



Modbus Register Map: Symmetra PX 250/500 kW

Part number:
990-3936C

Revision	Changes	Applicable FW Version
1	First Revision	sypx510
2	New/Reordered: Register no. 40003 bits 4, 9, 12, 13, 14, 15 Register no. 40006 bits 12, 13, 14. Register no. 40010 bit 14 Register no. 40011 bit 1 Register no. 40013 bits 8, 10 Register no. 40015 bits 3, 4 Register no. 40017 all bits Register no. 44624, 44625, 44626, 44880, 44881, 44882, 45153, 45154, 45155, 45156, 45157, 45158, 45159, 45160, 45161, 45162, 45163, 45164, 45165, 45166, 45167, 45395 Deprecated: Register no. 40003 bits 7, 11	sypx512

3	<p>Deprecated: Register no. 40017 bit 0 (Flash Locked)</p> <p>New: Register no. 40003 bit 1 Register no. 40004 bit 13 Register no. 40010 bit 4 Register no. 40011 bits 10 and 11 Register no. 40017 bit 0, 9, 10, 11, 12, 13, 14 and 15 Register no. 45168 Register no. 45379 response 9</p>	sypx515
4	<p>New: Register no: 40004 bit 14 Register no: 40004 bit 15 Register no: 40013 bit 13</p> <p>Register no: 45170 Register no: 45171 Register no: 44164 Register no: 44168 Register no: 44372</p>	sypx516



Modbus Register Map: Symmetra® PX 250/500 kVA

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. ASCII strings do not include Null terminator.
8. Accesses to registers within an undefined range returns illegal data address error.
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.

Note: For detailed modbus configuration settings please refer to the AP9635 User's Guide.

Modicon Standard Register Number	Absolute Starting Register Address, (Hexadecimal)	Absolute Starting Register Address, (Decimal)	Bit	Data Point	Length # registers	Data Type	Scale		Valid Response
							Multiply Reading By:	Divide Reading By:	
Status Data									
40001	0x0000	0		UPS Status	1	BOOLEAN			
			0	Load is being powered from battery		BOOLEAN			1=Load is being powered from battery
			1	Low-Battery		BOOLEAN			1=Low Battery
			2	Bypass		BOOLEAN			1=System is in Bypass
			3	Self-Test		BOOLEAN			1=Self-test in progress
			4	Load not Powered		BOOLEAN			1=Load is not powered
			5	Reserved		BOOLEAN			
			6	Reserved		BOOLEAN			
			7	Abnormal Condition (Soft errors: not hardware failures, e.g. overload, over-temp lo/hi input voltage, etc.)		BOOLEAN			1=Abnormal condition present
			8	Power Module Failure		BOOLEAN			1=Power Module Failure
			9	Battery System Failure		BOOLEAN			1=Battery System Failure
			10	Intelligence Module failure		BOOLEAN			1=Intelligence Module failure
			11	Static Switch failure		BOOLEAN			1=Static Switch failure
			12	Power Supply Unit failure		BOOLEAN			1=Power Supply Unit failure
			13	Reserved		BOOLEAN			Reserved
			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	Parallel PBUS cables are swapped		BOOLEAN			1=Parallel PBUS cables are swapped
			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	Overload on parallel installation		BOOLEAN			1=Overload on parallel installation
			5	Parallel mixed mode error: Units in battery and normal operation		BOOLEAN			1=Parallel mixed mode error: Units in battery and normal operation

Modicon Standard Register Number	Absolute Starting Register Address, (Hexadecimal)	Absolute Starting Register Address, (Decimal)	Bit	Data Point	Length # registers	Data Type	Scale		Valid Response
							Multiply Reading By:	Divide Reading By:	
			6	UPS parallel address configuration number error		BOOLEAN			1=UPS parallel address configuration number error
			7	Parallel master not detected (deprecated)		BOOLEAN			1=Parallel master not detected
			8	Parallel unit disabled		BOOLEAN			1=Parallel unit disabled
			9	Parallel unit is incompatible		BOOLEAN			1=Parallel unit is incompatible
			10	PBUS cable termination fault		BOOLEAN			1=PBUS cable termination fault
			11	Parallel unit not present (deprecated)		BOOLEAN			1=Parallel unit not present
			12	Isolated Test mode is activate		BOOLEAN			1=Isolated Test mode is activate
			13	Parallel unit redundancy lost		BOOLEAN			1=Parallel unit redundancy lost
			14	Reserved		BOOLEAN			Reserved
			15	Parallel load share error		BOOLEAN			1=Parallel load share error
40004	0x0003	3		Alarm Register	1				
			0	On battery in response to an input power failure		BOOLEAN			1=On battery in response to an input power failure
			1	In bypass: User-initiated from Front Panel		BOOLEAN			1=In bypass: User-initiated from Front Panel
			2	UPS operation mode - Forced bypass		BOOLEAN			1=UPS operation mode - Forced bypass
			3	In Bypass: For maintenance		BOOLEAN			1=In Bypass: For maintenance
			4	Started a self-test		BOOLEAN			1=Started a self-test
			5	Output power turned off		BOOLEAN			1=Output power turned off
			6	UPS operation mode - Initialize		BOOLEAN			1=UPS operation mode - Initialize
			7	UPS operation mode - Hot standby		BOOLEAN			1=UPS operation mode - Hot standby
			8	Compensating for a low input voltage		BOOLEAN			1=Compensating for a low input voltage
			9	Compensating for a high input voltage		BOOLEAN			1=Compensating for a high input voltage
			10	Input voltage waveform error detected		BOOLEAN			1=Input voltage waveform error detected
			11	Input phase sequence error		BOOLEAN			1=Input phase sequence error
			12	Input frequency fault		BOOLEAN			1=Input frequency fault
			13	Output frequency fault		BOOLEAN			1=Output frequency fault
			14	Mega Tie mode is active		BOOLEAN			1=Mega Tie mode is active
			15	External synchronization source is selected and out of tolerance		BOOLEAN			1=External synchronization source is selected and out of tolerance
40005	0x0004	4		Alarm Register	1				
			0	Bypass voltage error: low voltage		BOOLEAN			1=Bypass voltage error: low voltage
			1	Bypass voltage error: high voltage		BOOLEAN			1=Bypass voltage error: high voltage
			2	Bypass voltage waveform error detected		BOOLEAN			1=Bypass voltage waveform error detected
			3	Bypass input frequency fault		BOOLEAN			1=Bypass input frequency fault
			4	Bypass phase sequence error		BOOLEAN			1=Bypass phase sequence error
			5	Output voltage low		BOOLEAN			1=Output voltage low
			6	Output voltage high		BOOLEAN			1=Output voltage high
			7	Output voltage waveform error detected		BOOLEAN			1=Output voltage waveform error detected
			8	Overload		BOOLEAN			1=Overload
			9	Overload on bypass static switch		BOOLEAN			1=Overload on bypass static switch
			10	Ambient temperature out of range		BOOLEAN			1=Ambient temperature out of range
			11	EPO activated		BOOLEAN			1=EPO activated
			12	Ground fault detected		BOOLEAN			1=Ground fault detected
			13	PSU module failed		BOOLEAN			1=PSU module failed
			14	Reserved		BOOLEAN			Reserved
			15	Reserved		BOOLEAN			Reserved
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	PSU module not present		BOOLEAN			1=PSU module not present
			3	System frequency not detected		BOOLEAN			1=System frequency not detected

