

9900C ModbusTCP Register List

The data from the UPS is presented as Input Registers (3x). Several data parameters contain an implied decimal place for greater precision. For example, register 1106 indicates the bypass frequency of the bypass line and must be multiplied by 0.1 (a value of 599 indicates a frequency of 59.9Hz). These details are documented in the notes.

Register 3000 is a read only 16bit unsigned integer that reflects UPS mimic display data on the UPS System, Battery, Input, Output, and Bypass circuits.

Table 1

9900C Register List (Battery)

Register	Measurement	Notes
3x1106	Bypass Frequency	x0.1 Hz
3x1107	Bypass Voltage	x0.1 VAC
3x1108	Bypass Voltage AB	x0.1 VAC
3x1109	Bypass Voltage BC	x0.1 VAC
3x1110	Bypass Voltage CA	x0.1 VAC
3x1137	Battery Voltage	x0.1 VAC
3x1138	Battery Current	x0.1 A
3x1139	Battery Capacity Remaining %	x0.01 %
3x1480	Battery Operation Count	Count

Table 2

9900C Register List (Input)

Register	Measurement	Notes
3x1111	Input Frequency	x0.1 Hz
3x1112	Input Voltage	x0.1 VAC
3x1113	Input Voltage AB	x0.1 VAC
3x1114	Input Voltage BC	x0.1 VAC
3x1115	Input Voltage CA	x0.1 VAC
3x1122	Input Current	x0.1 AAC

Table 3

9900C Register List (Output)

Register	Measurement	Notes
3x1117	Output Voltage AB	x0.1 VAC
3x1118	Output Voltage BC	x0.1 VAC
3x1119	Output Voltage CA	x0.1 VAC
3x1123	Output Frequency	x0.1 Hz
3x1124	Output Voltage	x0.1 VAC
3x1125	Power Factor	x0.01
3x1126	Output Current A	x0.1 A
3x1127	Output Current B	x0.1 A
3x1128	Output Current C	x0.1 A
3x1130	Output Current %A	x0.01 %
3x1131	Output Current %B	x0.01 %
3x1132	Output Current %C	x0.01 %
3x1134	Output KW	x0.1 KW
3x1135	Output Power %	x0.01 %

Table 4
9900C Register List (Identification)

Register	Measurement	Notes
3x1145	Total # of Faults	Count
3x1315	Module KVA	KVA
3x1316	Module Input Voltage	VAC
3x1317	Module Output Voltage	VAC
3x1372	Module ID #	Numeral

Table 5
9900C Register List (Mimic Display)

Register	Bit	Description
3x3000	0	UPS AC Input (Input Voltage: OK)
	1	UPS CB1 Input Contactor (CB1: ON)
	2	(DC Voltage: OK)
	3	CB2 Battery Circuit Breaker (CB2: ON)
	4	UPS Inverter Operation (INV: ON)
	5	UPS 52C AC Output Contactor (52C: ON)
	6	UPS Bypass Input (VS >=50%)
	7	UPS 52S Bypass Output Contactor (52S: ON)
	8	UPS AC Output (Output Voltage: OK)
	9	UPS MultiModuleSystem Synchronization
	10	(Bypass Output: ON)
	11	(CHOP: OFF and DC Voltage: OK)
	12	UPS Rectifier Operation (CNV: ON)
	13	Battery Discharging
	14	UPS Fault (Fault Detection: OK)
	15	

Table 6
9900C Register List (Events/Alarms)

Registers 2000 - 2036 are a queue for all of the listed alarm values below register 2036. This is for the instance when multiple alarms occur simultaneously.

