

Parameter Number	Parameter Name	Min	Default	Max	Unit	Options
P0	Model Type	0	0x45473532	999999		
P1	Engine Running Hours	0	0	999999	Hour	
P2	Erase Memory	0	0	1		0:Passive 1:Active
P3	Return to Factory Settings Level 1	0	0	1		0:Passive 1:Active
P4	Return to Factory Settings Level 2	0	0	1		0:Passive 1:Active
P5	Return to Factory Settings Level 3	0	0	1		0:Passive 1:Active
P6	Return to Factory Settings Level 4	0	0	1		0:Passive 1:Active
P7	Password Level 1	1	342425	999999		
P8	Password Level 2	1	473832	999999		
P9	Password Level 3	1	581541	999999		
P10	Password Level 4	1	825356	999999		
P11	Reset Failure Auto-delete Timers	0	0	1		0:Passive 1:Active
P12	Start-up Mode	0	0	4		0: Manual 1: Auto 2: Test 3: Off 4: Last used mode
P13	Generator Voltage Connections	0	0	3		0: 3 Phase + Neutral 1: Single Phase R 2: 2 Phase Delta R,S 3: 3 Phase
P14	Mains Voltage Connections	0	0	3		0: 3 Phase + Neutral 1: Single Phase R 2: 2 Phase Delta R,S 3: 3 Phase
P15	Mains Voltage Transformer Primer Ratio	50	230	65000		
P16	Mains Voltage Transformer Seconder Ratio	50	230	400		
P17	Generator Voltage Transformer Primer Ratio	50	230	65000		
P18	Generator Voltage Transformer Seconder Ratio	50	230	400		
P19	Current Transformer Primer Ratio	5	100	9900		
P20	Current Transformer Seconder Ratio	1	5	5		
P21	Position of Current Transformer	0	0	1		0: Alternator Output 1: Load Output
P22	Test Button Function	0	0	1		0: Off-load Test 1: On-load Test
P23	Failure Indication in Off Mode	0	1	1		0:Passive 1:Active
P24	Horn Duration	0	30	900	Second	
P25	Transfer Time from Mains to Generator	1	1	60	Second	
P26	Transfer Time from Generator to Mains	1	1	60	Second	
P27	Auto-exit from Off-load Test Mode when Mains Returns	0	0	1		0:Passive 1:Active
P28	Auto-exit from On-load Test Mode when Mains Returns	0	0	1		0:Passive 1:Active
P29	Auto-set Voltage Measurements	0	0	1		0:Passive 1:Active
P30	Reset All Periodic Maintenance Timers	0	0	1		0:Passive 1:Active
P31	Periodic Engine Maintenance Timer 1 Active	0	1	1		0:Passive 1:Active
P32	Periodic Engine Maintenance Timer 1 Elapsed Time	0	0	60000	Hour	
P33	Periodic Engine Maintenance Timer 1 Set	0	250	30000	Hour	
P34	Periodic Engine Maintenance Timer 1 Class	1	2	6		1:Only Display 2:Display + Horn 3:Display + Horn + Gen.Trip 4:Display + Horn + Shutdown with Cooling 5:Display + Horn + Shutdown without Cooling 6:Display + Horn + Shutdown without cooling + Mains Trip
P35	Periodic Engine Maintenance Timer 2 Active	0	1	1		0:Passive 1:Active
P36	Periodic Engine Maintenance Timer 2 Elapsed Time	0	0	60000	Hour	
P37	Periodic Engine Maintenance Timer 2 Set	0	250	30000	Hour	
P38	Periodic Engine Maintenance Timer 2 Class	1	2	6		1:Only Display 2:Display + Horn 3:Display + Horn + Gen.Trip 4:Display + Horn + Shutdown with Cooling 5:Display + Horn + Shutdown without Cooling 6:Display + Horn + Shutdown without cooling + Mains Trip
P39	Periodic Engine Maintenance Timer 3 Active	0	1	1		0:Passive 1:Active
P40	Periodic Engine Maintenance Timer 3 Elapsed Time	0	0	60000	Hour	
P41	Periodic Engine Maintenance Timer 3 Set	0	250	30000	Hour	
P42	Periodic Engine Maintenance Timer 3 Class	1	2	6		1:Only Display 2:Display + Horn 3:Display + Horn + Gen.Trip 4:Display + Horn + Shutdown with Cooling 5:Display + Horn + Shutdown without Cooling 6:Display + Horn + Shutdown without cooling + Mains Trip
P43	Periodic Engine Maintenance Timer 4 Active	0	1	1		0:Passive 1:Active
P44	Periodic Engine Maintenance Timer 4 Elapsed Time	0	0	60000	Hour	
P45	Periodic Engine Maintenance Timer 4 Set	0	250	30000	Hour	
P46	Periodic Engine Maintenance Timer 4 Class	1	2	6		1:Only Display 2:Display + Horn 3:Display + Horn + Gen.Trip 4:Display + Horn + Shutdown with Cooling

						5:Display + Horn + Shutdown without Cooling 6:Display + Horn + Shutdown without cooling + Mains Trip
P47	Periodic Engine Maintenance Timer 5 Active	0	1	1		0:Passive 1:Active
P48	Periodic Engine Maintenance Timer 5 Elapsed Time	0	0	60000	Hour	
P49	Periodic Engine Maintenance Timer 5 Set	0	250	30000	Hour	
P50	Periodic Engine Maintenance Timer 5 Class	1	2	6		1:Only Display 2:Display + Horn 3:Display + Horn + Gen.Trip 4:Display + Horn + Shutdown with Cooling 5:Display + Horn + Shutdown without Cooling 6:Display + Horn + Shutdown without cooling + Mains Trip
P51	Periodic Engine Maintenance Timer 6 Active	0	1	1		0:Passive 1:Active
P52	Periodic Engine Maintenance Timer 6 Elapsed Time	0	0	60000	Hour	
P53	Periodic Engine Maintenance Timer 6 Set	0	250	30000	Hour	
P54	Periodic Engine Maintenance Timer 6 Class	1	2	6		1:Only Display 2:Display + Horn 3:Display + Horn + Gen.Trip 4:Display + Horn + Shutdown with Cooling 5:Display + Horn + Shutdown without Cooling 6:Display + Horn + Shutdown without cooling + Mains Trip
P55	Periodic Maintenance Timer 1 Active	0	0	1		0:Passive 1:Active
P56	Periodic Maintenance Timer 1 Elapsed Time	0	0	9000	Day	
P57	Periodic Maintenance Timer 1 Set	0	180	1500	Day	
P58	Periodic Maintenance Timer 1 Class	1	2	6		1:Only Display 2:Display + Horn 3:Display + Horn + Gen.Trip 4:Display + Horn + Shutdown with Cooling 5:Display + Horn + Shutdown without Cooling 6:Display + Horn + Shutdown without cooling + Mains Trip
P59	Periodic Maintenance Timer 2 Active	0	0	1		0:Passive 1:Active
P60	Periodic Maintenance Timer 2 Elapsed Time	0	0	9000	Day	
P61	Periodic Maintenance Timer 2 Set	0	180	1500	Day	
P62	Periodic Maintenance Timer 2 Class	1	2	6		1:Only Display 2:Display + Horn 3:Display + Horn + Gen.Trip 4:Display + Horn + Shutdown with Cooling 5:Display + Horn + Shutdown without Cooling 6:Display + Horn + Shutdown without cooling + Mains Trip
P63	Periodic Maintenance Timer 3 Active	0	0	1		0:Passive 1:Active
P64	Periodic Maintenance Timer 3 Elapsed Time	0	0	9000	Day	
P65	Periodic Maintenance Timer 3 Set	0	180	1500	Day	
P66	Periodic Maintenance Timer 3 Class	1	2	6		1:Only Display 2:Display + Horn 3:Display + Horn + Gen.Trip 4:Display + Horn + Shutdown with Cooling 5:Display + Horn + Shutdown without Cooling 6:Display + Horn + Shutdown without cooling + Mains Trip
P67	Periodic Maintenance Timer 4 Active	0	0	1		0:Passive 1:Active
P68	Periodic Maintenance Timer 4 Elapsed Time	0	0	9000	Day	
P69	Periodic Maintenance Timer 4 Set	0	180	1500	Day	
P70	Periodic Maintenance Timer 4 Class	1	2	6		1:Only Display 2:Display + Horn 3:Display + Horn + Gen.Trip 4:Display + Horn + Shutdown with Cooling 5:Display + Horn + Shutdown without Cooling 6:Display + Horn + Shutdown without cooling + Mains Trip
P71	Periodic Maintenance Timer 5 Active	0	0	1		0:Passive 1:Active
P72	Periodic Maintenance Timer 5 Elapsed Time	0	0	9000	Day	
P73	Periodic Maintenance Timer 5 Set	0	180	1500	Day	
P74	Periodic Maintenance Timer 5 Class	1	2	6		1:Only Display 2:Display + Horn 3:Display + Horn + Gen.Trip 4:Display + Horn + Shutdown with Cooling 5:Display + Horn + Shutdown without Cooling 6:Display + Horn + Shutdown without cooling + Mains Trip
P75	Periodic Maintenance Timer 6 Active	0	0	1		0:Passive 1:Active
P76	Periodic Maintenance Timer 6 Elapsed Time	0	0	9000	Day	
P77	Periodic Maintenance Timer 6 Set	0	180	1500	Day	
P78	Periodic Maintenance Timer 6 Class	1	2	6		1:Only Display 2:Display + Horn 3:Display + Horn + Gen.Trip 4:Display + Horn + Shutdown with Cooling 5:Display + Horn + Shutdown without Cooling 6:Display + Horn + Shutdown without cooling + Mains Trip

P79	Engine Timer Source	0	0	1		0: Elapses while the Generator voltage and frequency inputs are energized 1: Elapses while the AMF 5.2 runs the Generator
P80	Pre-crank Delay	0	0	3000	Second	
P81	Delay After Engine Stop	2	3	3000	Second	
P82	Sound Horn During Pre-crank Delay	0	0	1		0:Passive 1:Active
P83	Pre-heat Duration	0	0	3000	Second	
P84	Pre-heat Temperature Limit Active	0	0	1		0:Passive 1:Active
P85	Pre-heat Temperature Limit	-30	10	212	C / F	
P86	Magnetic Pick-up Active	0	1	1		0:Passive 1:Active
P87	Flywheel Teeth Count	2	190	500		
P88	Number of Poles	1	2	16		1: 2 Poles 2: 4 Poles 3: 6 Poles 4: 8 Poles 5: 10 Poles 6: 12 Poles 7: 14 Poles 8: 16 Poles 9: 18 Poles 10: 20 Poles 11: 22 Poles 12: 24 Poles 13: 26 Poles 14: 28 Poles 15: 30 Poles 16: 32 Poles
P89	Crank Attempts	1	3	9		
P90	Crank Time	1	7	60	Second	
P91	Delay Time Between Cranks	3	10	60	Second	
P92	Initial Start Failure Delay	2	10	60	Second	
P93	Initial Start Alternator Contactor Delay	0	5	90	Second	
P94	Load Transfer Engine Heat Limit Active	0	0	1		0:Passive 1:Active
P95	Load Transfer Engine Heat Limit	0	50	212	C / F	
P96	Cooldown Timer	0	120	3000	Second	
P97	Stop Solenoid Energize Period After Engine Stop	1	8	120		
P98	Maximum Stop Solenoid Energize Period	1	10	120	Second	
P99	Fuel System	0	1	3		0: Fuel Solenoid Type (Release During Crank) 1: Fuel Solenoid Type (Do NOT Release During Crank) 2: Stop Solenoid Type (Not Energized Between Cranks) 3: Stop Solenoid Type (Energized Between Cranks)
P100	Delay Time Between Fuel - Crank Output	0	5	9	Second	
P101	Generator Start from Battery Voltage	0	0	2		0: Passive 1: Panel Battery Measurement Input 2: AN2
P102	Generator Start from Battery Volage High Level	0	26	80	V	
P103	Generator Start from Battery Voltage Low Level	0	22	80	V	
P104	Generator start-up delay from battery voltage	1	10	3000	Second	
P105	Generator stopping delay from battery voltage	1	10	3000	Second	
P106	Thermostat 1 Type	0	0	2		0: Passive 1: Cooler 2: Heater
P107	Thermostat 1 Setting	-30	20	150	C / F	
P108	Thermostat 1 Activation Hystheresis Value	2	10	30	C / F	
P109	Thermostat 1 Activation Timer	1	4	3000	Second	
P110	Thermostat 1 De-activation Timer	1	4	3000	Second	
P111	Thermostat 1 Start-up Activation Delay Timer	1	600	3000	Second	
P112	Thermostat 1 De-activation after Activation Delay Timer	1	60	3000	Second	
P113	Thermostat 1 Activation after De-activation Delay Timer	1	60	3000	Second	
P114	Thermostat 2 Type	0	0	2		0: Passive 1: Cooler 2: Heater
P115	Thermostat 2 Setting	-30	20	150	C / F	
P116	Thermostat 2 Activation Hystheresis Value	2	10	30	C / F	
P117	Thermostat 2 Activation Timer	1	4	3000	Second	
P118	Thermostat 2 De-activation Timer	1	4	3000	Second	
P119	Thermostat 2 Start-up Activation Delay Timer	1	600	3000	Second	

P120	Thermostat 2 De-activation after Activation Delay Timer	1	60	3000	Second	
P121	Thermostat 2 Activation after De-activation Delay Timer	1	60	3000	Second	
P122	Crank Disconnect on Alternator Frequency Value	10	20	30	Hz	
P123	Crank Disconnect on Alternator Frequency Delay	0.1	0.4	25	Second	
P124	Alternator Frequency Running Feedback Limit	0	21	40	Hz	
P125	Alternator Voltage as Running Feedback	0	1	1		0:Passive 1:Active
P126	Alternator Voltage as Running Feedback Limit	5	166	250	V	
P127	Crank Disconnect on Alternator Voltage	0	1	1		0:Passive 1:Active
P128	Crank Disconnect on Alternator Voltage Value	20	165	500	V	
P129	Crank Disconnect on Alternator Voltage Delay	0.1	1	25	Second	
P130	Engine RPM as Running Feedback	0	0	1		0:Passive 1:Active
P131	Engine RPM as Running Feedback Limit	10	601	9000	RPM	
P132	Crank Disconnect on Engine RPM	0	0	1		0:Passive 1:Active
P133	Crank Disconnect on Engine RPM Value	10	600	9000	RPM	
P134	Crank Disconnect on Engine RPM Delay	0.1	1	25	Second	
P135	Charge Alternator Voltage as Running Feedback	0	1	1		0:Passive 1:Active
P136	Charge Alternator Voltage as Running Feedback Limit	1	8.1	25.5	V	
P137	Crank Disconnect on Charge Alternator Voltage	0	1	1		0:Passive 1:Active
P138	Crank Disconnect on Charge Alternator Voltage Value	0	8	25.5	V	
P139	Crank Disconnect on Charge Alternator Voltage Delay	0.1	2	25	Second	
P140	Oil Pressure as Running Feedback	0	1	1		0:Passive 1:Active
P141	Oil Pressure as Running Feedback Limit	0.1	1.6	25	Bar	
P142	Crank Disconnect on Oil Pressure	0	0	1		0:Passive 1:Active
P143	Crank Disconnect on Oil Pressure Value	0.1	1.5	25	Bar	
P144	Crank Disconnect on Oil Pressure Delay	0.1	3	25	Second	
P145	Oil Pressure Switch as Running Feedback	0	1	1		0:Passive 1:Active
P146	Crank Disconnect on Oil Pressure Switch	0	0	1		0:Passive 1:Active
P147	Crank Disconnect on Oil Pressure Switch Delay	0.1	3	25	Second	
P148	Initial power mains failure status	0	0	1		0:Passive 1:Active
P149	Activated generator at mains failure	0	1	1		0:Passive 1:Active
P150	Mains Undervoltage Failure Active	0	1	1		0:Passive 1:Active
P151	Mains Undervoltage Failure Value	40	180	65500	V	
P152	Mains Undervoltage Failure Delay	0	4	120	Second	
P153	Mains Undervoltage Return Time	2	30	900	Second	
P154	Mains Undervoltage Hysteresis Value	2	10	250	V	
P155	Mains Over Voltage Failure Active	0	1	1		0:Passive 1:Active
P156	Mains Over Voltage Failure Value	40	260	65500	V	
P157	Mains Over Voltage Failure Delay	0	4	120	Second	
P158	Mains Over Voltage Failure Return Time	2	30	900	Second	
P159	Mains Over Voltage Hysteresis Value	2	10	250	V	
P160	Mains Under Frequency Failure Active	0	1	1		0:Passive 1:Active
P161	Mains Under Frequency Failure Value	20	45	95	Hz	
P162	Mains Under Frequency Failure Delay	0	4	120	Second	
P163	Mains Under Frequency Failure Return Time	2	30	900	Second	

P164	Mains Under Frequency Failure Hysteresis Value	0.2	2	25	Hz	
P165	Mains Over Frequency Failure Active	0	1	1		0:Passive
P166	Mains Over Frequency Failure Value	20	55	95	Hz	1:Active
P167	Mains Over Frequency Failure Delay	0	4	120	Second	
P168	Mains Over Frequency Failure Return Time	2	30	900	Second	
P169	Mains Over Frequency Failure Hysteresis Value	0.2	2	25	Hz	
P170	Mains Protection in Manual, Auto, On-load and Off-load Test Modes	0	1	1		0:Passive
P171	Mains Protection in Off Mode	0	1	1		1:Active
P172	Generator Under Voltage Level 1 Failure Alarm Active	0	1	1		0:Passive
P173	Generator Under Voltage Level 1 Failure Value	40	180	500	V	1:Active
P174	Generator Under Voltage Level 1 Failure Delay	2	5	20	Second	
P175	Generator Under Voltage Level 1 Failure Return Time	2	10	20	Second	
P176	Generator Under Voltage Level 1 Failure Class	1	5	6		1:Only Display 2:Display + Horn 3:Display + Horn + Gen.Trip 4:Display + Horn + Shutdown with Cooling 5:Display + Horn + Shutdown without Cooling 6:Display + Horn + Shutdown without cooling + Mains Trip
P177	Generator Under Voltage Level 1 Failure Auto-acknowledge	0	0	1		0:Passive
P178	Generator Under Voltage Level 1 Failure Auto-acknowledge Type	0	0	1		1:Active
P179	Generator Under Voltage Level 1 Failure Auto-acknowledge Number	2	5	99		0:Limited 1:Unlimited
P180	Generator Under Voltage Level 1 Failure Hysteresis Value	1	10	50	V	
P181	Generator Under Voltage Level 1 Failure Auto-acknowledge Counter	0	0	30000	Hour	
P182	Generator Under Voltage Level 1 Failure Auto-acknowledge Counter Decrease Time	0.1	10	6500	Hour	
P183	Generator Under Voltage Level 2 Failure Alarm Active	0	1	1		0:Passive
P184	Generator Under Voltage Level 2 Failure Value	40	170	500	V	1:Active
P185	Generator Under Voltage Level 2 Failure Delay	2	3	20	Second	
P186	Generator Under Voltage Level 2 Failure Return Time	2	10	20	Second	
P187	Generator Under Voltage Level 2 Failure Class	1	5	6		1:Only Display 2:Display + Horn 3:Display + Horn + Gen.Trip 4:Display + Horn + Shutdown with Cooling 5:Display + Horn + Shutdown without Cooling 6:Display + Horn + Shutdown without cooling + Mains Trip
P188	Generator Under Voltage Level 2 Failure Auto-acknowledge	0	0	1		0:Passive
P189	Generator Under Voltage Level 2 Failure Auto-acknowledge Type	0	0	1		1:Active
P190	Generator Under Voltage Level 2 Failure Auto-acknowledge Number	2	5	99		0:Limited 1:Unlimited
P191	Generator Under Voltage Level 2 Failure Hysteresis Value	1	10	50	V	
P192	Generator Under Voltage Level 2 Failure Auto-acknowledge Counter	0	0	30000	Hour	
P193	Generator Under Voltage Level 2 Failure Auto-acknowledge Counter Decrease Time	0.1	10	6500	Hour	
P194	Generator Over Voltage Level 1 Failure Alarm Active	0	1	1		0:Passive
P195	Generator Over Voltage Level 1 Failure Value	40	260	500	V	1:Active
P196	Generator Over Voltage Level 1 Failure Delay	2	5	20	Second	
P197	Generator Over Voltage Level 1 Failure Return Time	2	10	20	Second	
P198	Generator Over Voltage Level 1 Failure Class	1	5	6		1:Only Display 2:Display + Horn 3:Display + Horn + Gen.Trip 4:Display + Horn + Shutdown with Cooling 5:Display + Horn + Shutdown without Cooling 6:Display + Horn + Shutdown without cooling + Mains Trip
P199	Generator Over Voltage Level 1 Failure Auto-acknowledge	0	0	1		0:Passive
P200	Generator Over Voltage Level 1 Failure Auto-acknowledge Type	0	0	1		1:Active
						0:Limited 1:Unlimited

P201	Generator Over Voltage Level 1 Failure Auto-acknowledge Number	2	5	99		
P202	Generator Over Voltage Level 1 Failure Hysteresis Value	1	10	50	V	
P203	Generator Over Voltage Level 1 Failure Auto-acknowledge Counter	0	0	30000	Hour	
P204	Generator Over Voltage Level 1 Failure Auto-acknowledge Counter Decrease Time	0.1	10	6500	Hour	
P205	Generator Over Voltage Level 2 Failure Alarm Active	0	0	1		0:Passive
P206	Generator Over Voltage Level 2 Failure Value	40	270	500	V	1:Active
P207	Generator Over Voltage Level 2 Failure Delay	2	3	20	Second	
P208	Generator Over Voltage Level 2 Failure Return Time	2	3	20	Second	
P209	Generator Over Voltage Level 2 Failure Class	1	2	6		1:Only Display
						2:Display + Horn
						3:Display + Horn + Gen.Trip
						4:Display + Horn + Shutdown with Cooling
						5:Display + Horn + Shutdown without Cooling
						6:Display + Horn + Shutdown without cooling + Mains Trip
P210	Generator Over Voltage Level 2 Failure Auto-acknowledge	0	0	1		0:Passive
P211	Generator Over Voltage Level 2 Failure Auto-acknowledge Type	0	0	1		1:Active
P212	Generator Over Voltage Level 2 Failure Auto-acknowledge Number	2	5	99		0:Limited
						1:Unlimited
P213	Generator Over Voltage Level 2 Failure Hysteresis Value	1	10	50	V	
P214	Generator Over Voltage Level 2 Failure Auto-acknowledge Counter	0	0	30000	Hour	
P215	Generator Over Voltage Level 2 Failure Auto-acknowledge Counter Decrease Time	0.1	10	6500	Hour	
P216	Generator Under Frequency Level 1 Failure Alarm Active	0	1	1		0:Passive
P217	Generator Under Frequency Level 1 Failure Value	10	47	75	Hz	1:Active
P218	Generator Under Frequency Level 1 Failure Delay	2	5	20	Second	
P219	Generator Under Frequency Level 1 Failure Return Time	2	5	20	Second	
P220	Generator Under Frequency Level 1 Failure Class	1	5	6		1:Only Display
						2:Display + Horn
						3:Display + Horn + Gen.Trip
						4:Display + Horn + Shutdown with Cooling
						5:Display + Horn + Shutdown without Cooling
						6:Display + Horn + Shutdown without cooling + Mains Trip
P221	Generator Under Frequency Level 1 Failure Auto-acknowledge	0	0	1		0:Passive
P222	Generator Under Frequency Level 1 Failure Auto-acknowledge Type	0	0	1		1:Active
P223	Generator Under Frequency Level 1 Failure Auto-acknowledge Number	2	3	99		0:Limited
						1:Unlimited
P224	Generator Under Frequency Level 1 Failure Hysteresis Value	0.1	1	20	Hz	
P225	Generator Under Frequency Level 1 Failure Auto-acknowledge Counter	0	0	30000	Hour	
P226	Generator Under Frequency Level 1 Failure Auto-acknowledge Counter Decrease Time	0.1	10	6500	Hour	
P227	Generator Under Frequency Level 2 Failure Alarm Active	0	0	1		0:Passive
P228	Generator Under Frequency Level 2 Failure Value	10	45	75	Hz	1:Active
P229	Generator Under Frequency Level 2 Failure Delay	2	5	20	Second	
P230	Generator Under Frequency Level 2 Failure Return Time	2	5	20	Second	
P231	Generator Under Frequency Level 2 Failure Class	1	5	6		1:Only Display
						2:Display + Horn
						3:Display + Horn + Gen.Trip
						4:Display + Horn + Shutdown with Cooling
						5:Display + Horn + Shutdown without Cooling
						6:Display + Horn + Shutdown without cooling + Mains Trip
P232	Generator Under Frequency Level 2 Failure Auto-acknowledge	0	0	1		0:Passive
P233	Generator Under Frequency Level 2 Failure Auto-acknowledge Type	0	0	1		1:Active
P234	Generator Under Frequency Level 2 Failure Auto-acknowledge Number	2	3	99		0:Limited
						1:Unlimited

P235	Generator Under Frequency Level 2 Failure Hysteresis Value	0.1	1	20	Hz	
P236	Generator Under Frequency Level 2 Failure Auto-acknowledge Counter	0	0	30000	Hour	
P237	Generator Under Frequency Level 2 Failure Auto-acknowledge Counter Decrease Time	0.1	10	6500	Hour	
P238	Generator Over Frequency Level 1 Failure Alarm Active	0	1	1		0:Passive 1:Active
P239	Generator Over Frequency Level 1 Failure Value	10	53	75	Hz	
P240	Generator Over Frequency Level 1 Failure Delay	2	5	20	Second	
P241	Generator Over Frequency Level 1 Failure Return Time	2	5	20	Second	
P242	Generator Over Frequency Level 1 Failure Class	1	5	6		1:Only Display 2:Display + Horn 3:Display + Horn + Gen.Trip 4:Display + Horn + Shutdown with Cooling 5:Display + Horn + Shutdown without Cooling 6:Display + Horn + Shutdown without cooling + Mains Trip
P243	Generator Over Frequency Level 1 Failure Auto-acknowledge	0	0	1		0:Passive 1:Active
P244	Generator Over Frequency Level 1 Failure Auto-acknowledge Type	0	0	1		0:Limited 1:Unlimited
P245	Generator Over Frequency Level 1 Failure Auto-acknowledge Number	2	3	99		
P246	Generator Over Frequency Level 1 Failure Hysteresis Value	0.1	1	20	Hz	
P247	Generator Over Frequency Level 1 Failure Auto-acknowledge Counter	0	0	30000	Hour	
P248	Generator Over Frequency Level 1 Failure Auto-acknowledge Counter Decrease Time	0.1	10	6500	Hour	
P249	Generator Over Frequency Level 2 Failure Alarm Active	0	1	1		0:Passive 1:Active
P250	Generator Over Frequency Level 2 Failure Value	10	55	75	Hz	
P251	Generator Over Frequency Level 2 Failure Delay	2	5	20	Second	
P252	Generator Over Frequency Level 2 Failure Return Time	2	5	20	Second	
P253	Generator Over Frequency Level 2 Failure Class	1	5	6		1:Only Display 2:Display + Horn 3:Display + Horn + Gen.Trip 4:Display + Horn + Shutdown with Cooling 5:Display + Horn + Shutdown without Cooling 6:Display + Horn + Shutdown without cooling + Mains Trip
P254	Generator Over Frequency Level 2 Failure Auto-acknowledge	0	0	1		0:Passive 1:Active
P255	Generator Over Frequency Level 2 Failure Auto-acknowledge Type	0	0	1		0:Limited 1:Unlimited
P256	Generator Over Frequency Level 2 Failure Auto-acknowledge Number	2	3	99		
P257	Generator Over Frequency Level 2 Failure Hysteresis Value	0.1	1	20	Hz	
P258	Generator Over Frequency Level 2 Failure Auto-acknowledge Counter	0	0	30000		
P259	Generator Over Frequency Level 2 Failure Auto-acknowledge Counter Decrease Time	0.1	10	6500	Hour	
P260	Generator Under RPM Level 1 Failure Alarm Active	0	0	1		0:Passive 1:Active
P261	Generator Under RPM Level 1 Failure Value	10	1410	9000	RPM	
P262	Generator Under RPM Level 1 Failure Delay	2	5	20	Second	
P263	Generator Under RPM Level 1 Failure Return Time	2	5	20	Second	
P264	Generator Under RPM Level 1 Failure Class	1	2	6		1:Only Display 2:Display + Horn 3:Display + Horn + Gen.Trip 4:Display + Horn + Shutdown with Cooling 5:Display + Horn + Shutdown without Cooling 6:Display + Horn + Shutdown without cooling + Mains Trip
P265	Generator Under RPM Level 1 Failure Auto-acknowledge	0	0	1		0:Passive 1:Active
P266	Generator Under RPM Level 1 Failure Auto-acknowledge Type	0	0	1		0:Limited 1:Unlimited
P267	Generator Under RPM Level 1 Failure Auto-acknowledge Number	2	3	99		
P268	Generator Under RPM Level 1 Failure Hysteresis Value	0	30	250	RPM	

P269	Generator Under RPM Level 1 Failure Auto-acknowledge Counter	0	0	30000	Hour	
P270	Generator Under RPM Level 1 Failure Auto-acknowledge Counter Decrease Time	0.1	10	6500	Hour	
P271	Generator Under RPM Level 2 Failure Alarm Active	0	0	1		0:Passive 1:Active
P272	Generator Under RPM Level 2 Failure Value	10	1350	9000	RPM	
P273	Generator Under RPM Level 2 Failure Delay	2	3	20	Second	
P274	Generator Under RPM Level 2 Failure Return Time	2	5	20	Second	
P275	Generator Under RPM Level 2 Failure Class	1	5	6		1:Only Display 2:Display + Horn 3:Display + Horn + Gen.Trip 4:Display + Horn + Shutdown with Cooling 5:Display + Horn + Shutdown without Cooling 6:Display + Horn + Shutdown without cooling + Mains Trip
P276	Generator Under RPM Level 2 Failure Auto-acknowledge	0	0	1		0:Passive 1:Active
P277	Generator Under RPM Level 2 Failure Auto-acknowledge Type	0	0	1		0:Limited 1:Unlimited
P278	Generator Under RPM Level 2 Failure Auto-acknowledge Number	2	3	99		
P279	Generator Under RPM Level 2 Failure Hysteresis Value	0	30	250	RPM	
P280	Generator Under RPM Level 2 Failure Auto-acknowledge Counter	0	0	30000		
P281	Generator Under RPM Level 2 Failure Auto-acknowledge Counter Decrease Time	0.1	10	6500	Hour	
P282	Generator Over RPM Level 1 Failure Alarm Active	0	1	1		0:Passive 1:Active
P283	Generator Over RPM Level 1 Failure Value	10	1590	9000	RPM	
P284	Generator Over RPM Level 1 Failure Delay	2	5	20	Second	
P285	Generator Over RPM Level 1 Failure Return Time	2	5	20	Second	
P286	Generator Over RPM Level 1 Failure Class	1	2	6		1:Only Display 2:Display + Horn 3:Display + Horn + Gen.Trip 4:Display + Horn + Shutdown with Cooling 5:Display + Horn + Shutdown without Cooling 6:Display + Horn + Shutdown without cooling + Mains Trip
P287	Generator Over RPM Level 1 Failure Auto-acknowledge	0	0	1		0:Passive 1:Active
P288	Generator Over RPM Level 1 Failure Auto-acknowledge Type	0	0	1		0:Limited 1:Unlimited
P289	Generator Over RPM Level 1 Failure Auto-acknowledge Number	2	3	99		
P290	Generator Over RPM Level 1 Failure Hysteresis Value	10	30	250	RPM	
P291	Generator Over RPM Level 1 Failure Auto-acknowledge Counter	0	0	30000	Hour	
P292	Generator Over RPM Level 1 Failure Auto-acknowledge Counter Decrease Time	0.1	10	6500	Hour	
P293	Generator Over RPM Level 2 Failure Alarm Active	0	0	1		0:Passive 1:Active
P294	Generator Over RPM Level 2 Failure Value	10	1650	9000	RPM	
P295	Generator Over RPM Level 2 Failure Delay	2	5	20	Second	
P296	Generator Over RPM Level 2 Failure Return Time	2	5	20	Second	
P297	Generator Over RPM Level 2 Failure Class	1	2	6		1:Only Display 2:Display + Horn 3:Display + Horn + Gen.Trip 4:Display + Horn + Shutdown with Cooling 5:Display + Horn + Shutdown without Cooling 6:Display + Horn + Shutdown without cooling + Mains Trip
P298	Generator Over RPM Level 2 Failure Auto-acknowledge	0	0	1		0:Passive 1:Active
P299	Generator Over RPM Level 2 Failure Auto-acknowledge Type	0	0	1		0:Limited 1:Unlimited
P300	Generator Over RPM Level 2 Failure Auto-acknowledge Number	2	3	99		
P301	Generator Over RPM Level 2 Failure Hysteresis Value	10	30	250	RPM	
P302	Generator Over RPM Level 2 Failure Auto-acknowledge Counter	0	0	30000	Hour	



