

Utført-Prepared Jin Jun/Ole Morten Lunden	Dato-Date 20.05.03 10:58	Utgave-Issue 28	Document no: 2027380
Godkjent - Approved	Dato-Date 17/01/2022 15:08:00	Kontr.-Checked	File Name: Eltek Controllers ModBus Description (B - 2027380) Rev_28.DOC

SMARTPACK MODBUS DESCRIPTION

1. INTRODUCTION.....	4
1.1 SCOPE	4
1.2 MODBUS FUNCTIONS	4
1.3 REFERENCES	4
1.4 NOMENCLATURE.....	4
1.5 COMPATIBILITY	4
2. CONNECTIONS.....	5
2.1 MODBUS CONNECTION OVER RS232/RS485	5
2.1.1 <i>Setting ModBus address</i>	5
2.1.2 <i>Setting serial port parameters</i>	5
2.2 MODBUS CONNECTION OVER TCP/IP	6
3. MODBUS TIMING.....	6
4. VARIABLE MAPPING FOR ELTEK CONTROLLERS	7
4.1 INPUT REGISTER.....	7
4.2 HOLDING REGISTER	71
4.3 COILS	72
5. MP2300-9 (REGIONAL3).....	72
5.1 DIGITAL CONTROL POINT(DO)	72
5.2 ANALOG READING POINTS(AI).....	73
5.3 DIGITAL STATUS(DI).....	74
6. REGIONAL1 REQUIREMENTS	75
7. NOTES.....	76



SmartPack ModBus Description

Utført-Prepared Jin Jun/Ole Morten Lunden	Dato-Date 17/01/2022 15:08:00	Utgave-Issue 28	Dokumentnr.-Document No. 2027380
--	----------------------------------	--------------------	-------------------------------------

DOCUMENT CHANGE RECORD

Rev	Date	Pages affected	Nature of revision
1	20.10.2006	All	Initial revision.
2	12.01.2007		Cosmetic changes
3	14.06.2007		Cosmetic changes
4	05.03.2008	7,9,11	New items added
5	19.08.2008	6,7,10,12	India requirement added
6	26.08.2010		Customer1 and Regional1 requirements (Solar, DG, Mains) added
7	08.12.2011	All	Updated information for ModBus TCP; added notes if additional CAN units are required; added notes if not applicable to Smartpack 2.
8	07.06.2012	Sec 3.2	Added new items
9	25.06.2012		Updated for Smartpack S
10	06.12.2012		Updated for Compack
11	11.04.2013		
12	03.02.2014	All	Added requirement from Customer2, Customer3, Customer4 and Industrial Applications. Added compatibility description to tables.
13	30.04.2014	All	Updated for Compack and Smartpack S; Added support for fleximonitor
14	04.05.2015	4,6,17,43	
15	11.01.2016	Sec 5.3, Sec 4.1	Function 2 registers 00-02 support rectifiers on CAN2; New registers added for rectifiers on CAN2
16	07.02.17	Sec 4.1, 4.2	
17	10.03.17	All	Update for SPS and Compack
17	10.10.17	51,58	Ground Fault from SP2Bi(1-10), Std. LoadMonitor current for all inputs(14*8) , rectifier current can2 for TCP only, dcdc info on RTU
17	02.05.18	All	Rename columns of controller types: SPX RTU stands for SPS RTU and SP2 TOUCH RTU; SPX TCP stands for SP2, SPS, Compack and SP2 TOUCH TCP
18	09.04.2019		Rectifier info
19			Autotest info
20		5,12	Added comments
21	06.03.2020	46-48 53-60 60 61 63 64,65	2600-2699 for rectifier groups 5000-5039 also on RTU New 5040-5084 mains voltage phase 2-6 all groups Comment for rectifier-current in CAN2 Function 6,150-160 also for RTU Detail info from rectifier CAN2
22	30.03.2020	3	Section 1.4 added comments
23	08.09.2020	65,66	Rectifiers starts at 0
24	10.09.2020	61	Mains voltage phase #1-6, group 1-10
25	14.09.2020	54-60	Remove capacity for rectifier groups
26	17.02.2021	67-68	Load Fleximonitor current, power and energy
27	29.04.2021	48,49	DC load power and rectifier AC active power
28	05.07.2021	62	Both rectifier and rectifier reads mainsvoltage



SmartPack ModBus Description

Utført-Prepared Jin Jun/Ole Morten Lunden	Dato-Date 17/01/2022 15:08:00	Utgave-Issue 28	Dokumentnr.-Document No. 2027380



SmartPack ModBus Description

Utført-Prepared Jin Jun/Ole Morten Lunden	Dato-Date 17/01/2022 15:08:00	Utgave-Issue 28	Dokumentnr.-Document No. 2027380
--	----------------------------------	--------------------	-------------------------------------

1. INTRODUCTION

1.1 Scope

This document contains the information needed to design and implement the master side of a ModBus link between Smartpack+Smartnode, Smartpack2 Master (w/Basic or Basic Industrial), Compack, Smartpack S, Smartpack 2 Touch or Smartpack R and a host computer. The information here is intended used by ELTEK and an external development team to implement and test the relevant subset of the ModBus protocol. This document contains a complete description of the commands, and data messages used. The description assumes a general knowledge about the ModBus Protocol.

NB

The basic message formats and protocol stuff are not explained in this document. For ModBus details see www.modbus.org.

1.2 Modbus functions

The Modbus functions implemented in ELTEK's controllers are:

- Read Coil Status (function code 01h)
- Read Input Status (function code 02h)
- Read Holding Registers (function code 03h)
- Read Input Registers (function code 04h)
- Force Single Coil (function code 05h)
- Preset Single Register (function code 06h)

1.3 References

ModBus	ModBus Application Protocol Specification V1.1
	ModBus over serial line specification and implementation guide V1.0
	ModBus messaging on Tcp/Ip implementation guide v1.0b

1.4 Nomenclature

- Register addresses are zero-based in this document. When reading registers with a Modbus client, for example Modscan, register address has to be plus one. For example, to read register address 10 defined in this document, register address 11 has to be set in Modscan.
- Addresses are always in decimal unless other number representation specified.
- Hexadecimal numbers are H-terminated (except addresses)
- ASCII values are quoted (E.g. 'a' = 41H = 49)

1.5 Compatibility

Availability of Modbus function/registers in different products is illustrated in the last 5 columns of each table: SN(Smartnode SW),BI(Basic Industrial SW), SPX RTU (RTU implementation in Smartpack S, Smartpack 2 Touch and Smartpack R), SPX TCP (TCP implementation in Smartpack S, Compack, Smartpack 2, Smartpack 2 Touch and Smartpack R). A revision number means the particular function/register is available in that software revision and above. An empty entry means the function/register is NOT available in that software.



SmartPack ModBus Description

Utført-Prepared Jin Jun/Ole Morten Lunden	Dato-Date 17/01/2022 15:08:00	Utgave-Issue 28	Dokumentnr.-Document No. 2027380
--	----------------------------------	--------------------	-------------------------------------

2. CONNECTIONS

2.1 Modbus Connection over RS232/RS485

In order to make a ModBus connection to Smartpack+Smartnode, Smartpack2 Master, Basic Industrial, Compack, Smartpack S, Smartpack 2 Touch and Smartpack R the following steps must be done:

- Select ModBus protocol
- Select ModBus address
- Selecting and setting serial port parameters

2.1.1 Setting ModBus address

The address can be any number between 1 and 247. The address must be unique.

2.1.2 Setting serial port parameters

Serial port settings are found in the Communication setup under Control System on the specific control unit. Select baud rate, data and stop bit according to network settings. Select ModBus protocol.

Connectors on Smartpack+Smartnode

Smartnode+Smartpack RS232 9-pin DSUB Female	Smartnode+Smartpack RS485 RJ45	NETWORK
Pin 2 TxD	Pin 5 A	
Pin 3 RxD	Pin 4 B	
Pin 5 GND	Pin 8 GND	

Connectors on Basic Industrial

Basic Industrial RS232 9-pin DSUB Female	Basic Industrial RS485 RJ45	NETWORK
Pin 2 TxD	Pin 5 A	
Pin 3 RxD	Pin 4 B	
Pin 5 GND	Pin 8 GND	

Connectors on Smartpack S, Smartpack 2 Touch and Smartpack R

RS-232 & RS485 RJ11
Pin 1 GND
Pin 2 DCD
Pin 3 TxD
Pin 4 RxD
Pin 5 B
Pin 6 A

Utført-Prepared Jin Jun/Ole Morten Lunden	Dato-Date 17/01/2022 15:08:00	Utgave-Issue 28	Dokumentnr.-Document No. 2027380
--	----------------------------------	--------------------	-------------------------------------

2.2 Modbus Connection over TCP/IP

In order to make a ModBus connection to Smartpack2 Master, Compack, Smartpack S, Smartpack 2 Touch or Smartpack R over TCP/IP networks, the IP address of SmartPack and the service port (502) must be specified.

3. MODBUS TIMING

Table 3.1 Modbus RTU

Timing characteristics (ms)	SmartNode/ Basic Ind.	SmartPack S
Maximal response time	500	2000
Typical response time	200	200
Minimal delay between polls	200	200
Typical delay between polls	500	1000

Table 3.2 Modbus TCP

Timing characteristics (ms)	SmartPack 2/ SmartPack S/ Compack
Maximal response time	2000
Typical response time	1000
Minimal delay between polls	200
Typical delay between polls	500

Note:

- Timing characteristics in Table 3.1 and 3.2 are measured in laboratory for an Eltek DC power system with 4 rectifiers, main controllers and one IO unit. In a larger system with more rectifiers and CAN nodes, Timing characteristics may vary and higher values should be expected.
- Timing characteristics are measured with Modbus requests of maximal length of 10 registers.
- Main controllers (Smartpack 2, Smartpack S, Compack, Smartpack 2 Touch and Smartpack R) are mainly responsible for supporting and supervising core power system components, Modbus is therefore a low priority task for these controllers. User may get timeouts from Modbus requests when controllers are occupied with higher priority tasks. User may also get timeout when the controller is queried from other GUI (Powersuite or web) simultaneously.
- Smartnode is a dedicated protocol converter. It generally has better timing performance.

4. READING DATA FROM CONFIGURABLE INPUTS

Please note that when reading input values or status of a configurable inputs from controllers, for example fleximonitor, current monitor and so on, the register which reads the type of the input should be read first before reading the status or values. For example, to read the measured voltage of battery symmetry input #1 of Fleximonitor #1 (address 1818), type of the input (address 1800) should be read first.

Utført-Prepared Jin Jun/Ole Morten Lunden	Dato-Date 17/01/2022 15:08:00	Utgave-Issue 28	Dokumentnr.-Document No. 2027380
--	----------------------------------	--------------------	-------------------------------------

5. VARIABLE MAPPING FOR ELTEK CONTROLLERS

5.1 Input Register

Read only by Modbus-function 4

RegAddr	Register Function (Described for bit = Major alarm)	SN	BI	SPX	SPX	Auto
0100	DC plant TOPLEVEL			RTU	TCP	Test
Bit 0	Any Battery alarm	1.0	1.0	2.1	2.0	Y
Bit 1	Any Rectifier alarm	1.0	1.0	2.1	2.0	Y
Bit 2	Any Load alarm	1.0	1.0	2.1	2.0	Y
Bit 3	Any mains alarm	1.0	1.0	2.1	2.0	Y
Bit 4	Any controlsystem alarm	1.0	1.0	2.1	2.0	Y
Bit 5						
Bit 6						
Bit 7	Any DCDC alarm	4.2	3.1		2.5	Y
Bit 8						
Bit 9						
Bit 10						
Bit 11						
Bit 12						
Bit 13	Any mains group alarm		2.0		2.2	Y
Bit 14						
Bit 15						
RegAddr	Register Function (Described for bit = Minor alarm)	SN	BI	SPX	SPX	Auto
0101	DC plant TOPLEVEL			RTU	TCP	Test
Bit 0	Any Battery alarm	1.0	1.0	2.1	2.0	Y
Bit 1	Any Rectifier alarm	1.0	1.0	2.1	2.0	Y
Bit 2	Any Load alarm	1.0	1.0	2.1	2.0	Y
Bit 3	Any mains alarm	1.0	1.0	2.1	2.0	Y
Bit 4	Any controlsystem alarm	1.0	1.0	2.1	2.0	Y
Bit 5						
Bit 6						
Bit 7	Any DCDC alarm	4.2	3.1		2.5	Y
Bit 8						
Bit 9						
Bit 10						
Bit 11						
Bit 12						
Bit 13	Any mains group alarm		2.0		2.2	Y
Bit 14						
Bit 15						
RegAddr	Register Function (Described for bit = Major alarm)	SN	BI	SPX	SPX	Auto
0102	Battery TOPLEVEL			RTU	TCP	Test
Bit 0	Discharged Time Left	1.0	1.0	2.1	2.0	y
Bit 1	Battery quality	1.0	1.0	2.1	2.0	y
Bit 2						
Bit 3						
Bit 4						
Bit 5	Used capacity	1.0	1.0	2.1	2.0	y
Bit 6	Total capacity	1.0	1.0	2.1	2.0	y
Bit 7	Remaining capacity	1.0	1.0	2.1	2.0	y
Bit 8	Battery high voltage	1.0	1.0	2.1	2.0	y
Bit 9	Battery low voltage	1.0	1.0	2.1	2.0	y
Bit 10	Battery high current	1.0	1.0	2.1	2.0	y
Bit 11	Battery low current	1.0	1.0	2.1	2.0	y
Bit 12	Battery high temperature	1.0	1.0	2.1	2.0	y
Bit 13	Battery low temperature	1.0	1.0	2.1	2.0	y
Bit 14	Battery life time	1.0	1.0	2.1	2.0	y
Bit 15	Battery low voltage disconnect	1.0	1.0	2.1	2.0	y



SmartPack ModBus Description

Utført-Prepared Jin Jun/Ole Morten Lunden	Dato-Date 17/01/2022 15:08:00	Utgave-Issue 28	Dokumentnr.-Document No. 2027380
--	----------------------------------	--------------------	-------------------------------------

RegAddr	Register Function (Described for bit = Minor alarm)	SN	BI	SPX RTU	SPX TCP	Auto Test
0103	Battery TOPLEVEL					
Bit 0	Discharged Time Left	1.0	1.0	2.1	2.0	y
Bit 1	Battery quality	1.0	1.0	2.1	2.0	y
Bit 2						
Bit 3						
Bit 4						
Bit 5	Used capacity	1.0	1.0	2.1	2.0	y
Bit 6	Total capacity	1.0	1.0	2.1	2.0	y
Bit 7	Remaining capacity	1.0	1.0	2.1	2.0	y
Bit 8	Battery high voltage	1.0	1.0	2.1	2.0	y
Bit 9	Battery low voltage	1.0	1.0	2.1	2.0	y
Bit 10	Battery high current	1.0	1.0	2.1	2.0	y
Bit 11	Battery low current	1.0	1.0	2.1	2.0	y
Bit 12	Battery high temperature	1.0	1.0	2.1	2.0	y
Bit 13	Battery low temperature	1.0	1.0	2.1	2.0	y
Bit 14	Battery life time	1.0	1.0	2.1	2.0	y
Bit 15						
RegAddr	Register Function (Described for bit = Major alarm)	SN	BI	SPX RTU	SPX TCP	Auto Test
0104	Rectifier TOPLEVEL (not applicable to rectifier groups)					
Bit 0	Rectifiers in alarm	1.0	1.0	2.1	2.0	y
Bit 1						
Bit 2	Rectifiers with communication error	1.0	1.0	2.1	2.0	y
Bit 3	Rectifier current high	1.0	1.0	2.1	2.0	y
*Bit 4	Rectifiers temp high	4.1	2.0	2.1	2.1	y
*Bit 5	Rectifiers temp low	4.1	2.0	2.1	2.1	y
Bit 6						
Bit 7						
Bit 8						
Bit 9						
Bit 10	Capacity	1.0	1.0	2.1	2.0	y
Bit 11	Current share	1.0	1.0	2.1	2.0	y
*Bit 12	Rectifiers temp high	3.0	1.0		2.0	y
*Bit 13	Rectifiers temp low	3.0	1.0		2.0	y
Bit 14						
Bit 15						
RegAddr	Register Function (Described for bit = Minor alarm)	SN	BI	SPX RTU	SPX TCP	Auto Test
0105	Rectifier TOPLEVEL (not applicable to rectifier groups)					
Bit 0	Rectifiers in alarm	1.0	1.0	2.1	2.0	y
Bit 1						
Bit 2	Rectifiers with communication error	1.0	1.0	2.1	2.0	y
Bit 3	Rectifier current high	1.0	1.0	2.1	2.0	y
*Bit 4	Rectifiers temp high	4.1	2.0	2.1	2.1	y
*Bit 5	Rectifiers temp low	4.1	2.0	2.1	2.1	y
Bit 6						
Bit 7						
Bit 8						
Bit 9						
Bit 10	Capacity	1.0	1.0	2.1	2.0	y
Bit 11	Current share	1.0	1.0	2.1	2.0	y
*Bit 12	Rectifiers temp high	3.0	1.0		2.0	y
*Bit 13	Rectifiers temp low	3.0	1.0		2.0	y
Bit 14						
Bit 15						

*Rectifier temperature alarms moved from bits 12,13 to bits 4,5 from rev 2.1 onwards for Smartpack S, rev 2.1.2 onwards for Compack, rev2.2 onwards for Smartpack 2 Master and rev2.0 onwards for Basic ind.



SmartPack ModBus Description

Utført-Prepared Jin Jun/Ole Morten Lunden	Dato-Date 17/01/2022 15:08:00	Utgave-Issue 28	Dokumentnr.-Document No. 2027380
--	----------------------------------	--------------------	-------------------------------------

RegAddr **0106	Register Function (Described for bit = Major alarm)	SN	BI	SPX RTU	SPX TCP	Auto Test
Bit 0	Programmable input 1 on Smartpack/Smartpack2 Basic/ Programmable input 1.1 on Basic Ind./Smartpack S and Compack	4.0	1.0	2.1	2.0	
Bit 1	Programmable input 2 on Smartpack/Smartpack2 Basic/ Programmable input 1.2 on Basic Ind./Smartpack S and Compack	4.0	1.0	2.1	2.0	
Bit 2	Programmable input 3 on Smartpack/Smartpack2 Basic/ Programmable input 1.3 on Smartpack S	4.0		2.1	2.0	
Bit 3	Programmable input 5 on Smartpack/ Programmable input 1.5 on Smartpack S	4.0		2.1	2.0	
Bit 4	Programmable input 6 on Smartpack/ Programmable input 1.6 on Smartpack S	4.0		2.1	2.0	
Bit 5						
Bit 6						
Bit 7						
Bit 8						
Bit 9						
Bit 10						
Bit 11						
Bit 12						
Bit 13						
Bit 14						
Bit 15						
RegAddr 107	Register Function (Described for bit = Major alarm) IO UNIT Input	SN	BI	SPX RTU	SPX TCP	Auto Test
Bit 0	IO UNIT Programmable input 1.1	4.1	2.3	2.3.1	2.3.1	y
Bit 1	IO UNIT Programmable input 1.2	4.1	2.3	2.3.1	2.3.1	y
Bit 2	IO UNIT Programmable input 1.3	4.1	2.3	2.3.1	2.3.1	y
Bit 3	IO UNIT Programmable input 1.4	4.1	2.3	2.3.1	2.3.1	y
Bit 4	IO UNIT Programmable input 1.5	4.1	2.3	2.3.1	2.3.1	y
Bit 5	IO UNIT Programmable input 1.6	4.1	2.3	2.3.1	2.3.1	y
Bit 6	IO UNIT Programmable input 2.1	4.1	2.3	2.3.1	2.3.1	y
Bit 7	IO UNIT Programmable input 2.2	4.1	2.3	2.3.1	2.3.1	y
Bit 8	IO UNIT Programmable input 2.3	4.1	2.3	2.3.1	2.3.1	y
Bit 9	IO UNIT Programmable input 2.4	4.1	2.3	2.3.1	2.3.1	y
Bit 10	IO UNIT Programmable input 2.5	4.1	2.3	2.3.1	2.3.1	y
Bit 11	IO UNIT Programmable input 2.6	4.1	2.3	2.3.1	2.3.1	y
Bit 12						
Bit 13						
Bit 14						
Bit 15						
RegAddr 108	Register Function (Described for bit = Status) IO UNIT Output	SN	BI	SPX RTU	SPX TCP	Auto Test
Bit 0	IO UNIT output 1.1	4.1	2.3	2.3.1	2.3.1	
Bit 1	IO UNIT output 1.2	4.1	2.3	2.3.1	2.3.1	
Bit 2	IO UNIT output 1.3	4.1	2.3	2.3.1	2.3.1	
Bit 3	IO UNIT output 1.4	4.1	2.3	2.3.1	2.3.1	
Bit 4	IO UNIT output 1.5	4.1	2.3	2.3.1	2.3.1	
Bit 5	IO UNIT output 1.6	4.1	2.3	2.3.1	2.3.1	
Bit 6	IO UNIT output 2.1	4.1	2.3	2.3.1	2.3.1	
Bit 7	IO UNIT output 2.2	4.1	2.3	2.3.1	2.3.1	
Bit 8	IO UNIT output 2.3	4.1	2.3	2.3.1	2.3.1	
Bit 9	IO UNIT output 2.4	4.1	2.3	2.3.1	2.3.1	
Bit 10	IO UNIT output 2.5	4.1	2.3	2.3.1	2.3.1	
Bit 11	IO UNIT output 2.6	4.1	2.3	2.3.1	2.3.1	
Bit 12						
Bit 13						
Bit 14						
Bit 15						



SmartPack ModBus Description

Utført-Prepared Jin Jun/Ole Morten Lunden	Dato-Date 17/01/2022 15:08:00	Utgave-Issue 28	Dokumentnr.-Document No. 2027380
--	----------------------------------	--------------------	-------------------------------------

Reg Addr	Range	Register Function	SN	BI	SPX RTU	SPX TCP	Auto Test
**109	0.01 volt	Programmable input 4 (configured as voltage input) on Smartpack/ Programmable input 1.4 on Smartpack S/ Programmable input 1.3 on Compack/ Programmable input 1.3 on Basic Ind.	4.0	1.0	2.1	2.0	
110	0.01Volt	Battery voltage(bus-bar voltage)	1.0	1.0	2.1	2.0	y
111	1 Amp	Battery current	1.0	1.0	2.1	2.0	y
112	1 Degree	Battery temperature	1.0	1.0	2.1	2.0	y
113	1 Amp	Load current	1.0	1.0	2.1	2.0	y
114	0.01Volt	Load voltage(bus-bar voltage)	1.0	1.0	2.1	2.0	y
115	0.01Volt	Rectifier voltage(rectifier #1 on CAN 1)	1.0	1.0	2.1	2.0	y
116	1 Volt	Mains voltage(phase #1 from rectifier #1 on CAN 1)	1.0	1.0	2.1	2.0	y
117	0.1 amp	Rectifier nominal current(max total)	1.0	1.0	2.1	2.0	
*118	1 Ah/ %	Remaining battery capacity (Same as reg addr 640)	2.0	1.0	2.1	2.0	y
*119	1 min	Battery time left	2.0	1.0	2.1	2.0	y
120	1 Degree	temperature 1.1 value	4.1	2.3	2.3.1	2.3.1	y
121	1 Degree	temperature 1.2 value	4.1	2.3	2.3.1	2.3.1	y
122	1 Degree	temperature 1.3 value	4.1	2.3	2.3.1	2.3.1	y
123	1 Amp	Solar Current total	4.1	2.3	2.3.1	2.3.1	y
124	1 Volt	Mains voltage phase 2 (Measured from Mains Monitor)	4.1	2.3	2.3.1	2.3.1	y
125	1 volt	Mains voltage phase 3 (Measured from Mains Monitor)	4.1	2.3	2.3.1	2.3.1	y
126	1 Amp	Mains current phase 1 (Measured from Mains Monitor)	4.1	2.3	2.3.1	2.3.1	y
127	1 Amp	Mains current phase 2 (Measured from Mains Monitor)	4.1	2.3	2.3.1	2.3.1	y
128	1 Amp	Mains current phase 3 (Measured from Mains Monitor)	4.1	2.3	2.3.1	2.3.1	y
129	1 Hz	Mains frequency (Measured from Mains Monitor)	4.1	2.3	2.3.1	2.3.1	y
130-135	ASCII	Software version	1.0	1.0	2.1	2.0	y
136-141	ASCII	Hardware version	1.0	1.0	2.1	2.0	y
150-181	ASCII	Battery type	1.0	1.0	2.1	2.0	y
182	1 Degree	IO UNIT temperature 1.1 value	4.1	2.3	2.3.1	2.3.1	y
183	1 Degree	IO UNIT temperature 1.2 value	4.1	2.3	2.3.1	2.3.1	y
184	1 Degree	IO UNIT temperature 2.1 value	4.1	2.3	2.3.1	2.3.1	y
185	1 Degree	IO UNIT temperature 2.2 value	4.1	2.3	2.3.1	2.3.1	y
186	1 Degree	IO UNIT temperature 3.1 value	4.1	2.3	2.3.1	2.3.1	y
187	1 Degree	IO UNIT temperature 3.2 value	4.1	2.3	2.3.1	2.3.1	y
188	1 Volt	Mains voltage phase #2				2.6	y
189	1 Volt	Mains voltage phase #3				2.6	y
190	1 Amp	Dcdc current total			2.7		

