

CLC Monitor I System ModbusTCP Register List

The data from the CLC MMS Monitor I System is presented as Holding Registers (3x). Several data parameters contain an implied decimal place for greater precision. For example, register **30020** indicates the bypass frequency of the bypass line and must be multiplied by 0.1Hz (a value of 599 indicates a frequency of 59.9Hz). These details are documented in the notes. Table 6 contains read-only 16bit unsigned integers that reflect UPS mimic display data on the UPS Modules, Battery, Input, Output, and Bypass circuits.

Table 1
Auxiliary I/O Register List (Outputs)

Register	Bit	Description	Modbus Output Variable	CLC source variable
30001	00	[Q2] Relay Output 1	MBIP_Aux_Out1	Out1
	01	[Q3] Relay Output 2	MBIP_Aux_Out2	Out2
	02	[Q4] Relay Output 3	MBIP_Aux_Out3	Out3
	03	[Q5] Relay Output 4	MBIP_Aux_Out4	Out4
	04	[Q6] Relay Output 5	MBIP_Aux_Out5	Out5
	05	[Q7] Relay Output 6	MBIP_Aux_Out6	Out6

Table 2
Auxiliary I/O Register List (Inputs)

Register	Bit	Description	Modbus Output Variable	CLC source variable
30002	00	[I0] 52L1 Closed	MBIP_Aux_In1	CLC52L1
	01	[I1] 52L2 Closed	MBIP_Aux_In2	CLC52L2
	02	[I2] 52L3 Closed	MBIP_Aux_In3	CLC52L3
	03	[I3] 52L4 Closed	MBIP_Aux_In4	CLC52L4
	04	[I4] 52L5 Closed	MBIP_Aux_In5	CLC52L5
	05	[I5] 52L6 Closed	MBIP_Aux_In6	CLC52L6
	06	[I6] 52L7 Closed	MBIP_Aux_In7	CLC52L7
	07	[I7] 52L8 Closed	MBIP_Aux_In8	CLC52L8
	08	[I8] SMB Closed	MBIP_Aux_In9	CLCSMB
	09	[I9] 52L Closed	MBIP_Aux_In10	CLC52L
	10	[I10] SMB Input Power (VMB)	MBIP_Aux_In11	CLCVMB
	11	[I11]	MBIP_Aux_In12	AuxIOin12
30003	00	[0]	MBIP_Aux_In13	AuxIOin13
	01	[1]	MBIP_Aux_In14	AuxIOin14
	02	[2]	MBIP_Aux_In15	AuxIOin15
	03	[3]	MBIP_Aux_In16	AuxIOin16
	04	[4]	MBIP_Aux_In17	AuxIOin17
	05	[5]	MBIP_Aux_In18	AuxIOin18
	06	[6]	MBIP_Aux_In19	AuxIOin19
	07	[7]	MBIP_Aux_In20	AuxIOin20
	08	[8]	MBIP_Aux_In21	AuxIOin21
	09	[9]	MBIP_Aux_In22	AuxIOin22
	10	[10]	MBIP_Aux_In23	AuxIOin23
	11	[11]	MBIP_Aux_In24	AuxIOin24
	12	[12]	MBIP_Aux_In25	AuxIOin25
	13	[13]	MBIP_Aux_In26	AuxIOin26
	14	[14]	MBIP_Aux_In27	AuxIOin27
	15	[15]	MBIP_Aux_In28	AuxIOin28

Table 3
CLC Mimic Register List

Register	Bit	Description	Modbus Output Variable	CLC source variable
30004	00	CLC AC power from UPS1	MBIP_UPS1_ACout	UPS1_skl_on[8]
	01	CLC AC power from UPS2	MBIP_UPS2_ACout	UPS2_skl_on[8]
	02	CLC AC power from UPS3	MBIP_UPS3_ACout	UPS3_skl_on[8]
	03	CLC AC power from UPS4	MBIP_UPS4_ACout	UPS4_skl_on[8]
	04	CLC AC power from UPS5	MBIP_UPS5_ACout	UPS5_skl_on[8]
	05	CLC AC power from UPS6	MBIP_UPS6_ACout	UPS6_skl_on[8]
	06	CLC AC power from UPS7	MBIP_UPS7_ACout	UPS7_skl_on[8]
	07	CLC AC power from UPS8	MBIP_UPS8_ACout	UPS8_skl_on[8]
30005	00	Summary Alarm	MBIP_Summary_Alarm	Out0

Table 4
CLC Parameter Register List

Register	Measurement	Notes	Modbus Output Variable	CLC source variable
30006	System KW Percentage	x0.1%	MBIP_System_KW_Perc	System_Power_percent
30007	System KW	KW	MBIP_System_KW	System_Power_KW
30008	System AC Current	A	MBIP_System_Current	System_Current
30009	CLC UPS Module Capacity	2,3,4,5,6,7, or 8	MBIP_UPS_Quantity	UPS_Quantity
30010	Modules' Individual UPS KVA	KVA	MBIP_KVArating	KVArating
30011	CLC Input Voltage	UPS Output Voltage	MBIP_System_Output_Voltage	System_Output_Voltage
30012	CLC ID Label	(80bit) 5x16bit	MBIP_CLC_Name	CLCnameDis (80 bit) 5x16bit
30013	CLC ID Label			(80 bit) 5x16bit
30014	CLC ID Label			(80 bit) 5x16bit
30015	CLC ID Label			(80 bit) 5x16bit
30016	CLC ID Label			(80 bit) 5x16bit

