



Modbus Register Map: Battery Management System

990-2353D

11/2014

//Absolute Starting Register Number, (Hexadecimal)	Absolute Starting Register Number, (Decimal)	Data Point	R/W	Length	Units	Valid Response			
// ISX									
0000	0	BM_ISX_DEVICE_TYPE	R	1	ENUM	16 = BM ISX Device Type Code			
0001	1	BM_ISX_OVERALL_STATUS	R	1	ENUM	0 = OK	1 = Alarm		
0002	2	BM_ISX_RESERVED_REGISTERS	R	254	NA	Reserved			
// SYSTEM									
0100	256	BM_DEVICE_TYPE	R	1	ENUM	16 = BM ISX Device Type Code			
0101	257	BM_OVERALL_STATUS	R	1	ENUM	0 = OK	1 = Alarm		
0102	258	BM_NETWORK_MANAGEMENT_CARD_NAME	R	11	ASCII	NMC Name			
010D	269	Reserved	R	1	INTEGER	Reserved			
010E	270	BM_NETWORK_MANAGEMENT_CARD_PRODUCT_NUMBER	R	9	ASCII	NMC Product Number			
0117	279	BM_NETWORK_MANAGEMENT_CARD_FIRMWARE_REVISION	R	6	ASCII	NMC Firmware Revision			
011D	285	BM_NETWORK_MANAGEMENT_CARD_HARDWARE_REVISION	R	9	ASCII	NMC Hardware Revision			
0126	294	BM_NETWORK_MANAGEMENT_CARD_MANUFACTURE_DATE	R	6	ASCII	NMC Manufacture Date			
012C	300	BM_NETWORK_MANAGEMENT_CARD_SN	R	8	ASCII	NMC Serial Number			
0134	308	BM_BATTERY_CHEMISTRY	R	1	ENUM	0 = Lead-Acid	1 = Nickel-Cadmium		
0135	309	BM_BATTERY_AH_CAPACITY	R	1	INTEGER	AH (5-2000)			
0136	310	BM_SYSTEM_RESERVED_1	R	1	NA	Reserved			
0137	311	BM_NUMBER_OF_STRINGS	R	1	INTEGER	Number of Strings (1-2)			
0138	312	BM_BATTERIES_PER_STRING	R	1	INTEGER	Number of Batteries/String (1- 400)			
0139	313	BM_CELLS_PER_BATTERY	R	1	INTEGER	Number of Cells/Battery (1 2 4 or 6)			
013A	314	BM_CELL_VOLTAGE_LIMIT_MIN	R	1	INTEGER	Cell Voltage Limit Min (Milli-Volts)			
013B	315	BM_CELL_VOLTAGE_LIMIT_MAX	R	1	INTEGER	Cell Voltage Limit Max (Milli-Volts)			
013C	316	BM_AMBIENT_TEMP_LIMIT_MIN	R	1	INTEGER	Ambient Temp Limit Min (Tenths of Degrees F)			
013D	317	BM_AMBIENT_TEMP_LIMIT_MAX	R	1	INTEGER	Ambient Temp Limit Max (Tenths of Degrees F)			
013E	318	BM_PILOT_TEMP_LIMIT_MAX	R	1	INTEGER	Pilot Temp Limit Max (Tenths of Degrees F)			
013F	319	BM_CHARGE_DEVIATION_ALARM_LEVEL	R	1	INTEGER	Charge Deviation Alarm Level (Percentage)			
0140	320	BM_DISCHARGE_DEVIATION_ALARM_LEVEL	R	1	INTEGER	Discharge Voltage Alarm Level (Percentage)			
0141	321	BM_MAX_RIPPLE_CURRENT_ALARM_LEVEL	R	1	INTEGER	Ripple Current Limit (Percent of Rated AH)			
0142	322	BM_AUTO_ANNUNCIATOR_RESET	R	1	ENUM	0 = auto annunciator reset disabled	1 = auto annunciator reset enabled		
0143	323	BM_OHMIC_VALUE_SPAN_CALIBRATION	R	1	INTEGER	Ohms Calibration Factor			
0144	324	BM_INPUT_CONTACT_1_STATE	R	1	ENUM	0 = Open	1 = Closed		
0145	325	BM_INPUT_CONTACT_2_STATE	R	1	ENUM	0 = Open	1 = Closed		
0146	326	BM_INPUT_CONTACT_1_ALARM	R	1	ENUM	0 = OK	1 = Alarm - Warning	2 = Alarm - Severe	3 = Alarm - Warning - Severe
0147	327	BM_INPUT_CONTACT_2_ALARM	R	1	ENUM	0 = OK	1 = Alarm - Warning	2 = Alarm - Severe	3 = Alarm - Warning - Severe
