PowerWizard 2.1 Modbus Registers

Parameter Name	R/W	Holding Register		Ct	Description	Scaling (Resolution)	Offset	Limits (Ranges)	Sec Lvl

R= Read Only
W= Write Only

Column D= Address in Decimal (1-based, may need to add 40000)
Column E= Address in Hexadecimal (0-based, as transmitted)

Number of Registers this parameter spans (if more than 1, the lowest register is most significant)

Value= Raw Data * Scaling + Offset

Values outside of these Limits are Error or Unavailable

Security Level

Parameter Name	R/W	HR Dec	HR Hex	Ct	Description	Scaling (Resolution)	Offset	Limits (Ranges)	Sec Lvl
Generator Average Line-Line AC RMS Voltage	R	100	0x0063	1	Average Line to Line RMS voltage measured at the generator output.	1 V / bit	0 V	0 to 64255 V	0
Generator Average AC RMS Current	R	101	0x0064	1	Average RMS current measured at the generator output.	1 A / bit	0 A	0 to 64255 A	0
Generator Average AC RMS Frequency	R	102	0x0065	1	Average AC frequency measured at the generator output.	1/128 Hz / bit	0 Hz	0 to 501.9922 Hz	0
Generator Overall Power Factor	R	103	0x0066	1	The average Power Factor of the generator.	1/16384 / bit	-1.0	-1.0 to 1.0	0
Generator Overall Power Factor Lagging	R	104	0x0067	1	Lead/lag status for generator average Power Factor.	0 = Power factor leading 1 = Power factor lagging			0
Generator Total Percent kW	R	105	0x0068	1	Total real power delivered by the generator, as a percentage of generator rated power.	0.0078125 % / bit	-251 %	-251 to 250.99 %	0
Generator Total Real Power	R	106	0x0069	2	Total real power delivered by the generator.	1 W / bit	-2000000000 W	-2000000000 to +2211081215 W	0
Generator Phase A Line-Line AC RMS Voltage	R	108	0x006B	1	Line to Line RMS voltage measured at the generator phase AB output.	1 V / bit	0 V	0 to 64255 V	0
Generator Phase B Line-Line AC RMS Voltage	R	109	0x006C	1	Line to Line RMS voltage measured at the generator phase BC output.	1 V / bit	0 V	0 to 64255 V	0
Generator Phase C Line-Line AC RMS Voltage	R	110	0x006D	1	Line to Line RMS voltage measured at the generator phase CA output.	1 V / bit	0 V	0 to 64255 V	0
Generator Phase A AC RMS Current	R	111	0x006E	1	RMS current measured at the generator phase A output.	1 A / bit	0 A	0 to 64255 A	0
Generator Phase B AC RMS Current	R	112	0x006F	1	RMS current measured at the generator phase B output.	1 A / bit	0 A	0 to 64255 A	0
Generator Phase C AC RMS Current	R	113	0x0070	1	RMS current measured at the generator phase C output.	1 A / bit	0 A	0 to 64255 A	0
Generator Phase A Line-Neutral AC RMS Voltage	R	114	0x0071	1	Line to Neutral RMS voltage measured at the generator phase A output.	1 V / bit	0 V	0 to 64255 V	0
Generator Phase B Line-Neutral AC RMS Voltage	R	115	0x0072	1	Line to Neutral RMS voltage measured at the generator phase B output.	1 V / bit	0 V	0 to 64255 V	0
Generator Phase C Line-Neutral AC RMS Voltage	R	116	0x0073	1	Line to Neutral RMS voltage measured at the generator phase C output.	1 V / bit	0 V	0 to 64255 V	0
Generator Phase A Real Power	R	117	0x0074	2	The real power delivered by phase A of the generator.	1 W / bit	-2000000000 W	-2000000000 to +2211081215 W	0
Generator Phase B Real Power	R	119	0x0076	2	The real power delivered by phase B of the generator.	1 W / bit	-2000000000 W	-2000000000 to +2211081215 W	0
Generator Phase C Real Power	R	121	0x0078	2	The real power delivered by phase C of the generator.	1 W / bit	-2000000000 W	-2000000000 to +2211081215 W	0
Generator Phase A Apparent Power	R	123	0x007A	2	The apparent power delivered by phase A of the generator.	1 VA / bit	-2000000000 VA	-2000000000 to +2211081215 VA	0
Generator Phase B Apparent Power	R	125	0x007C	2	The apparent power delivered by phase B of the generator.	1 VA / bit	-2000000000 VA	-2000000000 to +2211081215 VA	0
Generator Phase C Apparent Power	R	127	0x007E	2	The apparent power delivered by phase C of the generator.	1 VA / bit	-2000000000 VA	-2000000000 to +2211081215 VA	0
Generator Phase A Reactive Power	R	129	0x0080	2	The reactive power delivered by phase A of the generator.	1 VAr / bit	-2000000000 VAr	-2000000000 to +2211081215 VAr	0
Generator Phase B Reactive Power	R	131	0x0082	2	The reactive power delivered by phase B of the generator.	1 VAr / bit	-2000000000 VAr	-2000000000 to +2211081215 VAr	0
Generator Phase C Reactive Power	R	133	0x0084	2	The reactive power delivered by phase C of the generator.	1 VAr / bit	-2000000000 VAr	-2000000000 to +2211081215 VAr	0

Parameter Name	R/W	Holding Register		Ct	Description	Scaling (Resolution)	Offset	Limits (Ranges)	Sec Lvl
Generator Phase A Power Factor	R	135	0x0086	1	The Power Factor of phase A of the generator.	1/16384 / bit	-1.0	-1.0 to 1.0	0
Generator Phase B Power Factor	R	136	0x0087	1	The Power Factor of phase B of the generator.	1/16384 / bit	-1.0	-1.0 to 1.0	0
Generator Phase C Power Factor	R	137	0x0088	1	The Power Factor of phase C of the generator.	1/16384 / bit	-1.0	-1.0 to 1.0	0
Generator Total Apparent Power	R	138	0x0089	2	The total apparent power delivered by the generator.	1 VA / bit	-2000000000 VA	-2000000000 to +2211081215 VA	0
Generator Total Percent Apparent Power	R	140	0x008B	1	The total apparent power delivered by the generator, as a percentage of generator rated apparent power.	0.0078125 % / bit	-251 %	-251 to 250.99 %	0
Generator Total Reactive Power	R	141	0x008C	2	The total reactive power delivered by the generator.	1 VAr / bit	-2000000000 VAr	-2000000000 to +2211081215 VAr	0
Generator Total Percent Reactive Power	R	143	0x008E	1	The total reactive power delivered by the generator, as a percentage of generator rated reactive power.	0.0078125 % / bit	-251 %	-251 to 250.99 %	0
Generator Total Real Energy Exported	R	144	0x008F	2	The total kilowatt-hours that have been exported by the generator.	1 kWh / bit	0 kWh	0 to 4211081215 kWh	0
Generator Total Reactive Energy Exported	R	146	0x0091	2	The total kilovar-hours that have been exported by the generator.	1 kVArh/bit	0 kVArh	0 to 4211081215 kVArh	0
Generator Average Line-Neutral AC RMS Voltage	R	148	0x0093	1	The average Line to Neutral AC RMS voltage measured at the generator output.	1 V / bit	0 V	0 to 64255 V	0
Generator Front Bearing Temperature from Data Link	R	149	0x0094	1	Temperature of the bearing inside the alternator. This is the right or front bearing.	0.03125 C / bit	-273 C	-273 to 1735 C	0
Generator Rear Bearing Temperature from Data Link	R	150	0x0095	1	Temperature of the bearing inside the alternator. This is the left or rear bearing.	0.03125 C / bit	-273 C	-273 to 1735 C	0
Generator Phase A Winding Temperature from Data Link	R	151	0x0096	1	Temperature of the Phase A winding inside the alternator.	0.03125 C / bit	-273 C	-273 to 1735 C	0
Generator Phase B Winding Temperature from Data Link	R	152	0x0097	1	Temperature of the Phase B winding inside the alternator.	0.03125 C / bit	-273 C	-273 to 1735 C	0
Generator Phase C Winding Temperature from Data Link	R	153	0x0098	1	Temperature of the Phase C winding inside the alternator.	0.03125 C / bit	-273 C	-273 to 1735 C	0
Generator Phase A Power Factor Lagging	R	159	0x009E	1	Lead/lag status for generator phase A Power Factor.				0
Generator Phase B Power Factor Lagging	R	160	0x009F	1	Lead/lag status for generator phase B Power Factor.	0 = Power factor leading 1 = Power factor lagging			0
Generator Phase C Power Factor Lagging	R	161	0x00A0	1	Lead/lag status for generator phase C Power Factor.				0
Generator Rear Bearing Temperature from I/O Pin	R	162	0x00A1	1	For legacy support only. For new applications, use register 150.	0.03125 C / bit	-273 C	-273 to 1735 C	0
Generator Average Line-Line AC RMS Voltage Percent	R	163	0x00A2	1	Average Line to Line RMS voltage at the generator, as a percentage of nominal generator voltage.	0.0078125 % / bit	-251 %	-251 to 250.99 %	0
Generator Total Percent Current	R	174	0x00AD	1	Rated current is Rated Apparent Power divided by Rated Voltage	0.0078125 % / bit	-251 %	-251 to 250.99 %	0
Generator Average AC RMS Frequency Percent	R	183	0x00B6	1	Phase average frequency, as a percent of rated frequency.	0.0078125 % / bit	-251 %	-251 to 250.99 %	0
Fuel Level	R	198	0x00C5	1	Fuel level, as read from i/o pin.	0.0078125 % / bit	-251 %	-251 to 250.99 %	0
Engine Oil Temperature	R	199	0x00C6	1	oil temp, independent of source. I/o pin (if configured) takes precedence over datalink.	0.03125 C / bit	-273 C	-273 to 1735 C	0
Engine Oil Pressure	R	200	0x00C7	1	Gauge pressure of oil in engine lubrication system as provided by oil pump.	0.125 kPa / bit	0 kPa	0 to 8031.875 kPa	0
Engine Coolant Temperature	R	201	0x00C8	1	Temperature of liquid found in engine cooling system.	0.03125 C / bit	-273 C	-273 to 1735 C	0
Battery Voltage	R	202	0x00C9	1	Shows the Battery Voltage, as read at the input to the PowerWizard.	0.05 V / bit	0 V	0 to 3212.75 V	0
Engine rpm	R	203	0x00CA	1	Engine rotational speed calculated in revolutions per minute.	0.125 rpm / bit	0 rpm	0 to 8031.875 rpm	0
Engine Operating Hours	R	204	0x00CB	2	Accumulated time that the engine is running.	0.05 hour / bit	0 hr	0 to 210554060.75 hour	0