P303	Generator Over RPM Level 2 Failure Auto-acknowledge Counter Decrease Time	0.1	10	6500	Hour	
P304	Engine RPM Sensor Failure Active	0	0	1		0:Passive
						1:Active
P305	Engine RPM Sensor Failure Delay	2	3	900	Second	
P306	Engine RPM Sensor Failure Auto-acknowledge Delay	2	5	900	Second	
P307	Engine RPM Sensor Failure Auto-acknowledge	0	0	1		0:Passive
						1:Active
P308	Engine RPM Sensor Failure Auto-acknowledge Type	0	0	1		0:Limited
						1:Unlimited
P309	Engine RPM Sensor Failure Class	1	5	6		1:Only Display
						2:Display + Horn
						3:Display + Horn + Gen.Trip
						4:Display + Horn + Shutdown with Cooling
						5:Display + Horn + Shutdown without Cooling
						6:Display + Horn + Shutdown without cooling + Mains Trip
P310	Engine RPM Sensor Failure Auto-acknowledge Number	2	3	99		
P311	Engine RPM Sensor Failure Auto-acknowledge Counter	0	0	30000	Hour	
P312	Engine RPM Sensor Failure Auto-acknowledge Counter Decrease Time	0.1	10	6500	Hour	
P313	Charge Input	0	1	1		0:Passive
						1:Active
P314	Charge Voltage Level 1 Failure Active	0	1	1		0:Passive
						1:Active
P315	Charge Under Voltage Level 1 Failure Value	0	8	32	V	
P316	Charge Under Voltage Level 1 Failure Delay	2	10	20	Second	
P317	Charge Under Voltage Level 1 Failure Return Time	2	10	20	Second	
P318	Charge Under Voltage Level 1 Failure Class	1	2	6		1:Only Display
						2:Display + Horn
						3:Display + Horn + Gen.Trip
						4:Display + Horn + Shutdown with Cooling
						5:Display + Horn + Shutdown without Cooling
						6:Display + Horn + Shutdown without cooling + Mains Trip
P319	Charge Under Voltage Level 1 Failure Auto-acknowledge	0	0	1		0:Passive
						1:Active
P320	Charge Under Voltage Level 1 Failure Auto-acknowledge Type	0	0	1		0:Limited
						1:Unlimited
P321	Charge Under Voltage Level 1 Failure Auto-acknowledge Number	2	5	99		
P322	Charge Under Voltage Level 1 Failure Hysteresis Value	0.1	1	25	V	
P323	Charge Under Voltage Level 1 Failure Auto-acknowledge Counter	0	0	30000	Hour	
P324	Charge Under Voltage Level 1 Failure Auto-acknowledge Counter Decrease Time	0.1	10	6500	Hour	
P325	Charge Voltage Level 2 Failure Active	0	0	1		0:Passive
						1:Active
P326	Charge Under Voltage Level 2 Failure Value	0	6	32	V	
P327	Charge Under Voltage Level 2 Failure Delay	2	10	20	Second	
P328	Charge Under Voltage Level 2 Failure Return Time	2	10	20	Second	
P329	Charge Under Voltage Level 2 Failure Class	1	2	6		1:Only Display
						2:Display + Horn
						3:Display + Horn + Gen.Trip
						4:Display + Horn + Shutdown with Cooling
						5:Display + Horn + Shutdown without Cooling
						6:Display + Horn + Shutdown without cooling + Mains Trip
P330	Charge Under Voltage Level 2 Failure Auto-acknowledge	0	0	1		0:Passive
						1:Active
P331	Charge Under Voltage Level 2 Failure Auto-acknowledge Type	0	0	1		0:Limited
						1:Unlimited
P332	Charge Under Voltage Level 2 Failure Auto-acknowledge Number	2	5	99		
P333	Charge Under Voltage Level 2 Failure Hysteresis Value	0.1	1	25	V	
P334	Charge Under Voltage Level 2 Failure Auto-acknowledge Counter	0	0	30000	Hour	

P335	Charge Under Voltage Level 2 Failure Auto-acknowledge Counter Decrease Time	0.1	10	6500	Hour	
P336	Battery Under Voltage Level 1 Failure Active	0	1	1		0:Passive
P337	Battery Under Voltage Level 1 Failure Value	0	10	40	V	1:Active
P338	Battery Under Voltage Level 1 Failure Delay	2	5	20	Second	
P339	Battery Under Voltage Level 1 Failure Return Time	2	5	20	Second	
P340	Battery Under Voltage Level 1 Failure Class	1	2	6		1:Only Display
						2:Display + Horn
						3:Display + Horn + Gen.Trip
						4:Display + Horn + Shutdown with Cooling
						5:Display + Horn + Shutdown without Cooling
						6:Display + Horn + Shutdown without cooling + Mains Trip
P341	Battery Under Voltage Level 1 Failure Auto-acknowledge	0	0	1		0:Passive
P342	Battery Under Voltage Level 1 Failure Auto-acknowledge Type	0	0	1		1:Active
P343	Battery Under Voltage Level 1 Failure Auto-acknowledge Number	2	5	99		0:Limited
						1:Unlimited
P344	Battery Under Voltage Level 1 Failure Hystheresis Value	0	1	25	V	
P345	Battery Under Voltage Level 1 Failure Auto-acknowledge Counter	0	0	30000	Hour	
P346	Battery Under Voltage Level 1 Failure Auto-acknowledge Counter Decrease Time	0.1	10	6500	Hour	
P347	Battery Under Voltage Level 2 Failure Active	0	1	1		0:Passive
P348	Battery Under Voltage Level 2 Failure Value	0	9	40	V	1:Active
P349	Battery Under Voltage Level 2 Failure Delay	2	5	20	Second	
P350	Battery Under Voltage Level 2 Failure Return Time	2	5	20	Second	
P351	Battery Under Voltage Level 2 Failure Class	1	2	6		1:Only Display
						2:Display + Horn
						3:Display + Horn + Gen.Trip
						4:Display + Horn + Shutdown with Cooling
						5:Display + Horn + Shutdown without Cooling
						6:Display + Horn + Shutdown without cooling + Mains Trip
P352	Battery Under Voltage Level 2 Failure Auto-acknowledge	0	0	1		0:Passive
P353	Battery Under Voltage Level 2 Failure Auto-acknowledge Type	0	0	1		1:Active
P354	Battery Under Voltage Level 2 Failure Auto-acknowledge Number	2	5	99		0:Limited
						1:Unlimited
P355	Battery Under Voltage Level 2 Failure Hystheresis Value	0	1	25	V	
P356	Battery Under Voltage Level 2 Failure Auto-acknowledge Counter	0	0	30000	Hour	
P357	Battery Under Voltage Level 2 Failure Auto-acknowledge Counter Decrease Time	0.1	10	6500	Hour	
P358	Battery Over Voltage Level 1 Failure Active	0	1	1		0:Passive
P359	Battery Over Voltage Level 1 Failure Value	0	30	40	V	1:Active
P360	Battery Over Voltage Level 1 Failure Delay	2	5	20	Second	
P361	Battery Over Voltage Level 1 Failure Return Time	2	5	20	Second	
P362	Battery Over Voltage Level 1 Failure Class	1	2	6		1:Only Display
						2:Display + Horn
						3:Display + Horn + Gen.Trip
						4:Display + Horn + Shutdown with Cooling
						5:Display + Horn + Shutdown without Cooling
						6:Display + Horn + Shutdown without cooling + Mains Trip
P363	Battery Under Over Level 1 Failure Auto-acknowledge	0	0	1		0:Passive
P364	Battery Over Voltage Level 1 Failure Auto-acknowledge Type	0	0	1		1:Active
P365	Battery Over Voltage Level 1 Failure Auto-acknowledge Number	2	5	99		0:Limited
						1:Unlimited
P366	Battery Over Voltage Level 1 Failure Hystheresis Value	0	1	25	V	
P367	Battery Over Voltage Level 1 Failure Auto-acknowledge Counter	0	0	30000	Hour	
P368	Battery Over Voltage Level 1 Failure Auto-acknowledge Counter Decrease Time	0.1	10	6500	Hour	
P369	Battery Over Voltage Level 2 Failure Active	0	1	1		0:Passive

	Battery Over Voltage Level 2 Failure Active					1:Active
P370	Battery Over Voltage Level 2 Failure Value	0	32	40	V	
P371	Battery Over Voltage Level 2 Failure Delay	2	5	20	Second	
P372	Battery Over Voltage Level 2 Failure Return Time	2	5	20	Second	
P373	Battery Over Voltage Level 2 Failure Class	1	2	6		1:Only Display 2:Display + Horn 3:Display + Horn + Gen.Trip 4:Display + Horn + Shutdown with Cooling 5:Display + Horn + Shutdown without Cooling 6:Display + Horn + Shutdown without cooling + Mains Trip
P374	Battery Under Over Level 2 Failure Auto-acknowledge	0	0	1		0:Passive 1:Active
P375	Battery Over Voltage Level 2 Failure Auto-acknowledge Type	0	0	1		0:Limited 1:Unlimited
P376	Battery Over Voltage Level 2 Failure Auto-acknowledge Number	2	5	99		
P377	Battery Over Voltage Level 2 Failure Hysteresis Value	0	1	25	V	
P378	Battery Over Voltage Level 2 Failure Auto-acknowledge Counter	0	0	30000		
P379	Battery Over Voltage Level 2 Failure Auto-acknowledge Counter Decrease Time	0.1	10	6500	Hour	
P380	Mains Contactor Fail to Open Active	0	1	1		0:Passive 1:Active
P381	Mains Contactor Fail to Open Delay	2	10	90	Second	
P382	Mains Contactor Fail to Open Return Time	2	30	90	Second	
P383	Mains Contactor Fail to Open Class	1	2	6		1:Only Display 2:Display + Horn 3:Display + Horn + Gen.Trip 4:Display + Horn + Shutdown with Cooling 5:Display + Horn + Shutdown without Cooling 6:Display + Horn + Shutdown without cooling + Mains Trip
P384	Mains Contactor Fail to Open Auto-acknowledge	0	0	1		0:Passive 1:Active
P385	Mains Contactor Fail to Open Auto-acknowledge Type	0	0	1		0:Limited 1:Unlimited
P386	Mains Contactor Fail to Open Auto-acknowledge Number	2	3	99		
P387	Mains Contactor Fail to Open Auto-acknowledge Counter	0	0	30000		
P388	Mains Contactor Fail to Open Auto-acknowledge Counter Decrease Time	0.1	10	6500	Hour	
P389	Mains Contactor Fail to Close Active	0	1	1		0:Passive 1:Active
P390	Mains Contactor Fail to Close Delay	2	10	90	Second	
P391	Mains Contactor Fail to Close Return Time	2	30	90	Second	
P392	Mains Contactor Fail to Close Class	1	2	6		1:Only Display 2:Display + Horn 3:Display + Horn + Gen.Trip 4:Display + Horn + Shutdown with Cooling 5:Display + Horn + Shutdown without Cooling 6:Display + Horn + Shutdown without cooling + Mains Trip
P393	Mains Contactor Fail to Close Auto-acknowledge	0	0	1		0:Passive 1:Active
P394	Mains Contactor Fail to Close Auto-acknowledge Type	0	0	1		0:Limited 1:Unlimited
P395	Mains Contactor Fail to Close Auto-acknowledge Number	2	3	99		
P396	Mains Contactor Fail to Close Auto-acknowledge Counter	0	0	30000		
P397	Mains Contactor Fail to Close Auto-acknowledge Counter Decrease Time	0.1	10	6500	Hour	
P398	Mains Contactor State Unknown Failure Active	0	1	1		0:Passive 1:Active
P399	Mains Contactor State Unknown Failure Delay	2	10	90	Second	
P400	Mains Contactor State Unknown Failure Return Time	2	30	90	Second	
P401	Mains Contactor State Unknown Failure Class	1	2	6		1:Only Display 2:Display + Horn 3:Display + Horn + Gen.Trip 4:Display + Horn + Shutdown with Cooling 5:Display + Horn + Shutdown without Cooling 6:Display + Horn + Shutdown without cooling + Mains Trip
P402	Mains Contactor State Unknown Failure Auto-acknowledge	0	0	1		0:Passive 1:Active
P403	Mains Contactor State Unknown Failure Auto-acknowledge Type	0	0	1		0:Limited

	Mains Contactor State Unknown Failure Auto-acknowledge Type					1:Unlimited
P404	Mains Contactor State Unknown Failure Auto-acknowledge Number	2	3	99		
P405	Mains Contactor State Unknown Failure Auto-acknowledge Counter	0	0	30000		
P406	Mains Contactor State Unknown Failure Auto-acknowledge Counter Decrease Timer	0.1	10	6500	Hour	
P407	Generator Contactor Fail to Open Active	0	1	1		0:Passive
P408	Generator Contactor Fail to Open Delay	2	10	90	Second	1:Active
P409	Generator Contactor Fail to Open Return Time	2	30	90	Second	
P410	Generator Contactor Fail to Open Class	1	2	6		1:Only Display 2:Display + Horn 3:Display + Horn + Gen.Trip 4:Display + Horn + Shutdown with Cooling 5:Display + Horn + Shutdown without Cooling 6:Display + Horn + Shutdown without cooling + Mains Trip
P411	Generator Contactor Fail to Open Auto-acknowledge	0	0	1		0:Passive
P412	Generator Contactor Fail to Open Auto-acknowledge Type	0	0	1		1:Active
P413	Generator Contactor Fail to Open Auto-acknowledge Number	2	3	99		0:Limited
P414	Generator Contactor Fail to Open Auto-acknowledge Counter	0	0	30000		1:Unlimited
P415	Generator Contactor Fail to Open Auto-acknowledge Counter Decrease Time	0.1	10	6500	Hour	
P416	Generator Contactor Fail to Close Active	0	1	1		0:Passive
P417	Generator Contactor Fail to Close Delay	2	10	90	Second	1:Active
P418	Generator Contactor Fail to Close Return Time	2	30	90	Second	
P419	Generator Contactor Fail to Close Class	1	2	6		1:Only Display 2:Display + Horn 3:Display + Horn + Gen.Trip 4:Display + Horn + Shutdown with Cooling 5:Display + Horn + Shutdown without Cooling 6:Display + Horn + Shutdown without cooling + Mains Trip
P420	Generator Contactor Fail to Close Auto-acknowledge	0	0	1		0:Passive
P421	Generator Contactor Fail to Close Auto-acknowledge Type	0	0	1		1:Active
P422	Generator Contactor Fail to Close Auto-acknowledge Number	2	3	99		0:Limited
P423	Generator Contactor Fail to Close Auto-acknowledge Counter	0	0	30000		1:Unlimited
P424	Generator Contactor Fail to Close Auto-acknowledge Counter Decrease Time	0.1	10	6500	Hour	
P425	Generator Contactor State Unknown Failure Active	0	1	1		0:Passive
P426	Generator Contactor State Unknown Failure Delay	2	10	90	Second	1:Active
P427	Generator Contactor State Unknown Failure Return Time	2	30	90	Second	
P428	Generator Contactor State Unknown Failure Class	1	2	6		1:Only Display 2:Display + Horn 3:Display + Horn + Gen.Trip 4:Display + Horn + Shutdown with Cooling 5:Display + Horn + Shutdown without Cooling 6:Display + Horn + Shutdown without cooling + Mains Trip
P429	Generator Contactor State Unknown Failure Auto-acknowledge	0	0	1		0:Passive
P430	Generator Contactor State Unknown Failure Auto-acknowledge Type	0	0	1		1:Active
P431	Generator Contactor State Unknown Failure Auto-acknowledge Number	2	3	99		0:Limited
P432	Generator Contactor State Unknown Failure Auto-acknowledge Counter	0	0	30000		1:Unlimited
P433	Generator Contactor State Unknown Failure Auto-acknowledge Counter Decrease Timer	0.1	10	6500	Hour	
P434	Over Current Level 1 Failure Active	0	1	1		0:Passive
P435	Over Current Level 1 Failure Value	1	110	9900	Amp	1:Active
P436	Over Current Level 1 Failure Delay	1	5	200	Second	
P437	Over Current Level 1 Failure Return Time	1	5	200	Second	
P438	Over Current Level 1 Failure Class	1	3	6		1:Only Display 2:Display + Horn 3:Display + Horn + Gen.Trip 4:Display + Horn + Shutdown with Cooling 5:Display + Horn + Shutdown without Cooling

						6:Display + Horn + Shutdown without cooling + Mains Trip
P439	Over Current Level 1 Failure Auto-acknowledge	0	1	1		0:Passive
P440	Over Current Level 1 Failure Auto-acknowledge Type	0	1	1		1:Active
P441	Over Current Level 1 Failure Auto-acknowledge Number	2	4	99		0:Limited
P442	Over Current Level 1 Failure Hysteresis Value	1	10	9900		1:Unlimited
P443	Over Current Level 1 Failure Auto-acknowledge Counter	0	0	30000		
P444	Over Current Level 1 Failure Auto-acknowledge Counter Decrease Time	0.1	10	6500	Hour	
P445	Over Current Level 2 Failure Active	0	1	1		0:Passive
P446	Over Current Level 2 Failure Value	1	120	9900	Amp	1:Active
P447	Over Current Level 2 Failure Delay	1	3	200	Second	
P448	Over Current Level 2 Failure Return Time	1	5	200	Second	
P449	Over Current Level 2 Failure Class	1	3	6		1:Only Display
						2:Display + Horn
						3:Display + Horn + Gen.Trip
						4:Display + Horn + Shutdown with Cooling
						5:Display + Horn + Shutdown without Cooling
						6:Display + Horn + Shutdown without cooling + Mains Trip
P450	Over Current Level 2 Failure Auto-acknowledge	0	1	1		0:Passive
P451	Over Current Level 2 Failure Auto-acknowledge Type	0	1	1		1:Active
P452	Over Current Level 2 Failure Auto-acknowledge Number	2	4	99		0:Limited
P453	Over Current Level 2 Failure Hysteresis Value	1	10	9900		1:Unlimited
P454	Over Current Level 2 Failure Auto-acknowledge Counter	0	0	30000		
P455	Over Current Level 2 Failure Auto-acknowledge Counter Decrease Time	0.1	10	6500	Hour	
P456	IDMT Failure Active	0	1	1		0:Passive
P457	IDMT Failure Value	1	100	9900	Amp	1:Active
P458	IDMT Failure Time Multiplier	1	36	200	Second	
P459	Reserved Parameter	-	-	-	-	
P460	IDMT Failure Class	1	3	6		1:Only Display
						2:Display + Horn
						3:Display + Horn + Gen.Trip
						4:Display + Horn + Shutdown with Cooling
						5:Display + Horn + Shutdown without Cooling
						6:Display + Horn + Shutdown without cooling + Mains Trip
P461	IDMT Failure Auto-acknowledge	0	1	1		0:Passive
P462	IDMT Failure Auto-acknowledge Type	0	1	1		1:Active
P463	IDMT Failure Auto-acknowledge Number	2	4	99		0:Limited
P464	IDMT Failure Hysteresis Value	1	28	200		1:Unlimited
P465	IDMT Failure Auto-acknowledge Counter	0	0	30000		
P466	IDMT Failure Auto-acknowledge Counter Decrease Time	0.1	10	6500	Hour	
P467	KW Level 1 Failure Active	0	0	1		0:Passive
P468	KW Level 1 Failure Value	1	18	9900	KW	1:Active
P469	KW Level 1 Failure Delay	1	5	990	Second	
P470	KW Level 1 Failure Return Time	1	5	990	Second	
P471	KW Level 1 Failure Class	1	4	6		1:Only Display
						2:Display + Horn
						3:Display + Horn + Gen.Trip
						4:Display + Horn + Shutdown with Cooling
						5:Display + Horn + Shutdown without Cooling
						6:Display + Horn + Shutdown without cooling + Mains Trip
P472	KW Level 1 Failure Auto-acknowledge	0	0	1		0:Passive
P473	KW Level 1 Failure Auto-acknowledge Type	0	0	1		1:Active
P474	KW Level 1 Failure Auto-acknowledge Number	2	4	99		0:Limited
P475	KW Level 1 Failure Hysteresis Value	1	2	9900	KW	1:Unlimited
P476	KW Level 1 Failure Auto-acknowledge Counter	0	0	30000		
P477	KW Level 1 Failure Auto-acknowledge Counter Decrease Time	0.1	10	6500	Hour	
P478	KW Level 2 Failure Active	0	0	1		0:Passive
P479	KW Level 2 Failure Value	1	21	9900	KW	1:Active
P480	KW Level 2 Failure Delay	1	3	990	Second	
P481	KW Level 2 Failure Return Time	1	3	990	Second	
P482	KW Level 2 Failure Class	1	4	6		1:Only Display
						2:Display + Horn
						3:Display + Horn + Gen.Trip
						4:Display + Horn + Shutdown with Cooling
						5:Display + Horn + Shutdown without Cooling
						6:Display + Horn + Shutdown without cooling + Mains Trip
P483	KW Level 2 Failure Auto-acknowledge	0	0	1		0:Passive

	KW Level 2 Failure Auto-acknowledge					1:Active 0:Limited 1:Unlimited
P484	KW Level 2 Failure Auto-acknowledge Type	0	0	1		
P485	KW Level 2 Failure Auto-acknowledge Number	2	4	99		
P486	KW Level 2 Failure Hysteresis Value	1	2	9900	KW	
P487	KW Level 2 Failure Auto-acknowledge Counter	0	0	30000		
P488	KW Level 2 Failure Auto-acknowledge Counter Decrease Time	0.1	10	6500	Hour	
P489	KVar Level 1 Failure Active	0	0	1		0:Passive 1:Active
P490	KVar Level 1 Failure Value	1	2	9900	KVAR	
P491	KVar Level 1 Failure Delay	1	5	990	Second	
P492	KVar Level 1 Failure Return Time	1	5	990	Second	
P493	KVar Level 1 Failure Class	1	4	6		1:Only Display 2:Display + Horn 3:Display + Horn + Gen.Trip 4:Display + Horn + Shutdown with Cooling 5:Display + Horn + Shutdown without Cooling 6:Display + Horn + Shutdown without cooling + Mains Trip
P494	KVar Level 1 Failure Auto-acknowledge	0	0	1		0:Passive 1:Active
P495	KVar Level 1 Failure Auto-acknowledge Type	0	0	1		0:Limited 1:Unlimited
P496	KVar Level 1 Failure Auto-acknowledge Number	2	4	99		
P497	KVar Level 1 Failure Hysteresis Value	1	1	9900	KVAR	
P498	KVar Level 1 Failure Auto-acknowledge Counter	0	0	30000		
P499	KVar Level 1 Failure Auto-acknowledge Counter Decrease Time	0.1	10	6500	Hour	
P500	KVar Level 2 Failure Active	0	0	1		0:Passive 1:Active
P501	KVar Level 2 Failure Value	1	4	9900	KVAR	
P502	KVar Level 2 Failure Delay	1	3	990	Second	
P503	KVar Level 2 Failure Return Time	1	3	990	Second	
P504	KVar Level 2 Failure Class	1	4	6		1:Only Display 2:Display + Horn 3:Display + Horn + Gen.Trip 4:Display + Horn + Shutdown with Cooling 5:Display + Horn + Shutdown without Cooling 6:Display + Horn + Shutdown without cooling + Mains Trip
P505	KVar Level 2 Failure Auto-acknowledge	0	0	1		0:Passive 1:Active
P506	KVar Level 2 Failure Auto-acknowledge Type	0	0	1		0:Limited 1:Unlimited
P507	KVar Level 2 Failure Auto-acknowledge Number	2	4	99		
P508	KVar Level 2 Failure Hysteresis Value	1	1	9900	KVAR	
P509	KVar Level 2 Failure Auto-acknowledge Counter	0	0	30000		
P510	KVar Level 2 Failure Auto-acknowledge Counter Decrease Time	0.1	10	6500	Hour	
P511	KVA Level 1 Failure Active	0	0	1		0:Passive 1:Active
P512	KVA Level 1 Failure Value	1	18	9900	KVA	
P513	KVA Level 1 Failure Delay	1	5	990	Second	
P514	KVA Level 1 Failure Return Time	1	5	990	Second	
P515	KVA Level 1 Failure Class	1	4	6		1:Only Display 2:Display + Horn 3:Display + Horn + Gen.Trip 4:Display + Horn + Shutdown with Cooling 5:Display + Horn + Shutdown without Cooling 6:Display + Horn + Shutdown without cooling + Mains Trip
P516	KVA Level 1 Failure Auto-acknowledge	0	0	1		0:Passive 1:Active
P517	KVA Level 1 Failure Auto-acknowledge Type	0	0	1		0:Limited 1:Unlimited
P518	KVA Level 1 Failure Auto-acknowledge Number	2	4	99		
P519	KVA Level 1 Failure Hysteresis Value	1	2	9900	KVA	
P520	KVA Level 1 Failure Auto-acknowledge Counter	0	0	30000		
P521	KVA Level 1 Failure Auto-acknowledge Counter Decrease Time	0.1	10	6500	Hour	
P522	KVA Level 2 Failure Active	0	0	1		0:Passive 1:Active
P523	KVA Level 2 Failure Value	1	21	9900	KVA	
P524	KVA Level 2 Failure Delay	1	3	990	Second	

P525	KVA Level 2 Failure Return Time	1	3	990	Second	
P526	KVA Level 2 Failure Class	1	4	6		1:Only Display
						2:Display + Horn
						3:Display + Horn + Gen.Trip
						4:Display + Horn + Shutdown with Cooling
						5:Display + Horn + Shutdown without Cooling
						6:Display + Horn + Shutdown without cooling + Mains Trip
P527	KVA Level 2 Failure Auto-acknowledge	0	0	1		0:Passive
P528	KVA Level 2 Failure Auto-acknowledge Type	0	0	1		1:Active
P529	KVA Level 2 Failure Auto-acknowledge Number	2	4	99		0:Limited
P530	KVA Level 2 Failure Hysteresis Value	1	2	9900	KVA	1:Unlimited
P531	KVA Level 2 Failure Auto-acknowledge Counter	0	0	30000		
P532	KVA Level 2 Failure Auto-acknowledge Counter Decrease Time	0.1	10	6500	Hour	
P533	Cos $\phi$ Level 1 Failure Active	0	0	1		0:Passive
P534	Cos $\phi$ Level 1 Failure Value	0.01	0.6	0.99	KVA	1:Active
P535	Cos $\phi$ Level 1 Failure Delay	1	5	990	Second	
P536	Cos $\phi$ Level 1 Failure Return Time	1	5	990	Second	
P537	Cos $\phi$ Level 1 Failure Class	1	4	6		1:Only Display
						2:Display + Horn
						3:Display + Horn + Gen.Trip
						4:Display + Horn + Shutdown with Cooling
						5:Display + Horn + Shutdown without Cooling
						6:Display + Horn + Shutdown without cooling + Mains Trip
P538	Cos $\phi$ Level 1 Failure Auto-acknowledge	0	0	1		0:Passive
P539	Cos $\phi$ Level 1 Failure Auto-acknowledge Type	0	0	1		1:Active
P540	Cos $\phi$ Level 1 Failure Auto-acknowledge Number	2	4	99		0:Limited
P541	Cos $\phi$ Level 1 Failure Hysteresis Value	0	0.1	0.99		1:Unlimited
P542	Cos $\phi$ Level 1 Failure Auto-acknowledge Counter	0	0	30000		
P543	Cos $\phi$ Level 1 Failure Auto-acknowledge Counter Decrease Time	0.1	10	6500	Hour	
P544	Cos $\phi$ Level 2 Failure Active	0	0	1		0:Passive
P545	Cos $\phi$ Level 2 Failure Value	0.01	0.4	0.99		1:Active
P546	Cos $\phi$ Level 2 Failure Delay	1	3	990	Second	
P547	Cos $\phi$ Level 2 Failure Return Time	1	3	990	Second	
P548	Cos $\phi$ Level 2 Failure Class	1	4	6		1:Only Display
						2:Display + Horn
						3:Display + Horn + Gen.Trip
						4:Display + Horn + Shutdown with Cooling
						5:Display + Horn + Shutdown without Cooling
						6:Display + Horn + Shutdown without cooling + Mains Trip
P549	Cos $\phi$ Level 2 Failure Auto-acknowledge	0	0	1		0:Passive
P550	Cos $\phi$ Level 2 Failure Auto-acknowledge Type	0	0	1		1:Active
P551	Cos $\phi$ Level 2 Failure Auto-acknowledge Number	2	4	99		0:Limited
P552	Cos $\phi$ Level 2 Failure Hysteresis Value	0.01	0.1	0.99		1:Unlimited
P553	Cos $\phi$ Level 2 Failure Auto-acknowledge Counter	0	0	30000		
P554	Cos $\phi$ Level 2 Failure Auto-acknowledge Counter Decrease Time	0.1	10	6500	Hour	
P555	Pre-crank Engine Running Feedback Delay	1	2	20	Second	
P556	Pre-crank Engine Running Feedback Failure Auto-acknowledge	0	0	1		0:Passive
P557	Pre-crank Engine Running Feedback Failure Return Time	2	10	20	Second	1:Active
P558	Pre-crank Engine Running Feedback Failure Auto-acknowledge Number	2	5	99		
P559	Pre-crank Engine Running Feedback Failure Auto-acknowledge Counter	0	0	30000		
P560	Pre-crank Engine Running Feedback Failure Counter Decrease Time	0.1	10	6500	Hour	
P561	Start Failure Auto-acknowledge	0	0	1		0:Passive
P562	Start Failure Return Time	2	10	20	Second	1:Active

P563	Start Failure Auto-acknowledge Number	2	5	99		
P564	Start Failure Auto-acknowledge Counter	0	0	30000		
P565	Start Failure Auto-acknowledge Counter Decrease Time	0.1	10	6500	Hour	
P566	Stop Failure Time	4	30	600	Second	
P567	Stop Failure Auto-acknowledge	0	0	1		0:Passive
P568	Stop Failure Return Time	2	10	20	Second	1:Active
P569	Stop Failure Auto-acknowledge Number	2	5	99		
P570	Stop Failure Auto-acknowledge Counter	0	0	30000		
P571	Stop Failure Auto-acknowledge Counter Decrease Time	0.1	10	6500	Hour	
P572	Oil Pressure Switch Input	0	1	1		0: Passive
P573	Oil Pressure Switch Input Contact Type	0	1	1		1:Active
P574	Oil Pressure Switch Failure Active	0	1	1		0:Normally Closed
P575	Oil Pressure Switch Failure Delay	1	4	20	Second	1: Normally Open
P576	Oil Pressure Switch Failure Return Time	1	1	20	Second	0:Passive
P577	Oil Pressure Switch Failure Class	1	5	6		1:Active
P578	Oil Pressure Switch Failure Auto-acknowledge	0	0	1		1:Only Display
P579	Oil Pressure Switch Failure Auto-acknowledge Type	0	0	1		2:Display + Horn
P580	Oil Pressure Switch Failure Auto-acknowledge Number	2	5	99		3:Display + Horn + Gen.Trip
P581	Oil Pressure Switch Failure Auto-acknowledge Counter	0	0	30000		4:Display + Horn + Shutdown with Cooling
P582	Oil Pressure Switch Failure Auto-acknowledge Counter Decrease Time	0.1	10	6500	Hour	5:Display + Horn + Shutdown without Cooling
P583	Coolant Temperature Switch Input	0	1	1		6:Display + Horn + Shutdown without cooling + Mains Trip
P584	Coolant Temperature Switch Input Contact Type	0	0	1		0:Passive
P585	Coolant Temperature Switch Failure Active	0	1	1		1:Active
P586	Coolant Temperature Switch Failure Delay	1	4	20	Second	0:Limited
P587	Coolant Temperature Switch Failure Return Time	1	1	20	Second	1:Unlimited
P588	Coolant Temperature Switch Failure Class	1	5	6		1:Only Display
P589	Coolant Temperature Switch Failure Auto-acknowledge	0	0	1		2:Display + Horn
P590	Coolant Temperature Switch Failure Auto-acknowledge Type	0	0	1		3:Display + Horn + Gen.Trip
P591	Coolant Temperature Switch Failure Auto-acknowledge Number	2	5	99		4:Display + Horn + Shutdown with Cooling
P592	Coolant Temperature Switch Failure Auto-acknowledge Counter	0	0	30000		5:Display + Horn + Shutdown without Cooling
P593	Coolant Temperature Switch Failure Auto-acknowledge Counter Decrease Time	0.1	10	6500	Hour	6:Display + Horn + Shutdown without cooling + Mains Trip
P594	Oil Pressure Display Unit of Measurement	0	0	1		0:Passive
P595	Analog Oil Pressure Sensor Type	0	2	2		1:Active
P596	Low Oil Pressure Level 1 Failure Active	0	1	1		0: No analog sensor
P597	Low Oil Pressure Level 1 Failure Value	0.1	1.5	25	Bar	1: Table
P598	Low Oil Pressure Level 1 Failure Delay	1	4	20	Second	2: Analog VDO 7 Bar type



