

Notes:

1. 16-bit registers are transmitted MSB first (i.e. big-endian).
2. INT32 and UINT32 are most-significant word in n+0, least significant word in n+1 (i.e. big-endian).
3. Function codes 3 and 4 are supported
4. Modbus serial RTU and Modbus over TCP is supported.
5. Signed numbers are twos-compliment
6. Status bits are atomic within a single Modbus register. User should not look for consistency across multiple registers, only within a single register.
7. For ASCII strings less than the maximum length, the unused characters are filled with nulls.
8. Single-register reads of reserved or undefined registers will return an error. Block reads which begin with a valid register will not return an error but will return zeros for undefined registers.
9. Strings are two characters per register, first character in high-order byte, second character in low-order byte. Printable ASCII only.
10. Bit #0 is least significant bit.
11. Data Type column: "INT16"=signed 16-bit integer, "UINT16" = unsigned 16-bit integer, "INT32" = signed 32-bit integer, "UINT32" = unsigned 32-bit integer, "ENUM" is a UINT16 value which maps to a defined list of states, "ASCII" = the printable ASCII subset from 0x20 - 0x7E. BOOLEAN= a single bit, 0 or 1.
12. "Absolute Starting Register Address" = 0 (the column heading used in this table) is equivalent to "Register 40001" in Modicon terminology, which is address zero when transmitted over the wire.

For detailed modbus configuration settings, please refer to the Display or AP9635 User's Guide.

Modicon Standard Register Number	Absolute Starting Register Address, (Hexa-decimal)	Absolute Starting Register Address, (Decimal)	Bit	Data Point	Length # registers	Data Type	Scale		Valid Response
							Multiply Reading By:	Divide Reading By:	
Status Data									
40002	0x0001	1		UPS Status	1				
			0	UPS operation mode - Battery		BOOLEAN			1=UPS operation mode - Battery
			1	Battery is below minimum acceptable runtime		BOOLEAN			1=Battery is below minimum acceptable runtime
			2	Bypass		BOOLEAN			1=UPS is in Bypass
			3	UPS operation mode - Battery Test		BOOLEAN			1=UPS operation mode - Battery Test
			4	Reserved		BOOLEAN			
			5	Reserved		BOOLEAN			
			6	Reserved		BOOLEAN			
			7	Reserved		BOOLEAN			
			8	Reserved		BOOLEAN			
			9	Battery fault		BOOLEAN			1=Battery fault
			10	Reserved		BOOLEAN			
			11	Reserved		BOOLEAN			
			12	Reserved		BOOLEAN			
			13	Informational alarm present		BOOLEAN			1=Informational alarm present
			14	Warning alarm present		BOOLEAN			1=Warning alarm present
			15	Critical alarm present		BOOLEAN			1=Critical alarm present
40003	0x0002	2		Alarm Register	1				
			0	Lost local network management interface - to - UPS communication		BOOLEAN			1=Lost local network management interface - to - UPS communication
			1	Display communication is lost		BOOLEAN			1=Main Controller is unable to communicate with the display
			2	Parallel communication error on PBUS cable 1		BOOLEAN			1=Parallel communication error on PBUS cable 1
			3	Parallel communication error on PBUS cable 2		BOOLEAN			1=Parallel communication error on PBUS cable 2
			4	Reserved		BOOLEAN			
			5	Reserved		BOOLEAN			
			6	Reserved		BOOLEAN			
			7	Reserved		BOOLEAN			
			8	Reserved		BOOLEAN			
			9	Reserved		BOOLEAN			
			10	Reserved		BOOLEAN			
			11	Reserved		BOOLEAN			
			12	Communication cable termination fault		BOOLEAN			1=Communication cable termination fault
			13	General parallel system error		BOOLEAN			1=General parallel system error
			14	Lost parallel redundancy		BOOLEAN			1=Lost parallel redundancy
