Base Load Power Hub (BLPH)

SG-200N1 I/O LIST
(HARDWARE – SOFTWARE)

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Sign	Date
Luca Mocerle	14/11/2024

Rev.	Date	Description	Prepared	Reviewed	Approved
02	18/09/2024	As Built (ASB)	Flamminio	Santinelli	Mastri
01	09/08/2024	Accepted for Costruction (AFC)	Flamminio	Santinelli	Mastri
00	10/07/2024	Issue for Review (IFR)	Flamminio	Santinelli	Mastri

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Revision / Change Log

Rev.	Description
00	Issue or Review (IFR)
01	Accepted for Costruction (AFC)
02	As Built (ASB)

HOLDS LIST

No.	Description
1.	
2.	
3.	
4.	

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ITEM	SWITCHGEAR TAG	VOLTAGE	TAG NAME	DEVICE	SIGNAL_DESCRIPTION	TYPE ANALOG/DIGITAL	RELAY/DEVICE MODEL	UNIT	SCALE FACTOR	MODBUS RTU Register	MODBUS RTU Data Type	MODBUS RTU Function Code	Note
1	SG200N1	0.4/0,23kV	COMMON	A1	SG-200N1 - SURGE ARRESTER FAULT	SW-DI	Module I/O			1	BIT		0=failure
2	SG200N1	0.4/0,23kV	COMMON	A1	SG-200N1 - LOSS 230VAC AUXILIARY VOLTAGE	SW-DI	Module I/O			2	BIT		1=alarm
3	SG200N1	0.4/0,23kV	COMMON	A1	SG-200N1 - "FP1" WATCHDOG PROTECTION	SW-DI	Module I/O			3	BIT		0=failure
4	SG200N1	0.4/0,23kV	COMMON	A1	SG-200N1 - MOTOR FEEDER FAULT LOOP [BUS-3]	SW-DI	Module I/O			4	BIT		0=failure
5	SG200N1	0.4/0,23kV	COMMON	A1	*available*	SW-DI	Module I/O			5	BIT		
6	SG200N1	0.4/0,23kV	COMMON	A1	*available*	SW-DI	Module I/O			6	BIT		
7	SG200N1	0.4/0,23kV	COMMON	A1	SG-200D2 - MCBs HEALTY	SW-DI	Module I/O			7	BIT		0=alarm
8	SG200N1	0.4/0,23kV	COMMON	A1	*available*	SW-DI	Module I/O			8	BIT		
9	SG200N1	0.4/0,23kV	COMMON	A1	DP-200N1 - SURGE ARRESTER FAULT	SW-DI	Module I/O			9	BIT		0=failure
10	SG200N1	0.4/0,23kV	COMMON	A1	DP-200N1 - NORMAL AND EMERGENCY LIGHTING ON AUTOMATIC	SW-DI	Module I/O			10	BIT		1=automatic
11	SG200N1	0.4/0,23kV	COMMON	A1	DP-200N1 - NORMAL AND EMERGENCY LIGHTING ACTIVATED	SW-DI	Module I/O			11	BIT		1=activated
12	SG200N1	0.4/0,23kV	COMMON	A1	DP-200N1 - NORMAL AND EMERGENCY CIRCUIT-BREAKER CLOSED	SW-DI	Module I/O			12	BIT		1=close
13	SG200N1	0.4/0,23kV	COMMON	A1	DP-200N1 - TRACE HEATINGS ACTIVATED	SW-DI	Module I/O			13	BIT		1=activated
14	SG200N1	0.4/0,23kV	COMMON	A1	DP-200N1 - TRACE HEATINGS CIRCUIT-BREAKER CLOSED	SW-DI	Module I/O			14	BIT		1=close
15	SG200N1	0.4/0,23kV	COMMON	A1	DP-200N1 - MAIN AND UTILITIES CIRCUIT-BREAKERS CLOSED	SW-DI	Module I/O			15	BIT		1=close
16	SG200N1	0.4/0,23kV	COMMON	A1	*available*	SW-DI	Module I/O			16	BIT		
1	SG200N1	0.4/0,23kV	A-20000 ELECTROLYSER AUXILIARY LOAD (typ L3-630)	QF1	CIRCUIT-BRAKER - PROTECTION TRIPPED "L"	SW-DI	Ekip Hi-Touch			50.0	BOOL	04	1=tripped
2	SG200N1	0.4/0,23kV	A-20000 ELECTROLYSER AUXILIARY LOAD (typ L3-630)	QF1	CIRCUIT-BRAKER - PROTECTION TRIPPED "S"	SW-DI	Ekip Hi-Touch			50.1	BOOL	04	1=tripped
3	SG200N1	0.4/0,23kV	A-20000 ELECTROLYSER AUXILIARY LOAD (typ L3-630)	QF1	CIRCUIT-BRAKER - PROTECTION TRIPPED "I"	SW-DI	Ekip Hi-Touch			50.2	BOOL	04	1=tripped
4	SG200N1	0.4/0,23kV	A-20000 ELECTROLYSER AUXILIARY LOAD (typ L3-630)	QF1	CIRCUIT-BRAKER - PROTECTION TRIPPED "G"	SW-DI	Ekip Hi-Touch			50.3	BOOL	04	1=tripped
5	SG200N1	0.4/0,23kV	A-20000 ELECTROLYSER AUXILIARY LOAD (typ L3-630)	QF1	CIRCUIT-BRAKER - OPEN	SW-DI	Ekip Hi-Touch			40.6	BOOL	04	1=open
6	SG200N1	0.4/0,23kV	A-20000 ELECTROLYSER AUXILIARY LOAD (typ L3-630)	QF1	CIRCUIT-BRAKER - CLOSED	SW-DI	Ekip Hi-Touch			40.0	BOOL	04	1=closed
7	SG200N1	0.4/0,23kV	A-20000 ELECTROLYSER AUXILIARY LOAD (typ L3-630)	QF1	CIRCUIT-BRAKER - CONNECTED	SW-DI	Ekip Hi-Touch			40.1	BOOL	04	1=connected
