Modbus Register Map:Galaxy VX (3:3 250kW-1500kW)

990-5915A

Register Map release	Touch screen or NMC firmware release	Date	Description details
0	667		initial release
A	682	November 2019	. New alarm: High Efficiency mode is disable due to bypass UTHD . New alarm: UOB Aux wiring not correct . New alarm: Continuous Overload . New alarm: Engineering Firmware Version detected . New input contact: Force battery operation . New input contact: Requested Bypass command from relay . New setting: Continuous Overload Mode Setting . New measurements : 3 phases Bypass UTHD in percent . New measurements: 3 phases UPS output percent . New measurements : 3 phases Output percent for parallel system

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.

								Scale		
Release	Modicon Standard Register Number	Absolute Starting Register Address, (Hexa-decimal)	Absolute Starting Register Address, (Decimal)	Bit	Data Point	Length # registers	Data Type	Multiply Reading By:	Divide Reading By:	Valid Response
	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	High Efficiency Mode disable by system		BOOLEAN			1=High Efficiency Mode (ECO, ECOnversion) disable by system
				6	Reserved		BOOLEAN			
				7	Reserved		BOOLEAN			
				8	Reserved		BOOLEAN			
				9	Battery inoperable		BOOLEAN			1=Battery inoperable
				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				

								Scale		
Release	Modicon Standard Register Number	Absolute Starting Register Address, (Hexa-decimal)	Absolute Starting Register Address, (Decimal)	Bit	Data Point	Length # registers	Data Type	Multiply Reading By:	Divide Reading By:	Valid Response
				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 incorrect on PBUS cable 1		BOOLEAN			1=Parallel communication incorrect on PBUS cable 1
				3	Parallel communication incorrect on PBUS cable 2		BOOLEAN			1=Parallel communication incorrect on PBUS cable 2
				4	MegaTie activation alarm		BOOLEAN			1=MegaTie activation is present
				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 incorrect		BOOLEAN			1=Communication cable termination incorrect
				13	General parallel system incorrect		BOOLEAN			1=General parallel system incorrect
				14	Lost parallel redundancy		BOOLEAN			1=Lost parallel redundancy
				15	Reserved		BOOLEAN			
	40004	0x0003	3		Alarm Register					
				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	Reserved		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 incorrect		BOOLEAN			1=Input phase sequence incorrect
				12	Input frequency out of range		BOOLEAN			1=Input frequency out of range
				13	Input voltage out of range		BOOLEAN			1=Input voltage is out of range
				14	Selftest - Failed		BOOLEAN			1=Self test has failed
				15	Power cabinet mixed operation mode (Battery and Normal)		BOOLEAN			1=Power Cabinet in mixed operation mode (Battery and Normal)
	40005	0x0004	4		Alarm Register	1				
				0	Reserved		BOOLEAN			
				1	Reserved		BOOLEAN			
				2	Reserved		BOOLEAN			
				3	Bypass frequency out of range		BOOLEAN			1=Bypass frequency out of range
				4	Bypass phase sequence incorrect		BOOLEAN			1=Bypass phase sequence incorrect
				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 out of range		BOOLEAN			1=Bypass voltage is out of range
A				15	High Efficiency mode is disable due to bypass UTHD		BOOLEAN			1=Bypass UTHD is out of range for High Efficiency Mode
	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			
A				4	Continuous Overload on UPS		BOOLEAN			1=Overload on UPS present. Load below Continuous Overload Threshold.
				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			

								Scale		
Release	Modicon Standard Register Number	Absolute Starting Register Address, (Hexa-decimal)	Absolute Starting Register Address, (Decimal)	Bit	Data Point	Length # registers	Data Type	Multiply Reading By:	Divide Reading By:	Valid Response
				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	Battery capacity is below minimum acceptable level		BOOLEAN			1=Battery capacity is below minimum acceptable level
	40007	0x0006	6		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	Reserved		BOOLEAN			
				10	Reserved		BOOLEAN			
				11	Reserved		BOOLEAN			
				12	Reserved		BOOLEAN			
				13	Reserved		BOOLEAN			
				14	Reserved		BOOLEAN			
				15	Power cabinet redundancy lost		BOOLEAN			1=Power cabinet redundancy lost
	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 out of range		BOOLEAN			1=Output frequency out of range
				6	Output voltage out of range		BOOLEAN			1=Output voltage is out of range
				7	Reserved		BOOLEAN			
				8	Reserved		BOOLEAN			
				9	Reserved		BOOLEAN			
				10	Reserved		BOOLEAN			
				11	Reserved		BOOLEAN			
				12	Overload on installation		BOOLEAN			1=Overload on installation
				13	Reserved		BOOLEAN			
				14	Reserved		BOOLEAN			
				15	Reserved		BOOLEAN			
	40009	0x0008	8		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	Reserved		BOOLEAN			
				10	Reserved		BOOLEAN			
				11	Reserved		BOOLEAN			
A				12	UOB Auxiliary wiring not correct		BOOLEAN			1= UOB Aux wiring is not correct
				13	Reserved		BOOLEAN			
				14	Reserved		BOOLEAN			
				15	Reserved		BOOLEAN			
	40010	0x0009	9		Alarm Register	1				
				0	Reserved		BOOLEAN			
				1	Reserved		BOOLEAN			
				2	Reserved		BOOLEAN			
				3	Reserved		BOOLEAN			
				4	Reserved		BOOLEAN			
				5	Reserved		BOOLEAN			