			15	Reserved		BOOLEAN			
40004	0x0003	3		Alarm Register					

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							Multiply Reading By:	Divide Reading By:	
			0	Reserved		BOOLEAN			
			1	UPS operation mode - Requested Static Bypass		BOOLEAN			1=UPS operation mode - Requested Static Bypass
			2	UPS operation mode - Forced Static Bypass		BOOLEAN			1=UPS operation mode - Forced Static Bypass
			3	UPS operation mode - Maintenance Bypass		BOOLEAN			1=UPS operation mode - Maintenance Bypass
			4	Started a self-test		BOOLEAN			
			5	UPS operation mode - Off		BOOLEAN			1=UPS operation mode - Off
			6	UPS operation mode - Initialize		BOOLEAN			1=UPS operation mode - Initialize
			7	Reserved		BOOLEAN			
			8	Reserved		BOOLEAN			
			9	Reserved		BOOLEAN			
			10	Reserved		BOOLEAN			
			11	Input phase sequence error		BOOLEAN			1=Input phase sequence error
			12	Input frequency fault		BOOLEAN			1=Input frequency fault
			13	Input voltage error		BOOLEAN			1=Input voltage is out of range
			14	Selftest - Failed		BOOLEAN			1=Self test has failed
			15	Reserved		BOOLEAN			
40005	0x0004	4		Alarm Register	1				
			0	Reserved		BOOLEAN			
			1	Reserved		BOOLEAN			
			2	Reserved		BOOLEAN			
			3	Bypass frequency fault		BOOLEAN			1=Bypass frequency fault
			4	Bypass phase sequence error		BOOLEAN			1=Bypass phase sequence error
			5	Reserved		BOOLEAN			
			6	Reserved		BOOLEAN			
			7	Reserved		BOOLEAN			
			8	Overload on UPS		BOOLEAN			1=Overload on UPS
			9	Overload on Static bypass switch		BOOLEAN			1=Overload on Static bypass switch
			10	Ambient temperature out of range		BOOLEAN			1=Ambient temperature out of range
			11	EPO Switch Activated		BOOLEAN			1=EPO Switch activated
			12	Ground fault detected		BOOLEAN			1=Ground fault detected
			13	Reserved		BOOLEAN			
			14	Bypass voltage error		BOOLEAN			1=Bypass input voltage is out of range
			15	Reserved		BOOLEAN			
40006	0x0005	5		Alarm Register	1				
			0	System locked in bypass operation		BOOLEAN			1=System locked in bypass operation
			1	Batteries are discharging		BOOLEAN			1=Batteries are discharging
			2	Reserved		BOOLEAN			
			3	Reserved		BOOLEAN			
			4	Reserved		BOOLEAN			
			5	Charge power is reduced		BOOLEAN			1=Charge power is reduced
			6	Reserved		BOOLEAN			
			7	Reserved		BOOLEAN			
			8	Reserved		BOOLEAN			
			9	Reserved		BOOLEAN			
			10	Reserved		BOOLEAN			
			11	Reserved		BOOLEAN			
			12	Battery condition is weak		BOOLEAN			1=Battery condition is weak
			13	Battery condition is poor		BOOLEAN			1=Battery condition is poor
			14	Reserved		BOOLEAN			
			15	Reserved		BOOLEAN			
40007	0x0006	6		RESERVED	1				
40008	0x0007	7		Alarm Register	1				
			0	Reserved		BOOLEAN			
			1	Reserved		BOOLEAN			
			2	Reserved		BOOLEAN			
			3	Ambient temperature high		BOOLEAN			1 = Ambient temperature is high
			4	Overload on UPS due to high ambient temperature		BOOLEAN			1 = Overload on UPS due to high ambient temperature
			5	Output frequency fault		BOOLEAN			1=Output frequency fault
			6	Output voltage error		BOOLEAN			1=Output voltage is outside its defined limits

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							Multiply Reading By:	Divide Reading By:	
			7	Reserved		BOOLEAN			
			8	Reserved		BOOLEAN			
			9	Reserved		BOOLEAN			
			10	Reserved		BOOLEAN			
			11	Reserved		BOOLEAN			
			12	Reserved		BOOLEAN			
			13	Reserved		BOOLEAN			
			14	Reserved		BOOLEAN			
			15	Reserved		BOOLEAN			
40009	0x0008	8		RESERVED	1				
40010	0x0009	9		Alarm Register	1				
			0	Reserved		BOOLEAN			
			1	Reserved		BOOLEAN			
			2	Reserved		BOOLEAN			