P599	Low Oil Pressure Level 1 Failure Return Time	1	4	20	Second	
P600	Low Oil Pressure Level 1 Failure Class	1	5	6		1:Only Display 2:Display + Horn 3:Display + Horn + Gen.Trip 4:Display + Horn + Shutdown with Cooling 5:Display + Horn + Shutdown without Cooling 6:Display + Horn + Shutdown without cooling + Mains Trip
P601	Low Oil Pressure Level 1 Failure Auto-acknowledge	0	0	1		0:Passive 1:Active
P602	Low Oil Pressure Level 1 Failure Auto-acknowledge Type	0	0	1		0:Limited 1:Unlimited
P603	Low Oil Pressure Level 1 Failure Auto-acknowledge Number	2	5	99		
P604	Low Oil Pressure Level 1 Failure Hystheresis Value	0.1	0.5	25	Bar	
P605	Low Oil Pressure Level 1 Failure Auto-acknowledge Counter	0	0	30000		
P606	Low Oil Pressure Level 1 Failure Auto-acknowledge Counter Decrease Time	0.1	10	6500	Hour	
P607	Low Oil Pressure Level 2 Failure Active	0	0	1		0:Passive 1:Active
P608	Low Oil Pressure Level 2 Failure Value	0.1	1	25	Bar	
P609	Low Oil Pressure Level 2 Failure Delay	1	4	20	Second	
P610	Low Oil Pressure Level 2 Failure Return Time	1	4	20	Second	
P611	Low Oil Pressure Level 2 Failure Class	1	2	6		1:Only Display 2:Display + Horn 3:Display + Horn + Gen.Trip 4:Display + Horn + Shutdown with Cooling 5:Display + Horn + Shutdown without Cooling 6:Display + Horn + Shutdown without cooling + Mains Trip
P612	Low Oil Pressure Level 2 Failure Auto-acknowledge	0	0	1		0:Passive 1:Active
P613	Low Oil Pressure Level 2 Failure Auto-acknowledge Type	0	0	1		0:Limited 1:Unlimited
P614	Low Oil Pressure Level 2 Failure Auto-acknowledge Number	2	5	99		
P615	Low Oil Pressure Level 2 Failure Hystheresis Value	0.1	0.5	25	Bar	
P616	Low Oil Pressure Level 2 Failure Auto-acknowledge Counter	0	0	30000		
P617	Low Oil Pressure Level 2 Failure Auto-acknowledge Counter Decrease Time	0.1	10	6500	Hour	
P618	Oil Pressure Sensor Failure Active	0	1	1		0:Passive 1:Active
P619	Oil Pressure Sensor Failure Type	0	1	2		0: Low Level 1: High Level 2: Low and High Level
P620	Oil Pressure Sensor Failure Delay	1	5	20	Second	
P621	Oil Pressure Sensor Failure Return Time	1	5	20	Second	
P622	Oil Pressure Sensor Failure Class	1	5	6		1:Only Display 2:Display + Horn 3:Display + Horn + Gen.Trip 4:Display + Horn + Shutdown with Cooling 5:Display + Horn + Shutdown without Cooling 6:Display + Horn + Shutdown without cooling + Mains Trip
P623	Oil Pressure Sensor Failure Auto-acknowledge	0	0	1		0:Passive 1:Active
P624	Oil Pressure Sensor Failure Auto-acknowledge Type	0	0	1		0:Limited 1:Unlimited
P625	Oil Pressure Sensor Failure Auto-acknowledge Number	2	5	99		
P626	Oil Pressure Sensor Failure Auto-acknowledge Counter	0	0	30000		
P627	Oil Pressure Sensor Failure Auto-acknowledge Counter Decrease Time	0.1	10	6500	Hour	
P628	Oil Pressure Sensor Table Minimum Value	0	0.5	999	Bar	
P629	Oil Pressure Sensor Table Maximum Value	0	7	999	Bar	
P630	Number of Points on Pressure Sensor Table	2	2	25		

P631	Oil Pressure 1st Point Pressure Value	0	0	999	Bar	
P632	Oil Pressure 1st Point Resistance Value	0	0	3000	Ohm	
P633	Oil Pressure 2nd Point Pressure Value	0	0	999	Bar	
P634	Oil Pressure 2nd Point Resistance Value	0	0	3000	Ohm	
P635	Oil Pressure 3rd Point Pressure Value	0	0	999	Bar	
P636	Oil Pressure 3rd Point Resistance Value	0	0	3000	Ohm	
P637	Oil Pressure 4th Point Pressure Value	0	0	999	Bar	
P638	Oil Pressure 4th Point Resistance Value	0	0	3000	Ohm	
P639	Oil Pressure 5th Point Pressure Value	0	0	999	Bar	
P640	Oil Pressure 5th Point Resistance Value	0	0	3000	Ohm	
P641	Oil Pressure 6th Point Pressure Value	0	0	999	Bar	
P642	Oil Pressure 6th Point Resistance Value	0	0	3000	Ohm	
P643	Oil Pressure 7th Point Pressure Value	0	0	999	Bar	
P644	Oil Pressure 7th Point Resistance Value	0	0	3000	Ohm	
P645	Oil Pressure 8th Point Pressure Value	0	0	999	Bar	
P646	Oil Pressure 8th Point Resistance Value	0	0	3000	Ohm	
P647	Oil Pressure 9th Point Pressure Value	0	0	999	Bar	
P648	Oil Pressure 9th Point Resistance Value	0	0	3000	Ohm	
P649	Oil Pressure 10th Point Pressure Value	0	0	999	Bar	
P650	Oil Pressure 10th Point Resistance Value	0	0	3000	Ohm	
P651	Oil Pressure 11th Point Pressure Value	0	0	999	Bar	
P652	Oil Pressure 11th Point Resistance Value	0	0	3000	Ohm	
P653	Oil Pressure 12th Point Pressure Value	0	0	999	Bar	
P654	Oil Pressure 12th Point Resistance Value	0	0	3000	Ohm	
P655	Oil Pressure 13th Point Pressure Value	0	0	999	Bar	
P656	Oil Pressure 13th Point Resistance Value	0	0	3000	Ohm	
P657	Oil Pressure 14th Point Pressure Value	0	0	999	Bar	
P658	Oil Pressure 14th Point Resistance Value	0	0	3000	Ohm	
P659	Oil Pressure 15th Point Pressure Value	0	0	999	Bar	
P660	Oil Pressure 15th Point Resistance Value	0	0	3000	Ohm	
P661	Oil Pressure 16th Point Pressure Value	0	0	999	Bar	
P662	Oil Pressure 16th Point Resistance Value	0	0	3000	Ohm	
P663	Oil Pressure 17th Point Pressure Value	0	0	999	Bar	
P664	Oil Pressure 17th Point Resistance Value	0	0	3000	Ohm	
P665	Oil Pressure 18th Point Pressure Value	0	0	999	Bar	

P666	Oil Pressure 18th Point Resistance Value	0	0	3000	Ohm	
P667	Oil Pressure 19th Point Pressure Value	0	0	999	Bar	
P668	Oil Pressure 19th Point Resistance Value	0	0	3000	Ohm	
P669	Oil Pressure 20th Point Pressure Value	0	0	999	Bar	
P670	Oil Pressure 20th Point Resistance Value	0	0	3000	Ohm	
P671	Oil Pressure 21st Point Pressure Value	0	0	999	Bar	
P672	Oil Pressure 21st Point Resistance Value	0	0	3000	Ohm	
P673	Oil Pressure 22nd Point Pressure Value	0	0	999	Bar	
P674	Oil Pressure 22nd Point Resistance Value	0	0	3000	Ohm	
P675	Oil Pressure 23rd Point Pressure Value	0	0	999	Bar	
P676	Oil Pressure 23rd Point Resistance Value	0	0	3000	Ohm	
P677	Oil Pressure 24th Point Pressure Value	0	0	999	Bar	
P678	Oil Pressure 24th Point Resistance Value	0	0	3000	Ohm	
P679	Oil Pressure 25th Point Pressure Value	0	0	999	Bar	
P680	Oil Pressure 25th Point Resistance Value	0	0	3000	Ohm	
P681	Coolant Temperature Display Unit of Measurement	0	0	1		0: Celcius 1: Fahrenheit
P682	Analog Temperature Sensor Type	0	2	2		0: No analog sensor 1: Table 2: VDO 120C
P683	High Coolant Temperature Level 1 Failure Active	0	1	1		0:Passive 1:Active
P684	High Coolant Temperature Level 1 Failure Value	80	103	284		
P685	High Coolant Temperature Level 1 Failure Class	1	5	6		1:Only Display 2:Display + Horn 3:Display + Horn + Gen.Trip 4:Display + Horn + Shutdown with Cooling 5:Display + Horn + Shutdown without Cooling 6:Display + Horn + Shutdown without cooling + Mains Trip
P686	High Coolant Temperature Level 1 Failure Delay	1	4	20	Second	
P687	High Coolant Temperature Level 1 Failure Return Time	1	4	20	Second	
P688	High Coolant Temperature Level 1 Failure Auto-acknowledge	0	0	1		0:Passive 1:Active
P689	High Coolant Temperature Level 1 Failure Auto-acknowledge Type	0	0	1		0:Limited 1:Unlimited
P690	High Coolant Temperature Level 1 Failure Auto-acknowledge Number	2	5	99		
P691	High Coolant Temperature Level 1 Failure Hysteresis Value	1	5	250		
P692	High Coolant Temperature Level 1 Failure Counter	0	0	30000		
P693	High Coolant Temperature Level 1 Failure Counter Decrease Timer	0.1	10	6500	Hour	
P694	High Coolant Temperature Level 2 Failure Active	0	1	1		0:Passive 1:Active
P695	High Coolant Temperature Level 2 Failure Value	80	110	284		
P696	High Coolant Temperature Level 2 Failure Class	1	2	6		1:Only Display 2:Display + Horn 3:Display + Horn + Gen.Trip 4:Display + Horn + Shutdown with Cooling 5:Display + Horn + Shutdown without Cooling 6:Display + Horn + Shutdown without cooling + Mains Trip
P697	High Coolant Temperature Level 2 Failure Delay	1	4	20	Second	
P698	High Coolant Temperature Level 2 Failure Return Time	1	4	20	Second	
P699	High Coolant Temperature Level 2 Failure Auto-acknowledge	0	0	1		0:Passive 1:Active
P700	High Coolant Temperature Level 2 Failure Auto-acknowledge Type	0	0	1		0:Limited 1:Unlimited

P701	High Coolant Temperature Level 2 Failure Auto-acknowledge Number	2	5	99		
P702	High Coolant Temperature Level 2 Failure Hysteresis Value	1	5	250		
P703	High Coolant Temperature Level 2 Failure Counter	0	0	30000		
P704	High Coolant Temperature Level 2 Failure Counter Decrease Timer	0.1	10	6500	Hour	
P705	Low Coolant Temperature Level 1 Failure Active	0	1	1		0:Passive
P706	Low Coolant Temperature Level 1 Failure Value	0	5	90		1:Active
P707	Low Coolant Temperature Level 1 Failure Class	1	2	6		1:Only Display 2:Display + Horn 3:Display + Horn + Gen.Trip 4:Display + Horn + Shutdown with Cooling 5:Display + Horn + Shutdown without Cooling 6:Display + Horn + Shutdown without cooling + Mains Trip
P708	Low Coolant Temperature Level 1 Failure Delay	1	4	20	Second	
P709	Low Coolant Temperature Level 1 Failure Return Time	1	4	20	Second	
P710	Low Coolant Temperature Level 1 Failure Auto-acknowledge	0	0	1		0:Passive
P711	Low Coolant Temperature Level 1 Failure Auto-acknowledge Type	0	0	1		1:Active
P712	Low Coolant Temperature Level 1 Failure Auto-acknowledge Number	2	5	99		0:Limited
P713	Low Coolant Temperature Level 1 Failure Hysteresis Value	1	5	70		1:Unlimited
P714	Low Coolant Temperature Level 1 Failure Counter	0	0	30000		
P715	Low Coolant Temperature Level 1 Failure Counter Decrease Timer	0.1	10	6500	Hour	
P716	Low Coolant Temperature Level 2 Failure Active	0	1	1		0:Passive
P717	Low Coolant Temperature Level 2 Failure Value	0	2	90		1:Active
P718	Low Coolant Temperature Level 2 Failure Class	1	2	6		1:Only Display 2:Display + Horn 3:Display + Horn + Gen.Trip 4:Display + Horn + Shutdown with Cooling 5:Display + Horn + Shutdown without Cooling 6:Display + Horn + Shutdown without cooling + Mains Trip
P719	Low Coolant Temperature Level 2 Failure Delay	1	4	20	Second	
P720	Low Coolant Temperature Level 2 Failure Return Time	1	4	20	Second	
P721	Low Coolant Temperature Level 2 Failure Auto-acknowledge	0	0	1		0:Passive
P722	Low Coolant Temperature Level 2 Failure Auto-acknowledge Type	0	0	1		1:Active
P723	Low Coolant Temperature Level 2 Failure Auto-acknowledge Number	2	5	99		0:Limited
P724	Low Coolant Temperature Level 2 Failure Hysteresis Value	1	5	70		1:Unlimited
P725	Low Coolant Temperature Level 2 Failure Counter	0	0	30000		
P726	Low Coolant Temperature Level 2 Failure Counter Decrease Timer	0.1	10	6500	Hour	
P727	Coolant Temperature Sensor Failure Active	0	1	1		0:Passive
P728	Coolant Temperature Sensor Failure Type	0	1	2		1:Active
P729	Coolant Temperature Sensor Failure Class	1	2	6		0: Low Level 1: High Level 2: Low and High Level 1:Only Display 2:Display + Horn 3:Display + Horn + Gen.Trip 4:Display + Horn + Shutdown with Cooling 5:Display + Horn + Shutdown without Cooling 6:Display + Horn + Shutdown without cooling + Mains Trip
P730	Coolant Temperature Sensor Failure Delay	1	5	20	Second	
P731	Coolant Temperature Sensor Failure Return Time	1	5	20	Second	
P732	Coolant Temperature Sensor Failure Auto-acknowledge	0	0	1		0:Passive
P733	Coolant Temperature Sensor Failure Auto-acknowledge Type	0	0	1		1:Active
P734	Coolant Temperature Sensor Failure Auto-acknowledge Number	2	5	99		0:Limited
P735	Coolant Temperature Sensor Failure Counter	0	0	30000		1:Unlimited
P736	Coolant Temperature Sensor Failure Counter Decrease Timer	0.1	10	6500	Hour	

P737	Coolant Temperature Sensor Table Minimum Value	-50	50	300	C / F	
P738	Coolant Temperature Sensor Table Maximum Value	-50	100	300	C / F	
P739	Number of Points on Coolant Temperature Sensor Table	2	2	25		
P740	Coolant Temperature 1st Point Value	-50	0	284	C / F	
P741	Coolant Temperature 1st Point Resistance Value	0	0	3000	Ohm	
P742	Coolant Temperature 2nd Point Value	-50	0	284	C / F	
P743	Coolant Temperature 2nd Point Resistance Value	0	0	3000	Ohm	
P744	Coolant Temperature 3rd Point Value	-50	0	284	C / F	
P745	Coolant Temperature 3rd Point Resistance Value	0	0	3000	Ohm	
P746	Coolant Temperature 4th Point Value	-50	0	284	C / F	
P747	Coolant Temperature 4th Point Resistance Value	0	0	3000	Ohm	
P748	Coolant Temperature 5th Point Value	-50	0	284	C / F	
P749	Coolant Temperature 5th Point Resistance Value	0	0	30000	Ohm	
P750	Coolant Temperature 6th Point Value	-50	0	284	C / F	
P751	Coolant Temperature 6th Point Resistance Value	0	0	3000	Ohm	
P752	Coolant Temperature 7th Point Value	-50	0	284	C / F	
P753	Coolant Temperature 7th Point Resistance Value	0	0	3000	Ohm	
P754	Coolant Temperature 8th Point Value	-50	0	284	C / F	
P755	Coolant Temperature 8th Point Resistance Value	0	0	3000	Ohm	
P756	Coolant Temperature 9th Point Value	-50	0	284	C / F	
P757	Coolant Temperature 9th Point Resistance Value	0	0	3000	Ohm	
P758	Coolant Temperature 10th Point Value	-50	0	284	C / F	
P759	Coolant Temperature 10th Point Resistance Value	0	0	3000	Ohm	
P760	Coolant Temperature 11th Point Value	-50	0	284	C / F	
P761	Coolant Temperature 11th Point Resistance Value	0	0	3000	Ohm	
P762	Coolant Temperature 12th Point Value	-50	0	284	C / F	
P763	Coolant Temperature 12th Point Resistance Value	0	0	3000	Ohm	
P764	Coolant Temperature 13th Point Value	-50	0	284	C / F	
P765	Coolant Temperature 13th Point Resistance Value	0	0	3000	Ohm	
P766	Coolant Temperature 14th Point Value	-50	0	284	C / F	
P767	Coolant Temperature 14th Point Resistance Value	0	0	3000	Ohm	
P768	Coolant Temperature 15th Point Value	-50	0	284	C / F	
P769	Coolant Temperature 15th Point Resistance Value	0	0	3000	Ohm	
P770	Coolant Temperature 16th Point Value	-50	0	284	C / F	
P771	Coolant Temperature 16th Point Resistance Value	0	0	3000	Ohm	

P772	Coolant Temperature 17th Point Value	-50	0	284	C / F	
P773	Coolant Temperature 17th Point Resistance Value	0	0	3000	Ohm	
P774	Coolant Temperature 18th Point Value	-50	0	284	C / F	
P775	Coolant Temperature 18th Point Resistance Value	0	0	3000	Ohm	
P776	Coolant Temperature 19th Point Value	-50	0	284	C / F	
P777	Coolant Temperature 19th Point Resistance Value	0	0	3000	Ohm	
P778	Coolant Temperature 20th Point Value	-50	0	284	C / F	
P779	Coolant Temperature 20th Point Resistance Value	0	0	3000	Ohm	
P780	Coolant Temperature 21st Point Value	-50	0	284	C / F	
P781	Coolant Temperature 21st Point Resistance Value	0	0	3000	Ohm	
P782	Coolant Temperature 22nd Point Value	-50	0	284	C / F	
P783	Coolant Temperature 22nd Point Resistance Value	0	0	3000	Ohm	
P784	Coolant Temperature 23rd Point Value	-50	0	284	C / F	
P785	Coolant Temperature 23rd Point Resistance Value	0	0	3000	Ohm	
P786	Coolant Temperature 24th Point Value	-50	0	284	C / F	
P787	Coolant Temperature 24th Point Resistance Value	0	0	3000	Ohm	
P788	Coolant Temperature 25th Point Value	-50	0	284	C / F	
P789	Coolant Temperature 25th Point Resistance Value	0	0	3000	Ohm	
P790	Fuel Level / AN3 Sensor Type	0	0	2		0: No analog Sensor 1: Table 2: VDO Olcusan 3-180Ohm
P791	Low Fuel Level 1 / AN3 Failure Active	0	0	3		0:Passive 1: Low Fuel Level 1 Active 2: Low AN3 Active 3:High AN3 Active
P792	Low Fuel Level 1 / AN3 Failure Value	-9999	15	9999		
P793	Low Fuel Level 1 / AN3 Failure Delay	1	5	20	Second	
P794	Low Fuel Level 1 / AN3 Failure Return Time	1	5	20	Second	
P795	Low Fuel Level 1 / AN3 Failure Class	1	2	6		1:Only Display 2:Display + Horn 3:Display + Horn + Gen.Trip 4:Display + Horn + Shutdown with Cooling 5:Display + Horn + Shutdown without Cooling 6:Display + Horn + Shutdown without cooling + Mains Trip
P796	Low Fuel Level 1 / AN3 Failure Auto-acknowledge	0	0	1		0:Passive 1:Active
P797	Low Fuel Level 1 / AN3 Failure Auto-acknowledge Type	0	0	1		0:Limited 1:Unlimited
P798	Low Fuel Level 1 / AN3 Failure Auto-acknowledge Number	2	5	99		
P799	Low Fuel Level 1 / AN3 Failure Hysteresis Value	-90	5	90		
P800	Low Fuel Level 1 / AN3 Failure Auto-acknowledge Counter	0	0	30000		
P801	Low Fuel Level 1 / AN3 Failure Auto-acknowledge Counter Decrease Time	0.1	10	6500	Hour	
P802	Low Fuel Level 2 Failure Active	0	0	1		0:Passive 1:Active

P803	Low Fuel Level 2 Failure Value	0	5	100		
P804	Low Fuel Level 2 Failure Delay	1	5	20	Second	
P805	Low Fuel Level 2 Failure Return Time	1	5	20	Second	
P806	Low Fuel Level 2 Failure Class	1	5	6		1:Only Display 2:Display + Horn 3:Display + Horn + Gen.Trip 4:Display + Horn + Shutdown with Cooling 5:Display + Horn + Shutdown without Cooling 6:Display + Horn + Shutdown without cooling + Mains Trip
P807	Low Fuel Level 2 Failure Auto-acknowledge	0	0	1		0:Passive 1:Active
P808	Low Fuel Level 2 Failure Auto-acknowledge Type	0	0	1		0:Limited 1:Unlimited
P809	Low Fuel Level 2 Failure Auto-acknowledge Number	2	5	99		
P810	Low Fuel Level 2 Failure Hysteresis Value	1	5	90		
P811	Low Fuel Level 2 Failure Auto-acknowledge Counter	0	0	30000		
P812	Low Fuel Level 2 Failure Auto-acknowledge Counter Decrease Time	0.1	10	6500	Hour	
P813	Fuel Consumption While Stopped Failure Active	0	0	1		0:Passive 1:Active
P814	Fuel Consumption While Stopped Failure Value	0	15	100		
P815	Fuel Consumption While Stopped Failure Delay	1	5	20	Second	
P816	Fuel Consumption While Stopped Failure Return Time	1	5	20	Second	
P817	Fuel Consumption While Stopped Failure Class	1	2	6		1:Only Display 2:Display + Horn 3:Display + Horn + Gen.Trip 4:Display + Horn + Shutdown with Cooling 5:Display + Horn + Shutdown without Cooling 6:Display + Horn + Shutdown without cooling + Mains Trip
P818	Fuel Consumption While Stopped Failure Auto-acknowledge	0	0	1		0:Passive 1:Active
P819	Fuel Consumption While Stopped Failure Auto-acknowledge Type	0	0	1		0:Limited 1:Unlimited
P820	Fuel Consumption While Stopped Failure Auto-acknowledge Number	2	5	99		
P821	Fuel Consumption While Stopped Failure Hysteresis Value	1	5	90		
P822	Fuel Consumption While Stopped Failure Auto-acknowledge Counter	0	0	30000		
P823	Fuel Consumption While Stopped Failure Auto-acknowledge Counter Decrease Time	0.1	10	6500	Hour	
P824	Fuel Consumption While Running Failure Active	0	0	1		0:Passive 1:Active
P825	Fuel Consumption While Running Failure Value	0	15	100		
P826	Fuel Consumption While Running Failure Delay	1	5	20	Second	
P827	Fuel Consumption While Running Failure Return Time	1	5	20	Second	
P828	Fuel Consumption While Running Failure Class	1	2	6		1:Only Display 2:Display + Horn 3:Display + Horn + Gen.Trip 4:Display + Horn + Shutdown with Cooling 5:Display + Horn + Shutdown without Cooling 6:Display + Horn + Shutdown without cooling + Mains Trip
P829	Fuel Consumption While Running Failure Auto-acknowledge	0	0	1		0:Passive 1:Active
P830	Fuel Consumption While Running Failure Auto-acknowledge Type	0	0	1		0:Limited 1:Unlimited
P831	Fuel Consumption While Running Failure Auto-acknowledge Number	2	5	99		
P832	Fuel Consumption While Running Failure Hysteresis Value	1	5	90		
P833	Fuel Consumption While Running Failure Auto-acknowledge Counter	0	0	30000		
P834	Fuel Consumption While Running Failure Auto-acknowledge Counter Decrease Time	0.1	10	6500	Hour	
P835	Fuel Level Sensor Failure Active	0	0	1		0:Passive 1:Active
P836		0	1	2		0: Low Level

	Fuel Level Sensor Failure Type					1: High Level 2: Low and High Level
P837	Fuel Level Sensor Failure Delay	1	5	20	Second	
P838	Fuel Level Sensor Failure Return Time	1	5	20	Second	
P839	Fuel Level Sensor Failure Class	1	2	6		1:Only Display 2:Display + Horn 3:Display + Horn + Gen.Trip 4:Display + Horn + Shutdown with Cooling 5:Display + Horn + Shutdown without Cooling 6:Display + Horn + Shutdown without cooling + Mains Trip
P840	Fuel Level Sensor Failure Auto-acknowledge	0	0	1		0:Passive 1:Active
P841	Fuel Level Sensor Failure Auto-acknowledge Type	0	0	1		0:Limited 1:Unlimited
P842	Fuel Level Sensor Failure Auto-acknowledge Number	2	5	99		
P843	Fuel Level Sensor Failure Auto-acknowledge Counter	0	0	30000		
P844	Fuel Level Sensor Failure Auto-acknowledge Counter Decrease Time	0.1	10	6500	Hour	
P845	Fuel Pump Active	0	0	1		0:Passive 1:Active
P846	Fuel Pump Low Level	0	25	100		
P847	Fuel Pump High Level	0	75	100		
P848	Fuel Pump Activation Time	6	10	3000	Second	
P849	Fuel Pump Deactivation Time	6	10	3000	Second	
P850	Fuel Refill Level 1 Failure Active	0	0	1		0:Passive 1:Active
P851	Fuel Refill Level 1 Failure Change	1	6	90		
P852	Fuel Refill Level 1 Failure Delay	8	60	3000		
P853	Fuel Refill Level 1 Failure Return Time	0.1	10	6500	Hour	
P854	Fuel Refill Level 1 Failure Class	1	2	6		1:Only Display 2:Display + Horn 3:Display + Horn + Gen.Trip 4:Display + Horn + Shutdown with Cooling 5:Display + Horn + Shutdown without Cooling 6:Display + Horn + Shutdown without cooling + Mains Trip
P855	Fuel Refill Level 1 Failure Status	0	0	1		0:Passive 1:Active
P856	Fuel Refill Level 1 Failure Auto-acknowledge	0	0	1		0:Passive 1:Active
P857	Fuel Refill Level 1 Failure Auto-acknowledge Type	0	0	1		0:Limited 1:Unlimited
P858	Fuel Refill Level 1 Failure Auto-acknowledge Number	2	5	99		
P859	Fuel Refill Level 1 Failure Auto-acknowledge Hysteresis Value	1	2	50		
P860	Fuel Refill Level 1 Failure Auto-acknowledge Counter	0	0	30000		
P861	Fuel Refill Level 1 Failure Auto-acknowledge Counter Decrease Timer	0.1	10	6500	Hour	
P862	Fuel Refill Level 2 Failure Active	0	0	1		0:Passive 1:Active
P863	Fuel Refill Level 2 Failure Change	1	4	90		
P864	Fuel Refill Level 2 Failure Delay	2	60	3000	Second	
P865	Fuel Refill Level 2 Failure Return Time	0.1	10	6500	Hour	
P866	Fuel Refill Level 2 Failure Class	1	2	6		1:Only Display 2:Display + Horn 3:Display + Horn + Gen.Trip 4:Display + Horn + Shutdown with Cooling 5:Display + Horn + Shutdown without Cooling 6:Display + Horn + Shutdown without cooling + Mains Trip
P867	Fuel Refill Level 2 Failure Status	0	0	1		0:Passive 1:Active
P868	Fuel Refill Level 2 Failure Auto-acknowledge	0	0	1		0:Passive 1:Active
P869	Fuel Refill Level 2 Failure Auto-acknowledge Type	0	0	1		0:Limited 1:Unlimited
P870	Fuel Refill Level 2 Failure Auto-acknowledge Number	2	5	99		
P871	Fuel Refill Level 2 Failure Auto-acknowledge Hysteresis Value	1	2	50		
P872	Fuel Refill Level 2 Failure Auto-acknowledge Counter	0	0	30000		
P873	Fuel Refill Level 2 Failure Auto-acknowledge Counter Decrease Timer	0.1	10	6500	Hour	
P874	Fuel Level Sensor Table Minimum Value	-9999	5	9999		



P875	Fuel Level Sensor Table Maximum Value	-9999	100	9999		
P876	Number of Points on Fuel Level Sensor Table	2	2	25		
P877	Fuel Level 1st Point Value	-9999	0	9999	%	
P878	Fuel Level 1st Point Resistance Value	0	3	3000	Ohm	
P879	Fuel Level 2nd Point Value	-9999	100	9999	%	
P880	Fuel Level 2nd Point Resistance Value	0	180	3000	Ohm	
P881	Fuel Level 3rd Point Value	-9999	0	9999	%	
P882	Fuel Level 3rd Point Resistance Value	0	0	3000	Ohm	
P883	Fuel Level 4th Point Value	-9999	0	9999	%	
P884	Fuel Level 4th Point Resistance Value	0	0	3000	Ohm	
P885	Fuel Level 5th Point Value	-9999	0	9999	%	
P886	Fuel Level 5th Point Resistance Value	0	0	3000	Ohm	
P887	Fuel Level 6th Point Value	-9999	0	9999	%	
P888	Fuel Level 6th Point Resistance Value	0	0	3000	Ohm	
P889	Fuel Level 7th Point Value	-9999	0	9999	%	
P890	Fuel Level 7th Point Resistance Value	0	0	3000	Ohm	
P891	Fuel Level 8th Point Value	-9999	0	9999	%	
P892	Fuel Level 8th Point Resistance Value	0	0	3000	Ohm	
P893	Fuel Level 9th Point Value	-9999	0	9999	%	
P894	Fuel Level 9th Point Resistance Value	0	0	3000	Ohm	
P895	Fuel Level 10th Point Value	-9999	0	9999	%	
P896	Fuel Level 10th Point Resistance Value	0	0	3000	Ohm	
P897	Fuel Level 11th Point Value	-9999	0	9999	%	
P898	Fuel Level 11th Point Resistance Value	0	0	3000	Ohm	
P899	Fuel Level 12th Point Value	-9999	0	9999	%	
P900	Fuel Level 12th Point Resistance Value	0	0	3000	Ohm	
P901	Fuel Level 13th Point Value	-9999	0	9999	%	
P902	Fuel Level 13th Point Resistance Value	0	0	3000	Ohm	
P903	Fuel Level 14th Point Value	-9999	0	9999	%	
P904	Fuel Level 14th Point Resistance Value	0	0	3000	Ohm	
P905	Fuel Level 15th Point Value	-9999	0	9999	%	
P906	Fuel Level 15th Point Resistance Value	0	0	3000	Ohm	
P907	Fuel Level 16th Point Value	-9999	0	9999	%	
P908	Fuel Level 16th Point Resistance Value	0	0	3000	Ohm	
P909	Fuel Level 17th Point Value	-9999	0	9999	%	
P910	Fuel Level 17th Point Resistance Value	0	0	3000	Ohm	
P911	Fuel Level 18th Point Value	-9999	0	9999	%	
P912	Fuel Level 18th Point Resistance Value	0	0	3000	Ohm	
P913	Fuel Level 19th Point Value	-9999	0	9999	%	
P914	Fuel Level 19th Point Resistance Value	0	0	3000	Ohm	
P915	Fuel Level 20th Point Value	-9999	0	9999	%	
P916	Fuel Level 20th Point Resistance Value	0	0	3000	Ohm	
P917	Fuel Level 21st Point Value	-9999	0	9999	%	
P918	Fuel Level 21st Point Resistance Value	0	0	3000	Ohm	
P919	Fuel Level 22nd Point Value	-9999	0	9999	%	
P920	Fuel Level 22nd Point Resistance Value	0	0	3000	Ohm	
P921	Fuel Level 23rd Point Value	-9999	0	9999	%	
P922	Fuel Level 23rd Point Resistance Value	0	0	3000	Ohm	
P923	Fuel Level 24th Point Value	-9999	0	9999	%	
P924	Fuel Level 24th Point Resistance Value	0	0	3000	Ohm	
P925	Fuel Level 25th Point Value	-9999	0	9999	%	
P926	Fuel Level 25th Point Resistance Value	0	0	3000	Ohm	
P927		0	0	52		0: Input Disabled 1: User Defined Failure 2: Mains Exists