8	SG200N1	0.4/0,23kV	A-20000 ELECTROLYSER AUXILIARY LOAD (typ L3-630)	QF1	CIRCUIT-BRAKER - ISOLATED	SW-DI	Ekip Hi-Touch			40.1	BOOL	04	0=isolated
9	SG200N1	0.4/0,23kV	A-20000 ELECTROLYSER AUXILIARY LOAD (typ L3-630)	QF1	CIRCUIT-BRAKER - TEST	SW-DI	Ekip Hi-Touch			40.2	BOOL	04	1=test
10	SG200N1	0.4/0,23kV	A-20000 ELECTROLYSER AUXILIARY LOAD (typ L3-630)	QF1	CIRCUIT-BRAKER - TRIP UNIT DISCONNECTED	SW-DI	Ekip Hi-Touch			40.15	BOOL	04	1=Failure
11	SG200N1	0.4/0,23kV	A-20000 ELECTROLYSER AUXILIARY LOAD (typ L3-630)	QF1	CIRCUIT-BRAKER - CLOSE COMMAND	SW-DO	Ekip Hi-Touch			0.8	E32	16	1=close command
12	SG200N1	0.4/0,23kV	A-20000 ELECTROLYSER AUXILIARY LOAD (typ L3-630)	QF1	CIRCUIT-BRAKER - OPEN COMMAND	SW-DO	Ekip Hi-Touch			0.7	E32	16	1=open command
13	SG200N1	0.4/0,23kV	A-20000 ELECTROLYSER AUXILIARY LOAD (typ L3-630)	QF1	MEASURE - CURRENT "L1"	SW-AI	Ekip Hi-Touch	A	0,1	100÷101	U32	04	
14	SG200N1	0.4/0,23kV	A-20000 ELECTROLYSER AUXILIARY LOAD (typ L3-630)	QF1	MEASURE - CURRENT "L2"	SW-AI	Ekip Hi-Touch	A	0,1	102÷103	U32	04	
15	SG200N1	0.4/0,23kV	A-20000 ELECTROLYSER AUXILIARY LOAD (typ L3-630)	QF1	MEASURE - CURRENT "L3"	SW-AI	Ekip Hi-Touch	A	0,1	104÷105	U32	04	
16	SG200N1	0.4/0,23kV	A-20000 ELECTROLYSER AUXILIARY LOAD (typ L3-630)	QF1	MEASURE - VOLTAGE "L1-L2"	SW-AI	Ekip Hi-Touch	V	0,1	154	U16	04	
17	SG200N1	0.4/0,23kV	A-20000 ELECTROLYSER AUXILIARY LOAD (typ L3-630)	QF1	MEASURE - VOLTAGE "L2-L3"	SW-AI	Ekip Hi-Touch	V	0,1	155	U16	04	
18	SG200N1	0.4/0,23kV	A-20000 ELECTROLYSER AUXILIARY LOAD (typ L3-630)	QF1	MEASURE - VOLTAGE "L3-L1"	SW-AI	Ekip Hi-Touch	V	0,1	156	U16	04	
19	SG200N1	0.4/0,23kV	A-20000 ELECTROLYSER AUXILIARY LOAD (typ L3-630)	QF1	MEASURE - FREQUENCY	SW-AI	Ekip Hi-Touch	Hz	0,01	254	U16	04	
20	SG200N1	0.4/0,23kV	A-20000 ELECTROLYSER AUXILIARY LOAD (typ L3-630)	QF1	MEASURE - APPARENT POWER	SW-AI	Ekip Hi-Touch	kVA	0,1	222÷223	S32	04	
21	SG200N1	0.4/0,23kV	A-20000 ELECTROLYSER AUXILIARY LOAD (typ L3-630)	QF1	MEASURE - REAL POWER	SW-AI	Ekip Hi-Touch	kW	0,1	206÷207	S32	04	
22	SG200N1	0.4/0,23kV	A-20000 ELECTROLYSER AUXILIARY LOAD (typ L3-630)	QF1	MEASURE - REACTIVE POWER	SW-AI	Ekip Hi-Touch	kVAR	0,1	214÷215	S32	04	
23	SG200N1	0.4/0,23kV	A-20000 ELECTROLYSER AUXILIARY LOAD (typ L3-630)	QF1	MEASURE - POWER FACTOR	SW-AI	Ekip Hi-Touch	COSfi	0,001	253	S16	04	
24	SG200N1	0.4/0,23kV	A-20000 ELECTROLYSER AUXILIARY LOAD (typ L3-630)	U1B	CIRCUIT-BRAKER - CLOSED AND INSERTED	SW-DI	Module I/O			40015.0	BOOL	3	1=close
25	SG200N1	0.4/0,23kV	A-20000 ELECTROLYSER AUXILIARY LOAD (typ L3-630)	U1B	CIRCUIT-BRAKER - OPEN OR DISCONNECTED	SW-DI	Module I/O			40015.1	BOOL	3	1=open
26	SG200N1	0.4/0,23kV	A-20000 ELECTROLYSER AUXILIARY LOAD (typ L3-630)	U1B	CIRCUIT-BRAKER - TRIPPED	SW-DI	Module I/O			40015.2	BOOL	3	1=tripped
27	SG200N1	0.4/0,23kV	A-20000 ELECTROLYSER AUXILIARY LOAD (typ L3-630)	U1B	*available*	SW-DI	Module I/O			40015.3	BOOL	3	
28	SG200N1	0.4/0,23kV	A-20000 ELECTROLYSER AUXILIARY LOAD (typ L3-630)	U1B	*available*	SW-DI	Module I/O			40015.4	BOOL	3	
29	SG200N1	0.4/0,23kV	A-20000 ELECTROLYSER AUXILIARY LOAD (typ L3-630)	U1C	*available*	SW-DI	Module I/O			40015.0	BOOL	3	
30	SG200N1	0.4/0,23kV	A-20000 ELECTROLYSER AUXILIARY LOAD (typ L3-630)	U1C	*available*	SW-DI	Module I/O			40015.1	BOOL	3	
31	SG200N1	0.4/0,23kV	A-20000 ELECTROLYSER AUXILIARY LOAD (typ L3-630)	U1C	SA1 ON "LOCAL" POSITION	SW-DI	Module I/O			40015.2	BOOL	3	1=local
32	SG200N1	0.4/0,23kV	A-20000 ELECTROLYSER AUXILIARY LOAD (typ L3-630)	U1C	*available*	SW-DI	Module I/O			40015.3	BOOL	3	
33	SG200N1	0.4/0,23kV	A-20000 ELECTROLYSER AUXILIARY LOAD (typ L3-630)	U1C	*available*	SW-DI	Module I/O			40015.4	BOOL	3	