Modicon Standard Register Number	Absolute Starting Register Address, (Hexadecimal)	Absolute Starting Register Address, (Decimal)	Bit	Data Point	Length # registers	Data Type	Scale		Valid Response
							Multiply Reading By:	Divide Reading By:	
			4	Reserved		BOOLEAN			Reserved
			5	Charge power is reduced		BOOLEAN			1=Charge power is reduced
			6	Display communication to MIM and RIM is lost		BOOLEAN			1=Display communication to MIM and RIM is lost
			7	CBUS terminator fault		BOOLEAN			1=CBUS terminator fault
			8	ABUS terminator fault		BOOLEAN			1=ABUS terminator fault
			9	Reserved		BOOLEAN			Reserved
			10	MIM not present		BOOLEAN			1=MIM not present
			11	MIM heartbeat signal error		BOOLEAN			1=MIM heartbeat signal error
			12	RIM in control		BOOLEAN			1=RIM in control
			13	Battery condition is weak		BOOLEAN			1=Battery condition is weak
			14	Battery condition is poor		BOOLEAN			1=Battery condition is poor
			15	Reserved		BOOLEAN			Reserved
40007	0x0006	6		Alarm Register	1				
			0	Battery voltage error - voltage above warning level		BOOLEAN			1=Battery voltage error - voltage above warning level
			1	Battery voltage error - voltage above shutdown level		BOOLEAN			1=Battery voltage error - voltage above shutdown level
			2	Battery monitor board communication error		BOOLEAN			1=Battery monitor board communication error
			3	Reserved		BOOLEAN			Reserved
			4	Battery is below minimum acceptable runtime		BOOLEAN			1=Battery is below minimum acceptable runtime
			5	Power module communication to MIM error		BOOLEAN			1=Power module communication to MIM error
			6	Power module locked by IM		BOOLEAN			1=Power module locked by IM
			7	Power module operation mode is different from other modules		BOOLEAN			1=Power module operation mode is different from other modules
			8	Reserved		BOOLEAN			Reserved
			9	Switchgear board not present		BOOLEAN			1=Switchgear board not present
			10	Switchgear board communication error		BOOLEAN			1=Switchgear board communication error
			11	ID & Relay board not present		BOOLEAN			1=ID & Relay board not present
			12	ID & Relay board communication error		BOOLEAN			1=ID & Relay board communication error
			13	Battery voltage collapse detected		BOOLEAN			1=Battery voltage collapse detected
			14	Power module redundancy lost		BOOLEAN			1=Power module redundancy lost
			15	Reserved		BOOLEAN			Reserved
40008	0x0007	7		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	Load on subfeed is above warning level		BOOLEAN			1=Load on subfeed is above warning level
			8	Load on subfeed is above critical level		BOOLEAN			1=Load on subfeed is above critical level
			9	Load on UPS is above warning level		BOOLEAN			1=Load on UPS is above warning level
			10	Power module firmware version is incompatible		BOOLEAN			1=Power module firmware version is incompatible
			11	Static Bypass Switch module not present		BOOLEAN			1=Static Bypass Switch module not present
			12	Overload on installation		BOOLEAN			1=Overload on installation
			13	Bypass static switch communication error		BOOLEAN			1=Bypass static switch communication error
			14	RIM not present		BOOLEAN			1=RIM not present
			15	RIM heartbeat signal error		BOOLEAN			1=RIM heartbeat signal error
40009	0x0008	8		Alarm Register	1				