	Digital Input 1 Function					3: Mains Failure 4: Auto Start Cancel 5: Start Cancel 6: Panel Key Lock 7: Lamp Test 8: Scheduled Tests Cancel 9: Cancel Emergency Start Failures 10: Emergency Stop 11: Remote Start On-load 12: Remote Start Off-load 13: Generator Contactor Feedback 1 14: Generator Contactor Feedback 2 15: Mains Contactor Feedback 1 16: Mains Contactor Feedback 2 17: No Functionality 18: No Functionality 19: No Functionality 20: Horn Silence Button 21: Failure Acknowledge Button 22: Horn Silence + Failure Acknowledge Button 23: Start Button 24: Stop Button 25: Mains Contactor Open/Close Button 26: Generator Contactor Open/Close Button 27: Mains Contactor Open Button 28: Mains Contactor Close Button 29: Generator Contactor Open Button 30: Generator Contactor Close Button 31: Manual Operation Button 32: Auto Operation Button 33: Test On-Load Button 34: Test Off-load Button 35: Off Operation Button 36: Start in Manual Operation 37: Start in Auto Operation 38: Start in On-load Test Operation 39: Start in Off-load Test Operation 40: Start in Off Operation 41: On-load/Off-load Selection for Front Panel Test Button 42: Program Mode Lock 43: Pre-crank Delay Disabled 44: Load is not Transferred to Mains and Generator 45: Load is Not Transferred to Mains 46: Load is Not Transferred to Generator 47: Transfer Load to Generator 48: Transfer Load to Mains 49: Dual Mutual Standby Priority 50: Dual Mutual Standby Virtual Mains Input 51: All Failures Cancelled 52: Dual Mutual Standby Sync Success Input
P928	Digital Input 1 Failure Delay	0.2	2	999	Second	
P929	Digital Input 1 Failure Return Time	0.2	2	999	Second	
P930	Digital Input 1 Failure Class	1	2	6		1: Only Display 2: Display + Horn 3: Display + Horn + Gen.Trip 4: Display + Horn + Shutdown with Cooling 5: Display + Horn + Shutdown without Cooling 6: Display + Horn + Shutdown without cooling + Mains Trip
P931	Digital Input 1 Failure Auto-acknowledge	0	0	1		0: Passive 1: Active
P932	Digital Input 1 Failure Auto-acknowledge Type	0	0	1		0: Limited 1: Unlimited
P933	Digital Input 1 Failure Auto-acknowledge Number	2	5	99		
P934	Digital Input 1 Failure Contactor Type	0	1	1		0: Normally Closed 0: Normally Open 0: Active All the Time
P935	Digital Input 1 Failure Contactor Activation Time	0	2	3		1: Active when Engine Running 2: Active After Failure Delay Timer 3: Active when Alternator Energizes the Contactor
P936	Digital Input 1 Failure Auto-acknowledge Counter	0	0	30000		
P937	Digital Input 1 Failure Auto-acknowledge Counter Decrease Timer	0.1	10	6500	Hour	
P938	Digital Input 1 User Defined Failure Message		"A1"			
P939		0	0	52		0: Input Disabled 1: User Defined Failure 2: Mains Exists 3: Mains Failure 4: Auto Start Cancel 5: Start Cancel 6: Panel Key Lock 7: Lamp Test 8: Scheduled Tests Cancel 9: Cancel Emergency Start Failures 10: Emergency Stop 11: Remote Start On-load 12: Remote Start Off-load 13: Generator Contactor Feedback 1 14: Generator Contactor Feedback 2 15: Mains Contactor Feedback 1 16: Mains Contactor Feedback 2 17: No Functionality 18: No Functionality 19: No Functionality 20: Horn Silence Button 21: Failure Acknowledge Button 22: Horn Silence + Failure Acknowledge Button

	Digital Input 2 Function					23: Start Button
						24: Stop Button
						25: Mains Contactor Open/Close Button
						26: Generator Contactor Open/Close Button
						27: Mains Contactor Open Button
						28: Mains Contactor Close Button
						29: Generator Contactor Open Button
						30: Generator Contactor Close Button
						31: Manual Operation Button
						32: Auto Operation Button
						33: Test On-Load Button
						34: Test Off-load Button
						35: Off Operation Button
						36: Start in Manual Operation
						37: Start in Auto Operation
						38: Start in On-load Test Operation
						39: Start in Off-load Test Operation
						40: Start in Off Operation
						41: On-load/Off-load Selection for Front Panel
						42: Program Mode Lock
						43: Pre-crank Delay Disabled
						44: Load is not Transferred to Mains and
						45: Load is Not Transferred to Mains
						46: Load is Not Transferred to Generator
						47: Transfer Load to Generator
						48: Transfer Load to Mains
						49: Dual Mutual Standby Priority
						50: Dual Mutual Standby Virtual Mains Input
						51: All Failures Cancelled
						52: Dual Mutual Standby Sync Success Input
P940	Digital Input 2 Failure Delay	0.2	2	999		
P941	Digital Input 2 Failure Return Time	0.2	2	999		
P942	Digital Input 2 Failure Class	1	2	6		1:Only Display 2:Display + Horn 3:Display + Horn + Gen.Trip 4:Display + Horn + Shutdown with Cooling 5:Display + Horn + Shutdown without Cooling 6:Display + Horn + Shutdown without cooling +
P943	Digital Input 2 Failure Auto-acknowledge	0	0	1		0:Passive 1:Active
P944	Digital Input 2 Failure Auto-acknowledge Type	0	0	1		0:Limited 1:Unlimited
P945	Digital Input 2 Failure Auto-acknowledge Number	2	5	99		
P946	Digital Input 2 Failure Contactor Type	0	1	1		0:Normally Closed 1:Normally Open
P947	Digital Input 2 Failure Contactor Activation Time	0	2	3		0: Active All the Time 1: Active when Engine Running 2: Active After Failure Delay Timer 3: Active when Alternator Energizes the Contactor
P948	Digital Input 2 Failure Auto-acknowledge Counter	0	0	30000		
P949	Digital Input 2 Failure Auto-acknowledge Counter Decrease Timer	0.1	10	6500		
P950	Digital Input 2 User Defined Failure Message		"A2"			
P951	Digital Input 3 Function	0	0	52		0: Input Disabled 1: User Defined Failure 2: Mains Exists 3: Mains Failure 4: Auto Start Cancel 5: Start Cancel 6: Panel Key Lock 7: Lamp Test 8: Scheduled Tests Cancel 9: Cancel Emergency Start Failures 10: Emergency Stop 11: Remote Start On-load 12: Remote Start Off-load 13: Generator Contactor Feedback 1 14: Generator Contactor Feedback 2 15: Mains Contactor Feedback 1 16: Mains Contactor Feedback 2 17: No Functionality 18: No Functionality 19: No Functionality 20: Horn Silence Button 21: Failure Acknowledge Button 22: Horn Silence + Failure Acknowledge Button 23: Start Button 24: Stop Button 25: Mains Contactor Open/Close Button 26: Generator Contactor Open/Close Button 27: Mains Contactor Open Button 28: Mains Contactor Close Button 29: Generator Contactor Open Button 30: Generator Contactor Close Button 31: Manual Operation Button 32: Auto Operation Button 33: Test On-Load Button 34: Test Off-load Button 35: Off Operation Button 36: Start in Manual Operation 37: Start in Auto Operation 38: Start in On-load Test Operation 39: Start in Off-load Test Operation 40: Start in Off Operation 41: On-load/Off-load Selection for Front Panel 42: Program Mode Lock 43: Pre-crank Delay Disabled 44: Load is not Transferred to Mains and 45: Load is Not Transferred to Mains 46: Load is Not Transferred to Generator

					47: Transfer Load to Generator 48: Transfer Load to Mains 49: Dual Mutual Standby Priority 50: Dual Mutual Standby Virtual Mains Input 51: All Failures Cancelled 52: Dual Mutual Standby Sync Success Input
P952	Digital Input 3 Failure Delay	0.2	2	999	
P953	Digital Input 3 Failure Return Time	0.2	2	999	
P954	Digital Input 3 Failure Class	1	2	6	1:Only Display 2:Display + Horn 3:Display + Horn + Gen.Trip 4:Display + Horn + Shutdown with Cooling 5:Display + Horn + Shutdown without Cooling 6:Display + Horn + Shutdown without cooling +
P955	Digital Input 3 Failure Auto-acknowledge	0	0	1	0:Passive 1:Active
P956	Digital Input 3 Failure Auto-acknowledge Type	0	0	1	0:Limited 1:Unlimited
P957	Digital Input 3 Failure Auto-acknowledge Number	2	5	99	
P958	Digital Input 3 Failure Contactor Type	0	1	1	0:Normally Closed 1:Normally Open
P959	Digital Input 3 Failure Contactor Activation Time	0	2	3	0: Active All the Time 1: Active when Engine Running 2: Active After Failure Delay Timer 3: Active when Alternator Energizes the Contactor
P960	Digital Input 3 Failure Auto-acknowledge Counter	0	0	30000	
P961	Digital Input 3 Failure Auto-acknowledge Counter Decrease Timer	0.1	10	6500	
P962	Digital Input 3 User Defined Failure Message		"A3"		
P963	Digital Input 4 Function	0	0	52	0: Input Disabled 1: User Defined Failure 2: Mains Exists 3: Mains Failure 4: Auto Start Cancel 5: Start Cancel 6: Panel Key Lock 7: Lamp Test 8: Scheduled Tests Cancel 9: Cancel Emergency Start Failures 10: Emergency Stop 11: Remote Start On-load 12: Remote Start Off-load 13: Generator Contactor Feedback 1 14: Generator Contactor Feedback 2 15: Mains Contactor Feedback 1 16: Mains Contactor Feedback 2 17: No Functionality 18: No Functionality 19: No Functionality 20: Horn Silence Button 21: Failure Acknowledge Button 22: Horn Silence + Failure Acknowledge Button 23: Start Button 24: Stop Button 25: Mains Contactor Open/Close Button 26: Generator Contactor Open/Close Button 27: Mains Contactor Open Button 28: Mains Contactor Close Button 29: Generator Contactor Open Button 30: Generator Contactor Close Button 31: Manual Operation Button 32: Auto Operation Button 33: Test On-Load Button 34: Test Off-load Button 35: Off Operation Button 36: Start in Manual Operation 37: Start in Auto Operation 38: Start in On-load Test Operation 39: Start in Off-load Test Operation 40: Start in Off Operation 41: On-load/Off-load Selection for Front Panel 42: Program Mode Lock 43: Pre-crank Delay Disabled 44: Load is not Transferred to Mains and 45: Load is Not Transferred to Mains 46: Load is Not Transferred to Generator 47: Transfer Load to Generator 48: Transfer Load to Mains 49: Dual Mutual Standby Priority 50: Dual Mutual Standby Virtual Mains Input 51: All Failures Cancelled 52: Dual Mutual Standby Sync Success Input
P964	Digital Input 4 Failure Delay	0.2	2	999	
P965	Digital Input 4 Failure Return Time	0.2	2	999	
P966	Digital Input 4 Failure Class	1	2	6	1:Only Display 2:Display + Horn 3:Display + Horn + Gen.Trip 4:Display + Horn + Shutdown with Cooling 5:Display + Horn + Shutdown without Cooling 6:Display + Horn + Shutdown without cooling +
P967	Digital Input 4 Failure Auto-acknowledge	0	0	1	0:Passive 1:Active
P968	Digital Input 4 Failure Auto-acknowledge Type	0	0	1	0:Limited 1:Unlimited
P969	Digital Input 4 Failure Auto-acknowledge Number	2	5	99	
P970	Digital Input 4 Failure Contactor Type	0	1	1	0:Normally Closed 1:Normally Open
P971	Digital Input 4 Failure Contactor Activation Time	0	2	3	0: Active All the Time 1: Active when Engine Running 2: Active After Failure Delay Timer 3: Active when Alternator Energizes the Contactor

P972	Digital Input 4 Failure Auto-acknowledge Counter	0	0	30000		
P973	Digital Input 4 Failure Auto-acknowledge Counter Decrease Timer	0.1	10	6500		
P974	Digital Input 4 User Defined Failure Message		"A4"			
P975	Digital Input 5 Function	0	0	52		0: Input Disabled 1: User Defined Failure 2: Mains Exists 3: Mains Failure 4: Auto Start Cancel 5: Start Cancel 6: Panel Key Lock 7: Lamp Test 8: Scheduled Tests Cancel 9: Cancel Emergency Start Failures 10: Emergency Stop 11: Remote Start On-load 12: Remote Start Off-load 13: Generator Contactor Feedback 1 14: Generator Contactor Feedback 2 15: Mains Contactor Feedback 1 16: Mains Contactor Feedback 2 17: No Functionality 18: No Functionality 19: No Functionality 20: Horn Silence Button 21: Failure Acknowledge Button 22: Horn Silence + Failure Acknowledge Button 23: Start Button 24: Stop Button 25: Mains Contactor Open/Close Button 26: Generator Contactor Open/Close Button 27: Mains Contactor Open Button 28: Mains Contactor Close Button 29: Generator Contactor Open Button 30: Generator Contactor Close Button 31: Manual Operation Button 32: Auto Operation Button 33: Test On-Load Button 34: Test Off-load Button 35: Off Operation Button 36: Start in Manual Operation 37: Start in Auto Operation 38: Start in On-load Test Operation 39: Start in Off-load Test Operation 40: Start in Off Operation 41: On-load/Off-load Selection for Front Panel 42: Program Mode Lock 43: Pre-crank Delay Disabled 44: Load is not Transferred to Mains and 45: Load is Not Transferred to Mains 46: Load is Not Transferred to Generator 47: Transfer Load to Generator 48: Transfer Load to Mains 49: Dual Mutual Standby Priority 50: Dual Mutual Standby Virtual Mains Input 51: All Failures Cancelled 52: Dual Mutual Standby Sync Success Input
P976	Digital Input 5 Failure Delay	0.2	2	999		
P977	Digital Input 5 Failure Return Time	0.2	2	999		
P978	Digital Input 5 Failure Class	1	2	6		1:Only Display 2:Display + Horn 3:Display + Horn + Gen.Trip 4:Display + Horn + Shutdown with Cooling 5:Display + Horn + Shutdown without Cooling 6:Display + Horn + Shutdown without cooling +
P979	Digital Input 5 Failure Auto-acknowledge	0	0	1		0:Passive 1:Active
P980	Digital Input 5 Failure Auto-acknowledge Type	0	0	1		0:Limited 1:Unlimited
P981	Digital Input 5 Failure Auto-acknowledge Number	2	5	99		
P982	Digital Input 5 Failure Contactor Type	0	1	1		0:Normally Closed 1:Normally Open
P983	Digital Input 5 Failure Contactor Activation Time	0	2	3		0: Active All the Time 1: Active when Engine Running 2: Active After Failure Delay Timer 3: Active when Alternator Energizes the Contactor
P984	Digital Input 5 Failure Auto-acknowledge Counter	0	0	30000		
P985	Digital Input 5 Failure Auto-acknowledge Counter Decrease Timer	0.1	10	6500		
P986	Digital Input 5 User Defined Failure Message		"A5"			
P987		0	0	52		0: Input Disabled 1: User Defined Failure 2: Mains Exists 3: Mains Failure 4: Auto Start Cancel 5: Start Cancel 6: Panel Key Lock 7: Lamp Test 8: Scheduled Tests Cancel 9: Cancel Emergency Start Failures 10: Emergency Stop 11: Remote Start On-load 12: Remote Start Off-load 13: Generator Contactor Feedback 1 14: Generator Contactor Feedback 2 15: Mains Contactor Feedback 1 16: Mains Contactor Feedback 2 17: No Functionality 18: No Functionality 19: No Functionality

	Digital Input 6 Function					20: Horn Silence Button 21: Failure Acknowledge Button 22: Horn Silence + Failure Acknowledge Button 23: Start Button 24: Stop Button 25: Mains Contactor Open/Close Button 26: Generator Contactor Open/Close Button 27: Mains Contactor Open Button 28: Mains Contactor Close Button 29: Generator Contactor Open Button 30: Generator Contactor Close Button 31: Manual Operation Button 32: Auto Operation Button 33: Test On-Load Button 34: Test Off-load Button 35: Off Operation Button 36: Start in Manual Operation 37: Start in Auto Operation 38: Start in On-load Test Operation 39: Start in Off-load Test Operation 40: Start in Off Operation 41: On-load/Off-load Selection for Front Panel 42: Program Mode Lock 43: Pre-crank Delay Disabled 44: Load is not Transferred to Mains and 45: Load is Not Transferred to Mains 46: Load is Not Transferred to Generator 47: Transfer Load to Generator 48: Transfer Load to Mains 49: Dual Mutual Standby Priority 50: Dual Mutual Standby Virtual Mains Input 51: All Failures Cancelled 52: Dual Mutual Standby Sync Success Input
P988	Digital Input 6 Failure Delay	0.2	2	999		
P989	Digital Input 6 Failure Return Time	0.2	2	999		
P990	Digital Input 6 Failure Class	1	2	6		1:Only Display 2:Display + Horn 3:Display + Horn + Gen.Trip 4:Display + Horn + Shutdown with Cooling 5:Display + Horn + Shutdown without Cooling 6:Display + Horn + Shutdown without cooling +
P991	Digital Input 6 Failure Auto-acknowledge	0	0	1		0:Passive 1:Active
P992	Digital Input 6 Failure Auto-acknowledge Type	0	0	1		0:Limited 1:Unlimited
P993	Digital Input 6 Failure Auto-acknowledge Number	2	5	99		
P994	Digital Input 6 Failure Contactor Type	0	1	1		0:Normally Closed 1:Normally Open
P995	Digital Input 6 Failure Contactor Activation Time	0	2	3		0: Active All the Time 1: Active when Engine Running 2: Active After Failure Delay Timer 3: Active when Alternator Energizes the Contactor
P996	Digital Input 6 Failure Auto-acknowledge Counter	0	0	30000		
P997	Digital Input 6 Failure Auto-acknowledge Counter Decrease Timer	0.1	10	6500		
P998	Digital Input 6 User Defined Failure Message		"A6"			
P999	I/O Expansion Module Active	0	0	1		0:Passive 1:Active
P1000	ECU Module Active	0	0	1		0:Passive 1:Active
P1001	ECU Engine Type	0	0	8		0 :Caterpillar 1:Cummins CM850 2:Detroit Diesel 3:Deutz EMR2 4:Iveco Vector 5:John Deere 6:Perkins 1300 7:Volvo Penta EMS2 8 :Genel J1939 9:Deutz EMR3 10:Perkins Adem3 11:Perkins Adem4 12:Scania S6
P1002	Canbus Baud Rate	0	1	1		0 : 125 kBit/s 1 : 250 kBit/s
P1003		0	0	52		0: Input Disabled 1: User Defined Failure 2: Mains Exists 3: Mains Failure 4: Auto Start Cancel 5: Start Cancel 6: Panel Key Lock 7: Lamp Test 8: Scheduled Tests Cancel 9: Cancel Emergency Start Failures 10: Emergency Stop 11: Remote Start On-load 12: Remote Start Off-load 13: Generator Contactor Feedback 1 14: Generator Contactor Feedback 2 15: Mains Contactor Feedback 1 16: Mains Contactor Feedback 2 17: No Functionality 18: No Functionality 19: No Functionality 20: Horn Silence Button 21: Failure Acknowledge Button 22: Horn Silence + Failure Acknowledge Button 23: Start Button 24: Stop Button

	Digital Input 7 Function				25: Mains Contactor Open/Close Button 26: Generator Contactor Open/Close Button 27: Mains Contactor Open Button 28: Mains Contactor Close Button 29: Generator Contactor Open Button 30: Generator Contactor Close Button 31: Manual Operation Button 32: Auto Operation Button 33: Test On-Load Button 34: Test Off-load Button 35: Off Operation Button 36: Start in Manual Operation 37: Start in Auto Operation 38: Start in On-load Test Operation 39: Start in Off-load Test Operation 40: Start in Off Operation 41: On-load/Off-load Selection for Front Panel 42: Program Mode Lock 43: Pre-crank Delay Disabled 44: Load is not Transferred to Mains and 45: Load is Not Transferred to Mains 46: Load is Not Transferred to Generator 47: Transfer Load to Generator 48: Transfer Load to Mains 49: Dual Mutual Standby Priority 50: Dual Mutual Standby Virtual Mains Input 51: All Failures Cancelled 52: Dual Mutual Standby Sync Success Input
P1004	Digital Input 7 Failure Delay	0.2	2	999	
P1005	Digital Input 7 Failure Return Time	0.2	2	999	
P1006	Digital Input 7 Failure Class	1	2	6	1:Only Display 2:Display + Horn 3:Display + Horn + Gen.Trip 4:Display + Horn + Shutdown with Cooling 5:Display + Horn + Shutdown without Cooling 6:Display + Horn + Shutdown without cooling +
P1007	Digital Input 7 Failure Auto-acknowledge	0	0	1	0:Passive 1:Active
P1008	Digital Input 7 Failure Auto-acknowledge Type	0	0	1	0:Limited 1:Unlimited
P1009	Digital Input 7 Failure Auto-acknowledge Number	2	5	99	
P1010	Digital Input 7 Failure Contactor Type	0	1	1	0:Normally Closed 1:Normally Open
P1011	Digital Input 7 Failure Contactor Activation Time	0	2	3	0: Active All the Time 1: Active when Engine Running 2: Active After Failure Delay Timer 3: Active when Alternator Energizes the Contactor
P1012	Digital Input 7 Failure Auto-acknowledge Counter	0	0	30000	
P1013	Digital Input 7 Failure Auto-acknowledge Counter Decrease Timer	0.1	10	6500	
P1014	Digital Input 7 User Defined Failure Message		"A7"		
P1015	Digital Input 8 Function	0	0	52	0: Input Disabled 1: User Defined Failure 2: Mains Exists 3: Mains Failure 4: Auto Start Cancel 5: Start Cancel 6: Panel Key Lock 7: Lamp Test 8: Scheduled Tests Cancel 9: Cancel Emergency Start Failures 10: Emergency Stop 11: Remote Start On-load 12: Remote Start Off-load 13: Generator Contactor Feedback 1 14: Generator Contactor Feedback 2 15: Mains Contactor Feedback 1 16: Mains Contactor Feedback 2 17: No Functionality 18: No Functionality 19: No Functionality 20: Horn Silence Button 21: Failure Acknowledge Button 22: Horn Silence + Failure Acknowledge Button 23: Start Button 24: Stop Button 25: Mains Contactor Open/Close Button 26: Generator Contactor Open/Close Button 27: Mains Contactor Open Button 28: Mains Contactor Close Button 29: Generator Contactor Open Button 30: Generator Contactor Close Button 31: Manual Operation Button 32: Auto Operation Button 33: Test On-Load Button 34: Test Off-load Button 35: Off Operation Button 36: Start in Manual Operation 37: Start in Auto Operation 38: Start in On-load Test Operation 39: Start in Off-load Test Operation 40: Start in Off Operation 41: On-load/Off-load Selection for Front Panel 42: Program Mode Lock 43: Pre-crank Delay Disabled 44: Load is not Transferred to Mains and 45: Load is Not Transferred to Mains 46: Load is Not Transferred to Generator 47: Transfer Load to Generator 48: Transfer Load to Mains

					49: Dual Mutual Standby Priority 50: Dual Mutual Standby Virtual Mains Input 51: All Failures Cancelled 52: Dual Mutual Standby Sync Success Input
P1016	Digital Input 8 Failure Delay	0.2	2	999	
P1017	Digital Input 8 Failure Return Time	0.2	2	999	
P1018	Digital Input 8 Failure Class	1	2	6	1:Only Display 2:Display + Horn 3:Display + Horn + Gen.Trip 4:Display + Horn + Shutdown with Cooling 5:Display + Horn + Shutdown without Cooling 6:Display + Horn + Shutdown without cooling +
P1019	Digital Input 8 Failure Auto-acknowledge	0	0	1	0:Passive 1:Active
P1020	Digital Input 8 Failure Auto-acknowledge Type	0	0	1	0:Limited 1:Unlimited
P1021	Digital Input 8 Failure Auto-acknowledge Number	2	5	99	
P1022	Digital Input 8 Failure Contactor Type	0	1	1	0:Normally Closed 1:Normally Open
P1023	Digital Input 8 Failure Contactor Activation Time	0	2	3	0: Active All the Time 1: Active when Engine Running 2: Active After Failure Delay Timer 3: Active when Alternator Energizes the Contactor
P1024	Digital Input 8 Failure Auto-acknowledge Counter	0	0	30000	
P1025	Digital Input 8 Failure Auto-acknowledge Counter Decrease Timer	0.1	10	6500	
P1026	Digital Input 8 User Defined Failure Message		"A8"		
P1027	Digital Input 9 Function	0	0	52	0: Input Disabled 1: User Defined Failure 2: Mains Exists 3: Mains Failure 4: Auto Start Cancel 5: Start Cancel 6: Panel Key Lock 7: Lamp Test 8: Scheduled Tests Cancel 9: Cancel Emergency Start Failures 10: Emergency Stop 11: Remote Start On-load 12: Remote Start Off-load 13: Generator Contactor Feedback 1 14: Generator Contactor Feedback 2 15: Mains Contactor Feedback 1 16: Mains Contactor Feedback 2 17: No Functionality 18: No Functionality 19: No Functionality 20: Horn Silence Button 21: Failure Acknowledge Button 22: Horn Silence + Failure Acknowledge Button 23: Start Button 24: Stop Button 25: Mains Contactor Open/Close Button 26: Generator Contactor Open/Close Button 27: Mains Contactor Open Button 28: Mains Contactor Close Button 29: Generator Contactor Open Button 30: Generator Contactor Close Button 31: Manual Operation Button 32: Auto Operation Button 33: Test On-Load Button 34: Test Off-load Button 35: Off Operation Button 36: Start in Manual Operation 37: Start in Auto Operation 38: Start in On-load Test Operation 39: Start in Off-load Test Operation 40: Start in Off Operation 41: On-load/Off-load Selection for Front Panel 42: Program Mode Lock 43: Pre-crank Delay Disabled 44: Load is not Transferred to Mains and 45: Load is Not Transferred to Mains 46: Load is Not Transferred to Generator 47: Transfer Load to Generator 48: Transfer Load to Mains 49: Dual Mutual Standby Priority 50: Dual Mutual Standby Virtual Mains Input 51: All Failures Cancelled 52: Dual Mutual Standby Sync Success Input
P1028	Digital Input 9 Failure Delay	0.2	2	999	
P1029	Digital Input 9 Failure Return Time	0.2	2	999	
P1030	Digital Input 9 Failure Class	1	2	6	1:Only Display 2:Display + Horn 3:Display + Horn + Gen.Trip 4:Display + Horn + Shutdown with Cooling 5:Display + Horn + Shutdown without Cooling 6:Display + Horn + Shutdown without cooling +
P1031	Digital Input 9 Failure Auto-acknowledge	0	0	1	0:Passive 1:Active
P1032	Digital Input 9 Failure Auto-acknowledge Type	0	0	1	0:Limited 1:Unlimited
P1033	Digital Input 9 Failure Auto-acknowledge Number	2	5	99	
P1034	Digital Input 9 Failure Contactor Type	0	1	1	0:Normally Closed 1:Normally Open
P1035	Digital Input 9 Failure Contactor Activation Time	0	2	3	0: Active All the Time 1: Active when Engine Running 2: Active After Failure Delay Timer 3: Active when Alternator Energizes the Contactor
P1036	Digital Input 9 Failure Auto-acknowledge Counter	0	0	30000	
P1037	Digital Input 9 Failure Auto-acknowledge Counter Decrease Timer	0.1	10	6500	



P1038	Digital Input 9 User Defined Failure Message		"A9"			
P1039		0	0	52		0: Input Disabled 1: User Defined Failure 2: Mains Exists 3: Mains Failure 4: Auto Start Cancel 5: Start Cancel 6: Panel Key Lock 7: Lamp Test 8: Scheduled Tests Cancel 9: Cancel Emergency Start Failures 10: Emergency Stop 11: Remote Start On-load 12: Remote Start Off-load 13: Generator Contactor Feedback 1 14: Generator Contactor Feedback 2 15: Mains Contactor Feedback 1 16: Mains Contactor Feedback 2 17: No Functionality 18: No Functionality 19: No Functionality 20: Horn Silence Button 21: Failure Acknowledge Button 22: Horn Silence + Failure Acknowledge Button 23: Start Button 24: Stop Button 25: Mains Contactor Open/Close Button 26: Generator Contactor Open/Close Button 27: Mains Contactor Open Button 28: Mains Contactor Close Button 29: Generator Contactor Open Button 30: Generator Contactor Close Button 31: Manual Operation Button 32: Auto Operation Button 33: Test On-Load Button 34: Test Off-load Button 35: Off Operation Button 36: Start in Manual Operation 37: Start in Auto Operation 38: Start in On-load Test Operation 39: Start in Off-load Test Operation 40: Start in Off Operation 41: On-load/Off-load Selection for Front Panel 42: Program Mode Lock 43: Pre-crank Delay Disabled 44: Load is not Transferred to Mains and 45: Load is Not Transferred to Mains 46: Load is Not Transferred to Generator 47: Transfer Load to Generator 48: Transfer Load to Mains 49: Dual Mutual Standby Priority 50: Dual Mutual Standby Virtual Mains Input 51: All Failures Cancelled 52: Dual Mutual Standby Sync Success Input
P1040	Digital Input 10 Failure Delay	0.2	2	999		
P1041	Digital Input 10 Failure Return Time	0.2	2	999		
P1042	Digital Input 10 Failure Class	1	2	6		1:Only Display 2:Display + Horn 3:Display + Horn + Gen.Trip 4:Display + Horn + Shutdown with Cooling 5:Display + Horn + Shutdown without Cooling 6:Display + Horn + Shutdown without cooling +
P1043	Digital Input 10 Failure Auto-acknowledge	0	0	1		0:Passive 1:Active
P1044	Digital Input 10 Failure Auto-acknowledge Type	0	0	1		0:Limited 1:Unlimited
P1045	Digital Input 10 Failure Auto-acknowledge Number	2	5	99		
P1046	Digital Input 10 Failure Contactor Type	0	1	1		0:Normally Closed 1:Normally Open
P1047	Digital Input 10 Failure Contactor Activation Time	0	2	3		0: Active All the Time 1: Active when Engine Running 2: Active After Failure Delay Timer 3: Active when Alternator Energizes the Contactor
P1048	Digital Input 10 Failure Auto-acknowledge Counter	0	0	30000		
P949	Digital Input 10 Failure Auto-acknowledge Counter Decrease Timer	0.1	10	6500		
P1050	Digital Input 10 User Defined Failure Message		"A10"			
P1051		0	0	52		0: Input Disabled 1: User Defined Failure 2: Mains Exists 3: Mains Failure 4: Auto Start Cancel 5: Start Cancel 6: Panel Key Lock 7: Lamp Test 8: Scheduled Tests Cancel 9: Cancel Emergency Start Failures 10: Emergency Stop 11: Remote Start On-load 12: Remote Start Off-load 13: Generator Contactor Feedback 1 14: Generator Contactor Feedback 2 15: Mains Contactor Feedback 1 16: Mains Contactor Feedback 2 17: No Functionality 18: No Functionality 19: No Functionality 20: Horn Silence Button 21: Failure Acknowledge Button