Parameter Name	R/W	Holding Register		Ct	Description	Scaling (Resolution)	Offset	Limits (Ranges)	Sec Lvl
Automatic Start/Stop State	R	206	0x00CD	1	Current state of the Automatic Start/Stop sequence. Either read from engine (if ADEM controls start/stop) or determined by PowerWizard.	0 = INIT 1 = PRE_CRANK 2 = STARTING 3 = RUNNING 4 = PRE_COOLDOWN 5 = COOLDOWN 6 = STOPPING 7 = STOPPED 8 = IDLING			0
Service Maintenance Interval Hours Remaining	R	210	0x00D1	1	Maximum time in operation until the next service inspection is required. This number is negative if a service inspection is overdue.	1 hr / bit	-32127 hr	-32127 to 32128 hr	0
Service Maintenance Interval Days Remaining	R	212	0x00D3	1	Maximum calendar days until the next service inspection is required. This number is negative if a service inspection is overdue.	1 day / bit	-32127 days	-32127 to 32128 days	0
Number of Crank Attempts	R	213	0x00D4	2	Accumulated number of crank attempts made by the engine.	1 / bit	0	0 to 4211081215	0
Number of Successful Starts	R	215	0x00D6	2	Accumulated number of successful starts of the engine.	1 / bit	0	0 to 4211081215	0
Engine Oil Pressure from Data Link	R	217	0x00D8	1	Gauge pressure of oil in engine lubrication system as broadcast on the CAN Data Link. For legacy support only. For new applications, use register 200.	0.125 kPa / bit	0 kPa	0 to 8031.875 kPa	0
Engine Coolant Temperature from Data Link	R	219	0x00DA	1	Temperature of liquid found in engine cooling system, as broadcast on the CAN Data Link. For legacy support only. For new applications, use register 201.	0.03125 C / bit	-273 C	-273 to 1735 C	0
Cylinder #1 Exhaust Port Temperature from Data Link	R	221	0x00DC	1	Temperature at the cylinder exhaust port of the engine, as received from another module on the CAN Data Link.	0.03125 C / bit	-273 C	-273 to 1735 C	0
Cylinder #2 Exhaust Port Temperature from Data Link	R	222	0x00DD	1	Temperature at the cylinder exhaust port of the engine, as received from another module on the CAN Data Link.	0.03125 C / bit	-273 C	-273 to 1735 C	0
Cylinder #3 Exhaust Port Temperature from Data Link	R	223	0x00DE	1	Temperature at the cylinder exhaust port of the engine, as received from another module on the CAN Data Link.	0.03125 C / bit	-273 C	-273 to 1735 C	0
Cylinder #4 Exhaust Port Temperature from Data Link	R	224	0x00DF	1	Temperature at the cylinder exhaust port of the engine, as received from another module on the CAN Data Link.	0.03125 C / bit	-273 C	-273 to 1735 C	0
Cylinder #5 Exhaust Port Temperature from Data Link	R	225	0x00E0	1	Temperature at the cylinder exhaust port of the engine, as received from another module on the CAN Data Link.	0.03125 C / bit	-273 C	-273 to 1735 C	0
Cylinder #6 Exhaust Port Temperature from Data Link	R	226	0x00E1	1	Temperature at the cylinder exhaust port of the engine, as received from another module on the CAN Data Link.	0.03125 C / bit	-273 C	-273 to 1735 C	0
Cylinder #7 Exhaust Port Temperature from Data Link	R	227	0x00E2	1	Temperature at the cylinder exhaust port of the engine, as received from another module on the CAN Data Link.	0.03125 C / bit	-273 C	-273 to 1735 C	0
Cylinder #8 Exhaust Port Temperature from Data Link	R	228	0x00E3	1	Temperature at the cylinder exhaust port of the engine, as received from another module on the CAN Data Link.	0.03125 C / bit	-273 C	-273 to 1735 C	0
Cylinder #9 Exhaust Port Temperature from Data Link	R	229	0x00E4	1	Temperature at the cylinder exhaust port of the engine, as received from another module on the CAN Data Link.	0.03125 C / bit	-273 C	-273 to 1735 C	0
Cylinder #10 Exhaust Port Temperature from Data Link	R	230	0x00E5	1	Temperature at the cylinder exhaust port of the engine, as received from another module on the CAN Data Link.	0.03125 C / bit	-273 C	-273 to 1735 C	0
Cylinder #11 Exhaust Port Temperature from Data Link	R	231	0x00E6	1	Temperature at the cylinder exhaust port of the engine, as received from another module on the CAN Data Link.	0.03125 C / bit	-273 C	-273 to 1735 C	0
Cylinder #12 Exhaust Port Temperature from Data Link	R	232	0x00E7	1	Temperature at the cylinder exhaust port of the engine, as received from another module on the CAN Data Link.	0.03125 C / bit	-273 C	-273 to 1735 C	0
Cylinder #13 Exhaust Port Temperature from Data Link	R	233	0x00E8	1	Temperature at the cylinder exhaust port of the engine, as received from another module on the CAN Data Link.	0.03125 C / bit	-273 C	-273 to 1735 C	0
Cylinder #14 Exhaust Port Temperature from Data Link	R	234	0x00E9	1	Temperature at the cylinder exhaust port of the engine, as received from another module on the CAN Data Link.	0.03125 C / bit	-273 C	-273 to 1735 C	0