Table 5
UPS Parameter Register List

Register	Measurement	Notes	Modbus Output Variable	CLC source variable
30017	UPS1 Bypass Frequency	x0.1Hz	MBIP_UPS1_FByp	UPS_FByp[0]
30018	UPS1 Bypass Voltage	x0.1V	MBIP_UPS1_VByp	UPS_VByp[0]
30022	UPS1 Input Frequency	x0.1Hz	MBIP_UPS1_Fin	UPS_Fin[0]
30023	UPS1 Input Voltage	x0.1V	MBIP_UPS1_Vin	UPS_Vin[0]
30028	UPS1 Output Voltage AB	x0.1V	MBIP_UPS1_VoutAB	UPS_VoutAB[0]
30029	UPS1 Output Voltage BC	x0.1V	MBIP_UPS1_VoutBC	UPS_VoutBC[0]
30030	UPS1 Output Voltage CA	x0.1V	MBIP_UPS1_VoutCA	UPS_VoutCA[0]
30031	UPS1 DC Voltage BP	x0.1V	MBIP_UPS1_VDC_BP	
30032	UPS1 DC Voltage BN	x0.1V	MBIP_UPS1_VDC_BN	
30034	UPS1 Output Frequency	x0.1Hz	MBIP_UPS1_Fout	UPS_Fout[0]
30035	UPS1 Output Voltage	x0.1 KW	MBIP_UPS1_Vout	UPS_VoutAB[0]
30036	UPS1 Power Factor	x0.01	MBIP_UPS1_pf	PowerFactor
30037	UPS1 Output Current A	x0.1A	MBIP_UPS1_oi_a_a	oi_a_a[0]
30038	UPS1 Output Current B	x0.1A	MBIP_UPS1_oi_b_a	oi_b_a[0]
30039	UPS1 Output Current C	x0.1A	MBIP_UPS1_oi_c_a	oi_c_a[0]
30040	UPS1 Output Current N	x0.1A	MBIP_UPS1_oi_n_a	oi_n_a[0]
30041	UPS1 Output Current Percentage A	x0.1%	MBIP_UPS1_loutAr	UPS_loutAr[0]
30042	UPS1 Output Current Percentage B	x0.1%	MBIP_UPS1_loutBr	UPS_loutBr[0]
30043	UPS1 Output Current Percentage C	x0.1%	MBIP_UPS1_loutCr	UPS_loutCr[0]
30045	UPS1 Output KW	x0.1 KW	MBIP_UPS1_op_kw	op_kw[0]
30046	UPS1 Output Power Percentage	x0.1%	MBIP_UPS1_op_kw_perc	op_kw_percent[0]
30047	UPS1 DC capacitor voltage	x0.1V	MBIP_UPS1_DC_Vcap	LS_L_Vdc
30048	UPS1 Battery Voltage	x0.1V	MBIP_UPS1_Vbatt	UPS_Vbatt[0]
30049	UPS1 Battery Current	x0.1A	MBIP_UPS1_lbatt	UPS_lbatt[0]
30050	UPS1 Battery Remain Percentage	x0.1%	MBIP_UPS1_EBC	UPS_EBC[0]
30051	UPS1 Battery Runtime min	Minutes	MBIP_UPS1_Batt_Op_Min	UPS_Batt_Op_Min[0]
30056	UPS1 Current Fault Count		MBIP_UPS1_FC	LS_Fcount
30057	UPS1 KVA Rating	KVA	MBIP_UPS1_KVA	LS_Setup[56]
30060	UPS2 Bypass Frequency	x0.1Hz	MBIP_UPS2_FByp	UPS_FByp[1]
30061	UPS2 Bypass Voltage	x0.1V	MBIP_UPS2_VByp	UPS_VByp[1]
30065	UPS2 Input Frequency	x0.1Hz	MBIP_UPS2_Fin	UPS_Fin[1]
30066	UPS2 Input Voltage	x0.1V	MBIP_UPS2_Vin	UPS_Vin[1]
30071	UPS2 Output Voltage AB	x0.1V	MBIP_UPS2_VoutAB	UPS_VoutAB[1]
30072	UPS2 Output Voltage BC	x0.1V	MBIP_UPS2_VoutBC	UPS_VoutBC[1]
30073	UPS2 Output Voltage CA	x0.1V	MBIP_UPS2_VoutCA	UPS_VoutCA[1]
30074	UPS2 DC Voltage BP	x0.1V	MBIP_UPS2_VDC_BP	
30075	UPS2 DC Voltage BN	x0.1V	MBIP_UPS2_VDC_BN	
30077	UPS2 Output Frequency	x0.1Hz	MBIP_UPS2_Fout	UPS_Fout[1]
30078	UPS2 Output Voltage	x0.1 KW	MBIP_UPS2_Vout	UPS_VoutAB[1]
30079	UPS2 Power Factor	x0.01	MBIP_UPS2_pf	PowerFactor
30080	UPS2 Output Current A	x0.1A	MBIP_UPS2_oi_a_a	oi_a_a[1]
30081	UPS2 Output Current B	x0.1A	MBIP_UPS2_oi_b_a	oi_b_a[1]
30082	UPS2 Output Current C	x0.1A	MBIP_UPS2_oi_c_a	oi_c_a[1]
30083	UPS2 Output Current N	x0.1A	MBIP_UPS2_oi_n_a	oi_n_a[1]
30084	UPS2 Output Current Percentage A	x0.1%	MBIP_UPS2_loutAr	UPS_loutAr[1]
30085	UPS2 Output Current Percentage B	x0.1%	MBIP_UPS2_loutBr	UPS_loutBr[1]
30086	UPS2 Output Current Percentage C	x0.1%	MBIP_UPS2_loutCr	UPS_loutCr[1]
30088	UPS2 Output KW	x0.1 KW	MBIP_UPS2_op_kw	UPS_kw[1]
30089	UPS2 Output Power Percentage	x0.1%	MBIP_UPS2_op_kw_perc	UPS_kw_percent[1]
30090	UPS2 DC capacitor voltage	x0.1V	MBIP_UPS2_DC_Vcap	LS_L_Vdc
30091	UPS2 Battery Voltage	x0.1V	MBIP_UPS2_Vbatt	UPS_Vbatt[1]