ITEM	SWITCHGEAR TAG	VOLTAGE	TAG NAME	DEVICE	SIGNAL_DESCRIPTION	TYPE ANALOG/DIGITAL	RELAY/DEVICE MODEL	UNIT	SCALE FACTOR	MODBUS RTU Register	MODBUS RTU Data Type	MODBUS RTU Function Code	Note
						Column	Position	Item TAG	Description TAG				
					(L1-n ÷ L2-n) Signals valid for following USERS :	A2	+04	UP-200F4	AC UPS F&G - 8H UP-200F4 - BYPASS				
						A3	+01	UP-200F3	AC UPS PAS - 30 MIN UP-200F3 - LINE A				
						A4	+01	UP-200F3	AC UPS PAS - 30 MIN UP-200F3 - LINE B				
						A6	+05	UP-200F4	AC UPS F&G - 8H UP-200F4 - LINE A				
						A6	+06	UP-200F4	AC UPS F&G - 8H UP-200F4 - LINE B				
						A6	+08	ESW-200N1	WELDING SOCKETS (TOP DECK)				
						A7	+02	UP-200F3	AC UPS PAS - 30 MIN UP-200F3 (BYPASS)				
						A7	+03	UP-200F1	DC BATTERY SYSTEM SWTG CONTROL - FEEDER A				
						A7	+04	UP-200F1	DC BATTERY SYSTEM SWTG CONTROL - FEEDER B				
						A7	+05	UP-200F2	NAVAID SYSTEM FEEDER A				
						A7	+06	UP-200F2	NAVAID SYSTEM FEEDER B				
						A7	+08	ESW-200N2	WELDING SOCKETS (LOWER DECK)				
1	SG200N1	0.4/0,23kV	miscellaneous USERS (typ L1-n ÷ L2-n)	U2.B	CIRCUIT-BRAKER - CLOSED AND INSERTED	SW-DI	Module I/O			40015.0	BOOL	3	1=close
2	SG200N1	0.4/0,23kV	miscellaneous USERS (typ L1-n ÷ L2-n)	U2.B	CIRCUIT-BRAKER - OPEN OR DISCONNECTED	SW-DI	Module I/O			40015.1	BOOL	3	1=open
3	SG200N1	0.4/0,23kV	miscellaneous USERS (typ L1-n ÷ L2-n)	U2.B	CIRCUIT-BRAKER - TRIPPED	SW-DI	Module I/O			40015.2	BOOL	3	1=tripped
4	SG200N1	0.4/0,23kV	miscellaneous USERS (typ L1-n ÷ L2-n)	U2.B	INTERNAL FAULT	SW-DI	Module I/O			40015.3	BOOL	3	0=fault
5	SG200N1	0.4/0,23kV	miscellaneous USERS (typ L1-n ÷ L2-n)	U2.B	*available*	SW-DI	Module I/O			40015.4	BOOL	3	
6	SG200N1	0.4/0,23kV	miscellaneous USERS (typ L1-n ÷ L2-n)	U2.B	*available*	SW-DO	Module I/O			40016.0	BOOL	3	
7	SG200N1	0.4/0,23kV	miscellaneous USERS (typ L1-n ÷ L2-n)	U2.B	*available*	SW-DO	Module I/O			40016.1	BOOL	3	