Parameter Name	R/W	Holding Register		Ct	Description	Scaling (Resolution)	Offset	Limits (Ranges)	Sec Lvl
Cylinder #15 Exhaust Port Temperature from Data Link	R	235	0x00EA	1	Temperature at the cylinder exhaust port of the engine, as received from another module on the CAN Data Link.	0.03125 C / bit	-273 C	-273 to 1735 C	0
Cylinder #16 Exhaust Port Temperature from Data Link	R	236	0x00EB	1	Temperature at the cylinder exhaust port of the engine, as received from another module on the CAN Data Link.	0.03125 C / bit	-273 C	-273 to 1735 C	0
Cylinder #17 Exhaust Port Temperature from Data Link	R	237	0x00EC	1	Temperature at the cylinder exhaust port of the engine, as received from another module on the CAN Data Link.	0.03125 C / bit	-273 C	-273 to 1735 C	0
Cylinder #18 Exhaust Port Temperature from Data Link	R	238	0x00ED	1	Temperature at the cylinder exhaust port of the engine, as received from another module on the CAN Data Link.	0.03125 C / bit	-273 C	-273 to 1735 C	0
Cylinder #19 Exhaust Port Temperature from Data Link	R	239	0x00EE	1	Temperature at the cylinder exhaust port of the engine, as received from another module on the CAN Data Link.	0.03125 C / bit	-273 C	-273 to 1735 C	0
Cylinder #20 Exhaust Port Temperature from Data Link	R	240	0x00EF	1	Temperature at the cylinder exhaust port of the engine, as received from another module on the CAN Data Link.	0.03125 C / bit	-273 C	-273 to 1735 C	0
Exhaust Manifold #1 (Left) Temperature from Data Link	R	241	0x00F0	1	Temperature of combustion byproducts within the left engine exhaust manifold, as received from another module on the CAN Data Link.	0.03125 C / bit	-273 C	-273 to 1735 C	0
Exhaust Manifold #2 (Right) Temperature from Data Link	R	242	0x00F1	1	Temperature of combustion byproducts within the right engine exhaust manifold, as received from another module on the CAN Data Link.	0.03125 C / bit	-273 C	-273 to 1735 C	0
Intake Manifold #1 Temperature from Data Link	R	243	0x00F2	1	Temperature of pre-combustion air found in intake manifold #1 of engine air supply system, as received from another module on the CAN Data Link.	0.03125 C / bit	-273 C	-273 to 1735 C	0
Intake Manifold #2 Temperature from Data Link	R	244	0x00F3	1	Temperature of pre-combustion air found in intake manifold #2 of engine air supply system, as received from another module on the CAN Data Link.	0.03125 C / bit	-273 C	-273 to 1735 C	0
Engine Oil Temperature from Data Link	R	245	0x00F4	1	Temperature of the engine lubricant, as received from another module on the CAN Data Link.	0.03125 C / bit	-273 C	-273 to 1735 C	0
Engine Fuel Temperature from Data Link	R	246	0x00F5	1	Temperature of the engine fuel as received from another module on the CAN Data Link.	0.03125 C / bit	-273 C	-273 to 1735 C	0
Fuel Pressure from Data Link	R	247	0x00F6	1	Gauge pressure of fuel in system as delivered from supply pump to the injection pump, as received from another module on the CAN Data Link.	0.125 kPa / bit	0 kPa	0 to 8031.875 kPa	0
Crankcase Pressure from Data Link	R	248	0x00F7	1	Gauge pressure inside engine crankcase, as received from another module on the CAN Data Link.	1 / 128 kPa / bit	-250 kPa	-250 to 251.99 kPa	0
Boost Pressure from Data Link	R	249	0x00F8	1	Gauge pressure of air measured downstream on the compressor discharge side of the turbocharger, as received from another module on the CAN Data Link.	0.125 kPa / bit	0 kPa	0 to 8031.875 kPa	0
Oil Filter Differential Pressure from Data Link	R	251	0x00FA	1	Change in engine oil pressure, measured across the filter, due to the filter and any accumulation of solid or semisolid material on or in the filter, as received from another module on the CAN Data Link.	0.5 kPa / bit	0 kPa	0 to 125 kPa	0
Fuel Filter Differential Pressure from Data Link	R	252	0x00FB	1	Change in fuel delivery pressure, measured across the filter, due to accumulation of solid or semisolid matter on the filter element, as received from another module on the CAN Data Link.	0.125 kPa / bit	0 kPa	0 to 8031.875 kPa	0
Air Filter 1 Differential Pressure from Data Link	R	253	0x00FC	1	Change in engine air system pressure, measured across the filter, due to the filter and any accumulation of solid foreign matter on or in the filter, as received from another module on the CAN Data Link.	1 / 128 kPa / bit	-250 kPa	-250 to 251.99 kPa	0
Instantaneous Fuel Consumption from Data Link	R	256	0x00FF	1	Amount of fuel used by engine per unit time, as received from another module on the CAN Data Link.	0.05 L/h per bit	0 L/h	0 to 3212.75 L/h	0
Atmospheric Pressure from Data Link	R	257	0x0100	1	Absolute air pressure of the atmosphere, as received from another module on the CAN Data Link.	0.125 kPa / bit	0 kPa	0 to 8031.875 kPa	0

Parameter Name	R/W	Holding Register		Ct	Description	Scaling (Resolution)	Offset	Limits (Ranges)	Sec Lvl
Fuel Level	R	258	0x0101	1	Fuel level, as received from another module on the CAN Data Link. For legacy support only. For new applications, use register 198.	0.0078125 % / bit	-251 %	-251 to 250.99 %	0
Service Maintenance Interval Weeks Remaining	R	299	0x012A	1	The number of full calendar weeks until the next service inspection is required. This number is negative if a service inspection is overdue.	1 week / bit	-125 weeks	-125 to 125 weeks	0
Bypass Cooldown	W	300	0x012B	1	Command to bypass remaining cooldown duration and immediately stop engine upon the next soft shutdown request.	00 = FALSE 01 = TRUE			0
Engine Control Switch Position	R	301	0x012C	1	Indicates current position of the Engine Control Switch.	0 = STOP 1 = AUTO 2 = RUN			0
Engine Control Switch Command	W	302	0x012D	1	SCADA command to change the position of the Engine Control Switch. Note that if any Digital Inputs are configured for "ECS in Run", "ECS in Auto", or "ECS in Stop" and are active, they will take precedence over this command.	0 = STOP 1 = AUTO 2 = RUN			0
Lamp Test Command	W	303	0x012E	1	Commands the control to conduct a lamp/display test of the EMCP GSC, similar to the "Lamp Test" function on the display in the Preferences menu.	00 = FALSE 01 = TRUE			0
Acknowledge All Events Command	W	304	0x012F	1	SCADA command to acknowledge all events, similar to pressing the Alarm Acknowledge key on the control.	00 = FALSE 01 = TRUE			0
Auto Start/Stop Fuel Control Enabled	R	307	0x0132	1	Indicates that the fuel control is enabled. On some gensets, there will be a Fuel Control Relay. In that case, this indicates that the relay is active.	00 = FALSE 01 = TRUE			0
Key Press	W	310	0x0135	1	Triggers a key press event on the control. For legacy support only.	0 = FALSE 1 = TRUE			
SCR System Check Required Status	R	319	0x013E	1	Indicates whether SCR system check is needed, from CCEM.	0 = FALSE 1 = TRUE 2 = ERROR 3 = DISABLED OR NOT AVAILABLE			0
Fuel Unload Pump Active	R	321	0x0140	1	For the Fuel Transfer feature, indicates that the Transfer Fuel Out command is active.	0 = FALSE 1 = TRUE 2 = ERROR 3 = DISABLED OR NOT AVAILABLE			0
Fuel Load Pump Active	R	322	0x0141	1	For the Fuel Transfer feature, indicates that the Transfer Fuel In command is active.	0 = FALSE 1 = TRUE 2 = ERROR 3 = DISABLED OR NOT AVAILABLE			0
System Event Count	R	334	0x014D	1	Number of system events (present or active).	1 / bit	0	0 to 255 events	0
System Event Lamp Status	R	335	0x014E	1	Indicates the status of the amber and red event status lamps on the control.	Bits 3:2 Amber Lamp Status (Boolean) Bits 1:0 Red Lamp Status (Boolean) 5 = Amber and Red lamp active 4 = Amber lamp active 1 = Red lamp active 0 = no lamp active			0
Forced Idle Command Active	R	337	0x0150	1	Indicates whether the PowerWizard is commanding the engine to idle. For the actual idle status, read register 1263.	0 = FALSE 1 = TRUE			0
Generator Excitation Field Voltage from Data Link	R	338	0x0151	1	Generator Excitation Field Voltage, as read from the CDVR module on the Primary CAN Data Link.	0.05 V / bit	-1606.0	-1606.0 to 1606.75 V	0
Generator Excitation Field Current from Data Link	R	340	0x0153	1	Generator Excitation Field Current, as read from the CDVR module on the Primary CAN Data Link.	0.05 A / bit	0 A	0 to 3212.75 A	0