Modicon Standard Register Number	Absolute Starting Register Address, (Hexadecimal)	Absolute Starting Register Address, (Decimal)	Bit	Data Point	Length # registers	Data Type	Scale		Valid Response
							Multiply Reading By:	Divide Reading By:	
			0	Bonding wire between neutral and ground is missing		BOOLEAN			1=Bonding wire between neutral and ground is missing
			1	Bonding wire between neutral and ground error		BOOLEAN			1=Bonding wire between neutral and ground error
			2	Power module communication to RIM error		BOOLEAN			1=Power module communication to RIM error
			3	Battery voltage error - voltage below warning level		BOOLEAN			1=Battery voltage error - voltage below warning level
			4	Battery voltage error - voltage below shutdown level		BOOLEAN			1=Battery voltage error - voltage below shutdown level
			5	ECT board has an error		BOOLEAN			1=ECT board has an error
			6	External connections board not present		BOOLEAN			1=External connections board not present
			7	EPO circuit test mode is enabled		BOOLEAN			1=EPO circuit test mode is enabled
			8	IM internal memory for storing configuration settings error		BOOLEAN			1=IM internal memory for storing configuration settings error
			9	Reserved		BOOLEAN			Reserved
			10	Auxiliary monitor board for maintenance bypass panel comm error		BOOLEAN			1=Auxiliary monitor board for maintenance bypass panel comm error
			11	Auxiliary monitor board for battery breaker enclosure comm error		BOOLEAN			1=Auxiliary monitor board for battery breaker enclosure comm error
			12	Reserved		BOOLEAN			Reserved
			13	Power module removed from the system		BOOLEAN			1=Power module removed from the system
			14	INFO Battery module removed from system		BOOLEAN			1=INFO Battery module removed from system
			15	Reserved		BOOLEAN			Reserved
40010	0x0009	9		Alarm Register	1				
			0	Power module fault exists		BOOLEAN			1=Power module fault exists
			1	Power module warning		BOOLEAN			1=Power module warning
			2	Reserved		BOOLEAN			Reserved
			3	Power module fan fault		BOOLEAN			1=Power module fan fault
			4	Power module is disabled		BOOLEAN			1= Power module is disabled
			5	Power module lifetime error: close to end		BOOLEAN			1=Power module lifetime error: close to end
			6	Power module lifetime error: lifetime exceeded		BOOLEAN			1=Power module lifetime error: lifetime exceeded
			7	Power module fan lifetime error: close to end		BOOLEAN			1=Power module fan lifetime error: close to end
			8	Power module fan lifetimerror: lifetime exceeded		BOOLEAN			1=Power module fan lifetimerror: lifetime exceeded
			9	Breaker Q1 open		BOOLEAN			1=Breaker Q1 open
			10	Breaker Q2 open		BOOLEAN			1=Breaker Q2 open
			11	Breaker Q3 closed		BOOLEAN			1=Breaker Q3 closed
			12	Breaker Q4 open		BOOLEAN			1=Breaker Q4 open
			13	Breaker Q5 open		BOOLEAN			1=Breaker Q5 open
			14	Power module phase-neutral displacement fault		BOOLEAN			1=Power module phase-neutral displacement fault
			15	Reserved		BOOLEAN			Reserved
40011	0x000A	10		Alarm Register	1				
			0	Forced bypass switch activated		BOOLEAN			1=Forced bypass switch activated
			1	Bypass static switch disabled		BOOLEAN			1=Bypass static switch disabled
			2	Bypass static switch self test failed		BOOLEAN			1=Bypass static switch self test failed
			3	Reserved		BOOLEAN			Reserved
			4	Bypass static switch 1 fan fault		BOOLEAN			1=Bypass static switch 1 fan fault
			5	Bypass static switch 1 fan weak		BOOLEAN			1=Bypass static switch 1 fan weak
			6	Reserved		BOOLEAN			Reserved
			7	Reserved		BOOLEAN			Reserved
			8	Bypass static switch error; module has a critical error		BOOLEAN			1=Bypass static switch error; module has a critical error

Modicon Standard Register Number	Absolute Starting Register Address, (Hexadecimal)	Absolute Starting Register Address, (Decimal)	Bit	Data Point	Length # registers	Data Type	Scale		Valid Response
							Multiply Reading By:	Divide Reading By:	
			9	Bypass static switch warning; module is not working properly		BOOLEAN			1=Bypass static switch warning; module is not working properly
			10	Power enclosure air filter lifetime error: lifetime exceeded (Informational)		BOOLEAN			1= Power enclosure air filter lifetime error: lifetime exceeded (Informational)
			11	Power enclosure air filter lifetime error: lifetime exceeded (Warning)		BOOLEAN			1= Power enclosure air filter lifetime error: lifetime exceeded (Warning)
			12	Reserved		BOOLEAN			Reserved
			13	Reserved		BOOLEAN			Reserved
			14	Door in MBwD enclosure open		BOOLEAN			1=Door in MBwD enclosure open
			15	Q2 shunt open error		BOOLEAN			1=Q2 shunt open error
40012	0x000B	11		Alarm Register	1				
			0	Subfeed breaker SB1 open		BOOLEAN			1=Subfeed breaker SB1 open
			1	Subfeed breaker SB2 open		BOOLEAN			1=Subfeed breaker SB2 open
			2	Subfeed breaker SB3 open		BOOLEAN			1=Subfeed breaker SB3 open
			3	Subfeed breaker SB4 open		BOOLEAN			1=Subfeed breaker SB4 open
			4	Subfeed breaker SB5 open		BOOLEAN			1=Subfeed breaker SB5 open
			5	Subfeed breaker SB6 open		BOOLEAN			1=Subfeed breaker SB6 open
			6	Subfeed breaker SB7 open		BOOLEAN			1=Subfeed breaker SB7 open
			7	Subfeed breaker SB8 open		BOOLEAN			1=Subfeed breaker SB8 open
			8	Subfeed breaker SB9 open		BOOLEAN			1=Subfeed breaker SB9 open
			9	Subfeed breaker SB10 open		BOOLEAN			1=Subfeed breaker SB10 open
			10	Subfeed breaker SB11 open		BOOLEAN			1=Subfeed breaker SB11 open
			11	Subfeed breaker SB12 open		BOOLEAN			1=Subfeed breaker SB12 open
			12	Subfeed breaker SB13 open		BOOLEAN			1=Subfeed breaker SB13 open
			13	Subfeed breaker SB14 open		BOOLEAN			1=Subfeed breaker SB14 open
			14	Subfeed breaker SB15 open		BOOLEAN			1=Subfeed breaker SB15 open
			15	Subfeed breaker SB16 open		BOOLEAN			1=Subfeed breaker SB16 open
40013	0x000C	12		Alarm Register	1				
			0	Breaker Q1 open		BOOLEAN			1=Breaker Q1 open
			1	Breaker Q2 open		BOOLEAN			1=Breaker Q2 open
			2	Breaker Q3 closed		BOOLEAN			1=Breaker Q3 closed
			3	Breaker Q4 open		BOOLEAN			1=Breaker Q4 open
			4	Breaker Q5 open		BOOLEAN			1=Breaker Q5 open
			5	Door in maintenance bypass panel enclosure open		BOOLEAN			1=Door in maintenance bypass panel enclosure open
			6	Q2 shunt open error		BOOLEAN			1=Q2 shunt open error
			7	MBP enclosure ECT board has an error		BOOLEAN			1=MBP enclosure ECT board has an error
			8	ID & Relay board memory card full		BOOLEAN			1=ID & Relay board memory card full
			9	Input 3 activated: Battery ground fault detected		BOOLEAN			1=Input 3 activated: Battery ground fault detected
			10	ID & Relay board: System firmware not stored at memory card		BOOLEAN			1=ID & Relay board: System firmware not stored at memory card
			11	Input 6 activated: Emergency module off		BOOLEAN			1=Input 6 activated: Emergency module off
			12	Input 7 activated: Door in UPS I/O enclosure opened		BOOLEAN			1=Input 7 activated: Door in UPS I/O enclosure opened
			13	Input 1 activated: Reduce charging power		BOOLEAN			1=Input 1 activated: Reduce charging power
			14	IDRC memory card not present		BOOLEAN			1=IDRC memory card not present
			15	ID & Relay board memory card error		BOOLEAN			1=ID & Relay board memory card error
40014	0x000D	13		Alarm Register	1				
			0	Battery breaker open		BOOLEAN			1=Battery breaker open