0148	328	BM_MANAGEMENT_CONTROLLER_ALARM	R	1	ENUM	0 = OK	1 = Alarm - Warning	2 = Alarm - Severe	3 = Alarm - Warning - Severe
0149	329	BM_BATTERIES_ALARM	R	1	ENUM	0 = OK	1 = Alarm - Warning	2 = Alarm - Severe	3 = Alarm - Warning - Severe
014A	330	BM_CHARGER_ALARM	R	1	ENUM	0 = OK	1 = Alarm - Warning	2 = Alarm - Severe	3 = Alarm - Warning - Severe
014B	331	BM_ENVIRONMENT_ALARM	R	1	ENUM	0 = OK	1 = Alarm - Warning	2 = Alarm - Severe	3 = Alarm - Warning - Severe
014C	332	BM_CONFIG_INVALID_ALARM	R	1	ENUM	0 = OK	1 = Alarm - Warning	2 = Alarm - Severe	3 = Alarm - Warning - Severe
014D	333	BM_AMB_PROBE_MISSING_ALARM	R	1	ENUM	0 = OK	1 = Alarm - Warning	2 = Alarm - Severe	3 = Alarm - Warning - Severe
014E	334	BM_PILOT_PROBE_MISSING_ALARM	R	1	ENUM	0 = OK	1 = Alarm - Warning	2 = Alarm - Severe	3 = Alarm - Warning - Severe
014F	335	BM_AMB_TEMP_HIGH_ALARM	R	1	ENUM	0 = OK	1 = Alarm - Warning	2 = Alarm - Severe	3 = Alarm - Warning - Severe
0150	336	BM_AMB_TEMP_LOW_ALARM	R	1	ENUM	0 = OK	1 = Alarm - Warning	2 = Alarm - Severe	3 = Alarm - Warning - Severe
0151	337	BM_PILOT_TEMP_HIGH_ALARM	R	1	ENUM	0 = OK	1 = Alarm - Warning	2 = Alarm - Severe	3 = Alarm - Warning - Severe
0152	338	BM_CHARGER_ON_BATTERIES_ALARM	R	1	ENUM	0 = OK	1 = Alarm - Warning	2 = Alarm - Severe	3 = Alarm - Warning - Severe
0153	339	BM_MONITOR_WIRE_LENGTH	R	1	ENUM	0 = Monitor Wire Length 50 feet or less	1 = Monitor Wire Length more than 50 Feet		
0154	340	BM_INPUT_CONTACT_NAME_INDEX_1_2	R	20	ASCII	Input Contact Names			
0168	360	BM_INPUT_CONTACT_NORMAL_STATE_INDEX_1_2	R	2	ENUM	0 = Open	1 = Closed		
016A	362	BM_INPUT_CONTACT_DELAY_INDEX_1_2	R	2	INTEGER	Input Contact Filter Delay (Seconds)			
016C	364	BM_AMBIENT_TEMPERATURE	R	1	INTEGER	Ambient Temperature (Tenths of Degrees F)			
016D	365	BM_PILOT_TEMPERATURE	R	1	INTEGER	Pilot Temperature (Tenths of Degrees F)			
016E	366	BM_SUSPEND_CELL_VOLTAGE	R	1	INTEGER	Suspend Cell Voltage (Milli-Volts)			
016F	367	BM_OHMIC_TEST_WAIT_TIME	R	1	INTEGER	Ohmic Test Wait Time (Seconds)			
0170	368	BM_NUMBER_OF_BOOSTS	R	1	INTEGER	Number Of Boosts			
0171	369	BM_SUSPEND_VOLTAGE_SCAN_ALARM	R	1	ENUM	0 = OK	1 = Alarm - Warning	2 = Alarm - Severe	3 = Alarm - Warning - Severe
0172	370	BM_SYSTEM_RESERVED_REGISTERS	R	142	NA	Reserved			



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// UNIT										
0200	512	BM_UNIT_SN_INDEX_1_TO_8	R	72	ASCII	Unit Serial Number				
0248	584	BM_UNIT_HW_VERSION_INDEX_1_TO_8	R	8	INTEGER	Unit HW Version				
0250	592	BM_UNIT_SW_VERSION_INDEX_1_TO_8	R	8	INTEGER	Unit SW Version				
0258	600	BM_UNIT_BATTERY_VOLTAGE_ZERO_INDEX_1_TO_8	R	8	INTEGER	Unit Calibration Voltage Zero Offset (MV)				
0260	608	BM_UNIT_BATTERY_VOLTAGE_SPAN_INDEX_1_TO_8	R	8	INTEGER	Unit Calibration Voltage Slope (Hundredths of Percent)				
0268	616	BM_UNIT_STUCK_RELAY_INDEX_1_TO_8	R	8	ENUM	0 = OK	1 = Alarm			
