MITSUBISHI ELECTRIC POWER PRODUCTS, INC.
THORN HILL INDUSTRIAL PARK
530 KEYSTONE DRIVE
WARRENDALE, PA 15086-7538 U.S.A.

Phone: (724) 772-2555 Fax: (724) 778-5146
Home Page: www.meppi.com

9900A ModbusTCP Register List

The data from the UPS is presented as Holding 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
9900A Register List (Battery)

Register	Measurement	Notes
3x**1106**	Bypass Frequency	x0.1 Hz
3x**1107**	Bypass Voltage	x0.1 VAC
3x**1108**	Bypass Voltage AB	x0.1 VAC
3x**1109**	Bypass Voltage BC	x0.1 VAC
3x**1110**	Bypass Voltage CA	x0.1 VAC
3x**1137**	Battery Voltage	x0.1 VAC
3x**1138**	Battery Current	x0.1 A
3x**1139**	Battery Capacity Remaining %	x0.01 %
3x**1480**	Battery Operation Count	Count

Table 2
9900A Register List (Input)

Register	Measurement	Notes
3x**1111**	Input Frequency	x0.1 Hz
3x**1112**	Input Voltage	x0.1 VAC
3x**1113**	Input Voltage AB	x0.1 VAC
3x**1114**	Input Voltage BC	x0.1 VAC
3x**1115**	Input Voltage CA	x0.1 VAC

Table 3
9900A Register List (Output)

Register	Measurement	Notes
3x**1117**	Output Voltage AB	x0.1 VAC
3x**1118**	Output Voltage BC	x0.1 VAC
3x**1119**	Output Voltage CA	x0.1 VAC
3x**1123**	Output Frequency	x0.1 Hz
3x**1124**	Output Voltage	x0.1 VAC
3x**1125**	Power Factor	x0.01
3x**1126**	Output Current A	x0.1 A
3x**1127**	Output Current B	x0.1 A
3x**1128**	Output Current C	x0.1 A
3x**1130**	Output Current %A	x0.01 %
3x**1131**	Output Current %B	x0.01 %
3x**1132**	Output Current %C	x0.01 %
3x**1134**	Output KW	x0.1 KW
3x**1135**	Output Power %	x0.01 %

Table 4
9900A Register List (Identification)

Register	Measurement	Notes
3x**1145**	Total # of Faults	Count
3x**1315**	Module KVA	KVA
3x**1316**	Module Input Voltage	VAC
3x**1317**	Module Output Voltage	VAC
3x**1372**	Module ID #	Numeral

Table 5
9900A Register List (Mimic Display)

Register	Bit	Description
3x**3000**	0	UPS AC Input
	1	UPS CB1 Input Contactor
	2	
	3	CB2 Battery Circuit Breaker
	4	UPS Inverter Operation
	5	UPS 52C AC Output Contactor
	6	UPS Bypass Input
	7	UPS 52S Bypass Output Contactor
	8	UPS AC Output
	9	UPS MultiModule System Synchronization
	10	
	11	
	12	UPS Rectifier Operation
	13	Battery Discharging
	14	UPS Fault
	15	

Table 6
9900A Register List (Events/Alarms)

Register	Values		Description
3x**2000**			Alarm register 1
3x**2004**			Alarm register 2
3x**2008**			Alarm register 3
3x**2012**			Alarm register 4
3x**2016**			Alarm register 5
3x**2020**			Alarm register 6
3x**2024**			Alarm register 7
3x**2028**			Alarm register 8
3x**2032**			Alarm register 9
3x**2036**			Alarm register 10
	X =1	UF001	INPUT CIRCUIT ABNORMAL
	X =2	UF002	CONVERTER OVERCURRENT
	X =3	UF003	CONVERTER ABNORMAL
	X =4	UF006	CONVERTER ABNORMAL

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	X =5	UF011	CB1 ABNORMAL
	X =6	UF052	CB1 ABNORMAL
	X =7	UF055	CONVERTER ABNORMAL
	X =8	UF056	CONVERTER OVERCURRENT
	X =9	UF059	INPUT CIRCUIT ABNORMAL
	X =10	UF102	DC OVERVOLTAGE
	X =11	UF103	DC UNDERVOLTAGE
	X =12	UF108	CHOPPER OVERCURRENT
	X =13	UF109	DC UNBALANCED
	X =14	UF110	ZERO PHASE OVERCURRENT
	X =15	UF111	UPS CONTROL CIRCUIT ERROR
	X =16	UF112	DC CIRCUIT ABNORMAL
	X =18	UF119	DC GROUND FAULT
	X =17	UF128	CONTROL POWER SUPPLY ABNORMAL
	X =21	UF151	BATTERY VOLTAGE ABNORMAL
	X =22	UF152	BATTERY VOLTAGE ABNORMAL
	X =24	UF154	CB2 ABNORMAL
	X =25	UF156	CHG.STOPPED(BATTERY OVERTEMP.)
	X =26	UF157	BATTERY OVERTEMPERATURE
	X =27	UF158	BATTERY LIQUID LOW
	X =19	UF159	DC GROUND FAULT
	X =28	UF160	UPS CONTROL CIRCUIT ERROR
	X =29	UF161	CHG.STOPPED(BATTERY VOLT.ABNL.)
	X =30	UF162	BATTERY ABNORMAL
	X =31	UF163	BATTERY VOLTAGE ABNORMAL
	X =32	UF170	VDB SENSOR ABNORMAL
	X =33	UF171	UPS CONTROL CIRCUIT ERROR
	X =36	UF201	INVERTER OVERVOLTAGE
	X =37	UF202	INVERTER UNDERVOLTAGE
	X =38	UF203	INVERTER OVERCURRENT
	X =39	UF204	OUTPUT CIRCUIT ABNORMAL
	X =40	UF206	UPS CONTROL CIRCUIT ERROR