Modicon Standard Register Number	Absolute Starting Register Address, (Hexadecimal)	Absolute Starting Register Address, (Decimal)	Bit	Data Point	Length # registers	Data Type	Scale		Valid Response
							Multiply Reading By:	Divide Reading By:	
			1	Battery module fuse cleared or condition of battery is weak		BOOLEAN			1=Battery module fuse cleared or condition of battery is weak
			2	Battery voltage symmetry error		BOOLEAN			1=Battery voltage symmetry error
			3	Internal battery temperature exceeds threshold		BOOLEAN			1=Internal battery temperature exceeds threshold
			4	Reserved		BOOLEAN			Reserved
			5	Battery temperature sensor fault		BOOLEAN			1=Battery temperature sensor fault
			6	Mixed battery configuration		BOOLEAN			1=Mixed battery configuration
			7	Battery module type support error		BOOLEAN			1=Battery module type support error
			8	Battery string disconnected		BOOLEAN			1=Battery string disconnected
			9	Battery side car 1 fuse error		BOOLEAN			1=Battery side car 1 fuse error
			10	Reserved		BOOLEAN			Reserved
			11	Battery enclosure PSU error		BOOLEAN			1=Battery enclosure PSU error
			12	Battery breaker motor PSU error		BOOLEAN			1=Battery breaker motor PSU error
			13	Battery enclosure door open		BOOLEAN			1=Battery enclosure door open
			14	ECT board has an error		BOOLEAN			1=ECT board has an error
			15	Battery breaker shunt open error		BOOLEAN			1=Battery breaker shunt open error
40015	0x000E	14		Alarm Register	1	BOOLEAN			
			0	Battery breaker open error		BOOLEAN			1=Battery breaker open error
			1	Battery breaker enclosure fuse 1 error		BOOLEAN			1=Battery breaker enclosure fuse 1 error
			2	Battery breaker enclosure fuse 2 error		BOOLEAN			1=Battery breaker enclosure fuse 2 error
			3	Battery temperature 1 high		BOOLEAN			1=Battery temperature 1 high
			4	Battery temperature 2 high		BOOLEAN			1=Battery temperature 2 high
			5	Battery temperature sensor 1 fault		BOOLEAN			1=Battery temperature sensor 1 fault
			6	Battery temperature sensor 2 fault		BOOLEAN			1=Battery temperature sensor 2 fault
			7	Battery breaker enclosure door open error		BOOLEAN			1=Battery breaker enclosure door open error
			8	Battery breaker enclosure ECT board has an error		BOOLEAN			1=Battery breaker enclosure ECT board has an error
			9	Battery breaker shunt open error		BOOLEAN			1=Battery breaker shunt open error
			10	Battery ground fault detected error		BOOLEAN			1=Battery ground fault detected error
			11	Reserved		BOOLEAN			
			12	Reserved		BOOLEAN			
			13	Reserved		BOOLEAN			
			14	Reserved		BOOLEAN			
			15	Reserved		BOOLEAN			
40016	0x000F	15		Alarm Register	1	BOOLEAN			
			0	Battery fuse bank 1 cleared		BOOLEAN			1=Battery fuse bank 1 cleared
			1	Battery fuse bank 2 cleared		BOOLEAN			1=Battery fuse bank 2 cleared
			2	Battery fuse bank 3 cleared		BOOLEAN			1=Battery fuse bank 3 cleared
			3	Battery fuse bank 4 cleared		BOOLEAN			1=Battery fuse bank 4 cleared
			4	Battery fuse bank 5 cleared		BOOLEAN			1=Battery fuse bank 5 cleared
			5	Battery fuse bank 6 cleared		BOOLEAN			1=Battery fuse bank 6 cleared
			6	Battery fuse bank 7 cleared		BOOLEAN			1=Battery fuse bank 7 cleared
			7	Battery fuse bank 8 cleared		BOOLEAN			1=Battery fuse bank 8 cleared
			8	Input for gas alarm has been activated		BOOLEAN			1=Input for gas alarm has been activated
			9	Reserved		BOOLEAN			
			10	Reserved		BOOLEAN			
			11	Reserved		BOOLEAN			
			12	Reserved		BOOLEAN			
			13	Reserved		BOOLEAN			
			14	Reserved		BOOLEAN			
			15	Reserved		BOOLEAN			