			3	Reserved		BOOLEAN			
			4	Reserved		BOOLEAN			
			5	Reserved		BOOLEAN			
			6	Reserved		BOOLEAN			
			7	Reserved		BOOLEAN			
			8	Reserved		BOOLEAN			
			9	Unit Unit Breaker (UIB) open		BOOLEAN			1=Unit Unit Breaker (UIB) open
			10	Unit Ouput Breaker (UOB) open		BOOLEAN			1=Unit Ouput Breaker (UOB) open
			11	Maintenance Bypass Breaker (MBB) closed		BOOLEAN			1=Maintenance Bypass Breaker (MBB) closed
			12	System Isolation Breaker (SIB) open		BOOLEAN			1=System Isolation Breaker (SIB) open
			13	Static Switch Input Breaker (SSIB) open		BOOLEAN			1=Static Switch Input Breaker (SSIB) open
			14	Reserved		BOOLEAN			
			15	Reserved		BOOLEAN			
40011	0x000A	10		Alarm Register	1				
			0	Reserved		BOOLEAN			
			1	Reserved		BOOLEAN			
			2	Reserved		BOOLEAN			
			3	Reserved		BOOLEAN			
			4	Reserved		BOOLEAN			
			5	Reserved		BOOLEAN			
			6	Reserved		BOOLEAN			
			7	Reserved		BOOLEAN			
			8	Static bypass switch fault		BOOLEAN			1=Static bypass switch has a critical fault that prevents it from operating
			9	Static bypass switch warning		BOOLEAN			1=Static bypass switch has an error with severity level warning
			10	Reserved		BOOLEAN			
			11	Reserved		BOOLEAN			
			12	Reserved		BOOLEAN			
			13	Reserved		BOOLEAN			
			14	Reserved		BOOLEAN			
			15	Reserved		BOOLEAN			
40012	0x000B	11		RESERVED	3				
40015	0x000E	14		Alarm Register	1	BOOLEAN			
			0	Reserved		BOOLEAN			
			1	Reserved		BOOLEAN			
			2	Reserved		BOOLEAN			
			3	High Battery Temperature Level		BOOLEAN			1=Battery temperature above alarm setting
			4	Low Battery Temperature Level		BOOLEAN			1=Battery temperature below alarm setting
			5	Reserved		BOOLEAN			
			6	Reserved		BOOLEAN			
			7	Reserved		BOOLEAN			
			8	Reserved		BOOLEAN			
			9	Reserved		BOOLEAN			
			10	Reserved		BOOLEAN			

Modicon Standard Register Number	Absolute Starting Register Address, (Hexa-decimal)	Absolute Starting Register Address, (Decimal)	Bit	Data Point	Length # registers	Data Type	Scale		Valid Response
							Multiply Reading By:	Divide Reading By:	
			11	Battery breaker BB1 open		BOOLEAN			1=Battery breaker BB1 open
			12	Battery breaker BB2 open		BOOLEAN			1=Battery breaker BB2 open
			13	Reserved		BOOLEAN			
			14	Reserved		BOOLEAN			
			15	Reserved		BOOLEAN			
40016	0x000F	15		RESERVED	1				
40017	0x0010	16		Alarm Register	1				
			0	UPS operation mode - Static bypass standby		BOOLEAN			1=UPS operation mode - Static bypass standby
			1	UPS operation mode - Inverter standby		BOOLEAN			1=UPS operation mode - Inverter standby
			2	Reserved		BOOLEAN			
			3	Reserved		BOOLEAN			
			4	General UPS settings error		BOOLEAN			1=General UPS settings error
			5	UPS configuration error		BOOLEAN			1=UPS has general configuration error
			6	Synchronization error		BOOLEAN			1=Synchronization error-system is free running
			7	Fan fault		BOOLEAN			1=UPS has one or more faulty fans. Fan redundancy is lost.
			8	Inverter is Off due to a request by the user		BOOLEAN			1= Inverter is Off due to a request by the user
			9	Restricted air flow		BOOLEAN			1=Restricted air flow
			10	Surveillance fault		BOOLEAN			1=Surveillance fault exists in UPS
			11	Charger status		BOOLEAN			1=Faulty
			12	Inverter status		BOOLEAN			1=Faulty
			13	PFC status		BOOLEAN			1=Faulty
			14	Battery status		BOOLEAN			1=Faulty
			15	Reserved		BOOLEAN			
40018	0x0011	17		Alarm Register	1				
			0	Technical check recommended		BOOLEAN			1=Technical check recommended
			1	Start-up recommended		BOOLEAN			1= Secure start-up recommended
			2	Warranty expiring soon		BOOLEAN			1=Warranty expiring soon