Release	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	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 inoperable		BOOLEAN			1=Static bypass switch has a critical alarm that prevents it from operating
				9	Static bypass switch warning		BOOLEAN			1=Static bypass switch has an alarm 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	2				
	40014	0x000D	13		Alarm Register	1				
				0	Reserved		BOOLEAN			
				1	Reserved		BOOLEAN			
				2	Reserved		BOOLEAN			
				3	Reserved		BOOLEAN			
				4	Battery room ventilation inoperable		BOOLEAN			1=Battery room ventilation inoperable
				5	Reserved		BOOLEAN			
				6	Reserved		BOOLEAN			
				7	Reserved		BOOLEAN			
				8	Reserved		BOOLEAN			
				9	Reserved		BOOLEAN			
				10	External battery monitoring alarm		BOOLEAN			1=External battery monitoring alarm
				11	Reserved		BOOLEAN			
				12	Reserved		BOOLEAN			
				13	Reserved		BOOLEAN			
				14	Reserved		BOOLEAN			
				15	Reserved		BOOLEAN			
	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			
				11	Battery breaker BB1 open		BOOLEAN			1=Battery breaker BB1 open
				12	Battery breaker BB2 open		BOOLEAN			1=Battery breaker BB2 open
				13	Battery breaker BB3 open		BOOLEAN			1=Battery breaker BB3 open
				14	Battery breaker BB4 open		BOOLEAN			1=Battery breaker BB4 open
				15	Delayed transfer from Battery to Normal Operation		BOOLEAN			1=The delayed transfer from Battery to Normal Operation is active.

								Scale		
Release	Modicon Standard Register Number	Absolute Starting Register Address, (Hexa-decimal)	Absolute Starting Register Address, (Decimal)	Bit	Data Point	Length # registers	Data Type	Multiply Reading By:	Divide Reading By:	Valid Response
	40016	0x000F	15		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	Breaker BF2 open		BOOLEAN			1= breaker BF2 open
				10	Reserved		BOOLEAN			
				11	Reserved		BOOLEAN			
				12	Reserved		BOOLEAN			
				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 incorrect		BOOLEAN			1=General UPS settings incorrect
				5	UPS configuration incorrect		BOOLEAN			1=UPS general configuration is incorrect
				6	Synchronization unavailable		BOOLEAN			1=Synchronization unavaliable - system is free running
				7	Fan inoperable		BOOLEAN			1=UPS has one or more inoperable 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 detected a fault		BOOLEAN			1=Surveillance detected a fault
				11	Charger status		BOOLEAN			1=Inoperable
				12	Inverter status		BOOLEAN			1=Inoperable
				13	PFC status		BOOLEAN			1=Inoperable
				14	Battery status		BOOLEAN			1=Inoperable
				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 recommened		BOOLEAN			1=Air filter check recommened
				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	Reserved		BOOLEAN			
				2	Reserved		BOOLEAN			
				3	Reserved		BOOLEAN			
				4	Reserved		BOOLEAN			
				5	Not enough UPSs ready to turn on inverter		BOOLEAN			1=Not enough UPSs 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

								Scale		
Release	Modicon Standard Register Number	Absolute Starting Register Address, (Hexa-decimal)	Absolute Starting Register Address, (Decimal)	Bit	Data Point	Length # registers	Data Type	Multiply Reading By:	Divide Reading By:	Valid Response
				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	Firmware versions in parallel UPS units are not identical		BOOLEAN			1=Firmware versions in parallel UPS units are not identical
				13	Reserved		BOOLEAN			
				14	Reserved		BOOLEAN			
				15	Reserved		BOOLEAN			
	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	System operation mode - Static Bypass Standby		BOOLEAN			1 = System operation mode - Static Bypass Standby
				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		BOOLEAN			1=Input is missing a phase
				1	Bypass missing phase		BOOLEAN			1=Bypass input is missing a phase
				2	External sync voltage out of range		BOOLEAN			1=External sync voltage is out of range
				3	External sync phase sequence incorrect		BOOLEAN			1=The phase rotation on external sync is wrong
				4	External sync frequency out of range		BOOLEAN			1=External sync frequency is out of range
				5	External sync missing phase		BOOLEAN			1=External sync is missing a phase
				6	External sync temporarily disabled		BOOLEAN			1=External sync temporarily disabled
				7	Flywheel inoperable		BOOLEAN			1=Flywheel inoperable
				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	10-Inch display incompatibility detected		BOOLEAN			1=10 inch Display firmware incompatibility detected
				12	Inverter output is not in phase with bypass input		BOOLEAN			1=Inverter output is not in phase with bypass input
A				13	Engineering Firmware Version detected		BOOLEAN			1=Alarm Engineering Firmware Version detected
				14	Reserved		BOOLEAN			
				15	Reserved		BOOLEAN			
	40024	0x0017	23		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	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	Reserved		BOOLEAN			
				1	Reserved		BOOLEAN			