Parameter Name	R/W	Holding Register		Ct	Description	Scaling (Resolution)	Offset	Limits (Ranges)	Sec Lvl
RS-485 Ann Alarm Group 1 Column 1	R	342	0x0155	1	each bit gives a status of a certain row/event for the "Alarm Group #1" setting, which is ET-configurable.	BIT 15 = ROW 16 BIT 14 = ROW 15 BIT 13 = ROW 14 BIT 12 = ROW 13 BIT 11 = ROW 12 BIT 10 = ROW 11			0
RS-485 Ann Alarm Group 1 Column 2	R	343	0x0156	1	each bit gives a status of a certain row/event for the "Alarm Group #1" setting, which is ET-configurable.	BIT 9 = ROW 10 BIT 8 = ROW 9 BIT 7 = ROW 8 BIT 6 = ROW 7 BIT 5 = ROW 6			0
RS-485 Ann Alarm Group 1 Horn	R	344	0x0157	1	each bit gives a status of the horn for a certain row/event for the "Alarm Group #1" setting, which is ET-configurable.	BIT 4 = ROW 5 BIT 3 = ROW 4 BIT 2 = ROW 3 BIT 1 = ROW 2 BIT 0 = ROW 1			0
RS-485 Ann Alarm Group 2 Column 1	R	346	0x0159	1	each bit gives a status of a certain row/event for the "Alarm Group #2" setting, which is ET-configurable.	BIT 15 = ROW 16 BIT 14 = ROW 15 BIT 13 = ROW 14 BIT 12 = ROW 13 BIT 11 = ROW 12 BIT 10 = ROW 11			0
RS-485 Ann Alarm Group 2 Column 2	R	347	0x015A	1	each bit gives a status of a certain row/event for the "Alarm Group #2" setting, which is ET-configurable.	BIT 9 = ROW 10 BIT 8 = ROW 9 BIT 7 = ROW 8 BIT 6 = ROW 7 BIT 5 = ROW 6			0
RS-485 Ann Alarm Group 2 Horn	R	348	0x015B	1	each bit gives a status of the horn for a certain row/event for the "Alarm Group #2" setting, which is ET-configurable.	BIT 4 = ROW 5 BIT 3 = ROW 4 BIT 2 = ROW 3 BIT 1 = ROW 2 BIT 0 = ROW 1			0
RS-485 Ann Alarm Group 3 Column 1	R	350	0x015D	1	each bit gives a status of a certain row/event for the "Alarm Group #3" setting, which is fixed.	BIT 15 = Aftertreatment Shutdown Event Active BIT 14 = not used BIT 13 = not used BIT 12 = not used BIT 11 = not used BIT 10 = not used BIT 9 = High Battery Voltage Shutdown Event Active BIT 8 = not used BIT 7 = Low Fuel Level Shutdown or Low Gas Pressure Shutdown Event Active BIT 6 = Low Coolant Level Shutdown Event Active BIT 5 = Overspeed Shutdown Event Active BIT 4 = Low Oil Pressure Shutdown Event Active BIT 3 = not used BIT 2 = High Coolant Temperature Shutdown Event Active BIT 1 = Engine Failure to Start (Overcrank) Shutdown Event Active BIT 0 = Emergency Stop Shutdown Event Active			0

Parameter Name	R/W	Holding Register		Ct	Description	Scaling (Resolution)	Offset	Limits (Ranges)	Sec Lvl
RS-485 Ann Alarm Group 3 Column 2	R	351	0x015E	1	each bit gives a status of a certain row/event for the "Alarm Group #3" setting, which is fixed.			BIT 15 = Aftertreatment Warning Event Active BIT 14 = Engine Running Condition Active BIT 13 = Emergency Power System Supplying Load Condition Active BIT 12 = Battery Charger AC Failure Event Active BIT 11 = Low Cranking Voltage Warning Event Active BIT 10 = Low Battery Voltage Warning Event Active BIT 9 = High Battery Voltage Warning Event Active BIT 8 = Engine Control Switch Not in Automatic Event Active BIT 7 = Low Fuel Level Warning or Low Gas Pressure Warning Event Active BIT 6 = Low Coolant Level Warning Event Active BIT 5 = not used BIT 4 = Low Oil Pressure Warning Event Active BIT 3 = Low Coolant Temperature Warning Event Active BIT 2 = High Coolant Temperature Warning Event Active BIT 1 = not used BIT 0 = Emergency Stop Diagnostic Event Active	0
RS-485 Ann Alarm Group 3 Horn	R	352	0x015F	1	each bit gives a status of the horn for a certain row/event for the "Alarm Group #3" setting, which is fixed.			BIT 15 = Aftertreatment Event Horn Active BIT 14 = Engine Running Condition Horn Active BIT 13 = Emergency Power System Supplying Load Condition Horn Active BIT 12 = Battery Charger AC Failure Event Horn Active BIT 11 = Low Cranking Voltage Event Horn Active BIT 10 = Low Battery Voltage Event Horn Active BIT 9 = High Battery Voltage Event Horn Active BIT 8 = Engine Control Switch Not in Automatic Event Horn Active BIT 7 = Low Fuel Level or Low Gas Pressure Event Horn Active BIT 6 = Low Coolant Level Event Horn Active BIT 5 = Overspeed Shutdown Event Horn Active BIT 4 = Low Oil Pressure Event Horn Active BIT 3 = Low Coolant Temperature Event Horn Active BIT 2 = High Coolant Temperature Event Horn Active BIT 1 = Engine Failure to Start (Overcrank) Shutdown Event Horn Active BIT 0 = Emergency Stop Shutdown / Diagnostic Horn Active	0

Parameter Name	R/W	Holding Register		Ct	Description	Scaling (Resolution)	Offset	Limits (Ranges)	Sec Lvl
RS-485 Ann Alarm Group 4 Column 1	R	354	0x0161	1	each bit gives a status of a certain row/event for the "Alarm Group #4" setting, which is fixed.	BIT 15 = Aftertreatment Shutdown Event Active BIT 14 = Air Shutdown Damper Closed Event Active BIT 13 = not used BIT 12 = not used BIT 11 = not used BIT 10 = not used BIT 9 = High Battery Voltage Shutdown Event Active BIT 8 = not used BIT 7 = Low Fuel Level Shutdown Event Active BIT 6 = Low Coolant Level Shutdown Event Active BIT 5 = Overspeed Shutdown Event Active BIT 4 = Low Oil Pressure Shutdown Event Active BIT 3 = not used BIT 2 = High Coolant Temperature Shutdown Event Active BIT 1 = Engine Failure to Start (Overcrank) Shutdown Event Active BIT 0 = Emergency Stop Shutdown Event Active			0
RS-485 Ann Alarm Group 4 Column 2	R	355	0x0162	1	each bit gives a status of a certain row/event for the "Alarm Group #4" setting, which is fixed.	BIT 15 = Aftertreatment Warning Event Active BIT 14 = not used BIT 13 = Emergency Power System Supplying Load Condition Active BIT 12 = Battery Charger AC Failure Event Active BIT 11 = Low Cranking Voltage Warning Event Active BIT 10 = Low Battery Voltage Warning Event Active BIT 9 = High Battery Voltage Warning Event Active BIT 8 = Engine Control Switch Not in Automatic Event Active BIT 7 = Low Fuel Level Warning Event Active BIT 6 = Low Coolant Level Warning Event Active BIT 5 = not used BIT 4 = Low Oil Pressure Warning Event Active BIT 3 = Low Coolant Temperature Warning Event Active BIT 2 = High Coolant Temperature Warning Event Active BIT 1 = not used BIT 0 = Emergency Stop Diagnostic Event Active			0