			3	Reserved		BOOLEAN			
			4	Air filter check recommended		BOOLEAN			1=Air filter check recommended
			5	Reserved		BOOLEAN			
			6	Reserved		BOOLEAN			
			7	Reserved		BOOLEAN			
			8	Reserved		BOOLEAN			
			9	Reserved		BOOLEAN			
			10	Reserved		BOOLEAN			
			11	Reserved		BOOLEAN			
			12	Reserved		BOOLEAN			
			13	Reserved		BOOLEAN			
			14	Reserved		BOOLEAN			
			15	Reserved		BOOLEAN			
40019	0x0012	18		RESERVED	1				
40020	0x0013	19		Alarm Register	1				
			0	Reserved		BOOLEAN			1=Warning alarm in Prallel UPS 1
			1	Reserved		BOOLEAN			1=Warning alarm in Prallel UPS 2
			2	Reserved		BOOLEAN			1=Warning alarm in Prallel UPS 3
			3	Reserved		BOOLEAN			1=Warning alarm in Prallel UPS 4
			4	Reserved		BOOLEAN			1=Warning alarm in Prallel UPS 5
			5	Not enough UPS ready to turn on inverter		BOOLEAN			1=Not enough UPS ready to turn on inverter
			6	Parallel UPS 1 not present		BOOLEAN			1=Parallel UPS 1 not present
			7	Parallel UPS 2 not present		BOOLEAN			1=Parallel UPS 2 not present
			8	Parallel UPS 3 not present		BOOLEAN			1=Parallel UPS 3 not present
			9	Parallel UPS 4 not present		BOOLEAN			1=Parallel UPS 4 not present
			10	Parallel UPS 5 not present		BOOLEAN			1=Parallel UPS 5 not present
			11	Parallel mixed operation mode		BOOLEAN			1=Parallel mixed operation mode
			12	Reserved		BOOLEAN			
			13	Reserved		BOOLEAN			
			14	Reserved		BOOLEAN			
			15	Reserved		BOOLEAN			

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							Multiply Reading By:	Divide Reading By:	
40021	0x0014	20		RESERVED	1				
40022	0x0015	21		Alarm Register	1				
			0	System operation mode - Off		BOOLEAN			1 = System operation mode - Off
			1	System operation mode - Forced static bypass		BOOLEAN			1 = System operation mode - Forced static bypass
			2	System operation mode - Requested static bypass		BOOLEAN			1 = System operation mode - Requested static bypass
			3	System operation mode - Maintenance bypass		BOOLEAN			1 = System operation mode - Maintenance bypass
			4	Reserved		BOOLEAN			
			5	Reserved		BOOLEAN			
			6	Reserved		BOOLEAN			
			7	Reserved		BOOLEAN			
			8	Reserved		BOOLEAN			
			9	Reserved		BOOLEAN			
			10	Reserved		BOOLEAN			
			11	Reserved		BOOLEAN			
			12	Reserved		BOOLEAN			
			13	Reserved		BOOLEAN			
			14	Reserved		BOOLEAN			
			15	Reserved		BOOLEAN			
40023	0x0016	22		Alarm Register	1				
			0	Input missing phase error		BOOLEAN			1=Input is missing a phase
			1	Bypass missing phase error		BOOLEAN			1=Bypass input is missing a phase
			2	External sync voltage error		BOOLEAN			1=External sync voltage is out of range
			3	External sync phase sequence error		BOOLEAN			1=The phase rotation on external sync is wrong
			4	External sync frequency fault		BOOLEAN			1=External sync frequency is out of range
			5	External sync missing phase error		BOOLEAN			1=External sync is missing a phase
			6	Reserved		BOOLEAN			
			7	Reserved		BOOLEAN			
			8	Display firmware incompatibility detected		BOOLEAN			1=Display firmware incompatibility detected
			9	NMC 1 firmware incompatibility detected		BOOLEAN			1=NMC 1 firmware incompatibility detected
			10	NMC 2 firmware incompatibility detected		BOOLEAN			1=NMC 2 firmware incompatibility detected
			11	Reserved		BOOLEAN			
			12	Inverter output is not in phase with bypass input		BOOLEAN			1=Inverter output is not in phase with bypass input
			13	Reserved		BOOLEAN			
			14	Reserved		BOOLEAN			
			15	Reserved		BOOLEAN			
40024	0x0017	23		Alarm Register	1				
			0	Modular battery cabinet 1 fault		BOOLEAN			1=Modular battery cabinet 1 fault