								Scale		
Release	Modicon Standard Register Number	Absolute Starting Register Address, (Hexa-decimal)	Absolute Starting Register Address, (Decimal)	Bit	Data Point	Length # registers	Data Type	Multiply Reading By:	Divide Reading By:	Valid Response
				2	Reserved		BOOLEAN			
				3	Reserved		BOOLEAN			
				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			
	40026	0x0019	25		Alarm Register	1				
				0	Sensor AP9810 - Input contact A in sensor 1		BOOLEAN			1 = Alarm from sensor 1 / contact A
				1	Sensor AP9810 - Input contact B in sensor 1		BOOLEAN			1 = Alarm from sensor 1 / contact B
				2	Sensor AP9810 - Input contact A in sensor 2		BOOLEAN			1 = Alarm from sensor 2 / contact A
				3	Sensor AP9810 - Input contact B in sensor 2		BOOLEAN			1 = Alarm from sensor 2 / contact B
				4	Sensor AP9335T or AP9335TH - temperature alarm in sensor 1		BOOLEAN			1 = temperature alarm in sensor 1
				5	Sensor AP9335T or AP9335TH - temperature alarm in sensor 2		BOOLEAN			1 = temperature alarm in sensor 2
				6	Sensor AP9335TH - humidity alarm in sensor 1		BOOLEAN			1 = humidity alarm in sensor 1
				7	Sensor AP9335TH - humidity alarm in sensor 2		BOOLEAN			1 = humidity alarm in sensor 2
				8	Sensor Communication Lost with sensor 1		BOOLEAN			1 = communication lost with sensor 1
				9	Sensor Communication Lost with sensor 2		BOOLEAN			1= communication lost with sensor 2
				10	Reserved		BOOLEAN			
				11	Reserved		BOOLEAN			
				12	Reserved		BOOLEAN			
				13	Reserved		BOOLEAN			
				14	Reserved		BOOLEAN			
				15	Reserved		BOOLEAN			
	40027	0x0020	26		Alarm Register	1				
				0	Power Cabinet 1 surveillance detected a fault		BOOLEAN			1 = Power Cabinet 1 surveillance detected a fault
				1	Power Cabinet 2 surveillance detected a fault		BOOLEAN			1 = Power Cabinet 2 surveillance detected a fault
				2	Power Cabinet 3 surveillance detected a fault		BOOLEAN			1 = Power Cabinet 3 surveillance detected a fault
				3	Power Cabinet 4 surveillance detected a fault		BOOLEAN			1 = Power Cabinet 4 surveillance detected a fault
				4	Power Cabinet 5 surveillance detected a fault		BOOLEAN			1 = Power Cabinet 5 surveillance detected a fault
				5	Power Cabinet 6 surveillance detected a fault		BOOLEAN			1 = Power Cabinet 6 surveillance detected a fault
				6	Power Cabinet 7 surveillance detected a fault		BOOLEAN			1 = Power Cabinet 7 surveillance detected a fault
				7	Reserved		BOOLEAN			
				8	Power Cabinet 1 inoperable		BOOLEAN			1 = Power cabinet inoperable
				9	Power Cabinet 2 inoperable		BOOLEAN			1 = Power cabinet inoperable
				10	Power Cabinet 3 inoperable		BOOLEAN			1 = Power cabinet inoperable
				11	Power Cabinet 4 inoperable		BOOLEAN			1 = Power cabinet inoperable
				12	Power Cabinet 5 inoperable		BOOLEAN			1 = Power cabinet inoperable
				13	Power Cabinet 6 inoperable		BOOLEAN			1 = Power cabinet inoperable
				14	Power Cabinet 7 inoperable		BOOLEAN			1 = Power cabinet inoperable
				15	Reserved		BOOLEAN			
	40028	0x0021	27		Alarm Register	1				
				0	Input dry contact: Genset supplying UPS		BOOLEAN			1= a Genset supply the UPS
				1	Input dry contact: Battery room ventilation inoperable		BOOLEAN			1= Battery room ventilation inoperable
				2	Input dry contact: External battery monitoring inoperable		BOOLEAN			1= External battery monitoring inoperable
				3	Input dry contact: Ground fault detected		BOOLEAN			1= Ground fault detected
				4	Input dry contact: UPS locked in static bypass mode is actived		BOOLEAN			1= UPS locked in static bypass mode is actived
				5	Input dry contact: User-defined input dry contacts 1		BOOLEAN			1= User-defined input dry contacts 1, in alarm position
				6	Input dry contact: User-defined input dry contacts 2		BOOLEAN			1= User-defined input dry contacts 2, in alarm position
				7	Input dry contact: Flywheel inoperable		BOOLEAN			1= Flywheel inoperable
				8	Input dry contact: External energy storage monitoring major alarm		BOOLEAN			1= External energy storage monitoring major alarm
				9	Input dry contact: External energy storage monitoring minor alarm		BOOLEAN			1= External energy storage monitoring minor alarm
				10	Input dry contact: Force Charger Off		BOOLEAN			1= Force Charger Off
				11	Input dry contact: Disable High Efficiency Mode		BOOLEAN			1= Disable High Efficiency Mode
				12	Input dry contact: Transfer from Battery to Normal Operation delay		BOOLEAN			1=Transfer from Battery to Normal Operation delay
A				13	Input dry contact: Force Battery Operation		BOOLEAN			1=Force Battery Operation
A				14	Input dry contact: Request Bypass operation		BOOLEAN			1=Requested Bypass command from input relay activated