	Digital Input 11 Function					22: Horn Silence + Failure Acknowledge Button 23: Start Button 24: Stop Button 25: Mains Contactor Open/Close Button 26: Generator Contactor Open/Close Button 27: Mains Contactor Open Button 28: Mains Contactor Close Button 29: Generator Contactor Open Button 30: Generator Contactor Close Button 31: Manual Operation Button 32: Auto Operation Button 33: Test On-Load Button 34: Test Off-load Button 35: Off Operation Button 36: Start in Manual Operation 37: Start in Auto Operation 38: Start in On-load Test Operation 39: Start in Off-load Test Operation 40: Start in Off Operation 41: On-load/Off-load Selection for Front Panel 42: Program Mode Lock 43: Pre-crank Delay Disabled 44: Load is not Transferred to Mains and 45: Load is Not Transferred to Mains 46: Load is Not Transferred to Generator 47: Transfer Load to Generator 48: Transfer Load to Mains 49: Dual Mutual Standby Priority 50: Dual Mutual Standby Virtual Mains Input 51: All Failures Cancelled 52: Dual Mutual Standby Sync Success Input
P1052	Digital Input 11 Failure Delay	0.2	2	999		
P1053	Digital Input 11 Failure Return Time	0.2	2	999		
P1054	Digital Input 11 Failure Class	1	2	6		1:Only Display 2:Display + Horn 3:Display + Horn + Gen.Trip 4:Display + Horn + Shutdown with Cooling 5:Display + Horn + Shutdown without Cooling 6:Display + Horn + Shutdown without cooling +
P1055	Digital Input 11 Failure Auto-acknowledge	0	0	1		0:Passive 1:Active
P1056	Digital Input 11 Failure Auto-acknowledge Type	0	0	1		0:Limited 1:Unlimited
P1057	Digital Input 11 Failure Auto-acknowledge Number	2	5	99		
P1058	Digital Input 11 Failure Contactor Type	0	1	1		0:Normally Closed 1:Normally Open
P1059	Digital Input 11 Failure Contactor Activation Time	0	2	3		0: Active All the Time 1: Active when Engine Running 2: Active After Failure Delay Timer 3: Active when Alternator Energizes the Contactor
P1060	Digital Input 11 Failure Auto-acknowledge Counter	0	0	30000		
P1061	Digital Input 11 Failure Auto-acknowledge Counter Decrease Timer	0.1	10	6500		
P1062	Digital Input 11 User Defined Failure Message		"A11"			
P1063		0	0	52		0: Input Disabled 1: User Defined Failure 2: Mains Exists 3: Mains Failure 4: Auto Start Cancel 5: Start Cancel 6: Panel Key Lock 7: Lamp Test 8: Scheduled Tests Cancel 9: Cancel Emergency Start Failures 10: Emergency Stop 11: Remote Start On-load 12: Remote Start Off-load 13: Generator Contactor Feedback 1 14: Generator Contactor Feedback 2 15: Mains Contactor Feedback 1 16: Mains Contactor Feedback 2 17: No Functionality 18: No Functionality 19: No Functionality 20: Horn Silence Button 21: Failure Acknowledge Button 22: Horn Silence + Failure Acknowledge Button 23: Start Button 24: Stop Button 25: Mains Contactor Open/Close Button 26: Generator Contactor Open/Close Button 27: Mains Contactor Open Button 28: Mains Contactor Close Button 29: Generator Contactor Open Button 30: Generator Contactor Close Button 31: Manual Operation Button 32: Auto Operation Button 33: Test On-Load Button 34: Test Off-load Button 35: Off Operation Button 36: Start in Manual Operation 37: Start in Auto Operation 38: Start in On-load Test Operation 39: Start in Off-load Test Operation 40: Start in Off Operation 41: On-load/Off-load Selection for Front Panel 42: Program Mode Lock 43: Pre-crank Delay Disabled 44: Load is not Transferred to Mains and 45: Load is Not Transferred to Mains
	Digital Input 12 Function					

					46: Load is Not Transferred to Generator 47: Transfer Load to Generator 48: Transfer Load to Mains 49: Dual Mutual Standby Priority 50: Dual Mutual Standby Virtual Mains Input 51: All Failures Cancelled 52: Dual Mutual Standby Sync Success Input
P1064	Digital Input 12 Failure Delay	0.2	2	999	
P1065	Digital Input 12 Failure Return Time	0.2	2	999	
P1066	Digital Input 12 Failure Class	1	2	6	1:Only Display 2:Display + Horn 3:Display + Horn + Gen.Trip 4:Display + Horn + Shutdown with Cooling 5:Display + Horn + Shutdown without Cooling 6:Display + Horn + Shutdown without cooling +
P1067	Digital Input 12 Failure Auto-acknowledge	0	0	1	0:Passive 1:Active
P1068	Digital Input 12 Failure Auto-acknowledge Type	0	0	1	0:Limited 1:Unlimited
P1069	Digital Input 12 Failure Auto-acknowledge Number	2	5	99	
P1070	Digital Input 12 Failure Contactor Type	0	1	1	0:Normally Closed 1:Normally Open
P1071	Digital Input 12 Failure Contactor Activation Time	0	2	3	0: Active All the Time 1: Active when Engine Running 2: Active After Failure Delay Timer 3: Active when Alternator Energizes the Contactor
P1072	Digital Input 12 Failure Auto-acknowledge Counter	0	0	30000	
P1073	Digital Input 12 Failure Auto-acknowledge Counter Decrease Timer	0.1	10	6500	
P1074	Digital Input 12 User Defined Failure Message		"A12"		
P1075	Digital Input 13 Function	0	0	52	0: Input Disabled 1: User Defined Failure 2: Mains Exists 3: Mains Failure 4: Auto Start Cancel 5: Start Cancel 6: Panel Key Lock 7: Lamp Test 8: Scheduled Tests Cancel 9: Cancel Emergency Start Failures 10: Emergency Stop 11: Remote Start On-load 12: Remote Start Off-load 13: Generator Contactor Feedback 1 14: Generator Contactor Feedback 2 15: Mains Contactor Feedback 1 16: Mains Contactor Feedback 2 17: No Functionality 18: No Functionality 19: No Functionality 20: Horn Silence Button 21: Failure Acknowledge Button 22: Horn Silence + Failure Acknowledge Button 23: Start Button 24: Stop Button 25: Mains Contactor Open/Close Button 26: Generator Contactor Open/Close Button 27: Mains Contactor Open Button 28: Mains Contactor Close Button 29: Generator Contactor Open Button 30: Generator Contactor Close Button 31: Manual Operation Button 32: Auto Operation Button 33: Test On-Load Button 34: Test Off-load Button 35: Off Operation Button 36: Start in Manual Operation 37: Start in Auto Operation 38: Start in On-load Test Operation 39: Start in Off-load Test Operation 40: Start in Off Operation 41: On-load/Off-load Selection for Front Panel 42: Program Mode Lock 43: Pre-crank Delay Disabled 44: Load is not Transferred to Mains and 45: Load is Not Transferred to Mains 46: Load is Not Transferred to Generator 47: Transfer Load to Generator 48: Transfer Load to Mains 49: Dual Mutual Standby Priority 50: Dual Mutual Standby Virtual Mains Input 51: All Failures Cancelled 52: Dual Mutual Standby Sync Success Input
P1076	Digital Input 13 Failure Delay	0.2	2	999	
P1077	Digital Input 13 Failure Return Time	0.2	2	999	
P1078	Digital Input 13 Failure Class	1	2	6	1:Only Display 2:Display + Horn 3:Display + Horn + Gen.Trip 4:Display + Horn + Shutdown with Cooling 5:Display + Horn + Shutdown without Cooling 6:Display + Horn + Shutdown without cooling +
P1079	Digital Input 13 Failure Auto-acknowledge	0	0	1	0:Passive 1:Active
P1080	Digital Input 13 Failure Auto-acknowledge Type	0	0	1	0:Limited 1:Unlimited
P1081	Digital Input 13 Failure Auto-acknowledge Number	2	5	99	
P1082	Digital Input 13 Failure Contactor Type	0	1	1	0:Normally Closed 1:Normally Open
P1083	Digital Input 13 Failure Contactor Activation Time	0	2	3	0: Active All the Time 1: Active when Engine Running 2: Active After Failure Delay Timer

P1084	Digital Input 13 Failure Auto-acknowledge Counter	0	0	30000	3: Active when Alternator Energizes the Contactor
P1085	Digital Input 13 Failure Auto-acknowledge Counter Decrease Timer	0.1	10	6500	
P1086	Digital Input 13 User Defined Failure Message		"A13"		
P1087	Digital Input 14 Function	0	0	52	0: Input Disabled 1: User Defined Failure 2: Mains Exists 3: Mains Failure 4: Auto Start Cancel 5: Start Cancel 6: Panel Key Lock 7: Lamp Test 8: Scheduled Tests Cancel 9: Cancel Emergency Start Failures 10: Emergency Stop 11: Remote Start On-load 12: Remote Start Off-load 13: Generator Contactor Feedback 1 14: Generator Contactor Feedback 2 15: Mains Contactor Feedback 1 16: Mains Contactor Feedback 2 17: No Functionality 18: No Functionality 19: No Functionality 20: Horn Silence Button 21: Failure Acknowledge Button 22: Horn Silence + Failure Acknowledge Button 23: Start Button 24: Stop Button 25: Mains Contactor Open/Close Button 26: Generator Contactor Open/Close Button 27: Mains Contactor Open Button 28: Mains Contactor Close Button 29: Generator Contactor Open Button 30: Generator Contactor Close Button 31: Manual Operation Button 32: Auto Operation Button 33: Test On-Load Button 34: Test Off-load Button 35: Off Operation Button 36: Start in Manual Operation 37: Start in Auto Operation 38: Start in On-load Test Operation 39: Start in Off-load Test Operation 40: Start in Off Operation 41: On-load/Off-load Selection for Front Panel 42: Program Mode Lock 43: Pre-crank Delay Disabled 44: Load is not Transferred to Mains and 45: Load is Not Transferred to Mains 46: Load is Not Transferred to Generator 47: Transfer Load to Generator 48: Transfer Load to Mains 49: Dual Mutual Standby Priority 50: Dual Mutual Standby Virtual Mains Input 51: All Failures Cancelled 52: Dual Mutual Standby Sync Success Input
P1088	Digital Input 14 Failure Delay	0.2	2	999	
P1089	Digital Input 14 Failure Return Time	0.2	2	999	
P1090	Digital Input 14 Failure Class	1	2	6	1: Only Display 2: Display + Horn 3: Display + Horn + Gen.Trip 4: Display + Horn + Shutdown with Cooling 5: Display + Horn + Shutdown without Cooling 6: Display + Horn + Shutdown without cooling +
P1091	Digital Input 14 Failure Auto-acknowledge	0	0	1	0: Passive 1: Active
P1092	Digital Input 14 Failure Auto-acknowledge Type	0	0	1	0: Limited 1: Unlimited
P1093	Digital Input 14 Failure Auto-acknowledge Number	2	5	99	
P1094	Digital Input 14 Failure Contactor Type	0	1	1	0: Normally Closed 1: Normally Open
P1095	Digital Input 14 Failure Contactor Activation Time	0	2	3	0: Active All the Time 1: Active when Engine Running 2: Active After Failure Delay Timer 3: Active when Alternator Energizes the Contactor
P1096	Digital Input 14 Failure Auto-acknowledge Counter	0	0	30000	
P1097	Digital Input 14 Failure Auto-acknowledge Counter Decrease Timer	0.1	10	6500	
P1098	Digital Input 14 User Defined Failure Message 1		"A14"		
P1099		0	0	150	0: Output Disabled 1: AMF Engine Start 2: Pulsing Horn 3: Horn 4: Load on Generator 5: Load on Mains 6: Fuel Pump Output 7: Thermostat 1 8: Thermostat 2 9: Not Functional 10: Man, Auto or Test Operation Mode Selected 11: Auto or Test Operation Mode Selected 12: Manual Operation Mode Selected 13: Auto Operation Mode Selected 14: Test Operation Mode Selected 15: Off Operation Mode Selected 16: Class 1 or 2 Failure 17: Class 3,4,5 or 6 Failure 18: General Failure 19: Class 1 Failure

Digital Output 1 Function

20: Class 2 Failure
21: Class 3 Failure
22: Class 4 Failure
23: Class 5 Failure
24: Class 6 Failure
25: Mains Contactor Open Output
26: Generator Contactor Open Output
27: Nominal Speed Position (Active when
28: Nominal Speed Position (Active when Running
and Cooldown)
29: Idle Speed Position (Active During Failure
30: Idle Speed Position (Active During Failure
Delay Timer + Cooldown)
31: Generator Ready for Load
32: Generator Ready to Start
33: Generator Ready to Start and in Auto Mode
34: Lamp Test
35: Alarm acknowledge and horn silence
36: Pre-programmed Test Active
37: Delayed Generator Voltage or Frequency
Running Feedback Detected
38: Digital Input 1 Active
39: Digital Input 2 Active
40: Digital Input 3 Active
41: Digital Input 4 Active
42: Digital Input 5 Active
43: Digital Input 6 Active
44: Digital Input 7 Active
45: Digital Input 8 Active
46: Digital Input 9 Active
47: Digital Input 10 Active
48: Digital Input 11 Active
49: Digital Input 12 Active
50: Digital Input 13 Active
51: Digital Input 14 Active
52: Mains Failure
53: Mains Over Voltage
54: Mains Under Voltage
55: Mains Under Frequency
56: Mains Over Frequency
57: Pre-heat (Active During Pre-heat)
58: Pre-heat (Active During Pre-Heat + Cranking)
59: Pre-heat (Active During Pre-heat + Cranking
+ Failure Delay Timer)
60: Pre-heat (Active During Pre-heat + Cranking
+ Failure Delay Timer + Heating Time)
61: Start Process Begun
62: Not Functional
63: Not Functional
64: Not Functional
65: Charge Output
66: Not Functional
67: Pre-heat Status
68: Crank Status
69: Delay Between Cranking Status
70: Failure Delay Timer Status
71: Running Status
72: Cooldown Status
73: Engine Stopping Status
74: Post-start Status
75: Start Failure
76: Running Feedback Before Cranking Failure
77: Failed to Stop Failure
78: Generator Under Voltage Failure Level 1
79: Generator Under Voltage Failure Level 2
80: Generator Over Voltage Failure Level 1
81: Generator Over Voltage Failure Level 2
82: Generator Under Frequency Failure Level 1
83: Generator Under Frequency Failure Level 2
84: Generator Over Frequency Failure Level 1
85: Generator Over Frequency Failure Level 2
86: Under RPM Failure Level 1
87: Under RPM Failure Level 2
88: Over RPM Failure Level 1
89: Over RPM Failure Level 2
90: RPM Sensor Failure
91: Charge Voltage Failure Level 1
92: Charge Voltage Failure Level 2
93: Low Battery Voltage Failure Level 1
94: Low Battery Voltage Failure Level 2
95: High Battery Voltage Failure Level 1
96: High Battery Voltage Failure Level 2
97: Mains Contactor Failed to Open
98: Mains Contactor Failed to Close
99: Mains Contactor Status Unknown
100: Generator Contactor Failed to Open
101: Generator Contactor Failed to Close
102: Generator Contactor Status Unknown
103: Over Current Failure Level 1
104: Over Current Failure Level 2
105: Over Current Failure Level 3
106: KW Failure Level 1
107: KW Failure Level 2
108: KVar Failure Level 1
109: KVar Failure Level 2
110: KVA Failure Level 1
111: KVA Failure Level 2
112: Cosφ Failure Level 1
113: Cosφ Failure Level 2
114: Oil Pressure Switch Failure
115: Low Oil Pressure Failure Level 1
116: Low Oil Pressure Level 2

					117: Analog Oil Pressure Sensor Failure 118: Coolant Temperature Switch Failure 119: High Coolant Temperature Level 1 120: High Coolant Temperature Level 2 121: Low Coolant Temperature Level 1 122: Low Coolant Temperature Level 2 123: Analog Coolant Temperature Sensor Failure 124: Low Fuel Failure Level 1 125: Low Fuel Level 2 126: Fuel Consumption While Stopped Failure 127: High Fuel Consumption While Running Failure 128: Fuel Level Sensor Failure 129: Fuel Refill Failure Level 1 130: Fuel Refill Failure level 2 131: Digital Input 1 Failure 132: Digital Input 2 Failure 133: Digital Input 3 Failure 134: Digital Input 4 Failure 135: Digital Input 5 Failure 136: Digital Input 6 Failure 137: Periodic Engine Maintenance Timer 1 Passed 138: Periodic Engine Maintenance Timer 2 Passed 139: Periodic Engine Maintenance Timer 3 Passed 140: Periodic Engine Maintenance Timer 4 Passed 141: Periodic Engine Maintenance Timer 5 Passed 142: Periodic Engine Maintenance Timer 6 Passed 143: Periodic Maintenance Timer 1 Passed 144: Periodic Maintenance Timer 2 Passed 145: Periodic Maintenance Timer 3 Passed 146: Periodic Maintenance Timer 4 Passed 147: Periodic Maintenance Timer 5 Passed 148: Periodic Maintenance Timer 6 Passed 149: Load is on Mains or Generator 150: Dual Mutual Standby Synced Output
P1100	Digital Output 1 Activation Type	0	1	1	0: De-energize the Relay 1: Energize the Relay
P1101		0	0	150	0: Output Disabled 1: AMF Engine Start 2: Pulsing Horn 3: Horn 4: Load on Generator 5: Load on Mains 6: Fuel Pump Output 7: Thermostat 1 8: Thermostat 2 9: Not Functional 10: Man, Auto or Test Operation Mode Selected 11: Auto or Test Operation Mode Selected 12: Manual Operation Mode Selected 13: Auto Operation Mode Selected 14: Test Operation Mode Selected 15: Off Operation Mode Selected 16: Class 1 or 2 Failure 17: Class 3,4,5 or 6 Failure 18: General Failure 19: Class 1 Failure 20: Class 2 Failure 21: Class 3 Failure 22: Class 4 Failure 23: Class 5 Failure 24: Class 6 Failure 25: Mains Contactor Open Output 26: Generator Contactor Open Output 27: Nominal Speed Position (Active when Running and Cooldown) 28: Nominal Speed Position (Active when Running and Cooldown) 29: Idle Speed Position (Active During Failure Delay Timer + Cooldown) 30: Idle Speed Position (Active During Failure Delay Timer + Cooldown) 31: Generator Ready for Load 32: Generator Ready to Start 33: Generator Ready to Start and in Auto Mode 34: Lamp Test 35: Alarm acknowledge and horn silence 36: Pre-programmed Test Active 37: Delayed Generator Voltage or Frequency Running Feedback Detected 38: Digital Input 1 Active 39: Digital Input 2 Active 40: Digital Input 3 Active 41: Digital Input 4 Active 42: Digital Input 5 Active 43: Digital Input 6 Active 44: Digital Input 7 Active 45: Digital Input 8 Active 46: Digital Input 9 Active 47: Digital Input 10 Active 48: Digital Input 11 Active 49: Digital Input 12 Active 50: Digital Input 13 Active 51: Digital Input 14 Active 52: Mains Failure 53: Mains Over Voltage 54: Mains Under Voltage 55: Mains Under Frequency 56: Mains Over Frequency 57: Pre-heat (Active During Pre-heat) 58: Pre-heat (Active During Pre-heat + Cranking) 59: Pre-heat (Active During Pre-heat + Cranking + Failure Delay Timer) 60: Pre-heat (Active During Pre-heat + Cranking + Failure Delay Timer + Heating Time)

	Digital Output 2 Function					61: Start Process Begun
						62: Not Functional
						63: Not Functional
						64: Not Functional
						65: Charge Output
						66: Not Functional
						67: Pre-heat Status
						68: Crank Status
						69: Delay Between Cranking Status
						70: Failure Delay Timer Status
						71: Running Status
						72: Cooldown Status
						73: Engine Stopping Status
						74: Post-start Status
						75: Start Failure
						76: Running Feedback Before Cranking Failure
						77: Failed to Stop Failure
						78: Generator Under Voltage Failure Level 1
						79: Genreator Under Voltage Failure Level 2
						80: Generator Over Voltage Failure Level 1
						81: Generator Over Voltage Failure Level 2
						82: Generator Under Frequency Failure Level 1
						83: Generator Under Frequency Failure Level 2
						84: Generator Over Frequency Failure Level 1
						85: Generator Over Frequency Failure Level 2
						86: Under RPM Failure Level 1
						87: Under RPM Failure Level 2
						88: Over RPM Failure Level 1
						89: Over RPM Failure Level2
						90: RPM Sensor Failure
						91: Charge Voltage Failure Level 1
						92: Charge Voltage Failure Level 2
						93: Low Battery Voltage Failure Level 1
						94: Low Battery Voltage Failure Level2
						95: High Battery Voltage Failure Level 1
						96: High Battery Voltage Failure Level2
						97: Mains Contactor Failed to Open
						98: Mains Contactor Failed to Close
						99: Mains Contactor Status Unknown
						100: Generator Contactor Failed to Open
						101: Generator Contactor Failed to Close
						102: Generator Contactor Status Unknown
						103: Over Current Failure Level 1
						104: Over Current Failure Level 2
						105: Over Current Failure Level 3
						106: KW Failure Level 1
						107: KW Failure Level 2
						108: KVar Failure Level 1
						109: KVar Failure Level 2
						110: KVA Failure Level 1
						111: KVA Failure Level 2
						112: Cosφ Failure Level 1
						113: Cosφ Failure Level 2
						114: Oil Pressure Switch Failure
						115: Low Oil Pressure Failure Level 1
						116: Low Oil Pressure Level 2
						117: Analog Oil Pressure Sensor Failure
						118: Coolant Temperature Switch Failure
						119: High Coolant Temperature Level 1
						120: High Coolant Temperature Level 2
						121: Low Coolant Temperature Level 1
						122: Low Coolant Temperature Level 2
						123: Analog Coolant Temperature Sensor Failure
						124: Low Fuel Failure Level 1
						125: Low Fuel Level 2
						126: Fuel Consumption While Stopped Failure
						127: High Fuel Consumption While Running Failure
						128: Fuel Level Sensor Failure
						129: Fuel Refill Failure Level 1
						130: Fuel Refill Failure level 2
						131: Digital Input 1 Failure
						132: Digital Inout 2 Failure
						133: Digital Input 3 Failure
						134: Digital Input 4 Failure
						135: Digital Input 5 Failure
						136: Digital Input 6 Failure
						137: Periodic Engine Maintenance Timer 1 Passed
						138: Periodic Engine Maintenance Timer 2 Passed
						139: Periodic Engine Maintenance Timer 3 Passed
						140: Periodic Engine Maintenance Timer 4 Passed
						141: Periodic Engine Maintenance Timer 5 Passed
						142: Periodic Engine Maintenance Timer 6 Passed
						143: Periodic Maintenance Timer 1 Passed
						144: Periodic Maintenance Timer 2 Passed
						145: Periodic Maintenance Timer 3 Passed
						146: Periodic Maintenance Timer 4 Passed
						147: Periodic Maintenance Timer 5 Passed
						148: Periodic Maintenance Timer 6 Passed
						149: Load is on Mains or Generator
						150: Dual Mutual Standby Synced Output
P1102	Digital Output 2 Activation Type	0	1	1		0:De-energize the Relay
P1103		0	0	150		1:Energize the Relay
						0: Output Disabled
						1: AMF Engine Start
						2: Pulsing Horn
						3: Horn
						4: Load on Generator
						5: Load on Mains
						6: Fuel Pump Output
						7: Thermostat 1
						8: Thermostat 2

Digital Output 3 Function

9: Not Functional
10: Man, Auto or Test Operation Mode Selected
11: Auto or Test Operation Mode Selected
12: Manual Operation Mode Selected
13: Auto Operation Mode Selected
14: Test Operation Mode Selected
15: Off Operation Mode Selected
16: Class 1 or 2 Failure
17: Class 3,4,5 or 6 Failure
18: General Failure
19: Class 1 Failure
20: Class 2 Failure
21: Class 3 Failure
22: Class 4 Failure
23: Class 5 Failure
24: Class 6 Failure
25: Mains Contactor Open Output
26: Generator Contactor Open Output
27: Nominal Speed Position (Active when
28: Nominal Speed Position (Active when Runnin
and Cooldown)
29: Idle Speed Position (Active During Failure
30: Idle Speed Position (Active During Failure
Delay Timer + Cooldown)
31: Generator Ready for Load
32: Generator Ready to Start
33: Genrator Ready to Start and in Auto Mode
34: Lamp Test
35: Alarm acknowledge and horn silence
36: Pre-programmed Test Active
37: Delayed Generator Voltage or Frequency
Running Feedback Detected
38: Digital Input 1 Active
39: Digital Input 2 Active
40: Digital Input 3 Active
41: Digital Input 4 Active
42: Digital Input 5 Active
43: Digital Input 6 Active
44: Digital Input 7 Active
45: Digital Input 8 Active
46: Digital Input 9 Active
47: Digital Input 10 Active
48: Digital Input 11 Active
49: Digital Input 12 Active
50: Digital Input 13 Active
51: Digital Input 14 Active
52: Mains Failure
53: Mains Over Voltage
54: Mains Under Voltage
55: Mains Under Frequency
56: Mains Over Frequency
57: Pre-heat (Active During Pre-heat)
58: Pre-heat (Active Duting Pre-Heat + Cranking)
59: Pre-heat (Active During Pre-heat + Cranking
+ Failure Delay Timer)
60: Pre-heat (Active During Pre-heat + Cranking
+ Failure Delay Timer + Heating Time)
61: Start Process Begun
62: Not Functional
63: Not Functional
64: Not Functional
65: Charge Output
66: Not Functional
67: Pre-heat Status
68: Crank Status
69: Delay Between Cranking Status
70: Failure Delay Timer Status
71: Running Status
72: Cooldown Status
73: Engine Stopping Status
74: Post-start Status
75: Start Failure
76: Running Feedback Before Cranking Failure
77: Failed to Stop Failure
78: Generator Under Voltage Failure Level 1
79: Genreator Under Voltage Failure Level 2
80: Generator Over Voltage Failure Level 1
81: Generator Over Voltage Failure Level 2
82: Generator Under Frequency Failure Level 1
83: Generator Under Frequency Failure Level 2
84: Generator Over Frequency Failure Level 1
85: Generator Over Frequency Failure Level 2
86: Under RPM Failure Level 1
87: Under RPM Failure Level 2
88: Over RPM Failure Level 1
89: Over RPM Failure Level2
90: RPM Sensor Failure
91: Charge Voltage Failure Level 1
92: Charge Voltage Failure Level 2
93: Low Battery Voltage Failure Level 1
94: Low Battery Voltage Failure Level2
95: High Battery Voltage Failure Level 1
96: High Battery Voltage Failure Level2
97: Mains Contactor Failed to Open
98: Mains Contactor Failed to Close
99: Mains Contactor Status Unknown
100: Generator Contactor Failed to Open
101: Generator Contactor Failed to Close
102: Generator Contactor Status Unknown
103: Over Current Failure Level 1
104: Over Current Failure Level 2
105: Over Current Failure Level 3



					106: KW Failure Level 1
					107: KW Failure Level 2
					108: KVar Failure Level 1
					109: KVar Failure Level 2
					110: KVA Failure Level 1
					111: KVA Failure Level 2
					112: Cosφ Failure Level 1
					113: Cosφ Failure Level 2
					114: Oil Pressure Switch Failure
					115: Low Oil Pressure Failure Level 1
					116: Low Oil Pressure Level 2
					117: Analog Oil Pressure Sensor Failure
					118: Coolant Temperature Switch Failure
					119: High Coolant Temperature Level 1
					120: High Coolant Temperature Level 2
					121: Low Coolant Temperature Level 1
					122: Low Coolant Temperature Level 2
					123: Analog Coolant Temperature Sensor Failure
					124: Low Fuel Failure Level 1
					125: Low Fuel Level 2
					126: Fuel Consumption While Stopped Failure
					127: High Fuel Consumption While Running Failure
					128: Fuel Level Sensor Failure
					129: Fuel Refill Failure Level 1
					130: Fuel Refill Failure level 2
					131: Digital Input 1 Failure
					132: Digital Input 2 Failure
					133: Digital Input 3 Failure
					134: Digital Input 4 Failure
					135: Digital Input 5 Failure
					136: Digital Input 6 Failure
					137: Periodic Engine Maintenance Timer 1 Passed
					138: Periodic Engine Maintenance Timer 2 Passed
					139: Periodic Engine Maintenance Timer 3 Passed
					140: Periodic Engine Maintenance Timer 4 Passed
					141: Periodic Engine Maintenance Timer 5 Passed
					142: Periodic Engine Maintenance Timer 6 Passed
					143: Periodic Maintenance Timer 1 Passed
					144: Periodic Maintenance Timer 2 Passed
					145: Periodic Maintenance Timer 3 Passed
					146: Periodic Maintenance Timer 4 Passed
					147: Periodic Maintenance Timer 5 Passed
					148: Periodic Maintenance Timer 6 Passed
					149: Load is on Mains or Generator
					150: Dual Mutual Standby Synced Output
P1102	Digital Output 3 Activation Type	0	1	1	0: De-energize the Relay
P1103		0	0	150	1: Energize the Relay
					0: Output Disabled
					1: AMF Engine Start
					2: Pulsing Horn
					3: Horn
					4: Load on Generator
					5: Load on Mains
					6: Fuel Pump Output
					7: Thermostat 1
					8: Thermostat 2
					9: Not Functional
					10: Man, Auto or Test Operation Mode Selected
					11: Auto or Test Operation Mode Selected
					12: Manual Operation Mode Selected
					13: Auto Operation Mode Selected
					14: Test Operation Mode Selected
					15: Off Operation Mode Selected
					16: Class 1 or 2 Failure
					17: Class 3,4,5 or 6 Failure
					18: General Failure
					19: Class 1 Failure
					20: Class 2 Failure
					21: Class 3 Failure
					22: Class 4 Failure
					23: Class 5 Failure
					24: Class 6 Failure
					25: Mains Contactor Open Output
					26: Generator Contactor Open Output
					27: Nominal Speed Position (Active when
					and Cooldown)
					29: Idle Speed Position (Active During Failure
					Delay Timer + Cooldown)
					30: Idle Speed Position (Active During Failure
					31: Generator Ready for Load
					32: Generator Ready to Start
					33: Generator Ready to Start and in Auto Mode
					34: Lamp Test
					35: Alarm acknowledge and horn silence
					36: Pre-programmed Test Active
					37: Delayed Generator Voltage or Frequency
					Running Feedback Detected
					38: Digital Input 1 Active
					39: Digital Input 2 Active
					40: Digital Input 3 Active
					41: Digital Input 4 Active
					42: Digital Input 5 Active
					43: Digital Input 6 Active
					44: Digital Input 7 Active
					45: Digital Input 8 Active
					46: Digital Input 9 Active
					47: Digital Input 10 Active
					48: Digital Input 11 Active
					49: Digital Input 12 Active
					50: Digital Input 13 Active
					51: Digital Input 14 Active