			1	Modular battery cabinet 2 fault		BOOLEAN			1=Modular battery cabinet 2 fault
			2	Modular battery cabinet 3 fault		BOOLEAN			1=Modular battery cabinet 3 fault
			3	Modular battery cabinet 4 fault		BOOLEAN			1=Modular battery cabinet 4 fault
			4	Modular battery cabinet 5 fault		BOOLEAN			1=Modular battery cabinet 5 fault
			5	Modular battery cabinet 6 fault		BOOLEAN			1=Modular battery cabinet 6 fault
			6	Modular battery cabinet 7 fault		BOOLEAN			1=Modular battery cabinet 7 fault
			7	Modular battery cabinet 8 fault		BOOLEAN			1=Modular battery cabinet 8 fault
			8	Reserved		BOOLEAN			
			9	Reserved		BOOLEAN			
			10	Reserved		BOOLEAN			
			11	Reserved		BOOLEAN			
			12	Reserved		BOOLEAN			
			13	Reserved		BOOLEAN			
			14	Reserved		BOOLEAN			
			15	Reserved		BOOLEAN			
40025	0x0018	24		Alarm Register	1				
			0	Modular battery cabinet 1 breaker 1 open		BOOLEAN			1=Modular battery cabinet 1 breaker 1 open
			1	Modular battery cabinet 1 breaker 2 open		BOOLEAN			1=Modular battery cabinet 1 breaker 2 open
			2	Modular battery cabinet 2 breaker 1 open		BOOLEAN			1=Modular battery cabinet 2 breaker 1 open
			3	Modular battery cabinet 2 breaker 2 open		BOOLEAN			1=Modular battery cabinet 2 breaker 2 open
			4	Modular battery cabinet 3 breaker 1 open		BOOLEAN			1=Modular battery cabinet 3 breaker 1 open
			5	Modular battery cabinet 3 breaker 2 open		BOOLEAN			1=Modular battery cabinet 3 breaker 2 open

Modicon Standard Register Number	Absolute Starting Register Address, (Hexa-decimal)	Absolute Starting Register Address, (Decimal)	Bit	Data Point	Length # registers	Data Type	Scale		Valid Response
							Multiply Reading By:	Divide Reading By:	
			6	Modular battery cabinet 4 breaker 1 open		BOOLEAN			1=Modular battery cabinet 4 breaker 1 open
			7	Modular battery cabinet 4 breaker 2 open		BOOLEAN			1=Modular battery cabinet 4 breaker 2 open
			8	Modular battery cabinet 5 breaker 1 open		BOOLEAN			1=Modular battery cabinet 5 breaker 1 open
			9	Modular battery cabinet 5 breaker 2 open		BOOLEAN			1=Modular battery cabinet 5 breaker 2 open
			10	Modular battery cabinet 6 breaker 1 open		BOOLEAN			1=Modular battery cabinet 6 breaker 1 open
			11	Modular battery cabinet 6 breaker 2 open		BOOLEAN			1=Modular battery cabinet 6 breaker 2 open
			12	Modular battery cabinet 7 breaker 1 open		BOOLEAN			1=Modular battery cabinet 7 breaker 1 open
			13	Modular battery cabinet 7 breaker 2 open		BOOLEAN			1=Modular battery cabinet 7 breaker 2 open
			14	Modular battery cabinet 8 breaker 1 open		BOOLEAN			1=Modular battery cabinet 8 breaker 1 open
			15	Modular battery cabinet 8 breaker 2 open		BOOLEAN			1=Modular battery cabinet 8 breaker 2 open
Static Data									
44097	0x1000	4096		Display/NMC Model Number	9	ASCII			
44106	0x1009	4105		Display/NMC Serial Number	8	ASCII			
44114	0x1011	4113		Display/NMC Firmware Revision APP	9	ASCII			
44123	0x101A	4122		Display/NMC Hardware Revision	9	ASCII			
44132	0x1023	4131		Display/NMC Date of Manufacture	6	ASCII			
44138	0x1029	4137		RESERVED	8				
44146	0x1031	4145		UPS Serial Number	6	ASCII			
44152	0x1037	4151		UPS Firmware Version	12	ASCII			
44164	0x1043	4163		Product Name	40	ASCII			
Dynamic Data									
44353	0x1100	4352		RESERVED	2				
44355	0x1102	4354		Runtime remaining	2	UINT32	1	1	Seconds
44357	0x1104	4356		Estimated charge time	2	UINT32	1	1	Seconds
44359	0x1106	4358		Estimated charge %	1	UINT16	1	1	%
44360	0x1107	4359		RESERVED	8				
44368	0x110F	4367		Battery Temperature (for classic battery solution)	1	UINT16	1	1	°C
44369	0x1110	4368		Charger Mode	1				