Release	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:	
				15	Reserved		BOOLEAN			
	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 or °F
	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 eqalization 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, for GVX up to 1000kVA	1	INT16	0,1	10	Amps - Caution overflow possible. There is a current limitation [– 3276A, 3276A]. That register can be use for GVX up to 1000KVA. When GVX power rating exceed 1000 kVA (1250KVA and 1500kVA) used register 0x111D
	44374	0x1115	4373		RESERVED	1	UINT16	1	1	
	44375	0x1116	4374		RESERVED	1	UINT16	1	1	
	44376	0x1117	4375		RESERVED	1	UINT16	1	1	
	44377	0x1118	4376		RESERVED	1	UINT16	1	1	
	44378	0x1119	4377		RESERVED	1	UINT16	1	1	
	44379	0x111A	4378		RESERVED	1	UINT16	1	1	
	44380	0x111B	4379		RESERVED	1	UINT16	1	1	
	44381	0x111C	4380		RESERVED	1	UINT16	1	1	
	44382	0x111D	4381		Battery Current, for all GVX power rating (from 250kVA up to 1500kVA)	1	INT16	1	1	Amps - Recommended register for GVX. To be used when UPS power rating exceed 1000 kVA. This register supports all GVX power rating (from 250KVA up to 1500kVA).
	44383	0x111E	4382		RESERVED	1	UINT16	1	1	
	44384	0x111F	4383		RESERVED	1	UINT16	1	1	
	44385	0x1120	4384		RESERVED	1	UINT16	1	1	
	44609	0x1200	4608		Frequency (input)	1	UINT16	0,1	10	Hz
	44610	0x1201	4609		Voltage L1-2 (input)	1	UINT16	1	1	Volts
	44611	0x1202	4610		Voltage L2-3 (input)	1	UINT16	1	1	Volts
	44612	0x1203	4611		Voltage L3-1 (input)	1	UINT16	1	1	Volts
	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

								Scale		
Release	Modicon Standard Register Number	Absolute Starting Register Address, (Hexa-decimal)	Absolute Starting Register Address, (Decimal)	Bit	Data Point	Length # registers	Data Type	Multiply Reading By:	Divide Reading By:	Valid Response
	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	UINT32	1	1	amps
	44629	0x1214	4628		Maximum RMS Current L2 (input)	2	UINT32	1	1	amps
	44631	0x1216	4630		Maximum RMS Current L3 (input)	2	UINT32	1	1	amps
	44633	0x1218	4632		Power factor L1 (input)	1	UINT16	0,01	100	Unitless
	44634	0x1219	4633		Power factor L2 (input)	1	UINT16	0,01	100	Unitless
	44635	0x121A	4634		Power factor L3 (input)	1	UINT16	0,01	100	Unitless
	44865	0x1300	4864		Frequency (bypass)	1	UINT16	0,1	10	Hz
	44866	0x1301	4865		Voltage L1-2 (bypass)	1	UINT16	1	1	Volts
	44867	0x1302	4866		Voltage L2-3 (bypass)	1	UINT16	1	1	Volts
	44868	0x1303	4867		Voltage L3-1 (bypass)	1	UINT16	1	1	Volts
	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	UINT32	1	1	amps
	44885	0x1314	4884		Maximum RMS Current L2 (bypass)	2	UINT32	1	1	amps
	44887	0x1316	4886		Maximum RMS Current L3 (bypass)	2	UINT32	1	1	amps
	44889	0x1318	4888		Power factor L1 (bypass)	1	UINT16	0,01	100	Unitless
	44890	0x1319	4889		Power factor L2 (bypass)	1	UINT16	0,01	100	Unitless
	44891	0x131A	4890		Power factor L3 (bypass)	1	UINT16	0,01	100	Unitless
A	44892	0x131B	4891		UTHD - Voltage THD L1 (bypass)	1	UINT16	0,1	10	%
A	44893	0x131C	4892		UTHD - Voltage THD L2 (bypass)	1	UINT16	0,1	10	%
A	44894	0x131D	4893		UTHD - Voltage THD L3 (bypass)	1	UINT16	0,1	10	%
	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	Volts
	45124	0x1403	5123		Voltage L2-3 (output)	1	UINT16	1	1	Volts
	45125	0x1404	5124		Voltage L3-1 (output)	1	UINT16	1	1	Volts
	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
A	45141	0x1414	5140		Apparent power percent L1 (output)	1	UINT16	0,1	10	%
A	45142	0x1415	5141		Apparent power percent L2 (output)	1	UINT16	0,1	10	%
A	45143	0x1416	5142		Apparent power percent L3 (output)	1	UINT16	0,1	10	%
	45144	0x1417	5143		Total active power (output)	1	UINT16	1	1	kW