P1106	Digital Output 4 Function					52: Mains Failure
						53: Mains Over Voltage
						54: Mains Under Voltage
						55: Mains Under Frequency
						56: Mains Over Frequency
						57: Pre-heat (Active During Pre-heat)
						58: Pre-heat (Active During Pre-Heat + Cranking)
						59: Pre-heat (Active During Pre-heat + Cranking + Failure Delay Timer)
						60: Pre-heat (Active During Pre-heat + Cranking + Failure Delay Timer + Heating Time)
						61: Start Process Begun
						62: Not Functional
						63: Not Functional
						64: Not Functional
						65: Charge Output
						66: Not Functional
						67: Pre-heat Status
						68: Crank Status
						69: Delay Between Cranking Status
						70: Failure Delay Timer Status
						71: Running Status
						72: Cooldown Status
						73: Engine Stopping Status
						74: Post-start Status
						75: Start Failure
						76: Running Feedback Before Cranking Failure
						77: Failed to Stop Failure
						78: Generator Under Voltage Failure Level 1
						79: Generator Under Voltage Failure Level 2
						80: Generator Over Voltage Failure Level 1
						81: Generator Over Voltage Failure Level 2
						82: Generator Under Frequency Failure Level 1
						83: Generator Under Frequency Failure Level 2
						84: Generator Over Frequency Failure Level 1
						85: Generator Over Frequency Failure Level 2
						86: Under RPM Failure Level 1
						87: Under RPM Failure Level 2
						88: Over RPM Failure Level 1
						89: Over RPM Failure Level 2
						90: RPM Sensor Failure
						91: Charge Voltage Failure Level 1
						92: Charge Voltage Failure Level 2
						93: Low Battery Voltage Failure Level 1
						94: Low Battery Voltage Failure Level 2
						95: High Battery Voltage Failure Level 1
						96: High Battery Voltage Failure Level 2
						97: Mains Contactor Failed to Open
						98: Mains Contactor Failed to Close
						99: Mains Contactor Status Unknown
						100: Generator Contactor Failed to Open
						101: Generator Contactor Failed to Close
						102: Generator Contactor Status Unknown
						103: Over Current Failure Level 1
						104: Over Current Failure Level 2
						105: Over Current Failure Level 3
						106: KW Failure Level 1
						107: KW Failure Level 2
						108: KVar Failure Level 1
						109: KVar Failure Level 2
						110: KVA Failure Level 1
						111: KVA Failure Level 2
						112: Cosφ Failure Level 1
						113: Cosφ Failure Level 2
						114: Oil Pressure Switch Failure
						115: Low Oil Pressure Failure Level 1
						116: Low Oil Pressure Level 2
						117: Analog Oil Pressure Sensor Failure
						118: Coolant Temperature Switch Failure
						119: High Coolant Temperature Level 1
						120: High Coolant Temperature Level 2
						121: Low Coolant Temperature Level 1
						122: Low Coolant Temperature Level 2
						123: Analog Coolant Temperature Sensor Failure
						124: Low Fuel Failure Level 1
						125: Low Fuel Level 2
						126: Fuel Consumption While Stopped Failure
						127: High Fuel Consumption While Running Failure
						128: Fuel Level Sensor Failure
						129: Fuel Refill Failure Level 1
						130: Fuel Refill Failure level 2
						131: Digital Input 1 Failure
						132: Digital Input 2 Failure
						133: Digital Input 3 Failure
						134: Digital Input 4 Failure
						135: Digital Input 5 Failure
						136: Digital Input 6 Failure
						137: Periodic Engine Maintenance Timer 1 Passed
						138: Periodic Engine Maintenance Timer 2 Passed
						139: Periodic Engine Maintenance Timer 3 Passed
						140: Periodic Engine Maintenance Timer 4 Passed
						141: Periodic Engine Maintenance Timer 5 Passed
						142: Periodic Engine Maintenance Timer 6 Passed
						143: Periodic Maintenance Timer 1 Passed
						144: Periodic Maintenance Timer 2 Passed
						145: Periodic Maintenance Timer 3 Passed
						146: Periodic Maintenance Timer 4 Passed
						147: Periodic Maintenance Timer 5 Passed
						148: Periodic Maintenance Timer 6 Passed
						149: Load is on Mains or Generator
						150: Dual Mutual Standby Synced Output
						0: De-energize the Relay
P1106	Digital Output 4 Activation Time	0	1	1		

Digital Output 4 Activation Type					
P1107		0	0	150	1:Energize the Relay
					0: Output Disabled
					1: AMF Engine Start
					2: Pulsing Horn
					3: Horn
					4: Load on Generator
					5: Load on Mains
					6: Fuel Pump Output
					7: Thermostat 1
					8: Thermostat 2
					9: Not Functional
					10: Man, Auto or Test Operation Mode Selected
					11: Auto or Test Operation Mode Selected
					12: Manual Operation Mode Selected
					13: Auto Operation Mode Selected
					14: Test Operation Mode Selected
					15: Off Operation Mode Selected
					16: Class 1 or 2 Failure
					17: Class 3,4,5 or 6 Failure
					18: General Failure
					19: Class 1 Failure
					20: Class 2 Failure
					21: Class 3 Failure
					22: Class 4 Failure
					23: Class 5 Failure
					24: Class 6 Failure
					25: Mains Contactor Open Output
					26: Generator Contactor Open Output
					27: Nominal Speed Position (Active when
					28: Nominal Speed Position (Active when Running
					and Cooldown)
					29: Idle Speed Position (Active During Failure
					30: Idle Speed Position (Active During Failure
					Delay Timer + Cooldown)
					31: Generator Ready for Load
					32: Generator Ready to Start
					33: Generator Ready to Start and in Auto Mode
					34: Lamp Test
					35: Alarm acknowledge and horn silence
					36: Pre-programmed Test Active
					37: Delayed Generator Voltage or Frequency
					Running Feedback Detected
					38: Digital Input 1 Active
					39: Digital Input 2 Active
					40: Digital Input 3 Active
					41: Digital Input 4 Active
					42: Digital Input 5 Active
					43: Digital Input 6 Active
					44: Digital Input 7 Active
					45: Digital Input 8 Active
					46: Digital Input 9 Active
					47: Digital Input 10 Active
					48: Digital Input 11 Active
					49: Digital Input 12 Active
					50: Digital Input 13 Active
					51: Digital Input 14 Active
					52: Mains Failure
					53: Mains Over Voltage
					54: Mains Under Voltage
					55: Mains Under Frequency
					56: Mains Over Frequency
					57: Pre-heat (Active During Pre-heat)
					58: Pre-heat (Active During Pre-Heat + Cranking)
					59: Pre-heat (Active During Pre-heat + Cranking
					+ Failure Delay Timer)
					60: Pre-heat (Active During Pre-heat + Cranking
					+ Failure Delay Timer + Heating Time)
					61: Start Process Begun
					62: Not Functional
					63: Not Functional
					64: Not Functional
					65: Charge Output
					66: Not Functional
					67: Pre-heat Status
					68: Crank Status
					69: Delay Between Cranking Status
					70: Failure Delay Timer Status
					71: Running Status
					72: Cooldown Status
					73: Engine Stopping Status
					74: Post-start Status
					75: Start Failure
					76: Running Feedback Before Cranking Failure
					77: Failed to Stop Failure
					78: Generator Under Voltage Failure Level 1
					79: Generator Under Voltage Failure Level 2
					80: Generator Over Voltage Failure Level 1
					81: Generator Over Voltage Failure Level 2
					82: Generator Under Frequency Failure Level 1
					83: Generator Under Frequency Failure Level 2
					84: Generator Over Frequency Failure Level 1
					85: Generator Over Frequency Failure Level 2
					86: Under RPM Failure Level 1
					87: Under RPM Failure Level 2
					88: Over RPM Failure Level 1
					89: Over RPM Failure Level2
					90: RPM Sensor Failure
					91: Charge Voltage Failure Level 1
					92: Charge Voltage Failure Level 2
					93: Low Battery Voltage Failure Level 1
					94: Low Battery Voltage Failure Level2
					95: High Battery Voltage Failure Level 1
Digital Output 5 Function					

					96: High Battery Voltage Failure Level2 97: Mains Contactor Failed to Open 98: Mains Contactor Failed to Close 99: Mains Contactor Status Unknown 100: Generator Contactor Failed to Open 101: Generator Contactor Failed to Close 102: Generator Contactor Status Unknown 103: Over Current Failure Level 1 104: Over Current Failure Level 2 105: Over Current Failure Level 3 106: KW Failure Level 1 107: KW Failure Level 2 108: KVar Failure Level 1 109: KVar Failure Level 2 110: KVA Failure Level 1 111: KVA Failure Level 2 112: Cosφ Failure Level 1 113: Cosφ Failure Level 2 114: Oil Pressure Switch Failure 115: Low Oil Pressure Failure Level 1 116: Low Oil Pressure Level 2 117: Analog Oil Pressure Sensor Failure 118: Coolant Temperature Switch Failure 119: High Coolant Temperature Level 1 120: High Coolant Temperature Level 2 121: Low Coolant Temperature Level 1 122: Low Coolant Temperature Level 2 123: Analog Coolant Temperature Sensor Failure 124: Low Fuel Failure Level 1 125: Low Fuel Level 2 126: Fuel Consumption While Stopped Failure 127: High Fuel Consumption While Running Failure 128: Fuel Level Sensor Failure 129: Fuel Refill Failure Level 1 130: Fuel Refill Failure level 2 131: Digital Input 1 Failure 132: Digital Input 2 Failure 133: Digital Input 3 Failure 134: Digital Input 4 Failure 135: Digital Input 5 Failure 136: Digital Input 6 Failure 137: Periodic Engine Maintenance Timer 1 Passed 138: Periodic Engine Maintenance Timer 2 Passed 139: Periodic Engine Maintenance Timer 3 Passed 140: Periodic Engine Maintenance Timer 4 Passed 141: Periodic Engine Maintenance Timer 5 Passed 142: Periodic Engine Maintenance Timer 6 Passed 143: Periodic Maintenance Timer 1 Passed 144: Periodic Maintenance Timer 2 Passed 145: Periodic Maintenance Timer 3 Passed 146: Periodic Maintenance Timer 4 Passed 147: Periodic Maintenance Timer 5 Passed 148: Periodic Maintenance Timer 6 Passed 149: Load is on Mains or Generator 150: Dual Mutual Standby Synced Output 0: De-energize the Relay 1: Energize the Relay
P1108	Digital Output 5 Activation Type	0	1	1	0: Output Disabled 1: AMF Engine Start 2: Pulsing Horn 3: Horn 4: Load on Generator 5: Load on Mains 6: Fuel Pump Output 7: Thermostat 1 8: Thermostat 2 9: Not Functional 10: Man, Auto or Test Operation Mode Selected 11: Auto or Test Operation Mode Selected 12: Manual Operation Mode Selected 13: Auto Operation Mode Selected 14: Test Operation Mode Selected 15: Off Operation Mode Selected 16: Class 1 or 2 Failure 17: Class 3,4,5 or 6 Failure 18: General Failure 19: Class 1 Failure 20: Class 2 Failure 21: Class 3 Failure 22: Class 4 Failure 23: Class 5 Failure 24: Class 6 Failure 25: Mains Contactor Open Output 26: Generator Contactor Open Output 27: Nominal Speed Position (Active when and Cooldown) 28: Nominal Speed Position (Active when Running and Cooldown) 29: Idle Speed Position (Active During Failure Delay Timer + Cooldown) 30: Idle Speed Position (Active During Failure Delay Timer + Cooldown) 31: Generator Ready for Load 32: Generator Ready to Start 33: Generator Ready to Start and in Auto Mode 34: Lamp Test 35: Alarm acknowledge and horn silence 36: Pre-programmed Test Active 37: Delayed Generator Voltage or Frequency Running Feedback Detected 38: Digital Input 1 Active 39: Digital Input 2 Active 40: Digital Input 3 Active 41: Digital Input 4 Active
P1109		0	0	150	

Digital Output 6 Function

42: Digital Input 5 Active
43: Digital Input 6 Active
44: Digital Input 7 Active
45: Digital Input 8 Active
46: Digital Input 9 Active
47: Digital Input 10 Active
48: Digital Input 11 Active
49: Digital Input 12 Active
50: Digital Input 13 Active
51: Digital Input 14 Active
52: Mains Failure
53: Mains Over Voltage
54: Mains Under Voltage
55: Mains Under Frequency
56: Mains Over Frequency
57: Pre-heat (Active During Pre-heat)
58: Pre-heat (Active During Pre-Heat + Cranking)
59: Pre-heat (Active During Pre-heat + Cranking + Failure Delay Timer)
60: Pre-heat (Active During Pre-heat + Cranking + Failure Delay Timer + Heating Time)
61: Start Process Begun
62: Not Functional
63: Not Functional
64: Not Functional
65: Charge Output
66: Not Functional
67: Pre-heat Status
68: Crank Status
69: Delay Between Cranking Status
70: Failure Delay Timer Status
71: Running Status
72: Cooldown Status
73: Engine Stopping Status
74: Post-start Status
75: Start Failure
76: Running Feedback Before Cranking Failure
77: Failed to Stop Failure
78: Generator Under Voltage Failure Level 1
79: Generator Under Voltage Failure Level 2
80: Generator Over Voltage Failure Level 1
81: Generator Over Voltage Failure Level 2
82: Generator Under Frequency Failure Level 1
83: Generator Under Frequency Failure Level 2
84: Generator Over Frequency Failure Level 1
85: Generator Over Frequency Failure Level 2
86: Under RPM Failure Level 1
87: Under RPM Failure Level 2
88: Over RPM Failure Level 1
89: Over RPM Failure Level 2
90: RPM Sensor Failure
91: Charge Voltage Failure Level 1
92: Charge Voltage Failure Level 2
93: Low Battery Voltage Failure Level 1
94: Low Battery Voltage Failure Level 2
95: High Battery Voltage Failure Level 1
96: High Battery Voltage Failure Level 2
97: Mains Contactor Failed to Open
98: Mains Contactor Failed to Close
99: Mains Contactor Status Unknown
100: Generator Contactor Failed to Open
101: Generator Contactor Failed to Close
102: Generator Contactor Status Unknown
103: Over Current Failure Level 1
104: Over Current Failure Level 2
105: Over Current Failure Level 3
106: KW Failure Level 1
107: KW Failure Level 2
108: KVar Failure Level 1
109: KVar Failure Level 2
110: KVA Failure Level 1
111: KVA Failure Level 2
112: Cosφ Failure Level 1
113: Cosφ Failure Level 2
114: Oil Pressure Switch Failure
115: Low Oil Pressure Failure Level 1
116: Low Oil Pressure Level 2
117: Analog Oil Pressure Sensor Failure
118: Coolant Temperature Switch Failure
119: High Coolant Temperature Level 1
120: High Coolant Temperature Level 2
121: Low Coolant Temperature Level 1
122: Low Coolant Temperature Level 2
123: Analog Coolant Temperature Sensor Failure
124: Low Fuel Failure Level 1
125: Low Fuel Level 2
126: Fuel Consumption While Stopped Failure
127: High Fuel Consumption While Running Failure
128: Fuel Level Sensor Failure
129: Fuel Refill Failure Level 1
130: Fuel Refill Failure Level 2
131: Digital Input 1 Failure
132: Digital Input 2 Failure
133: Digital Input 3 Failure
134: Digital Input 4 Failure
135: Digital Input 5 Failure
136: Digital Input 6 Failure
137: Periodic Engine Maintenance Timer 1 Passed
138: Periodic Engine Maintenance Timer 2 Passed
139: Periodic Engine Maintenance Timer 3 Passed
140: Periodic Engine Maintenance Timer 4 Passed
141: Periodic Engine Maintenance Timer 5 Passed

					142: Periodic Engine Maintenance Timer 6 Passed 143: Periodic Maintenance Timer 1 Passed 144: Periodic Maintenance Timer 2 Passed 145: Periodic Maintenance Timer 3 Passed 146: Periodic Maintenance Timer 4 Passed 147: Periodic Maintenance Timer 5 Passed 148: Periodic Maintenance Timer 6 Passed 149: Load is on Mains or Generator 150: Dual Mutual Standby Synced Output
P1110	Digital Output 6 Activation Type	0	1	1	0:De-energize the Relay 1:Energize the Relay
P1111	Digital Output 7 Function	0	0	150	0: Output Disabled 1: AMF Engine Start 2: Pulsing Horn 3: Horn 4: Load on Generator 5: Load on Mains 6: Fuel Pump Output 7: Thermostat 1 8: Thermostat 2 9: Not Functional 10: Man, Auto or Test Operation Mode Selected 11: Auto or Test Operation Mode Selected 12: Manual Operation Mode Selected 13: Auto Operation Mode Selected 14: Test Operation Mode Selected 15: Off Operation Mode Selected 16: Class 1 or 2 Failure 17: Class 3,4,5 or 6 Failure 18: General Failure 19: Class 1 Failure 20: Class 2 Failure 21: Class 3 Failure 22: Class 4 Failure 23: Class 5 Failure 24: Class 6 Failure 25: Mains Contactor Open Output 26: Generator Contactor Open Output 27: Nominal Speed Position (Active when 28: Nominal Speed Position (Active when Running and Cooldown) 29: Idle Speed Position (Active During Failure 30: Idle Speed Position (Active During Failure Delay Timer + Cooldown) 31: Generator Ready for Load 32: Generator Ready to Start 33: Generator Ready to Start and in Auto Mode 34: Lamp Test 35: Alarm acknowledge and horn silence 36: Pre-programmed Test Active 37: Delayed Generator Voltage or Frequency Running Feedback Detected 38: Digital Input 1 Active 39: Digital Input 2 Active 40: Digital Input 3 Active 41: Digital Input 4 Active 42: Digital Input 5 Active 43: Digital Input 6 Active 44: Digital Input 7 Active 45: Digital Input 8 Active 46: Digital Input 9 Active 47: Digital Input 10 Active 48: Digital Input 11 Active 49: Digital Input 12 Active 50: Digital Input 13 Active 51: Digital Input 14 Active 52: Mains Failure 53: Mains Over Voltage 54: Mains Under Voltage 55: Mains Under Frequency 56: Mains Over Frequency 57: Pre-heat (Active During Pre-heat) 58: Pre-heat (Active During Pre-Heat + Cranking) 59: Pre-heat (Active During Pre-heat + Cranking + Failure Delay Timer) 60: Pre-heat (Active During Pre-heat + Cranking + Failure Delay Timer + Heating Time) 61: Start Process Begun 62: Not Functional 63: Not Functional 64: Not Functional 65: Charge Output 66: Not Functional 67: Pre-heat Status 68: Crank Status 69: Delay Between Cranking Status 70: Failure Delay Timer Status 71: Running Status 72: Cooldown Status 73: Engine Stopping Status 74: Post-start Status 75: Start Failure 76: Running Feedback Before Cranking Failure 77: Failed to Stop Failure 78: Generator Under Voltage Failure Level 1 79: Generator Under Voltage Failure Level 2 80: Generator Over Voltage Failure Level 1 81: Generator Over Voltage Failure Level 2 82: Generator Under Frequency Failure Level 1 83: Generator Under Frequency Failure Level 2 84: Generator Over Frequency Failure Level 1 85: Generator Over Frequency Failure Level 2

					86: Under RPM Failure Level 1 87: Under RPM Failure Level 2 88: Over RPM Failure Level 1 89: Over RPM Failure Level2 90: RPM Sensor Failure 91: Charge Voltage Failure Level 1 92: Charge Voltage Failure Level 2 93: Low Battery Voltage Failure Level 1 94: Low Battery Voltage Failure Level2 95: High Battery Voltage Failure Level 1 96: High Battery Voltage Failure Level2 97: Mains Contactor Failed to Open 98: Mains Contactor Failed to Close 99: Mains Contactor Status Unknown 100: Generator Contactor Failed to Open 101: Generator Contactor Failed to Close 102: Generator Contactor Status Unknown 103: Over Current Failure Level 1 104: Over Current Failure Level 2 105: Over Current Failure Level 3 106: KW Failure Level 1 107: KW Failure Level 2 108: KVar Failure Level 1 109: KVar Failure Level 2 110: KVA Failure Level 1 111: KVA Failure Level 2 112: Cosφ Failure Level 1 113: Cosφ Failure Level 2 114: Oil Pressure Switch Failure 115: Low Oil Pressure Failure Level 1 116: Low Oil Pressure Level 2 117: Analog Oil Pressure Sensor Failure 118: Coolant Temperature Switch Failure 119: High Coolant Temperature Level 1 120: High Coolant Temperature Level 2 121: Low Coolant Temperature Level 1 122: Low Coolant Temperature Level 2 123: Analog Coolant Temperature Sensor Failure 124: Low Fuel Failure Level 1 125: Low Fuel Level 2 126: Fuel Consumption While Stopped Failure 127: High Fuel Consumption While Running Failure 128: Fuel Level Sensor Failure 129: Fuel Refill Failure Level 1 130: Fuel Refill Failure level 2 131: Digital Input 1 Failure 132: Digital Inout 2 Failure 133: Digital Input 3 Failure 134: Digital Input 4 Failure 135: Digital Input 5 Failure 136: Digital Input 6 Failure 137: Periodic Engine Maintenance Timer 1 Passed 138: Periodic Engine Maintenance Timer 2 Passed 139: Periodic Engine Maintenance Timer 3 Passed 140: Periodic Engine Maintenance Timer 4 Passed 141: Periodic Engine Maintenance Timer 5 Passed 142: Periodic Engine Maintenance Timer 6 Passed 143: Periodic Maintenance Timer 1 Passed 144: Periodic Maintenance Timer 2 Passed 145: Periodic Maintenance Timer 3 Passed 146: Periodic Maintenance Timer 4 Passed 147: Periodic Maintenance Timer 5 Passed 148: Periodic Maintenance Timer 6 Passed 149: Load is on Mains or Generator 150: Dual Mutual Standby Synced Output
P1112	Digital Output 7 Activation Type	0	1	1	0: De-energize the Relay 1: Energize the Relay
P1113		0	0	150	0: Output Disabled 1: AMF Engine Start 2: Pulsing Horn 3: Horn 4: Load on Generator 5: Load on Mains 6: Fuel Pump Output 7: Thermostat 1 8: Thermostat 2 9: Not Functional 10: Man, Auto or Test Operation Mode Selected 11: Auto or Test Operation Mode Selected 12: Manual Operation Mode Selected 13: Auto Operation Mode Selected 14: Test Operation Mode Selected 15: Off Operation Mode Selected 16: Class 1 or 2 Failure 17: Class 3,4,5 or 6 Failure 18: General Failure 19: Class 1 Failure 20: Class 2 Failure 21: Class 3 Failure 22: Class 4 Failure 23: Class 5 Failure 24: Class 6 Failure 25: Mains Contactor Open Output 26: Generator Contactor Open Output 27: Nominal Speed Position (Active when 28: Nominal Speed Position (Active when Running and Cooledown) 29: Idle Speed Position (Active During Failure 30: Idle Speed Position (Active During Failure Delay Timer + Cooledown) 31: Generator Ready for Load 32: Generator Ready to Start

Digital Output 8 Function

33: Genrator Ready to Start and in Auto Mode
34: Lamp Test
35: Alarm acknowledge and horn silence
36: Pre-programmed Test Active
37: Delayed Generator Voltage or Frequency Running Feedback Detected
38: Digital Input 1 Active
39: Digital Input 2 Active
40: Digital Input 3 Active
41: Digital Input 4 Active
42: Digital Input 5 Active
43: Digital Input 6 Active
44: Digital Input 7 Active
45: Digital Input 8 Active
46: Digital Input 9 Active
47: Digital Input 10 Active
48: Digital Input 11 Active
49: Digital Input 12 Active
50: Digital Input 13 Active
51: Digital Input 14 Active
52: Mains Failure
53: Mains Over Voltage
54: Mains Under Voltage
55: Mains Under Frequency
56: Mains Over Frequency
57: Pre-heat (Active During Pre-heat)
58: Pre-heat (Active Duting Pre-Heat + Cranking)
59: Pre-heat (Active During Pre-heat + Cranking + Failure Delay Timer)
60: Pre-heat (Active During Pre-heat + Cranking + Failure Delay Timer + Heating Time)
61: Start Process Begun
62: Not Functional
63: Not Functional
64: Not Functional
65: Charge Output
66: Not Functional
67: Pre-heat Status
68: Crank Status
69: Delay Between Cranking Status
70: Failure Delay Timer Status
71: Running Status
72: Cooldown Status
73: Engine Stopping Status
74: Post-start Status
75: Start Failure
76: Running Feedback Before Cranking Failure
77: Failed to Stop Failure
78: Generator Under Voltage Failure Level 1
79: Genreator Under Voltage Failure Level 2
80: Generator Over Voltage Failure Level 1
81: Generator Over Voltage Failure Level 2
82: Generator Under Frequency Failure Level 1
83: Generator Under Frequency Failure Level 2
84: Generator Over Frequency Failure Level 1
85: Generator Over Frequency Failure Level 2
86: Under RPM Failure Level 1
87: Under RPM Failure Level 2
88: Over RPM Failure Level 1
89: Over RPM Failure Level2
90: RPM Sensor Failure
91: Charge Voltage Failure Level 1
92: Charge Voltage Failure Level 2
93: Low Battery Voltage Failure Level 1
94: Low Battery Voltage Failure Level2
95: High Battery Voltage Failure Level 1
96: High Battery Voltage Failure Level2
97: Mains Contactor Failed to Open
98: Mains Contactor Failed to Close
99: Mains Contactor Status Unknown
100: Generator Contactor Failed to Open
101: Generator Contactor Failed to Close
102: Generator Contactor Status Unknown
103: Over Current Failure Level 1
104: Over Current Failure Level 2
105: Over Current Failure Level 3
106: KW Failure Level 1
107: KW Failure Level 2
108: KVar Failure Level 1
109: KVar Failure Level 2
110: KVA Failure Level 1
111: KVA Failure Level 2
112: Cosφ Failure Level 1
113: Cosφ Failure Level 2
114: Oil Pressure Switch Failure
115: Low Oil Pressure Failure Level 1
116: Low Oil Pressure Level 2
117: Analog Oil Pressure Sensor Failure
118: Coolant Temperature Switch Failure
119: High Coolant Temperature Level 1
120: High Coolant Temperature Level 2
121: Low Coolant Temperature Level 1
122: Low Coolant Temperature Level 2
123: Analog Coolant Temperature Sensor Failure
124: Low Fuel Failure Level 1
125: Low Fuel Level 2
126: Fuel Consumption While Stopped Failure
127: High Fuel Consumption While Running Failure
128: Fuel Level Sensor Failure
129: Fuel Refill Failure Level 1
130: Fuel Refill Failure level 2
131: Digital Input 1 Failure



					132: Digital Input 2 Failure 133: Digital Input 3 Failure 134: Digital Input 4 Failure 135: Digital Input 5 Failure 136: Digital Input 6 Failure 137: Periodic Engine Maintenance Timer 1 Passed 138: Periodic Engine Maintenance Timer 2 Passed 139: Periodic Engine Maintenance Timer 3 Passed 140: Periodic Engine Maintenance Timer 4 Passed 141: Periodic Engine Maintenance Timer 5 Passed 142: Periodic Engine Maintenance Timer 6 Passed 143: Periodic Maintenance Timer 1 Passed 144: Periodic Maintenance Timer 2 Passed 145: Periodic Maintenance Timer 3 Passed 146: Periodic Maintenance Timer 4 Passed 147: Periodic Maintenance Timer 5 Passed 148: Periodic Maintenance Timer 6 Passed 149: Load is on Mains or Generator 150: Dual Mutual Standby Synced Output 0: De-energize the Relay 1: Energize the Relay
P1114	Digital Output 8 Activation Type	0	1	1	
P1115	Digital Output 9 Function	0	0	150	0: Output Disabled 1: AMF Engine Start 2: Pulsing Horn 3: Horn 4: Load on Generator 5: Load on Mains 6: Fuel Pump Output 7: Thermostat 1 8: Thermostat 2 9: Not Functional 10: Man, Auto or Test Operation Mode Selected 11: Auto or Test Operation Mode Selected 12: Manual Operation Mode Selected 13: Auto Operation Mode Selected 14: Test Operation Mode Selected 15: Off Operation Mode Selected 16: Class 1 or 2 Failure 17: Class 3,4,5 or 6 Failure 18: General Failure 19: Class 1 Failure 20: Class 2 Failure 21: Class 3 Failure 22: Class 4 Failure 23: Class 5 Failure 24: Class 6 Failure 25: Mains Contactor Open Output 26: Generator Contactor Open Output 27: Nominal Speed Position (Active when Running) 28: Nominal Speed Position (Active when Running and Cooldown) 29: Idle Speed Position (Active During Failure) 30: Idle Speed Position (Active During Failure Delay Timer + Cooldown) 31: Generator Ready for Load 32: Generator Ready to Start 33: Generator Ready to Start and in Auto Mode 34: Lamp Test 35: Alarm acknowledge and horn silence 36: Pre-programmed Test Active 37: Delayed Generator Voltage or Frequency Running Feedback Detected 38: Digital Input 1 Active 39: Digital Input 2 Active 40: Digital Input 3 Active 41: Digital Input 4 Active 42: Digital Input 5 Active 43: Digital Input 6 Active 44: Digital Input 7 Active 45: Digital Input 8 Active 46: Digital Input 9 Active 47: Digital Input 10 Active 48: Digital Input 11 Active 49: Digital Input 12 Active 50: Digital Input 13 Active 51: Digital Input 14 Active 52: Mains Failure 53: Mains Over Voltage 54: Mains Under Voltage 55: Mains Under Frequency 56: Mains Over Frequency 57: Pre-heat (Active During Pre-heat) 58: Pre-heat (Active During Pre-heat + Cranking) 59: Pre-heat (Active During Pre-heat + Cranking + Failure Delay Timer) 60: Pre-heat (Active During Pre-heat + Cranking + Failure Delay Timer + Heating Time) 61: Start Process Begun 62: Not Functional 63: Not Functional 64: Not Functional 65: Charge Output 66: Not Functional 67: Pre-heat Status 68: Crank Status 69: Delay Between Cranking Status 70: Failure Delay Timer Status 71: Running Status 72: Cooldown Status 73: Engine Stopping Status 74: Post-start Status 75: Start Failure

					76: Running Feedback Before Cranking Failure
					77: Failed to Stop Failure
					78: Generator Under Voltage Failure Level 1
					79: Genreator Under Voltage Failure Level 2
					80: Generator Over Voltage Failure Level 1
					81: Generator Over Voltage Failure Level 2
					82: Generator Under Frequency Failure Level 1
					83: Generator Under Frequency Failure Level 2
					84: Generator Over Frequency Failure Level 1
					85: Generator Over Frequency Failure Level 2
					86: Under RPM Failure Level 1
					87: Under RPM Failure Level 2
					88: Over RPM Failure Level 1
					89: Over RPM Failure Level2
					90: RPM Sensor Failure
					91: Charge Voltage Failure Level 1
					92: Charge Voltage Failure Level 2
					93: Low Battery Voltage Failure Level 1
					94: Low Battery Voltage Failure Level2
					95: High Battery Voltage Failure Level 1
					96: High Battery Voltage Failure Level2
					97: Mains Contactor Failed to Open
					98: Mains Contactor Failed to Close
					99: Mains Contactor Status Unknown
					100: Generator Contactor Failed to Open
					101: Generator Contactor Failed to Close
					102: Generator Contactor Status Unknown
					103: Over Current Failure Level 1
					104: Over Current Failure Level 2
					105: Over Current Failure Level 3
					106: KW Failure Level 1
					107: KW Failure Level 2
					108: KVar Failure Level 1
					109: KVar Failure Level 2
					110: KVA Failure Level 1
					111: KVA Failure Level 2
					112: Cosφ Failure Level 1
					113: Cosφ Failure Level 2
					114: Oil Pressure Switch Failure
					115: Low Oil Pressure Failure Level 1
					116: Low Oil Pressure Level 2
					117: Analog Oil Pressure Sensor Failure
					118: Coolant Temperature Switch Failure
					119: High Coolant Temperature Level 1
					120: High Coolant Temperature Level 2
					121: Low Coolant Temperature Level 1
					122: Low Coolant Temperature Level 2
					123: Analog Coolant Temperature Sensor Failure
					124: Low Fuel Failure Level 1
					125: Low Fuel Level 2
					126: Fuel Consumption While Stopped Failure
					127: High Fuel Consumption While Running Failure
					128: Fuel Level Sensor Failure
					129: Fuel Refill Failure Level 1
					130: Fuel Refill Failure level 2
					131: Digital Input 1 Failure
					132: Digital Inout 2 Failure
					133: Digital Input 3 Failure
					134: Digital Input 4 Failure
					135: Digital Input 5 Failure
					136: Digital Input 6 Failure
					137: Periodic Engine Maintenance Timer 1 Passed
					138: Periodic Engine Maintenance Timer 2 Passed
					139: Periodic Engine Maintenance Timer 3 Passed
					140: Periodic Engine Maintenance Timer 4 Passed
					141: Periodic Engine Maintenance Timer 5 Passed
					142: Periodic Engine Maintenance Timer 6 Passed
					143: Periodic Maintenance Timer 1 Passed
					144: Periodic Maintenance Timer 2 Passed
					145: Periodic Maintenance Timer 3 Passed
					146: Periodic Maintenance Timer 4 Passed
					147: Periodic Maintenance Timer 5 Passed
					148: Periodic Maintenance Timer 6 Passed
					149: Load is on Mains or Generator
P1116	Digital Output 9 Activation Type	0	1	1	150: Dual Mutual Standby Synced Output
					0:De-energize the Relay
P1117		0	0	150	1:Energize the Relay
					0: Output Disabled
					1: AMF Engine Start
					2: Pulsing Horn
					3: Horn
					4: Load on Generator
					5: Load on Mains
					6: Fuel Pump Output
					7: Thermostat 1
					8: Thermostat 2
					9: Not Functional
					10: Man, Auto or Test Operation Mode Selected
					11: Auto or Test Operation Mode Selected
					12: Manual Operation Mode Selected
					13: Auto Operation Mode Selected
					14: Test Operation Mode Selected
					15: Off Operation Mode Selected
					16: Class 1 or 2 Failure
					17: Class 3,4,5 or 6 Failure
					18: General Failure
					19: Class 1 Failure
					20: Class 2 Failure
					21: Class 3 Failure
					22: Class 4 Failure
					23: Class 5 Failure