Parameter Name	R/W	Holding Register		Ct	Description	Scaling (Resolution)	Offset	Limits (Ranges)	Sec Lvl
RS-485 Ann Alarm Group 4 Horn	R	356	0x0163	1	each bit gives a status of the horn for a certain row/event for the "Alarm Group #4" setting, which is fixed.	BIT 15 = Aftertreatment Event Horn Active BIT 14 = Air Shutdown Damper Closed Event Horn Active BIT 13 = Emergency Power System Supplying Load Condition Horn Active BIT 12 = Battery Charger AC Failure Event Horn Active BIT 11 = Low Cranking Voltage Event Horn Active BIT 10 = Low Battery Voltage Event Horn Active BIT 9 = High Battery Voltage Event Horn Active BIT 8 = Engine Control Switch Not in Automatic Event Horn Active BIT 7 = Low Fuel Level Event Horn Active BIT 6 = Low Coolant Level Event Horn Active BIT 5 = Overspeed Shutdown Event Horn Active BIT 4 = Low Oil Pressure Event Horn Active BIT 3 = Low Coolant Temperature Event Horn Active BIT 2 = High Coolant Temperature Event Horn Active BIT 1 = Engine Failure to Start (Overcrank) Shutdown Event Horn Active BIT 0 = Emergency Stop Shutdown / Diagnostic Horn Active			0
Urea Tank Level	R	377	0x0178	1	SCR urea tank level, as read from the CAN Data Link.	0.4 % / bit	0%	0 to 100%	0
Aftertreatment #1 SCR Catalyst Reagent Tank #1 Temperature	R	378	0x0179	1	SCR catalyst tank temperature, as read from the CAN Data Link.	1 C / bit	-40 C	-40 to 210 C	0
Urea Injection Air Pressure	R	379	0x017A	1	SCR urea injection air pressure, as read from the CAN Data Link.	8 kPa / bit	0 kPa	0 to 2000 kPa	0
Catalyst Intake Temperature	R	381	0x017C	1	SCR catalyst intake temperature, as read from the CAN Data Link.	0.03125 C / bit	-273 C	-273 to 1735 C	0
Aftertreatment 1 SCR Catalyst Exhaust Gas Differential Pressure	R	382	0x017D	1	SCR catalyst exhaust diff pressure (intake to exhaust), as read from the CAN Data Link.	0.1 kPa / bit	0 kPa	0 to 6425.5 kPa	0
Digital Input #1 Active Status	R	600	0x0257	1	Indicates the status of the Digital Input.				0
Digital Input #2 Active Status	R	601	0x0258	1	Indicates the status of the Digital Input.				0
Digital Input #3 Active Status	R	602	0x0259	1	Indicates the status of the Digital Input.				0
Digital Input #4 Active Status	R	603	0x025A	1	Indicates the status of the Digital Input.				0
Digital Input #5 Active Status	R	604	0x025B	1	Indicates the status of the Digital Input.				0
Digital Input #6 Active Status	R	605	0x025C	1	Indicates the status of the Digital Input.				0
Digital Input #7 Active Status	R	606	0x025D	1	Indicates the status of the Digital Input.	0 = INACTIVE 1 = ACTIVE 3 = DISABLED			0
Digital Input #8 Active Status	R	607	0x025E	1	Indicates the status of the Digital Input.				0
Isolated Digital Input #1 Active Status	R	608	0x025F	1	Indicates the status of the Digital Input.				0
Isolated Digital Input #2 Active Status	R	609	0x0260	1	Indicates the status of the Digital Input.				0
Isolated Digital Input #3 Active Status	R	610	0x0261	1	Indicates the status of the Digital Input.				0
Isolated Digital Input #4 Active Status	R	611	0x0262	1	Indicates the status of the Digital Input.				0
Dedicated Digital Input #1 (E-Stop) Active Status	R	612	0x0263	1	E-Stop status.	0 = INACTIVE 1 = ACTIVE			0
Dedicated Digital Input #2 (Initiate Command) Active Status	R	613	0x0264	1	Remote Initiate status.				0
Relay Output #1 Active Status	R	616	0x0267	1	Indicates the status of the Relay Output.				0
Relay Output #2 Active Status	R	617	0x0268	1	Indicates the status of the Relay Output.				0

Parameter Name	R/W	Holding Register		Ct	Description	Scaling (Resolution)	Offset	Limits (Ranges)	Sec Lvl
Relay Output #3 Active Status	R	618	0x0269	1	Indicates the status of the Relay Output.	0 = INACTIVE 1 = ACTIVE 3 = DISABLED			0
Relay Output #4 Active Status	R	619	0x026A	1	Indicates the status of the Relay Output.				0
Relay Output #5 Active Status	R	620	0x026B	1	Indicates the status of the Relay Output.				0
Relay Output #6 Active Status	R	621	0x026C	1	Indicates the status of the Relay Output.				0
Relay Output #7 Active Status	R	622	0x026D	1	Indicates the status of the Relay Output.				0
Relay Output #8 Active Status	R	623	0x026E	1	Indicates the status of the Relay Output.				0
Digital Output #1 Active Status	R	624	0x026F	1	Indicates the status of the Digital Output.	0 = INACTIVE 1 = ACTIVE 3 = DISABLED			0
Digital Output #2 Active Status	R	625	0x0270	1	Indicates the status of the Digital Output.				0
Digital Output #3 Active Status	R	626	0x0271	1	Indicates the status of the Digital Output.				0
Digital Output #4 Active Status	R	627	0x0272	1	Indicates the status of the Digital Output.				0
Digital Output #5 Active Status	R	628	0x0273	1	Indicates the status of the Digital Output.				0
Digital Output #6 Active Status	R	629	0x0274	1	Indicates the status of the Digital Output.				0
Digital Output #7 Active Status	R	630	0x0275	1	Indicates the status of the Digital Output.				0
Digital Output #8 Active Status	R	631	0x0276	1	Indicates the status of the Digital Output.				0
Digital Output #9 Active Status	R	632	0x0277	1	Indicates the status of the Digital Output.				0
Digital Output #10 Active Status	R	633	0x0278	1	Indicates the status of the Digital Output.				0
Digital Output #11 Active Status	R	634	0x0279	1	Indicates the status of the Digital Output.				0
Digital Output #12 Active Status	R	635	0x027A	1	Indicates the status of the Digital Output.				0
Digital Output #13 Active Status	R	636	0x027B	1	Indicates the status of the Digital Output.				0
Digital Output #14 Active Status	R	637	0x027C	1	Indicates the status of the Digital Output.				0
Digital Output #15 Active Status	R	638	0x027D	1	Indicates the status of the Digital Output.				0
Digital Output #16 Active Status	R	639	0x027E	1	Indicates the status of the Digital Output.				0
Digital Output #17 Active Status	R	640	0x027F	1	Indicates the status of the Digital Output.				0
Analog Input #1 Sensor Value	R	648	0x0287	1	Raw sensor value read from the input (VDC, mA, ohms, or %)	1/16 / bit	-16	-16 to 3999.9375	0
Analog Input #2 Sensor Value	R	649	0x0288	1	Raw sensor value read from the input (VDC, mA, ohms, or %)	1/16 / bit	-16	-16 to 3999.9375	0
Analog Input #3 Sensor Value	R	650	0x0289	1	Raw sensor value read from the input (VDC, mA, ohms, or %)	1/16 / bit	-16	-16 to 3999.9375	0
Analog Input #1 Data Value	R	652	0x028B	2	Data value as read from the input, in engineering units.	1/256 / bit	-8,224,768	-8,224,768 to 8,224,767.99609375	0
Analog Input #2 Data Value	R	654	0x028D	2	Data value as read from the input, in engineering units.	1/256 / bit	-8,224,768	-8,224,768 to 8,224,767.99609375	0
Analog Input #3 Data Value	R	656	0x028F	2	Data value as read from the input, in engineering units.	1/256 / bit	-8,224,768	-8,224,768 to 8,224,767.99609375	0
Write Access Password	W	700	0x02BB	8	Modbus register to which the password for the desired Access Level (0, 1, 2, or 3) is written.	Each byte is comprised of one character via its ASCII code. First NULL (0x00) character terminates string.			none
Level 1 Password	W	708	0x02C3	8	Modbus register to which a new Level 1 password is written, to change the password.	Each byte is comprised of one character via its ASCII code. First NULL (0x00) character terminates string.			1
Level 2 Password	W	716	0x02CB	8	Modbus register to which a new Level 2 password is written, to change the password.	Each byte is comprised of one character via its ASCII code. First NULL (0x00) character terminates string.			2
SCADA Password	W	724	0x02D3	8	Modbus register to which a new SCADA password is written, to change the password.	Each byte is comprised of one character via its ASCII code. First NULL (0x00) character terminates string.			2
Current Security Level	R	732	0x02DB	1	Current security level of the SCADA Data Link.	1 / bit	0	0 to 64255	0
Set Security Level	W	733	0x02DC	1	Write a security level value into this register to drop to a lower security level. To rise to a higher security level, write the corresponding password to "Write Access Password" (700) instead.	1 / bit	0	0 to 64255	0