* Required by Regional2

** Required by Customer1

RegAddr	Register Function (Described for bit = Major alarm)	SN	BI	SPX RTU	SPX TCP	Auto Test
192	Battery Monitor Symmetry delta voltage					
Bit 0	Battery monitor symmetry 1.1	4.1	2.3	2.3.1	2.3.1	y
Bit 1	Battery monitor symmetry 1.2	4.1	2.3	2.3.1	2.3.1	y
Bit 2	Battery monitor symmetry 1.3	4.1	2.3	2.3.1	2.3.1	y
Bit 3	Battery monitor symmetry 1.4	4.1	2.3	2.3.1	2.3.1	y
Bit 4	Battery monitor symmetry 2.1	4.1	2.3	2.3.1	2.3.1	y
Bit 5	Battery monitor symmetry 2.2	4.1	2.3	2.3.1	2.3.1	y
Bit 6	Battery monitor symmetry 2.3	4.1	2.3	2.3.1	2.3.1	y
Bit 7	Battery monitor symmetry 2.4	4.1	2.3	2.3.1	2.3.1	y
Bit 8	Battery monitor symmetry 3.1	4.1	2.3	2.3.1	2.3.1	y
Bit 9	Battery monitor symmetry 3.2	4.1	2.3	2.3.1	2.3.1	y
Bit 10	Battery monitor symmetry 3.3	4.1	2.3	2.3.1	2.3.1	y
Bit 11	Battery monitor symmetry 3.4	4.1	2.3	2.3.1	2.3.1	y
Bit 12	Battery monitor symmetry 4.1	4.1	2.3	2.3.1	2.3.1	y
Bit 13	Battery monitor symmetry 4.2	4.1	2.3	2.3.1	2.3.1	y



SmartPack ModBus Description

Utført-Prepared Jin Jun/Ole Morten Lunden	Dato-Date 17/01/2022 15:08:00	Utgave-Issue 28	Dokumentnr.-Document No. 2027380
--	----------------------------------	--------------------	-------------------------------------

Bit 14	Battery monitor symmetry 4.3	4.1	2.3	2.3.1	2.3.1	y
Bit 15	Battery monitor symmetry 4.4	4.1	2.3	2.3.1	2.3.1	y

RegAddr 193	Register Function (Described for bit = Major alarm) Battery Monitor Symmetry delta voltage	SN	BI	SPX RTU	SPX TCP	Auto Test
Bit 0	Battery monitor symmetry 5.1	4.1	2.3	2.3.1	2.3.1	y
Bit 1	Battery monitor symmetry 5.2	4.1	2.3	2.3.1	2.3.1	y
Bit 2	Battery monitor symmetry 5.3	4.1	2.3	2.3.1	2.3.1	y
Bit 3	Battery monitor symmetry 5.4	4.1	2.3	2.3.1	2.3.1	y
Bit 4						
Bit 5						
Bit 6						
Bit 7						
Bit 8						
Bit 9						
Bit 10						
Bit 11						
Bit 12						
Bit 13						
Bit 14						
Bit 15						

RegAddr 194	Register Function (Described for bit = Minor alarm) Battery Monitor Symmetry delta voltage	SN	BI	SPX RTU	SPX TCP	Auto Test
Bit 0	Battery monitor symmetry 1.1	4.1	2.3	2.3.1	2.3.1	y
Bit 1	Battery monitor symmetry 1.2	4.1	2.3	2.3.1	2.3.1	y
Bit 2	Battery monitor symmetry 1.3	4.1	2.3	2.3.1	2.3.1	y
Bit 3	Battery monitor symmetry 1.4	4.1	2.3	2.3.1	2.3.1	y
Bit 4	Battery monitor symmetry 2.1	4.1	2.3	2.3.1	2.3.1	y
Bit 5	Battery monitor symmetry 2.2	4.1	2.3	2.3.1	2.3.1	y
Bit 6	Battery monitor symmetry 2.3	4.1	2.3	2.3.1	2.3.1	y
Bit 7	Battery monitor symmetry 2.4	4.1	2.3	2.3.1	2.3.1	y
Bit 8	Battery monitor symmetry 3.1	4.1	2.3	2.3.1	2.3.1	y
Bit 9	Battery monitor symmetry 3.2	4.1	2.3	2.3.1	2.3.1	y
Bit 10	Battery monitor symmetry 3.3	4.1	2.3	2.3.1	2.3.1	y
Bit 11	Battery monitor symmetry 3.4	4.1	2.3	2.3.1	2.3.1	y
Bit 12	Battery monitor symmetry 4.1	4.1	2.3	2.3.1	2.3.1	y
Bit 13	Battery monitor symmetry 4.2	4.1	2.3	2.3.1	2.3.1	y
Bit 14	Battery monitor symmetry 4.3	4.1	2.3	2.3.1	2.3.1	y
Bit 15	Battery monitor symmetry 4.4	4.1	2.3	2.3.1	2.3.1	y

RegAddr 195	Register Function (Described for bit = Minor alarm) Battery Monitor Symmetry delta voltage	SN	BI	SPX RTU	SPX TCP	Auto Test
Bit 0	Battery monitor symmetry 5.1	4.1	2.3	2.3.1	2.3.1	y
Bit 1	Battery monitor symmetry 5.2	4.1	2.3	2.3.1	2.3.1	y
Bit 2	Battery monitor symmetry 5.3	4.1	2.3	2.3.1	2.3.1	y
Bit 3	Battery monitor symmetry 5.4	4.1	2.3	2.3.1	2.3.1	y
Bit 4						y
Bit 5						
Bit 6						
Bit 7						
Bit 8						
Bit 9						
Bit 10						
Bit 11						
Bit 12						
Bit 13						



SmartPack ModBus Description

Utført-Prepared Jin Jun/Ole Morten Lunden	Dato-Date 17/01/2022 15:08:00	Utgave-Issue 28	Dokumentnr.-Document No. 2027380
--	----------------------------------	--------------------	-------------------------------------

Bit 14						
Bit 15						

RegAddr 196	Register Function (Described for bit = Major high alarm) Battery Monitor Temperature	SN	BI	SPX RTU	SPX TCP	Auto Test
Bit 0	Battery monitor #1	4.1	2.3	2.3.1	2.3.1	y
Bit 1	Battery monitor #2	4.1	2.3	2.3.1	2.3.1	y
Bit 2	Battery monitor #3	4.1	2.3	2.3.1	2.3.1	y
Bit 3	Battery monitor #4	4.1	2.3	2.3.1	2.3.1	y
Bit 4	Battery monitor #5	4.1	2.3	2.3.1	2.3.1	y
Bit 5						
Bit 6						
Bit 7						
Bit 8						
Bit 9						
Bit 10						
Bit 11						
Bit 12						
Bit 13						
Bit 14						
Bit 15						

RegAddr 197	Register Function (Described for bit = Minor high alarm) Battery Monitor Temperature	SN	BI	SPX RTU	SPX TCP	Auto Test
Bit 0	Battery monitor #1	4.1	2.3	2.3.1	2.3.1	y
Bit 1	Battery monitor #2	4.1	2.3	2.3.1	2.3.1	y
Bit 2	Battery monitor #3	4.1	2.3	2.3.1	2.3.1	y
Bit 3	Battery monitor #4	4.1	2.3	2.3.1	2.3.1	y
Bit 4	Battery monitor #5	4.1	2.3	2.3.1	2.3.1	y
Bit 5						
Bit 6						
Bit 7						
Bit 8						
Bit 9						
Bit 10						
Bit 11						
Bit 12						
Bit 13						
Bit 14						
Bit 15						

RegAddr 198	Register Function (Described for bit = Major alarm) Battery Monitor Fuse	SN	BI	SPX RTU	SPX TCP	Auto Test
Bit 0	Battery monitor #1	4.1	2.3	2.3.1	2.3.1	y
Bit 1	Battery monitor #2	4.1	2.3	2.3.1	2.3.1	y
Bit 2	Battery monitor #3	4.1	2.3	2.3.1	2.3.1	y
Bit 3	Battery monitor #4	4.1	2.3	2.3.1	2.3.1	y
Bit 4	Battery monitor #5	4.1	2.3	2.3.1	2.3.1	y
Bit 5						
Bit 6						
Bit 7						
Bit 8						
Bit 9						
Bit 10						
Bit 11						
Bit 12						
Bit 13						
Bit 14						

Utført-Prepared Jin Jun/Ole Morten Lunden	Dato-Date 17/01/2022 15:08:00	Utgave-Issue 28	Dokumentnr.-Document No. 2027380
--	----------------------------------	--------------------	-------------------------------------

Bit 15						
--------	--	--	--	--	--	--

RegAddr 199	Register Function (Described for bit = Major alarm) IO UNIT speed	SN	BI	SPX RTU	SPX TCP	Auto Test
Bit 0	IO UNIT speed 1.1	4.1	2.3	2.3.1	2.3.1	y
Bit 1	IO UNIT speed 1.2	4.1	2.3	2.3.1	2.3.1	y
Bit 2	IO UNIT speed 2.1	4.1	2.3	2.3.1	2.3.1	y
Bit 3	IO UNIT speed 2.2	4.1	2.3	2.3.1	2.3.1	y
Bit 4						
Bit 5						
Bit 6						
Bit 7						
Bit 8						
Bit 9						
Bit 10						
Bit 11						
Bit 12						
Bit 13						
Bit 14						
Bit 15						

RegAddr *200	Register Function (Described for bit = Major alarm) temperature	SN	BI	SPX RTU	SPX TCP	Auto Test
Bit 0	temperature 1.1	4.1	2.3	2.3.1	2.3.1	Y
Bit 1	temperature 1.2	4.1	2.3	2.3.1	2.3.1	Y
Bit 2	temperature 1.3	4.1	2.3	2.3.1	2.3.1	Y
Bit 3						
Bit 4						
Bit 5						
Bit 6						
Bit 7						
Bit 8						
Bit 9						
Bit 10						
Bit 11						
Bit 12						
Bit 13						
Bit 14						
Bit 15						

- Note: Reg200 only shows temperatures of SP2 Basic, when the temperature input is configured under control system.



SmartPack ModBus Description

Utført-Prepared Jin Jun/Ole Morten Lunden	Dato-Date 17/01/2022 15:08:00	Utgave-Issue 28	Dokumentnr.-Document No. 2027380
--	----------------------------------	--------------------	-------------------------------------

Reg Addr	Range	Register Function	SN	BI	SPX RTU	SPX TCP	Auto Test
201-299	0.1 amp	Rectifier # 1-99 current	1.0	1.0	2.1	2.0	201-210
*301-399	See below	Rectifier # 1-99 alarmStatus	1.0	1.0	2.1	2.0	301-310
	Bit 0	Output over-voltage shutdown	1.0	1.0	2.1	2.0	
	Bit 1						
	Bit 2	Comm. failure between Primary & Secondary	1.0	1.0	2.1	2.0	
	Bit 3	High Mains	1.0	1.0	2.1	2.0	
	Bit 4	Low Mains	1.0	1.0	2.1	2.0	
	Bit 5	High Temperature Shutdown	1.0	1.0	2.1	2.0	
	Bit 6	Low Temperature Shutdown	1.0	1.0	2.1	2.0	
	Bit 7	Power Limit de-rate	1.0	1.0	2.1	2.0	
	Bit 8						
	Bit 9	Module fail	1.0	1.0	2.1	2.0	
	Bit 10	One fan failure	3.0	1.0	2.1	2.0	
	Bit 11	One fan failure	1.0	1.0	2.1	2.0	
	Bit 12	Output voltage is below 43,50V	1.0	1.0	2.1	2.0	
	Bit 13						
	Bit 14						
	Bit 15						
401-499	1 vac	Rectifier # 1-99 input voltage	1.0	1.0	2.1	2.0	401-410
501-599	1 degree	Rectifier # 1-99 temp	1.0	1.0	2.1	2.0	501-510

* All bits will be set to '1' if the rectifier is with communication error.

Only Modbus RTU running on BI with SW revision 3.2 or above supports individual rectifier information (reg 201-599) for rectifiers installed on CAN2 of the same bay as the BI controller.

Reg Addr	Range	Register Function	SN	BI	SPX RTU	SPX TCP	Auto Test
600-619	0.1 amp	Solar # 1-20 output current	4.0		2.1	2.0	y
620-639	1 volt	Solar # 1-20 input voltage	4.0		2.1	2.0	y
640	1 Ah/%	Battery State of Charge (remaining capacity)	4.0	1.0	2.1	2.0	y
641	1 Day	Battery Utilized Life (battery life time)	4.0	1.0	2.1	2.0	y
642	%	Battery Health SOH (battery quality)	4.0	1.0	2.1	2.0	y
643	1 Volt	Mains voltage phase 1 (Measured from Mains Monitor)	4.0	1.0	2.1	2.0	y
644	1 Amp	Mains current total (Measured from Mains Monitor)	4.0	1.0	2.1	2.0	y
645	float	Generator running minutes (MSB)	4.0	1.0	2.1	2.0	y
646	float	Generator running minutes (LSB)	4.0	1.0	2.1	2.0	y
647	float	Fuel consumption (MSB)	4.0	1.0	2.1	2.0	y
648	float	Fuel consumption (LSB)	4.0	1.0	2.1	2.0	y
649	float	Battery cycle count (MSB) (Number of discharge cycles)	4.0	1.0	2.1	2.0	y
650	float	Battery cycle count (LSB) (Number of discharge cycles)	4.0	1.0	2.1	2.0	y
651	1 Ah/%	Depth of discharge (Used capacity)	4.0	1.0	2.1	2.0	y
652	float	Mains availability minutes (MSB)	4.0	1.0	2.1	2.0	y
653	float	Mains availability minutes (LSB)	4.0	1.0	2.1	2.0	y
654-685	ASCII	System model	4.1	2.3	2.3.1	2.3.1	y
686-717	ASCII	Customer	4.1	2.3	2.3.1	2.3.1	y
718-749	ASCII	Location	4.1	2.3	2.3.1	2.3.1	y
750-765	ASCII	Serial Number	4.1	2.3	2.3.1	2.3.1	y
770	0.01 Volt	Battery Monitor symmetry 1.1 delta voltage	4.1	2.3	2.3.1	2.3.1	y
771	0.01 Volt	Battery Monitor symmetry 1.1 measured voltage	4.1	2.3	2.3.1	2.3.1	y
772	0.01 Volt	Battery Monitor symmetry 1.2 delta voltage	4.1	2.3	2.3.1	2.3.1	y
773	0.01 Volt	Battery Monitor symmetry 1.2 measured voltage	4.1	2.3	2.3.1	2.3.1	y
774	0.01 Volt	Battery Monitor symmetry 1.3 delta voltage	4.1	2.3	2.3.1	2.3.1	y
775	0.01 Volt	Battery Monitor symmetry 1.3 measured voltage	4.1	2.3	2.3.1	2.3.1	y
776	0.01 Volt	Battery Monitor symmetry 1.4 delta voltage	4.1	2.3	2.3.1	2.3.1	y
777	0.01 Volt	Battery Monitor symmetry 1.4 measured voltage	4.1	2.3	2.3.1	2.3.1	y
778	0.01 Volt	Battery Monitor symmetry 2.1 delta voltage	4.1	2.3	2.3.1	2.3.1	y



SmartPack ModBus Description

Utført-Prepared Jin Jun/Ole Morten Lunden	Dato-Date 17/01/2022 15:08:00	Utgave-Issue 28	Dokumentnr.-Document No. 2027380
--	----------------------------------	--------------------	-------------------------------------

779	0.01 Volt	Battery Monitor symmetry 2.1 measured voltage	4.1	2.3	2.3.1	2.3.1	y
780	0.01 Volt	Battery Monitor symmetry 2.2 delta voltage	4.1	2.3	2.3.1	2.3.1	y
781	0.01 Volt	Battery Monitor symmetry 2.2 measured voltage	4.1	2.3	2.3.1	2.3.1	y
782	0.01 Volt	Battery Monitor symmetry 2.3 delta voltage	4.1	2.3	2.3.1	2.3.1	y
783	0.01 Volt	Battery Monitor symmetry 2.3 measured voltage	4.1	2.3	2.3.1	2.3.1	y
784	0.01 Volt	Battery Monitor symmetry 2.4 delta voltage	4.1	2.3	2.3.1	2.3.1	y
785	0.01 Volt	Battery Monitor symmetry 2.4 measured voltage	4.1	2.3	2.3.1	2.3.1	y
786	0.01 Volt	Battery Monitor symmetry 3.1 delta voltage	4.1	2.3	2.3.1	2.3.1	y
787	0.01 Volt	Battery Monitor symmetry 3.1 measured voltage	4.1	2.3	2.3.1	2.3.1	y
788	0.01 Volt	Battery Monitor symmetry 3.2 delta voltage	4.1	2.3	2.3.1	2.3.1	y
789	0.01 Volt	Battery Monitor symmetry 3.2 measured voltage	4.1	2.3	2.3.1	2.3.1	y
790	0.01 Volt	Battery Monitor symmetry 3.3 delta voltage	4.1	2.3	2.3.1	2.3.1	y
791	0.01 Volt	Battery Monitor symmetry 3.3 measured voltage	4.1	2.3	2.3.1	2.3.1	y
792	0.01 Volt	Battery Monitor symmetry 3.4 delta voltage	4.1	2.3	2.3.1	2.3.1	y
793	0.01 Volt	Battery Monitor symmetry 3.4 measured voltage	4.1	2.3	2.3.1	2.3.1	y
794	0.01 Volt	Battery Monitor symmetry 4.1 delta voltage	4.1	2.3	2.3.1	2.3.1	y
795	0.01 Volt	Battery Monitor symmetry 4.1 measured voltage	4.1	2.3	2.3.1	2.3.1	y
796	0.01 Volt	Battery Monitor symmetry 4.2 delta voltage	4.1	2.3	2.3.1	2.3.1	y
797	0.01 Volt	Battery Monitor symmetry 4.2 measured voltage	4.1	2.3	2.3.1	2.3.1	y
798	0.01 Volt	Battery Monitor symmetry 4.3 delta voltage	4.1	2.3	2.3.1	2.3.1	y
799	0.01 Volt	Battery Monitor symmetry 4.3 measured voltage	4.1	2.3	2.3.1	2.3.1	y
800	0.01 Volt	Battery Monitor symmetry 4.4 delta voltage	4.1	2.3	2.3.1	2.3.1	y
801	0.01 Volt	Battery Monitor symmetry 4.4 measured voltage	4.1	2.3	2.3.1	2.3.1	y
802	0.01 Volt	Battery Monitor symmetry 5.1 delta voltage	4.1	2.3	2.3.1	2.3.1	y
803	0.01 Volt	Battery Monitor symmetry 5.1 measured voltage	4.1	2.3	2.3.1	2.3.1	y
804	0.01 Volt	Battery Monitor symmetry 5.2 delta voltage	4.1	2.3	2.3.1	2.3.1	y
805	0.01 Volt	Battery Monitor symmetry 5.2 measured voltage	4.1	2.3	2.3.1	2.3.1	y
806	0.01 Volt	Battery Monitor symmetry 5.3 delta voltage	4.1	2.3	2.3.1	2.3.1	y
807	0.01 Volt	Battery Monitor symmetry 5.3 measured voltage	4.1	2.3	2.3.1	2.3.1	y
808	0.01 Volt	Battery Monitor symmetry 5.4 delta voltage	4.1	2.3	2.3.1	2.3.1	y
809	0.01 Volt	Battery Monitor symmetry 5.4 measured voltage	4.1	2.3	2.3.1	2.3.1	y
810	1 Degree	Battery Monitor #1 temperature value	4.1	2.3	2.3.1	2.3.1	y
811	1 Degree	Battery Monitor #2 temperature value	4.1	2.3	2.3.1	2.3.1	y
812	1 Degree	Battery Monitor #3 temperature value	4.1	2.3	2.3.1	2.3.1	y
813	1 Degree	Battery Monitor #4 temperature value	4.1	2.3	2.3.1	2.3.1	y
814	1 Degree	Battery Monitor #5 temperature value	4.1	2.3	2.3.1	2.3.1	y
815	1 Amp	Battery Monitor #1 current value	4.1	2.3	2.3.1	2.3.1	y
816	1 Amp	Battery Monitor #2 current value	4.1	2.3	2.3.1	2.3.1	y
817	1 Amp	Battery Monitor #3 current value	4.1	2.3	2.3.1	2.3.1	y
818	1 Amp	Battery Monitor #4 current value	4.1	2.3	2.3.1	2.3.1	y
819	1 Amp	Battery Monitor #5 current value	4.1	2.3	2.3.1	2.3.1	y
820	1 kOhm	Earth fault value	4.1	2.3	2.3.1	2.3.1	y
821		IO UNIT programmable input 1.1 value	4.1	2.3	2.3.1	2.3.1	y
822		IO UNIT programmable input 1.2 value	4.1	2.3	2.3.1	2.3.1	y
823		IO UNIT programmable input 1.3 value	4.1	2.3	2.3.1	2.3.1	y
824		IO UNIT programmable input 1.4 value	4.1	2.3	2.3.1	2.3.1	y
825		IO UNIT programmable input 1.5 value	4.1	2.3	2.3.1	2.3.1	y
826		IO UNIT programmable input 1.6 value	4.1	2.3	2.3.1	2.3.1	y
827		IO UNIT programmable input 2.1 value	4.1	2.3	2.3.1	2.3.1	y
828		IO UNIT programmable input 2.2 value	4.1	2.3	2.3.1	2.3.1	y
829		IO UNIT programmable input 2.3 value	4.1	2.3	2.3.1	2.3.1	y
830		IO UNIT programmable input 2.4 value	4.1	2.3	2.3.1	2.3.1	y
831		IO UNIT programmable input 2.5 value	4.1	2.3	2.3.1	2.3.1	y
832		IO UNIT programmable input 2.6 value	4.1	2.3	2.3.1	2.3.1	y
833-848	ASCII	IO UNIT programmable input 1.1 description	4.1	2.3	2.3.1	2.3.1	y
849-864	ASCII	IO UNIT programmable input 1.2 description	4.1	2.3	2.3.1	2.3.1	y
865-880	ASCII	IO UNIT programmable input 1.3 description	4.1	2.3	2.3.1	2.3.1	y
881-896	ASCII	IO UNIT programmable input 1.4 description	4.1	2.3	2.3.1	2.3.1	y
897-912	ASCII	IO UNIT programmable input 1.5 description	4.1	2.3	2.3.1	2.3.1	y



SmartPack ModBus Description

Utført-Prepared Jin Jun/Ole Morten Lunden	Dato-Date 17/01/2022 15:08:00	Utgave-Issue 28	Dokumentnr.-Document No. 2027380
--	----------------------------------	--------------------	-------------------------------------