30092	UPS2 Battery Current	x0.1A	MBIP_UPS2_lbatt	UPS_lbatt[1]
30093	UPS2 Battery Remain Percentage	x0.1%	MBIP_UPS2_EBC	UPS_EBC[1]
30094	UPS2 Battery Runtime min	Minutes	MBIP_UPS2_Batt_Op_Min	UPS_Batt_Op_Min[1]
30099	UPS2 Current Fault Count		MBIP_UPS2_FC	LS_Fcount
30100	UPS2 KVA Rating	KVA	MBIP_UPS2_KVA	LS_Setup[56]
30103	UPS3 Bypass Frequency	x0.1Hz	MBIP_UPS3_FByp	UPS_FByp[2]
30104	UPS3 Bypass Voltage	x0.1V	MBIP_UPS3_VByp	UPS_VByp[2]
30108	UPS3 Input Frequency	x0.1Hz	MBIP_UPS3_Fin	UPS_Fin[2]
30109	UPS3 Input Voltage	x0.1V	MBIP_UPS3_Vin	UPS_Vin[2]
30114	UPS3 Output Voltage AB	x0.1V	MBIP_UPS3_VoutAB	UPS_VoutAB[2]
30115	UPS3 Output Voltage BC	x0.1V	MBIP_UPS3_VoutBC	UPS_VoutBC[2]
30116	UPS3 Output Voltage CA	x0.1V	MBIP_UPS3_VoutCA	UPS_VoutCA[2]
30117	UPS3 DC Voltage BP	x0.1V	MBIP_UPS3_VDC_BP	
30118	UPS3 DC Voltage BN	x0.1V	MBIP_UPS3_VDC_BN	
30120	UPS3 Output Frequency	x0.1Hz	MBIP_UPS3_Fout	UPS_Fout[2]
30121	UPS3 Output Voltage	x0.1 KW	MBIP_UPS3_Vout	UPS_VoutAB[2]
30122	UPS3 Power Factor	x0.01	MBIP_UPS3_pf	PowerFactor
30123	UPS3 Output Current A	x0.1A	MBIP_UPS3_oi_a_a	oi_a_a[2]
30124	UPS3 Output Current B	x0.1A	MBIP_UPS3_oi_b_a	oi_b_a[2]
30125	UPS3 Output Current C	x0.1A	MBIP_UPS3_oi_c_a	oi_c_a[2]
30126	UPS3 Output Current N	x0.1A	MBIP_UPS3_oi_n_a	oi_n_a[2]
30127	UPS3 Output Current Percentage A	x0.1%	MBIP_UPS3_loutAr	UPS_loutAr[2]
30128	UPS3 Output Current Percentage B	x0.1%	MBIP_UPS3_loutBr	UPS_loutBr[2]
30129	UPS3 Output Current Percentage C	x0.1%	MBIP_UPS3_loutCr	UPS_loutCr[2]
30131	UPS3 Output KW	x0.1 KW	MBIP_UPS3_op_kw	UPS_kw[2]
30132	UPS3 Output Power Percentage	x0.1%	MBIP_UPS3_op_kw_perc	UPS_kw_percent[2]
30133	UPS3 DC capacitor voltage	x0.1V	MBIP_UPS3_DC_Vcap	LS_L_Vdc
30134	UPS3 Battery Voltage	x0.1V	MBIP_UPS3_Vbatt	UPS_Vbatt[2]
30135	UPS3 Battery Current	x0.1A	MBIP_UPS3_lbatt	UPS_lbatt[2]
30136	UPS3 Battery Remain Percentage	x0.1%	MBIP_UPS3_EBC	UPS_EBC[2]
30137	UPS3 Battery Runtime min	Minutes	MBIP_UPS3_Batt_Op_Min	UPS_Batt_Op_Min[2]
30142	UPS3 Current Fault Count		MBIP_UPS3_FC	LS_Fcount
30143	UPS3 KVA Rating	KVA	MBIP_UPS3_KVA	LS_Setup[56]
30146	UPS4 Bypass Frequency	x0.1Hz	MBIP_UPS4_FByp	UPS_FByp[3]
30147	UPS4 Bypass Voltage	x0.1V	MBIP_UPS4_VByp	UPS_VByp[3]
30151	UPS4 Input Frequency	x0.1Hz	MBIP_UPS4_Fin	UPS_Fin[3]
30152	UPS4 Input Voltage	x0.1V	MBIP_UPS4_Vin	UPS_Vin[3]
30157	UPS4 Output Voltage AB	x0.1V	MBIP_UPS4_VoutAB	UPS_VoutAB[3]
30158	UPS4 Output Voltage BC	x0.1V	MBIP_UPS4_VoutBC	UPS_VoutBC[3]
30159	UPS4 Output Voltage CA	x0.1V	MBIP_UPS4_VoutCA	UPS_VoutCA[3]
30160	UPS4 DC Voltage BP	x0.1V	MBIP_UPS4_VDC_BP	
30161	UPS4 DC Voltage BN	x0.1V	MBIP_UPS4_VDC_BN	
30163	UPS4 Output Frequency	x0.1Hz	MBIP_UPS4_Fout	UPS_Fout[3]
30164	UPS4 Output Voltage	x0.1 KW	MBIP_UPS4_Vout	UPS_VoutAB[3]
30165	UPS4 Power Factor	x0.01	MBIP_UPS4_pf	PowerFactor
30166	UPS4 Output Current A	x0.1A	MBIP_UPS4_oi_a_a	oi_a_a[3]
30167	UPS4 Output Current B	x0.1A	MBIP_UPS4_oi_b_a	oi_b_a[3]
30168	UPS4 Output Current C	x0.1A	MBIP_UPS4_oi_c_a	oi_c_a[3]
30169	UPS4 Output Current N	x0.1A	MBIP_UPS4_oi_n_a	oi_n_a[3]
30170	UPS4 Output Current Percentage A	x0.1%	MBIP_UPS4_loutAr	UPS_loutAr[3]
30171	UPS4 Output Current Percentage B	x0.1%	MBIP_UPS4_loutBr	UPS_loutBr[3]
30172	UPS4 Output Current Percentage C	x0.1%	MBIP_UPS4_loutCr	UPS_loutCr[3]
30174	UPS4 Output KW	x0.1 KW	MBIP_UPS4_op_kw	UPS_kw[3]
30175	UPS4 Output Power Percentage	x0.1%	MBIP_UPS4_op_kw_perc	UPS_kw_percent[3]
30176	UPS4 DC capacitor voltage	x0.1V	MBIP_UPS4_DC_Vcap	LS_L_Vdc
30177	UPS4 Battery Voltage	x0.1V	MBIP_UPS4_Vbatt	UPS_Vbatt[3]
30178	UPS4 Battery Current	x0.1A	MBIP_UPS4_lbatt	UPS_lbatt[3]
30179	UPS4 Battery Remain Percentage	x0.1%	MBIP_UPS4_EBC	UPS_EBC[3]
30180	UPS4 Battery Runtime min	Minutes	MBIP_UPS4_Batt_Op_Min	UPS_Batt_Op_Min[3]
30185	UPS4 Current Fault Count		MBIP_UPS4_FC	LS_Fcount
30186	UPS4 KVA Rating	KVA	MBIP_UPS4_KVA	LS_Setup[56]
30189	UPS5 Bypass Frequency	x0.1Hz	MBIP_UPS5_FByp	UPS_FByp[4]
30190	UPS5 Bypass Voltage	x0.1V	MBIP_UPS5_VByp	UPS_VByp[4]
30194	UPS5 Input Frequency	x0.1Hz	MBIP_UPS5_Fin	UPS_Fin[4]
30195	UPS5 Input Voltage	x0.1V	MBIP_UPS5_Vin	UPS_Vin[4]
30200	UPS5 Output Voltage AB	x0.1V	MBIP_UPS5_VoutAB	UPS_VoutAB[4]
30201	UPS5 Output Voltage BC	x0.1V	MBIP_UPS5_VoutBC	UPS_VoutBC[4]
30202	UPS5 Output Voltage CA	x0.1V	MBIP_UPS5_VoutCA	UPS_VoutCA[4]
30203	UPS5 DC Voltage BP	x0.1V	MBIP_UPS5_VDC_BP	
30204	UPS5 DC Voltage BN	x0.1V	MBIP_UPS5_VDC_BN	
30206	UPS5 Output Frequency	x0.1Hz	MBIP_UPS5_Fout	UPS_Fout[4]