Register	Values		Description
3x2000			Alarm register 1
3x2004			Alarm register 2
3x2008			Alarm register 3
3x2012			Alarm register 4
3x2016			Alarm register 5
3x2020			Alarm register 6
3x2024			Alarm register 7
3x2028			Alarm register 8
3x2032			Alarm register 9
3x2036			Alarm register 10
	X=805	UA805	OVERLOAD
	X=806	UA806	INVERTER OVERLOAD
	X=807	UA807	INVERTER OVERLOAD
	X=808	UA808	OVERLOAD
	X=810	UA810	OVERLOAD
	X=812	UA812	BYPS.VOLT.OUT RNG.
	X=813	UA813	BYPS.PHASE ABNL.
	X=814	UA814	BYPS.FREQ.OUT RNG.
	X=815	UA815	TRANSFER PROHIBITION
	X=817	UA817	EMERG.STOP ACTIV.
	X=821	UA821	REM. BUTTON CLOSE
	X=822	UA822	LOC. BUTTON ABNL.
	X=824	UA824	CB2 OPEN
	X=831	UA831	EMERG.BYPS.SW.ON
	X=833	UA833	52L OPEN
	X=834	UA834	BATTERY DEPLETED
	X=835	UA835	TRANS.INHIBITED
	X=861	UA861	MODULE ALARM
	X=862	UA862	MODULE MINOR FAULT
	X=863	UA863	MOD.IN.VOLT.
	X=864	UA864	MODULE OVERLOAD
	X=865	UA865	MOD.BAT.END
	X=866	UA866	BATT.END WA
	X=890	UA890	EXTERNAL ALARM
	X=055	UF055	CONVERTER ABNORMAL
	X=151	UF151	BAT.VOLTAGE ABNL.
	X=152	UF152	BAT.VOLTAGE ABNL.
	X=156	UF156	CHG.STOPPED
	X=157	UF157	BATTERY OVERTEMP.
	X=158	UF158	BATTERY LIQUID LOW
	X=161	UF161	CHG.STOPPED
	X=162	UF162	BATTERY ABNORMAL
	X=163	UF163	BAT.VOLTAGE ABNL.
	X=172	UF172	INVERTER UV.
	X=202	UF202	CTRL.CIRCUIT ERR.

X=253	UF253	CTRL.CIRCUIT ERR.
X=254	UF254	O/P VOLTAGE ABNL.
X=256	UF256	LOAD ABNORMAL
X=258	UF258	CTRL.CIRCUIT ERR.
X=301	UF301	CTRL.CIRCUIT ERR.
X=302	UF302	CTRL.CIRCUIT ERR.
X=303	UF303	CTRL.CIRCUIT ERR.
X=305	UF305	CTRL.CIRCUIT ERR.
X=306	UF306	CTRL.CIRCUIT ERR.
X=320	UF320	CTRL.CIRCUIT ERR.
X=321	UF321	CTRL.CIRCUIT ERR.
X=322	UF322	CTRL.CIRCUIT ERR.
X=323	UF323	CTRL.CIRCUIT ERR.
X=324	UF324	CTRL.CIRCUIT ERR.
X=326	UF326	CTRL.CIRCUIT ERR.
X=327	UF327	CTRL.CIRCUIT ERR.
X=340	UF340	MODULE MINOR FAULT
X=341	UF341	#1 MAJOR FAULT
X=342	UF342	#2 MAJOR FAULT
X=343	UF343	#3 MAJOR FAULT
X=344	UF344	#4 MAJOR FAULT
X=349	UF349	MODULE MAJOR FAULT
X=363	UF363	EXTERNAL I/F PCB ABNORMAL
X=371	UF371	CTRL.CIRCUIT ERR.
X=372	UF372	CTRL.CIRCUIT ERR.
X=374	UF374	CTRL.CIRCUIT ERR.
X=375	UF375	CTRL.CIRCUIT ERR.
X=376	UF376	CTRL.CIRCUIT ERR.
X=377	UF377	CTRL.CIRCUIT ERR.
X=378	UF378	CTRL.CIRCUIT ERR.
X=381	UF381	CTRL.CIRCUIT ERR.
X=382	UF382	CTRL.CIRCUIT ERR.
X=383	UF383	CTRL.CIRCUIT ERR.
X=401	UF401	52S ABNORMAL
X=402	UF402	52S ABNORMAL
X=420	UF420	52L OPERATION ERR.
X=451	UF451	52S ABNORMAL
X=452	UF452	CB3 ABNORMAL