Modicon Standard Register Number	Absolute Starting Register Address, (Hexadecimal)	Absolute Starting Register Address, (Decimal)	Bit	Data Point	Length # registers	Data Type	Scale		Valid Response
							Multiply Reading By:	Divide Reading By:	
40017	0x0010	16		Alarm Register	1				
			0	Test firmware installed at power module		BOOLEAN			1=Test firmware installed at power module
			1	Not expected firmware installed at power module		BOOLEAN			1=Not expected firmware installed at power module
			2	Not expected firmware installed at battery monitor board		BOOLEAN			1=Not expected firmware installed at battery monitor board
			3	Not expected firmware installed at SBS module		BOOLEAN			1=Not expected firmware installed at SBS module
			4	Not expected firmware installed at ID & Relay board		BOOLEAN			1=Not expected firmware installed at ID & Relay board
			5	Not expected firmware installed at switchgear board		BOOLEAN			1=Not expected firmware installed at switchgear board
			6	Not expected firmware installed at auxiliary monitor board for maintenance		BOOLEAN			1=Not expected firmware installed at auxiliary
			7	Not expected firmware installed at auxiliary monitor board for battery breaker		BOOLEAN			1=Not expected firmware installed at auxiliary
			8	Not expected firmware installed at redundant IM		BOOLEAN			1=Not expected firmware installed at redundant IM
			9	Test firmware installed at battery monitor board		BOOLEAN			1=Test firmware installed at battery monitor board
			10	Test firmware installed at SBS module		BOOLEAN			1=Test firmware installed at SBS module
			11	Test firmware installed at ID & Relay board		BOOLEAN			1=Test firmware installed at ID & Relay board
			12	Test firmware installed at switchgear board		BOOLEAN			1=Test firmware installed at switchgear board
			13	Test firmware installed at auxiliary monitor board for maintenance bypass panel		BOOLEAN			1=Test firmware installed at auxiliary monitor board for maintenance bypass panel
			14	Test firmware installed at auxiliary monitor board for battery breaker enclosure		BOOLEAN			1=Test firmware installed at auxiliary monitor board for battery breaker enclosure
			15	Test firmware installed at IM		BOOLEAN			1=Test firmware installed at IM
Static Data									
44097	0x1000	4096		NMC Model Number	9	ASCII			
44106	0x1009	4105		NMC Serial Number	8	ASCII			
44114	0x1011	4113		NMC Firmware Revision APP	9	ASCII			
44123	0x101A	4122		NMC Hardware Revision	9	ASCII			
44132	0x1023	4131		NMC Date of Manufacture	6	ASCII			
44138	0x1029	4137		UPS Model Name	8	ASCII			
44146	0x1031	4145		UPS Serial Number	6	ASCII			
44152	0x1037	4151		UPS Firmware Version	12	ASCII			
Dynamic Data									
44353	0x1100	4352		Time on battery	2	UINT32	1	1	Seconds
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		Battery (+) Voltage	1	UINT16	1	1	Vdc
44361	0x1108	4360		Battery (-) Voltage	1	UINT16	1	1	Vdc
44362	0x1109	4361		Battery (+) Current	1	SINT16	1	1	amps
44363	0x110A	4362		Battery (-) Current	1	SINT16	1	1	amps
44364	0x110B	4363		Total time on battery	2	UINT32	1	1	Seconds
44366	0x110D	4365		Total number of times on battery	1	UINT16	1	1	count
44367	0x110E	4366		APC Battery Breaker Status /User supplied battery Breaker Status(mutually exclusive)	1	BOOLEAN			0=Open, 1= Closed Bit 0 to Bit 7 represent Frame 0 to 7 respectively. For User supplied battery bit 0
44368	0x110F	4367		BatterySystem/Temperature	1	UINT16	1	1	°C
44369	0x1110	4368		User Supplied Battery System Charger Status	1				
			0	Float Charging		BOOLEAN			

Modicon Standard Register Number	Absolute Starting Register Address, (Hexadecimal)	Absolute Starting Register Address, (Decimal)	Bit	Data Point	Length # registers	Data Type	Scale		Valid Response
							Multiply Reading By:	Divide Reading By:	
			1	Boost Charging		BOOLEAN			
			2	Normal Charging		BOOLEAN			
			3	Resting		BOOLEAN			
			4	Discharging		BOOLEAN			
			5	Equalization Charging		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			
44370	0x1111	4369		Battery Power	1	INT16	0.1	10	kW
44371	0x1112	4370		Available Amp Hours	1	UINT16	1	1	Amp Hours
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
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		Current L1 (parallel input)	1	UINT16	1	1	amps
44625	0x1210	4624		Current L2 (parallel input)	1	UINT16	1	1	amps
44626	0x1211	4625		Current L3 (parallel input)	1	UINT16	1	1	amps
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		Current L1 (parallel bypass)	1	UINT16	1	1	amps

Modicon Standard Register Number	Absolute Starting Register Address, (Hexadecimal)	Absolute Starting Register Address, (Decimal)	Bit	Data Point	Length # registers	Data Type	Scale		Valid Response
							Multiply Reading By:	Divide Reading By:	
44881	0x1310	4880		Current L2 (parallel bypass)	1	UINT16	1	1	amps
44882	0x1311	4881		Current L3 (parallel bypass)	1	UINT16	1	1	amps
45121	0x1400	5120		Nominal (Apparent) output 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		Peak current L1 (output)	2	UINT32	1	1	amps
45131	0x140A	5130		Peak current L2 (output)	2	UINT32	1	1	amps
45133	0x140C	5132		Peak 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		% Load L1	1	UINT16	0.1	10	%
45142	0x1415	5141		% Load L2	1	UINT16	0.1	10	%
45143	0x1416	5142		% Load L3	1	UINT16	0.1	10	%
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 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		Parallel System Output CurrentAC L1	1	UINT16	1	1	amps
45154	0x1421	5153		Parallel System Output CurrentAC L2	1	UINT16	1	1	amps
45155	0x1422	5154		Parallel System Output CurrentAC L3	1	UINT16	1	1	amps
45156	0x1423	5155		Parallel System Output Active Power L1	1	UINT16	1	1	kW
45157	0x1424	5156		Parallel System Output Active Power L2	1	UINT16	1	1	kW
45158	0x1425	5157		Parallel System Output Active Power L3	1	UINT16	1	1	kW
45159	0x1426	5158		Parallel System Output Apparent Power L1	1	UINT16	1	1	kVA
45160	0x1427	5159		Parallel System Output Apparent Power L2	1	UINT16	1	1	kVA
45161	0x1428	5160		Parallel System Output Apparent Power L3	1	UINT16	1	1	kVA
45162	0x1429	5161		ParallelSystem Output % Load L1	1	UINT16	1	10	%
45163	0x142A	5162		ParallelSystem Output % Load L2	1	UINT16	1	10	%
45164	0x142B	5163		ParallelSystem Output % Load L3	1	UINT16	1	10	%
45165	0x142C	5164		ParallelSystem Output Total Active Power	1	UINT16	1	1	kW
45166	0x142D	5165		ParallelSystem Output Total Apparent Power	1	UINT16	1	1	kVA
45167	0x142E	5166		ParallelSystem Output Total % Load	1	UINT16	1	10	%