Parameter Name	R/W	Holding Register		Ct	Description	Scaling (Resolution)	Offset	Limits (Ranges)	Sec Lvl
Level 3 Password Phone In Prompt	R	734	0x02DD	8	Numerical key that needs to be communicated to the factory support operator who can provide a Level 3 password.	Each byte is comprised of one character via its ASCII code. First NULL (0x00) character terminates string.			0
Engine Oil Temperature from I/O Pin	R	800	0x031F	1	Temperature of the engine lubricant, as measured by the auxiliary analog input. For legacy purposes only. For new applications, use "Engine Oil Temperature" (199) instead.	0.03125 C / bit	-273 C	-273 to 1735 C	0
Exhaust Temperature	R	801	0x0320	1	For legacy support only. For new applications, use register 2086 instead.	0.03125 C / bit	-273 C	-273 to 1735 C	0
Left Manifold Exhaust Temperature	R	802	0x0321	1	For legacy support only. This will read the "Exhaust Temperature" only. For new applications, install thermocouple module and use register 241 instead.	0.03125 C / bit	-273 C	-273 to 1735 C	0
Right Manifold Exhaust Temperature from I/O Pin	R	803	0x0322	1	For legacy support only. This will read the "Exhaust Temperature" only. For new applications, install thermocouple module and use register 242 instead.	0.03125 C / bit	-273 C	-273 to 1735 C	0
Fuel Level from I/O Pin	R	804	0x0323	1	Fuel level, as read from an Analog Input.	0.0078125 % / bit	-251 %	-251 to 250.99 %	0
External Tank Fuel Level from I/O Pin	R	805	0x0324	1	Fuel level of an external fuel storage container, as read from an Analog Input.	0.0078125 % / bit	-251 %	-251 to 250.99 %	0
Engine Oil Level from I/O Pin	R	806	0x0325	1	For legacy support only. Will always read zero. For new applications, use Custom Parameters instead.	0.0078125 % / bit	-251 %	-251 to 250.99 %	0
Engine Coolant Level from I/O Pin	R	807	0x0326	1	For legacy support only. Will always read zero. For new applications, use Custom Parameters instead.	0.0078125 % / bit	-251 %	-251 to 250.99 %	0
Oil Filter Differential Pressure from I/O Pin	R	809	0x0328	1	For legacy support only. Will always read zero. For new applications, use register 251.	0.125 kPa / bit	0 kPa	0 to 8031.875 kPa	0
Air Filter 1 Differential Pressure from I/O Pin	R	810	0x0329	1	For legacy support only. Will always read zero. For new applications, use register 253.	1 / 128 kPa / bit	-250 kPa	-250 to 251.99 kPa	0
Fuel Filter Differential Pressure from I/O Pin	R	811	0x032A	1	For legacy support only. Will always read zero. For new applications, use register 252.	0.125 kPa / bit	0 kPa	0 to 8031.875 kPa	0
Main Tank Urea Level from I/O Pin	R	812	0x032B	1	Shows the Main Tank Urea Level, as read from Analog Input.	0.0078125 % / bit	-251 %	-251 to 250.99 %	0
Real Time Clock	R	900	0x0383	3	Clock containing year, month, day, hour, minute, and second information.	Byte 5 = 1 year / bit, 1985 offset Byte 4 = 0.25 days / bit, 0 offset Byte 3 = 1 month / bit, 0 offset			0
Update Real Time Clock Command	W	903	0x0386	3	SCADA command to change the real time clock information.	Byte 2 = 1 hour / bit, 0 offset Byte 1 = 1 minute / bit, 0 offset Byte 0 = 0.25 seconds / bit, 0 offset			1
Log Entry Index	W	1033	0x0408	1	Selects the index of the genset control event log to be read from Log Entry Modbus register.	1 / bit	0	0 to 39	0

Parameter Name	R/W	Holding Register		Ct	Description	Scaling (Resolution)	Offset	Limits (Ranges)	Sec Lvl

Log Entry	R	1034	0x0409	14	Reads the entry of the Genset Control Log as specified by the Log Entry Index Modbus register.	Register offset 13 = Log Entry Index, 1 / bit, 0 offset, 0 to 39
						Register offset 12:11 = SPN/FMI (Event ID)
						  Bits 31:24 = not used
						  Bits 23:5 = SPN
						  Bits 4:0 = FMI
						Register offset 10 = Flags / Count
						  Bits 15:12 = not used
						  Bits 11:8 = Event Status
						    0 = Inactive
						    4 = Active
						    5 = Present
						  Bits 7:0 = Occurrence Count, 1 / bit, 0 offset, 1 to 99
						Register offset 9:8 = First Hourmeter, 1 second / bit, 0 offset
						Register offset 7:6 = Last Hourmeter, 1 second / bit, 0 offset
						Register offset 5:3 = First Timestamp
						  Bits 47:40 = 1 year / bit, 1985 offset
						  Bits 39:32 = 0.25 days / bit, 0 offset
						  Bits 31:24 = 1 month / bit, 0 offset
						  Bits 23:16 = 1 hour / bit, 0 offset
						  Bits 15:8 = 1 minute / bit, 0 offset
						  Bits 7:0 = 0.25 seconds / bit, 0 offset
						Register offset 2:0 = Last Timestamp (same encoding as First Timestamp)
									0

Reset Event	W	1048	0x0417	2	SCADA command to reset a single EMCP GSC interval event, identified by the SPN and FMI numbers.	Bits 31:24 = not used Bits 23:5 = SPN Bits 4:0 = FMI			1
Cooldown Duration Remaining	R	1054	0x041D	1	Time remaining in cooldown until engine is stopped. This value is only meaningful while the engine is in the Cooldown state.	1 second / bit	0 seconds	0 to 64255 seconds	0
Remote Initiate Command	W	1055	0x041E	1	When the control is in Auto mode, this commands the engine to Start when TRUE and Stop when FALSE.	0 = FALSE 1 = TRUE			0
Emergency Stop Command	W	1056	0x041F	1	Will cause the engine to immediately stop without cooling down.	0 = FALSE 1 = TRUE			0
Desired Genset Output Voltage	R	1057	0x0420	1	The desired RMS voltage to be delivered by the genset.	1 V / bit	0 V	0 to 64255 V	0
Total Voltage Bias Percent	R	1058	0x0421	1	The bias being applied to the voltage regulator desired output voltage, as a percentage of 40% of rated voltage. This will change by 0.5% when the Voltage Adjust up/down arrow is pressed on the PowerWizard display.	0.0078125 % / bit	-251 %	-251 to 250.99 %	0
Voltage Bias Percent Increment Command	W	1059	0x0422	1	Increments the percentage bias to be applied to the Automatic Voltage Regulator. This increment gets applied to the total voltage bias percent, register 1058.	0.0078125 % / bit	-251 %	-251 to 250.99 %	0
Requested Engine Speed	R	1060	0x0423	1	Engine speed currently being requested by the PowerWizard.	0.125 rpm / bit	0 rpm	0 to 8031.875 rpm	0
Total Speed Bias Percent	R	1061	0x0424	1	The bias being applied to the speed command output, as a percentage of 200 rpm. This will change by 0.5% each time the Speed Adjust left/right arrow is pressed on the PowerWizard display.	0.0078125 % / bit	-251 %	-251 to 250.99 %	0
Speed Bias Percent Increment Command	W	1062	0x0425	1	Increments the percentage bias being applied to the speed command output. This increment gets applied to the total speed bias percent, register 1061.	0.0078125 % / bit	-251 %	-251 to 250.99 %	0