913-928	ASCII	IO UNIT programmable input 1.6 description	4.1	2.3	2.3.1	2.3.1	y
929-944	ASCII	IO UNIT programmable input 2.1 description	4.1	2.3	2.3.1	2.3.1	y
945-960	ASCII	IO UNIT programmable input 2.2 description	4.1	2.3	2.3.1	2.3.1	y
961-976	ASCII	IO UNIT programmable input 2.3 description	4.1	2.3	2.3.1	2.3.1	y
977-992	ASCII	IO UNIT programmable input 2.4 description	4.1	2.3	2.3.1	2.3.1	y
993-1008	ASCII	IO UNIT programmable input 2.5 description	4.1	2.3	2.3.1	2.3.1	y
1009-1024	ASCII	IO UNIT programmable input 2.6 description	4.1	2.3	2.3.1	2.3.1	y
1025	%	IO UNIT fan speed 1.1 value	4.1	2.3	2.3.1	2.3.1	y
1026	%	IO UNIT fan speed 1.2 value	4.1	2.3	2.3.1	2.3.1	y
1027	%	IO UNIT fan speed 2.1 value	4.1	2.3	2.3.1	2.3.1	y
1028	%	IO UNIT fan speed 2.2 value	4.1	2.3	2.3.1	2.3.1	y
1029	%	IO UNIT fan control 1.1 value	4.1	2.3	2.3.1	2.3.1	y
1030	%	IO UNIT fan control 1.2 value	4.1	2.3	2.3.1	2.3.1	y
1031	%	IO UNIT fan control 2.1 value	4.1	2.3	2.3.1	2.3.1	y
1032	%	IO UNIT fan control 2.2 value	4.1	2.3	2.3.1	2.3.1	y
1033-1048	ASCII	IO UNIT output 1.1 description	4.1	2.3	2.3.1	2.3.1	y
1049-1064	ASCII	IO UNIT output 1.2 description	4.1	2.3	2.3.1	2.3.1	y
1065-1080	ASCII	IO UNIT output 1.3 description	4.1	2.3	2.3.1	2.3.1	y
1081-1096	ASCII	IO UNIT output 1.4 description	4.1	2.3	2.3.1	2.3.1	y
1097-1112	ASCII	IO UNIT output 1.5 description	4.1	2.3	2.3.1	2.3.1	y
1113-1128	ASCII	IO UNIT output 1.6 description	4.1	2.3	2.3.1	2.3.1	y
1129-1144	ASCII	IO UNIT output 2.1 description	4.1	2.3	2.3.1	2.3.1	y
1145-1160	ASCII	IO UNIT output 2.2 description	4.1	2.3	2.3.1	2.3.1	y
1161-1176	ASCII	IO UNIT output 2.3 description	4.1	2.3	2.3.1	2.3.1	y
1177-1192	ASCII	IO UNIT output 2.4 description	4.1	2.3	2.3.1	2.3.1	y
1193-1208	ASCII	IO UNIT output 2.5 description	4.1	2.3	2.3.1	2.3.1	y
1209-1224	ASCII	IO UNIT output 2.6 description	4.1	2.3	2.3.1	2.3.1	y
1225-1227	Date	Date (year,month,day) – eventlog 1	4.1	2.3	2.3.1	2.3.1	y
1228-1230	Time	Time (hour,minute,second) – eventlog 1	4.1	2.3	2.3.1	2.3.1	y
1231-1246	ASCII	Description – eventlog 1	4.1	2.3	2.3.1	2.3.1	y
1247-1262	ASCII	Event –eventlog 1	4.1	2.3	2.3.1	2.3.1	y
1263-1265	Date	Date (year,month,day) – eventlog 2	4.1	2.3	2.3.1	2.3.1	y
1266-1268	Time	Time (hour,minute,second) – eventlog 2	4.1	2.3	2.3.1	2.3.1	y
1269-1284	ASCII	Description – eventlog 2	4.1	2.3	2.3.1	2.3.1	y
1285-1300	ASCII	Event –eventlog 2	4.1	2.3	2.3.1	2.3.1	y
1301-1303	Date	Date (year,month,day) – eventlog 3	4.1	2.3	2.3.1	2.3.1	y
1304-1306	Time	Time (hour,minute,second) – eventlog 3	4.1	2.3	2.3.1	2.3.1	y
1307-1322	ASCII	Description – eventlog 3	4.1	2.3	2.3.1	2.3.1	y
1323-1338	ASCII	Event –eventlog 3	4.1	2.3	2.3.1	2.3.1	y
1339-1341	Date	Date (year,month,day) – eventlog 4	4.1	2.3	2.3.1	2.3.1	y
1342-1344	Time	Time (hour,minute,second) – eventlog 4	4.1	2.3	2.3.1	2.3.1	y
1345-1360	ASCII	Description – eventlog 4	4.1	2.3	2.3.1	2.3.1	y
1361-1376	ASCII	Event –eventlog 4	4.1	2.3	2.3.1	2.3.1	y
1377-1379	Date	Date (year,month,day) – eventlog 5	4.1	2.3	2.3.1	2.3.1	y
1380-1382	Time	Time (hour,minute,second) – eventlog 5	4.1	2.3	2.3.1	2.3.1	y
1383-1398	ASCII	Description – eventlog 5	4.1	2.3	2.3.1	2.3.1	y
1399-1414	ASCII	Event –eventlog 5	4.1	2.3	2.3.1	2.3.1	y
1415-1417	Date	Date (year,month,day) – eventlog 6	4.1	2.3	2.3.1	2.3.1	y
1418-1420	Time	Time (hour,minute,second) – eventlog 6	4.1	2.3	2.3.1	2.3.1	y
1421-1436	ASCII	Description – eventlog 6	4.1	2.3	2.3.1	2.3.1	y
1437-1452	ASCII	Event –eventlog 6	4.1	2.3	2.3.1	2.3.1	y
1453-1455	Date	Date (year,month,day) – eventlog 7	4.1	2.3	2.3.1	2.3.1	y
1456-1458	Time	Time (hour,minute,second) – eventlog 7	4.1	2.3	2.3.1	2.3.1	y
1459-1474	ASCII	Description – eventlog 7	4.1	2.3	2.3.1	2.3.1	y
1475-1490	ASCII	Event –eventlog 7	4.1	2.3	2.3.1	2.3.1	y
1491-1493	Date	Date (year,month,day) – eventlog 8	4.1	2.3	2.3.1	2.3.1	y
1494-1496	Time	Time (hour,minute,second) – eventlog 8	4.1	2.3	2.3.1	2.3.1	y
1497-1512	ASCII	Description – eventlog 8	4.1	2.3	2.3.1	2.3.1	y
1513-1528	ASCII	Event –eventlog 8	4.1	2.3	2.3.1	2.3.1	y



SmartPack ModBus Description

Utført-Prepared Jin Jun/Ole Morten Lunden	Dato-Date 17/01/2022 15:08:00	Utgave-Issue 28	Dokumentnr.-Document No. 2027380
--	----------------------------------	--------------------	-------------------------------------

1529-1531	Date	Date (year,month,day) – eventlog 9	4.1	2.3	2.3.1	2.3.1	y
1532-1534	Time	Time (hour,minute,second) – eventlog 9	4.1	2.3	2.3.1	2.3.1	y
1535-1550	ASCII	Description – eventlog 9	4.1	2.3	2.3.1	2.3.1	y
1551-1566	ASCII	Event –eventlog 9	4.1	2.3	2.3.1	2.3.1	y
1567-1569	Date	Date (year,month,day) – eventlog 10	4.1	2.3	2.3.1	2.3.1	y
1570-1572	Time	Time (hour,minute,second) – eventlog 10	4.1	2.3	2.3.1	2.3.1	y
1573-1588	ASCII	Description – eventlog 10	4.1	2.3	2.3.1	2.3.1	y
1589-1604	ASCII	Event –eventlog 10	4.1	2.3	2.3.1	2.3.1	y
1605-1609	Date&Time	Start time – battery test result 1	4.1	2.3	2.3.1	2.3.1	y
1610-1614	Date&Time	End time – battery test result 1	4.1	2.3	2.3.1	2.3.1	y
1615		Test type - battery test result 1 1: ManualTest 2: IntervalTest 3: AutoTest	4.1	2.3	2.3.1	2.3.1	y
1616-1631	ASCII	Battery type - battery test result 1	4.1	2.3	2.3.1	2.3.1	y
1632	1 Min	Test duration - battery test result 1	4.1	2.3	2.3.1	2.3.1	y
1633	1 Amp	Average current - battery test result 1	4.1	2.3	2.3.1	2.3.1	y
1634	1 Ah	Discharged ah- battery test result 1	4.1	2.3	2.3.1	2.3.1	y
1635	1 Degree	Battery temperature - battery test result 1	4.1	2.3	2.3.1	2.3.1	y
1636	0.01 Volt	End voltage - battery test result 1	4.1	2.3	2.3.1	2.3.1	y
1637	%	Calculated battery quality- battery test result 1	4.1	2.3	2.3.1	2.3.1	y
1638		Termination criteria- battery test result 1 0:NA 1:EndVoltage 2: EndTime 3:UserCancel 4: MainsCancel 5: EndAh	4.1	2.3	2.3.1	2.3.1	y
1639		Test result - battery test result 1 0: Error 1: Normal 2: MinorHigh 3: MajorHigh 4: Disable 5: Disconnect 6: Reconnect 7: Critical 8: MajorLow 9: MinorLow	4.1	2.3	2.3.1	2.3.1	y
1640-1644	Date&Time	Start time – battery test result 2	4.1	2.3	2.3.1	2.3.1	y
1645-1649	Date&Time	End time – battery test result 2	4.1	2.3	2.3.1	2.3.1	y
1650		Test type - battery test result 2 1: ManualTest 2: IntervalTest 3: AutoTest	4.1	2.3	2.3.1	2.3.1	y
1651-1666	ASCII	Battery type - battery test result 2	4.1	2.3	2.3.1	2.3.1	y
1667	1 Min	Test duration - battery test result 2	4.1	2.3	2.3.1	2.3.1	y
1668	1 Amp	Average current - battery test result 2	4.1	2.3	2.3.1	2.3.1	y
1669	1 Ah	Discharged ah- battery test result 2	4.1	2.3	2.3.1	2.3.1	y
1670	1 Degree	Battery temperature - battery test result 2	4.1	2.3	2.3.1	2.3.1	y
1671	0.01 Volt	End voltage - battery test result 2	4.1	2.3	2.3.1	2.3.1	y
1672	%	Calculated battery quality- battery test result 2	4.1	2.3	2.3.1	2.3.1	y
1673		Termination criteria- battery test result 2 0:NA 1:EndVoltage 2: EndTime 3:UserCancel 4: MainsCancel 5: EndAh	4.1	2.3	2.3.1	2.3.1	y
1674		Test result - battery test result 2 0: Error 1: Normal 2: MinorHigh 3: MajorHigh 4: Disable 5: Disconnect 6: Reconnect 7: Critical 8: MajorLow 9: MinorLow	4.1	2.3	2.3.1	2.3.1	y
1675-1679	Date&Time	Start time – battery test result 3	4.1	2.3	2.3.1	2.3.1	y
1680-1684	Date&Time	End time – battery test result 3	4.1	2.3	2.3.1	2.3.1	y
1685		Test type - battery test result 3 1: ManualTest 2: IntervalTest 3: AutoTest	4.1	2.3	2.3.1	2.3.1	y
1686-1701	ASCII	Battery type - battery test result 3	4.1	2.3	2.3.1	2.3.1	y
1702	1 Min	Test duration - battery test result 3	4.1	2.3	2.3.1	2.3.1	y
1703	1 Amp	Average current - battery test result 3	4.1	2.3	2.3.1	2.3.1	y
1704	1 Ah	Discharged ah- battery test result 3	4.1	2.3	2.3.1	2.3.1	y
1705	1 Degree	Battery temperature - battery test result 3	4.1	2.3	2.3.1	2.3.1	y
1706	0.01 Volt	End voltage - battery test result 3	4.1	2.3	2.3.1	2.3.1	y
1707	%	Calculated battery quality- battery test result 3	4.1	2.3	2.3.1	2.3.1	y
1708		Termination criteria- battery test result 3 0:NA 1:EndVoltage 2: EndTime 3:UserCancel 4: MainsCancel 5: EndAh	4.1	2.3	2.3.1	2.3.1	y
1709		Test result - battery test result 3 0: Error 1: Normal 2: MinorHigh 3: MajorHigh 4: Disable 5: Disconnect 6: Reconnect 7: Critical 8: MajorLow 9: MinorLow	4.1	2.3	2.3.1	2.3.1	y

SmartPack ModBus Description

Utført-Prepared Jin Jun/Ole Morten Lunden	Dato-Date 17/01/2022 15:08:00	Utgave-Issue 28	Dokumentnr.-Document No. 2027380
--	----------------------------------	--------------------	-------------------------------------

1710-1714	Date&Time	Start time – battery test result 4	4.1	2.3	2.3.1	2.3.1	y
1715-1719	Date&Time	End time – battery test result 4	4.1	2.3	2.3.1	2.3.1	y
1720		Test type - battery test result 4 1: ManualTest 2: IntervalTest 3: AutoTest	4.1	2.3	2.3.1	2.3.1	y
1721-1736	ASCII	Battery type - battery test result 4	4.1	2.3	2.3.1	2.3.1	y
1737	1 Min	Test duration - battery test result 4	4.1	2.3	2.3.1	2.3.1	y
1738	1 Amp	Average current - battery test result 4	4.1	2.3	2.3.1	2.3.1	y
1739	1 Ah	Discharged ah- battery test result 14	4.1	2.3	2.3.1	2.3.1	y
1740	1 Degree	Battery temperature - battery test result 4	4.1	2.3	2.3.1	2.3.1	y
1741	0.01 Volt	End voltage - battery test result 4	4.1	2.3	2.3.1	2.3.1	y
1742	%	Calculated battery quality- battery test result 4	4.1	2.3	2.3.1	2.3.1	y
1743		Termination criteria- battery test result 4 0:NA 1:EndVoltage 2: EndTime 3:UserCancel 4: MainsCancel 5: EndAh	4.1	2.3	2.3.1	2.3.1	y
1744		Test result - battery test result 4 0: Error 1: Normal 2: MinorHigh 3: MajorHigh 4: Disable 5: Disconnect 6: Reconnect 7: Critical 8: MajorLow 9: MinorLow	4.1	2.3	2.3.1	2.3.1	y
1760-1779	0.1 amp	Dcdc # 1-20 output current ,CAN1 or SPx,CAN2 for BI	4.2	3.5	2.7	2.5	y
1780-1799	1 volt	Dcdc # 1-20 input voltage,CAN1 or SPx,CAN2 for BI	4.2	3.5	2.7	2.5	y
1800		Fleximonitor 1 configured as Battery Monitor				2.4	y
	Bit 0	Prog input 1 configured as voltage input				2.4	y
	Bit 1	Prog input 2 configured as voltage input				2.4	y
	Bit 2	Prog input 3 configured as voltage input				2.4	y
	Bit 3	Prog input 4 configured as voltage input				2.4	y
	Bit 4	Prog input 5 configured as voltage input				2.4	y
	Bit 5	Prog input 6 configured as voltage input				2.4	y
	Bit 6	Prog input 7 configured as voltage input				2.4	y
	Bit 7	Prog input 8 configured as voltage input				2.4	y
	Bit 8	Prog input 9 configured as voltage input				2.4	y
	Bit 9	Prog input 10 configured as voltage input				2.4	y
	Bit 10	Prog input 11 configured as voltage input				2.4	y
	Bit 11	Prog input 12 configured as voltage input				2.4	y
	Bit 12	Prog input 13 configured as voltage input				2.4	y
	Bit 13	Prog input 14 configured as voltage input				2.4	y
	Bit 14	Prog input 15 configured as voltage input				2.4	y
	Bit 15	Prog input 16 configured as voltage input				2.4	y
1801		Battery symmetry input status (Major alarm) - Fleximonitor 1				2.4	y
	Bit 0	Battery symmetry input 1				2.4	y
	Bit 1	Battery symmetry input 2				2.4	y
	Bit 2	Battery symmetry input 3				2.4	y
	Bit 3	Battery symmetry input 4				2.4	y
	Bit 4	Battery symmetry input 5				2.4	y
	Bit 5	Battery symmetry input 6				2.4	y
	Bit 6	Battery symmetry input 7				2.4	y
	Bit 7	Battery symmetry input 8				2.4	y
	Bit 8	Battery symmetry input 9				2.4	y
	Bit 9	Battery symmetry input 10				2.4	y
	Bit 10	Battery symmetry input 11				2.4	y
	Bit 11	Battery symmetry input 12				2.4	y
	Bit 12	Battery symmetry input 13				2.4	y
	Bit 13	Battery symmetry input 14				2.4	y
	Bit 14	Battery symmetry input 15				2.4	y
	Bit 15	Battery symmetry input 16				2.4	y
1802	0.01 Volt	Battery symmetry input 1 delta voltage – Fleximonitor 1				2.4	y
1803	0.01 Volt	Battery symmetry input 2 delta voltage – Fleximonitor 1				2.4	y
1804	0.01 Volt	Battery symmetry input 3 delta voltage – Fleximonitor 1				2.4	y
1805	0.01 Volt	Battery symmetry input 4 delta voltage – Fleximonitor 1				2.4	y
1806	0.01 Volt	Battery symmetry input 5 delta voltage – Fleximonitor 1				2.4	y
1807	0.01 Volt	Battery symmetry input 6 delta voltage – Fleximonitor 1				2.4	y



SmartPack ModBus Description

Urført-Prepared Jin Jun/Ole Morten Lunden	Dato-Date 17/01/2022 15:08:00	Utgave-Issue 28	Dokumentnr.-Document No. 2027380
--	----------------------------------	--------------------	-------------------------------------

1808	0.01 Volt	Battery symmetry input 7 delta voltage – Fleximonitor 1				2.4	y
1809	0.01 Volt	Battery symmetry input 8 delta voltage – Fleximonitor 1				2.4	y
1810	0.01 Volt	Battery symmetry input 9 delta voltage – Fleximonitor 1				2.4	y
1811	0.01 Volt	Battery symmetry input 10 delta voltage – Fleximonitor 1				2.4	y
1812	0.01 Volt	Battery symmetry input 11 delta voltage – Fleximonitor 1				2.4	y
1813	0.01 Volt	Battery symmetry input 12 delta voltage – Fleximonitor 1				2.4	y
1814	0.01 Volt	Battery symmetry input 13 delta voltage – Fleximonitor 1				2.4	y
1815	0.01 Volt	Battery symmetry input 14 delta voltage – Fleximonitor 1				2.4	y
1816	0.01 Volt	Battery symmetry input 15 delta voltage – Fleximonitor 1				2.4	y
1817	0.01 Volt	Battery symmetry input 16 delta voltage – Fleximonitor 1				2.4	y
1818	0.01 Volt	Battery symmetry input 1 measured voltage – Fleximonitor 1				2.4	y
1819	0.01 Volt	Battery symmetry input 2 measured voltage – Fleximonitor 1				2.4	y
1820	0.01 Volt	Battery symmetry input 3 measured voltage – Fleximonitor 1				2.4	y
1821	0.01 Volt	Battery symmetry input 4 measured voltage – Fleximonitor 1				2.4	y
1822	0.01 Volt	Battery symmetry input 5 measured voltage – Fleximonitor 1				2.4	y
1823	0.01 Volt	Battery symmetry input 6 measured voltage – Fleximonitor 1				2.4	y
1824	0.01 Volt	Battery symmetry input 7 measured voltage – Fleximonitor 1				2.4	y
1825	0.01 Volt	Battery symmetry input 8 measured voltage – Fleximonitor 1				2.4	y
1826	0.01 Volt	Battery symmetry input 9 measured voltage – Fleximonitor 1				2.4	y
1827	0.01 Volt	Battery symmetry input 10 measured voltage – Fleximonitor 1				2.4	y
1828	0.01 Volt	Battery symmetry input 11 measured voltage – Fleximonitor 1				2.4	y
1829	0.01 Volt	Battery symmetry input 12 measured voltage – Fleximonitor 1				2.4	y
1830	0.01 Volt	Battery symmetry input 13 measured voltage – Fleximonitor 1				2.4	y
1831	0.01 Volt	Battery symmetry input 14 measured voltage – Fleximonitor 1				2.4	y
1832	0.01 Volt	Battery symmetry input 15 measured voltage – Fleximonitor 1				2.4	y
1833	0.01 Volt	Battery symmetry input 16 measured voltage – Fleximonitor 1				2.4	y
1834		Fleximonitor 1 configured as Battery Monitor				2.4	y
	Bit 0	Prog input 1 configured as fuse input				2.4	y
	Bit 1	Prog input 2 configured as fuse input				2.4	y
	Bit 2	Prog input 3 configured as fuse input				2.4	y
	Bit 3	Prog input 4 configured as fuse input				2.4	y
	Bit 4	Prog input 5 configured as fuse input				2.4	y
	Bit 5	Prog input 6 configured as fuse input				2.4	y
	Bit 6	Prog input 7 configured as fuse input				2.4	y
	Bit 7	Prog input 8 configured as fuse input				2.4	y
	Bit 8	Prog input 9 configured as fuse input				2.4	y
	Bit 9	Prog input 10 configured as fuse input				2.4	y
	Bit 10	Prog input 11 configured as fuse input				2.4	y
	Bit 11	Prog input 12 configured as fuse input				2.4	y
	Bit 12	Prog input 13 configured as fuse input				2.4	y
	Bit 13	Prog input 14 configured as fuse input				2.4	y
	Bit 14	Prog input 15 configured as fuse input				2.4	y
	Bit 15	Prog input 16 configured as fuse input				2.4	y
1835		Battery fuse input status (Major alarm) - Fleximonitor 1				2.4	y
	Bit 0	Battery fuse input 1				2.4	y
	Bit 1	Battery fuse input 2				2.4	y
	Bit 2	Battery fuse input 3				2.4	y
	Bit 3	Battery fuse input 4				2.4	y

SmartPack ModBus Description

Utført-Prepared Jin Jun/Ole Morten Lunden	Dato-Date 17/01/2022 15:08:00	Utgave-Issue 28	Dokumentnr.-Document No. 2027380
--	----------------------------------	--------------------	-------------------------------------