Modicon Standard Register Number	Absolute Starting Register Address, (Hexadecimal)	Absolute Starting Register Address, (Decimal)	Bit	Data Point	Length # registers	Data Type	Scale		Valid Response
							Multiply Reading By:	Divide Reading By:	
45168	0x142F	5167		Energy Meter kWh	2	UINT32	1	1	kWh
45170	0x1431	5169		UPS Installation Load % (Standalone)	1	UINT16	0.1	10	%
45171	0x1432	5170		UPS Installation Load % (Parallel)	1	UINT16	0.1	10	%
45377	0x1500	5376		Ambient temperature	1	UINT16	1	1	°C
45378	0x1501	5377		Switch gear status	1				Bit mask For each bit, 0 = open, 1 =closed
			0	Q1		BOOLEAN			
			1	Q2		BOOLEAN			
			2	Q3		BOOLEAN			
			3	Reserved		BOOLEAN			
			4	Q5		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			
45379	0x1502	5378		UPS Mode Operation mode of the UPS	1	ENUM			0 = Indicates that the NMC can not communicate with the IM in the UPS 1 = Normal operation 2 = Battery Operation 3 = UPS is performing a Battery test 4 = Bypass operation due to a user request. 5 = Equals the internal "Temporary bypass". Bypass operation due to fault on system 6 = Q3 is activated and UPS is in bypass 7 = The UPS is Off and unavailable 8=Reserved 9=UPS is in Hotstanby Mode
45380	0x1503	5379		Number of Active Alarms	1	UINT16	1	1	Unitless
45381	0x1504	5380		Highest alarm severity	1	UINT16	1	1	0 = none 1 = informational 2 = warning 3 = critical
45382	0x1505	5381		System Mode	1	ENUM			1 = UPS(s) in normal or battery operation 2 = UPS(s) in requested bypass operation, due to a user request 3 = UPS(s) in "forced bypass" operation, due to fault on system 4 = All UPS(s) are Off 5 = Indicates that the NMC is trying to establish communication to the display 6 = Q3 is closed

Modicon Standard Register Number	Absolute Starting Register Address, (Hexadecimal)	Absolute Starting Register Address, (Decimal)	Bit	Data Point	Length # registers	Data Type	Scale		Valid Response
							Multiply Reading By:	Divide Reading By:	
45383	0x1506	5382		Input Contact Status	1	BOOLEAN			Bit 0 to Bit 15 correspond to Contact 1 to Contact 16 1=True=Alarm Condition
45384	0x1507	5383		Output Contact Normal State Setting	1	BOOLEAN			Bit 0 to Bit 15 correspond to Relay1 to Relay 16. 1=True=Relay is failsafe. Only contact 1 (bit 0)has reverse logic
45385	0x1508	5384		Redundancy Status	1	UINT16	1	1	0 -40
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		Parallel System Redundancy Status	1	UINT16	1	1	0-5
45633	0x1600	5632		Bypass Life Time Status	1	BOOLEAN			Bit mask Bit 0 = Life Time Status OK Bit 1 = Life Time Near End Bit 2 = Life Time Exceeded
45634	0x1601	5633		Bypass Estimated Lifetime Remaining	1	INT16	1	1	Days
45635	0x1602	5634		Bypass fan Life Time Status	1	BOOLEAN			Bit mask Bit 0 = Life Time Status OK Bit 1 = Life Time Near End Bit 2 = Life Time Exceeded
45636	0x1603	5635		Bypass fan Estimated Lifetime Remaining	1	INT16	1	1	Days
45889	0x1700	5888		Frame[0] Power Module[0] Life Time Status	1	BOOLEAN			Bit mask Bit 0 = Life Time Status OK Bit 1 = Life Time Near End Bit 2 = Life Time Exceeded
45890	0x1701	5889		Frame[0] Power Module[0] Estimated Lifetime Remaining	1	INT16	1	1	days
45891	0x1702	5890		Frame[0] Power Module[0] Fan Life Time Status	1	BOOLEAN			Bit mask Bit 0 = Life Time Status OK Bit 1 = Life Time Near End Bit 2 = Life Time Exceeded
45892	0x1703	5891		Frame[0] Power Module[0] Fan Estimated Lifetime Remaining	1	INT16	1	1	days
45893	0x1704	5892		Frame[0] Power Module[1] Life Time Status	1	BOOLEAN			Bit mask Bit 0 = Life Time Status OK Bit 1 = Life Time Near End Bit 2 = Life Time Exceeded
45894	0x1705	5893		Frame[0] Power Module[1] Estimated Lifetime Remaining	1	INT16	1	1	days
45895	0x1706	5894		Frame[0] Power Module[1] Fan Life Time Status	1	BOOLEAN			Bit mask Bit 0 = Life Time Status OK Bit 1 = Life Time Near End Bit 2 = Life Time Exceeded
45896	0x1707	5895		Frame[0] Power Module[1] Fan Estimated Lifetime Remaining	1	INT16	1	1	days
45897	0x1708	5896		Frame[0] Power Module[2] Life Time Status	1	BOOLEAN			Bit 0 = Life Time Status OK Bit 1 = Life Time Near End
45898	0x1709	5897		Frame[0] Power Module[2] Estimated Lifetime Remaining	1	INT16	1	1	days
45899	0x170A	5898		Frame[0] Power Module[2] Fan Life Time Status	1	BOOLEAN			Bit mask Bit 0 = Life Time Status OK Bit 1 = Life Time Near End Bit 2 = Life Time Exceeded
45900	0x170B	5899		Frame[0] Power Module[2] Fan Estimated Lifetime Remaining	1	INT16	1	1	days

