:OFF 1:Common Alarm 2:Normal Operation 3:Battery Operation 4:Static Bypass 5:Output Overloaded 6:Fan Inoperable 7:Battery Fault 8:Battery Disconnected 9:Battery Voltage Low 10:Input Out Of Tolerance 11:Bypass Out Of Tolerance 12:EPO Activated 13:Maintenance Mode	bitwise	2	1	/
0x03	40202	Output dry contact 2 set		bitwise	2	1	/
0x03	40203	Output dry contact 3 set		bitwise	2	1	/
0x03	40204	Output dry contact 4 set		bitwise	2	1	/
0x03	40205	Output dry contact 5 set		bitwise	2	1	/
0x03	40206	Output dry contact 6 set		bitwise	2	1	/
0x03	40221	Input dry contact 1 set	D15:I/O Func: 0: Open 1:Close D14~D8: Delay 0~127s D7~D0: Func 0~255: Details are as follow: 0:OFF 1:UPS ON 2:UPS OFF 3:Battery Fault 4:Genset enable 5:Custom Alarm 3 6:Custom Alarm 4 7:Disable ECO 8:Force INV off	bitwise	2	1	/
0x03	40222	Input dry contact 2 set		bitwise	2	1	/
0x03	40223	Input dry contact 3 set		bitwise	2	1	/
0x03	40224	Input dry contact 4 set		bitwise	2	1	/
0x03	40225	Input dry contact 5 set		bitwise	2	1	/
0x03	40226	Input dry contact 6 set		bitwise	2	1	/
0x03	53020~53-034	UPS Type Setting 1~15 (Unicode coding)	A register just describe one character, Unicode coding	string	2	1	/
0x03	53040~53-046	Serial Number Setting 1~7(ASCII)	This register is set to 2 characters. A total of 8 bytes is used for 16 characters.	string	2	1	/
0x03	53050~53-053	Firmware version 1~4(ASCII)	This register is set to 2 characters. A total of 4 bytes is used for 8 characters.	string	2	1	/
0x03	51185	Air filter maintenance cycle	Dust filter maintenance cycle	unsigned int	2	1	Month
0x03	51195	Air filter maintenance time	Dust filter running time	unsigned int	2	1	Day
0x03	51196	Battery maintenance time	Battery maintenance time	unsigned int	2	1	Day
0x02	10002	UOB	Output Switch	bitwise	1	1	/
0x02	10003	MBB	Manu-Bypass Switch	bitwise	1	1	/
0x02	10008	ECO	ECO	bitwise	1	1	/
0x02	10010	Battery self-test	Battery Test	bitwise	1	1	/
0x02	10011	Battery charge	Battery charge	bitwise	1	1	/
0x02	10012	Positive boost charge	P-Battery Boost Charging	bitwise	1	1	/
0x02	10013	Negative boost charge	N-Battery Boost Charging	bitwise	1	1	/
0x02	10014	Rectifier Staus	Rectifier Staus	bitwise	1	1	/

Read Function	Address	Parameter	Description	Format	Size	Gain	Unit
0x02	10020	Inverter output	UPS Supply Power Status1	bitwise	1	1	/
0x02	10021	Bypass operation	UPS Supply Power Status2	bitwise	1	1	/
0x02	10022	Transfer to bypass with break	Transfer to bypass with break	bitwise	1	1	/
0x02	10023	UPS shutdown with load drop	INV. Off coming to PowerOff	bitwise	1	1	/
0x02	10026	Load over INV capacity	Load over INV capacity	bitwise	1	1	/
0x02	10027	INV overload shutdown	INV overload shutdown	bitwise	1	1	/
0x02	10031	Max transfers to bypass	Transfer Times-out	bitwise	1	1	/
0x02	10032	REC EPO	Rectifier EPO	bitwise	1	1	/
0x02	10033	INV EPO	Inverter EPO	bitwise	1	1	/
0x02	10034	ECU EPO	ECU EPO	bitwise	1	1	/
0x02	10035	Bypass EPO	Bypass EPO	bitwise	1	1	/
0x02	10036	Bypass takeover	Bypass takeover	bitwise	1	1	/
0x02	10037	BB Status	BB Status	bitwise	1	1	/
0x02	10065	Rectifier inoperable	Rectifier fault	bitwise	1	1	/
0x02	10066	Inverter inoperable	Inverter fault	bitwise	1	1	/
0x02	10067	REC power supply lost	Auxiliary power fault	bitwise	1	1	/
0x02	10068	Fan inoperable	Fan fault	bitwise	1	1	/
0x02	10069	Input SCR inoperable	Input SCR inoperable	bitwise	1	1	/
0x02	10070	INV relay short circuit	INV relay short circuit	bitwise	1	1	/
0x02	10071	Bypass SCR shorted	Bypass SCR shorted	bitwise	1	1	/
0x02	10072	INV fuse blown	INV fuse blown	bitwise	1	1	/
0x02	10073	DC voltage incorrect	DC voltage incorrect	bitwise	1	1	/
0x02	10074	REC cannot initialize	REC cannot initialize	bitwise	1	1	/
0x02	10075	Charger SCR broken	Charger SCR broken	bitwise	1	1	/
0x02	10076	Charger inoperable	Charger fault	bitwise	1	1	/
0x02	10077	Parallel alarm	Parallel alarm, include module parallel and cabinet parallel alarm	bitwise	1	1	/
0x02	10080	Input phases reversed	Mains Site Wiring Fault	bitwise	1	1	/
0x02	10081	N missing on input	Input Neutral line missing	bitwise	1	1	/
0x02	10082	Bypass phases reversed	Bypass Site Wiring Fault	bitwise	1	1	/
0x02	10083	Batt. polarity reversed	Batt. polarity reversed	bitwise	1	1	/
0x02	10084	No battery connected	No battery connected	bitwise	1	1	/
0x02	10085	Backfeed on bypass	Feedback protection	bitwise	1	1	/
0x02	10088	Inverter overload	Inverter overload	bitwise	1	1	/
0x02	10089	Parallel Overload	Parallel Overload	bitwise	1	1	/
0x02	10090	Batt. end of discharge	Batt. end of discharge	bitwise	1	1	/
0x02	10091	Battery overvoltage	Battery over voltage	bitwise	1	1	/
0x02	10092	Low battery warning	Battery low pre-warning	bitwise	1	1	/