	Bit 4	Battery fuse input 5				2.4	y
	Bit 5	Battery fuse input 6				2.4	y
	Bit 6	Battery fuse input 7				2.4	y
	Bit 7	Battery fuse input 8				2.4	y
	Bit 8	Battery fuse input 9				2.4	y
	Bit 9	Battery fuse input 10				2.4	y
	Bit 10	Battery fuse input 11				2.4	y
	Bit 11	Battery fuse input 12				2.4	y
	Bit 12	Battery fuse input 13				2.4	y
	Bit 13	Battery fuse input 14				2.4	y
	Bit 14	Battery fuse input 15				2.4	y
	Bit 15	Battery fuse input 16				2.4	y
1836		Fleximonitor 1 configured as Battery Monitor				2.4	y
	Bit 0	Prog input 1 configured as current input				2.4	y
	Bit 1	Prog input 2 configured as current input				2.4	y
	Bit 2	Prog input 3 configured as current input				2.4	y
	Bit 3	Prog input 4 configured as current input				2.4	y
	Bit 4	Prog input 5 configured as current input				2.4	y
	Bit 5	Prog input 6 configured as current input				2.4	y
	Bit 6	Prog input 7 configured as current input				2.4	y
	Bit 7	Prog input 8 configured as current input				2.4	y
	Bit 8	Prog input 9 configured as current input				2.4	y
	Bit 9	Prog input 10 configured as current input				2.4	y
	Bit 10	Prog input 11 configured as current input				2.4	y
	Bit 11	Prog input 12 configured as current input				2.4	y
	Bit 12	Prog input 13 configured as current input				2.4	y
	Bit 13	Prog input 14 configured as current input				2.4	y
	Bit 14	Prog input 15 configured as current input				2.4	y
	Bit 15	Prog input 16 configured as current input				2.4	y
1837	1 Amp	Battery current 1– Fleximonitor 1				2.4	y
1838	1 Amp	Battery current 2– Fleximonitor 1				2.4	y
1839	1 Amp	Battery current 3– Fleximonitor 1				2.4	y
1840	1 Amp	Battery current 4– Fleximonitor 1				2.4	y
1841	1 Amp	Battery current 5– Fleximonitor 1				2.4	y
1842	1 Amp	Battery current 6– Fleximonitor 1				2.4	y
1843	1 Amp	Battery current 7– Fleximonitor 1				2.4	y
1844	1 Amp	Battery current 8– Fleximonitor 1				2.4	y
1845	1 Amp	Battery current 9– Fleximonitor 1				2.4	y
1846	1 Amp	Battery current 10– Fleximonitor 1				2.4	y
1847	1 Amp	Battery current 11– Fleximonitor 1				2.4	y
1848	1 Amp	Battery current 12– Fleximonitor 1				2.4	y
1849	1 Amp	Battery current 13– Fleximonitor 1				2.4	y
1850	1 Amp	Battery current 14– Fleximonitor 1				2.4	y
1851	1 Amp	Battery current 15– Fleximonitor 1				2.4	y
1852	1 Amp	Battery current 16– Fleximonitor 1				2.4	y
1853		Fleximonitor 1 configured as Battery Monitor				2.4	y
	Bit 0	Prog input 1 configured as temperature input				2.4	y
	Bit 1	Prog input 2 configured as temperature input				2.4	y
	Bit 2	Prog input 3 configured as temperature input				2.4	y
	Bit 3	Prog input 4 configured as temperature input				2.4	y
	Bit 4	Prog input 5 configured as temperature input				2.4	y
	Bit 5	Prog input 6 configured as temperature input				2.4	y
	Bit 6	Prog input 7 configured as temperature input				2.4	y
	Bit 7	Prog input 8 configured as temperature input				2.4	y
	Bit 8	Prog input 9 configured as temperature input				2.4	y
	Bit 9	Prog input 10 configured as temperature input				2.4	y
	Bit 10	Prog input 11 configured as temperature input				2.4	y
	Bit 11	Prog input 12 configured as temperature input				2.4	y
	Bit 12	Prog input 13 configured as temperature input				2.4	y
	Bit 13	Prog input 14 configured as temperature input				2.4	y
	Bit 14	Prog input 15 configured as temperature input				2.4	y
	Bit 15	Prog input 16 configured as temperature input				2.4	y



SmartPack ModBus Description

Utført-Prepared Jin Jun/Ole Morten Lunden	Dato-Date 17/01/2022 15:08:00	Utgave-Issue 28	Dokumentnr.-Document No. 2027380
--	----------------------------------	--------------------	-------------------------------------

1854		Battery temperature input status (Major High) - Fleximonitor 1				2.4	y
	Bit 0	Battery temperature input 1				2.4	y
	Bit 1	Battery temperature input 2				2.4	y
	Bit 2	Battery temperature input 3				2.4	y
	Bit 3	Battery temperature input 4				2.4	y
	Bit 4	Battery temperature input 5				2.4	y
	Bit 5	Battery temperature input 6				2.4	y
	Bit 6	Battery temperature input 7				2.4	y
	Bit 7	Battery temperature input 8				2.4	y
	Bit 8	Battery temperature input 9				2.4	y
	Bit 9	Battery temperature input 10				2.4	y
	Bit 10	Battery temperature input 11				2.4	y
	Bit 11	Battery temperature input 12				2.4	y
	Bit 12	Battery temperature input 13				2.4	y
	Bit 13	Battery temperature input 14				2.4	y
	Bit 14	Battery temperature input 15				2.4	y
	Bit 15	Battery temperature input 16				2.4	y
1855	1 degree	Battery temperature 1– Fleximonitor 1				2.4	y
1856	1 degree	Battery temperature 2– Fleximonitor 1				2.4	y
1857	1 degree	Battery temperature 3– Fleximonitor 1				2.4	y
1858	1 degree	Battery temperature 4– Fleximonitor 1				2.4	y
1859	1 degree	Battery temperature 5– Fleximonitor 1				2.4	y
1860	1 degree	Battery temperature 6– Fleximonitor 1				2.4	y
1861	1 degree	Battery temperature 7– Fleximonitor 1				2.4	y
1862	1 degree	Battery temperature 8– Fleximonitor 1				2.4	y
1863	1 degree	Battery temperature 9– Fleximonitor 1				2.4	y
1864	1 degree	Battery temperature 10– Fleximonitor 1				2.4	y
1865	1 degree	Battery temperature 11– Fleximonitor 1				2.4	y
1866	1 degree	Battery temperature 12– Fleximonitor 1				2.4	y
1867	1 degree	Battery temperature 13– Fleximonitor 1				2.4	y
1868	1 degree	Battery temperature 14– Fleximonitor 1				2.4	y
1869	1 degree	Battery temperature 15– Fleximonitor 1				2.4	y
1870	1 degree	Battery temperature 16– Fleximonitor 1				2.4	y
1871		Fleximonitor 2 configured as Battery Monitor				2.4	y
	Bit 0	Prog input 1 configured as voltage input				2.4	y
	Bit 1	Prog input 2 configured as voltage input				2.4	y
	Bit 2	Prog input 3 configured as voltage input				2.4	y
	Bit 3	Prog input 4 configured as voltage input				2.4	y
	Bit 4	Prog input 5 configured as voltage input				2.4	y
	Bit 5	Prog input 6 configured as voltage input				2.4	y
	Bit 6	Prog input 7 configured as voltage input				2.4	y
	Bit 7	Prog input 8 configured as voltage input				2.4	y
	Bit 8	Prog input 9 configured as voltage input				2.4	y
	Bit 9	Prog input 10 configured as voltage input				2.4	y
	Bit 10	Prog input 11 configured as voltage input				2.4	y
	Bit 11	Prog input 12 configured as voltage input				2.4	y
	Bit 12	Prog input 13 configured as voltage input				2.4	y
	Bit 13	Prog input 14 configured as voltage input				2.4	y
	Bit 14	Prog input 15 configured as voltage input				2.4	y
	Bit 15	Prog input 16 configured as voltage input				2.4	y
1872		Battery symmetry input status (Major alarm) - Fleximonitor 2				2.4	y
	Bit 0	Battery symmetry input 1				2.4	y
	Bit 1	Battery symmetry input 2				2.4	y
	Bit 2	Battery symmetry input 3				2.4	y
	Bit 3	Battery symmetry input 4				2.4	y
	Bit 4	Battery symmetry input 5				2.4	y
	Bit 5	Battery symmetry input 6				2.4	y
	Bit 6	Battery symmetry input 7				2.4	y
	Bit 7	Battery symmetry input 8				2.4	y
	Bit 8	Battery symmetry input 9				2.4	y



SmartPack ModBus Description

Utført-Prepared Jin Jun/Ole Morten Lunden	Dato-Date 17/01/2022 15:08:00	Utgave-Issue 28	Dokumentnr.-Document No. 2027380
--	----------------------------------	--------------------	-------------------------------------

	Bit 9	Battery symmetry input 10				2.4	y
	Bit 10	Battery symmetry input 11				2.4	y
	Bit 11	Battery symmetry input 12				2.4	y
	Bit 12	Battery symmetry input 13				2.4	y
	Bit 13	Battery symmetry input 14				2.4	y
	Bit 14	Battery symmetry input 15				2.4	y
	Bit 15	Battery symmetry input 16				2.4	y
1873	0.01 Volt	Battery symmetry input 1 delta voltage – Fleximonitor 2				2.4	y
1874	0.01 Volt	Battery symmetry input 2 delta voltage – Fleximonitor 2				2.4	y
1875	0.01 Volt	Battery symmetry input 3 delta voltage – Fleximonitor 2				2.4	y
1876	0.01 Volt	Battery symmetry input 4 delta voltage – Fleximonitor 2				2.4	y
1877	0.01 Volt	Battery symmetry input 5 delta voltage – Fleximonitor 2				2.4	y
1878	0.01 Volt	Battery symmetry input 6 delta voltage – Fleximonitor 2				2.4	y
1879	0.01 Volt	Battery symmetry input 7 delta voltage – Fleximonitor 2				2.4	y
1880	0.01 Volt	Battery symmetry input 8 delta voltage – Fleximonitor 2				2.4	y
1881	0.01 Volt	Battery symmetry input 9 delta voltage – Fleximonitor 2				2.4	y
1882	0.01 Volt	Battery symmetry input 10 delta voltage – Fleximonitor 2				2.4	y
1883	0.01 Volt	Battery symmetry input 11 delta voltage – Fleximonitor 2				2.4	y
1884	0.01 Volt	Battery symmetry input 12 delta voltage – Fleximonitor 2				2.4	y
1885	0.01 Volt	Battery symmetry input 13 delta voltage – Fleximonitor 2				2.4	y
1886	0.01 Volt	Battery symmetry input 14 delta voltage – Fleximonitor 2				2.4	y
1887	0.01 Volt	Battery symmetry input 15 delta voltage – Fleximonitor 2				2.4	y
1888	0.01 Volt	Battery symmetry input 16 delta voltage – Fleximonitor 2				2.4	y
1889	0.01 Volt	Battery symmetry input 1 measured voltage – Fleximonitor 2				2.4	y
1890	0.01 Volt	Battery symmetry input 2 measured voltage – Fleximonitor 2				2.4	y
1891	0.01 Volt	Battery symmetry input 3 measured voltage – Fleximonitor 2				2.4	y
1892	0.01 Volt	Battery symmetry input 4 measured voltage – Fleximonitor 2				2.4	y
1893	0.01 Volt	Battery symmetry input 5 measured voltage – Fleximonitor 2				2.4	y
1894	0.01 Volt	Battery symmetry input 6 measured voltage – Fleximonitor 2				2.4	y
1895	0.01 Volt	Battery symmetry input 7 measured voltage – Fleximonitor 2				2.4	y
1896	0.01 Volt	Battery symmetry input 8 measured voltage – Fleximonitor 2				2.4	y
1897	0.01 Volt	Battery symmetry input 9 measured voltage – Fleximonitor 2				2.4	y
1898	0.01 Volt	Battery symmetry input 10 measured voltage – Fleximonitor 2				2.4	y
1899	0.01 Volt	Battery symmetry input 11 measured voltage – Fleximonitor 2				2.4	y
1900	0.01 Volt	Battery symmetry input 12 measured voltage – Fleximonitor 2				2.4	y
1901	0.01 Volt	Battery symmetry input 13 measured voltage – Fleximonitor 2				2.4	y
1902	0.01 Volt	Battery symmetry input 14 measured voltage – Fleximonitor 2				2.4	y
1903	0.01 Volt	Battery symmetry input 15 measured voltage – Fleximonitor 2				2.4	y
1904	0.01 Volt	Battery symmetry input 16 measured voltage – Fleximonitor 2				2.4	y
1905		Fleximonitor 2 configured as Battery Monitor				2.4	y
	Bit 0	Prog input 1 configured as fuse input				2.4	y
	Bit 1	Prog input 2 configured as fuse input				2.4	y
	Bit 2	Prog input 3 configured as fuse input				2.4	y
	Bit 3	Prog input 4 configured as fuse input				2.4	y
	Bit 4	Prog input 5 configured as fuse input				2.4	y
	Bit 5	Prog input 6 configured as fuse input				2.4	y
	Bit 6	Prog input 7 configured as fuse input				2.4	y
	Bit 7	Prog input 8 configured as fuse input				2.4	y



SmartPack ModBus Description

Urført-Prepared Jin Jun/Ole Morten Lunden	Dato-Date 17/01/2022 15:08:00	Utgave-Issue 28	Dokumentnr.-Document No. 2027380
--	----------------------------------	--------------------	-------------------------------------

	Bit 8	Prog input 9 configured as fuse input			2.4	y
	Bit 9	Prog input 10 configured as fuse input			2.4	y
	Bit 10	Prog input 11 configured as fuse input			2.4	y
	Bit 11	Prog input 12 configured as fuse input			2.4	y
	Bit 12	Prog input 13 configured as fuse input			2.4	y
	Bit 13	Prog input 14 configured as fuse input			2.4	y
	Bit 14	Prog input 15 configured as fuse input			2.4	y
	Bit 15	Prog input 16 configured as fuse input			2.4	y
1906		Battery fuse input status (Major alarm) - Fleximonitor 2			2.4	y
	Bit 0	Battery fuse input 1			2.4	y
	Bit 1	Battery fuse input 2			2.4	y
	Bit 2	Battery fuse input 3			2.4	y
	Bit 3	Battery fuse input 4			2.4	y
	Bit 4	Battery fuse input 5			2.4	y
	Bit 5	Battery fuse input 6			2.4	y
	Bit 6	Battery fuse input 7			2.4	y
	Bit 7	Battery fuse input 8			2.4	y
	Bit 8	Battery fuse input 9			2.4	y
	Bit 9	Battery fuse input 10			2.4	y
	Bit 10	Battery fuse input 11			2.4	y
	Bit 11	Battery fuse input 12			2.4	y
	Bit 12	Battery fuse input 13			2.4	y
	Bit 13	Battery fuse input 14			2.4	y
	Bit 14	Battery fuse input 15			2.4	y
	Bit 15	Battery fuse input 16			2.4	y
1907		Fleximonitor 2 configured as Battery Monitor			2.4	y
	Bit 0	Prog input 1 configured as current input			2.4	y
	Bit 1	Prog input 2 configured as current input			2.4	y
	Bit 2	Prog input 3 configured as current input			2.4	y
	Bit 3	Prog input 4 configured as current input			2.4	y
	Bit 4	Prog input 5 configured as current input			2.4	y
	Bit 5	Prog input 6 configured as current input			2.4	y
	Bit 6	Prog input 7 configured as current input			2.4	y
	Bit 7	Prog input 8 configured as current input			2.4	y
	Bit 8	Prog input 9 configured as current input			2.4	y
	Bit 9	Prog input 10 configured as current input			2.4	y
	Bit 10	Prog input 11 configured as current input			2.4	y
	Bit 11	Prog input 12 configured as current input			2.4	y
	Bit 12	Prog input 13 configured as current input			2.4	y
	Bit 13	Prog input 14 configured as current input			2.4	y
	Bit 14	Prog input 15 configured as current input			2.4	y
	Bit 15	Prog input 16 configured as current input			2.4	y
1908	1 Amp	Battery current 1- Fleximonitor 2			2.4	y
1909	1 Amp	Battery current 2- Fleximonitor 2			2.4	y
1910	1 Amp	Battery current 3- Fleximonitor 2			2.4	y
1911	1 Amp	Battery current 4- Fleximonitor 2			2.4	y
1912	1 Amp	Battery current 5- Fleximonitor 2			2.4	y
1913	1 Amp	Battery current 6- Fleximonitor 2			2.4	y
1914	1 Amp	Battery current 7- Fleximonitor 2			2.4	y
1915	1 Amp	Battery current 8- Fleximonitor 2			2.4	y
1916	1 Amp	Battery current 9- Fleximonitor 2			2.4	y
1917	1 Amp	Battery current 10- Fleximonitor 2			2.4	y
1918	1 Amp	Battery current 11- Fleximonitor 2			2.4	y
1919	1 Amp	Battery current 12- Fleximonitor 2			2.4	y
1920	1 Amp	Battery current 13- Fleximonitor 2			2.4	y
1921	1 Amp	Battery current 14- Fleximonitor 2			2.4	y
1922	1 Amp	Battery current 15- Fleximonitor 2			2.4	y
1923	1 Amp	Battery current 16- Fleximonitor 2			2.4	y
1924		Fleximonitor 2 configured as Battery Monitor			2.4	y
	Bit 0	Prog input 1 configured as temperature input			2.4	y
	Bit 1	Prog input 2 configured as temperature input			2.4	y
	Bit 2	Prog input 3 configured as temperature input			2.4	y



SmartPack ModBus Description

Utført-Prepared Jin Jun/Ole Morten Lunden	Dato-Date 17/01/2022 15:08:00	Utgave-Issue 28	Dokumentnr.-Document No. 2027380
--	----------------------------------	--------------------	-------------------------------------

	Bit 3	Prog input 4 configured as temperature input			2.4	y
	Bit 4	Prog input 5 configured as temperature input			2.4	y
	Bit 5	Prog input 6 configured as temperature input			2.4	y
	Bit 6	Prog input 7 configured as temperature input			2.4	y
	Bit 7	Prog input 8 configured as temperature input			2.4	y
	Bit 8	Prog input 9 configured as temperature input			2.4	y
	Bit 9	Prog input 10 configured as temperature input			2.4	y
	Bit 10	Prog input 11 configured as temperature input			2.4	y
	Bit 11	Prog input 12 configured as temperature input			2.4	y
	Bit 12	Prog input 13 configured as temperature input			2.4	y
	Bit 13	Prog input 14 configured as temperature input			2.4	y
	Bit 14	Prog input 15 configured as temperature input			2.4	y
	Bit 15	Prog input 16 configured as temperature input			2.4	y
1925		Battery temperature input status (Major High) - Fleximonitor 2			2.4	y
	Bit 0	Battery temperature input 1			2.4	y
	Bit 1	Battery temperature input 2			2.4	y
	Bit 2	Battery temperature input 3			2.4	y
	Bit 3	Battery temperature input 4			2.4	y
	Bit 4	Battery temperature input 5			2.4	y
	Bit 5	Battery temperature input 6			2.4	y
	Bit 6	Battery temperature input 7			2.4	y
	Bit 7	Battery temperature input 8			2.4	y
	Bit 8	Battery temperature input 9			2.4	y
	Bit 9	Battery temperature input 10			2.4	y
	Bit 10	Battery temperature input 11			2.4	y
	Bit 11	Battery temperature input 12			2.4	y
	Bit 12	Battery temperature input 13			2.4	y
	Bit 13	Battery temperature input 14			2.4	y
	Bit 14	Battery temperature input 15			2.4	y
	Bit 15	Battery temperature input 16			2.4	y
1926	1 degree	Battery temperature 1– Fleximonitor 2			2.4	y
1927	1 degree	Battery temperature 2– Fleximonitor 2			2.4	y
1928	1 degree	Battery temperature 3– Fleximonitor 2			2.4	y
1929	1 degree	Battery temperature 4– Fleximonitor 2			2.4	y
1930	1 degree	Battery temperature 5– Fleximonitor 2			2.4	y
1931	1 degree	Battery temperature 6– Fleximonitor 2			2.4	y
1932	1 degree	Battery temperature 7– Fleximonitor 2			2.4	y
1933	1 degree	Battery temperature 8– Fleximonitor 2			2.4	y
1934	1 degree	Battery temperature 9– Fleximonitor 2			2.4	y
1935	1 degree	Battery temperature 10– Fleximonitor 2			2.4	y
1936	1 degree	Battery temperature 11– Fleximonitor 2			2.4	y
1937	1 degree	Battery temperature 12– Fleximonitor 2			2.4	y
1938	1 degree	Battery temperature 13– Fleximonitor 2			2.4	y
1939	1 degree	Battery temperature 14– Fleximonitor 2			2.4	y
1940	1 degree	Battery temperature 15– Fleximonitor 2			2.4	y
1941	1 degree	Battery temperature 16– Fleximonitor 2			2.4	y
1942		Fleximonitor 3 configured as Battery Monitor			2.4	
	Bit 0	Prog input 1 configured as voltage input			2.4	
	Bit 1	Prog input 2 configured as voltage input			2.4	
	Bit 2	Prog input 3 configured as voltage input			2.4	
	Bit 3	Prog input 4 configured as voltage input			2.4	
	Bit 4	Prog input 5 configured as voltage input			2.4	
	Bit 5	Prog input 6 configured as voltage input			2.4	
	Bit 6	Prog input 7 configured as voltage input			2.4	
	Bit 7	Prog input 8 configured as voltage input			2.4	
	Bit 8	Prog input 9 configured as voltage input			2.4	
	Bit 9	Prog input 10 configured as voltage input			2.4	
	Bit 10	Prog input 11 configured as voltage input			2.4	
	Bit 11	Prog input 12 configured as voltage input			2.4	
	Bit 12	Prog input 13 configured as voltage input			2.4	



SmartPack ModBus Description

Urført-Prepared Jin Jun/Ole Morten Lunden	Dato-Date 17/01/2022 15:08:00	Utgave-Issue 28	Dokumentnr.-Document No. 2027380
--	----------------------------------	--------------------	-------------------------------------

	Bit 13	Prog input 14 configured as voltage input				2.4	
	Bit 14	Prog input 15 configured as voltage input				2.4	
	Bit 15	Prog input 16 configured as voltage input				2.4	
1943		Battery symmetry input status (Major alarm) - Fleximonitor 3				2.4	
	Bit 0	Battery symmetry input 1				2.4	
	Bit 1	Battery symmetry input 2				2.4	
	Bit 2	Battery symmetry input 3				2.4	
	Bit 3	Battery symmetry input 4				2.4	
	Bit 4	Battery symmetry input 5				2.4	
	Bit 5	Battery symmetry input 6				2.4	
	Bit 6	Battery symmetry input 7				2.4	
	Bit 7	Battery symmetry input 8				2.4	
	Bit 8	Battery symmetry input 9				2.4	
	Bit 9	Battery symmetry input 10				2.4	
	Bit 10	Battery symmetry input 11				2.4	
	Bit 11	Battery symmetry input 12				2.4	
	Bit 12	Battery symmetry input 13				2.4	
	Bit 13	Battery symmetry input 14				2.4	
	Bit 14	Battery symmetry input 15				2.4	
	Bit 15	Battery symmetry input 16				2.4	
1944	0.01 Volt	Battery symmetry input 1 delta voltage – Fleximonitor 3				2.4	
1945	0.01 Volt	Battery symmetry input 2 delta voltage – Fleximonitor 3				2.4	
1946	0.01 Volt	Battery symmetry input 3 delta voltage – Fleximonitor 3				2.4	
1947	0.01 Volt	Battery symmetry input 4 delta voltage – Fleximonitor 3				2.4	
1948	0.01 Volt	Battery symmetry input 5 delta voltage – Fleximonitor 3				2.4	
1949	0.01 Volt	Battery symmetry input 6 delta voltage – Fleximonitor 3				2.4	
1950	0.01 Volt	Battery symmetry input 7 delta voltage – Fleximonitor 3				2.4	
1951	0.01 Volt	Battery symmetry input 8 delta voltage – Fleximonitor 3				2.4	
1952	0.01 Volt	Battery symmetry input 9 delta voltage – Fleximonitor 3				2.4	
1953	0.01 Volt	Battery symmetry input 10 delta voltage – Fleximonitor 3				2.4	
1954	0.01 Volt	Battery symmetry input 11 delta voltage – Fleximonitor 3				2.4	
1955	0.01 Volt	Battery symmetry input 12 delta voltage – Fleximonitor 3				2.4	
1956	0.01 Volt	Battery symmetry input 13 delta voltage – Fleximonitor 3				2.4	
1957	0.01 Volt	Battery symmetry input 14 delta voltage – Fleximonitor 3				2.4	
1958	0.01 Volt	Battery symmetry input 15 delta voltage – Fleximonitor 3				2.4	
1959	0.01 Volt	Battery symmetry input 16 delta voltage – Fleximonitor 3				2.4	
1960	0.01 Volt	Battery symmetry input 1 measured voltage – Fleximonitor 3				2.4	
1961	0.01 Volt	Battery symmetry input 2 measured voltage – Fleximonitor 3				2.4	
1962	0.01 Volt	Battery symmetry input 3 measured voltage – Fleximonitor 3				2.4	
1963	0.01 Volt	Battery symmetry input 4 measured voltage – Fleximonitor 3				2.4	
1964	0.01 Volt	Battery symmetry input 5 measured voltage – Fleximonitor 3				2.4	
1965	0.01 Volt	Battery symmetry input 6 measured voltage – Fleximonitor 3				2.4	
1966	0.01 Volt	Battery symmetry input 7 measured voltage – Fleximonitor 3				2.4	
1967	0.01 Volt	Battery symmetry input 8 measured voltage – Fleximonitor 3				2.4	
1968	0.01 Volt	Battery symmetry input 9 measured voltage – Fleximonitor 3				2.4	
1969	0.01 Volt	Battery symmetry input 10 measured voltage – Fleximonitor 3				2.4	
1970	0.01 Volt	Battery symmetry input 11 measured voltage – Fleximonitor 3				2.4	
1971	0.01 Volt	Battery symmetry input 12 measured voltage – Fleximonitor 3				2.4	
1972	0.01 Volt	Battery symmetry input 13 measured voltage – Fleximonitor 3				2.4	