0270	624	BM_UNIT_COMMUNICATION_LOST_INDEX_1_TO_8	R	8	ENUM	0 = OK	1 = Alarm			
0278	632	BM_UNIT_RESERVED_REGISTERS	R	392	NA	Reserved				
// STRING										
0400	1024	BM_STRING_1_LAST_DISCHARGE_DETAILS	R	80	ASCII	last discharge conditions				
0450	1104	BM_STRING_2_LAST_DISCHARGE_DETAILS	R	80	ASCII	last discharge conditions				
04A0	1184	BM_STRING_STRING_CURRENT_ZERO_INDEX_1_TO_2	R	2	INTEGER	Calibration String Current Zero Offset (Tenths of Amps)				
04A2	1186	BM_STRING_RIPPLE_CURRENT_ZERO_INDEX_1_TO_2	R	2	INTEGER	Calibration Ripple Current Zero Offset (Tenths of Amps)				
04A4	1188	BM_STRING_CURRENT_PROBE_RANGE_INDEX_1_TO_2	R	2	ENUM	0 = 1000 Amp Current Probe	1 = 500 Amp Current Probe	2 = 200 Amp Current Probe	3 = 100 Amp Current Probe	4 = 2000 Amp Current Probe
04A0	1190	BM_STRING_CURRENT_PROBE_MISSING_ALARM_INDEX_1_TO_2	R	2	ENUM	0 = OK	1 = Alarm			
04A8	1192	BM_STRING_CHARGER_HIGH_RIPPLE_ALARM_INDEX_1_TO_2	R	2	ENUM	0 = OK	1 = Alarm			
04AA	1194	BM_STRING_CHARGER_HIGH_ALARM_INDEX_1_TO_2	R	2	ENUM	0 = OK	1 = Alarm			
04AC	1196	BM_STRING_CHARGER_LOW_ALARM_INDEX_1_TO_2	R	2	ENUM	0 = OK	1 = Alarm			
04AE	1198	BM_STRING_VLTG_INDEX_1_TO_2	R	4	LONG	String Voltage (Milli-Volts)				
04B2	1202	BM_STRING_CURRENT_INDEX_1_TO_2	R	2	INTEGER	String Current (Tenths of Amps)				
04B4	1204	BM_STRING_RIPPLE_CURRENT_INDEX_1_TO_2	R	2	INTEGER	Ripple Current (Tenths of Amps)				
04B6	1206	BM_STRING_DISCHARGE_CNT_LESS_5_SEC_1_TO_2	R	2	INTEGER	Discharge Count				
04B8	1208	BM_STRING_DISCHARGE_CNT_5_TO_10_SEC_1_TO_2	R	2	INTEGER	Discharge Count				
04BA	1210	BM_STRING_DISCHARGE_CNT_10_SEC_TO_1_MIN_1_TO_2	R	2	INTEGER	Discharge Count				
04BC	1212	BM_STRING_DISCHARGE_CNT_MORE_1_MIN_1_TO_2	R	2	INTEGER	Discharge Count				
04BE	1214	BM_STRING_RESERVED_REGISTERS	R	834	NA	Reserved				
// STRING_BATT										
0800	2048	BM_STRING1_BATT_VOLTAGE_INDEX_1_TO_100	R	100	INTEGER	Batt Voltage (Milli-Volts)				
0864	2148	BM_STRING1_BATT_VOLTAGE_INDEX_101_TO_200	R	100	INTEGER	Batt Voltage (Milli-Volts)				
08C8	2248	BM_STRING1_BATT_VOLTAGE_INDEX_201_TO_300	R	100	INTEGER	Batt Voltage (Milli-Volts)				
092C	2348	BM_STRING1_BATT_VOLTAGE_INDEX_301_TO_400	R	100	INTEGER	Batt Voltage (Milli-Volts)				
0990	2448	BM_STRING2_BATT_VOLTAGE_INDEX_1_TO_100	R	100	INTEGER	Batt Voltage (Milli-Volts)				
09F4	2548	BM_STRING2_BATT_VOLTAGE_INDEX_101_TO_200	R	100	INTEGER	Batt Voltage (Milli-Volts)				
0A58	2648	BM_STRING2_BATT_VOLTAGE_INDEX_201_TO_300	R	100	INTEGER	Batt Voltage (Milli-Volts)				
0ABC	2748	BM_STRING2_BATT_VOLTAGE_INDEX_301_TO_400	R	100	INTEGER	Batt Voltage (Milli-Volts)				
0B20	2848	BM_STRING1_BATT_DISCHARGE_VLTG_INDEX_1_TO_100	R	100	INTEGER	Batt Discharge Voltage (Milli-Volts)				
0B84	2948	BM_STRING1_BATT_DISCHARGE_VLTG_INDEX_101_TO_200	R	100	INTEGER	Batt Discharge Voltage (Milli-Volts)				