Modicon Standard Register Number	Absolute Starting Register Address, (Hexadecimal)	Absolute Starting Register Address, (Decimal)	Bit	Data Point	Length # registers	Data Type	Scale		Valid Response
							Multiply Reading By:	Divide Reading By:	
45901	0x170C	5900		Frame[0] Power Module[3] Life Time Status	1	BOOLEAN			Bit mask Bit 0 = Life Time Status OK Bit 1 = Life Time Near End Bit 2 = Life Time Exceeded
45902	0x170D	5901		Frame[0] Power Module[3] Estimated Lifetime Remaining	1	INT16	1	1	days
45903	0x170E	5902		Frame[0] Power Module[3] Fan Life Time Status	1	BOOLEAN			Bit mask Bit 0 = Life Time Status OK Bit 1 = Life Time Near End Bit 2 = Life Time Exceeded
45904	0x170F	5903		Frame[0] Power Module[3] Fan Estimated Lifetime Remaining	1	INT16	1	1	days
45905	0x1710	5904		Frame[0] Power Module[4] Life Time Status	1	BOOLEAN			Bit mask Bit 0 = Life Time Status OK Bit 1 = Life Time Near End Bit 2 = Life Time Exceeded
45906	0x1711	5905		Frame[0] Power Module[4] Estimated Lifetime Remaining	1	INT16	1	1	days
45907	0x1712	5906		Frame[0] Power Module[4] Fan Life Time Status	1	BOOLEAN			Bit mask Bit 0 = Life Time Status OK Bit 1 = Life Time Near End Bit 2 = Life Time Exceeded
45908	0x1713	5907		Frame[0] Power Module[4] Fan Estimated Lifetime Remaining	1	INT16	1	1	days
45909	0x1714	5908		Frame[0] Power Module[5] Life Time Status	1	BOOLEAN			Bit mask Bit 0 = Life Time Status OK Bit 1 = Life Time Near End Bit 2 = Life Time Exceeded
45910	0x1715	5909		Frame[0] Power Module[5] Estimated Lifetime Remaining	1	INT16	1	1	days
45911	0x1716	5910		Frame[0] Power Module[5] Fan Life Time Status	1	BOOLEAN			Bit mask Bit 0 = Life Time Status OK Bit 1 = Life Time Near End Bit 2 = Life Time Exceeded
45912	0x1717	5911		Frame[0] Power Module[5] Fan Estimated Lifetime Remaining	1	INT16	1	1	days
45913	0x1718	5912		Frame[0] Power Module[6] Life Time Status	1	BOOLEAN			Bit mask Bit 0 = Life Time Status OK Bit 1 = Life Time Near End Bit 2 = Life Time Exceeded
45914	0x1719	5913		Frame[0] Power Module[6] Estimated Lifetime Remaining	1	INT16	1	1	days
45915	0x171A	5914		Frame[0] Power Module[6] Fan Life Time Status	1	BOOLEAN			Bit mask Bit 0 = Life Time Status OK Bit 1 = Life Time Near End Bit 2 = Life Time Exceeded
45916	0x171B	5915		Frame[0] Power Module[6] Fan Estimated Lifetime Remaining	1	INT16	1	1	days
45917	0x171C	5916		Frame[0] Power Module[7] Life Time Status	1	BOOLEAN			Bit mask Bit 0 = Life Time Status OK Bit 1 = Life Time Near End Bit 2 = Life Time Exceeded
45918	0x171D	5917		Frame[0] Power Module[7] Estimated Lifetime Remaining	1	INT16	1	1	days
45919	0x171E	5918		Frame[0] Power Module[7] Fan Life Time Status	1	BOOLEAN			Bit mask Bit 0 = Life Time Status OK Bit 1 = Life Time Near End Bit 2 = Life Time Exceeded
45920	0x171F	5919		Frame[0] Power Module[7] Fan Estimated Lifetime Remaining	1	INT16	1	1	days

Modicon Standard Register Number	Absolute Starting Register Address, (Hexadecimal)	Absolute Starting Register Address, (Decimal)	Bit	Data Point	Length # registers	Data Type	Scale		Valid Response
							Multiply Reading By:	Divide Reading By:	
45921	0x1720	5920		Frame[0] Power Module[8] Life Time Status	1	BOOLEAN			Bit mask Bit 0 = Life Time Status OK Bit 1 = Life Time Near End Bit 2 = Life Time Exceeded
45922	0x1721	5921		Frame[0] Power Module[8] Estimated Lifetime Remaining	1	INT16	1	1	days
45923	0x1722	5922		Frame[0] Power Module[8] Fan Life Time Status	1	BOOLEAN			Bit mask Bit 0 = Life Time Status OK Bit 1 = Life Time Near End Bit 2 = Life Time Exceeded
45924	0x1723	5923		Frame[0] Power Module[8] Fan Estimated Lifetime Remaining	1	INT16	1	1	days
45925	0x1724	5924		Frame[0] Power Module[9] Life Time Status	1	BOOLEAN			Bit mask Bit 0 = Life Time Status OK Bit 1 = Life Time Near End Bit 2 = Life Time Exceeded
45926	0x1725	5925		Frame[0] Power Module[9] Estimated Lifetime Remaining	1	INT16	1	1	days
45927	0x1726	5926		Frame[0] Power Module[9] Fan Life Time Status	1	BOOLEAN			Bit mask Bit 0 = Life Time Status OK Bit 1 = Life Time Near End Bit 2 = Life Time Exceeded
45928	0x1727	5927		Frame[0] Power Module[9] Fan Estimated Lifetime Remaining	1	INT16	1	1	days
46145	0x1800	6144		Frame[1] Power Module[0] Life Time Status	1	BOOLEAN			Bit mask Bit 0 = Life Time Status OK Bit 1 = Life Time Near End Bit 2 = Life Time Exceeded
46146	0x1801	6145		Frame[1] Power Module[0] Estimated Lifetime Remaining	1	INT16	1	1	days
46147	0x1802	6146		Frame[1] Power Module[0] Fan Life Time Status	1	BOOLEAN			Bit mask Bit 0 = Life Time Status OK Bit 1 = Life Time Near End Bit 2 = Life Time Exceeded
46148	0x1803	6147		Frame[1] Power Module[0] Fan Estimated Lifetime Remaining	1	INT16	1	1	days
46149	0x1804	6148		Frame[1] Power Module[1] Life Time Status	1	BOOLEAN			Bit mask Bit 0 = Life Time Status OK Bit 1 = Life Time Near End Bit 2 = Life Time Exceeded
46150	0x1805	6149		Frame[1] Power Module[1] Estimated Lifetime Remaining	1	INT16	1	1	days
46151	0x1806	6150		Frame[1] Power Module[1] Fan Life Time Status	1	BOOLEAN			Bit mask Bit 0 = Life Time Status OK Bit 1 = Life Time Near End Bit 2 = Life Time Exceeded
46152	0x1807	6151		Frame[1] Power Module[1] Fan Estimated Lifetime Remaining	1	INT16	1	1	days
46153	0x1808	6152		Frame[1] Power Module[2] Life Time Status	1	BOOLEAN			Bit mask Bit 0 = Life Time Status OK Bit 1 = Life Time Near End Bit 2 = Life Time Exceeded
46154	0x1809	6153		Frame[1] Power Module[2] Estimated Lifetime Remaining	1	INT16	1	1	days
46155	0x180A	6154		Frame[1] Power Module[2] Fan Life Time Status	1	BOOLEAN			Bit mask Bit 0 = Life Time Status OK Bit 1 = Life Time Near End Bit 2 = Life Time Exceeded
46156	0x180B	6155		Frame[1] Power Module[2] Fan Estimated Lifetime Remaining	1	INT16	1	1	days