ITEM	SWITCHGEAR TAG	VOLTAGE	TAG NAME	DEVICE	SIGNAL_DESCRIPTION	TYPE ANALOG/DIGITAL	RELAY/DEVICE MODEL	UNIT	SCALE FACTOR	MODBUS RTU Register	MODBUS RTU Data Type	MODBUS RTU Function Code	Note
						Column	Position	Item TAG	Description TAG				
					(LK1-n ÷ LK2-n) Signals valid for following USERS :	**A2**	**+05**	SPARE	SPARE				
						A3	**+02**	SPARE	SPARE				
						A3	**+03**	DP-200N1	DB-LIGHTING & SMALL POWER BoP				
						A3	**+04**	JB-200E3	CRANE				
						A3	**+05**	SPARE	SPARE				
						A3	**+08**	JB-500E8	WATER PACKAGE				
						A4	**+02**	B100-HSB-001	HVAC PANELS HV ROOM				
						A4	**+03**	A-80000	FUELL CELL AUXIALIRY LOAD				
						A4	**+04**	CP-850F03	BESS PCS CABINET				
						A4	**+05**	SPARE	SPARE				
						A4	**+06**	SPARE	SPARE				
						A4	**+08**	K-63001-A	INSTRUMENTS AIR PACKAGE 01A				
						A5	**+01**	SPARE	SPARE				
						A5	**+02**	B200-HSB-001	HVAC PANELS - LV ROOM				
						A5	**+03**	B300-HSB-001	HVAC PANELS - UPS ROOM				
						A5	**+04**	B400-HSB-001	HVAC PANELS - ITER				
						A5	**+05**	CN-200N1	IMPRESSED CURR. CATHODIC PROTECTION (ICCP) SYSTEM				
						A5	**+06**	SPARE	SPARE				
						A5	**+08**	K-63001-B	INSTRUMENTS AIR PACKAGE 01B				
						A6	**+02**	CP-850E1	BESS LV1 CABINAT (+DISTR 1)				
						A6	**+03**	CP-850E2	BESS LV2 CABINAT (+DISTR 2)				
						A6	**+04**	SPARE	SPARE				
1	SG200N1	0.4/0,23kV	miscellaneous USERS (typ LK1-n ÷ LK2-n)	U1.A	CIRCUIT-BRAKER - PROTECTION TRIPPED "L"	SW-DI	Ekip Hi-Touch			50.0	BOOL	04	
2	SG200N1	0.4/0,23kV	miscellaneous USERS (typ LK1-n ÷ LK2-n)	U1.A	CIRCUIT-BRAKER - PROTECTION TRIPPED "S"	SW-DI	Ekip Hi-Touch			50.1	BOOL	04	
3	SG200N1	0.4/0,23kV	miscellaneous USERS (typ LK1-n ÷ LK2-n)	U1.A	CIRCUIT-BRAKER - PROTECTION TRIPPED "I"	SW-DI	Ekip Hi-Touch			50.2	BOOL	04	
4	SG200N1	0.4/0,23kV	miscellaneous USERS (typ LK1-n ÷ LK2-n)	U1.A	CIRCUIT-BRAKER - PROTECTION TRIPPED "G"	SW-DI	Ekip Hi-Touch			50.3	BOOL	04	
5	SG200N1	0.4/0,23kV	miscellaneous USERS (typ LK1-n ÷ LK2-n)	U1.A	CIRCUIT-BRAKER - OPEN	SW-DI	Ekip Hi-Touch			40.6	BOOL	04	
6	SG200N1	0.4/0,23kV	miscellaneous USERS (typ LK1-n ÷ LK2-n)	U1.A	CIRCUIT-BRAKER - CLOSED	SW-DI	Ekip Hi-Touch			40.0	BOOL	04	
7	SG200N1	0.4/0,23kV	miscellaneous USERS (typ LK1-n ÷ LK2-n)	U1.A	CIRCUIT-BRAKER - TRIP UNIT DISCONNECTED	SW-DI	Ekip Hi-Touch			40.15	BOOL	04	
8	SG200N1	0.4/0,23kV	miscellaneous USERS (typ LK1-n ÷ LK2-n)	U1.A	MEASURE - CURRENT "L1"	SW-AI	Ekip Hi-Touch	A	0,1	100÷101	U32	04	
9	SG200N1	0.4/0,23kV	miscellaneous USERS (typ LK1-n ÷ LK2-n)	U1.A	MEASURE - CURRENT "L2"	SW-AI	Ekip Hi-Touch	A	0,1	102÷103	U32	04	
10	SG200N1	0.4/0,23kV	miscellaneous USERS (typ LK1-n ÷ LK2-n)	U1.A	MEASURE - CURRENT "L3"	SW-AI	Ekip Hi-Touch	A	0,1	104÷105	U32	04	
11	SG200N1	0.4/0,23kV	miscellaneous USERS (typ LK1-n ÷ LK2-n)	U1.A	MEASURE - VOLTAGE "L1-L2"	SW-AI	Ekip Hi-Touch	V	0,1	154	U16	04	
12	SG200N1	0.4/0,23kV	miscellaneous USERS (typ LK1-n ÷ LK2-n)	U1.A	MEASURE - VOLTAGE "L2-L3"	SW-AI	Ekip Hi-Touch	V	0,1	155	U16	04	
13	SG200N1	0.4/0,23kV	miscellaneous USERS (typ LK1-n ÷ LK2-n)	U1.A	MEASURE - VOLTAGE "L3-L1"	SW-AI	Ekip Hi-Touch	V	0,1	156	U16	04	
14	SG200N1	0.4/0,23kV	miscellaneous USERS (typ LK1-n ÷ LK2-n)	U1.A	MEASURE - FREQUENCY	SW-AI	Ekip Hi-Touch	Hz	0,01	254	U16	04	
15	SG200N1	0.4/0,23kV	miscellaneous USERS (typ LK1-n ÷ LK2-n)	U1.A	MEASURE - APPARENT POWER	SW-AI	Ekip Hi-Touch	kVA	0,1	222÷223	S32	04	
16	SG200N1	0.4/0,23kV	miscellaneous USERS (typ LK1-n ÷ LK2-n)	U1.A	MEASURE - REAL POWER	SW-AI	Ekip Hi-Touch	kW	0,1	206÷207	S32	04	
17	SG200N1	0.4/0,23kV	miscellaneous USERS (typ LK1-n ÷ LK2-n)	U1.A	MEASURE - REACTIVE POWER	SW-AI	Ekip Hi-Touch	kVAR	0,1	214÷215	S32	04	
18	SG200N1	0.4/0,23kV	miscellaneous USERS (typ LK1-n ÷ LK2-n)	U1.A	MEASURE - POWER FACTOR	SW-AI	Ekip Hi-Touch	COSfi	0,001	253	S16	04	
19	SG200N1	0.4/0,23kV	miscellaneous USERS (typ LK1-n ÷ LK2-n)	U2.B	CIRCUIT-BRAKER - CLOSED AND INSERTED	SW-DI	Module I/O			40015.0	BOOL	3	1=close
20	SG200N1	0.4/0,23kV	miscellaneous USERS (typ LK1-n ÷ LK2-n)	U2.B	CIRCUIT-BRAKER - OPEN OR DISCONNECTED	SW-DI	Module I/O			40015.1	BOOL	3	1=open
21	SG200N1	0.4/0,23kV	miscellaneous USERS (typ LK1-n ÷ LK2-n)	U2.B	CIRCUIT-BRAKER - TRIPPED	SW-DI	Module I/O			40015.2	BOOL	3	1=tripped
22	SG200N1	0.4/0,23kV	miscellaneous USERS (typ LK1-n ÷ LK2-n)	U2.B	FEEDER AVAILABLE	SW-DI	Module I/O			40015.3	BOOL	3	1=available
23	SG200N1	0.4/0,23kV	miscellaneous USERS (typ LK1-n ÷ LK2-n)	U2.B	INTERNAL FAULT	SW-DI	Module I/O			40015.4	BOOL	3	0=fault
24	SG200N1	0.4/0,23kV	miscellaneous USERS (typ LK1-n ÷ LK2-n)	U2.B	CONTACTOR CLOSING COMAND	SW-DO	Module I/O			40016.0	BOOL	3	1=closing
25	SG200N1	0.4/0,23kV	miscellaneous USERS (typ LK1-n ÷ LK2-n)	U2.B	CONTACTOR OPENING COMAND	SW-DO	Module I/O			40016.1	BOOL	3	1=opening
26	SG200N1	0.4/0,23kV	miscellaneous USERS (typ LK1-n ÷ LK2-n)	U2.C	*available*	SW-DI	Module I/O			40015.0	BOOL	3	
27	SG200N1	0.4/0,23kV	miscellaneous USERS (typ LK1-n ÷ LK2-n)	U2.C	*available*	SW-DI	Module I/O			40015.1	BOOL	3	
28	SG200N1	0.4/0,23kV	miscellaneous USERS (typ LK1-n ÷ LK2-n)	U2.C	SA1 ON "LOCAL" POSITION	SW-DI	Module I/O			40015.2	BOOL	3	1=local
29	SG200N1	0.4/0,23kV	miscellaneous USERS (typ LK1-n ÷ LK2-n)	U2.C	*available*	SW-DI	Module I/O			40015.3	BOOL	3	
30	SG200N1	0.4/0,23kV	miscellaneous USERS (typ LK1-n ÷ LK2-n)	U2.C	*available*	SW-DI	Module I/O			40015.4	BOOL	3	
31	SG200N1	0.4/0,23kV	miscellaneous USERS (typ LK1-n ÷ LK2-n)	U2.C	*available*	SW-DO	Module I/O			40016.0	BOOL	3	
32	SG200N1	0.4/0,23kV	miscellaneous USERS (typ LK1-n ÷ LK2-n)	U2.C	*available*	SW-DO	Module I/O			40016.1	BOOL	3	