0BE8	3048	BM_STRING1_BATT_DISCHARGE_VLTG_INDEX_201_TO_300	R	100	INTEGER	Batt Discharge Voltage (Milli-Volts)				
0C4C	3148	BM_STRING1_BATT_DISCHARGE_VLTG_INDEX_301_TO_400	R	100	INTEGER	Batt Discharge Voltage (Milli-Volts)				
0CB0	3248	BM_STRING2_BATT_DISCHARGE_VLTG_INDEX_1_TO_100	R	100	INTEGER	Batt Discharge Voltage (Milli-Volts)				
0D14	3348	BM_STRING2_BATT_DISCHARGE_VLTG_INDEX_101_TO_200	R	100	INTEGER	Batt Discharge Voltage (Milli-Volts)				
0D78	3448	BM_STRING2_BATT_DISCHARGE_VLTG_INDEX_201_TO_300	R	100	INTEGER	Batt Discharge Voltage (Milli-Volts)				
0DDC	3548	BM_STRING2_BATT_DISCHARGE_VLTG_INDEX_301_TO_400	R	100	INTEGER	Batt Discharge Voltage (Milli-Volts)				
0E40	3648	BM_STRING1_BATT_CHARGE_DEVIATION_INDEX_1_TO_100	R	100	INTEGER	Charge Deviation (Percentage)				
0EA4	3748	BM_STRING1_BATT_CHARGE_DEVIATION_INDEX_101_TO_200	R	100	INTEGER	Charge Deviation (Percentage)				
0F08	3848	BM_STRING1_BATT_CHARGE_DEVIATION_INDEX_201_TO_300	R	100	INTEGER	Charge Deviation (Percentage)				
0F6C	3948	BM_STRING1_BATT_CHARGE_DEVIATION_INDEX_301_TO_400	R	100	INTEGER	Charge Deviation (Percentage)				
0FD0	4048	BM_STRING2_BATT_CHARGE_DEVIATION_INDEX_1_TO_100	R	100	INTEGER	Charge Deviation (Percentage)				
1034	4148	BM_STRING2_BATT_CHARGE_DEVIATION_INDEX_101_TO_200	R	100	INTEGER	Charge Deviation (Percentage)				
1098	4248	BM_STRING2_BATT_CHARGE_DEVIATION_INDEX_201_TO_300	R	100	INTEGER	Charge Deviation (Percentage)				
10FC	4348	BM_STRING2_BATT_CHARGE_DEVIATION_INDEX_301_TO_400	R	100	INTEGER	Charge Deviation (Percentage)				
1160	4448	BM_STRING1_BATT_INTER_TIER_OHMS_INDEX_1_TO_100	R	100	INTEGER	Intertier Ohms (Tenths of Milli-Ohms)				
11C4	4548	BM_STRING1_BATT_INTER_TIER_OHMS_INDEX_101_TO_200	R	100	INTEGER	Intertier Ohms (Tenths of Milli-Ohms)				
1228	4648	BM_STRING1_BATT_INTER_TIER_OHMS_INDEX_201_TO_300	R	100	INTEGER	Intertier Ohms (Tenths of Milli-Ohms)				
128C	4748	BM_STRING1_BATT_INTER_TIER_OHMS_INDEX_301_TO_400	R	100	INTEGER	Intertier Ohms (Tenths of Milli-Ohms)				
12F0	4848	BM_STRING2_BATT_INTER_TIER_OHMS_INDEX_1_TO_100	R	100	INTEGER	Intertier Ohms (Tenths of Milli-Ohms)				
1354	4948	BM_STRING2_BATT_INTER_TIER_OHMS_INDEX_101_TO_200	R	100	INTEGER	Intertier Ohms (Tenths of Milli-Ohms)				
13B8	5048	BM_STRING2_BATT_INTER_TIER_OHMS_INDEX_201_TO_300	R	100	INTEGER	Intertier Ohms (Tenths of Milli-Ohms)				
141C	5148	BM_STRING2_BATT_INTER_TIER_OHMS_INDEX_301_TO_400	R	100	INTEGER	Intertier Ohms (Tenths of Milli-Ohms)				
1480	5248	BM_STRING1_BATT_OHMIC_VALUE_INDEX_1_TO_100	R	100	INTEGER	Intertier Ohms (Tenths of Milli-Ohms)				
14E4	5348	BM_STRING1_BATT_OHMIC_VALUE_INDEX_101_TO_200	R	100	INTEGER	Intertier Ohms (Tenths of Milli-Ohms)				
1548	5448	BM_STRING1_BATT_OHMIC_VALUE_INDEX_201_TO_300	R	100	INTEGER	Intertier Ohms (Tenths of Milli-Ohms)				
15AC	5548	BM_STRING1_BATT_OHMIC_VALUE_INDEX_301_TO_400	R	100	INTEGER	Intertier Ohms (Tenths of Milli-Ohms)				