30207	UPS5 Output Voltage	x0.1 KW	MBIP_UPS5_Vout	UPS_VoutAB[4]
30208	UPS5 Power Factor	x0.01	MBIP_UPS5_pf	PowerFactor
30209	UPS5 Output Current A	x0.1A	MBIP_UPS5_oi_a_a	oi_a_a[4]
30210	UPS5 Output Current B	x0.1A	MBIP_UPS5_oi_b_a	oi_b_a[4]
30211	UPS5 Output Current C	x0.1A	MBIP_UPS5_oi_c_a	oi_c_a[4]
30212	UPS5 Output Current N	x0.1A	MBIP_UPS5_oi_n_a	oi_n_a[4]
30213	UPS5 Output Current Percentage A	x0.1%	MBIP_UPS5_loutAr	UPS_loutAr[4]
30214	UPS5 Output Current Percentage B	x0.1%	MBIP_UPS5_loutBr	UPS_loutBr[4]
30215	UPS5 Output Current Percentage C	x0.1%	MBIP_UPS5_loutCr	UPS_loutCr[4]
30217	UPS5 Output KW	x0.1 KW	MBIP_UPS5_op_kw	UPS_kw[4]
30218	UPS5 Output Power Percentage	x0.1%	MBIP_UPS5_op_kw_perc	UPS_kw_percent[4]
30219	UPS5 DC capacitor voltage	x0.1V	MBIP_UPS5_DC_Vcap	LS_L_Vdc
30220	UPS5 Battery Voltage	x0.1V	MBIP_UPS5_Vbatt	UPS_Vbatt[4]
30221	UPS5 Battery Current	x0.1A	MBIP_UPS5_lbatt	UPS_lbatt[4]
30222	UPS5 Battery Remain Percentage	x0.1%	MBIP_UPS5_EBC	UPS_EBC[4]
30223	UPS5 Battery Runtime min	Minutes	MBIP_UPS5_Batt_Op_Min	UPS_Batt_Op_Min[4]
30228	UPS5 Current Fault Count		MBIP_UPS5_FC	LS_Fcount
30229	UPS5 KVA Rating	KVA	MBIP_UPS5_KVA	LS_Setup[56]
30232	UPS6 Bypass Frequency	x0.1Hz	MBIP_UPS6_FByp	UPS_FByp[5]
30233	UPS6 Bypass Voltage	x0.1V	MBIP_UPS6_VByp	UPS_VByp[5]
30237	UPS6 Input Frequency	x0.1Hz	MBIP_UPS6_Fin	UPS_Fin[5]
30238	UPS6 Input Voltage	x0.1V	MBIP_UPS6_Vin	UPS_Vin[5]
30243	UPS6 Output Voltage AB	x0.1V	MBIP_UPS6_VoutAB	UPS_VoutAB[5]
30244	UPS6 Output Voltage BC	x0.1V	MBIP_UPS6_VoutBC	UPS_VoutBC[5]
30245	UPS6 Output Voltage CA	x0.1V	MBIP_UPS6_VoutCA	UPS_VoutCA[5]
30246	UPS6 DC Voltage BP	x0.1V	MBIP_UPS6_VDC_BP	
30247	UPS6 DC Voltage BN	x0.1V	MBIP_UPS6_VDC_BN	
30249	UPS6 Output Frequency	x0.1Hz	MBIP_UPS6_Fout	UPS_Fout[5]
30250	UPS6 Output Voltage	x0.1 KW	MBIP_UPS6_Vout	UPS_VoutAB[5]
30251	UPS6 Power Factor	x0.01	MBIP_UPS6_pf	PowerFactor
30252	UPS6 Output Current A	x0.1A	MBIP_UPS6_oi_a_a	oi_a_a[5]
30253	UPS6 Output Current B	x0.1A	MBIP_UPS6_oi_b_a	oi_b_a[5]
30254	UPS6 Output Current C	x0.1A	MBIP_UPS6_oi_c_a	oi_c_a[5]
30255	UPS6 Output Current N	x0.1A	MBIP_UPS6_oi_n_a	oi_n_a[5]
30256	UPS6 Output Current Percentage A	x0.1%	MBIP_UPS6_loutAr	UPS_loutAr[5]
30257	UPS6 Output Current Percentage B	x0.1%	MBIP_UPS6_loutBr	UPS_loutBr[5]
30258	UPS6 Output Current Percentage C	x0.1%	MBIP_UPS6_loutCr	UPS_loutCr[5]
30260	UPS6 Output KW	x0.1 KW	MBIP_UPS6_op_kw	UPS_kw[5]
30261	UPS6 Output Power Percentage	x0.1%	MBIP_UPS6_op_kw_perc	UPS_kw_percent[5]
30262	UPS6 DC capacitor voltage	x0.1V	MBIP_UPS6_DC_Vcap	LS_L_Vdc
30263	UPS6 Battery Voltage	x0.1V	MBIP_UPS6_Vbatt	UPS_Vbatt[5]
30264	UPS6 Battery Current	x0.1A	MBIP_UPS6_lbatt	UPS_lbatt[5]
30265	UPS6 Battery Remain Percentage	x0.1%	MBIP_UPS6_EBC	UPS_EBC[5]
30266	UPS6 Battery Runtime min	Minutes	MBIP_UPS6_Batt_Op_Min	UPS_Batt_Op_Min[5]
30271	UPS6 Current Fault Count		MBIP_UPS6_FC	LS_Fcount
30272	UPS6 KVA Rating	KVA	MBIP_UPS6_KVA	LS_Setup[56]
30275	UPS7 Bypass Frequency	x0.1Hz	MBIP_UPS7_FByp	UPS_FByp[6]
30276	UPS7 Bypass Voltage	x0.1V	MBIP_UPS7_VByp	UPS_VByp[6]
30280	UPS7 Input Frequency	x0.1Hz	MBIP_UPS7_Fin	UPS_Fin[6]
30281	UPS7 Input Voltage	x0.1V	MBIP_UPS7_Vin	UPS_Vin[6]
30286	UPS7 Output Voltage AB	x0.1V	MBIP_UPS7_VoutAB	UPS_VoutAB[6]
30287	UPS7 Output Voltage BC	x0.1V	MBIP_UPS7_VoutBC	UPS_VoutBC[6]
30288	UPS7 Output Voltage CA	x0.1V	MBIP_UPS7_VoutCA	UPS_VoutCA[6]
30289	UPS7 DC Voltage BP	x0.1V	MBIP_UPS7_VDC_BP	
30290	UPS7 DC Voltage BN	x0.1V	MBIP_UPS7_VDC_BN	
30292	UPS7 Output Frequency	x0.1Hz	MBIP_UPS7_Fout	UPS_Fout[6]
30293	UPS7 Output Voltage	x0.1 KW	MBIP_UPS7_Vout	UPS_VoutAB[6]
30294	UPS7 Power Factor	x0.01	MBIP_UPS7_pf	PowerFactor
30295	UPS7 Output Current A	x0.1A	MBIP_UPS7_oi_a_a	oi_a_a[6]
30296	UPS7 Output Current B	x0.1A	MBIP_UPS7_oi_b_a	oi_b_a[6]
30297	UPS7 Output Current C	x0.1A	MBIP_UPS7_oi_c_a	oi_c_a[6]
30298	UPS7 Output Current N	x0.1A	MBIP_UPS7_oi_n_a	oi_n_a[6]
30299	UPS7 Output Current Percentage A	x0.1%	MBIP_UPS7_loutAr	UPS_loutAr[6]
30300	UPS7 Output Current Percentage B	x0.1%	MBIP_UPS7_loutBr	UPS_loutBr[6]
30301	UPS7 Output Current Percentage C	x0.1%	MBIP_UPS7_loutCr	UPS_loutCr[6]
30303	UPS7 Output KW	x0.1 KW	MBIP_UPS7_op_kw	UPS_kw[6]
30304	UPS7 Output Power Percentage	x0.1%	MBIP_UPS7_op_kw_perc	UPS_kw_percent[6]
30305	UPS7 DC capacitor voltage	x0.1V	MBIP_UPS7_DC_Vcap	LS_L_Vdc
30306	UPS7 Battery Voltage	x0.1V	MBIP_UPS7_Vbatt	UPS_Vbatt[6]
30307	UPS7 Battery Current	x0.1A	MBIP_UPS7_lbatt	UPS_lbatt[6]
30308	UPS7 Battery Remain Percentage	x0.1%	MBIP_UPS7_EBC	UPS_EBC[6]