ITEM	SWITCHGEAR TAG	VOLTAGE	TAG NAME	DEVICE	SIGNAL_DESCRIPTION	TYPE ANALOG/DIGITAL	RELAY/DEVICE MODEL	UNIT	SCALE FACTOR	MODBUS RTU Register	MODBUS RTU Data Type	MODBUS RTU Function Code	Note
						Column	Position	Item TAG		Description TAG			
					(LE2-320)	A2	+08	JB-200E2	TEMPORARY GENERATOR / MOBILE BATTERY PACK				
					Signals valid for following USERS :								
1	SG200N1	0.4/0,23kV	miscellaneous USERS (typ LE2-320)	U1.A	MEASURE - CURRENT "L1"	SW-AI	Ekip Hi-Touch	A	0,1	100÷101	U32	04	
2	SG200N1	0.4/0,23kV	miscellaneous USERS (typ LE2-320)	U1.A	MEASURE - CURRENT "L2"	SW-AI	Ekip Hi-Touch	A	0,1	102÷103	U32	04	
3	SG200N1	0.4/0,23kV	miscellaneous USERS (typ LE2-320)	U1.A	MEASURE - CURRENT "L3"	SW-AI	Ekip Hi-Touch	A	0,1	104÷105	U32	04	
4	SG200N1	0.4/0,23kV	miscellaneous USERS (typ LE2-320)	U1.A	MEASURE - VOLTAGE "L1-L2"	SW-AI	Ekip Hi-Touch	V	0,1	154	U16	04	
5	SG200N1	0.4/0,23kV	miscellaneous USERS (typ LE2-320)	U1.A	MEASURE - VOLTAGE "L2-L3"	SW-AI	Ekip Hi-Touch	V	0,1	155	U16	04	
6	SG200N1	0.4/0,23kV	miscellaneous USERS (typ LE2-320)	U1.A	MEASURE - VOLTAGE "L3-L1"	SW-AI	Ekip Hi-Touch	V	0,1	156	U16	04	
7	SG200N1	0.4/0,23kV	miscellaneous USERS (typ LE2-320)	U1.A	MEASURE - FREQUENCY	SW-AI	Ekip Hi-Touch	Hz	0,01	254	U16	04	
8	SG200N1	0.4/0,23kV	miscellaneous USERS (typ LE2-320)	U1.A	MEASURE - APPARENT POWER	SW-AI	Ekip Hi-Touch	kVA	0,1	222÷223	S32	04	
9	SG200N1	0.4/0,23kV	miscellaneous USERS (typ LE2-320)	U1.A	MEASURE - REAL POWER	SW-AI	Ekip Hi-Touch	kW	0,1	206÷207	S32	04	
10	SG200N1	0.4/0,23kV	miscellaneous USERS (typ LE2-320)	U1.A	MEASURE - REACTIVE POWER	SW-AI	Ekip Hi-Touch	kVAR	0,1	214÷215	S32	04	
11	SG200N1	0.4/0,23kV	miscellaneous USERS (typ LE2-320)	U1.A	MEASURE - POWER FACTOR	SW-AI	Ekip Hi-Touch	COSfi	0,001	253	S16	04	
12	SG200N1	0.4/0,23kV	miscellaneous USERS (typ LE2-320)	U2.B	CIRCUIT-BRAKER - CLOSED AND INSERTED	SW-DI	Module I/O			40015.0	BOOL	3	1=close
13	SG200N1	0.4/0,23kV	miscellaneous USERS (typ LE2-320)	U2.B	CIRCUIT-BRAKER - OPEN OR DISCONNECTED	SW-DI	Module I/O			40015.1	BOOL	3	1=open
14	SG200N1	0.4/0,23kV	miscellaneous USERS (typ LE2-320)	U2.B	CIRCUIT-BRAKER - TRIPPED	SW-DI	Module I/O			40015.2	BOOL	3	1=tripped
15	SG200N1	0.4/0,23kV	miscellaneous USERS (typ LE2-320)	U2.B	FEEDER AVAILABLE	SW-DI	Module I/O			40015.3	BOOL	3	1=available
16	SG200N1	0.4/0,23kV	miscellaneous USERS (typ LE2-320)	U2.B	INTERNAL FAULT	SW-DI	Module I/O			40015.4	BOOL	3	0=fault
17	SG200N1	0.4/0,23kV	miscellaneous USERS (typ LE2-320)	U2.B	*available*	SW-DO	Module I/O			40016.0	BOOL	3	1=closing
18	SG200N1	0.4/0,23kV	miscellaneous USERS (typ LE2-320)	U2.B	*available*	SW-DO	Module I/O			40016.1	BOOL	3	1=opening