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1610	5648	BM_STRING2_BATT_OHMIC_VALUE_INDEX_1_TO_100	R	100	INTEGER	Intertier Ohms (Tenths of Milli-Ohms)
1674	5748	BM_STRING2_BATT_OHMIC_VALUE_INDEX_101_TO_200	R	100	INTEGER	Intertier Ohms (Tenths of Milli-Ohms)
16D8	5848	BM_STRING2_BATT_OHMIC_VALUE_INDEX_201_TO_300	R	100	INTEGER	Intertier Ohms (Tenths of Milli-Ohms)
173C	5948	BM_STRING2_BATT_OHMIC_VALUE_INDEX_301_TO_400	R	100	INTEGER	Intertier Ohms (Tenths of Milli-Ohms)
17A0	6048	BM_STRING1_BATT_SHORTED_CELL_INDEX_1_TO_100	R	100	ENUM	0 = OK 1 = Alarm
1804	6148	BM_STRING1_BATT_SHORTED_CELL_INDEX_101_TO_200	R	100	ENUM	0 = OK 1 = Alarm
1868	6248	BM_STRING1_BATT_SHORTED_CELL_INDEX_201_TO_300	R	100	ENUM	0 = OK 1 = Alarm
18CC	6348	BM_STRING1_BATT_SHORTED_CELL_INDEX_301_TO_400	R	100	ENUM	0 = OK 1 = Alarm
1930	6448	BM_STRING2_BATT_SHORTED_CELL_INDEX_1_TO_100	R	100	ENUM	0 = OK 1 = Alarm
1994	6548	BM_STRING2_BATT_SHORTED_CELL_INDEX_101_TO_200	R	100	ENUM	0 = OK 1 = Alarm
19F8	6648	BM_STRING2_BATT_SHORTED_CELL_INDEX_201_TO_300	R	100	ENUM	0 = OK 1 = Alarm
1A5C	6748	BM_STRING2_BATT_SHORTED_CELL_INDEX_301_TO_400	R	100	ENUM	0 = OK 1 = Alarm
1AC0	6848	BM_STRING1_BATT_OPEN_FUSE_INDEX_1_TO_100	R	100	ENUM	0 = OK 1 = Alarm
1B24	6948	BM_STRING1_BATT_OPEN_FUSE_INDEX_101_TO_200	R	100	ENUM	0 = OK 1 = Alarm
1B88	7048	BM_STRING1_BATT_OPEN_FUSE_INDEX_201_TO_300	R	100	ENUM	0 = OK 1 = Alarm
1BEC	7148	BM_STRING1_BATT_OPEN_FUSE_INDEX_301_TO_400	R	100	ENUM	0 = OK 1 = Alarm
1C50	7248	BM_STRING2_BATT_OPEN_FUSE_INDEX_1_TO_100	R	100	ENUM	0 = OK 1 = Alarm
1CB4	7348	BM_STRING2_BATT_OPEN_FUSE_INDEX_101_TO_200	R	100	ENUM	0 = OK 1 = Alarm
1D18	7448	BM_STRING2_BATT_OPEN_FUSE_INDEX_201_TO_300	R	100	ENUM	0 = OK 1 = Alarm
1D7C	7548	BM_STRING2_BATT_OPEN_FUSE_INDEX_301_TO_400	R	100	ENUM	0 = OK 1 = Alarm
1DE0	7648	BM_STRING1_BATT_LOW_CAPACITY_INDEX_1_TO_100	R	100	ENUM	0 = OK 1 = Alarm
1E44	7748	BM_STRING1_BATT_LOW_CAPACITY_INDEX_101_TO_200	R	100	ENUM	0 = OK 1 = Alarm
1EA8	7848	BM_STRING1_BATT_LOW_CAPACITY_INDEX_201_TO_300	R	100	ENUM	0 = OK 1 = Alarm
1F0C	7948	BM_STRING1_BATT_LOW_CAPACITY_INDEX_301_TO_400	R	100	ENUM	0 = OK 1 = Alarm
1F70	8048	BM_STRING2_BATT_LOW_CAPACITY_INDEX_1_TO_100	R	100	ENUM	0 = OK 1 = Alarm
1FD4	8148	BM_STRING2_BATT_LOW_CAPACITY_INDEX_101_TO_200	R	100	ENUM	0 = OK 1 = Alarm
2038	8248	BM_STRING2_BATT_LOW_CAPACITY_INDEX_201_TO_300	R	100	ENUM	0 = OK 1 = Alarm
209C	8348	BM_STRING2_BATT_LOW_CAPACITY_INDEX_301_TO_400	R	100	ENUM	0 = OK 1 = Alarm
2100	8448	BM_STRING1_BATT_HIGH_OHMS_INDEX_1_TO_100	R	100	ENUM	0 = OK 1 = Alarm
2164	8548	BM_STRING1_BATT_HIGH_OHMS_INDEX_101_TO_200	R	100	ENUM	0 = OK 1 = Alarm
21C8	8648	BM_STRING1_BATT_HIGH_OHMS_INDEX_201_TO_300	R	100	ENUM	0 = OK 1 = Alarm
222C	8748	BM_STRING1_BATT_HIGH_OHMS_INDEX_301_TO_400	R	100	ENUM	0 = OK 1 = Alarm