30309	UPS7 Battery Runtime min	Minutes	MBIP_UPS7_Batt_Op_Min	UPS_Batt_Op_Min[6]
30314	UPS7 Current Fault Count		MBIP_UPS7_FC	LS_Fcount
30315	UPS7 KVA Rating	KVA	MBIP_UPS7_KVA	LS_Setup[56]
30318	UPS8 Bypass Frequency	x0.1Hz	MBIP_UPS8_FByp	UPS_FByp[7]
30319	UPS8 Bypass Voltage	x0.1V	MBIP_UPS8_VByp	UPS_VByp[7]
30323	UPS8 Input Frequency	x0.1Hz	MBIP_UPS8_Fin	UPS_Fin[7]
30324	UPS8 Input Voltage	x0.1V	MBIP_UPS8_Vin	UPS_Vin[7]
30329	UPS8 Output Voltage AB	x0.1V	MBIP_UPS8_VoutAB	UPS_VoutAB[7]
30330	UPS8 Output Voltage BC	x0.1V	MBIP_UPS8_VoutBC	UPS_VoutBC[7]
30331	UPS8 Output Voltage CA	x0.1V	MBIP_UPS8_VoutCA	UPS_VoutCA[7]
30332	UPS8 DC Voltage BP	x0.1V	MBIP_UPS8_VDC_BP	
30333	UPS8 DC Voltage BN	x0.1V	MBIP_UPS8_VDC_BN	
30335	UPS8 Output Frequency	x0.1Hz	MBIP_UPS8_Fout	UPS_Fout[7]
30336	UPS8 Output Voltage	x0.1 KW	MBIP_UPS8_Vout	UPS_VoutAB[7]
30337	UPS8 Power Factor	x0.01	MBIP_UPS8_pf	PowerFactor
30338	UPS8 Output Current A	x0.1A	MBIP_UPS8_oi_a_a	oi_a_a[7]
30339	UPS8 Output Current B	x0.1A	MBIP_UPS8_oi_b_a	oi_b_a[7]
30340	UPS8 Output Current C	x0.1A	MBIP_UPS8_oi_c_a	oi_c_a[7]
30341	UPS8 Output Current N	x0.1A	MBIP_UPS8_oi_n_a	oi_n_a[7]
30342	UPS8 Output Current Percentage A	x0.1%	MBIP_UPS8_loutAr	UPS_loutAr[7]
30343	UPS8 Output Current Percentage B	x0.1%	MBIP_UPS8_loutBr	UPS_loutBr[7]
30344	UPS8 Output Current Percentage C	x0.1%	MBIP_UPS8_loutCr	UPS_loutCr[7]
30346	UPS8 Output KW	x0.1 KW	MBIP_UPS8_op_kw	UPS_kw[7]
30347	UPS8 Output Power Percentage	x0.1%	MBIP_UPS8_op_kw_perc	UPS_kw_percent[7]
30348	UPS8 DC capacitor voltage	x0.1V	MBIP_UPS8_DC_Vcap	LS_L_Vdc
30349	UPS8 Battery Voltage	x0.1V	MBIP_UPS8_Vbatt	UPS_Vbatt[7]
30350	UPS8 Battery Current	x0.1A	MBIP_UPS8_lbatt	UPS_lbatt[7]
30351	UPS8 Battery Remain Percentage	x0.1%	MBIP_UPS8_EBC	UPS_EBC[7]
30352	UPS8 Battery Runtime min	Minutes	MBIP_UPS8_Batt_Op_Min	UPS_Batt_Op_Min[7]
30357	UPS8 Current Fault Count		MBIP_UPS8_FC	LS_Fcount
30358	UPS8 KVA Rating	KVA	MBIP_UPS8_KVA	LS_Setup[56]