Modicon Standard Register Number	Absolute Starting Register Address, (Hexadecimal)	Absolute Starting Register Address, (Decimal)	Bit	Data Point	Length # registers	Data Type	Scale		Valid Response
							Multiply Reading By:	Divide Reading By:	
46157	0x180C	6156		Frame[1] Power Module[3] Life Time Status	1	BOOLEAN			Bit mask Bit 0 = Life Time Status OK Bit 1 = Life Time Near End Bit 2 = Life Time Exceeded
46158	0x180D	6157		Frame[1] Power Module[3] Estimated Lifetime Remaining	1	INT16	1	1	days
46159	0x180E	6158		Frame[1] Power Module[3] Fan Life Time Status	1	BOOLEAN			Bit mask Bit 0 = Life Time Status OK Bit 1 = Life Time Near End Bit 2 = Life Time Exceeded
46160	0x180F	6159		Frame[1] Power Module[3] Fan Estimated Lifetime Remaining	1	INT16	1	1	days
46161	0x1810	6160		Frame[1] Power Module[4] Life Time Status	1	BOOLEAN			Bit mask Bit 0 = Life Time Status OK Bit 1 = Life Time Near End Bit 2 = Life Time Exceeded
46162	0x1811	6161		Frame[1] Power Module[4] Estimated Lifetime Remaining	1	INT16	1	1	days
46163	0x1812	6162		Frame[1] Power Module[4] Fan Life Time Status	1	BOOLEAN			Bit mask Bit 0 = Life Time Status OK Bit 1 = Life Time Near End Bit 2 = Life Time Exceeded
46164	0x1813	6163		Frame[1] Power Module[4] Fan Estimated Lifetime Remaining	1	INT16	1	1	days
46165	0x1814	6164		Frame[1] Power Module[5] Life Time Status	1	BOOLEAN			Bit mask Bit 0 = Life Time Status OK Bit 1 = Life Time Near End Bit 2 = Life Time Exceeded
46166	0x1815	6165		Frame[1] Power Module[5] Estimated Lifetime Remaining	1	INT16	1	1	days
46167	0x1816	6166		Frame[1] Power Module[5] Fan Life Time Status	1	BOOLEAN			Bit mask Bit 0 = Life Time Status OK Bit 1 = Life Time Near End Bit 2 = Life Time Exceeded
46168	0x1817	6167		Frame[1] Power Module[5] Fan Estimated Lifetime Remaining	1	INT16	1	1	days
46169	0x1818	6168		Frame[1] Power Module[6] Life Time Status	1	BOOLEAN			Bit mask Bit 0 = Life Time Status OK Bit 1 = Life Time Near End Bit 2 = Life Time Exceeded
46170	0x1819	6169		Frame[1] Power Module[6] Estimated Lifetime Remaining	1	INT16	1	1	days
46171	0x181A	6170		Frame[1] Power Module[6] Fan Life Time Status	1	BOOLEAN			Bit mask Bit 0 = Life Time Status OK Bit 1 = Life Time Near End Bit 2 = Life Time Exceeded
46172	0x181B	6171		Frame[1] Power Module[6] Fan Estimated Lifetime Remaining	1	INT16	1	1	days
46173	0x181C	6172		Frame[1] Power Module[7] Life Time Status	1	BOOLEAN			Bit mask Bit 0 = Life Time Status OK Bit 1 = Life Time Near End Bit 2 = Life Time Exceeded
46174	0x181D	6173		Frame[1] Power Module[7] Estimated Lifetime Remaining	1	INT16	1	1	days
46175	0x181E	6174		Frame[1] Power Module[7] Fan Life Time Status	1	BOOLEAN			Bit mask Bit 0 = Life Time Status OK Bit 1 = Life Time Near End Bit 2 = Life Time Exceeded
46176	0x181F	6175		Frame[1] Power Module[7] Fan Estimated Lifetime Remaining	1	INT16	1	1	days

Modicon Standard Register Number	Absolute Starting Register Address, (Hexadecimal)	Absolute Starting Register Address, (Decimal)	Bit	Data Point	Length # registers	Data Type	Scale		Valid Response
							Multiply Reading By:	Divide Reading By:	
46177	0x1820	6176		Frame[1] Power Module[8] Life Time Status	1	BOOLEAN			Bit mask Bit 0 = Life Time Status OK Bit 1 = Life Time Near End Bit 2 = Life Time Exceeded
46178	0x1821	6177		Frame[1] Power Module[8] Estimated Lifetime Remaining	1	INT16	1	1	days
46179	0x1822	6178		Frame[1] Power Module[8] Fan Life Time Status	1	BOOLEAN			Bit mask Bit 0 = Life Time Status OK Bit 1 = Life Time Near End Bit 2 = Life Time Exceeded
46180	0x1823	6179		Frame[1] Power Module[8] Fan Estimated Lifetime Remaining	1	INT16	1	1	days
46181	0x1824	6180		Frame[1] Power Module[9] Life Time Status	1	BOOLEAN			Bit mask Bit 0 = Life Time Status OK Bit 1 = Life Time Near End Bit 2 = Life Time Exceeded
46182	0x1825	6181		Frame[1] Power Module[9] Estimated Lifetime Remaining	1	INT16	1	1	days
46183	0x1826	6182		Frame[1] Power Module[9] Fan Life Time Status	1	BOOLEAN			Bit mask Bit 0 = Life Time Status OK Bit 1 = Life Time Near End Bit 2 = Life Time Exceeded
46184	0x1827	6183		Frame[1] Power Module[9] Fan Estimated Lifetime Remaining	1	INT16	1	1	days
Configuration Data									
44164	0x1043	4163		UPS Name	4	ASCII			
44168	0x1047	4167		Parallel System Name	4	ASCII			
44372	0x1113	4371		Last Battery Replacement	4	ASCII			MM/YYYY
48193	0x2000	8192		Number of Power Modules	1	UINT16	1	1	Unitless
48194	0x2001	8193		Number of Battery Monitor Boards	1	UINT16	1	1	Unitless
48195	0x2002	8194		Number of Battery Breaker Motors	1	UINT16	1	1	Unitless
48196	0x2003	8195		Number of Battery Modules	1	UINT16	1	1	Unitless
48198	0x2005	8197		Number of Battery Enclosures	1	UINT16	1	1	Unitless
48199	0x2006	8198		Number of PSUs	1	UINT16	1	1	Unitless
END OF MAP									
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