								Scale		
Release	Modicon Standard Register Number	Absolute Starting Register Address, (Hexa-decimal)	Absolute Starting Register Address, (Decimal)	Bit	Data Point	Length # registers	Data Type	Multiply Reading By:	Divide Reading By:	Valid Response
	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	0,01	100	power factor
	45148	0x141B	5147		Power factor L2 (output)	1	UINT16	0,01	100	power factor
	45149	0x141C	5148		Power factor L3 (output)	1	UINT16	0,01	100	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	%
	45160	0x1427	5159		IOC Power Rating	1	UINT16	1	1	kVA
	45161	0x1428	5160		Available UPS Power Rating	1	UINT16	1	1	kVA
	45376	0x14FF	5375		RESERVED	1	UINT16	1	1	
	45377	0x1500	5376		IOC Ambient temperature	1	UINT16	1	1	°C or °F
	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	Battery Breaker 3 (for classic battery solution)		BOOLEAN			
				8	Battery Breaker 4 (for classic battery solution)		BOOLEAN			
				9	BF2		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 = Inverter SPoT Mode 13 = ECO Mode 14 = ECOnversion 15 = Charger SPoT Mode 16 = Battery discharge SPoT Mode
	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

								Scale		
Release	Modicon Standard Register Number	Absolute Starting Register Address, (Hexa-decimal)	Absolute Starting Register Address, (Decimal)	Bit	Data Point	Length # registers	Data Type	Multiply Reading By:	Divide Reading By:	Valid Response
	45382	0x1505	5381		System Mode	1	ENUM			1 = Inverter 2 = Requested Static Bypass 3 = Forced Static Bypass 4 = Off 5 = Reserved 6 = Maintenance Bypass 7 = ECO Mode 8 = ECOnversion 9 = Static Bypass Standby
	45383	0x1506	5382		RESERVED	3				
	45385	0x1508	5384		UPS Redundancy Status	1	UINT16	1	1	
	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
	45399	0x1516	5398		IOC Exhaust Air Temperature	1	UINT16	1	1	°C or °F
	45400	0x1517	5399		Ambient Temperature from Power Cabinet [1]	1	UINT16	1	1	°C or °F
	45401	0x1518	5400		Exhaust Temperature from Power Cabinet [1]	1	UINT16	1	1	°C or °F
	45402	0x1519	5401		Ambient Temperature from Power Cabinet [2]	1	UINT16	1	1	°C or °F
	45403	0x151A	5402		Exhaust Temperature from Power Cabinet [2]	1	UINT16	1	1	°C or °F
	45404	0x151B	5403		Ambient Temperature from Power Cabinet [3]	1	UINT16	1	1	°C or °F
	45405	0x151C	5404		Exhaust Temperature from Power Cabinet [3]	1	UINT16	1	1	°C or °F
	45406	0x151D	5405		Ambient Temperature from Power Cabinet [4]	1	UINT16	1	1	°C or °F
	45407	0x151E	5406		Exhaust Temperature from Power Cabinet [4]	1	UINT16	1	1	°C or °F
	45408	0x151F	5407		Ambient Temperature from Power Cabinet [5]	1	UINT16	1	1	°C or °F
	45409	0x1520	5408		Exhaust Temperature from Power Cabinet [5]	1	UINT16	1	1	°C or °F
	45410	0x1521	5409		Ambient Temperature from Power Cabinet [6]	1	UINT16	1	1	°C or °F
	45411	0x1522	5410		Exhaust Temperature from Power Cabinet [6]	1	UINT16	1	1	°C or °F
	45412	0x1523	5411		Ambient Temperature from Power Cabinet [7]	1	UINT16	1	1	°C or °F
	45413	0x1524	5412		Exhaust Temperature from Power Cabinet [7]	1	UINT16	1	1	°C or °F
	45414	0x1525	5413		Power Cabinet Redundancy Status	1	UINT16	1	1	0 - 7
	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	%
	46412	0x190B	6411		Total active power (parallel system output)	1	UINT16	1	1	kW
A	46413	0x190C	6412		Apparent power percent L1 (parallel system output)	1	UINT16	0,1	10	%
A	46414	0x190D	6413		Apparent power percent L2 (parallel system output)	1	UINT16	0,1	10	%
A	46415	0x190E	6414		Apparent power percent L3 (parallel system output)	1	UINT16	0,1	10	%
	46416	0x190F	6415		Reserved					
	46417	0x1910	6416		Reserved					
	46418	0x1911	6417		Reserved					
	46419	0x1912	6418		Reserved					
	46420	0x1913	6419		UPS Operation Modes	1				bit = 1, define current UPS operation mode
				0	Initialize		BOOLEAN			
				1	Normal Operation		BOOLEAN			
				2	Battery Operation		BOOLEAN			
				3	Battery test or Battery Discharge in Spot Mode		BOOLEAN			
				4	Requested Static Bypass		BOOLEAN			
				5	Forced Static Bypass		BOOLEAN			
				6	Maintenance Bypass		BOOLEAN			
				7	Off		BOOLEAN			
				8	Emergency Static Bypass		BOOLEAN			
				9	Static Bypass Standby		BOOLEAN			
				10	Inverter standby		BOOLEAN			
				11	Power Saving mode		BOOLEAN			
				12	Inverter SPoT Mode		BOOLEAN			