Table 6
UPS Register List (Mimic Display)

Register	Bit	Description	Modbus Output Variable	CLC source variable
30370	0	UPS1 Modbus Communication Error	MBIP_UPS1_Disconnect	UPS_Disconnect[0]
	1	UPS1 AC Input	MBIP_UPS1_ACinput	UPS1_skl_on[0]
	2	UPS1 CB1 Input Contactor	MBIP_UPS1_CB1	UPS1_skl_on[1]
	3	UPS1 DC Bus	MBIP_UPS1_DCbus	UPS1_skl_on[2]
	4	UPS1 CB2 Battery Circuit Breaker	MBIP_UPS1_CB2	UPS1_skl_on[3]
	5	UPS1 Inverter Operation	MBIP_UPS1_Inverter	UPS1_skl_on[4]
	6	UPS1 52C AC Output Contactor	MBIP_UPS1_52C	UPS1_skl_on[5]
	7	UPS1 Bypass Input	MBIP_UPS1_Byp	UPS1_skl_on[6]
	8	UPS1 52S Bypass Output Contactor	MBIP_UPS1_52S	UPS1_skl_on[7]
	9	UPS1 AC Output	MBIP_UPS1_ACoutput	UPS1_skl_on[8]
	10	UPS1 MultiModule System Synchronization	MBIP_UPS1_Sync	UPS1_ST1[4]
	11	UPS1 CB3 STS Contactor	MBIP_UPS1_CB3	UPS1_skl_on[9]
	12	UPS1 Equalize Charge	MBIP_UPS1_Equalize	UPS1_ST1[3]
	13	UPS1 Battery Low Voltage	MBIP_UPS1_LowBatt	UPS1_ST1[5]
	14	UPS1 Battery Discharging	MBIP_UPS1_Disc	UPS1_skl_on[11]
15	UPS1 Fault	MBIP_UPS1_Fault	UPS1_ST1[9]	
30371	0	UPS2 Modbus Communication Error	MBIP_UPS2_Disconnect	UPS_Disconnect[1]
	1	UPS2 AC Input	MBIP_UPS2_ACinput	UPS2_skl_on[0]
	2	UPS2 CB1 Input Contactor	MBIP_UPS2_CB1	UPS2_skl_on[1]
	3	UPS2 DC Bus	MBIP_UPS2_DCbus	UPS2_skl_on[2]
	4	UPS2 CB2 Battery Circuit Breaker	MBIP_UPS2_CB2	UPS2_skl_on[3]
	5	UPS2 Inverter Operation	MBIP_UPS2_Inverter	UPS2_skl_on[4]
	6	UPS2 52C AC Output Contactor	MBIP_UPS2_52C	UPS2_skl_on[5]
	7	UPS2 Bypass Input	MBIP_UPS2_Byp	UPS2_skl_on[6]
	8	UPS2 52S Bypass Output Contactor	MBIP_UPS2_52S	UPS2_skl_on[7]
	9	UPS2 AC Output	MBIP_UPS2_ACoutput	UPS2_skl_on[8]