ITEM	SWITCHGEAR TAG	VOLTAGE	TAG NAME	DEVICE	SIGNAL_DESCRIPTION	TYPE ANALOG/DIGITAL	RELAY/DEVICE MODEL	UNIT	SCALE FACTOR	MODBUS RTU Register	MODBUS RTU Data Type	MODBUS RTU Function Code	Note
						Column	Position	Item TAG	Description TAG				
					(M1-6)	A6	+01	PM-50001A	SEA WATER PUMP A				
						A7	+01	PM-50001B	SEA WATER PUMP B				
					Signals valid for following USERS :								
1	SG200N1	0.4/0,23kV	miscellaneous USERS (typ M1-6)	MMU4	MEASURE - CURRENT (average)	SW-AI	MRP31.0	A	0,001	512	U16	3	
2	SG200N1	0.4/0,23kV	miscellaneous USERS (typ M1-6)	MMU4	SA1 ON "LOCAL" POSITION	SW-DI	MRP31.0			1	BIT	2	1=local
3	SG200N1	0.4/0,23kV	miscellaneous USERS (typ M1-6)	MMU4	MOTOR RUNNING	SW-DI	MRP31.0			2	BIT	2	1=running
4	SG200N1	0.4/0,23kV	miscellaneous USERS (typ M1-6)	MMU4	MOTOR TRIPPED	SW-DI	MRP31.0			3	BIT	2	1=tripped
5	SG200N1	0.4/0,23kV	miscellaneous USERS (typ M1-6)	MMU4	USER AVAILABLE	SW-DI	MRP31.0			4	BIT	2	1=available
6	SG200N1	0.4/0,23kV	miscellaneous USERS (typ M1-6)	MMU4	ESD ACTIVETED	SW-DI	MRP31.0			5	BIT	2	0=activeted
7	SG200N1	0.4/0,23kV	miscellaneous USERS (typ M1-6)	MMU4	MOTOR STOPPED BY PA1 (PUSH BUTTON ACTIVETED)	SW-DI	MRP31.0			6	BIT	2	0=activeted
8	SG200N1	0.4/0,23kV	miscellaneous USERS (typ M1-6)	MMU4	MOTOR RUN COMMAND	SW-DO	MRP31.0			256		15	1=run
9	SG200N1	0.4/0,23kV	miscellaneous USERS (typ M1-6)	MMU4	MOTOR STOP COMMAND	SW-DO	MRP31.0			257		15	1=stop