								Scale		
Release	Modicon Standard Register Number	Absolute Starting Register Address, (Hexa-decimal)	Absolute Starting Register Address, (Decimal)	Bit	Data Point	Length # registers	Data Type	Multiply Reading By:	Divide Reading By:	Valid Response
				13	ECO mode		BOOLEAN			
				14	ECOnvertion Mode mode		BOOLEAN			
				15	Charger SPoT Mode		BOOLEAN			
	46421	0x1914	6420		System Mode	1				bit = 1, define current System mode
				0	Inverter		BOOLEAN			
				1	Requested Static Bypass		BOOLEAN			
				2	Forced Static Bypass		BOOLEAN			
				3	Off		BOOLEAN			
				4	Maintenance Bypass		BOOLEAN			
				5	ECO mode		BOOLEAN			
				6	ECOnversion mode		BOOLEAN			
				7	Static Bypass Standby Operation		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			
	46422	0x1915	6421		Reserved	1	UINT16	1	1	
	46423	0x1916	6422		Reserved	1	UINT16	1	1	
	46424	0x1917	6423		Reserved	1	UINT16	1	1	
	46425	0x1918	6424		Reserved	1	UINT16	1	1	
	46426	0x1919	6425		Reserved	1	UINT16	1	1	
	46427	0x191A	6426		Reserved	1	UINT16	1	1	
	46428	0x191B	6427		Reserved	1	UINT16	1	1	
	46429	0x191C	6428		Reserved	1	UINT16	1	1	
	46430	0x191D	6429		Reserved	1	UINT16	1	1	
	46431	0x191E	6430		Sensor temperature in sensor 1	1	UINT16	0,1	10	°C or °F
	46432	0x191F	6431		Sensor temperature in sensor 2	1	UINT16	0,1	10	°C or °F
	46433	0x1920	6432		Sensor humidity in sensor 1	1	UINT16	0,1	10	%
	46434	0x1921	6433		Sensor humidity in sensor 2	1	UINT16	0,1	10	%
	46435	0x1922	6434		sensor (AP9810) input contact status	1				Bit mask For each bit, 0 = open, 1 =closed
				0	Sensor dry contact A in sensor 1		BOOLEAN			
				1	Sensor dry contact B in sensor 1		BOOLEAN			
				2	Sensor dry contact A in sensor 2		BOOLEAN			
				3	Sensor dry contact B in sensor 2		BOOLEAN			
				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			
	46449	0x1930	6448		User interface - Input Pictogram	1	UINT16	1	1	Inoperable (Red) = 4 Ok and operating (Green) = 2 None of the above (Black) = 0
	46450	0x1931	6449		User interface - PFC Pictogram	1	UINT16	1	1	Inoperable (Red) = 4 Ok and operating (Green) = 2 None of the above (Black) = 0
	46451	0x1932	6450		User interface - Battery Pictogram	1	UINT16	1	1	Inoperable (Red) = 4 Ok and operating (Green) = 2 None of the above (Black) = 0
	46452	0x1933	6451		User interface - Inverter Pictogram	1	UINT16	1	1	Inoperable (Red) = 4 Ok and operating (Green) = 2 None of the above (Black) = 0