SmartPack ModBus Description

Utført-Prepared Jin Jun/Ole Morten Lunden	Dato-Date 17/01/2022 15:08:00	Utgave-Issue 28	Dokumentnr.-Document No. 2027380
--	----------------------------------	--------------------	-------------------------------------

1973	0.01 Volt	Battery symmetry input 14 measured voltage – Fleximonitor 3				2.4	
1974	0.01 Volt	Battery symmetry input 15 measured voltage – Fleximonitor 3				2.4	
1975	0.01 Volt	Battery symmetry input 16 measured voltage – Fleximonitor 3				2.4	
1976		Fleximonitor 3 configured as Battery Monitor				2.4	
	Bit 0	Prog input 1 configured as fuse input				2.4	
	Bit 1	Prog input 2 configured as fuse input				2.4	
	Bit 2	Prog input 3 configured as fuse input				2.4	
	Bit 3	Prog input 4 configured as fuse input				2.4	
	Bit 4	Prog input 5 configured as fuse input				2.4	
	Bit 5	Prog input 6 configured as fuse input				2.4	
	Bit 6	Prog input 7 configured as fuse input				2.4	
	Bit 7	Prog input 8 configured as fuse input				2.4	
	Bit 8	Prog input 9 configured as fuse input				2.4	
	Bit 9	Prog input 10 configured as fuse input				2.4	
	Bit 10	Prog input 11 configured as fuse input				2.4	
	Bit 11	Prog input 12 configured as fuse input				2.4	
	Bit 12	Prog input 13 configured as fuse input				2.4	
	Bit 13	Prog input 14 configured as fuse input				2.4	
	Bit 14	Prog input 15 configured as fuse input				2.4	
	Bit 15	Prog input 16 configured as fuse input				2.4	
1977		Battery fuse input status (Major alarm) - Fleximonitor 3				2.4	
	Bit 0	Battery fuse input 1				2.4	
	Bit 1	Battery fuse input 2				2.4	
	Bit 2	Battery fuse input 3				2.4	
	Bit 3	Battery fuse input 4				2.4	
	Bit 4	Battery fuse input 5				2.4	
	Bit 5	Battery fuse input 6				2.4	
	Bit 6	Battery fuse input 7				2.4	
	Bit 7	Battery fuse input 8				2.4	
	Bit 8	Battery fuse input 9				2.4	
	Bit 9	Battery fuse input 10				2.4	
	Bit 10	Battery fuse input 11				2.4	
	Bit 11	Battery fuse input 12				2.4	
	Bit 12	Battery fuse input 13				2.4	
	Bit 13	Battery fuse input 14				2.4	
	Bit 14	Battery fuse input 15				2.4	
	Bit 15	Battery fuse input 16				2.4	
1978		Fleximonitor 3 configured as Battery Monitor				2.4	
	Bit 0	Prog input 1 configured as current input				2.4	
	Bit 1	Prog input 2 configured as current input				2.4	
	Bit 2	Prog input 3 configured as current input				2.4	
	Bit 3	Prog input 4 configured as current input				2.4	
	Bit 4	Prog input 5 configured as current input				2.4	
	Bit 5	Prog input 6 configured as current input				2.4	
	Bit 6	Prog input 7 configured as current input				2.4	
	Bit 7	Prog input 8 configured as current input				2.4	
	Bit 8	Prog input 9 configured as current input				2.4	
	Bit 9	Prog input 10 configured as current input				2.4	
	Bit 10	Prog input 11 configured as current input				2.4	
	Bit 11	Prog input 12 configured as current input				2.4	
	Bit 12	Prog input 13 configured as current input				2.4	
	Bit 13	Prog input 14 configured as current input				2.4	
	Bit 14	Prog input 15 configured as current input				2.4	
	Bit 15	Prog input 16 configured as current input				2.4	
1979	1 Amp	Battery current 1– Fleximonitor 3				2.4	
1980	1 Amp	Battery current 2– Fleximonitor 3				2.4	
1981	1 Amp	Battery current 3– Fleximonitor 3				2.4	
1982	1 Amp	Battery current 4– Fleximonitor 3				2.4	
1983	1 Amp	Battery current 5– Fleximonitor 3				2.4	
1984	1 Amp	Battery current 6– Fleximonitor 3				2.4	

SmartPack ModBus Description

Utført-Prepared Jin Jun/Ole Morten Lunden	Dato-Date 17/01/2022 15:08:00	Utgave-Issue 28	Dokumentnr.-Document No. 2027380
--	----------------------------------	--------------------	-------------------------------------

1985	1 Amp	Battery current 7– Fleximonitor 3				2.4	
1986	1 Amp	Battery current 8– Fleximonitor 3				2.4	
1987	1 Amp	Battery current 9– Fleximonitor 3				2.4	
1988	1 Amp	Battery current 10– Fleximonitor 3				2.4	
1989	1 Amp	Battery current 11– Fleximonitor 3				2.4	
1990	1 Amp	Battery current 12– Fleximonitor 3				2.4	
1991	1 Amp	Battery current 13– Fleximonitor 3				2.4	
1992	1 Amp	Battery current 14– Fleximonitor 3				2.4	
1993	1 Amp	Battery current 15– Fleximonitor 3				2.4	
1994	1 Amp	Battery current 16– Fleximonitor 3				2.4	
1995		Fleximonitor 3 configured as Battery Monitor				2.4	
	Bit 0	Prog input 1 configured as temperature input				2.4	
	Bit 1	Prog input 2 configured as temperature input				2.4	
	Bit 2	Prog input 3 configured as temperature input				2.4	
	Bit 3	Prog input 4 configured as temperature input				2.4	
	Bit 4	Prog input 5 configured as temperature input				2.4	
	Bit 5	Prog input 6 configured as temperature input				2.4	
	Bit 6	Prog input 7 configured as temperature input				2.4	
	Bit 7	Prog input 8 configured as temperature input				2.4	
	Bit 8	Prog input 9 configured as temperature input				2.4	
	Bit 9	Prog input 10 configured as temperature input				2.4	
	Bit 10	Prog input 11 configured as temperature input				2.4	
	Bit 11	Prog input 12 configured as temperature input				2.4	
	Bit 12	Prog input 13 configured as temperature input				2.4	
	Bit 13	Prog input 14 configured as temperature input				2.4	
	Bit 14	Prog input 15 configured as temperature input				2.4	
	Bit 15	Prog input 16 configured as temperature input				2.4	
1996		Battery temperature input status (Major High) - Fleximonitor 3				2.4	
	Bit 0	Battery temperature input 1				2.4	
	Bit 1	Battery temperature input 2				2.4	
	Bit 2	Battery temperature input 3				2.4	
	Bit 3	Battery temperature input 4				2.4	
	Bit 4	Battery temperature input 5				2.4	
	Bit 5	Battery temperature input 6				2.4	
	Bit 6	Battery temperature input 7				2.4	
	Bit 7	Battery temperature input 8				2.4	
	Bit 8	Battery temperature input 9				2.4	
	Bit 9	Battery temperature input 10				2.4	
	Bit 10	Battery temperature input 11				2.4	
	Bit 11	Battery temperature input 12				2.4	
	Bit 12	Battery temperature input 13				2.4	
	Bit 13	Battery temperature input 14				2.4	
	Bit 14	Battery temperature input 15				2.4	
	Bit 15	Battery temperature input 16				2.4	
1997	1 degree	Battery temperature 1– Fleximonitor 3				2.4	
1998	1 degree	Battery temperature 2– Fleximonitor 3				2.4	
1999	1 degree	Battery temperature 3– Fleximonitor 3				2.4	
2000	1 degree	Battery temperature 4– Fleximonitor 3				2.4	
2001	1 degree	Battery temperature 5– Fleximonitor 3				2.4	
2002	1 degree	Battery temperature 6– Fleximonitor 3				2.4	
2003	1 degree	Battery temperature 7– Fleximonitor 3				2.4	
2004	1 degree	Battery temperature 8– Fleximonitor 3				2.4	
2005	1 degree	Battery temperature 9– Fleximonitor 3				2.4	
2006	1 degree	Battery temperature 10– Fleximonitor 3				2.4	
2007	1 degree	Battery temperature 11– Fleximonitor 3				2.4	
2008	1 degree	Battery temperature 12– Fleximonitor 3				2.4	
2009	1 degree	Battery temperature 13– Fleximonitor 3				2.4	
2010	1 degree	Battery temperature 14– Fleximonitor 3				2.4	
2011	1 degree	Battery temperature 15– Fleximonitor 3				2.4	
2012	1 degree	Battery temperature 16– Fleximonitor 3				2.4	



SmartPack ModBus Description

Utført-Prepared Jin Jun/Ole Morten Lunden	Dato-Date 17/01/2022 15:08:00	Utgave-Issue 28	Dokumentnr.-Document No. 2027380
--	----------------------------------	--------------------	-------------------------------------

2013		Fleximonitor 4 configured as Battery Monitor				2.4	
	Bit 0	Prog input 1 configured as voltage input				2.4	
	Bit 1	Prog input 2 configured as voltage input				2.4	
	Bit 2	Prog input 3 configured as voltage input				2.4	
	Bit 3	Prog input 4 configured as voltage input				2.4	
	Bit 4	Prog input 5 configured as voltage input				2.4	
	Bit 5	Prog input 6 configured as voltage input				2.4	
	Bit 6	Prog input 7 configured as voltage input				2.4	
	Bit 7	Prog input 8 configured as voltage input				2.4	
	Bit 8	Prog input 9 configured as voltage input				2.4	
	Bit 9	Prog input 10 configured as voltage input				2.4	
	Bit 10	Prog input 11 configured as voltage input				2.4	
	Bit 11	Prog input 12 configured as voltage input				2.4	
	Bit 12	Prog input 13 configured as voltage input				2.4	
	Bit 13	Prog input 14 configured as voltage input				2.4	
	Bit 14	Prog input 15 configured as voltage input				2.4	
	Bit 15	Prog input 16 configured as voltage input				2.4	
2014		Battery symmetry input status (Major alarm) - Fleximonitor 4				2.4	
	Bit 0	Battery symmetry input 1				2.4	
	Bit 1	Battery symmetry input 2				2.4	
	Bit 2	Battery symmetry input 3				2.4	
	Bit 3	Battery symmetry input 4				2.4	
	Bit 4	Battery symmetry input 5				2.4	
	Bit 5	Battery symmetry input 6				2.4	
	Bit 6	Battery symmetry input 7				2.4	
	Bit 7	Battery symmetry input 8				2.4	
	Bit 8	Battery symmetry input 9				2.4	
	Bit 9	Battery symmetry input 10				2.4	
	Bit 10	Battery symmetry input 11				2.4	
	Bit 11	Battery symmetry input 12				2.4	
	Bit 12	Battery symmetry input 13				2.4	
	Bit 13	Battery symmetry input 14				2.4	
	Bit 14	Battery symmetry input 15				2.4	
	Bit 15	Battery symmetry input 16				2.4	
2015	0.01 Volt	Battery symmetry input 1 delta voltage – Fleximonitor 4				2.4	
2016	0.01 Volt	Battery symmetry input 2 delta voltage – Fleximonitor 4				2.4	
2017	0.01 Volt	Battery symmetry input 3 delta voltage – Fleximonitor 4				2.4	
2018	0.01 Volt	Battery symmetry input 4 delta voltage – Fleximonitor 4				2.4	
2019	0.01 Volt	Battery symmetry input 5 delta voltage – Fleximonitor 4				2.4	
2020	0.01 Volt	Battery symmetry input 6 delta voltage – Fleximonitor 4				2.4	
2021	0.01 Volt	Battery symmetry input 7 delta voltage – Fleximonitor 4				2.4	
2022	0.01 Volt	Battery symmetry input 8 delta voltage – Fleximonitor 4				2.4	
2023	0.01 Volt	Battery symmetry input 9 delta voltage – Fleximonitor 4				2.4	
2024	0.01 Volt	Battery symmetry input 10 delta voltage – Fleximonitor 4				2.4	
2025	0.01 Volt	Battery symmetry input 11 delta voltage – Fleximonitor 4				2.4	
2026	0.01 Volt	Battery symmetry input 12 delta voltage – Fleximonitor 4				2.4	
2027	0.01 Volt	Battery symmetry input 13 delta voltage – Fleximonitor 4				2.4	
2028	0.01 Volt	Battery symmetry input 14 delta voltage – Fleximonitor 4				2.4	
2029	0.01 Volt	Battery symmetry input 15 delta voltage – Fleximonitor 4				2.4	
2030	0.01 Volt	Battery symmetry input 16 delta voltage – Fleximonitor 4				2.4	
2031	0.01 Volt	Battery symmetry input 1 measured voltage – Fleximonitor 4				2.4	
2032	0.01 Volt	Battery symmetry input 2 measured voltage – Fleximonitor 4				2.4	
2033	0.01 Volt	Battery symmetry input 3 measured voltage – Fleximonitor 4				2.4	
2034	0.01 Volt	Battery symmetry input 4 measured voltage – Fleximonitor 4				2.4	
2035	0.01 Volt	Battery symmetry input 5 measured voltage – Fleximonitor 4				2.4	
2036	0.01 Volt	Battery symmetry input 6 measured voltage – Fleximonitor 4				2.4	



SmartPack ModBus Description

Utført-Prepared Jin Jun/Ole Morten Lunden	Dato-Date 17/01/2022 15:08:00	Utgave-Issue 28	Dokumentnr.-Document No. 2027380
--	----------------------------------	--------------------	-------------------------------------

2037	0.01 Volt	Battery symmetry input 7 measured voltage – Fleximonitor 4				2.4	
2038	0.01 Volt	Battery symmetry input 8 measured voltage – Fleximonitor 4				2.4	
2039	0.01 Volt	Battery symmetry input 9 measured voltage – Fleximonitor 4				2.4	
2040	0.01 Volt	Battery symmetry input 10 measured voltage – Fleximonitor 4				2.4	
2041	0.01 Volt	Battery symmetry input 11 measured voltage – Fleximonitor 4				2.4	
2042	0.01 Volt	Battery symmetry input 12 measured voltage – Fleximonitor 4				2.4	
2043	0.01 Volt	Battery symmetry input 13 measured voltage – Fleximonitor 4				2.4	
2044	0.01 Volt	Battery symmetry input 14 measured voltage – Fleximonitor 4				2.4	
2045	0.01 Volt	Battery symmetry input 15 measured voltage – Fleximonitor 4				2.4	
2046	0.01 Volt	Battery symmetry input 16 measured voltage – Fleximonitor 4				2.4	
2047		Fleximonitor 4 configured as Battery Monitor				2.4	
	Bit 0	Prog input 1 configured as fuse input				2.4	
	Bit 1	Prog input 2 configured as fuse input				2.4	
	Bit 2	Prog input 3 configured as fuse input				2.4	
	Bit 3	Prog input 4 configured as fuse input				2.4	
	Bit 4	Prog input 5 configured as fuse input				2.4	
	Bit 5	Prog input 6 configured as fuse input				2.4	
	Bit 6	Prog input 7 configured as fuse input				2.4	
	Bit 7	Prog input 8 configured as fuse input				2.4	
	Bit 8	Prog input 9 configured as fuse input				2.4	
	Bit 9	Prog input 10 configured as fuse input				2.4	
	Bit 10	Prog input 11 configured as fuse input				2.4	
	Bit 11	Prog input 12 configured as fuse input				2.4	
	Bit 12	Prog input 13 configured as fuse input				2.4	
	Bit 13	Prog input 14 configured as fuse input				2.4	
	Bit 14	Prog input 15 configured as fuse input				2.4	
	Bit 15	Prog input 16 configured as fuse input				2.4	
2048		Battery fuse input status (Major alarm) - Fleximonitor 4				2.4	
	Bit 0	Battery fuse input 1				2.4	
	Bit 1	Battery fuse input 2				2.4	
	Bit 2	Battery fuse input 3				2.4	
	Bit 3	Battery fuse input 4				2.4	
	Bit 4	Battery fuse input 5				2.4	
	Bit 5	Battery fuse input 6				2.4	
	Bit 6	Battery fuse input 7				2.4	
	Bit 7	Battery fuse input 8				2.4	
	Bit 8	Battery fuse input 9				2.4	
	Bit 9	Battery fuse input 10				2.4	
	Bit 10	Battery fuse input 11				2.4	
	Bit 11	Battery fuse input 12				2.4	
	Bit 12	Battery fuse input 13				2.4	
	Bit 13	Battery fuse input 14				2.4	
	Bit 14	Battery fuse input 15				2.4	
	Bit 15	Battery fuse input 16				2.4	
2049		Fleximonitor 4 configured as Battery Monitor				2.4	
	Bit 0	Prog input 1 configured as current input				2.4	
	Bit 1	Prog input 2 configured as current input				2.4	
	Bit 2	Prog input 3 configured as current input				2.4	
	Bit 3	Prog input 4 configured as current input				2.4	
	Bit 4	Prog input 5 configured as current input				2.4	
	Bit 5	Prog input 6 configured as current input				2.4	
	Bit 6	Prog input 7 configured as current input				2.4	
	Bit 7	Prog input 8 configured as current input				2.4	



SmartPack ModBus Description

Utført-Prepared Jin Jun/Ole Morten Lunden	Dato-Date 17/01/2022 15:08:00	Utgave-Issue 28	Dokumentnr.-Document No. 2027380
--	----------------------------------	--------------------	-------------------------------------

	Bit 8	Prog input 9 configured as current input				2.4	
	Bit 9	Prog input 10 configured as current input				2.4	
	Bit 10	Prog input 11 configured as current input				2.4	
	Bit 11	Prog input 12 configured as current input				2.4	
	Bit 12	Prog input 13 configured as current input				2.4	
	Bit 13	Prog input 14 configured as current input				2.4	
	Bit 14	Prog input 15 configured as current input				2.4	
	Bit 15	Prog input 16 configured as current input				2.4	
2050	1 Amp	Battery current 1– Fleximonitor 4				2.4	
2051	1 Amp	Battery current 2– Fleximonitor 4				2.4	
2052	1 Amp	Battery current 3– Fleximonitor 4				2.4	
2053	1 Amp	Battery current 4– Fleximonitor 4				2.4	
2054	1 Amp	Battery current 5– Fleximonitor 4				2.4	
2055	1 Amp	Battery current 6– Fleximonitor 4				2.4	
2056	1 Amp	Battery current 7– Fleximonitor 4				2.4	
2057	1 Amp	Battery current 8– Fleximonitor 4				2.4	
2058	1 Amp	Battery current 9– Fleximonitor 4				2.4	
2059	1 Amp	Battery current 10– Fleximonitor 4				2.4	
2060	1 Amp	Battery current 11– Fleximonitor 4				2.4	
2061	1 Amp	Battery current 12– Fleximonitor 4				2.4	
2062	1 Amp	Battery current 13– Fleximonitor 4				2.4	
2063	1 Amp	Battery current 14– Fleximonitor 4				2.4	
2064	1 Amp	Battery current 15– Fleximonitor 4				2.4	
2065	1 Amp	Battery current 16– Fleximonitor 4				2.4	
2066		Fleximonitor 4 configured as Battery Monitor				2.4	
	Bit 0	Prog input 1 configured as temperature input				2.4	
	Bit 1	Prog input 2 configured as temperature input				2.4	
	Bit 2	Prog input 3 configured as temperature input				2.4	
	Bit 3	Prog input 4 configured as temperature input				2.4	
	Bit 4	Prog input 5 configured as temperature input				2.4	
	Bit 5	Prog input 6 configured as temperature input				2.4	
	Bit 6	Prog input 7 configured as temperature input				2.4	
	Bit 7	Prog input 8 configured as temperature input				2.4	
	Bit 8	Prog input 9 configured as temperature input				2.4	
	Bit 9	Prog input 10 configured as temperature input				2.4	
	Bit 10	Prog input 11 configured as temperature input				2.4	
	Bit 11	Prog input 12 configured as temperature input				2.4	
	Bit 12	Prog input 13 configured as temperature input				2.4	
	Bit 13	Prog input 14 configured as temperature input				2.4	
	Bit 14	Prog input 15 configured as temperature input				2.4	
	Bit 15	Prog input 16 configured as temperature input				2.4	
2067		Battery temperature input status (Major High) - Fleximonitor 4				2.4	
	Bit 0	Battery temperature input 1				2.4	
	Bit 1	Battery temperature input 2				2.4	
	Bit 2	Battery temperature input 3				2.4	
	Bit 3	Battery temperature input 4				2.4	
	Bit 4	Battery temperature input 5				2.4	
	Bit 5	Battery temperature input 6				2.4	
	Bit 6	Battery temperature input 7				2.4	
	Bit 7	Battery temperature input 8				2.4	
	Bit 8	Battery temperature input 9				2.4	
	Bit 9	Battery temperature input 10				2.4	
	Bit 10	Battery temperature input 11				2.4	
	Bit 11	Battery temperature input 12				2.4	
	Bit 12	Battery temperature input 13				2.4	
	Bit 13	Battery temperature input 14				2.4	
	Bit 14	Battery temperature input 15				2.4	
	Bit 15	Battery temperature input 16				2.4	
2068	1 degree	Battery temperature 1– Fleximonitor 4				2.4	
2069	1 degree	Battery temperature 2– Fleximonitor 4				2.4	
2070	1 degree	Battery temperature 3– Fleximonitor 4				2.4	



SmartPack ModBus Description

Utført-Prepared Jin Jun/Ole Morten Lunden	Dato-Date 17/01/2022 15:08:00	Utgave-Issue 28	Dokumentnr.-Document No. 2027380
--	----------------------------------	--------------------	-------------------------------------

2071	1 degree	Battery temperature 4– Fleximonitor 4				2.4	
2072	1 degree	Battery temperature 5– Fleximonitor 4				2.4	
2073	1 degree	Battery temperature 6– Fleximonitor 4				2.4	
2074	1 degree	Battery temperature 7– Fleximonitor 4				2.4	
2075	1 degree	Battery temperature 8– Fleximonitor 4				2.4	
2076	1 degree	Battery temperature 9– Fleximonitor 4				2.4	
2077	1 degree	Battery temperature 10– Fleximonitor 4				2.4	
2078	1 degree	Battery temperature 11– Fleximonitor 4				2.4	
2079	1 degree	Battery temperature 12– Fleximonitor 4				2.4	
2080	1 degree	Battery temperature 13– Fleximonitor 4				2.4	
2081	1 degree	Battery temperature 14– Fleximonitor 4				2.4	
2082	1 degree	Battery temperature 15– Fleximonitor 4				2.4	
2083	1 degree	Battery temperature 16– Fleximonitor 4				2.4	
2084		Fleximonitor 5 configured as Battery Monitor				2.4	
	Bit 0	Prog input 1 configured as voltage input				2.4	
	Bit 1	Prog input 2 configured as voltage input				2.4	
	Bit 2	Prog input 3 configured as voltage input				2.4	
	Bit 3	Prog input 4 configured as voltage input				2.4	
	Bit 4	Prog input 5 configured as voltage input				2.4	
	Bit 5	Prog input 6 configured as voltage input				2.4	
	Bit 6	Prog input 7 configured as voltage input				2.4	
	Bit 7	Prog input 8 configured as voltage input				2.4	
	Bit 8	Prog input 9 configured as voltage input				2.4	
	Bit 9	Prog input 10 configured as voltage input				2.4	
	Bit 10	Prog input 11 configured as voltage input				2.4	
	Bit 11	Prog input 12 configured as voltage input				2.4	
	Bit 12	Prog input 13 configured as voltage input				2.4	
	Bit 13	Prog input 14 configured as voltage input				2.4	
	Bit 14	Prog input 15 configured as voltage input				2.4	
	Bit 15	Prog input 16 configured as voltage input				2.4	
2085		Battery symmetry input status (Major alarm) - Fleximonitor 5				2.4	
	Bit 0	Battery symmetry input 1				2.4	
	Bit 1	Battery symmetry input 2				2.4	
	Bit 2	Battery symmetry input 3				2.4	
	Bit 3	Battery symmetry input 4				2.4	
	Bit 4	Battery symmetry input 5				2.4	
	Bit 5	Battery symmetry input 6				2.4	
	Bit 6	Battery symmetry input 7				2.4	
	Bit 7	Battery symmetry input 8				2.4	
	Bit 8	Battery symmetry input 9				2.4	
	Bit 9	Battery symmetry input 10				2.4	
	Bit 10	Battery symmetry input 11				2.4	
	Bit 11	Battery symmetry input 12				2.4	
	Bit 12	Battery symmetry input 13				2.4	
	Bit 13	Battery symmetry input 14				2.4	
	Bit 14	Battery symmetry input 15				2.4	
	Bit 15	Battery symmetry input 16				2.4	
2086	0.01 Volt	Battery symmetry input 1 delta voltage – Fleximonitor 5				2.4	
2087	0.01 Volt	Battery symmetry input 2 delta voltage – Fleximonitor 5				2.4	
2088	0.01 Volt	Battery symmetry input 3 delta voltage – Fleximonitor 5				2.4	
2089	0.01 Volt	Battery symmetry input 4 delta voltage – Fleximonitor 5				2.4	
2090	0.01 Volt	Battery symmetry input 5 delta voltage – Fleximonitor 5				2.4	
2091	0.01 Volt	Battery symmetry input 6 delta voltage – Fleximonitor 5				2.4	
2092	0.01 Volt	Battery symmetry input 7 delta voltage – Fleximonitor 5				2.4	
2093	0.01 Volt	Battery symmetry input 8 delta voltage – Fleximonitor 5				2.4	
2094	0.01 Volt	Battery symmetry input 9 delta voltage – Fleximonitor 5				2.4	
2095	0.01 Volt	Battery symmetry input 10 delta voltage – Fleximonitor 5				2.4	
2096	0.01 Volt	Battery symmetry input 11 delta voltage – Fleximonitor 5				2.4	
2097	0.01 Volt	Battery symmetry input 12 delta voltage – Fleximonitor 5				2.4	
2098	0.01 Volt	Battery symmetry input 13 delta voltage – Fleximonitor 5				2.4	