			0	Float Charging		BOOLEAN			1=Charger mode is float charging
			1	Boost Charging		BOOLEAN			1=Charger mode is boost charging
			2	Reserved		BOOLEAN			
			3	Reserved		BOOLEAN			
			4	Reserved		BOOLEAN			
			5	Equalization Charging		BOOLEAN			1=Charger mode is equalization charging
			6	Not Charging		BOOLEAN			1=Charger mode is Off
			7	Test In Progress		BOOLEAN			1=Test is in progress
			8	Cyclic Charging		BOOLEAN			1=Charge mode is cyclic charging
			9	Reserved		BOOLEAN			
			10	Reserved		BOOLEAN			
			11	Reserved		BOOLEAN			
			12	Reserved		BOOLEAN			
			13	Reserved		BOOLEAN			
			14	Reserved		BOOLEAN			
			15	Reserved		BOOLEAN			
44370	0x1111	4369		Battery Power	1	INT16	0,1	10	kW
44371	0x1112	4370		RESERVED	1				
44372	0x1113	4371		Battery Voltage	1	UINT16	0,1	10	Vdc
44373	0x1114	4372		Battery Current	1	INT16	0,1	10	amps
44374	0x1115	4373		Modular Battery cabinet 1 temperature	1	UINT16	1	1	°C
44375	0x1116	4374		Modular Battery cabinet 2 temperature	1	UINT16	1	1	°C
44376	0x1117	4375		Modular Battery cabinet 3 temperature	1	UINT16	1	1	°C
44377	0x1118	4376		Modular Battery cabinet 4 temperature	1	UINT16	1	1	°C
44378	0x1119	4377		Modular Battery cabinet 5 temperature	1	UINT16	1	1	°C
44379	0x111A	4378		Modular Battery cabinet 6 temperature	1	UINT16	1	1	°C
44380	0x111B	4379		Modular Battery cabinet 7 temperature	1	UINT16	1	1	°C
44381	0x111C	4380		Modular Battery cabinet 8 temperature	1	UINT16	1	1	°C
44609	0x1200	4608		Frequency (input)	1	UINT16	0,1	10	Hz
44610	0x1201	4609		Voltage L1-2 (input)	1	UINT16	1	1	Vrms
44611	0x1202	4610		Voltage L2-3 (input)	1	UINT16	1	1	Vrms
44612	0x1203	4611		Voltage L3-1 (input)	1	UINT16	1	1	Vrms

Modicon Standard Register Number	Absolute Starting Register Address, (Hexa-decimal)	Absolute Starting Register Address, (Decimal)	Bit	Data Point	Length # registers	Data Type	Scale		Valid Response
							Multiply Reading By:	Divide Reading By:	
44613	0x1204	4612		Current L1 (input)	1	UINT16	1	1	amps
44614	0x1205	4613		Current L2 (input)	1	UINT16	1	1	amps
44615	0x1206	4614		Current L3 (input)	1	UINT16	1	1	amps
44616	0x1207	4615		Active power L1 (input)	1	UINT16	1	1	kW
44617	0x1208	4616		Active power L2 (input)	1	UINT16	1	1	kW
44618	0x1209	4617		Active power L3 (input)	1	UINT16	1	1	kW
44619	0x120A	4618		Apparent power L1 (input)	1	UINT16	1	1	kVA
44620	0x120B	4619		Apparent power L2 (input)	1	UINT16	1	1	kVA
44621	0x120C	4620		Apparent power L3 (input)	1	UINT16	1	1	kVA
44622	0x120D	4621		Total active power (input)	1	UINT16	1	1	kW
44623	0x120E	4622		Total apparent power (input)	1	UINT16	1	1	kVA
44624	0x120F	4623		Voltage L1-N (input)	1	UINT16	1	1	Volts
44625	0x1210	4624		Voltage L2-N (input)	1	UINT16	1	1	Volts
44626	0x1211	4625		Voltage L3-N (input)	1	UINT16	1	1	Volts
44627	0x1212	4626		Maximum RMS Current L1 (input)	2	UINT16	1	1	amps
44629	0x1214	4628		Maximum RMS Current L2 (input)	2	UINT16	1	1	amps
44631	0x1216	4630		Maximum RMS Current L3 (input)	2	UINT16	1	1	amps
44633	0x1218	4632		Power factor L1 (input)	1	UINT16	0,1	10	Unitless
44634	0x1219	4633		Power factor L2 (input)	1	UINT16	0,1	10	Unitless
44635	0x121A	4634		Power factor L3 (input)	1	UINT16	0,1	10	Unitless
44865	0x1300	4864		Frequency (bypass)	1	UINT16	0,1	10	Hz
44866	0x1301	4865		Voltage L1-2 (bypass)	1	UINT16	1	1	Vrms
44867	0x1302	4866		Voltage L2-3 (bypass)	1	UINT16	1	1	Vrms
44868	0x1303	4867		Voltage L3-1 (bypass)	1	UINT16	1	1	Vrms
44869	0x1304	4868		Current L1 (bypass)	1	UINT16	1	1	amps
44870	0x1305	4869		Current L2 (bypass)	1	UINT16	1	1	amps
44871	0x1306	4870		Current L3 (bypass)	1	UINT16	1	1	amps