	10	UPS2 MultiModule System Synchronization	MBIP_UPS2_Sync	UPS2_ST1[4]
	11	UPS2 CB3 STS Contactor	MBIP_UPS2_CB3	UPS2_skl_on[9]
	12	UPS2 Equalize Charge	MBIP_UPS2_Equalize	UPS2_ST1[3]
	13	UPS2 Battery Low Voltage	MBIP_UPS2_LowBatt	UPS2_ST1[5]
	14	UPS2 Battery Discharging	MBIP_UPS2_Disc	UPS2_skl_on[11]
	15	UPS2 Fault	MBIP_UPS2_Fault	UPS2_ST1[9]
30372	0	UPS3 Modbus Communication Error	MBIP_UPS3_Disconnect	UPS_Disconnect[2]
	1	UPS3 AC Input	MBIP_UPS3_ACinput	UPS3_skl_on[0]
	2	UPS3 CB1 Input Contactor	MBIP_UPS3_CB1	UPS3_skl_on[1]
	3	UPS3 DC Bus	MBIP_UPS3_DCbus	UPS3_skl_on[2]
	4	UPS3 CB2 Battery Circuit Breaker	MBIP_UPS3_CB2	UPS3_skl_on[3]
	5	UPS3 Inverter Operation	MBIP_UPS3_Inverter	UPS3_skl_on[4]
	6	UPS3 52C AC Output Contactor	MBIP_UPS3_52C	UPS3_skl_on[5]
	7	UPS3 Bypass Input	MBIP_UPS3_Byp	UPS3_skl_on[6]
	8	UPS3 52S Bypass Output Contactor	MBIP_UPS3_52S	UPS3_skl_on[7]
	9	UPS3 AC Output	MBIP_UPS3_ACoutput	UPS3_skl_on[8]
	10	UPS3 MultiModule System Synchronization	MBIP_UPS3_Sync	UPS3_ST1[4]
	11	UPS3 CB3 STS Contactor	MBIP_UPS3_CB3	UPS3_skl_on[9]
	12	UPS3 Equalize Charge	MBIP_UPS3_Equalize	UPS3_ST1[3]
	13	UPS3 Battery Low Voltage	MBIP_UPS3_LowBatt	UPS3_ST1[5]
	14	UPS3 Battery Discharging	MBIP_UPS3_Disc	UPS3_skl_on[11]
	15	UPS3 Fault	MBIP_UPS3_Fault	UPS3_ST1[9]
30373	0	UPS4 Modbus Communication Error	MBIP_UPS4_Disconnect	UPS_Disconnect[3]
	1	UPS4 AC Input	MBIP_UPS4_ACinput	UPS4_skl_on[0]
	2	UPS4 CB1 Input Contactor	MBIP_UPS4_CB1	UPS4_skl_on[1]
	3	UPS4 DC Bus	MBIP_UPS4_DCbus	UPS4_skl_on[2]
	4	UPS4 CB2 Battery Circuit Breaker	MBIP_UPS4_CB2	UPS4_skl_on[3]
	5	UPS4 Inverter Operation	MBIP_UPS4_Inverter	UPS4_skl_on[4]
	6	UPS4 52C AC Output Contactor	MBIP_UPS4_52C	UPS4_skl_on[5]
	7	UPS4 Bypass Input	MBIP_UPS4_Byp	UPS4_skl_on[6]
	8	UPS4 52S Bypass Output Contactor	MBIP_UPS4_52S	UPS4_skl_on[7]
	9	UPS4 AC Output	MBIP_UPS4_ACoutput	UPS4_skl_on[8]
	10	UPS4 MultiModule System Synchronization	MBIP_UPS4_Sync	UPS4_ST1[4]
	11	UPS4 CB3 STS Contactor	MBIP_UPS4_CB3	UPS4_skl_on[9]
	12	UPS4 Equalize Charge	MBIP_UPS4_Equalize	UPS4_ST1[3]
	13	UPS4 Battery Low Voltage	MBIP_UPS4_LowBatt	UPS4_ST1[5]
	14	UPS4 Battery Discharging	MBIP_UPS4_Disc	UPS4_skl_on[11]
	15	UPS4 Fault	MBIP_UPS4_Fault	UPS4_ST1[9]
30374	0	UPS5 Modbus Communication Error	MBIP_UPS5_Disconnect	UPS_Disconnect[4]
	1	UPS5 AC Input	MBIP_UPS5_ACinput	UPS5_skl_on[0]
	2	UPS5 CB1 Input Contactor	MBIP_UPS5_CB1	UPS5_skl_on[1]
	3	UPS5 DC Bus	MBIP_UPS5_DCbus	UPS5_skl_on[2]
	4	UPS5 CB2 Battery Circuit Breaker	MBIP_UPS5_CB2	UPS5_skl_on[3]
	5	UPS5 Inverter Operation	MBIP_UPS5_Inverter	UPS5_skl_on[4]
	6	UPS5 52C AC Output Contactor	MBIP_UPS5_52C	UPS5_skl_on[5]
	7	UPS5 Bypass Input	MBIP_UPS5_Byp	UPS5_skl_on[6]
	8	UPS5 52S Bypass Output Contactor	MBIP_UPS5_52S	UPS5_skl_on[7]