Release	Modicon Standard Register Number	Absolute Starting Register Address, (Hexa-decimal)	Absolute Starting Register Address, (Decimal)	Bit	Data Point	Length # registers	Data Type	Scale: Multiply Reading By:	Scale: Divide Reading By:	Valid Response
	46453	0x1934	6452		User interface - Output Pictogram	1	UINT16	1	1	Inoperable (Red) = 4 Ok and operating (Green) = 2 None of the above (Black) = 0
	46454	0x1935	6453		User interface - Bypass Input Pictogram	1	UINT16	1	1	Inoperable (Red) = 4 Ok and operating (Green) = 2 None of the above (Black) = 0
	46455	0x1936	6454		User interface - Static Bypass Pictogram	1	UINT16	1	1	Inoperable (Red) = 4 Ok and operating (Green) = 2 None of the above (Black) = 0
	46456	0x1937	6455		Status for mimic animation	1	UINT16	1	1	
				0	Aggregated Battery circuit breaker status		BOOLEAN			0 = open, 1 =closed
				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	Reserved		BOOLEAN			
				10	Reserved		BOOLEAN			
				11	Reserved		BOOLEAN			
				12	Reserved		BOOLEAN			
				13	Reserved		BOOLEAN			
				14	Reserved		BOOLEAN			
				15	Reserved		BOOLEAN			
	46457	0x1938	6456		Power Cabinet status for UPS detailled view animation	1	UINT16	1	1	
				0	Warning alarm present in Power Cabinet 1		BOOLEAN			1 = warning alarm present in Power Cabinet 1 (Orange)
				1	Critical alarm present in Power Cabinet 1		BOOLEAN			1 = critical alarm present Power Cabinet 1 (Red)
				2	Warning alarm present in Power Cabinet 2		BOOLEAN			1 = warning alarm present in Power Cabinet 2 (Orange)
				3	Critical alarm present in Power Cabinet 2		BOOLEAN			1 = critical alarm present Power Cabinet 2 (Red)
				4	Warning alarm present in Power Cabinet 3		BOOLEAN			1 = warning alarm present in Power Cabinet 3 (Orange)
				5	Critical alarm present in Power Cabinet 3		BOOLEAN			1 = critical alarm present Power Cabinet 3 (Red)
				6	Warning alarm present in Power Cabinet 4		BOOLEAN			1 = warning alarm present in Power Cabinet 4 (Orange)
				7	Critical alarm present in Power Cabinet 4		BOOLEAN			1 = critical alarm present Power Cabinet 4 (Red)
				8	Warning alarm present in Power Cabinet 5		BOOLEAN			1 = warning alarm present in Power Cabinet 5 (Orange)
				9	Critical alarm present in Power Cabinet 5		BOOLEAN			1 = critical alarm present Power Cabinet 5 (Red)
				10	Warning alarm present in Power Cabinet 6		BOOLEAN			1 = warning alarm present in Power Cabinet 6 (Orange)
				11	Critical alarm present in Power Cabinet 6		BOOLEAN			1 = critical alarm present Power Cabinet 6 (Red)
				12	Warning alarm present in Power Cabinet 7		BOOLEAN			1 = warning alarm present in Power Cabinet 7 (Orange)
				13	Critical alarm present in Power Cabinet 7		BOOLEAN			1 = critical alarm present Power Cabinet 7 (Red)
				14	Reserved		BOOLEAN			
				15	Reserved		BOOLEAN			
	46458	0x1939	6457		Power Cabinet status for UPS detailled view animation	1	UINT16	1	1	
				0	informational alarm present in Power Cabinet 1		BOOLEAN			1 = informational alarm present in Power Cabinet 1
				1	informational alarm present in Power Cabinet 2		BOOLEAN			2 = informational alarm present in Power Cabinet 2
				2	informational alarm present in Power Cabinet 3		BOOLEAN			3 = informational alarm present in Power Cabinet 3
				3	informational alarm present in Power Cabinet 4		BOOLEAN			4 = informational alarm present in Power Cabinet 4
				4	informational alarm present in Power Cabinet 5		BOOLEAN			5 = informational alarm present in Power Cabinet 5
				5	informational alarm present in Power Cabinet 6		BOOLEAN			6 = informational alarm present in Power Cabinet 6
				6	informational alarm present in Power Cabinet 7		BOOLEAN			7 = informational alarm present in Power Cabinet 7
				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			
	Configuration Data									
	48193	0x2000	8192		RESERVED	3				
	48196	0x2003	8195		RESERVED	1				