44872	0x1307	4871		Active power L1 (bypass)	1	UINT16	1	1	kW
44873	0x1308	4872		Active power L2 (bypass)	1	UINT16	1	1	kW
44874	0x1309	4873		Active power L3 (bypass)	1	UINT16	1	1	kW
44875	0x130A	4874		Apparent power L1 (bypass)	1	UINT16	1	1	kVA
44876	0x130B	4875		Apparent power L2 (bypass)	1	UINT16	1	1	kVA
44877	0x130C	4876		Apparent power L3 (bypass)	1	UINT16	1	1	kVA
44878	0x130D	4877		Total active power (bypass)	1	UINT16	1	1	kW
44879	0x130E	4878		Total apparent power (bypass)	1	UINT16	1	1	kVA
44880	0x130F	4879		Voltage L1-N (bypass)	1	UINT16	1	1	Volts
44881	0x1310	4880		Voltage L2-N (bypass)	1	UINT16	1	1	Volts
44882	0x1311	4881		Voltage L3-N (bypass)	1	UINT16	1	1	Volts
44883	0x1312	4882		Maximum RMS Current L1 (bypass)	2	UINT16	1	1	amps
44885	0x1314	4884		Maximum RMS Current L2 (bypass)	2	UINT16	1	1	amps
44887	0x1316	4886		Maximum RMS Current L3 (bypass)	2	UINT16	1	1	amps
44889	0x1318	4888		Power factor L1 (bypass)	1	UINT16	0,1	10	Unitless
44890	0x1319	4889		Power factor L2 (bypass)	1	UINT16	0,1	10	Unitless
44891	0x131A	4890		Power factor L3 (bypass)	1	UINT16	0,1	10	Unitless
45121	0x1400	5120		UPS Power Rating	1	UINT16	1	1	kVA
45122	0x1401	5121		Frequency (output)	1	UINT16	0,1	10	Hz
45123	0x1402	5122		Voltage L1-2 (output)	1	UINT16	1	1	Vrms
45124	0x1403	5123		Voltage L2-3 (output)	1	UINT16	1	1	Vrms
45125	0x1404	5124		Voltage L3-1 (output)	1	UINT16	1	1	Vrms
45126	0x1405	5125		Current L1 (output)	1	UINT16	1	1	amps
45127	0x1406	5126		Current L2 (output)	1	UINT16	1	1	amps
45128	0x1407	5127		Current L3 (output)	1	UINT16	1	1	amps
45129	0x1408	5128		Maximum RMS current L1 (output)	2	UINT32	1	1	amps
45131	0x140A	5130		Maximum RMS current L2 (output)	2	UINT32	1	1	amps
45133	0x140C	5132		Maximum RMS current L3 (output)	2	UINT32	1	1	amps
45135	0x140E	5134		Active power L1 (output)	1	UINT16	1	1	kW
45136	0x140F	5135		Active power L2 (output)	1	UINT16	1	1	kW
45137	0x1410	5136		Active power L3 (output)	1	UINT16	1	1	kW
45138	0x1411	5137		Apparent power L1 (output)	1	UINT16	1	1	kVA
45139	0x1412	5138		Apparent power L2 (output)	1	UINT16	1	1	kVA
45140	0x1413	5139		Apparent power L3 (output)	1	UINT16	1	1	kVA
45141	0x1414	5140		RESERVED	3				

Modicon Standard Register Number	Absolute Starting Register Address, (Hexa-decimal)	Absolute Starting Register Address, (Decimal)	Bit	Data Point	Length # registers	Data Type	Scale		Valid Response
							Multiply Reading By:	Divide Reading By:	
45144	0x1417	5143		Total active power (output)	1	UINT16	1	1	kW
45145	0x1418	5144		Total apparent power (output)	1	UINT16	1	1	kVA
45146	0x1419	5145		Total Output Percent load	1	UINT16	0,1	10	%
45147	0x141A	5146		Power factor L1 (output)	1	UINT16	0,1	10	power factor
45148	0x141B	5147		Power factor L2 (output)	1	UINT16	0,1	10	power factor
45149	0x141C	5148		Power factor L3 (output)	1	UINT16	0,1	10	power factor
45150	0x141D	5149		Current crest factor L1 (output)	1	UINT16	0,1	10	crest factor
45151	0x141E	5150		Current crest factor L2 (output)	1	UINT16	0,1	10	crest factor
45152	0x141F	5151		Current crest factor L3 (output)	1	UINT16	0,1	10	crest factor
45153	0x1420	5152		Voltage L1-N (output)	1	UINT16	1	1	Volts
45154	0x1421	5153		Voltage L2-N (output)	1	UINT16	1	1	Volts
45155	0x1422	5154		Voltage L3-N (output)	1	UINT16	1	1	Volts
45156	0x1423	5155		Neutral current (output)	1	UINT16	1	1	amps
45157	0x1424	5156		Current THD L1 (output)	1	UINT16	0,1	10	%
45158	0x1425	5157		Current THD L2 (output)	1	UINT16	0,1	10	%
45159	0x1426	5158		Current THD L3 (output)	1	UINT16	0,1	10	%
45377	0x1500	5376		RESERVED	1				
45378	0x1501	5377		Switch gear status	1				Bit mask For each bit, 0 = open, 1 =closed