Parameter Name	R/W	Holding Register		Ct	Description	Scaling (Resolution)	Offset	Limits (Ranges)	Sec Lvl
Generator Frequency within Limits	R	1067	0x042A	1	Indicates whether the generator frequency is below the threshold for a generator over frequency shutdown and above the threshold for a generator under frequency shutdown.	0 = FALSE 1 = TRUE			0
Generator Voltage within Limits	R	1068	0x042B	1	Indicates whether the generator voltage is below the threshold for a generator over voltage shutdown and above the threshold for a generator under voltage shutdown.	0 = FALSE 1 = TRUE			0
Genset Control Online	R	1090	0x0441	1	Indicates whether the EMCP GSC is on the communication network. This will always be True.	0 = FALSE 1 = TRUE			0
Engine Control Online	R	1091	0x0442	1	Indicates whether the engine ECM is in communication with the EMCP GSC via CAN.	0 = FALSE 1 = TRUE			0
Secondary Engine Control Online	R	1092	0x0443	1	Indicates whether the secondary engine ECM is in communication with the EMCP GSC via CAN.	0 = FALSE 1 = TRUE			0
External I/O #1 Online	R	1093	0x0444	1	Indicates whether the DIO module instance #1 is in communication with the EMCP GSC via CAN.	0 = FALSE 1 = TRUE			0
External I/O #2 Online	R	1094	0x0445	1	Indicates whether the DIO module instance #2 is in communication with the EMCP GSC via CAN.	0 = FALSE 1 = TRUE			0
External I/O #3 Online	R	1095	0x0446	1	Indicates whether the DIO module instance #3 is in communication with the EMCP GSC via CAN.	0 = FALSE 1 = TRUE			0
External I/O #4 Online	R	1096	0x0447	1	Indicates whether the DIO module instance #4 is in communication with the EMCP GSC viaCAN.	0 = FALSE 1 = TRUE			0
Digital AVR Online	R	1097	0x0448	1	Indicates whether the digital AVR module is in communication with the EMCP GSC via CAN.	0 = FALSE 1 = TRUE			0
RTD Module Online	R	1098	0x0449	1	Indicates whether the RTD module is in communication with the EMCP GSC via CAN.	0 = FALSE 1 = TRUE			0
Thermocouple #1 Online	R	1099	0x044A	1	Indicates whether the thermocouple module instance #1 is in communication with the EMCP GSC via CAN.	0 = FALSE 1 = TRUE			0
Thermocouple #2 Online	R	1100	0x044B	1	Indicates whether the thermocouple module instance #2 is in communication with the EMCP GSC via CAN.	0 = FALSE 1 = TRUE			0
SCR Module Online	R	1103	0x044E	1	Tells whether this device is communicating on either of the CAN datalinks. For use by display (to show event log) or external customer.	0 = FALSE 1 = TRUE			0
Primary Data Link Status	R	1140	0x0473	1	indicates any present faults on this datalink	0 = OK 1 = FAULT			0
Accessory Data Link Status	R	1141	0x0474	1	indicates any present faults on this datalink	0 = OK 1 = FAULT			0
RS-485 SCADA Data Link Status	R	1142	0x0475	1	indicates any present faults on this datalink	0 = OK 1 = FAULT			0
RS-485 Annunciator Data Link Status	R	1144	0x0477	1	indicates any present faults on this datalink	0 = OK 1 = FAULT			0
Low Idle State from ADEM	R	1263	0x04EE	1	Indicates whether the Engine is in low idle state.	0 = FALSE 1 = TRUE 2 = ERROR 3 = DISABLED OR NOT AVAILABLE			0
Engine Protection has Shut Down Engine	R	1275	0x04FA	1	Indicates that the engine protection system has shut down the engine, as opposed to the engine shutting down based on a command from the PowerWizard.	0 = FALSE 1 = TRUE 2 = ERROR 3 = DISABLED OR NOT AVAILABLE			0
Control S/N	R	1276	0x04FB	6	Reads the Serial Number of the PowerWizard GSC.	Each byte is comprised of one character via its ASCII code. First NULL (0x00) character terminates string.			0

Parameter Name	R/W	Holding Register		Ct	Description	Scaling (Resolution)	Offset	Limits (Ranges)	Sec Lvl
Event Log Module Selection	W	1498	0x05D9	1	Write a value to this register to select which module events are accessible via the Module Event Log Entry # parameters (1500 through 1576). Writing a value to this register changes the value of the Event Log Module Selection parameter (register 1499).	0 = GENSET CONTROL 1 = ENGINE CONTROL 2 = SECONDARY ENGINE CONTROL 3 = EXTERNAL I/O #1 4 = EXTERNAL I/O #2 5 = EXTERNAL I/O #3			0
Event Log Module Selection	R	1499	0x05DA	1	Read this register to determine which module events are currently accessible via the Module Event Log Entry # parameters (registers 1500 through 1576).	6 = EXTERNAL I/O #4 7 = DIGITAL AVR 8 = RTD MODULE 9 = THERMOCOUPLE MODULE #1 10 = THERMOCOUPLE MODULE #2			0
Module Event Log Entry 1	R	1500	0x05DB	14					0
Module Event Log Entry 2	R	1514	0x05E9	14					0
Module Event Log Entry 3	R	1528	0x05F7	14					0
Module Event Log Entry 4	R	1542	0x0605	14					0
Module Event Log Entry 5	R	1556	0x0613	14					0
Module Event Log Entry 6	R	1570	0x0621	14					0
Module Event Log Entry 7	R	1584	0x062F	14					0
Module Event Log Entry 8	R	1598	0x063D	14					0
Module Event Log Entry 9	R	1612	0x064B	14					0
Module Event Log Entry 10	R	1626	0x0659	14					0
Module Event Log Entry 11	R	1640	0x0667	14					0
Module Event Log Entry 12	R	1654	0x0675	14		Register offset 13 = Log Entry Index, 1 / bit, 0 offset, 0 to 39			0
Module Event Log Entry 13	R	1668	0x0683	14		Register offset 12:11 = SPN/FMI (Event ID) Bits 31:24 = not used			0
Module Event Log Entry 14	R	1682	0x0691	14		Bits 23:5 = SPN			0
Module Event Log Entry 15	R	1696	0x069F	14		Bits 4:0 = FMI			0
Module Event Log Entry 16	R	1710	0x06AD	14		Register offset 10 = Flags / Count			0
Module Event Log Entry 17	R	1724	0x06BB	14		Bits 15:12 = not used			0
Module Event Log Entry 18	R	1738	0x06C9	14		Bits 11:8 = Event Status			0
Module Event Log Entry 19	R	1752	0x06D7	14		0 = Inactive 4 = Active			0
Module Event Log Entry 20	R	1766	0x06E5	14	Reads the corresponding entry of the Event Log for the module specified in the Event Log Module Selection register.	5 = Present Bits 7:0 = Occurrence Count, 1 / bit, 0 offset, 1 to 99			0
Module Event Log Entry 21	R	1780	0x06F3	14		Register offset 9:8 = First Hourmeter, 1 second / bit, 0 offset			0
Module Event Log Entry 22	R	1794	0x0701	14		Register offset 7:6 = Last Hourmeter, 1 second / bit, 0 offset			0
Module Event Log Entry 23	R	1808	0x070F	14		Register offset 5:3 = First Timestamp			0
Module Event Log Entry 24	R	1822	0x071D	14		Bits 47:40 = 1 year / bit, 1985 offset			0
Module Event Log Entry 25	R	1836	0x072B	14		Bits 39:32 = 0.25 days / bit, 0 offset			0
Module Event Log Entry 26	R	1850	0x0739	14		Bits 31:24 = 1 month / bit, 0 offset			0
Module Event Log Entry 27	R	1864	0x0747	14		Bits 23:16 = 1 hour / bit, 0 offset			0
Module Event Log Entry 28	R	1878	0x0755	14		Bits 15:8 = 1 minute / bit, 0 offset Bits 7:0 = 0.25 seconds / bit, 0 offset			0
Module Event Log Entry 29	R	1892	0x0763	14		Register offset 2:0 = Last Timestamp (same encoding as First Timestamp)			0
Module Event Log Entry 30	R	1906	0x0771	14					0
Module Event Log Entry 31	R	1920	0x077F	14					0
Module Event Log Entry 32	R	1934	0x078D	14					0