Release	Modicon Standard Register Number	Absolute Starting Register Address, (Hexa-decimal)	Absolute Starting Register Address, (Decimal)	Bit	Data Point	Length # registers	Data Type	Scale: Multiply Reading By:	Scale: Divide Reading By:	Valid Response
	48198	0x2005	8197		RESERVED					
	48199	0x2006	8198		RESERVED					
	48200	0x2007	8199		Breaker settings	1				bit = 1, breaker is present
				0	breaker Q1 (UIB)		BOOLEAN			
				1	breaker Q2 (UOB)		BOOLEAN			
				2	Q3 (MBB)		BOOLEAN			
				3	Q4 (SIB)		BOOLEAN			
				4	Q5 (SSIB)		BOOLEAN			
				5	BB1		BOOLEAN			
				6	BB2		BOOLEAN			
				7	BB3		BOOLEAN			
				8	BB4		BOOLEAN			
				9	BF2		BOOLEAN			
				10	Reserved		BOOLEAN			
				11	Reserved		BOOLEAN			
				12	Reserved		BOOLEAN			
				13	Reserved		BOOLEAN			
				14	Reserved		BOOLEAN			
				15	Reserved		BOOLEAN			
	48201	0x2008	8200		Temperature unity	1	ENUM			0 = Celcius 1 = Fahrenheit
	48202	0x2009	8201		UPS environment settings	1				
				0	Input transformer presence		BOOLEAN			bit = 1, transformer is present
				1	Output transformer presence		BOOLEAN			bit = 1, transformer is present
				2	AC wiring configuration		BOOLEAN			bit = 0, input cabling 3 wires bit = 1, input cabling 4 wires
				3	UPS mains supply by single input		BOOLEAN			bit = 1, mains supply input is single
				4	UPS mains supply by dual input		BOOLEAN			bit = 1, mains supply input is dual
				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			
	48203	0x200A	8202		SIB breaker label	2	ASCII			4 byte string = 2 registers, Default value "SIB "
	48205	0x200C	8204		UIB breaker label	2	ASCII			4 byte string = 2 registers, Default value UIB "
	48207	0x200E	8206		SSIB breaker label	2	ASCII			4 byte string = 2 registers, Default value "SSIB"
	48209	0x2010	8208		MBB breaker label	2	ASCII			4 byte string = 2 registers, Default value "MBB "
	48211	0x2012	8210		UOB breaker label	2	ASCII			4 byte string = 2 registers, Default value "UOB "
	48213	0x2014	8212		BF2 breaker label	2	ASCII			4 byte string = 2 registers, Default value "BF2 "
	48215	0x2016	8214		BB breaker label	2	ASCII			4 byte string = 2 registers, Default value "BB "
	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 2=Lithium-Ion 3=NiCd
	48451	0x2102	8450		Battery Solution	1	ENUM	1	1	0=None 1=Classic 2=NA 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
	48454	0x2105	8453		Reserved	1	UINT16	1	1	
	48455	0x2106	8454		Number of battery bank for Classical battery	1	UINT16	1	1	Unitless
	48705	0x2200	8704		Nominal Output Voltage	1	ENUM	1	1	0=380V 1=400V 2=415V 3=480V 4=440V

								Scale		
Release	Modicon Standard Register Number	Absolute Starting Register Address, (Hexa-decimal)	Absolute Starting Register Address, (Decimal)	Bit	Data Point	Length # registers	Data Type	Multiply Reading By:	Divide Reading By:	Valid Response
	48706	0x2201	8705		Transfer to Static Bypass Disable	1	ENUM	1	1	0=Disable 1=Enable
	48707	0x2202	8706		Reserved	1	ENUM	1	1	
	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=ECOnversion 3=ECOnversion Harmonics Compensator
	48710	0x2205	8709		Reserved	1		1	1	
	48711	0x2206	8710		Number of UPS installed in a parallel installation	1	UINT16			
	48712	0x2207	8711		Number of redundant UPS installed in a parallel installation	1	UINT16			
	48713	0x2208	8712		Number of redundant Power Cabinet installed in a UPS	1	UINT16			
	48714	0x2209	8713		UPSs presence in parallel installation	1				
				0	UPS 1 presence		BOOLEAN			bit = 0, UPS 1 not present bit = 1, UPS 1 is present
				1	UPS 2 presence		BOOLEAN			bit = 0, UPS 2 not present bit = 1, UPS 2 is present
				2	UPS 3 presence		BOOLEAN			bit = 0, UPS 3 not present bit = 1, UPS 3 is present
				3	UPS 4 presence		BOOLEAN			bit = 0, UPS 4 not present bit = 1, UPS 4 is present
				4	UPS 5 presence		BOOLEAN			bit = 0, UPS 5 not present bit = 1, UPS 5 is present
				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			
	48715	0x220A	8714		Frequency Converter Mode	1	ENUM	1	1	0=Disable 1=Enable
	48716	0x220B	8715		Energy Storage Type	1	ENUM	1	1	0=None 1=Battery 2=Flywheel
	48717	0x220C	8716		Number Power Cabinet on the left of IO Cabinet	1	UINT16	1	1	
A	48718	0x220D	8717		Continuous Overload Mode Setting	1	UINT16	1	1	%

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