	X =41	UF207	ZERO PHASE OVERCURRENT
	X =42	UF208	UPS CONTROL CIRCUIT ERROR
	X =43	UF209	52C ABNORMAL
	X =44	UF210	52C ABNORMAL
	X =45	UF211	52C ABNORMAL
	X =48	UF213	OVERTEMPERATURE
	X =47	UF214	COOLING FAN ABNORMAL
	X =50	UF217	INVERTER OVERVOLTAGE
	X =49	UF230	ZERO PHASE OVERCURRENT
	X =51	UF253	UPS CONTROL CIRCUIT ERROR
	X =52	UF256	OUTPUT VOLTAGE ABNORMAL
	X =53	UF257	52C ABNORMAL
	X =54	UF258	LOAD ABNORMAL
	X =55	UF259	ANOTHER UPS ABNORMAL
	X =57	UF301	UPS CONTROL CIRCUIT ERROR
	X =58	UF302	UPS CONTROL CIRCUIT ERROR
	X =59	UF303	UPS CONTROL CIRCUIT ERROR
	X =61	UF305	UPS CONTROL CIRCUIT ERROR
	X =62	UF306	UPS CONTROL CIRCUIT ERROR
	X =63	UF309	INVERTER VOLTAGE ABNORMAL
	X =64	UF310	CONTROL POWER SUPPLY ABNORMAL
	X =65	UF320	UPS CONTROL CIRCUIT ERROR
	X =60	UF323	UPS CONTROL CIRCUIT ERROR
	X =66	UF331	UPS CONTROL CIRCUIT ERROR
	X =67	UF332	UPS CONTROL CIRCUIT ERROR
	X =68	UF333	UPS CONTROL CIRCUIT ERROR
	X =69	UF334	UPS CONTROL CIRCUIT ERROR
	X =70	UF352	CONTROL POWER SUPPLY ABNORMAL
	X =71	UF363	UPS CONTROL CIRCUIT ERROR

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	X =79	UF371	UPS CONTROL CIRCUIT ERROR
	X =72	UF372	UPS CONTROL CIRCUIT ERROR
	X =73	UF374	UPS CONTROL CIRCUIT ERROR
	X =74	UF375	UPS CONTROL CIRCUIT ERROR
	X =75	UF376	UPS CONTROL CIRCUIT ERROR
	X =76	UF377	UPS CONTROL CIRCUIT ERROR
	X =77	UF378	UPS CONTROL CIRCUIT ERROR
	X =78	UF379	UPS CONTROL CIRCUIT ERROR
	X =80	UF401	52S ABNORMAL
	X =81	UF402	52S ABNORMAL
	X =82	UF420	52L OPERATION ERROR
	X =84	UF451	52S ABNORMAL
	X =85	UF452	CB3 ABNORMAL
	X =90	UA801	AC INPUT VOLTAGE OUT OF RANGE
	X =91	UA802	AC INPUT FREQUENCY OUT OF RANGE
	X =92	UA803	AC INPUT PHASE ROTATION ERROR
	X =93	UA804	CONVERTER OPE. PROHIBITION
	X =94	UA805	INVERTER OVERLOAD
	X =95	UA806	INVERTER OVERLOAD
	X =96	UA807	INVERTER OVERLOAD
	X =97	UA808	INVERTER OVERLOAD
	X =99	UA810	INVERTER OVERLOAD
	X =101	UA812	BYPASS VOLTAGE OUT OF RANGE
	X =102	UA813	BYPASS PHASE ROTATION ERROR
	X =103	UA814	BYPASS FREQUENCY OUT OF RANGE
	X =104	UA815	TRANSFER PROHIBITION
	X =106	UA817	EMERGENCY STOP ACTIVATED
	X =107	UA821	TRANSFER PROHIBITION
	X =108	UA822	TRANSFER PROHIBITION
	X =109	UA824	CB2 OPEN
	X =110	UA827	52C OPERATION PROHIBITION
	X =111	UA831	EMERGENCY BYPASS SWITCH ON
	X =113	UA833	52L OPEN

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	X =114	UA834	BATTERY DEPLETED/AC OUT STOPPED
	X =115	UA835	TRANSFER PROHIBITION
	X =116	UA860	REMOTE BUTTON CLOSE
	X =117	UA861	LOCAL BUTTON ABNORMAL
	X =100	UA870	BALANCER OVERLOAD

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