SmartPack ModBus Description

Utført-Prepared Jin Jun/Ole Morten Lunden	Dato-Date 17/01/2022 15:08:00	Utgave-Issue 28	Dokumentnr.-Document No. 2027380
--	----------------------------------	--------------------	-------------------------------------

2099	0.01 Volt	Battery symmetry input 14 delta voltage – Fleximonitor 5				2.4	
2100	0.01 Volt	Battery symmetry input 15 delta voltage – Fleximonitor 5				2.4	
2101	0.01 Volt	Battery symmetry input 16 delta voltage – Fleximonitor 5				2.4	
2102	0.01 Volt	Battery symmetry input 1 measured voltage – Fleximonitor 5				2.4	
2103	0.01 Volt	Battery symmetry input 2 measured voltage – Fleximonitor 5				2.4	
2104	0.01 Volt	Battery symmetry input 3 measured voltage – Fleximonitor 5				2.4	
2105	0.01 Volt	Battery symmetry input 4 measured voltage – Fleximonitor 5				2.4	
2106	0.01 Volt	Battery symmetry input 5 measured voltage – Fleximonitor 5				2.4	
2107	0.01 Volt	Battery symmetry input 6 measured voltage – Fleximonitor 5				2.4	
2108	0.01 Volt	Battery symmetry input 7 measured voltage – Fleximonitor 5				2.4	
2109	0.01 Volt	Battery symmetry input 8 measured voltage – Fleximonitor 5				2.4	
2110	0.01 Volt	Battery symmetry input 9 measured voltage – Fleximonitor 5				2.4	
2111	0.01 Volt	Battery symmetry input 10 measured voltage – Fleximonitor 5				2.4	
2112	0.01 Volt	Battery symmetry input 11 measured voltage – Fleximonitor 5				2.4	
2113	0.01 Volt	Battery symmetry input 12 measured voltage – Fleximonitor 5				2.4	
2114	0.01 Volt	Battery symmetry input 13 measured voltage – Fleximonitor 5				2.4	
2115	0.01 Volt	Battery symmetry input 14 measured voltage – Fleximonitor 5				2.4	
2116	0.01 Volt	Battery symmetry input 15 measured voltage – Fleximonitor 5				2.4	
2117	0.01 Volt	Battery symmetry input 16 measured voltage – Fleximonitor 5				2.4	
2118		Fleximonitor 5 configured as Battery Monitor				2.4	
	Bit 0	Prog input 1 configured as fuse input				2.4	
	Bit 1	Prog input 2 configured as fuse input				2.4	
	Bit 2	Prog input 3 configured as fuse input				2.4	
	Bit 3	Prog input 4 configured as fuse input				2.4	
	Bit 4	Prog input 5 configured as fuse input				2.4	
	Bit 5	Prog input 6 configured as fuse input				2.4	
	Bit 6	Prog input 7 configured as fuse input				2.4	
	Bit 7	Prog input 8 configured as fuse input				2.4	
	Bit 8	Prog input 9 configured as fuse input				2.4	
	Bit 9	Prog input 10 configured as fuse input				2.4	
	Bit 10	Prog input 11 configured as fuse input				2.4	
	Bit 11	Prog input 12 configured as fuse input				2.4	
	Bit 12	Prog input 13 configured as fuse input				2.4	
	Bit 13	Prog input 14 configured as fuse input				2.4	
	Bit 14	Prog input 15 configured as fuse input				2.4	
	Bit 15	Prog input 16 configured as fuse input				2.4	
2119		Battery fuse input status (Major alarm) - Fleximonitor 5				2.4	
	Bit 0	Battery fuse input 1				2.4	
	Bit 1	Battery fuse input 2				2.4	
	Bit 2	Battery fuse input 3				2.4	
	Bit 3	Battery fuse input 4				2.4	
	Bit 4	Battery fuse input 5				2.4	
	Bit 5	Battery fuse input 6				2.4	
	Bit 6	Battery fuse input 7				2.4	
	Bit 7	Battery fuse input 8				2.4	
	Bit 8	Battery fuse input 9				2.4	
	Bit 9	Battery fuse input 10				2.4	
	Bit 10	Battery fuse input 11				2.4	



SmartPack ModBus Description

Utført-Prepared Jin Jun/Ole Morten Lunden	Dato-Date 17/01/2022 15:08:00	Utgave-Issue 28	Dokumentnr.-Document No. 2027380
--	----------------------------------	--------------------	-------------------------------------

	Bit 11	Battery fuse input 12				2.4	
	Bit 12	Battery fuse input 13				2.4	
	Bit 13	Battery fuse input 14				2.4	
	Bit 14	Battery fuse input 15				2.4	
	Bit 15	Battery fuse input 16				2.4	
2120		Fleximonitor 5 configured as Battery Monitor				2.4	
	Bit 0	Prog input 1 configured as current input				2.4	
	Bit 1	Prog input 2 configured as current input				2.4	
	Bit 2	Prog input 3 configured as current input				2.4	
	Bit 3	Prog input 4 configured as current input				2.4	
	Bit 4	Prog input 5 configured as current input				2.4	
	Bit 5	Prog input 6 configured as current input				2.4	
	Bit 6	Prog input 7 configured as current input				2.4	
	Bit 7	Prog input 8 configured as current input				2.4	
	Bit 8	Prog input 9 configured as current input				2.4	
	Bit 9	Prog input 10 configured as current input				2.4	
	Bit 10	Prog input 11 configured as current input				2.4	
	Bit 11	Prog input 12 configured as current input				2.4	
	Bit 12	Prog input 13 configured as current input				2.4	
	Bit 13	Prog input 14 configured as current input				2.4	
	Bit 14	Prog input 15 configured as current input				2.4	
	Bit 15	Prog input 16 configured as current input				2.4	
2121	1 Amp	Battery current 1– Fleximonitor 5				2.4	
2122	1 Amp	Battery current 2– Fleximonitor 5				2.4	
2123	1 Amp	Battery current 3– Fleximonitor 5				2.4	
2124	1 Amp	Battery current 4– Fleximonitor 5				2.4	
2125	1 Amp	Battery current 5– Fleximonitor 5				2.4	
2126	1 Amp	Battery current 6– Fleximonitor 5				2.4	
2127	1 Amp	Battery current 7– Fleximonitor 5				2.4	
2128	1 Amp	Battery current 8– Fleximonitor 5				2.4	
2129	1 Amp	Battery current 9– Fleximonitor 5				2.4	
2130	1 Amp	Battery current 10– Fleximonitor 5				2.4	
2131	1 Amp	Battery current 11– Fleximonitor 5				2.4	
2132	1 Amp	Battery current 12– Fleximonitor 5				2.4	
2133	1 Amp	Battery current 13– Fleximonitor 5				2.4	
2134	1 Amp	Battery current 14– Fleximonitor 5				2.4	
2135	1 Amp	Battery current 15– Fleximonitor 5				2.4	
2136	1 Amp	Battery current 16– Fleximonitor 5				2.4	
2137		Fleximonitor 5 configured as Battery Monitor				2.4	
	Bit 0	Prog input 1 configured as temperature input				2.4	
	Bit 1	Prog input 2 configured as temperature input				2.4	
	Bit 2	Prog input 3 configured as temperature input				2.4	
	Bit 3	Prog input 4 configured as temperature input				2.4	
	Bit 4	Prog input 5 configured as temperature input				2.4	
	Bit 5	Prog input 6 configured as temperature input				2.4	
	Bit 6	Prog input 7 configured as temperature input				2.4	
	Bit 7	Prog input 8 configured as temperature input				2.4	
	Bit 8	Prog input 9 configured as temperature input				2.4	
	Bit 9	Prog input 10 configured as temperature input				2.4	
	Bit 10	Prog input 11 configured as temperature input				2.4	
	Bit 11	Prog input 12 configured as temperature input				2.4	
	Bit 12	Prog input 13 configured as temperature input				2.4	
	Bit 13	Prog input 14 configured as temperature input				2.4	
	Bit 14	Prog input 15 configured as temperature input				2.4	
	Bit 15	Prog input 16 configured as temperature input				2.4	
2138		Battery temperature input status (Major High) - Fleximonitor 5				2.4	
	Bit 0	Battery temperature input 1				2.4	
	Bit 1	Battery temperature input 2				2.4	
	Bit 2	Battery temperature input 3				2.4	
	Bit 3	Battery temperature input 4				2.4	
	Bit 4	Battery temperature input 5				2.4	



SmartPack ModBus Description

Utført-Prepared Jin Jun/Ole Morten Lunden	Dato-Date 17/01/2022 15:08:00	Utgave-Issue 28	Dokumentnr.-Document No. 2027380
--	----------------------------------	--------------------	-------------------------------------

	Bit 5	Battery temperature input 6				2.4	
	Bit 6	Battery temperature input 7				2.4	
	Bit 7	Battery temperature input 8				2.4	
	Bit 8	Battery temperature input 9				2.4	
	Bit 9	Battery temperature input 10				2.4	
	Bit 10	Battery temperature input 11				2.4	
	Bit 11	Battery temperature input 12				2.4	
	Bit 12	Battery temperature input 13				2.4	
	Bit 13	Battery temperature input 14				2.4	
	Bit 14	Battery temperature input 15				2.4	
	Bit 15	Battery temperature input 16				2.4	
2139	1 degree	Battery temperature 1– Fleximonitor 5				2.4	
2140	1 degree	Battery temperature 2– Fleximonitor 5				2.4	
2141	1 degree	Battery temperature 3– Fleximonitor 5				2.4	
2142	1 degree	Battery temperature 4– Fleximonitor 5				2.4	
2143	1 degree	Battery temperature 5– Fleximonitor 5				2.4	
2144	1 degree	Battery temperature 6– Fleximonitor 5				2.4	
2145	1 degree	Battery temperature 7– Fleximonitor 5				2.4	
2146	1 degree	Battery temperature 8– Fleximonitor 5				2.4	
2147	1 degree	Battery temperature 9– Fleximonitor 5				2.4	
2148	1 degree	Battery temperature 10– Fleximonitor 5				2.4	
2149	1 degree	Battery temperature 11– Fleximonitor 5				2.4	
2150	1 degree	Battery temperature 12– Fleximonitor 5				2.4	
2151	1 degree	Battery temperature 13– Fleximonitor 5				2.4	
2152	1 degree	Battery temperature 14– Fleximonitor 5				2.4	
2153	1 degree	Battery temperature 15– Fleximonitor 5				2.4	
2154	1 degree	Battery temperature 16– Fleximonitor 5				2.4	
2155		Fleximonitor 6 configured as Battery Monitor				2.4	
	Bit 0	Prog input 1 configured as voltage input				2.4	
	Bit 1	Prog input 2 configured as voltage input				2.4	
	Bit 2	Prog input 3 configured as voltage input				2.4	
	Bit 3	Prog input 4 configured as voltage input				2.4	
	Bit 4	Prog input 5 configured as voltage input				2.4	
	Bit 5	Prog input 6 configured as voltage input				2.4	
	Bit 6	Prog input 7 configured as voltage input				2.4	
	Bit 7	Prog input 8 configured as voltage input				2.4	
	Bit 8	Prog input 9 configured as voltage input				2.4	
	Bit 9	Prog input 10 configured as voltage input				2.4	
	Bit 10	Prog input 11 configured as voltage input				2.4	
	Bit 11	Prog input 12 configured as voltage input				2.4	
	Bit 12	Prog input 13 configured as voltage input				2.4	
	Bit 13	Prog input 14 configured as voltage input				2.4	
	Bit 14	Prog input 15 configured as voltage input				2.4	
	Bit 15	Prog input 16 configured as voltage input				2.4	
2156		Battery symmetry input status (Major alarm) - Fleximonitor 6				2.4	
	Bit 0	Battery symmetry input 1				2.4	
	Bit 1	Battery symmetry input 2				2.4	
	Bit 2	Battery symmetry input 3				2.4	
	Bit 3	Battery symmetry input 4				2.4	
	Bit 4	Battery symmetry input 5				2.4	
	Bit 5	Battery symmetry input 6				2.4	
	Bit 6	Battery symmetry input 7				2.4	
	Bit 7	Battery symmetry input 8				2.4	
	Bit 8	Battery symmetry input 9				2.4	
	Bit 9	Battery symmetry input 10				2.4	
	Bit 10	Battery symmetry input 11				2.4	
	Bit 11	Battery symmetry input 12				2.4	
	Bit 12	Battery symmetry input 13				2.4	
	Bit 13	Battery symmetry input 14				2.4	
	Bit 14	Battery symmetry input 15				2.4	



SmartPack ModBus Description

Utført-Prepared Jin Jun/Ole Morten Lunden	Dato-Date 17/01/2022 15:08:00	Utgave-Issue 28	Dokumentnr.-Document No. 2027380
--	----------------------------------	--------------------	-------------------------------------

	Bit 15	Battery symmetry input 16				2.4	
2157	0.01 Volt	Battery symmetry input 1 delta voltage – Fleximonitor 6				2.4	
2158	0.01 Volt	Battery symmetry input 2 delta voltage – Fleximonitor 6				2.4	
2159	0.01 Volt	Battery symmetry input 3 delta voltage – Fleximonitor 6				2.4	
2160	0.01 Volt	Battery symmetry input 4 delta voltage – Fleximonitor 6				2.4	
2161	0.01 Volt	Battery symmetry input 5 delta voltage – Fleximonitor 6				2.4	
2162	0.01 Volt	Battery symmetry input 6 delta voltage – Fleximonitor 6				2.4	
2163	0.01 Volt	Battery symmetry input 7 delta voltage – Fleximonitor 6				2.4	
2164	0.01 Volt	Battery symmetry input 8 delta voltage – Fleximonitor 6				2.4	
2165	0.01 Volt	Battery symmetry input 9 delta voltage – Fleximonitor 6				2.4	
2166	0.01 Volt	Battery symmetry input 10 delta voltage – Fleximonitor 6				2.4	
2167	0.01 Volt	Battery symmetry input 11 delta voltage – Fleximonitor 6				2.4	
2168	0.01 Volt	Battery symmetry input 12 delta voltage – Fleximonitor 6				2.4	
2169	0.01 Volt	Battery symmetry input 13 delta voltage – Fleximonitor 6				2.4	
2170	0.01 Volt	Battery symmetry input 14 delta voltage – Fleximonitor 6				2.4	
2171	0.01 Volt	Battery symmetry input 15 delta voltage – Fleximonitor 6				2.4	
2172	0.01 Volt	Battery symmetry input 16 delta voltage – Fleximonitor 6				2.4	
2173	0.01 Volt	Battery symmetry input 1 measured voltage – Fleximonitor 6				2.4	
2174	0.01 Volt	Battery symmetry input 2 measured voltage – Fleximonitor 6				2.4	
2175	0.01 Volt	Battery symmetry input 3 measured voltage – Fleximonitor 6				2.4	
2176	0.01 Volt	Battery symmetry input 4 measured voltage – Fleximonitor 6				2.4	
2177	0.01 Volt	Battery symmetry input 5 measured voltage – Fleximonitor 6				2.4	
2178	0.01 Volt	Battery symmetry input 6 measured voltage – Fleximonitor 6				2.4	
2179	0.01 Volt	Battery symmetry input 7 measured voltage – Fleximonitor 6				2.4	
2180	0.01 Volt	Battery symmetry input 8 measured voltage – Fleximonitor 6				2.4	
2181	0.01 Volt	Battery symmetry input 9 measured voltage – Fleximonitor 6				2.4	
2182	0.01 Volt	Battery symmetry input 10 measured voltage – Fleximonitor 6				2.4	
2183	0.01 Volt	Battery symmetry input 11 measured voltage – Fleximonitor 6				2.4	
2184	0.01 Volt	Battery symmetry input 12 measured voltage – Fleximonitor 6				2.4	
2185	0.01 Volt	Battery symmetry input 13 measured voltage – Fleximonitor 6				2.4	
2186	0.01 Volt	Battery symmetry input 14 measured voltage – Fleximonitor 6				2.4	
2187	0.01 Volt	Battery symmetry input 15 measured voltage – Fleximonitor 6				2.4	
2188	0.01 Volt	Battery symmetry input 16 measured voltage – Fleximonitor 6				2.4	
2189		Fleximonitor 6 configured as Battery Monitor				2.4	
	Bit 0	Prog input 1 configured as fuse input				2.4	
	Bit 1	Prog input 2 configured as fuse input				2.4	
	Bit 2	Prog input 3 configured as fuse input				2.4	
	Bit 3	Prog input 4 configured as fuse input				2.4	
	Bit 4	Prog input 5 configured as fuse input				2.4	
	Bit 5	Prog input 6 configured as fuse input				2.4	
	Bit 6	Prog input 7 configured as fuse input				2.4	
	Bit 7	Prog input 8 configured as fuse input				2.4	
	Bit 8	Prog input 9 configured as fuse input				2.4	
	Bit 9	Prog input 10 configured as fuse input				2.4	
	Bit 10	Prog input 11 configured as fuse input				2.4	
	Bit 11	Prog input 12 configured as fuse input				2.4	
	Bit 12	Prog input 13 configured as fuse input				2.4	
	Bit 13	Prog input 14 configured as fuse input				2.4	



SmartPack ModBus Description

Urført-Prepared Jin Jun/Ole Morten Lunden	Dato-Date 17/01/2022 15:08:00	Utgave-Issue 28	Dokumentnr.-Document No. 2027380
--	----------------------------------	--------------------	-------------------------------------

	Bit 14	Prog input 15 configured as fuse input				2.4	
	Bit 15	Prog input 16 configured as fuse input				2.4	
2190		Battery fuse input status (Major alarm) - Fleximonitor 6				2.4	
	Bit 0	Battery fuse input 1				2.4	
	Bit 1	Battery fuse input 2				2.4	
	Bit 2	Battery fuse input 3				2.4	
	Bit 3	Battery fuse input 4				2.4	
	Bit 4	Battery fuse input 5				2.4	
	Bit 5	Battery fuse input 6				2.4	
	Bit 6	Battery fuse input 7				2.4	
	Bit 7	Battery fuse input 8				2.4	
	Bit 8	Battery fuse input 9				2.4	
	Bit 9	Battery fuse input 10				2.4	
	Bit 10	Battery fuse input 11				2.4	
	Bit 11	Battery fuse input 12				2.4	
	Bit 12	Battery fuse input 13				2.4	
	Bit 13	Battery fuse input 14				2.4	
	Bit 14	Battery fuse input 15				2.4	
	Bit 15	Battery fuse input 16				2.4	
2191		Fleximonitor 6 configured as Battery Monitor				2.4	
	Bit 0	Prog input 1 configured as current input				2.4	
	Bit 1	Prog input 2 configured as current input				2.4	
	Bit 2	Prog input 3 configured as current input				2.4	
	Bit 3	Prog input 4 configured as current input				2.4	
	Bit 4	Prog input 5 configured as current input				2.4	
	Bit 5	Prog input 6 configured as current input				2.4	
	Bit 6	Prog input 7 configured as current input				2.4	
	Bit 7	Prog input 8 configured as current input				2.4	
	Bit 8	Prog input 9 configured as current input				2.4	
	Bit 9	Prog input 10 configured as current input				2.4	
	Bit 10	Prog input 11 configured as current input				2.4	
	Bit 11	Prog input 12 configured as current input				2.4	
	Bit 12	Prog input 13 configured as current input				2.4	
	Bit 13	Prog input 14 configured as current input				2.4	
	Bit 14	Prog input 15 configured as current input				2.4	
	Bit 15	Prog input 16 configured as current input				2.4	
2192	1 Amp	Battery current 1– Fleximonitor 6				2.4	
2193	1 Amp	Battery current 2– Fleximonitor 6				2.4	
2194	1 Amp	Battery current 3– Fleximonitor 6				2.4	
2195	1 Amp	Battery current 4– Fleximonitor 6				2.4	
2196	1 Amp	Battery current 5– Fleximonitor 6				2.4	
2197	1 Amp	Battery current 6– Fleximonitor 6				2.4	
2198	1 Amp	Battery current 7– Fleximonitor 6				2.4	
2199	1 Amp	Battery current 8– Fleximonitor 6				2.4	
2200	1 Amp	Battery current 9– Fleximonitor 6				2.4	
2201	1 Amp	Battery current 10– Fleximonitor 6				2.4	
2202	1 Amp	Battery current 11– Fleximonitor 6				2.4	
2203	1 Amp	Battery current 12– Fleximonitor 6				2.4	
2204	1 Amp	Battery current 13– Fleximonitor 6				2.4	
2205	1 Amp	Battery current 14– Fleximonitor 6				2.4	
2206	1 Amp	Battery current 15– Fleximonitor 6				2.4	
2207	1 Amp	Battery current 16– Fleximonitor 6				2.4	
2208		Fleximonitor 6 configured as Battery Monitor				2.4	
	Bit 0	Prog input 1 configured as temperature input				2.4	
	Bit 1	Prog input 2 configured as temperature input				2.4	
	Bit 2	Prog input 3 configured as temperature input				2.4	
	Bit 3	Prog input 4 configured as temperature input				2.4	
	Bit 4	Prog input 5 configured as temperature input				2.4	
	Bit 5	Prog input 6 configured as temperature input				2.4	
	Bit 6	Prog input 7 configured as temperature input				2.4	
	Bit 7	Prog input 8 configured as temperature input				2.4	
	Bit 8	Prog input 9 configured as temperature input				2.4	



SmartPack ModBus Description

Utført-Prepared Jin Jun/Ole Morten Lunden	Dato-Date 17/01/2022 15:08:00	Utgave-Issue 28	Dokumentnr.-Document No. 2027380
--	----------------------------------	--------------------	-------------------------------------