ITEM	SWITCHGEAR TAG	VOLTAGE	TAG NAME	DEVICE	SIGNAL_DESCRIPTION	TYPE ANALOG/DIGITAL	RELAY/DEVICE MODEL	UNIT	SCALE FACTOR	IEC61850 ITEM TAG	IEC61850 Technical Key	Note	
1	SG200N1	0.4/0,23kV	INCOMING	FP1	CIRCUIT-BRAKER - PROTECTION TRIPPED "50"	SW-DI	REF615			LD0.DPHLPDOC2.ST.Op.general	SG200N1FP1	1=tripped	
2	SG200N1	0.4/0,23kV	INCOMING	FP1	CIRCUIT-BRAKER - PROTECTION TRIPPED "51"	SW-DI	REF615			LD0.DPHLPDOC1.ST.Op.general	SG200N1FP1	1=tripped	
3	SG200N1	0.4/0,23kV	INCOMING	FP1	CIRCUIT-BRAKER - FUNCTION TRIPPED "74TCS"	SW-DI	REF615			LD0.XAGGIO130.Ind4.stVal	SG200N1FP1	1=tripped	
4	SG200N1	0.4/0,23kV	INCOMING	FP1	CIRCUIT-BRAKER - FUNCTION TRIPPED "86"	SW-DI	REF615			LD0.XAGGIO120.Ind1.stVal	SG200N1FP1	1=tripped	
5	SG200N1	0.4/0,23kV	INCOMING	FP1	CIRCUIT-BRAKER - READY TO CLOSE	SW-DI	REF615			LD0.MVGAPC2.ST.SPCSO1.stVal	SG200N1FP1	1=ready	
6	SG200N1	0.4/0,23kV	INCOMING	FP1	CIRCUIT-BRAKER - OPEN OR TEST POSITION	SW-DI	REF615			LD0.MVGAPC2.ST.SPCSO2.stVal	SG200N1FP1	1=open	
7	SG200N1	0.4/0,23kV	INCOMING	FP1	CIRCUIT-BRAKER - CLOSED AND INSERTED	SW-DI	REF615			LD0.MVGAPC1.ST.SPCSO8.stVal	SG200N1FP1	1=closed	
8	SG200N1	0.4/0,23kV	INCOMING	FP1	CIRCUIT-BRAKER - WATCHDOG	SW-DI	REF615			LD0.LPHD1.PhyHealth.stVal	SG200N1FP1	0=Failure	
9	SG200N1	0.4/0,23kV	INCOMING	FP1	MCBs ALARM	SW-DI	REF615			LD0.XAGGIO130.Ind1.stVal	SG200N1FP1	0=alarm	
10	SG200N1	0.4/0,23kV	INCOMING	FP1	SA1 ON "LOCAL" POSITION	SW-DI	REF615			LD0.MVGAPC1.ST.SPCSO6.stVal	SG200N1FP1	1=local	
11	SG200N1	0.4/0,23kV	INCOMING	FP1	SA1 ON "REMOTE" POSITION	SW-DI	REF615			LD0.MVGAPC1.ST.SPCSO7.stVal	SG200N1FP1	1=remote	
12	SG200N1	0.4/0,23kV	INCOMING	FP1	SA2 ON "MAINTENANCE" POSITION	SW-DI	REF615			LD0.XAGGIO130.Ind2.stVal	SG200N1FP1	1=maintenance	
13	SG200N1	0.4/0,23kV	INCOMING	FP1	INTERTRIP TO MV SWBD	SW-DI	REF615			LD0.MVGAPC1.ST.SPCSO4.stVal	SG200N1FP1	1=tripped	
14	SG200N1	0.4/0,23kV	INCOMING	FP1	CIRCUIT-BRAKER - CLOSE COMMAND	SW-DO	REF615			LD0.SPCGAPC1.SPCSO1.stVal	SG200N1FP1	1=close command	
15	SG200N1	0.4/0,23kV	INCOMING	FP1	CIRCUIT-BRAKER - OPEN COMMAND	SW-DO	REF615			LD0.SPCGAPC1.SPCSO2.stVal	SG200N1FP1	1=open command	
16	SG200N1	0.4/0,23kV	INCOMING	FP1	K86 RESET COMMAND	SW-DO	REF615			LD0.SPCGAPC1.SPCSO3.stVal	SG200N1FP1	1=reset command	
17	SG200N1	0.4/0,23kV	INCOMING	FP1	MEASURE - CURRENT "L1"	SW-AI	REF615	A	1	LD0.CMMXU1.A.phsA.cVal.mag.f	SG200N1FP1		
18	SG200N1	0.4/0,23kV	INCOMING	FP1	MEASURE - CURRENT "L2"	SW-AI	REF615	A	1	LD0.CMMXU1.A.phsB.cVal.mag.f	SG200N1FP1		
19	SG200N1	0.4/0,23kV	INCOMING	FP1	MEASURE - CURRENT "L3"	SW-AI	REF615	A	1	LD0.CMMXU1.A.phsC.cVal.mag.f	SG200N1FP1		
20	SG200N1	0.4/0,23kV	INCOMING	FP1	MEASURE - VOLTAGE "L1-L2"	SW-AI	REF615	kV	1	LD0.VMMXU1.PPV.phsAB.cVal.mag.f	SG200N1FP1		
21	SG200N1	0.4/0,23kV	INCOMING	FP1	MEASURE - VOLTAGE "L2-L3"	SW-AI	REF615	kV	1	LD0.VMMXU1.PPV.phsBC.cVal.mag.f	SG200N1FP1		
22	SG200N1	0.4/0,23kV	INCOMING	FP1	MEASURE - VOLTAGE "L3-L1"	SW-AI	REF615	kV	1	LD0.VMMXU1.PPV.phsCA.cVal.mag.f	SG200N1FP1		
23	SG200N1	0.4/0,23kV	INCOMING	FP1	MEASURE - FREQUENCY	SW-AI	REF615	Hz	1	LD0.FMMXU1.Hz.mag.f	SG200N1FP1		
24	SG200N1	0.4/0,23kV	INCOMING	FP1	MEASURE - APPARENT POWER	SW-AI	REF615	kVA	1	LD0.PEMMXU1.TotVA.mag.f	SG200N1FP1		
25	SG200N1	0.4/0,23kV	INCOMING	FP1	MEASURE - REAL POWER	SW-AI	REF615	kW	1	LD0.PEMMXU1.TotW.mag.f	SG200N1FP1		
26	SG200N1	0.4/0,23kV	INCOMING	FP1	MEASURE - REACTIVE POWER	SW-AI	REF615	kVAR	1	LD0.PEMMXU1.TotVAr.mag.f	SG200N1FP1		
27	SG200N1	0.4/0,23kV	INCOMING	FP1	MEASURE - POWER FACTOR	SW-AI	REF615	COSfi	1	LD0.PEMMXU1.TotPF.mag.f	SG200N1FP1		