2290	8848	BM_STRING2_BATT_HIGH_OHMS_INDEX_1_TO_100	R	100	ENUM	0 = OK 1 = Alarm
22F4	8948	BM_STRING2_BATT_HIGH_OHMS_INDEX_101_TO_200	R	100	ENUM	0 = OK 1 = Alarm
2358	9048	BM_STRING2_BATT_HIGH_OHMS_INDEX_201_TO_300	R	100	ENUM	0 = OK 1 = Alarm
23BC	9148	BM_STRING2_BATT_HIGH_OHMS_INDEX_301_TO_400	R	100	ENUM	0 = OK 1 = Alarm
2420	9248	BM_STRING1_BATT_THERMAL_RUNAWAY_INDEX_1_TO_100	R	100	ENUM	0 = OK 1 = Alarm
2484	9348	BM_STRING1_BATT_THERMAL_RUNAWAY_INDEX_101_TO_200	R	100	ENUM	0 = OK 1 = Alarm
24E8	9448	BM_STRING1_BATT_THERMAL_RUNAWAY_INDEX_201_TO_300	R	100	ENUM	0 = OK 1 = Alarm
254C	9548	BM_STRING1_BATT_THERMAL_RUNAWAY_INDEX_301_TO_400	R	100	ENUM	0 = OK 1 = Alarm
25B0	9648	BM_STRING2_BATT_THERMAL_RUNAWAY_INDEX_1_TO_100	R	100	ENUM	0 = OK 1 = Alarm
2614	9748	BM_STRING2_BATT_THERMAL_RUNAWAY_INDEX_101_TO_200	R	100	ENUM	0 = OK 1 = Alarm
2678	9848	BM_STRING2_BATT_THERMAL_RUNAWAY_INDEX_201_TO_300	R	100	ENUM	0 = OK 1 = Alarm
26DC	9948	BM_STRING2_BATT_THERMAL_RUNAWAY_INDEX_301_TO_400	R	100	ENUM	0 = OK 1 = Alarm
2740	10048	BM_STRING1_BATT_DRYOUT_INDEX_1_TO_100	R	100	ENUM	0 = OK 1 = Alarm
27A4	10148	BM_STRING1_BATT_DRYOUT_INDEX_101_TO_200	R	100	ENUM	0 = OK 1 = Alarm
2808	10248	BM_STRING1_BATT_DRYOUT_INDEX_201_TO_300	R	100	ENUM	0 = OK 1 = Alarm
286C	10348	BM_STRING1_BATT_DRYOUT_INDEX_301_TO_400	R	100	ENUM	0 = OK 1 = Alarm
28D0	10448	BM_STRING2_BATT_DRYOUT_INDEX_1_TO_100	R	100	ENUM	0 = OK 1 = Alarm
2934	10548	BM_STRING2_BATT_DRYOUT_INDEX_101_TO_200	R	100	ENUM	0 = OK 1 = Alarm
2998	10648	BM_STRING2_BATT_DRYOUT_INDEX_201_TO_300	R	100	ENUM	0 = OK 1 = Alarm
29FC	10748	BM_STRING2_BATT_DRYOUT_INDEX_301_TO_400	R	100	ENUM	0 = OK 1 = Alarm
2A60	10848	BM_STRING1_USER_HIGH_LEVEL_VOLTAGE_INDEX_1_TO_100	R	100	ENUM	0 = OK 1 = Alarm
2AC4	10948	BM_STRING1_USER_HIGH_LEVEL_VOLTAGE_INDEX_101_TO_200	R	100	ENUM	0 = OK 1 = Alarm
2B28	11048	BM_STRING1_USER_HIGH_LEVEL_VOLTAGE_INDEX_201_TO_300	R	100	ENUM	0 = OK 1 = Alarm
2B8C	11148	BM_STRING1_USER_HIGH_LEVEL_VOLTAGE_INDEX_301_TO_400	R	100	ENUM	0 = OK 1 = Alarm
2BF0	11248	BM_STRING2_USER_HIGH_LEVEL_VOLTAGE_INDEX_1_TO_100	R	100	ENUM	0 = OK 1 = Alarm
2C54	11348	BM_STRING2_USER_HIGH_LEVEL_VOLTAGE_INDEX_101_TO_200	R	100	ENUM	0 = OK 1 = Alarm
2CB8	11448	BM_STRING2_USER_HIGH_LEVEL_VOLTAGE_INDEX_201_TO_300	R	100	ENUM	0 = OK 1 = Alarm
2D1C	11548	BM_STRING2_USER_HIGH_LEVEL_VOLTAGE_INDEX_301_TO_400	R	100	ENUM	0 = OK 1 = Alarm
2D80	11648	BM_STRING1_USER_LOW_LEVEL_VOLTAGE_INDEX_1_TO_100	R	100	ENUM	0 = OK 1 = Alarm
2DE4	11748	BM_STRING1_USER_LOW_LEVEL_VOLTAGE_INDEX_101_TO_200	R	100	ENUM	0 = OK 1 = Alarm
2E48	11848	BM_STRING1_USER_LOW_LEVEL_VOLTAGE_INDEX_201_TO_300	R	100	ENUM	0 = OK 1 = Alarm
2EAC	11948	BM_STRING1_USER_LOW_LEVEL_VOLTAGE_INDEX_301_TO_400	R	100	ENUM	0 = OK 1 = Alarm



Modbus Register Map: Battery Management System

990-2353D

11/2014