Digital Output 10 Function

24: Class 6 Failure
25: Mains Contactor Open Output
26: Generator Contactor Open Output
27: Nominal Speed Position (Active when
28: Nominal Speed Position (Active when Runnin
and Cooldown)
29: Idle Speed Position (Active During Failure
30: Idle Speed Position (Active During Failure
Delay Timer + Cooldown)
31: Generator Ready for Load
32: Generator Ready to Start
33: Genrator Ready to Start and in Auto Mode
34: Lamp Test
35: Alarm acknowledge and horn silence
36: Pre-programmed Test Active
37: Delayed Generator Voltage or Frequency
Running Feedback Detected
38: Digital Input 1 Active
39: Digital Input 2 Active
40: Digital Input 3 Active
41: Digital Input 4 Active
42: Digital Input 5 Active
43: Digital Input 6 Active
44: Digital Input 7 Active
45: Digital Input 8 Active
46: Digital Input 9 Active
47: Digital Input 10 Active
48: Digital Input 11 Active
49: Digital Input 12 Active
50: Digital Input 13 Active
51: Digital Input 14 Active
52: Mains Failure
53: Mains Over Voltage
54: Mains Under Voltage
55: Mains Under Frequency
56: Mains Over Frequency
57: Pre-heat (Active During Pre-heat)
58: Pre-heat (Active Duting Pre-Heat + Cranking)
59: Pre-heat (Active During Pre-heat + Cranking
+ Failure Delay Timer)
60: Pre-heat (Active During Pre-heat + Cranking
+ Failure Delay Timer + Heating Time)
61: Start Process Begun
62: Not Functional
63: Not Functional
64: Not Functional
65: Charge Output
66: Not Functional
67: Pre-heat Status
68: Crank Status
69: Delay Between Cranking Status
70: Failure Delay Timer Status
71: Running Status
72: Cooldown Status
73: Engine Stopping Status
74: Post-start Status
75: Start Failure
76: Running Feedback Before Cranking Failure
77: Failed to Stop Failure
78: Generator Under Voltage Failure Level 1
79: Genreator Under Voltage Failure Level 2
80: Generator Over Voltage Failure Level 1
81: Generator Over Voltage Failure Level 2
82: Generator Under Frequency Failure Level 1
83: Generator Under Frequency Failure Level 2
84: Generator Over Frequency Failure Level 1
85: Generator Over Frequency Failure Level 2
86: Under RPM Failure Level 1
87: Under RPM Failure Level 2
88: Over RPM Failure Level 1
89: Over RPM Failure Level2
90: RPM Sensor Failure
91: Charge Voltage Failure Level 1
92: Charge Voltage Failure Level 2
93: Low Battery Voltage Failure Level 1
94: Low Battery Voltage Failure Level2
95: High Battery Voltage Failure Level 1
96: High Battery Voltage Failure Level2
97: Mains Contactor Failed to Open
98: Mains Contactor Failed to Close
99: Mains Contactor Status Unknown
100: Generator Contactor Failed to Open
101: Generator Contactor Failed to Close
102: Generator Contactor Status Unknown
103: Over Current Failure Level 1
104: Over Current Failure Level 2
105: Over Current Failure Level 3
106: KW Failure Level 1
107: KW Failure Level 2
108: KVar Failure Level 1
109: KVar Failure Level 2
110: KVA Failure Level 1
111: KVA Failure Level 2
112: Cosφ Failure Level 1
113: Cosφ Failure Level 2
114: Oil Pressure Switch Failure
115: Low Oil Pressure Failure Level 1
116: Low Oil Pressure Level 2
117: Analog Oil Pressure Sensor Failure
118: Coolant Temperature Switch Failure
119: High Coolant Temperature Level 1
120: High Coolant Temperature Level 2

					121: Low Coolant Temperature Level 1 122: Low Coolant Temperature Level 2 123: Analog Coolant Temperature Sensor Failure 124: Low Fuel Failure Level 1 125: Low Fuel Level 2 126: Fuel Consumption While Stopped Failure 127: High Fuel Consumption While Running Failure 128: Fuel Level Sensor Failure 129: Fuel Refill Failure Level 1 130: Fuel Refill Failure level 2 131: Digital Input 1 Failure 132: Digital Input 2 Failure 133: Digital Input 3 Failure 134: Digital Input 4 Failure 135: Digital Input 5 Failure 136: Digital Input 6 Failure 137: Periodic Engine Maintenance Timer 1 Passed 138: Periodic Engine Maintenance Timer 2 Passed 139: Periodic Engine Maintenance Timer 3 Passed 140: Periodic Engine Maintenance Timer 4 Passed 141: Periodic Engine Maintenance Timer 5 Passed 142: Periodic Engine Maintenance Timer 6 Passed 143: Periodic Maintenance Timer 1 Passed 144: Periodic Maintenance Timer 2 Passed 145: Periodic Maintenance Timer 3 Passed 146: Periodic Maintenance Timer 4 Passed 147: Periodic Maintenance Timer 5 Passed 148: Periodic Maintenance Timer 6 Passed 149: Load is on Mains or Generator 150: Dual Mutual Standby Synced Output
P1118	Digital Output 10 Activation Type	0	1	1	0: De-energize the Relay 1: Energize the Relay
P1119		0	0	150	0: Output Disabled 1: AMF Engine Start 2: Pulsing Horn 3: Horn 4: Load on Generator 5: Load on Mains 6: Fuel Pump Output 7: Thermostat 1 8: Thermostat 2 9: Not Functional 10: Man, Auto or Test Operation Mode Selected 11: Auto or Test Operation Mode Selected 12: Manual Operation Mode Selected 13: Auto Operation Mode Selected 14: Test Operation Mode Selected 15: Off Operation Mode Selected 16: Class 1 or 2 Failure 17: Class 3,4,5 or 6 Failure 18: General Failure 19: Class 1 Failure 20: Class 2 Failure 21: Class 3 Failure 22: Class 4 Failure 23: Class 5 Failure 24: Class 6 Failure 25: Mains Contactor Open Output 26: Generator Contactor Open Output 27: Nominal Speed Position (Active when Running and Cooldown) 28: Nominal Speed Position (Active when Running and Cooldown) 29: Idle Speed Position (Active During Failure Delay Timer + Cooldown) 30: Idle Speed Position (Active During Failure Delay Timer + Cooldown) 31: Generator Ready for Load 32: Generator Ready to Start 33: Generator Ready to Start and in Auto Mode 34: Lamp Test 35: Alarm acknowledge and horn silence 36: Pre-programmed Test Active 37: Delayed Generator Voltage or Frequency Running Feedback Detected 38: Digital Input 1 Active 39: Digital Input 2 Active 40: Digital Input 3 Active 41: Digital Input 4 Active 42: Digital Input 5 Active 43: Digital Input 6 Active 44: Digital Input 7 Active 45: Digital Input 8 Active 46: Digital Input 9 Active 47: Digital Input 10 Active 48: Digital Input 11 Active 49: Digital Input 12 Active 50: Digital Input 13 Active 51: Digital Input 14 Active 52: Mains Failure 53: Mains Over Voltage 54: Mains Under Voltage 55: Mains Under Frequency 56: Mains Over Frequency 57: Pre-heat (Active During Pre-heat) 58: Pre-heat (Active During Pre-heat + Cranking) 59: Pre-heat (Active During Pre-heat + Cranking + Failure Delay Timer) 60: Pre-heat (Active During Pre-heat + Cranking + Failure Delay Timer + Heating Time) 61: Start Process Begun 62: Not Functional 63: Not Functional 64: Not Functional

P1120	Digital Output 11 Function					65: Charge Output
						66: Not Functional
						67: Pre-heat Status
						68: Crank Status
						69: Delay Between Cranking Status
						70: Failure Delay Timer Status
						71: Running Status
						72: Cooldown Status
						73: Engine Stopping Status
						74: Post-start Status
						75: Start Failure
						76: Running Feedback Before Cranking Failure
						77: Failed to Stop Failure
						78: Generator Under Voltage Failure Level 1
						79: Genreator Under Voltage Failure Level 2
						80: Generator Over Voltage Failure Level 1
						81: Generator Over Voltage Failure Level 2
						82: Generator Under Frequency Failure Level 1
						83: Generator Under Frequency Failure Level 2
						84: Generator Over Frequency Failure Level 1
						85: Generator Over Frequency Failure Level 2
						86: Under RPM Failure Level 1
						87: Under RPM Failure Level 2
						88: Over RPM Failure Level 1
						89: Over RPM Failure Level2
						90: RPM Sensor Failure
						91: Charge Voltage Failure Level 1
						92: Charge Voltage Failure Level 2
						93: Low Battery Voltage Failure Level 1
						94: Low Battery Voltage Failure Level2
						95: High Battery Voltage Failure Level 1
						96: High Battery Voltage Failure Level2
						97: Mains Contactor Failed to Open
						98: Mains Contactor Failed to Close
						99: Mains Contactor Status Unknown
						100: Generator Contactor Failed to Open
						101: Generator Contactor Failed to Close
						102: Generator Contactor Status Unknown
						103: Over Current Failure Level 1
						104: Over Current Failure Level 2
						105: Over Current Failure Level 3
						106: KW Failure Level 1
						107: KW Failure Level 2
						108: KVar Failure Level 1
						109: KVar Failure Level 2
						110: KVA Failure Level 1
						111: KVA Failure Level 2
						112: Cosφ Failure Level 1
						113: Cosφ Failure Level 2
						114: Oil Pressure Switch Failure
						115: Low Oil Pressure Failure Level 1
						116: Low Oil Pressure Level 2
						117: Analog Oil Pressure Sensor Failure
						118: Coolant Temperature Switch Failure
						119: High Coolant Temperature Level 1
						120: High Coolant Temperature Level 2
						121: Low Coolant Temperature Level 1
						122: Low Coolant Temperature Level 2
						123: Analog Coolant Temperature Sensor Failure
						124: Low Fuel Failure Level 1
						125: Low Fuel Level 2
						126: Fuel Consumption While Stopped Failure
						127: High Fuel Consumption While Running Failure
						128: Fuel Level Sensor Failure
						129: Fuel Refill Failure Level 1
						130: Fuel Refill Failure level 2
						131: Digital Input 1 Failure
						132: Digital Inout 2 Failure
						133: Digital Input 3 Failure
						134: Digital Input 4 Failure
						135: Digital Input 5 Failure
						136: Digital Input 6 Failure
						137: Periodic Engine Maintenance Timer 1 Passed
						138: Periodic Engine Maintenance Timer 2 Passed
						139: Periodic Engine Maintenance Timer 3 Passed
						140: Periodic Engine Maintenance Timer 4 Passed
						141: Periodic Engine Maintenance Timer 5 Passed
						142: Periodic Engine Maintenance Timer 6 Passed
						143: Periodic Maintenance Timer 1 Passed
						144: Periodic Maintenance Timer 2 Passed
						145: Periodic Maintenance Timer 3 Passed
						146: Periodic Maintenance Timer 4 Passed
						147: Periodic Maintenance Timer 5 Passed
						148: Periodic Maintenance Timer 6 Passed
						149: Load is on Mains or Generator
						150: Dual Mutual Standby Synced Output
P1120	Digital Output 11 Activation Type	0	1	1		0:De-energize the Relay
P1121		0	0	150		1:Energize the Relay
						0: Output Disabled
						1: AMF Engine Start
						2: Pulsing Horn
						3: Horn
						4: Load on Generator
						5: Load on Mains
						6: Fuel Pump Output
						7: Thermostat 1
						8: Thermostat 2
						9: Not Functional
						10: Man, Auto or Test Operation Mode Selected
						11: Auto or Test Operation Mode Selected
						12: Manual Operation Mode Selected

Digital Output 12 Function

13: Auto Operation Mode Selected
14: Test Operation Mode Selected
15: Off Operation Mode Selected
16: Class 1 or 2 Failure
17: Class 3,4,5 or 6 Failure
18: General Failure
19: Class 1 Failure
20: Class 2 Failure
21: Class 3 Failure
22: Class 4 Failure
23: Class 5 Failure
24: Class 6 Failure
25: Mains Contactor Open Output
26: Generator Contactor Open Output
27: Nominal Speed Position (Active when
28: Nominal Speed Position (Active when Running
and Cooldown)
29: Idle Speed Position (Active During Failure
30: Idle Speed Position (Active During Failure
Delay Timer + Cooldown)
31: Generator Ready for Load
32: Generator Ready to Start
33: Generator Ready to Start and in Auto Mode
34: Lamp Test
35: Alarm acknowledge and horn silence
36: Pre-programmed Test Active
37: Delayed Generator Voltage or Frequency
Running Feedback Detected
38: Digital Input 1 Active
39: Digital Input 2 Active
40: Digital Input 3 Active
41: Digital Input 4 Active
42: Digital Input 5 Active
43: Digital Input 6 Active
44: Digital Input 7 Active
45: Digital Input 8 Active
46: Digital Input 9 Active
47: Digital Input 10 Active
48: Digital Input 11 Active
49: Digital Input 12 Active
50: Digital Input 13 Active
51: Digital Input 14 Active
52: Mains Failure
53: Mains Over Voltage
54: Mains Under Voltage
55: Mains Under Frequency
56: Mains Over Frequency
57: Pre-heat (Active During Pre-heat)
58: Pre-heat (Active During Pre-Heat + Cranking)
59: Pre-heat (Active During Pre-heat + Cranking
+ Failure Delay Timer)
60: Pre-heat (Active During Pre-heat + Cranking
+ Failure Delay Timer + Heating Time)
61: Start Process Begun
62: Not Functional
63: Not Functional
64: Not Functional
65: Charge Output
66: Not Functional
67: Pre-heat Status
68: Crank Status
69: Delay Between Cranking Status
70: Failure Delay Timer Status
71: Running Status
72: Cooldown Status
73: Engine Stopping Status
74: Post-start Status
75: Start Failure
76: Running Feedback Before Cranking Failure
77: Failed to Stop Failure
78: Generator Under Voltage Failure Level 1
79: Generator Under Voltage Failure Level 2
80: Generator Over Voltage Failure Level 1
81: Generator Over Voltage Failure Level 2
82: Generator Under Frequency Failure Level 1
83: Generator Under Frequency Failure Level 2
84: Generator Over Frequency Failure Level 1
85: Generator Over Frequency Failure Level 2
86: Under RPM Failure Level 1
87: Under RPM Failure Level 2
88: Over RPM Failure Level 1
89: Over RPM Failure Level2
90: RPM Sensor Failure
91: Charge Voltage Failure Level 1
92: Charge Voltage Failure Level 2
93: Low Battery Voltage Failure Level 1
94: Low Battery Voltage Failure Level2
95: High Battery Voltage Failure Level 1
96: High Battery Voltage Failure Level2
97: Mains Contactor Failed to Open
98: Mains Contactor Failed to Close
99: Mains Contactor Status Unknown
100: Generator Contactor Failed to Open
101: Generator Contactor Failed to Close
102: Generator Contactor Status Unknown
103: Over Current Failure Level 1
104: Over Current Failure Level 2
105: Over Current Failure Level 3
106: KW Failure Level 1
107: KW Failure Level 2
108: KVar Failure Level 1
109: KVar Failure Level 2

					110: KVA Failure Level 1
					111: KVA Failure Level 2
					112: Cosφ Failure Level 1
					113: Cosφ Failure Level 2
					114: Oil Pressure Switch Failure
					115: Low Oil Pressure Failure Level 1
					116: Low Oil Pressure Level 2
					117: Analog Oil Pressure Sensor Failure
					118: Coolant Temperature Switch Failure
					119: High Coolant Temperature Level 1
					120: High Coolant Temperature Level 2
					121: Low Coolant Temperature Level 1
					122: Low Coolant Temperature Level 2
					123: Analog Coolant Temperature Sensor Failure
					124: Low Fuel Failure Level 1
					125: Low Fuel Level 2
					126: Fuel Consumption While Stopped Failure
					127: High Fuel Consumption While Running Failure
					128: Fuel Level Sensor Failure
					129: Fuel Refill Failure Level 1
					130: Fuel Refill Failure level 2
					131: Digital Input 1 Failure
					132: Digital Input 2 Failure
					133: Digital Input 3 Failure
					134: Digital Input 4 Failure
					135: Digital Input 5 Failure
					136: Digital Input 6 Failure
					137: Periodic Engine Maintenance Timer 1 Passed
					138: Periodic Engine Maintenance Timer 2 Passed
					139: Periodic Engine Maintenance Timer 3 Passed
					140: Periodic Engine Maintenance Timer 4 Passed
					141: Periodic Engine Maintenance Timer 5 Passed
					142: Periodic Engine Maintenance Timer 6 Passed
					143: Periodic Maintenance Timer 1 Passed
					144: Periodic Maintenance Timer 2 Passed
					145: Periodic Maintenance Timer 3 Passed
					146: Periodic Maintenance Timer 4 Passed
					147: Periodic Maintenance Timer 5 Passed
					148: Periodic Maintenance Timer 6 Passed
					149: Load is on Mains or Generator
					150: Dual Mutual Standby Synced Output
P1122	Digital Output 12 Activation Type	0	1	1	0:De-energize the Relay 1:Energize the Relay
P1123	Mains Contactor Close Output Type	0	1	3	0: Not Active 1: Constant Output 2: Switch-on Switch-off Output 3: Pulsing Type Output
P1124	Mains Contactor Open Output Type	0	0	3	0: Not Active 1: Constant Output 2: Switch-on Switch-off Output 3: Pulsing Type Output
P1125	Mains Contactor Close Output Pulse Number	1	5	900	
P1126	Mains Contactor Open Output Pulse Number	1	5	900	
P1127	Mains Contactor Output Security Open Pulse Number	1	1	900	
P1128	Mains Contactor Output Unlock Pulse Number	1	1	900	
P1129	Mains Contactor Close Output Pulse Duration	0.1	0.5	60	Second
P1130	Mains Contactor Close Output Delay Between Pulses	0.1	1	60	Second
P1131	Mains Contactor Open Output Pulse Duration	0.1	0.5	60	Second
P1132	Mains Contactor Open Output Delay Between Pulses	0.1	1	60	Second
P1133	Mains Contactor Output Auto-Unlock	0	0	1	0:Passive 1:Active
P1134	Send Security Unlock Signal to Generator Contactor Before Closing Mains Contactor	0	0	1	0:Passive 1:Active
P1135	Mains Contactor Close Output Activation Type	0	1	1	0:Normally Closed 1:Normally Open
P1136	Mains Contactor Spring Wind Type	0	1	2	0: No Spring 1: When Contactor is Opened 2: When Contactor is Closed
P1137	Mains Contactor Spring Wind Time	0	0	90	Second
P1138	Send Control Signal to Mains Contactor at Start-up	0	0	1	0:Passive 1:Active
P1139	Generator Contactor Close Output Type	0	1	3	0: Not Active 1: Constant Output 2: Switch-on Switch-off Output 3: Pulsing Type Output
P1140	Generator Contactor Open Output Type	0	0	3	0: Not Active 1: Constant Output 2: Switch-on Switch-off Output 3: Pulsing Type Output
P1141	Generator Contactor Close Output Pulse Number	1	5	900	
P1142	Generator Contactor Open Output Pulse Number	1	5	900	
P1143	Generator Contactor Output Security Open Pulse Number	1	1	900	
P1144	Generator Contactor Output Unlock Pulse Number	1	5	900	
P1145	Generator Contactor Close Output Pulse Duration	0.1	0.5	60	Second
P1146	Generator Contactor Close Output Delay Between Pulses	0.1	1	60	Second
P1147	Generator Contactor Open Output Pulse Duration	0.1	0.5	60	Second
P1148	Generator Contactor Open Output Delay Between Pulses	0.1	1	60	Second
P1149	Generator Contactor Output Auto-Unlock	0	0	1	0:Passive 1:Active
P1150	Send Security Unlock Signal to Generator Contactor Before Closing Generator Contactor	0	0	1	0:Passive 1:Active
P1151	Generator Contactor Close Output Activation Type	0	1	1	0:Normally Closed 1:Normally Open
P1152	Generator Contactor Spring Wind Type	0	1	2	0: No Spring 1: When Contactor is Opened 2: When Contactor is Closed
P1153	Generator Contactor Spring Wind Time	0	0	90	Second
P1154	Send Control Signal to Generator Contactor at Start-up	0	0	1	0:Passive 1:Active

P1155	Scheduled Test 1 Active	0	0	2		0:Not Active
						1:Weekly Test
						2:Monthly Test
P1156	Scheduled Test 1 Type	0	0	1		0:Off-load Test
						1:On-load Test
P1157	Scheduled Test 1 Day of Month	1	1	31		
P1158	Scheduled Test 1 Day of Week	1	1	7		1:Monday
						2:Tuesday
						3:Wednesday
						4:Thursday
						5:Friday
						6:Saturday
						7:Sunday
P1159	Scheduled Test 1 Start Hour	0	20	23		
P1160	Scheduled Test 1 Start Minute	0	0	59		
P1161	Scheduled Test 1 Duration Hour	0	0	200		
P1162	Scheduled Test 1 Duration Minute	1	10	59		
P1163	Scheduled Test 2 Active	0	0	2		0:Not Active
						1:Weekly Test
						2:Monthly Test
P1164	Scheduled Test 2 Type	0	0	1		0:Off-load Test
						1:On-load Test
P1165	Scheduled Test 2 Day of Month	1	1	31		
P1166	Scheduled Test 2 Day of Week	1	2	7		1:Monday
						2:Tuesday
						3:Wednesday
						4:Thursday
						5:Friday
						6:Saturday
						7:Sunday
P1167	Scheduled Test 2 Start Hour	0	20	23		
P1168	Scheduled Test 2 Start Minute	0	0	59		
P1169	Scheduled Test 2 Duration Hour	0	0	200		
P1170	Scheduled Test 2 Duration Minute	1	10	59		
P1171	Scheduled Test 3 Active	0	0	2		0:Not Active
						1:Weekly Test
						2:Monthly Test
P1172	Scheduled Test 3 Type	0	0	1		0:Off-load Test
						1:On-load Test
P1173	Scheduled Test 3 Day of Month	1	1	31		
P1174	Scheduled Test 3 Day of Week	1	2	7		1:Monday
						2:Tuesday
						3:Wednesday
						4:Thursday
						5:Friday
						6:Saturday
						7:Sunday
P1175	Scheduled Test 3 Start Hour	0	20	23		
P1176	Scheduled Test 3 Start Minute	0	0	59		
P1177	Scheduled Test 3 Duration Hour	0	0	200		
P1178	Scheduled Test 3 Duration Minute	1	10	59		
P1179	Scheduled Test 4 Active	0	0	2		0:Not Active
						1:Weekly Test
						2:Monthly Test
P1180	Scheduled Test 4 Type	0	0	1		0:Off-load Test
						1:On-load Test
P1181	Scheduled Test 4 Day of Month	1	1	31		
P1182	Scheduled Test 4 Day of Week	1	2	7		1:Monday
						2:Tuesday
						3:Wednesday
						4:Thursday
						5:Friday
						6:Saturday
						7:Sunday
P1183	Scheduled Test 4 Start Hour	0	20	23		
P1184	Scheduled Test 4 Start Minute	0	0	59		
P1185	Scheduled Test 4 Duration Hour	0	0	200		
P1186	Scheduled Test 4 Duration Minute	1	10	59		
P1187	Scheduled Test 5 Active	0	0	2		0:Not Active
						1:Weekly Test
						2:Monthly Test
P1188	Scheduled Test 5 Type	0	0	1		0:Off-load Test
						1:On-load Test
P1189	Scheduled Test 5 Day of Month	1	1	31		
P1190	Scheduled Test 5 Day of Week	1	2	7		1:Monday
						2:Tuesday
						3:Wednesday
						4:Thursday
						5:Friday
						6:Saturday
						7:Sunday
P1191	Scheduled Test 5 Start Hour	0	20	23		
P1192	Scheduled Test 5 Start Minute	0	0	59		
P1193	Scheduled Test 5 Duration Hour	0	0	200		
P1194	Scheduled Test 5 Duration Minute	1	10	59		
P1195	Scheduled Test 6 Active	0	0	2		0:Not Active
						1:Weekly Test
						2:Monthly Test
P1196	Scheduled Test 6 Type	0	0	1		0:Off-load Test
						1:On-load Test
P1197	Scheduled Test 6 Day of Month	1	1	31		
P1198	Scheduled Test 6 Day of Week	1	2	7		1:Monday
						2:Tuesday
						3:Wednesday
						4:Thursday
						5:Friday
						6:Saturday
						7:Sunday
P1199	Scheduled Test 6 Start Hour	0	20	23		
P1200	Scheduled Test 6 Start Minute	0	0	59		
P1201	Scheduled Test 6 Duration Hour	0	0	200		
P1202	Scheduled Test 6 Duration Minute	1	10	59		
P1203		0	0	2		0:Not Active



	Scheduled Test 7 Active					1:Weekly Test
						2:Monthly Test
P1204	Scheduled Test 7 Type	0	0	1		0:Off-load Test
P1205	Scheduled Test 7 Day of Month	1	1	31		1:On-load Test
P1206	Scheduled Test 7 Day of Week	1	2	7		1:Monday
						2:Tuesday
						3:Wednesday
						4:Thursday
						5:Friday
						6:Saturday
						7:Sunday
P1207	Scheduled Test 7 Start Hour	0	20	23		
P1208	Scheduled Test 7 Start Minute	0	0	59		
P1209	Scheduled Test 7 Duration Hour	0	0	200		
P1210	Scheduled Test 7 Duration Minute	1	10	59		
P1211	Scheduled Test 8 Active	0	0	2		0:Not Active
						1:Weekly Test
						2:Monthly Test
P1212	Scheduled Test 8 Type	0	0	1		0:Off-load Test
P1213	Scheduled Test 8 Day of Month	1	1	31		1:On-load Test
P1214	Scheduled Test 8 Day of Week	1	2	7		1:Monday
						2:Tuesday
						3:Wednesday
						4:Thursday
						5:Friday
						6:Saturday
						7:Sunday
P1215	Scheduled Test 8 Start Hour	0	20	23		
P1216	Scheduled Test 8 Start Minute	0	0	59		
P1217	Scheduled Test 8 Duration Hour	0	0	200		
P1218	Scheduled Test 8 Duration Minute	1	10	59		
P1219	Scheduled Test 9 Active	0	0	2		0:Not Active
						1:Weekly Test
						2:Monthly Test
P1220	Scheduled Test 9 Type	0	0	1		0:Off-load Test
P1221	Scheduled Test 9 Day of Month	1	1	31		1:On-load Test
P1222	Scheduled Test 9 Day of Week	1	2	7		1:Monday
						2:Tuesday
						3:Wednesday
						4:Thursday
						5:Friday
						6:Saturday
						7:Sunday
P1223	Scheduled Test 9 Start Hour	0	20	23		
P1224	Scheduled Test 9 Start Minute	0	0	59		
P1225	Scheduled Test 9 Duration Hour	0	0	200		
P1226	Scheduled Test 9 Duration Minute	1	10	59		
P1227	Scheduled Test 10 Active	0	0	2		0:Not Active
						1:Weekly Test
						2:Monthly Test
P1228	Scheduled Test 10 Type	0	0	1		0:Off-load Test
P1229	Scheduled Test 10 Day of Month	1	1	31		1:On-load Test
P1230	Scheduled Test 10 Day of Week	1	2	7		1:Monday
						2:Tuesday
						3:Wednesday
						4:Thursday
						5:Friday
						6:Saturday
						7:Sunday
P1231	Scheduled Test 10 Start Hour	0	20	23		
P1232	Scheduled Test 10 Start Minute	0	0	59		
P1233	Scheduled Test 10 Duration Hour	0	0	200		
P1234	Scheduled Test 10 Duration Minute	1	10	59		
P1235	Ir Display Filter	0	8	19		0: Level 0
						1: Level 1
						2: Level 2
						3: Level 3
						4: Level 4
						5: Level 5
						6: Level 6
						7: Level 7
						8: Level 8
						9: Level 9
						10: Level 10
						11: Level 11
						12: Level 12
						13: Level 13
						14: Level 14
						15: Level 15
						16: Level 16
						17: Level 17
						18: Level 18
						19: Level 19
P1236	Is Display Filter	0	8	19		0: Level 0
						1: Level 1
						2: Level 2
						3: Level 3
						4: Level 4
						5: Level 5
						6: Level 6
						7: Level 7
						8: Level 8
						9: Level 9
						10: Level 10
						11: Level 11
						12: Level 12
						13: Level 13
						14: Level 14

						15: Level 15
						16: Level 16
						17: Level 17
						18: Level 18
						19: Level 19
P1237	It Display Filter	0	8	19		0: Level 0
						1: Level 1
						2: Level 2
						3: Level 3
						4: Level 4
						5: Level 5
						6: Level 6
						7: Level 7
						8: Level 8
						9: Level 9
						10: Level 10
						11: Level 11
						12: Level 12
						13: Level 13
						14: Level 14
						15: Level 15
						16: Level 16
						17: Level 17
						18: Level 18
						19: Level 19
P1238	Vr Display Filter	0	8	19		0: Level 0
						1: Level 1
						2: Level 2
						3: Level 3
						4: Level 4
						5: Level 5
						6: Level 6
						7: Level 7
						8: Level 8
						9: Level 9
						10: Level 10
						11: Level 11
						12: Level 12
						13: Level 13
						14: Level 14
						15: Level 15
						16: Level 16
						17: Level 17
						18: Level 18
						19: Level 19
P1239	Vs Display Filter	0	8	19		0: Level 0
						1: Level 1
						2: Level 2
						3: Level 3
						4: Level 4
						5: Level 5
						6: Level 6
						7: Level 7
						8: Level 8
						9: Level 9
						10: Level 10
						11: Level 11
						12: Level 12
						13: Level 13
						14: Level 14
						15: Level 15
						16: Level 16
						17: Level 17
						18: Level 18
						19: Level 19
P1240	Vt Display Filter	0	8	19		0: Level 0
						1: Level 1
						2: Level 2
						3: Level 3
						4: Level 4
						5: Level 5
						6: Level 6
						7: Level 7
						8: Level 8
						9: Level 9
						10: Level 10
						11: Level 11
						12: Level 12
						13: Level 13
						14: Level 14
						15: Level 15
						16: Level 16
						17: Level 17
						18: Level 18
						19: Level 19
P1241	Vrs Display Filter	0	8	19		0: Level 0
						1: Level 1
						2: Level 2
						3: Level 3
						4: Level 4
						5: Level 5
						6: Level 6
						7: Level 7
						8: Level 8
						9: Level 9
						10: Level 10
						11: Level 11
						12: Level 12
						13: Level 13
						14: Level 14
						15: Level 15

						16: Level 16
						17: Level 17
						18: Level 18
						19: Level 19
P1242	Vst Display Filter	0	8	19		0: Level 0
						1: Level 1
						2: Level 2
						3: Level 3
						4: Level 4
						5: Level 5
						6: Level 6
						7: Level 7
						8: Level 8
						9: Level 9
						10: Level 10
						11: Level 11
						12: Level 12
						13: Level 13
						14: Level 14
						15: Level 15
						16: Level 16
						17: Level 17
						18: Level 18
						19: Level 19
P1243	Vtr Display Filter	0	8	19		0: Level 0
						1: Level 1
						2: Level 2
						3: Level 3
						4: Level 4
						5: Level 5
						6: Level 6
						7: Level 7
						8: Level 8
						9: Level 9
						10: Level 10
						11: Level 11
						12: Level 12
						13: Level 13
						14: Level 14
						15: Level 15
						16: Level 16
						17: Level 17
						18: Level 18
						19: Level 19
P1244	Vu Display Filter	0	8	19		0: Level 0
						1: Level 1
						2: Level 2
						3: Level 3
						4: Level 4
						5: Level 5
						6: Level 6
						7: Level 7
						8: Level 8
						9: Level 9
						10: Level 10
						11: Level 11
						12: Level 12
						13: Level 13
						14: Level 14
						15: Level 15
						16: Level 16
						17: Level 17
						18: Level 18
						19: Level 19
P1245	Vv Display Filter	0	8	19		0: Level 0
						1: Level 1
						2: Level 2
						3: Level 3
						4: Level 4
						5: Level 5
						6: Level 6
						7: Level 7
						8: Level 8
						9: Level 9
						10: Level 10
						11: Level 11
						12: Level 12
						13: Level 13
						14: Level 14
						15: Level 15
						16: Level 16
						17: Level 17
						18: Level 18
						19: Level 19
P1246	Vw Display Filter	0	8	19		0: Level 0
						1: Level 1
						2: Level 2
						3: Level 3
						4: Level 4
						5: Level 5
						6: Level 6
						7: Level 7
						8: Level 8
						9: Level 9
						10: Level 10
						11: Level 11
						12: Level 12
						13: Level 13
						14: Level 14
						15: Level 15
						16: Level 16