	Bit 9	Prog input 10 configured as temperature input				2.4	
	Bit 10	Prog input 11 configured as temperature input				2.4	
	Bit 11	Prog input 12 configured as temperature input				2.4	
	Bit 12	Prog input 13 configured as temperature input				2.4	
	Bit 13	Prog input 14 configured as temperature input				2.4	
	Bit 14	Prog input 15 configured as temperature input				2.4	
	Bit 15	Prog input 16 configured as temperature input				2.4	
2209		Battery temperature input status (Major High) - Fleximonitor 6				2.4	
	Bit 0	Battery temperature input 1				2.4	
	Bit 1	Battery temperature input 2				2.4	
	Bit 2	Battery temperature input 3				2.4	
	Bit 3	Battery temperature input 4				2.4	
	Bit 4	Battery temperature input 5				2.4	
	Bit 5	Battery temperature input 6				2.4	
	Bit 6	Battery temperature input 7				2.4	
	Bit 7	Battery temperature input 8				2.4	
	Bit 8	Battery temperature input 9				2.4	
	Bit 9	Battery temperature input 10				2.4	
	Bit 10	Battery temperature input 11				2.4	
	Bit 11	Battery temperature input 12				2.4	
	Bit 12	Battery temperature input 13				2.4	
	Bit 13	Battery temperature input 14				2.4	
	Bit 14	Battery temperature input 15				2.4	
	Bit 15	Battery temperature input 16				2.4	
2210	1 degree	Battery temperature 1– Fleximonitor 6				2.4	
2211	1 degree	Battery temperature 2– Fleximonitor 6				2.4	
2212	1 degree	Battery temperature 3– Fleximonitor 6				2.4	
2213	1 degree	Battery temperature 4– Fleximonitor 6				2.4	
2214	1 degree	Battery temperature 5– Fleximonitor 6				2.4	
2215	1 degree	Battery temperature 6– Fleximonitor 6				2.4	
2216	1 degree	Battery temperature 7– Fleximonitor 6				2.4	
2217	1 degree	Battery temperature 8– Fleximonitor 6				2.4	
2218	1 degree	Battery temperature 9– Fleximonitor 6				2.4	
2219	1 degree	Battery temperature 10– Fleximonitor 6				2.4	
2220	1 degree	Battery temperature 11– Fleximonitor 6				2.4	
2221	1 degree	Battery temperature 12– Fleximonitor 6				2.4	
2222	1 degree	Battery temperature 13– Fleximonitor 6				2.4	
2223	1 degree	Battery temperature 14– Fleximonitor 6				2.4	
2224	1 degree	Battery temperature 15– Fleximonitor 6				2.4	
2225	1 degree	Battery temperature 16– Fleximonitor 6				2.4	
2226		Fleximonitor 7 configured as Battery Monitor				2.4	
	Bit 0	Prog input 1 configured as voltage input				2.4	
	Bit 1	Prog input 2 configured as voltage input				2.4	
	Bit 2	Prog input 3 configured as voltage input				2.4	
	Bit 3	Prog input 4 configured as voltage input				2.4	
	Bit 4	Prog input 5 configured as voltage input				2.4	
	Bit 5	Prog input 6 configured as voltage input				2.4	
	Bit 6	Prog input 7 configured as voltage input				2.4	
	Bit 7	Prog input 8 configured as voltage input				2.4	
	Bit 8	Prog input 9 configured as voltage input				2.4	
	Bit 9	Prog input 10 configured as voltage input				2.4	
	Bit 10	Prog input 11 configured as voltage input				2.4	
	Bit 11	Prog input 12 configured as voltage input				2.4	
	Bit 12	Prog input 13 configured as voltage input				2.4	
	Bit 13	Prog input 14 configured as voltage input				2.4	
	Bit 14	Prog input 15 configured as voltage input				2.4	
	Bit 15	Prog input 16 configured as voltage input				2.4	
2227		Battery symmetry input status (Major alarm) - Fleximonitor 7				2.4	
	Bit 0	Battery symmetry input 1				2.4	
	Bit 1	Battery symmetry input 2				2.4	



SmartPack ModBus Description

Utført-Prepared Jin Jun/Ole Morten Lunden	Dato-Date 17/01/2022 15:08:00	Utgave-Issue 28	Dokumentnr.-Document No. 2027380
--	----------------------------------	--------------------	-------------------------------------

	Bit 2	Battery symmetry input 3				2.4	
	Bit 3	Battery symmetry input 4				2.4	
	Bit 4	Battery symmetry input 5				2.4	
	Bit 5	Battery symmetry input 6				2.4	
	Bit 6	Battery symmetry input 7				2.4	
	Bit 7	Battery symmetry input 8				2.4	
	Bit 8	Battery symmetry input 9				2.4	
	Bit 9	Battery symmetry input 10				2.4	
	Bit 10	Battery symmetry input 11				2.4	
	Bit 11	Battery symmetry input 12				2.4	
	Bit 12	Battery symmetry input 13				2.4	
	Bit 13	Battery symmetry input 14				2.4	
	Bit 14	Battery symmetry input 15				2.4	
	Bit 15	Battery symmetry input 16				2.4	
2228	0.01 Volt	Battery symmetry input 1 delta voltage – Fleximonitor 7				2.4	
2229	0.01 Volt	Battery symmetry input 2 delta voltage – Fleximonitor 7				2.4	
2230	0.01 Volt	Battery symmetry input 3 delta voltage – Fleximonitor 7				2.4	
2231	0.01 Volt	Battery symmetry input 4 delta voltage – Fleximonitor 7				2.4	
2232	0.01 Volt	Battery symmetry input 5 delta voltage – Fleximonitor 7				2.4	
2233	0.01 Volt	Battery symmetry input 6 delta voltage – Fleximonitor 7				2.4	
2234	0.01 Volt	Battery symmetry input 7 delta voltage – Fleximonitor 7				2.4	
2235	0.01 Volt	Battery symmetry input 8 delta voltage – Fleximonitor 7				2.4	
2236	0.01 Volt	Battery symmetry input 9 delta voltage – Fleximonitor 7				2.4	
2237	0.01 Volt	Battery symmetry input 10 delta voltage – Fleximonitor 7				2.4	
2238	0.01 Volt	Battery symmetry input 11 delta voltage – Fleximonitor 7				2.4	
2239	0.01 Volt	Battery symmetry input 12 delta voltage – Fleximonitor 7				2.4	
2240	0.01 Volt	Battery symmetry input 13 delta voltage – Fleximonitor 7				2.4	
2241	0.01 Volt	Battery symmetry input 14 delta voltage – Fleximonitor 7				2.4	
2242	0.01 Volt	Battery symmetry input 15 delta voltage – Fleximonitor 7				2.4	
2243	0.01 Volt	Battery symmetry input 16 delta voltage – Fleximonitor 7				2.4	
2244	0.01 Volt	Battery symmetry input 1 measured voltage – Fleximonitor 7				2.4	
2245	0.01 Volt	Battery symmetry input 2 measured voltage – Fleximonitor 7				2.4	
2246	0.01 Volt	Battery symmetry input 3 measured voltage – Fleximonitor 7				2.4	
2247	0.01 Volt	Battery symmetry input 4 measured voltage – Fleximonitor 7				2.4	
2248	0.01 Volt	Battery symmetry input 5 measured voltage – Fleximonitor 7				2.4	
2249	0.01 Volt	Battery symmetry input 6 measured voltage – Fleximonitor 7				2.4	
2250	0.01 Volt	Battery symmetry input 7 measured voltage – Fleximonitor 7				2.4	
2251	0.01 Volt	Battery symmetry input 8 measured voltage – Fleximonitor 7				2.4	
2252	0.01 Volt	Battery symmetry input 9 measured voltage – Fleximonitor 7				2.4	
2253	0.01 Volt	Battery symmetry input 10 measured voltage – Fleximonitor 7				2.4	
2254	0.01 Volt	Battery symmetry input 11 measured voltage – Fleximonitor 7				2.4	
2255	0.01 Volt	Battery symmetry input 12 measured voltage – Fleximonitor 7				2.4	
2256	0.01 Volt	Battery symmetry input 13 measured voltage – Fleximonitor 7				2.4	
2257	0.01 Volt	Battery symmetry input 14 measured voltage – Fleximonitor 7				2.4	
2258	0.01 Volt	Battery symmetry input 15 measured voltage – Fleximonitor 7				2.4	
2259	0.01 Volt	Battery symmetry input 16 measured voltage – Fleximonitor 7				2.4	
2260		Fleximonitor 7 configured as Battery Monitor				2.4	
	Bit 0	Prog input 1 configured as fuse input				2.4	



SmartPack ModBus Description

Utført-Prepared Jin Jun/Ole Morten Lunden	Dato-Date 17/01/2022 15:08:00	Utgave-Issue 28	Dokumentnr.-Document No. 2027380
--	----------------------------------	--------------------	-------------------------------------

	Bit 1	Prog input 2 configured as fuse input				2.4	
	Bit 2	Prog input 3 configured as fuse input				2.4	
	Bit 3	Prog input 4 configured as fuse input				2.4	
	Bit 4	Prog input 5 configured as fuse input				2.4	
	Bit 5	Prog input 6 configured as fuse input				2.4	
	Bit 6	Prog input 7 configured as fuse input				2.4	
	Bit 7	Prog input 8 configured as fuse input				2.4	
	Bit 8	Prog input 9 configured as fuse input				2.4	
	Bit 9	Prog input 10 configured as fuse input				2.4	
	Bit 10	Prog input 11 configured as fuse input				2.4	
	Bit 11	Prog input 12 configured as fuse input				2.4	
	Bit 12	Prog input 13 configured as fuse input				2.4	
	Bit 13	Prog input 14 configured as fuse input				2.4	
	Bit 14	Prog input 15 configured as fuse input				2.4	
	Bit 15	Prog input 16 configured as fuse input				2.4	
2261		Battery fuse input status (Major alarm) - Fleximonitor 7				2.4	
	Bit 0	Battery fuse input 1				2.4	
	Bit 1	Battery fuse input 2				2.4	
	Bit 2	Battery fuse input 3				2.4	
	Bit 3	Battery fuse input 4				2.4	
	Bit 4	Battery fuse input 5				2.4	
	Bit 5	Battery fuse input 6				2.4	
	Bit 6	Battery fuse input 7				2.4	
	Bit 7	Battery fuse input 8				2.4	
	Bit 8	Battery fuse input 9				2.4	
	Bit 9	Battery fuse input 10				2.4	
	Bit 10	Battery fuse input 11				2.4	
	Bit 11	Battery fuse input 12				2.4	
	Bit 12	Battery fuse input 13				2.4	
	Bit 13	Battery fuse input 14				2.4	
	Bit 14	Battery fuse input 15				2.4	
	Bit 15	Battery fuse input 16				2.4	
2262		Fleximonitor 7 configured as Battery Monitor				2.4	
	Bit 0	Prog input 1 configured as current input				2.4	
	Bit 1	Prog input 2 configured as current input				2.4	
	Bit 2	Prog input 3 configured as current input				2.4	
	Bit 3	Prog input 4 configured as current input				2.4	
	Bit 4	Prog input 5 configured as current input				2.4	
	Bit 5	Prog input 6 configured as current input				2.4	
	Bit 6	Prog input 7 configured as current input				2.4	
	Bit 7	Prog input 8 configured as current input				2.4	
	Bit 8	Prog input 9 configured as current input				2.4	
	Bit 9	Prog input 10 configured as current input				2.4	
	Bit 10	Prog input 11 configured as current input				2.4	
	Bit 11	Prog input 12 configured as current input				2.4	
	Bit 12	Prog input 13 configured as current input				2.4	
	Bit 13	Prog input 14 configured as current input				2.4	
	Bit 14	Prog input 15 configured as current input				2.4	
	Bit 15	Prog input 16 configured as current input				2.4	
2263	1 Amp	Battery current 1- Fleximonitor 7				2.4	
2264	1 Amp	Battery current 2- Fleximonitor 7				2.4	
2265	1 Amp	Battery current 3- Fleximonitor 7				2.4	
2266	1 Amp	Battery current 4- Fleximonitor 7				2.4	
2267	1 Amp	Battery current 5- Fleximonitor 7				2.4	
2268	1 Amp	Battery current 6- Fleximonitor 7				2.4	
2269	1 Amp	Battery current 7- Fleximonitor 7				2.4	
2270	1 Amp	Battery current 8- Fleximonitor 7				2.4	
2271	1 Amp	Battery current 9- Fleximonitor 7				2.4	
2272	1 Amp	Battery current 10- Fleximonitor 7				2.4	
2273	1 Amp	Battery current 11- Fleximonitor 7				2.4	
2274	1 Amp	Battery current 12- Fleximonitor 7				2.4	
2275	1 Amp	Battery current 13- Fleximonitor 7				2.4	



SmartPack ModBus Description

Utført-Prepared Jin Jun/Ole Morten Lunden	Dato-Date 17/01/2022 15:08:00	Utgave-Issue 28	Dokumentnr.-Document No. 2027380
--	----------------------------------	--------------------	-------------------------------------

2276	1 Amp	Battery current 14– Fleximonitor 7				2.4	
2277	1 Amp	Battery current 15– Fleximonitor 7				2.4	
2278	1 Amp	Battery current 16– Fleximonitor 7				2.4	
2279		Fleximonitor 7 configured as Battery Monitor				2.4	
	Bit 0	Prog input 1 configured as temperature input				2.4	
	Bit 1	Prog input 2 configured as temperature input				2.4	
	Bit 2	Prog input 3 configured as temperature input				2.4	
	Bit 3	Prog input 4 configured as temperature input				2.4	
	Bit 4	Prog input 5 configured as temperature input				2.4	
	Bit 5	Prog input 6 configured as temperature input				2.4	
	Bit 6	Prog input 7 configured as temperature input				2.4	
	Bit 7	Prog input 8 configured as temperature input				2.4	
	Bit 8	Prog input 9 configured as temperature input				2.4	
	Bit 9	Prog input 10 configured as temperature input				2.4	
	Bit 10	Prog input 11 configured as temperature input				2.4	
	Bit 11	Prog input 12 configured as temperature input				2.4	
	Bit 12	Prog input 13 configured as temperature input				2.4	
	Bit 13	Prog input 14 configured as temperature input				2.4	
	Bit 14	Prog input 15 configured as temperature input				2.4	
	Bit 15	Prog input 16 configured as temperature input				2.4	
2280		Battery temperature input status (Major High) - Fleximonitor 7				2.4	
	Bit 0	Battery temperature input 1				2.4	
	Bit 1	Battery temperature input 2				2.4	
	Bit 2	Battery temperature input 3				2.4	
	Bit 3	Battery temperature input 4				2.4	
	Bit 4	Battery temperature input 5				2.4	
	Bit 5	Battery temperature input 6				2.4	
	Bit 6	Battery temperature input 7				2.4	
	Bit 7	Battery temperature input 8				2.4	
	Bit 8	Battery temperature input 9				2.4	
	Bit 9	Battery temperature input 10				2.4	
	Bit 10	Battery temperature input 11				2.4	
	Bit 11	Battery temperature input 12				2.4	
	Bit 12	Battery temperature input 13				2.4	
	Bit 13	Battery temperature input 14				2.4	
	Bit 14	Battery temperature input 15				2.4	
	Bit 15	Battery temperature input 16				2.4	
2281	1 degree	Battery temperature 1– Fleximonitor 7				2.4	
2282	1 degree	Battery temperature 2– Fleximonitor 7				2.4	
2283	1 degree	Battery temperature 3– Fleximonitor 7				2.4	
2284	1 degree	Battery temperature 4– Fleximonitor 7				2.4	
2285	1 degree	Battery temperature 5– Fleximonitor 7				2.4	
2286	1 degree	Battery temperature 6– Fleximonitor 7				2.4	
2287	1 degree	Battery temperature 7– Fleximonitor 7				2.4	
2288	1 degree	Battery temperature 8– Fleximonitor 7				2.4	
2289	1 degree	Battery temperature 9– Fleximonitor 7				2.4	
2290	1 degree	Battery temperature 10– Fleximonitor 7				2.4	
2291	1 degree	Battery temperature 11– Fleximonitor 7				2.4	
2292	1 degree	Battery temperature 12– Fleximonitor 7				2.4	
2293	1 degree	Battery temperature 13– Fleximonitor 7				2.4	
2294	1 degree	Battery temperature 14– Fleximonitor 7				2.4	
2295	1 degree	Battery temperature 15– Fleximonitor 7				2.4	
2296	1 degree	Battery temperature 16– Fleximonitor 7				2.4	
2297		Fleximonitor 8 configured as Battery Monitor				2.4	
	Bit 0	Prog input 1 configured as voltage input				2.4	
	Bit 1	Prog input 2 configured as voltage input				2.4	
	Bit 2	Prog input 3 configured as voltage input				2.4	
	Bit 3	Prog input 4 configured as voltage input				2.4	
	Bit 4	Prog input 5 configured as voltage input				2.4	
	Bit 5	Prog input 6 configured as voltage input				2.4	



SmartPack ModBus Description

Utført-Prepared Jin Jun/Ole Morten Lunden	Dato-Date 17/01/2022 15:08:00	Utgave-Issue 28	Dokumentnr.-Document No. 2027380
--	----------------------------------	--------------------	-------------------------------------

	Bit 6	Prog input 7 configured as voltage input				2.4	
	Bit 7	Prog input 8 configured as voltage input				2.4	
	Bit 8	Prog input 9 configured as voltage input				2.4	
	Bit 9	Prog input 10 configured as voltage input				2.4	
	Bit 10	Prog input 11 configured as voltage input				2.4	
	Bit 11	Prog input 12 configured as voltage input				2.4	
	Bit 12	Prog input 13 configured as voltage input				2.4	
	Bit 13	Prog input 14 configured as voltage input				2.4	
	Bit 14	Prog input 15 configured as voltage input				2.4	
	Bit 15	Prog input 16 configured as voltage input				2.4	
2298		Battery symmetry input status (Major alarm) - Fleximonitor 8				2.4	
	Bit 0	Battery symmetry input 1				2.4	
	Bit 1	Battery symmetry input 2				2.4	
	Bit 2	Battery symmetry input 3				2.4	
	Bit 3	Battery symmetry input 4				2.4	
	Bit 4	Battery symmetry input 5				2.4	
	Bit 5	Battery symmetry input 6				2.4	
	Bit 6	Battery symmetry input 7				2.4	
	Bit 7	Battery symmetry input 8				2.4	
	Bit 8	Battery symmetry input 9				2.4	
	Bit 9	Battery symmetry input 10				2.4	
	Bit 10	Battery symmetry input 11				2.4	
	Bit 11	Battery symmetry input 12				2.4	
	Bit 12	Battery symmetry input 13				2.4	
	Bit 13	Battery symmetry input 14				2.4	
	Bit 14	Battery symmetry input 15				2.4	
	Bit 15	Battery symmetry input 16				2.4	
2299	0.01 Volt	Battery symmetry input 1 delta voltage – Fleximonitor 8				2.4	
2300	0.01 Volt	Battery symmetry input 2 delta voltage – Fleximonitor 8				2.4	
2301	0.01 Volt	Battery symmetry input 3 delta voltage – Fleximonitor 8				2.4	
2302	0.01 Volt	Battery symmetry input 4 delta voltage – Fleximonitor 8				2.4	
2303	0.01 Volt	Battery symmetry input 5 delta voltage – Fleximonitor 8				2.4	
2304	0.01 Volt	Battery symmetry input 6 delta voltage – Fleximonitor 8				2.4	
2305	0.01 Volt	Battery symmetry input 7 delta voltage – Fleximonitor 8				2.4	
2306	0.01 Volt	Battery symmetry input 8 delta voltage – Fleximonitor 8				2.4	
2307	0.01 Volt	Battery symmetry input 9 delta voltage – Fleximonitor 8				2.4	
2308	0.01 Volt	Battery symmetry input 10 delta voltage – Fleximonitor 8				2.4	
2309	0.01 Volt	Battery symmetry input 11 delta voltage – Fleximonitor 8				2.4	
2310	0.01 Volt	Battery symmetry input 12 delta voltage – Fleximonitor 8				2.4	
2311	0.01 Volt	Battery symmetry input 13 delta voltage – Fleximonitor 8				2.4	
2312	0.01 Volt	Battery symmetry input 14 delta voltage – Fleximonitor 8				2.4	
2313	0.01 Volt	Battery symmetry input 15 delta voltage – Fleximonitor 8				2.4	
2314	0.01 Volt	Battery symmetry input 16 delta voltage – Fleximonitor 8				2.4	
2315	0.01 Volt	Battery symmetry input 1 measured voltage – Fleximonitor 8				2.4	
2316	0.01 Volt	Battery symmetry input 2 measured voltage – Fleximonitor 8				2.4	
2317	0.01 Volt	Battery symmetry input 3 measured voltage – Fleximonitor 8				2.4	
2318	0.01 Volt	Battery symmetry input 4 measured voltage – Fleximonitor 8				2.4	
2319	0.01 Volt	Battery symmetry input 5 measured voltage – Fleximonitor 8				2.4	
2320	0.01 Volt	Battery symmetry input 6 measured voltage – Fleximonitor 8				2.4	
2321	0.01 Volt	Battery symmetry input 7 measured voltage – Fleximonitor 8				2.4	
2322	0.01 Volt	Battery symmetry input 8 measured voltage – Fleximonitor 8				2.4	
2323	0.01 Volt	Battery symmetry input 9 measured voltage – Fleximonitor 8				2.4	



SmartPack ModBus Description

Utført-Prepared Jin Jun/Ole Morten Lunden	Dato-Date 17/01/2022 15:08:00	Utgave-Issue 28	Dokumentnr.-Document No. 2027380
--	----------------------------------	--------------------	-------------------------------------

2324	0.01 Volt	Battery symmetry input 10 measured voltage – Fleximonitor 8				2.4	
2325	0.01 Volt	Battery symmetry input 11 measured voltage – Fleximonitor 8				2.4	
2326	0.01 Volt	Battery symmetry input 12 measured voltage – Fleximonitor 8				2.4	
2327	0.01 Volt	Battery symmetry input 13 measured voltage – Fleximonitor 8				2.4	
2328	0.01 Volt	Battery symmetry input 14 measured voltage – Fleximonitor 8				2.4	
2329	0.01 Volt	Battery symmetry input 15 measured voltage – Fleximonitor 8				2.4	
2330	0.01 Volt	Battery symmetry input 16 measured voltage – Fleximonitor 8				2.4	
2331		Fleximonitor 8 configured as Battery Monitor				2.4	
	Bit 0	Prog input 1 configured as fuse input				2.4	
	Bit 1	Prog input 2 configured as fuse input				2.4	
	Bit 2	Prog input 3 configured as fuse input				2.4	
	Bit 3	Prog input 4 configured as fuse input				2.4	
	Bit 4	Prog input 5 configured as fuse input				2.4	
	Bit 5	Prog input 6 configured as fuse input				2.4	
	Bit 6	Prog input 7 configured as fuse input				2.4	
	Bit 7	Prog input 8 configured as fuse input				2.4	
	Bit 8	Prog input 9 configured as fuse input				2.4	
	Bit 9	Prog input 10 configured as fuse input				2.4	
	Bit 10	Prog input 11 configured as fuse input				2.4	
	Bit 11	Prog input 12 configured as fuse input				2.4	
	Bit 12	Prog input 13 configured as fuse input				2.4	
	Bit 13	Prog input 14 configured as fuse input				2.4	
	Bit 14	Prog input 15 configured as fuse input				2.4	
	Bit 15	Prog input 16 configured as fuse input				2.4	
2332		Battery fuse input status (Major alarm) - Fleximonitor 8				2.4	
	Bit 0	Battery fuse input 1				2.4	
	Bit 1	Battery fuse input 2				2.4	
	Bit 2	Battery fuse input 3				2.4	
	Bit 3	Battery fuse input 4				2.4	
	Bit 4	Battery fuse input 5				2.4	
	Bit 5	Battery fuse input 6				2.4	
	Bit 6	Battery fuse input 7				2.4	
	Bit 7	Battery fuse input 8				2.4	
	Bit 8	Battery fuse input 9				2.4	
	Bit 9	Battery fuse input 10				2.4	
	Bit 10	Battery fuse input 11				2.4	
	Bit 11	Battery fuse input 12				2.4	
	Bit 12	Battery fuse input 13				2.4	
	Bit 13	Battery fuse input 14				2.4	
	Bit 14	Battery fuse input 15				2.4	
	Bit 15	Battery fuse input 16				2.4	
2333		Fleximonitor 8 configured as Battery Monitor				2.4	
	Bit 0	Prog input 1 configured as current input				2.4	
	Bit 1	Prog input 2 configured as current input				2.4	
	Bit 2	Prog input 3 configured as current input				2.4	
	Bit 3	Prog input 4 configured as current input				2.4	
	Bit 4	Prog input 5 configured as current input				2.4	
	Bit 5	Prog input 6 configured as current input				2.4	
	Bit 6	Prog input 7 configured as current input				2.4	
	Bit 7	Prog input 8 configured as current input				2.4	
	Bit 8	Prog input 9 configured as current input				2.4	
	Bit 9	Prog input 10 configured as current input				2.4	
	Bit 10	Prog input 11 configured as current input				2.4	
	Bit 11	Prog input 12 configured as current input				2.4	
	Bit 12	Prog input 13 configured as current input				2.4	
	Bit 13	Prog input 14 configured as current input				2.4	