//Absolute Starting Register Number, (Hexadecimal)	Absolute Starting Register Number, (Decimal)	Data Point	R/W	Length	Units	Valid Response
2F10	12048	BM_STRING2_USER_LOW_LEVEL_VOLTAGE_INDEX_1_TO_100	R	100	ENUM	0 = OK 1 = Alarm
2F74	12148	BM_STRING2_USER_LOW_LEVEL_VOLTAGE_INDEX_101_TO_200	R	100	ENUM	0 = OK 1 = Alarm
2FD8	12248	BM_STRING2_USER_LOW_LEVEL_VOLTAGE_INDEX_201_TO_300	R	100	ENUM	0 = OK 1 = Alarm
303C	12348	BM_STRING2_USER_LOW_LEVEL_VOLTAGE_INDEX_301_TO_400	R	100	ENUM	0 = OK 1 = Alarm
30A0	12448	BM_STRING1_CHEMISTRY_HIGH_LEVEL_VOLTAGE_INDEX_1_TO_100	R	100	ENUM	0 = OK 1 = Alarm
3104	12548	BM_STRING1_CHEMISTRY_HIGH_LEVEL_VOLTAGE_INDEX_101_TO_200	R	100	ENUM	0 = OK 1 = Alarm
3168	12648	BM_STRING1_CHEMISTRY_HIGH_LEVEL_VOLTAGE_INDEX_201_TO_300	R	100	ENUM	0 = OK 1 = Alarm
31CC	12748	BM_STRING1_CHEMISTRY_HIGH_LEVEL_VOLTAGE_INDEX_301_TO_400	R	100	ENUM	0 = OK 1 = Alarm
3230	12848	BM_STRING2_CHEMISTRY_HIGH_LEVEL_VOLTAGE_INDEX_1_TO_100	R	100	ENUM	0 = OK 1 = Alarm
3294	12948	BM_STRING2_CHEMISTRY_HIGH_LEVEL_VOLTAGE_INDEX_101_TO_200	R	100	ENUM	0 = OK 1 = Alarm
32F8	13048	BM_STRING2_CHEMISTRY_HIGH_LEVEL_VOLTAGE_INDEX_201_TO_300	R	100	ENUM	0 = OK 1 = Alarm
335C	13148	BM_STRING2_CHEMISTRY_HIGH_LEVEL_VOLTAGE_INDEX_301_TO_400	R	100	ENUM	0 = OK 1 = Alarm
33C0	13248	BM_STRING1_CHEMISTRY_LOW_LEVEL_VOLTAGE_INDEX_1_TO_100	R	100	ENUM	0 = OK 1 = Alarm
3424	13348	BM_STRING1_CHEMISTRY_LOW_LEVEL_VOLTAGE_INDEX_101_TO_200	R	100	ENUM	0 = OK 1 = Alarm
3488	13448	BM_STRING1_CHEMISTRY_LOW_LEVEL_VOLTAGE_INDEX_201_TO_300	R	100	ENUM	0 = OK 1 = Alarm
34EC	13548	BM_STRING1_CHEMISTRY_LOW_LEVEL_VOLTAGE_INDEX_301_TO_400	R	100	ENUM	0 = OK 1 = Alarm
3550	13648	BM_STRING2_CHEMISTRY_LOW_LEVEL_VOLTAGE_INDEX_1_TO_100	R	100	ENUM	0 = OK 1 = Alarm
35B4	13748	BM_STRING2_CHEMISTRY_LOW_LEVEL_VOLTAGE_INDEX_101_TO_200	R	100	ENUM	0 = OK 1 = Alarm
3618	13848	BM_STRING2_CHEMISTRY_LOW_LEVEL_VOLTAGE_INDEX_201_TO_300	R	100	ENUM	0 = OK 1 = Alarm
367C	13948	BM_STRING2_CHEMISTRY_LOW_LEVEL_VOLTAGE_INDEX_301_TO_400	R	100	ENUM	0 = OK 1 = Alarm
36E0	14048	BM_STRING1_OPEN_CELL_OR_INTER_CONN_INDEX_1_TO_100	R	100	ENUM	0 = OK 1 = Alarm
3744	14148	BM_STRING1_OPEN_CELL_OR_INTER_CONN_INDEX_101_TO_200	R	100	ENUM	0 = OK 1 = Alarm
37A8	14248	BM_STRING1_OPEN_CELL_OR_INTER_CONN_INDEX_201_TO_300	R	100	ENUM	0 = OK 1 = Alarm
380C	14348	BM_STRING1_OPEN_CELL_OR_INTER_CONN_INDEX_301_TO_400	R	100	ENUM	0 = OK 1 = Alarm
3870	14448	BM_STRING2_OPEN_CELL_OR_INTER_CONN_INDEX_1_TO_100	R	100	ENUM	0 = OK 1 = Alarm
38D4	14548	BM_STRING2_OPEN_CELL_OR_INTER_CONN_INDEX_101_TO_200	R	100	ENUM	0 = OK 1 = Alarm
3938	14648	BM_STRING2_OPEN_CELL_OR_INTER_CONN_INDEX_201_TO_300	R	100	ENUM	0 = OK 1 = Alarm
399C	14748	BM_STRING2_OPEN_CELL_OR_INTER_CONN_INDEX_301_TO_400	R	100	ENUM	0 = OK 1 = Alarm
3A00	14848	BM_STRING1_BATT_CHARGE_BENCHMARK_INDEX_1_TO_100	R	100	INTEGER	Charge Benchmark (Milli-Amps)