						17: Level 17
						18: Level 18
						19: Level 19
P1247	Vuv Display Filter	0	8	19		0: Level 0
						1: Level 1
						2: Level 2
						3: Level 3
						4: Level 4
						5: Level 5
						6: Level 6
						7: Level 7
						8: Level 8
						9: Level 9
						10: Level 10
						11: Level 11
						12: Level 12
						13: Level 13
						14: Level 14
						15: Level 15
						16: Level 16
						17: Level 17
						18: Level 18
						19: Level 19
P1248	Vvw Display Filter	0	8	19		0: Level 0
						1: Level 1
						2: Level 2
						3: Level 3
						4: Level 4
						5: Level 5
						6: Level 6
						7: Level 7
						8: Level 8
						9: Level 9
						10: Level 10
						11: Level 11
						12: Level 12
						13: Level 13
						14: Level 14
						15: Level 15
						16: Level 16
						17: Level 17
						18: Level 18
						19: Level 19
P1249	Vwu Display Filter	0	8	19		0: Level 0
						1: Level 1
						2: Level 2
						3: Level 3
						4: Level 4
						5: Level 5
						6: Level 6
						7: Level 7
						8: Level 8
						9: Level 9
						10: Level 10
						11: Level 11
						12: Level 12
						13: Level 13
						14: Level 14
						15: Level 15
						16: Level 16
						17: Level 17
						18: Level 18
						19: Level 19
P1250	Coolant Temperature Display Filter	0	10	19		0: Level 0
						1: Level 1
						2: Level 2
						3: Level 3
						4: Level 4
						5: Level 5
						6: Level 6
						7: Level 7
						8: Level 8
						9: Level 9
						10: Level 10
						11: Level 11
						12: Level 12
						13: Level 13
						14: Level 14
						15: Level 15
						16: Level 16
						17: Level 17
						18: Level 18
						19: Level 19
P1251	Oil Pressure Display Filter	0	8	19		0: Level 0
						1: Level 1
						2: Level 2
						3: Level 3
						4: Level 4
						5: Level 5
						6: Level 6
						7: Level 7
						8: Level 8
						9: Level 9
						10: Level 10
						11: Level 11
						12: Level 12
						13: Level 13
						14: Level 14
						15: Level 15
						16: Level 16
						17: Level 17

						18: Level 18
						19: Level 19
P1252	Fuel Level Display Filter	0	10	19		0: Level 0
						1: Level 1
						2: Level 2
						3: Level 3
						4: Level 4
						5: Level 5
						6: Level 6
						7: Level 7
						8: Level 8
						9: Level 9
						10: Level 10
						11: Level 11
						12: Level 12
						13: Level 13
						14: Level 14
						15: Level 15
						16: Level 16
						17: Level 17
						18: Level 18
						19: Level 19
P1253	Charge Voltage Display Filter	0	8	19		0: Level 0
						1: Level 1
						2: Level 2
						3: Level 3
						4: Level 4
						5: Level 5
						6: Level 6
						7: Level 7
						8: Level 8
						9: Level 9
						10: Level 10
						11: Level 11
						12: Level 12
						13: Level 13
						14: Level 14
						15: Level 15
						16: Level 16
						17: Level 17
						18: Level 18
						19: Level 19
P1254	Battery Voltage Display Filter	0	10	19		0: Level 0
						1: Level 1
						2: Level 2
						3: Level 3
						4: Level 4
						5: Level 5
						6: Level 6
						7: Level 7
						8: Level 8
						9: Level 9
						10: Level 10
						11: Level 11
						12: Level 12
						13: Level 13
						14: Level 14
						15: Level 15
						16: Level 16
						17: Level 17
						18: Level 18
						19: Level 19
P1255	RPM Display Filter	0	8	19		0: Level 0
						1: Level 1
						2: Level 2
						3: Level 3
						4: Level 4
						5: Level 5
						6: Level 6
						7: Level 7
						8: Level 8
						9: Level 9
						10: Level 10
						11: Level 11
						12: Level 12
						13: Level 13
						14: Level 14
						15: Level 15
						16: Level 16
						17: Level 17
						18: Level 18
						19: Level 19
P1256	Mains Frequency Display Filter	0	8	19		0: Level 0
						1: Level 1
						2: Level 2
						3: Level 3
						4: Level 4
						5: Level 5
						6: Level 6
						7: Level 7
						8: Level 8
						9: Level 9
						10: Level 10
						11: Level 11
						12: Level 12
						13: Level 13
						14: Level 14
						15: Level 15
						16: Level 16
						17: Level 17
						18: Level 18

P1257	Generator Frequency Display Filter	0	8	19		19: Level 19 0: Level 0 1: Level 1 2: Level 2 3: Level 3 4: Level 4 5: Level 5 6: Level 6 7: Level 7 8: Level 8 9: Level 9 10: Level 10 11: Level 11 12: Level 12 13: Level 13 14: Level 14 15: Level 15 16: Level 16 17: Level 17 18: Level 18 19: Level 19
P1258	KW Phase R Display Filter	0	8	19		0: Level 0 1: Level 1 2: Level 2 3: Level 3 4: Level 4 5: Level 5 6: Level 6 7: Level 7 8: Level 8 9: Level 9 10: Level 10 11: Level 11 12: Level 12 13: Level 13 14: Level 14 15: Level 15 16: Level 16 17: Level 17 18: Level 18 19: Level 19
P1259	KW Phase S Display Filter	0	8	19		0: Level 0 1: Level 1 2: Level 2 3: Level 3 4: Level 4 5: Level 5 6: Level 6 7: Level 7 8: Level 8 9: Level 9 10: Level 10 11: Level 11 12: Level 12 13: Level 13 14: Level 14 15: Level 15 16: Level 16 17: Level 17 18: Level 18 19: Level 19
P1260	KW Phase T Display Filter	0	8	19		0: Level 0 1: Level 1 2: Level 2 3: Level 3 4: Level 4 5: Level 5 6: Level 6 7: Level 7 8: Level 8 9: Level 9 10: Level 10 11: Level 11 12: Level 12 13: Level 13 14: Level 14 15: Level 15 16: Level 16 17: Level 17 18: Level 18 19: Level 19
P1261	Total KW Display Filter	0	8	19		0: Level 0 1: Level 1 2: Level 2 3: Level 3 4: Level 4 5: Level 5 6: Level 6 7: Level 7 8: Level 8 9: Level 9 10: Level 10 11: Level 11 12: Level 12 13: Level 13 14: Level 14 15: Level 15 16: Level 16 17: Level 17 18: Level 18 19: Level 19

P1262	KVar Phase R Display Filter	0	8	19	0: Level 0 1: Level 1 2: Level 2 3: Level 3 4: Level 4 5: Level 5 6: Level 6 7: Level 7 8: Level 8 9: Level 9 10: Level 10 11: Level 11 12: Level 12 13: Level 13 14: Level 14 15: Level 15 16: Level 16 17: Level 17 18: Level 18 19: Level 19
P1263	KVar Phase S Display Filter	0	8	19	0: Level 0 1: Level 1 2: Level 2 3: Level 3 4: Level 4 5: Level 5 6: Level 6 7: Level 7 8: Level 8 9: Level 9 10: Level 10 11: Level 11 12: Level 12 13: Level 13 14: Level 14 15: Level 15 16: Level 16 17: Level 17 18: Level 18 19: Level 19
P1264	KVar Phase T Display Filter	0	8	19	0: Level 0 1: Level 1 2: Level 2 3: Level 3 4: Level 4 5: Level 5 6: Level 6 7: Level 7 8: Level 8 9: Level 9 10: Level 10 11: Level 11 12: Level 12 13: Level 13 14: Level 14 15: Level 15 16: Level 16 17: Level 17 18: Level 18 19: Level 19
P1265	Total KVar Display Filter	0	8	19	0: Level 0 1: Level 1 2: Level 2 3: Level 3 4: Level 4 5: Level 5 6: Level 6 7: Level 7 8: Level 8 9: Level 9 10: Level 10 11: Level 11 12: Level 12 13: Level 13 14: Level 14 15: Level 15 16: Level 16 17: Level 17 18: Level 18 19: Level 19
P1266	KVA Phase R Display Filter	0	8	19	0: Level 0 1: Level 1 2: Level 2 3: Level 3 4: Level 4 5: Level 5 6: Level 6 7: Level 7 8: Level 8 9: Level 9 10: Level 10 11: Level 11 12: Level 12 13: Level 13 14: Level 14 15: Level 15 16: Level 16 17: Level 17 18: Level 18 19: Level 19
P1267		0	8	19	0: Level 0

	KVA Phase S Display Filter					1: Level 1
						2: Level 2
						3: Level 3
						4: Level 4
						5: Level 5
						6: Level 6
						7: Level 7
						8: Level 8
						9: Level 9
						10: Level 10
						11: Level 11
						12: Level 12
						13: Level 13
						14: Level 14
						15: Level 15
						16: Level 16
						17: Level 17
						18: Level 18
						19: Level 19
P1268	KVA Phase T Display Filter	0	8	19		0: Level 0
						1: Level 1
						2: Level 2
						3: Level 3
						4: Level 4
						5: Level 5
						6: Level 6
						7: Level 7
						8: Level 8
						9: Level 9
						10: Level 10
						11: Level 11
						12: Level 12
						13: Level 13
						14: Level 14
						15: Level 15
						16: Level 16
						17: Level 17
						18: Level 18
						19: Level 19
P1269	Total KVA Display Filter	0	8	19		0: Level 0
						1: Level 1
						2: Level 2
						3: Level 3
						4: Level 4
						5: Level 5
						6: Level 6
						7: Level 7
						8: Level 8
						9: Level 9
						10: Level 10
						11: Level 11
						12: Level 12
						13: Level 13
						14: Level 14
						15: Level 15
						16: Level 16
						17: Level 17
						18: Level 18
						19: Level 19
P1270	Cosφ Phase R Display Filter	0	8	19		0: Level 0
						1: Level 1
						2: Level 2
						3: Level 3
						4: Level 4
						5: Level 5
						6: Level 6
						7: Level 7
						8: Level 8
						9: Level 9
						10: Level 10
						11: Level 11
						12: Level 12
						13: Level 13
						14: Level 14
						15: Level 15
						16: Level 16
						17: Level 17
						18: Level 18
						19: Level 19
P1271	Cosφ Phase S Display Filter	0	8	19		0: Level 0
						1: Level 1
						2: Level 2
						3: Level 3
						4: Level 4
						5: Level 5
						6: Level 6
						7: Level 7
						8: Level 8
						9: Level 9
						10: Level 10
						11: Level 11
						12: Level 12
						13: Level 13
						14: Level 14
						15: Level 15
						16: Level 16
						17: Level 17
						18: Level 18
						19: Level 19
P1272		0	8	19		0: Level 0
						1: Level 1



	Cosφ Phase T Display Filter					2: Level 2
						3: Level 3
						4: Level 4
						5: Level 5
						6: Level 6
						7: Level 7
						8: Level 8
						9: Level 9
						10: Level 10
						11: Level 11
						12: Level 12
						13: Level 13
						14: Level 14
						15: Level 15
						16: Level 16
						17: Level 17
						18: Level 18
						19: Level 19
P1273	Average Cosφ Display Filter	0	8	19		0: Level 0
						1: Level 1
						2: Level 2
						3: Level 3
						4: Level 4
						5: Level 5
						6: Level 6
						7: Level 7
						8: Level 8
						9: Level 9
						10: Level 10
						11: Level 11
						12: Level 12
						13: Level 13
						14: Level 14
						15: Level 15
						16: Level 16
						17: Level 17
						18: Level 18
						19: Level 19
P1274	AN0 Measurement Source	0	5	5		0: No Source
						1: Thermostat 1 (Table) Source
						2: Thermostat 1 (VDO Olcusan 120C) Source
						3: Thermostat 2 (Table) Source
						4: Thermostat 2 (VDO Olcusan 120C) Source
						5: AN0 Table
P1275	AN0 Alarm Status	0	0	2		0: Not Active
						1: Low Level
						2: High Level
P1276	AN0 Failure Value	-9999	20	9999		
P1277	AN0 Failure Delay	2	5	20	Second	
P1278	AN0 Failure Return Time	2	5	20	Second	
P1279	AN0 Failure Class	1	2	6		1:Only Display
						2:Display + Horn
						3:Display + Horn + Gen.Trip
						4:Display + Horn + Shutdown with Cooling
						5:Display + Horn + Shutdown without Cooling
						6:Display + Horn + Shutdown without cooling +
P1280	AN0 Failure Auto-acknowledge	0	0	1		0:Passive
						1:Active
P1281	AN0 Failure Activation Time	0	2	3		0: Active All the Time
						1: Active when Engine Running
						2: Active After Failure Delay Timer
						3: Active when Alternator Energizes the Contactor
P1282	AN0 Failure Auto-acknowledge Type	0	0	1		0:Limited
						1:Unlimited
P1283	AN0 Failure Auto-acknowledge Number	2	5	99		
P1284	AN0 Failure Hysteresis Value	-25	1	25		
P1285	AN0 Auto-acknowledge Counter	0	0	30000		
P1286	AN0 Failure Auto-acknowledge Counter Decrease Timer	0.1	10	6500	Hour	
P1287	AN1 Alarm Status	0	0	2		0: Not Active
						1: Low Level
						2: High Level
P1288	AN1 Failure Value	-9999	120	9999		
P1289	AN1 Failure Delay	2	5	20	Second	
P1290	AN1 Failure Return Time	2	5	20	Second	
P1291	AN1 Failure Class	1	2	6		1:Only Display
						2:Display + Horn
						3:Display + Horn + Gen.Trip
						4:Display + Horn + Shutdown with Cooling
						5:Display + Horn + Shutdown without Cooling
						6:Display + Horn + Shutdown without cooling +
P1292	AN1 Failure Auto-acknowledge	0	0	1		0:Passive
						1:Active
P1293	AN1 Failure Activation Time	0	2	3		0: Active All the Time
						1: Active when Engine Running
						2: Active After Failure Delay Timer
						3: Active when Alternator Energizes the Contactor
P1294	AN1 Failure Auto-acknowledge Type	0	0	1		0:Limited
						1:Unlimited
P1295	AN1 Failure Auto-acknowledge Number	2	5	99		
P1296	AN1 Failure Hysteresis Value	-25	1	25	V	
P1297	AN1 Auto-acknowledge Counter	0	0	30000		

P1298	AN1 Failure Auto-acknowledge Counter Decrease Timer	0.1	10	6500	Hour	
P1299	Number of Points on AN0 Table	2	2	12		
P1300	AN0 1st Point Value	-9999	0	9999		
P1301	AN0 1st Point Resistance Value	0	0	30000	Ohm	
P1302	AN0 2nd Point Value	-9999	0	9999		
P1303	AN0 2nd Point Resistance Value	0	0	30000	Ohm	
P1304	AN0 3rd Point Value	-9999	0	9999		
P1305	AN0 3rd Point Resistance Value	0	0	30000	Ohm	
P1306	AN0 4th Point Value	-9999	0	9999		
P1307	AN0 4th Point Resistance Value	0	0	30000	Ohm	
P1308	AN0 5th Point Value	-9999	0	9999		
P1309	AN0 5th Point Resistance Value	0	0	30000	Ohm	
P1310	AN0 6th Point Value	-9999	0	9999		
P1311	AN0 6th Point Resistance Value	0	0	30000	Ohm	
P1312	AN0 7th Point Value	-9999	0	9999		
P1313	AN0 7th Point Resistance Value	0	0	30000	Ohm	
P1314	AN0 8th Point Value	-9999	0	9999		
P1315	AN0 8th Point Resistance Value	0	0	30000	Ohm	
P1316	AN0 9th Point Value	-9999	0	9999		
P1317	AN0 9th Point Resistance Value	0	0	30000	Ohm	
P1318	AN0 10th Point Value	-9999	0	9999		
P1319	AN0 10th Point Resistance Value	0	0	30000	Ohm	
P1320	AN0 11th Point Value	-9999	0	9999		
P1321	AN0 11th Point Resistance Value	0	0	30000	Ohm	
P1322	AN0 12th Point Value	-9999	0	9999		
P1323	AN0 12th Point Resistance Value	0	0	30000	Ohm	
P1324	Number of Points on AN1 Table	2	2	12		
P1325	AN1 1st Point Value	-9999	0	9999		
P1326	AN1 1st Point Resistance Value	0	0	30000	Ohm	
P1327	AN1 2nd Point Value	-9999	0	9999		
P1328	AN1 2nd Point Resistance Value	0	0	30000	Ohm	
P1329	AN1 3rd Point Value	-9999	0	9999		
P1330	AN1 3rd Point Resistance Value	0	0	30000	Ohm	
P1331	AN1 4th Point Value	-9999	0	9999		
P1332	AN1 4th Point Resistance Value	0	0	30000	Ohm	
P1333	AN1 5th Point Value	-9999	0	9999		
P1334	AN1 5th Point Resistance Value	0	0	30000	Ohm	
P1335	AN1 6th Point Value	-9999	0	9999		
P1336	AN1 6th Point Resistance Value	0	0	30000	Ohm	
P1337	AN1 7th Point Value	-9999	0	9999		
P1338	AN1 7th Point Resistance Value	0	0	30000	Ohm	
P1339	AN1 8th Point Value	-9999	0	9999		
P1340	AN1 8th Point Resistance Value	0	0	30000	Ohm	
P1341	AN1 9th Point Value	-9999	0	9999		
P1342	AN1 9th Point Resistance Value	0	0	30000	Ohm	
P1343	AN1 10th Point Value	-9999	0	9999		
P1344	AN1 10th Point Resistance Value	0	0	30000	Ohm	
P1345	AN1 11th Point Value	-9999	0	9999		
P1346	AN1 11th Point Resistance Value	0	0	30000	Ohm	
P1347	AN1 12th Point Value	-9999	0	9999		
P1348	AN1 12th Point Resistance Value	0	0	30000	Ohm	
P1349	RS232 Baud Rate	0	4	5		0: 2400 1: 4800 2: 9600 3: 14400 4: 19200 5: 38400

P1350	RS232 Parity Bit	0	0	2		0:None
						1:Odd
						2:Even
P1351	RS232 Stop Bit	1	1	2		1:1 Stop Bit
						2:2 Stop Bit
P1352	RS232 Modbus Slave Address	1	1	255		
P1353	RS232 Reply Packet Delay	0.02	0.04	9	Second	
P1354	RS232 Modem Function	0	0	1		0:None
						1: GSM Modem
P1355	GSM PIN Code	0	0	9999		
P1356	GSM Message Center Number 1		"902323"			
P1357	GSM Message Center Number 2		"767806"			
P1358	GSM Message Center Number 3		" "			
P1359	1st GSM Recipient Number 1		"902323"			
P1360	1st GSM Recipient Number 2		"767806"			
P1361	1st GSM Recipient Number 3		" "			
P1362	2nd GSM Recipient Number 1		"902323"			
P1363	2nd GSM Recipient Number 2		"767806"			
P1364	2nd GSM Recipient Number 3		" "			
P1365	Mains Vr Calibration Gain Value	0.001	0.84	1.2		
P1366	Mains Vs Calibration Gain Value	0.001	0.84	1.2		
P1367	Mains Vt Calibration Gain Value	0.001	0.84	1.2		
P1368	Mains Vrs Calibration Gain Value	0.001	1.000	1.2		
P1369	Mains Vst Calibration Gain Value	0.001	1.000	1.2		
P1370	Mains Vtr Calibration Gain Value	0.001	1.000	1.2		
P1371	Generator Vr Calibration Gain Value	0.001	0.84	1.2		
P1372	Generator Vs Calibration Gain Value	0.001	0.84	1.2		
P1373	Generator Vt Calibration Gain Value	0.001	0.84	1.2		
P1374	Generator Vrs Calibration Gain Value	0.001	1.000	1.2		
P1375	Generator Vst Calibration Gain Value	0.001	1.000	1.2		
P1376	Generator Vtr Calibration Gain Value	0.001	1.000	1.2		
P1377	Generator Ir Calibration Gain Value	0.01	3.58	9.99		
P1378	Generator Is Calibration Gain Value	0.01	3.58	9.99		
P1379	Generator It Calibration Gain Value	0.01	3.58	9.99		
P1380	Battery Voltage Calibration Gain Value	0.01	0.42	9.99		
P1381	Charge Voltage Calibration Gain Value	0.01	0.42	9.99		
P1382	KW Phase r Calibration Gain Value	0.01	1	9.99		
P1383	KW Phase s Calibration Gain Value	0.01	1	9.99		
P1384	KW Phase t Calibration Gain Value	0.01	1	9.99		
P1385	KVar Phase r Calibration Gain Value	0.01	1	9.99		
P1386	KVar Phase s Calibration Gain Value	0.01	1	9.99		
P1387	KVar Phase t Calibration Gain Value	0.01	1	9.99		
P1388	KVA Phase r Calibration Gain Value	0.01	1	9.99		
P1389	KVA Phase s Calibration Gain Value	0.01	1	9.99		
P1390	KVA Phase t Calibration Gain Value	0.01	1	9.99		
P1391	Cosφ Phase r Calibration Gain Value	0.01	1	9.99		
P1392	Cosφ Phase s Calibration Gain Value	0.01	1	9.99		
P1393	Cosφ Phase t Calibration Gain Value	0.01	1	9.99		
P1394	Mains Vr Calibration Offset Value	-29	0	29	V	
P1395	Mains Vs Calibration Offset Value	-29	0	29	V	
P1396	Mains Vt Calibration Offset Value	-29	0	29	V	
P1397	Mains Vrs Calibration Offset Value	-29	0	29	V	
P1398	Mains Vst Calibration Offset Value	-29	0	29	V	
P1399	Mains Vtr Calibration Offset Value	-29	0	29	V	
P1400	Generator Vr Calibration Offset Value	-29	0	29	V	
P1401	Generator Vs Calibration Offset Value	-29	0	29	V	
P1402	Generator Vt Calibration Offset Value	-29	0	29	V	
P1403	Generator Vrs Calibration Offset Value	-29	0	29	V	
P1404	Generator Vst Calibration Offset Value	-29	0	29	V	
P1405	Generator Vtr Calibration Offset Value	-29	0	29	V	
P1406	Battery Voltage Calibration Offset Value	-9.9	0	9.9		
P1407	Charge Voltage Calibration Offset Value	9.9	0	9.9		
P1408	Generator Ir Calibration Offset Value	-99	0	99		
P1409	Generator Is Calibration Offset Value	-99	0	99		
P1410	Generator It Calibration Offset Value	-99	0	99		
P1411	KW Phase r Calibration Offset Value	-999	0	999	KW	
P1412	KW Phase s Calibration Offset Value	-999	0	999	KW	
P1413	KW Phase t Calibration Offset Value	-999	0	999	KW	
P1414	KVar Phase r Calibration Offset Value	-999	0	999	KVAR	
P1415	KVar Phase s Calibration Offset Value	-999	0	999	KVAR	
P1416	KVar Phase t Calibration Offset Value	-999	0	999	KVAR	
P1417	KVA Phase r Calibration Offset Value	-999	0	999	KVA	
P1418	KVA Phase s Calibration Offset Value	-999	0	999	KVA	
P1419	KVA Phase t Calibration Offset Value	-999	0	999	KVA	
P1420	Cosφ Phase r Calibration Offset Value	-0.99	0	0.99		
P1421	Cosφ Phase s Calibration Offset Value	-0.99	0	0.99		
P1422	Cosφ Phase t Calibration Offset Value	-0.99	0	0.99		
P1423	Oil Pressure Calibration Offset Value	-9.9	0	9.9		
P1424	Temperature Calibration Offset Value	-9	0	9		
P1425	Fuel Level Calibration Offset Value	-9	0	9		
P1426	Oil Pressure Sensor Failure Lower Limit Value	1	8	1023		
P1427	Oil Pressure Sensor Failure Upper Limit Value	1	1015	1023		
P1428	Oil Pressure Sensor Calibration Gain Value	1	100	120		
P1429	Coolant Temperature Sensor Failure Lower Limit Value	1	8	1023		
P1430	Coolant Temperature Sensor Failure Upper Limit Value	1	1015	1023		
P1431	Coolant Temperature Sensor Calibration Gain Value	1	100	120		
P1432	Fuel Level Sensor Failure Lower Limit Value	1	8	1023		

P1433	Fuel Level Sensor Failure Upper Limit Value	1	1015	1023		
P1434	Fuel Level Sensor Calibration Gain Value	1	100	120		
P1435	U Phase Current Transformer 50hz Phase Shift	0	142	2000	uS	
P1436	V Phase Current Transformer 50hz Phase Shift	0	142	2000	uS	
P1437	W Phase Current Transformer 50hz Phase Shift	0	142	2000	uS	
P1438	Earth Current Input Active	0	1	1		0:Passive 1:Active
P1439	Earth Current Transformer Primer Ratio	5	100	9900		
P1440	Earth Current Transformer Seconder Ratio	1	5	5		
P1441	Earth Current Ie Calibration Gain Value	0.01	3.58	9.99		
P1442	Earth Current Ie Calibration Offset Value	-99	0	99		
P1443	Earth Failure Active	0	0	1		0:Passive 1:Active
P1444	Earth Failure Limit Value	1	20	50	Amp	
P1445	Earth Failure Delay	2	5	20	Second	
P1446	Earth Failure Return Time	2	5	20	Second	
P1447	Earth Failure Class	1	2	6		1:Only Display 2:Display + Horn 3:Display + Horn + Gen.Trip 4:Display + Horn + Shutdown with Cooling 5:Display + Horn + Shutdown without Cooling 6:Display + Horn + Shutdown without cooling +
P1448	Earth Failure Auto-acknowledge	0	0	1		0:Passive 1:Active
P1449	Earth Failure Activation Time	0	2	3		0:Active All the Time 1:Active when Engine Running 2:Active After Failure Delay Timer 3: Active when Alternator Energizes the Contactor
P1450	Earth Failure Auto-acknowledge Type	0	0	1		0:Limited 1:Unlimited
P1451	Earth Failure Auto-acknowledge Number	2	5	99		
P1452	Earth Failure Hystheresis Value	1	1	25	Amp	
P1453	Earth Failure Auto-acknowledge Counter	0	0	30000		
P1454	Earth Failure Auto-acknowledge Counter Decrease Timer	0.1	10	6500	Hour	
P1455	Reverse Power Protection Failure Active	0	0	1		0:Passive 1:Active
P1456	Reverse Power Protection Failure Limit Value	-50	-10	5	KW	
P1457	Reverse Power Protection Failure Delay	2	5	20	Second	
P1458	Reverse Power Protection Failure Return Time	2	5	20	Second	
P1459	Reverse Power Protection Failure Class	1	2	6		1:Only Display 2:Display + Horn 3:Display + Horn + Gen.Trip 4:Display + Horn + Shutdown with Cooling 5:Display + Horn + Shutdown without Cooling 6:Display + Horn + Shutdown without cooling +
P1460	Reverse Power Protection Failure Auto-acknowledge	0	0	1		0:Passive 1:Active
P1461	Reverse Power Protection Failure Activation Time	0	2	3		0:Active All the Time 1:Active when Engine Running 2:Active After Failure Delay Timer 3: Active when Alternator Energizes the Contactor
P1462	Reverse Power Protection Failure Auto-acknowledge Type	0	0	1		0:Limited 1:Unlimited
P1463	Reverse Power Protection Failure Auto-acknowledge Number	2	5	99		
P1464	Reverse Power Protection Failure Hystheresis Value	-12	-0.1	12	KW	
P1465	Reverse Power Protection Failure Auto-acknowledge Counter	0	0	30000		
P1466	Reverse Power Protection Failure Auto-acknowledge Counter Decrease Timer	0.1	10	6500	Hour	
P1467	Phase Sequence Failure Active	0	1	1		0:Passive 1:Active
P1468	Phase Sequence Failure Class	1	2	6		1:Only Display 2:Display + Horn 3:Display + Horn + Gen.Trip 4:Display + Horn + Shutdown with Cooling 5:Display + Horn + Shutdown without Cooling 6:Display + Horn + Shutdown without cooling +
P1469	RS485 Port Function	0	0	3		0:Modbus Slave 1:Dual Slave 2:Dual Master (No Equal Aging) 3:Dual Master (Equal Aging)
P1470	RS485 Baud Rate	0	4	5		0: 2400 1: 4800 2: 9600 3: 14400 4: 19200 5: 38400
P1471	RS485 Parity Bit	0	0	2		0:None 1:Odd 2:Even
P1472	RS485 Stop Bit	1	1	2		1:1 Stop Bit

	RS485 Stop Bit					2:2 Stop Bit
P1473	RS485 Modbus Slave Address	1	1	255		
P1474	RS485 Reply Packet Delay	0.02	0.04	9	Second	
P1475	Reset KWh Values	0	0	1		0:Passive 1:Active
P1476	R Phase KWh	0	0	99999.9		
P1477	S Phase KWh	0	0	99999.9		
P1478	T Phase KWh	0	0	9999.9		
P1479	Group Minimum Running Time	1	4	255		
P1480	Pass Synchronization Between Goups Exist	0	0	1		0: Does not exist 1: Exists
P1481	Synchronization Passover Time Exceed	10	120	250	Second	
P1482	Minimum Co-work Time	500	1500	9999	Miliseconds	
P1483	Canbus Communication Failure Class	1	2	6		1:Only Display 2:Display + Horn 3:Display + Horn + Gen.Trip 4:Display + Horn + Shutdown with Cooling 5:Display + Horn + Shutdown without Cooling 6:Display + Horn + Shutdown without cooling +
P1484	ECU control command sending	0	1	1		0:Passive 1:Active
P1485	ECU Alternative Speed Setting	0	0	1		0:Passive 1:Active
P1486	ECU Droop	0	1	1		0:Passive 1:Active
P1487	ECU droop value	0	4.0	5.0		
P1488	AN3 Sensor Active	0	0	1		0:Fuel Level 1:AN3
P1489	AN3 Failure Activation Time	0	0	3		0: Active All the Time 1: Active when Engine Running 2: Active After Failure Delay Timer 3: Active when Alternator Energizes the Contactor
P1490	AN3 Failure Message 1		"AN3"			
P1491	Display Line 1 Start-Up Position	1	1	3		1: R Phase Current 2: Oil Pressure 3: Charge Voltage
P1492	Display Line 2 Start-Up Position	1	1	3		1: S Phase Current 2: Coolant Temperature 3: RPM
P1493	Display Line 3 Start-Up Position	1	1	4		1: T Phase Current 2: Fuel Level 3: Battery Voltage 4: Info
P1494	Display Line 4 Start-Up Position	1	1	6		1: R Phase Voltage 2: S Phase Voltage 3: T Phase Voltage 4: RS Phase to Phase Voltage 5: ST Phase to Phase Voltage 6: TR Phase to Phase Voltage
P1495	Display Line 5 Start-Up Position	1	1	18		1: Frequency 2: Engine Running Time 3: Phase 1 Active Power 4: Phase 2 Active Power 5: Phase 3 Active Power 6: Total Active Power 7: Phase 1 Reactive Power 8: Phase 2 Reactive Power 9: Phase 3 Reactive Power 10: Total Reactive Power 11: Phase 1 Visible Power 12: Phase 2 Visible Power 13: Phase 3 Visible Power 14: Total Visible Power 15: Phase 1 Cos φ 16: Phase 2 Cos φ 17: Phase 3 Cos φ 18: Average Cos φ
P1496	Real Time Clock Setting Year	12	12	99		
P1497	Real Time Clock Setting Month	1	1	12		1: January 2: February 3: March 4: April 5: May 6: June 7: July 8: August 9: September 10: October 11: November 12: January
P1498	Real Time Clock Setting Day of Month	1	1	31		
P1499	Real Time Clock Setting Day of Week	1	1	7		1: Monday 2: Tuesday 3: Wednesday 4: Thursday 5: Friday 6: Saturday 7: Sunday
P1500	Real Time Clock Setting Hour	0	0	23		
P1501	Real Time Clock Setting Minute	0	0	59		

P1502	Real Time Clock Setting Second	0	0	59		
-------	--------------------------------	---	---	----	--	--