Read Function	Address	Parameter	Description	Format	Size	Gain	Unit
0x02	10095	Bypass out of sync	Bypass unable to trace	bitwise	1	1	/
0x02	10096	Bypass out of tol.	Bypass Not Available	bitwise	1	1	/
0x02	10098	LBS communication lost	LBS Not Synchronized	bitwise	1	1	/
0x02	10099	Inverter out of sync	System Not Synchronized	bitwise	1	1	/
0x02	10121	Parallel cable damaged	Parallel cable damaged	bitwise	1	1	/
0x02	10126	Bypass SCR broken	ECU bypass thyristor disconnect	bitwise	1	1	/
0x02	10127	Bypass overtemperature	ECU bypass overtemperature	bitwise	1	1	/
0x02	10147	Bypass overload	Bypass overload	bitwise	1	1	/
0x02	10148	Incorrect use of MBB	Maintenance switch wrong operation	bitwise	1	1	/
0x02	10150	Par. cable abnormal	Par. cable abnormal	bitwise	1	1	/
0x02	10154	Parallel cable missing	Parallel cable missing	bitwise	1	1	/
0x02	10155	Par. bypass incorrect	Parallel bypass incorrect	bitwise	1	1	/
0x02	10156	Bypass comm. lost	Bypass comm. lost	bitwise	1	1	/
0x02	10157	On bypass:no output	On bypass:no output	bitwise	1	1	/
0x02	10158	Bypass setting wrong	Bypass setting wrong	bitwise	1	1	/
0x02	10159	Service recommended.	Service recommended.	bitwise	1	1	/
0x02	10163	Batt temp. >45°C or <-20°C	Batt. NTC temperature sensor abnormal	bitwise	1	1	/
0x02	10164	Room temp. >40°C or <-20°C	Ambient NTC temperature sensor abnormal	bitwise	1	1	/
0x02	10167	Backfeed on input	Feedback protection	bitwise	1	1	/
0x02	10201	Mains out of tol.	Input Voltage or frequency out of range	bitwise	1	1	/
0x02	10202	Battery voltage low	Battery voltage low	bitwise	1	1	/
0x02	10203	Bypass operation	Bypass Supply Power	bitwise	1	1	/
0x02	10204	UPS Important alarm	UPS generate alarm, include important alarm	bitwise	1	1	/
0x02	10205	INV output	INV supply power	bitwise	1	1	/
0x02	10206	UPS warning	include important alarm and general alarm	bitwise	1	1	/
0x02	10207	UPS over temperature	UPS over temperature, include: REC over temperature; INV over temperature; Bypass over temperature;	bitwise	1	1	/
0x02	10251	External MBB status	External MBB status	bitwise	1	1	/
0x02	10252	External BB1 status	External BB1	bitwise	1	1	/
0x02	10254	External UOB status	External UOB	bitwise	1	1	/
0x02	10256	Batt breaker trip status	Battery breaker trip status	bitwise	1	1	/
0x02	10257	SPD status	SPD status	bitwise	1	1	/
0x02	10259	External BB2 status	External BB2	bitwise	1	1	/
0x02	10260	External BB3 status	External BB3	bitwise	1	1	/

UPS System Status

Code (Hex)	Status Label (English)
0x0000	Initialize
0x0001	Standby operation
0x0002	Output is off
0x0003	Bypass operation
0x0004	Normal operation
0x0005	Battery operation
0x0006	Battery self-test
0x0008	ECO Mode
0x0009	EPO activated
0x000A	Maintenance bypass op.
0x000D	Hybrid operation
0x000E	Self-aging mode
0x0014	REC is OFF
0x0015	Input
0x0016	On battery
0x001E	Inverter standby
0x001F	Inverter Output
0x0020	Inverter self-aging
0x0028	ECU is Off
0x0029	ECU Standby
0x002A	ECU active
0x0032	ECU Takeover Mode
0x0033	Bypass Takeover Mode