			0	Unit Input Breaker (UIB)		BOOLEAN			
			1	Unit Output Breaker (UOB)		BOOLEAN			
			2	(Maintenance Bypass Breaker (MBB)		BOOLEAN			
			3	System Isolation Breaker (SIB)		BOOLEAN			
			4	Static Switch Input Breaker (SSIB)		BOOLEAN			
			5	Battery Breaker 1 (for classic battery solution)		BOOLEAN			
			6	Battery Breaker 2 (for classic battery solution)		BOOLEAN			
			7	Reserved		BOOLEAN			
			8	Reserved		BOOLEAN			
			9	Reserved		BOOLEAN			
			10	Reserved		BOOLEAN			
			11	Reserved		BOOLEAN			
			12	Reserved		BOOLEAN			
			13	Reserved		BOOLEAN			
			14	Reserved		BOOLEAN			
			15	Reserved		BOOLEAN			
45379	0x1502	5378		UPS Operation Mode	1	ENUM			0 = Reserved 1 = Normal operation 2 = Battery Operation 3 = Battery Test 4 = Requested Static Bypass 5 = Forced Static Bypass 6 = Maintenance Bypass 7 = Off 8 = Emergency Static Bypass 9 = Static Bypass Standby 10 = Inverter Standby 11 = Power Saving Mode 12 = SPoT Mode 13 = ECO Mode 14 = ECOnversion
45380	0x1503	5379		Number of Active Alarms	1	UINT16	1	1	Number of active alarms in the system
45381	0x1504	5380		Highest alarm severity	1	UINT16	1	1	0 = none 1 = informational 2 = warning 3 = critical

Modicon Standard Register Number	Absolute Starting Register Address, (Hexa-decimal)	Absolute Starting Register Address, (Decimal)	Bit	Data Point	Length # registers	Data Type	Scale		Valid Response
							Multiply Reading By:	Divide Reading By:	
									1 = Inverter 2 = Requested Static Bypass 3 = Forced Static Bypass 4 = Off 5 = Reserved 6 = Maintenance Bypass 7 = ECO Mode 8 = ECOversion
45382	0x1505	5381		System Mode	1	ENUM			
45383	0x1506	5382		RESERVED	3				
45386	0x1509	5385		NMC/UPS Time	4	ASCII			hh:mm:ss format
45390	0x150D	5389		NMC/UPS Date	5	ASCII			mm/dd/yyyy format
45395	0x1512	5394		Input kWh	2	UINT32	1	1	kWh
45397	0x1514	5396		Output kWh	2	UINT32	1	1	kWh
46401	0x1900	6400		Current L1 (parallel system mains input)	1	UINT16	1	1	amps
46402	0x1901	6401		Current L2 (parallel system mains input)	1	UINT16	1	1	amps
46403	0x1902	6402		Current L3 (parallel system mains input)	1	UINT16	1	1	amps
46404	0x1903	6403		Current L1 (parallel system bypass input)	1	UINT16	1	1	amps
46405	0x1904	6404		Current L2 (parallel system bypass input)	1	UINT16	1	1	amps
46406	0x1905	6405		Current L3 (parallel system bypass input)	1	UINT16	1	1	amps
46407	0x1906	6406		Current L1 (parallel system output)	1	UINT16	1	1	amps
46408	0x1907	6407		Current L2 (parallel system output)	1	UINT16	1	1	amps
46409	0x1908	6408		Current L3 (parallel system output)	1	UINT16	1	1	amps
46410	0x1909	6409		Total apparent power (parallel system output)	1	UINT16	1	1	kVA
46411	0x190A	6410		Total Percent load (parallel system)	1	UINT16	0,1	10	%
Configuration Data									
48193	0x2000	8192		RESERVED	3				
48196	0x2003	8195		Number of Battery Modules	1	UINT16	1	1	
48449	0x2100	8448		Low Battery Alarm Threshold	1	UINT16	1	1	Seconds
48450	0x2101	8449		Battery Type	1	ENUM	1	1	0=VRLA 1=Open Cell
48451	0x2102	8450		Battery Solution	1	ENUM	1	1	0=None 1=Classic 2=Modular 3=Unknown
48452	0x2103	8451		Deep Discharge Allowed	1	ENUM	1	1	0=No 1=Yes
48453	0x2104	8452		Total Battery Capacity	1	UINT16	1	1	Ah
48705	0x2200	8704		Nominal Output Voltage	1	ENUM	1	1	0=380V 1=400V 2=415V 3=480V
48706	0x2201	8705		Transfer to Static Bypass Disable	1	ENUM	1	1	0=Disable 1=Enable
48707	0x2202	8706		Flywheel Present	1	ENUM	1	1	0=No 1=Yes
48708	0x2203	8707		Automatic Battery Disconnect	1	ENUM	1	1	0=No 1=Yes
48709	0x2204	8708		High Efficiency Mode	1	ENUM	1	1	0=Disable 1=ECO mode 2=ECOversion
END OF MAP									