Devices Modbus RTU Adress

1° Modbus RING

Column : A1				
Position User	TYP	CARTRIDGE (U1.A) MRP31.0 (MMU4) Ekip Touch (QF1)	SENECA (U2.B)	SENECA (U2.C)
08	L3-630	1	2	3

Column : A2					
Position User	TYP	CARTRIDGE (U1.A) MRP31.0 (MMU4) Ekip Touch (QF1)	SENECA (U2.B)	SENECA (U2.C)	WAGO (A1)
01					
02	INCOMING				4
03	FUTURE				
04	L1-63	-	8	-	-
05	LK1-40	46	11	12	-
06					
07					
08	LE2-320	13	14	-	-

Column : A3				
Position User	TYP	CARTRIDGE (U1.A) MRP31.0 (MMU4) Ekip Touch (QF1)	SENECA (U2.B)	SENECA (U2.C)
01	L1-100	-	23	-
02	LK1-40	25	26	27
03	LK1-100	28	29	30
04	LK1-63	31	32	33
05	LK1-40	34	35	36
06	FUTURE			
07				
08	LK2-160	40	41	42

2° Modbus RING

Column : A4				
Position User	TYP	CARTRIDGE (U1.A) MRP31.0 (MMU4) Ekip Touch (QF1)	SENECA (U2.B)	SENECA (U2.C)
01	L1-100	-	2	-
02	LK1-40	4	5	6
03	LK1-63	7	8	9
04	LK1-40	10	11	12
05	LK1-40	13	14	15
06	LK1-40	16	17	18
07				
08	LK2-160	19	20	21

Column : A5				
Position User	TYP	CARTRIDGE (U1.A) MRP31.0 (MMU4) Ekip Touch (QF1)	SENECA (U2.B)	SENECA (U2.C)
01	LK1-40	25	26	27
02	LK1-40	28	29	30
03	LK1-63	31	32	33
04	LK1-63	34	35	36
05	LK1-40	37	38	39
06	LK1-40	40	41	42
07				
08	LK2-160	43	44	45

3° Modbus RING

Column : A6				
Position User	TYP	CARTRIDGE (U1.A) MRP31.0 (MMU4) Ekip Touch (QF1)	SENECA (U2.B)	SENECA (U2.C)
01	M1-6	1	-	-
02	LK1-40	4	5	6
03	LK1-40	7	8	9
04	LK1-40	10	11	12
05	L1-63	-	14	-
06	L1-63	-	17	-
07				
08	L2-160	-	20	-

Column : A7				
Position User	TYP	CARTRIDGE (U1.A) MRP31.0 (MMU4) Ekip Touch (QF1)	SENECA (U2.B)	SENECA (U2.C)
01	M1-6	25	-	-
02	L1-100	-	29	-
03	L1-63	-	32	-
04	L1-63	-	35	-
05	L1-63	-	38	-
06	L1-63	-	41	-
07				
08	L2-160	-	44	-