Parameter Name	R/W	Holding Register		Ct	Description	Scaling (Resolution)	Offset	Limits (Ranges)	Sec Lvl
Module Event Log Entry 33	R	1948	0x079B	14					0
Module Event Log Entry 34	R	1962	0x07A9	14					0
Module Event Log Entry 35	R	1976	0x07B7	14					0
Module Event Log Entry 36	R	1990	0x07C5	14					0
Module Event Log Entry 37	R	2004	0x07D3	14					0
Module Event Log Entry 38	R	2018	0x07E1	14					0
Module Event Log Entry 39	R	2032	0x07EF	14					0
Module Event Log Entry 40	R	2046	0x07FD	14					0
Programmable Cycle Timer 1 Output 1 Status	R	2060	0x080B	1	Shows status of Output 1 as driven by this timer. Output 1 is used to command the Generator Circuit Breaker to close.	0 = PCT Output 1 is currently not activated by this timer (but is configured). 1 = PCT Output 1 is currently activated by this timer. 2 = PCT Output 1 is not configured to be activated by this timer.			0
Programmable Cycle Timer 2 Output 1 Status	R	2061	0x080C	1					0
Programmable Cycle Timer 3 Output 1 Status	R	2062	0x080D	1					0
Programmable Cycle Timer 4 Output 1 Status	R	2063	0x080E	1					0
Programmable Cycle Timer 5 Output 1 Status	R	2064	0x080F	1					0
Programmable Cycle Timer 6 Output 1 Status	R	2065	0x0810	1					0
Programmable Cycle Timer 7 Output 1 Status	R	2066	0x0811	1					0
Programmable Cycle Timer 1 Output 2 Status	R	2067	0x0812	1	Shows status of Output 2 as driven by this timer. Output 2 is used to command the Generator Circuit Breaker to close.	0 = PCT Output 2 is currently not activated by this timer (but is configured). 1 = PCT Output 2 is currently activated by this timer. 2 = PCT Output 2 is not configured to be activated by this timer.			0
Programmable Cycle Timer 2 Output 2 Status	R	2068	0x0813	1					0
Programmable Cycle Timer 3 Output 2 Status	R	2069	0x0814	1					0
Programmable Cycle Timer 4 Output 2 Status	R	2070	0x0815	1					0
Programmable Cycle Timer 5 Output 2 Status	R	2071	0x0816	1					0
Programmable Cycle Timer 6 Output 2 Status	R	2072	0x0817	1					0
Programmable Cycle Timer 7 Output 2 Status	R	2073	0x0818	1					0
Turbocharger 1 Compressor Inlet Temperature	R	2074	0x0819	1	Temperature of the air entering the compressor side of the turbocharger, as received from another module on the CAN Data Link.	0.03125 C / bit	-273 C	-273 to 1735 C	0
Turbocharger 2 Compressor Inlet Temperature	R	2075	0x081A	1	Temperature of the air entering the compressor side of the turbocharger, as received from another module on the CAN Data Link.	0.03125 C / bit	-273 C	-273 to 1735 C	0
Turbocharger 3 Compressor Inlet Temperature	R	2076	0x081B	1	Temperature of the air entering the compressor side of the turbocharger, as received from another module on the CAN Data Link.	0.03125 C / bit	-273 C	-273 to 1735 C	0
Turbocharger 4 Compressor Inlet Temperature	R	2077	0x081C	1	Temperature of the air entering the compressor side of the turbocharger, as received from another module on the CAN Data Link.	0.03125 C / bit	-273 C	-273 to 1735 C	0
Turbocharger 1 Turbine Inlet Temperature	R	2078	0x081D	1	Temperature of the combustion by-products entering the turbine side of the turbocharger, as received from another module on the CAN Data Link.	0.03125 C / bit	-273 C	-273 to 1735 C	0

Parameter Name	R/W	Holding Register		Ct	Description	Scaling (Resolution)	Offset	Limits (Ranges)	Sec Lvl
Turbocharger 1 Turbine Outlet Temperature	R	2079	0x081E	1	Temperature of the combustion by-products exiting the turbine side of the turbocharger, as received from another module on the CAN Data Link.	0.03125 C / bit	-273 C	-273 to 1735 C	0
Turbocharger 2 Turbine Inlet Temperature	R	2080	0x081F	1	Temperature of the combustion by-products entering the turbine side of the turbocharger, as received from another module on the CAN Data Link.	0.03125 C / bit	-273 C	-273 to 1735 C	0
Turbocharger 2 Turbine Outlet Temperature	R	2081	0x0820	1	Temperature of the combustion by-products exiting the turbine side of the turbocharger, as received from another module on the CAN Data Link.	0.03125 C / bit	-273 C	-273 to 1735 C	0
Turbocharger 3 Turbine Inlet Temperature	R	2082	0x0821	1	Temperature of the combustion by-products entering the turbine side of the turbocharger, as received from another module on the CAN Data Link.	0.03125 C / bit	-273 C	-273 to 1735 C	0
Turbocharger 3 Turbine Outlet Temperature	R	2083	0x0822	1	Temperature of the combustion by-products exiting the turbine side of the turbocharger, as received from another module on the CAN Data Link.	0.03125 C / bit	-273 C	-273 to 1735 C	0
Turbocharger 4 Turbine Inlet Temperature	R	2084	0x0823	1	Temperature of the combustion by-products entering the turbine side of the turbocharger, as received from another module on the CAN Data Link.	0.03125 C / bit	-273 C	-273 to 1735 C	0
Turbocharger 4 Turbine Outlet Temperature	R	2085	0x0824	1	Temperature of the combustion by-products exiting the turbine side of the turbocharger, as received from another module on the CAN Data Link.	0.03125 C / bit	-273 C	-273 to 1735 C	0
Exhaust Temperature from Data Link	R	2086	0x0825	1	Temperature of combustion byproducts leaving the engine, as received from another module over the CAN data link.	0.03125 C / bit	-273 C	-273 to 1735 C	0
Fuel Pump Primer Status	R	2087	0x0826	1	Shows status of the Fuel Primer Pump	0 = Deactivate Fuel Priming 1 = Priming Active 2 = Priming Inappropriate			0
Manual Fuel Priming Duration Remaining	R	2091	0x082A	1	Time remaining in manual fuel priming, in seconds.	1 second / bit	0 seconds	0 to 64255 seconds	0
Software Build Version	R	2188	0x088B	10	Version of software on the controller. NULL character (0x00) terminates string.	Each byte is comprised of one character via its ASCII code. First NULL (0x00) character terminates string.			0
Digital Output #1 Command	W	2232	0x08B7	1					0
Digital Output #2 Command	W	2233	0x08B8	1					0
Relay Output #1 Command	W	2252	0x08CB	1					0
Relay Output #2 Command	W	2253	0x08CC	1					0
Relay Output #3 Command	W	2254	0x08CD	1	command to activate this output. Applies only when Usage Type is set to SCADA	0 = DEACTIVATE 1 = ACTIVATE			0
Relay Output #4 Command	W	2255	0x08CE	1					0
Relay Output #5 Command	W	2256	0x08CF	1					0
Relay Output #6 Command	W	2257	0x08D0	1					0
Relay Output #7 Command	W	2258	0x08D1	1					0
Relay Output #8 Command	W	2259	0x08D2	1					0