3A64	14948	BM_STRING1_BATT_CHARGE_BENCHMARK_INDEX_101_TO_200	R	100	INTEGER	Charge Benchmark (Milli-Amps)
3AC8	15048	BM_STRING1_BATT_CHARGE_BENCHMARK_INDEX_201_TO_300	R	100	INTEGER	Charge Benchmark (Milli-Amps)
3B2C	15148	BM_STRING1_BATT_CHARGE_BENCHMARK_INDEX_301_TO_400	R	100	INTEGER	Charge Benchmark (Milli-Amps)
3B90	15248	BM_STRING2_BATT_CHARGE_BENCHMARK_INDEX_1_TO_100	R	100	INTEGER	Charge Benchmark (Milli-Amps)
3BF4	15348	BM_STRING2_BATT_CHARGE_BENCHMARK_INDEX_101_TO_200	R	100	INTEGER	Charge Benchmark (Milli-Amps)
3C58	15448	BM_STRING2_BATT_CHARGE_BENCHMARK_INDEX_201_TO_300	R	100	INTEGER	Charge Benchmark (Milli-Amps)
3CBC	15548	BM_STRING2_BATT_CHARGE_BENCHMARK_INDEX_301_TO_400	R	100	INTEGER	Charge Benchmark (Milli-Amps)
3D20	15648	BM_STRING1_BATT_CHARGE_CURRENT_INDEX_1_TO_100	R	100	INTEGER	Charge Current (Milli-Amps)
3D84	15748	BM_STRING1_BATT_CHARGE_CURRENT_INDEX_101_TO_200	R	100	INTEGER	Charge Current (Milli-Amps)
3DE8	15848	BM_STRING1_BATT_CHARGE_CURRENT_INDEX_201_TO_300	R	100	INTEGER	Charge Current (Milli-Amps)
3E4C	15948	BM_STRING1_BATT_CHARGE_CURRENT_INDEX_301_TO_400	R	100	INTEGER	Charge Current (Milli-Amps)
3EB0	16048	BM_STRING2_BATT_CHARGE_CURRENT_INDEX_1_TO_100	R	100	INTEGER	Charge Current (Milli-Amps)
3F14	16148	BM_STRING2_BATT_CHARGE_CURRENT_INDEX_101_TO_200	R	100	INTEGER	Charge Current (Milli-Amps)
3F78	16248	BM_STRING2_BATT_CHARGE_CURRENT_INDEX_201_TO_300	R	100	INTEGER	Charge Current (Milli-Amps)
3FDC	16348	BM_STRING2_BATT_CHARGE_CURRENT_INDEX_301_TO_400	R	100	INTEGER	Charge Current (Milli-Amps)
4040	16448	BM_STRING_BATT_RESERVED_REGISTERS	R	22464	NA	Reserved
// Logging Registers						
FFEE	65518	APC RX CRC ERRORS	R	2	LONG	APC RX CRC ERRORS
FFF0	65520	APC RX PACKET COUNTER	R	2	LONG	APC RX PACKET COUNTER
FFF2	65522	APC TX PACKET COUNTER	R	2	LONG	APC TX PACKET COUNTER
FFF4	65524	APC SER FRAME ERRORS	R	2	LONG	APC SER FRAME ERRORS
FFF6	65526	APC SER OVERRUN ERRORS	R	2	LONG	APC SER OVERRUN ERRORS
FFF8	65528	APC SER PARITY ERRORS	R	2	LONG	APC SER PARITY ERRORS
FFFA	65530	APC SER RX15 ERRORS	R	2	LONG	APC SER RX15 ERRORS
FFFC	65532	APC SER RX35 ERRORS	R	2	LONG	APC SER RX35 ERRORS
FFFE	65534	APC SER BAUD RATE	R	1	INTEGER	APC SER BAUD RATE
// END OF DATA						
Note 1: Data point values that end with 'INDEX_X_TO_Y' can be accessed individually. Each individual item length equals total length from 'Length' column divided by ((Y - X) + 1).						
Note 2: ASCII strings include Null terminator.						
Note 3: To prevent Building Management Service and automated script difficulties, accesses to data points on unsupported units, strings, and batteries will return a value of 0 instead of an error.						
Note 4: Accesses to BM_STRING#_BATT_DISCHARGE_VLTG or BM_STRING#_BATT_CHARGE_DEVIATION items before a discharge or Response test respectively occurs will result in an invalid address error.						