	9	UPS5 AC Output	MBIP_UPS5_ACoutput	UPS5_skl_on[8]
	10	UPS5 MultiModule System Synchronization	MBIP_UPS5_Sync	UPS5_ST1[4]
	11	UPS5 CB3 STS Contactor	MBIP_UPS5_CB3	UPS5_skl_on[9]
	12	UPS5 Equalize Charge	MBIP_UPS5_Equalize	UPS5_ST1[3]
	13	UPS5 Battery Low Voltage	MBIP_UPS5_LowBatt	UPS5_ST1[5]
	14	UPS5 Battery Discharging	MBIP_UPS5_Disc	UPS5_skl_on[11]
	15	UPS5 Fault	MBIP_UPS5_Fault	UPS5_ST1[9]
30375	0	UPS6 Modbus Communication Error	MBIP_UPS6_Disconnect	UPS_Disconnect[5]
	1	UPS6 AC Input	MBIP_UPS6_ACinput	UPS6_skl_on[0]
	2	UPS6 CB1 Input Contactor	MBIP_UPS6_CB1	UPS6_skl_on[1]
	3	UPS6 DC Bus	MBIP_UPS6_DCbus	UPS6_skl_on[2]
	4	UPS6 CB2 Battery Circuit Breaker	MBIP_UPS6_CB2	UPS6_skl_on[3]
	5	UPS6 Inverter Operation	MBIP_UPS6_Inverter	UPS6_skl_on[4]
	6	UPS6 52C AC Output Contactor	MBIP_UPS6_52C	UPS6_skl_on[5]
	7	UPS6 Bypass Input	MBIP_UPS6_Byp	UPS6_skl_on[6]
	8	UPS6 52S Bypass Output Contactor	MBIP_UPS6_52S	UPS6_skl_on[7]
	9	UPS6 AC Output	MBIP_UPS6_ACoutput	UPS6_skl_on[8]
	10	UPS6 MultiModule System Synchronization	MBIP_UPS6_Sync	UPS6_ST1[4]
	11	UPS6 CB3 STS Contactor	MBIP_UPS6_CB3	UPS6_skl_on[9]
	12	UPS6 Equalize Charge	MBIP_UPS6_Equalize	UPS6_ST1[3]
	13	UPS6 Battery Low Voltage	MBIP_UPS6_LowBatt	UPS6_ST1[5]
	14	UPS6 Battery Discharging	MBIP_UPS6_Disc	UPS6_skl_on[11]
	15	UPS6 Fault	MBIP_UPS6_Fault	UPS6_ST1[9]
30376	0	UPS7 Modbus Communication Error	MBIP_UPS7_Disconnect	UPS_Disconnect[6]
	1	UPS7 AC Input	MBIP_UPS7_ACinput	UPS7_skl_on[0]
	2	UPS7 CB1 Input Contactor	MBIP_UPS7_CB1	UPS7_skl_on[1]
	3	UPS7 DC Bus	MBIP_UPS7_DCbus	UPS7_skl_on[2]
	4	UPS7 CB2 Battery Circuit Breaker	MBIP_UPS7_CB2	UPS7_skl_on[3]
	5	UPS7 Inverter Operation	MBIP_UPS7_Inverter	UPS7_skl_on[4]
	6	UPS7 52C AC Output Contactor	MBIP_UPS7_52C	UPS7_skl_on[5]
	7	UPS7 Bypass Input	MBIP_UPS7_Byp	UPS7_skl_on[6]
	8	UPS7 52S Bypass Output Contactor	MBIP_UPS7_52S	UPS7_skl_on[7]
	9	UPS7 AC Output	MBIP_UPS7_ACoutput	UPS7_skl_on[8]
	10	UPS7 MultiModule System Synchronization	MBIP_UPS7_Sync	UPS7_ST1[4]
	11	UPS7 CB3 STS Contactor	MBIP_UPS7_CB3	UPS7_skl_on[9]
	12	UPS7 Equalize Charge	MBIP_UPS7_Equalize	UPS7_ST1[3]
	13	UPS7 Battery Low Voltage	MBIP_UPS7_LowBatt	UPS7_ST1[5]
	14	UPS7 Battery Discharging	MBIP_UPS7_Disc	UPS7_skl_on[11]
	15	UPS7 Fault	MBIP_UPS7_Fault	UPS7_ST1[9]
30377	0	UPS8 Modbus Communication Error	MBIP_UPS8_Disconnect	UPS_Disconnect[7]
	1	UPS8 AC Input	MBIP_UPS8_ACinput	UPS8_skl_on[0]
	2	UPS8 CB1 Input Contactor	MBIP_UPS8_CB1	UPS8_skl_on[1]
	3	UPS8 DC Bus	MBIP_UPS8_DCbus	UPS8_skl_on[2]
	4	UPS8 CB2 Battery Circuit Breaker	MBIP_UPS8_CB2	UPS8_skl_on[3]
	5	UPS8 Inverter Operation	MBIP_UPS8_Inverter	UPS8_skl_on[4]
	6	UPS8 52C AC Output Contactor	MBIP_UPS8_52C	UPS8_skl_on[5]
	7	UPS8 Bypass Input	MBIP_UPS8_Byp	UPS8_skl_on[6]
	8	UPS8 52S Bypass Output Contactor	MBIP_UPS8_52S	UPS8_skl_on[7]
	9	UPS8 AC Output	MBIP_UPS8_ACoutput	UPS8_skl_on[8]
	10	UPS8 MultiModule System Synchronization	MBIP_UPS8_Sync	UPS8_ST1[4]
	11	UPS8 CB3 STS Contactor	MBIP_UPS8_CB3	UPS8_skl_on[9]
	12	UPS8 Equalize Charge	MBIP_UPS8_Equalize	UPS8_ST1[3]
	13	UPS8 Battery Low Voltage	MBIP_UPS8_LowBatt	UPS8_ST1[5]
	14	UPS8 Battery Discharging	MBIP_UPS8_Disc	UPS8_skl_on[11]
	15	UPS8 Fault	MBIP_UPS8_Fault	UPS8_ST1[9]