SmartPack ModBus Description

Utført-Prepared Jin Jun/Ole Morten Lunden	Dato-Date 17/01/2022 15:08:00	Utgave-Issue 28	Dokumentnr.-Document No. 2027380
--	----------------------------------	--------------------	-------------------------------------

	Bit 14	Prog input 15 configured as current input				2.4	
	Bit 15	Prog input 16 configured as current input				2.4	
2334	1 Amp	Battery current 1– Fleximonitor 8				2.4	
2335	1 Amp	Battery current 2– Fleximonitor 8				2.4	
2336	1 Amp	Battery current 3– Fleximonitor 8				2.4	
2337	1 Amp	Battery current 4– Fleximonitor 8				2.4	
2338	1 Amp	Battery current 5– Fleximonitor 8				2.4	
2339	1 Amp	Battery current 6– Fleximonitor 8				2.4	
2340	1 Amp	Battery current 7– Fleximonitor 8				2.4	
2341	1 Amp	Battery current 8– Fleximonitor 8				2.4	
2342	1 Amp	Battery current 9– Fleximonitor 8				2.4	
2343	1 Amp	Battery current 10– Fleximonitor 8				2.4	
2344	1 Amp	Battery current 11– Fleximonitor 8				2.4	
2345	1 Amp	Battery current 12– Fleximonitor 8				2.4	
2346	1 Amp	Battery current 13– Fleximonitor 8				2.4	
2347	1 Amp	Battery current 14– Fleximonitor 8				2.4	
2348	1 Amp	Battery current 15– Fleximonitor 8				2.4	
2349	1 Amp	Battery current 16– Fleximonitor 8				2.4	
2350		Fleximonitor 8 configured as Battery Monitor				2.4	
	Bit 0	Prog input 1 configured as temperature input				2.4	
	Bit 1	Prog input 2 configured as temperature input				2.4	
	Bit 2	Prog input 3 configured as temperature input				2.4	
	Bit 3	Prog input 4 configured as temperature input				2.4	
	Bit 4	Prog input 5 configured as temperature input				2.4	
	Bit 5	Prog input 6 configured as temperature input				2.4	
	Bit 6	Prog input 7 configured as temperature input				2.4	
	Bit 7	Prog input 8 configured as temperature input				2.4	
	Bit 8	Prog input 9 configured as temperature input				2.4	
	Bit 9	Prog input 10 configured as temperature input				2.4	
	Bit 10	Prog input 11 configured as temperature input				2.4	
	Bit 11	Prog input 12 configured as temperature input				2.4	
	Bit 12	Prog input 13 configured as temperature input				2.4	
	Bit 13	Prog input 14 configured as temperature input				2.4	
	Bit 14	Prog input 15 configured as temperature input				2.4	
	Bit 15	Prog input 16 configured as temperature input				2.4	
2351		Battery temperature input status (Major High) - Fleximonitor 8				2.4	
	Bit 0	Battery temperature input 1				2.4	
	Bit 1	Battery temperature input 2				2.4	
	Bit 2	Battery temperature input 3				2.4	
	Bit 3	Battery temperature input 4				2.4	
	Bit 4	Battery temperature input 5				2.4	
	Bit 5	Battery temperature input 6				2.4	
	Bit 6	Battery temperature input 7				2.4	
	Bit 7	Battery temperature input 8				2.4	
	Bit 8	Battery temperature input 9				2.4	
	Bit 9	Battery temperature input 10				2.4	
	Bit 10	Battery temperature input 11				2.4	
	Bit 11	Battery temperature input 12				2.4	
	Bit 12	Battery temperature input 13				2.4	
	Bit 13	Battery temperature input 14				2.4	
	Bit 14	Battery temperature input 15				2.4	
	Bit 15	Battery temperature input 16				2.4	
2352	1 degree	Battery temperature 1– Fleximonitor 8				2.4	
2353	1 degree	Battery temperature 2– Fleximonitor 8				2.4	
2354	1 degree	Battery temperature 3– Fleximonitor 8				2.4	
2355	1 degree	Battery temperature 4– Fleximonitor 8				2.4	
2356	1 degree	Battery temperature 5– Fleximonitor 8				2.4	
2357	1 degree	Battery temperature 6– Fleximonitor 8				2.4	
2358	1 degree	Battery temperature 7– Fleximonitor 8				2.4	
2359	1 degree	Battery temperature 8– Fleximonitor 8				2.4	
2360	1 degree	Battery temperature 9– Fleximonitor 8				2.4	



SmartPack ModBus Description

Urført-Prepared Jin Jun/Ole Morten Lunden	Dato-Date 17/01/2022 15:08:00	Utgave-Issue 28	Dokumentnr.-Document No. 2027380
--	----------------------------------	--------------------	-------------------------------------

2361	1 degree	Battery temperature 10– Fleximonitor 8				2.4	
2362	1 degree	Battery temperature 11– Fleximonitor 8				2.4	
2363	1 degree	Battery temperature 12– Fleximonitor 8				2.4	
2364	1 degree	Battery temperature 13– Fleximonitor 8				2.4	
2365	1 degree	Battery temperature 14– Fleximonitor 8				2.4	
2366	1 degree	Battery temperature 15– Fleximonitor 8				2.4	
2367	1 degree	Battery temperature 16– Fleximonitor 8				2.4	

Reg Addr	Range	Register Function	SN	BI	SPX RTU	SPX TCP	Auto Test
2370		Rectifier Error Status		3.2	2.8	2.6	y
2371	1 amp	Rectifier DC Current		3.2	2.8	2.6	y
2372	0.1 amp	Rectifier AC Out Current #1		3.2	2.8	2.6	y
2373	0.1 amp	Rectifier AC Out Current #2		3.2	2.8	2.6	y
2374	0.1 amp	Rectifier AC Out Current #3		3.2	2.8	2.6	y
2375	1 Volt	Rectifier AC Out Voltage #1		3.2	2.8	2.6	y
2376	1 Volt	Rectifier AC Out Voltage #2		3.2	2.8	2.6	y
2377	1 Volt	Rectifier AC Out Voltage #3		3.2	2.8	2.6	y
2378	1 Degree C	Rectifier Temperature		3.2	2.8	2.6	y
2379	0.01 Hz	Rectifier Frequency		3.2	2.8	2.6	y

Note: address 2370-2379 are total values for rectifiers for both CAN1 and CAN2.

RegAddr	Range	Register Function	SN	BI	SPX RTU	SPX TCP	Auto Test
2380		Fleximonitor 1 configured as Load Monitor				2.6	y
	Bit 0	Prog input 1 configured as current input				2.6	y
	Bit 1	Prog input 2 configured as current input				2.6	y
	Bit 2	Prog input 3 configured as current input				2.6	y
	Bit 3	Prog input 4 configured as current input				2.6	y
	Bit 4	Prog input 5 configured as current input				2.6	y
	Bit 5	Prog input 6 configured as current input				2.6	y
	Bit 6	Prog input 7 configured as current input				2.6	y
	Bit 7	Prog input 8 configured as current input				2.6	y
	Bit 8	Prog input 9 configured as current input				2.6	y
	Bit 9	Prog input 10 configured as current input				2.6	y
	Bit 10	Prog input 11 configured as current input				2.6	y
	Bit 11	Prog input 12 configured as current input				2.6	y
	Bit 12	Prog input 13 configured as current input				2.6	y
	Bit 13	Prog input 14 configured as current input				2.6	y
	Bit 14	Prog input 15 configured as current input				2.6	y
	Bit 15	Prog input 16 configured as current input				2.6	y
2381	1 Wh	Load energy 1 MSB– Fleximonitor 1				2.6	y
2382	1 Wh	Load energy 1 LSB– Fleximonitor 1				2.6	y
2383	1 Wh	Load energy 2 MSB– Fleximonitor 1				2.6	y
2384	1 Wh	Load energy 2 LSB– Fleximonitor 1				2.6	y
2385	1 Wh	Load energy 3 MSB– Fleximonitor 1				2.6	y
2386	1 Wh	Load energy 3 LSB– Fleximonitor 1				2.6	y
2387	1 Wh	Load energy 4 MSB– Fleximonitor 1				2.6	y
2388	1 Wh	Load energy 4 LSB– Fleximonitor 1				2.6	y
2389	1 Wh	Load energy 5 MSB– Fleximonitor 1				2.6	y
2390	1 Wh	Load energy 5 LSB– Fleximonitor 1				2.6	y
2391	1 Wh	Load energy 6 MSB– Fleximonitor 1				2.6	y
2392	1 Wh	Load energy 6 LSB– Fleximonitor 1				2.6	y
2393	1 Wh	Load energy 7 MSB– Fleximonitor 1				2.6	y
2394	1 Wh	Load energy 7 LSB– Fleximonitor 1				2.6	y
2395	1 Wh	Load energy 8 MSB– Fleximonitor 1				2.6	y
2396	1 Wh	Load energy 8 LSB– Fleximonitor 1				2.6	y
2397	1 Wh	Load energy 9 MSB– Fleximonitor 1				2.6	y
2398	1 Wh	Load energy 9 LSB– Fleximonitor 1				2.6	y
2399	1 Wh	Load energy 10 MSB– Fleximonitor 1				2.6	y
2400	1 Wh	Load energy 10 LSB– Fleximonitor 1				2.6	y



SmartPack ModBus Description

Utført-Prepared Jin Jun/Ole Morten Lunden	Dato-Date 17/01/2022 15:08:00	Utgave-Issue 28	Dokumentnr.-Document No. 2027380
--	----------------------------------	--------------------	-------------------------------------

2401	1 Wh	Load energy 11 MSB– Fleximonitor 1				2.6	y
2402	1 Wh	Load energy 11 LSB– Fleximonitor 1				2.6	y
2403	1 Wh	Load energy 12 MSB– Fleximonitor 1				2.6	y
2404	1 Wh	Load energy 12 LSB– Fleximonitor 1				2.6	y
2405	1 Wh	Load energy 13 MSB– Fleximonitor 1				2.6	y
2406	1 Wh	Load energy 13 LSB– Fleximonitor 1				2.6	y
2407	1 Wh	Load energy 14 MSB– Fleximonitor 1				2.6	y
2408	1 Wh	Load energy 14 LSB– Fleximonitor 1				2.6	y
2409	1 Wh	Load energy 15 MSB– Fleximonitor 1				2.6	y
2410	1 Wh	Load energy 15 LSB– Fleximonitor 1				2.6	y
2411	1 Wh	Load energy 16 MSB– Fleximonitor 1				2.6	y
2412	1 Wh	Load energy 16 LSB– Fleximonitor 1				2.6	y
2413		Fleximonitor 2 configured as Load Monitor				2.6	y
	Bit 0	Prog input 1 configured as current input				2.6	y
	Bit 1	Prog input 2 configured as current input				2.6	y
	Bit 2	Prog input 3 configured as current input				2.6	y
	Bit 3	Prog input 4 configured as current input				2.6	y
	Bit 4	Prog input 5 configured as current input				2.6	y
	Bit 5	Prog input 6 configured as current input				2.6	y
	Bit 6	Prog input 7 configured as current input				2.6	y
	Bit 7	Prog input 8 configured as current input				2.6	y
	Bit 8	Prog input 9 configured as current input				2.6	y
	Bit 9	Prog input 10 configured as current input				2.6	y
	Bit 10	Prog input 11 configured as current input				2.6	y
	Bit 11	Prog input 12 configured as current input				2.6	y
	Bit 12	Prog input 13 configured as current input				2.6	y
	Bit 13	Prog input 14 configured as current input				2.6	y
	Bit 14	Prog input 15 configured as current input				2.6	y
	Bit 15	Prog input 16 configured as current input				2.6	y
2414	1 Wh	Load energy 1 MSB– Fleximonitor 2				2.6	y
2415	1 Wh	Load energy 1 LSB– Fleximonitor 2				2.6	y
2416	1 Wh	Load energy 2 MSB– Fleximonitor 2				2.6	y
2417	1 Wh	Load energy 2 LSB– Fleximonitor 2				2.6	y
2418	1 Wh	Load energy 3 MSB– Fleximonitor 2				2.6	y
2419	1 Wh	Load energy 3 LSB– Fleximonitor 2				2.6	y
2420	1 Wh	Load energy 4 MSB– Fleximonitor 2				2.6	y
2421	1 Wh	Load energy 4 LSB– Fleximonitor 2				2.6	y
2422	1 Wh	Load energy 5 MSB– Fleximonitor 2				2.6	y
2423	1 Wh	Load energy 5 LSB– Fleximonitor 2				2.6	y
2424	1 Wh	Load energy 6 MSB– Fleximonitor 2				2.6	y
2425	1 Wh	Load energy 6 LSB– Fleximonitor 2				2.6	y
2426	1 Wh	Load energy 7 MSB– Fleximonitor 2				2.6	y
2427	1 Wh	Load energy 7 LSB– Fleximonitor 2				2.6	y
2428	1 Wh	Load energy 8 MSB– Fleximonitor 2				2.6	y
2429	1 Wh	Load energy 8 LSB– Fleximonitor 2				2.6	y
2430	1 Wh	Load energy 9 MSB– Fleximonitor 2				2.6	y
2431	1 Wh	Load energy 9 LSB– Fleximonitor 2				2.6	y
2432	1 Wh	Load energy 10 MSB– Fleximonitor 2				2.6	y
2433	1 Wh	Load energy 10 LSB– Fleximonitor 2				2.6	y
2434	1 Wh	Load energy 11 MSB– Fleximonitor2				2.6	y
2435	1 Wh	Load energy 11 LSB– Fleximonitor 2				2.6	y
2436	1 Wh	Load energy 12 MSB– Fleximonitor 2				2.6	y
2437	1 Wh	Load energy 12 LSB– Fleximonitor 2				2.6	y
2438	1 Wh	Load energy 13 MSB– Fleximonitor 2				2.6	y
2439	1 Wh	Load energy 13 LSB– Fleximonitor 2				2.6	y
2440	1 Wh	Load energy 14 MSB– Fleximonitor 2				2.6	y
2441	1 Wh	Load energy 14 LSB– Fleximonitor 2				2.6	y
2442	1 Wh	Load energy 15 MSB– Fleximonitor 2				2.6	y
2443	1 Wh	Load energy 15 LSB– Fleximonitor 2				2.6	y
2444	1 Wh	Load energy 16 MSB– Fleximonitor 2				2.6	y
2445	1 Wh	Load energy 16 LSB– Fleximonitor 2				2.6	y
2446		Fleximonitor 3 configured as Load Monitor				2.6	



SmartPack ModBus Description

Utført-Prepared Jin Jun/Ole Morten Lunden	Dato-Date 17/01/2022 15:08:00	Utgave-Issue 28	Dokumentnr.-Document No. 2027380
--	----------------------------------	--------------------	-------------------------------------

	Bit 0	Prog input 1 configured as current input				2.6	
	Bit 1	Prog input 2 configured as current input				2.6	
	Bit 2	Prog input 3 configured as current input				2.6	
	Bit 3	Prog input 4 configured as current input				2.6	
	Bit 4	Prog input 5 configured as current input				2.6	
	Bit 5	Prog input 6 configured as current input				2.6	
	Bit 6	Prog input 7 configured as current input				2.6	
	Bit 7	Prog input 8 configured as current input				2.6	
	Bit 8	Prog input 9 configured as current input				2.6	
	Bit 9	Prog input 10 configured as current input				2.6	
	Bit 10	Prog input 11 configured as current input				2.6	
	Bit 11	Prog input 12 configured as current input				2.6	
	Bit 12	Prog input 13 configured as current input				2.6	
	Bit 13	Prog input 14 configured as current input				2.6	
	Bit 14	Prog input 15 configured as current input				2.6	
	Bit 15	Prog input 16 configured as current input				2.6	
2447	1 Wh	Load energy 1 MSB- Fleximonitor 3				2.6	
2448	1 Wh	Load energy 1 LSB- Fleximonitor 3				2.6	
2449	1 Wh	Load energy 2 MSB- Fleximonitor 3				2.6	
2450	1 Wh	Load energy 2 LSB- Fleximonitor 3				2.6	
2451	1 Wh	Load energy 3 MSB- Fleximonitor 3				2.6	
2452	1 Wh	Load energy 3 LSB- Fleximonitor 3				2.6	
2453	1 Wh	Load energy 4 MSB- Fleximonitor 3				2.6	
2454	1 Wh	Load energy 4 LSB- Fleximonitor 3				2.6	
2455	1 Wh	Load energy 5 MSB- Fleximonitor 3				2.6	
2456	1 Wh	Load energy 5 LSB- Fleximonitor 3				2.6	
2457	1 Wh	Load energy 6 MSB- Fleximonitor 3				2.6	
2458	1 Wh	Load energy 6 LSB- Fleximonitor 3				2.6	
2459	1 Wh	Load energy 7 MSB- Fleximonitor 3				2.6	
2460	1 Wh	Load energy 7 LSB- Fleximonitor 3				2.6	
2461	1 Wh	Load energy 8 MSB- Fleximonitor 3				2.6	
2462	1 Wh	Load energy 8 LSB- Fleximonitor 3				2.6	
2463	1 Wh	Load energy 9 MSB- Fleximonitor 3				2.6	
2464	1 Wh	Load energy 9 LSB- Fleximonitor 3				2.6	
2465	1 Wh	Load energy 10 MSB- Fleximonitor 3				2.6	
2466	1 Wh	Load energy 10 LSB- Fleximonitor 3				2.6	
2467	1 Wh	Load energy 11 MSB- Fleximonitor3				2.6	
2468	1 Wh	Load energy 11 LSB- Fleximonitor 3				2.6	
2469	1 Wh	Load energy 12 MSB- Fleximonitor 3				2.6	
2470	1 Wh	Load energy 12 LSB- Fleximonitor 3				2.6	
2471	1 Wh	Load energy 13 MSB- Fleximonitor 3				2.6	
2472	1 Wh	Load energy 13 LSB- Fleximonitor 3				2.6	
2473	1 Wh	Load energy 14 MSB- Fleximonitor 3				2.6	
2474	1 Wh	Load energy 14 LSB- Fleximonitor 3				2.6	
2475	1 Wh	Load energy 15 MSB- Fleximonitor 3				2.6	
2476	1 Wh	Load energy 15 LSB- Fleximonitor 3				2.6	
2477	1 Wh	Load energy 16 MSB- Fleximonitor 3				2.6	
2478	1 Wh	Load energy 16 LSB- Fleximonitor 3				2.6	
2479		Fleximonitor 4 configured as Load Monitor				2.6	
	Bit 0	Prog input 1 configured as current input				2.6	
	Bit 1	Prog input 2 configured as current input				2.6	
	Bit 2	Prog input 3 configured as current input				2.6	
	Bit 3	Prog input 4 configured as current input				2.6	
	Bit 4	Prog input 5 configured as current input				2.6	
	Bit 5	Prog input 6 configured as current input				2.6	
	Bit 6	Prog input 7 configured as current input				2.6	
	Bit 7	Prog input 8 configured as current input				2.6	
	Bit 8	Prog input 9 configured as current input				2.6	
	Bit 9	Prog input 10 configured as current input				2.6	
	Bit 10	Prog input 11 configured as current input				2.6	
	Bit 11	Prog input 12 configured as current input				2.6	
	Bit 12	Prog input 13 configured as current input				2.6	



SmartPack ModBus Description

Utført-Prepared Jin Jun/Ole Morten Lunden	Dato-Date 17/01/2022 15:08:00	Utgave-Issue 28	Dokumentnr.-Document No. 2027380
--	----------------------------------	--------------------	-------------------------------------

	Bit 13	Prog input 14 configured as current input				2.6	
	Bit 14	Prog input 15 configured as current input				2.6	
	Bit 15	Prog input 16 configured as current input				2.6	
2480	1 Wh	Load energy 1 MSB- Fleximonitor 4				2.6	
2481	1 Wh	Load energy 1 LSB- Fleximonitor 4				2.6	
2482	1 Wh	Load energy 2 MSB- Fleximonitor 4				2.6	
2483	1 Wh	Load energy 2 LSB- Fleximonitor 4				2.6	
2484	1 Wh	Load energy 3 MSB- Fleximonitor 4				2.6	
2485	1 Wh	Load energy 3 LSB- Fleximonitor 4				2.6	
2486	1 Wh	Load energy 4 MSB- Fleximonitor 4				2.6	
2487	1 Wh	Load energy 4 LSB- Fleximonitor 4				2.6	
2488	1 Wh	Load energy 5 MSB- Fleximonitor 4				2.6	
2489	1 Wh	Load energy 5 LSB- Fleximonitor 4				2.6	
2490	1 Wh	Load energy 6 MSB- Fleximonitor 4				2.6	
2491	1 Wh	Load energy 6 LSB- Fleximonitor 4				2.6	
2492	1 Wh	Load energy 7 MSB- Fleximonitor 4				2.6	
2493	1 Wh	Load energy 7 LSB- Fleximonitor 4				2.6	
2494	1 Wh	Load energy 8 MSB- Fleximonitor 4				2.6	
2495	1 Wh	Load energy 8 LSB- Fleximonitor 4				2.6	
2496	1 Wh	Load energy 9 MSB- Fleximonitor 4				2.6	
2497	1 Wh	Load energy 9 LSB- Fleximonitor 4				2.6	
2498	1 Wh	Load energy 10 MSB- Fleximonitor 4				2.6	
2499	1 Wh	Load energy 10 LSB- Fleximonitor 4				2.6	
2500	1 Wh	Load energy 11 MSB- Fleximonitor 4				2.6	
2501	1 Wh	Load energy 11 LSB- Fleximonitor 4				2.6	
2502	1 Wh	Load energy 12 MSB- Fleximonitor 4				2.6	
2503	1 Wh	Load energy 12 LSB- Fleximonitor 4				2.6	
2504	1 Wh	Load energy 13 MSB- Fleximonitor 4				2.6	
2505	1 Wh	Load energy 13 LSB- Fleximonitor 4				2.6	
2506	1 Wh	Load energy 14 MSB- Fleximonitor 4				2.6	
2507	1 Wh	Load energy 14 LSB- Fleximonitor 4				2.6	
2508	1 Wh	Load energy 15 MSB- Fleximonitor 4				2.6	
2509	1 Wh	Load energy 15 LSB- Fleximonitor 4				2.6	
2510	1 Wh	Load energy 16 MSB- Fleximonitor 4				2.6	
2511	1 Wh	Load energy 16 LSB- Fleximonitor 4				2.6	

Reg Addr	Range	Register Function	SN	BI	SPX RTU	SPX TCP	Auto Test
2600		Rectifier Error Status group #1			2.10	2.10	
2601	1 amp	Rectifier DC Current group #1			2.10	2.10	
2602	0.1 amp	Rectifier AC Out Current #1 group #1			2.10	2.10	
2603	0.1 amp	Rectifier AC Out Current #2 group #1			2.10	2.10	
2604	0.1 amp	Rectifier AC Out Current #3 group #1			2.10	2.10	
2605	1 Volt	Rectifier AC Out Voltage #1 group #1			2.10	2.10	
2606	1 Volt	Rectifier AC Out Voltage #2 group #1			2.10	2.10	
2607	1 Volt	Rectifier AC Out Voltage #3 group #1			2.10	2.10	
2608	1 Degree C	Rectifier Temperature group #1			2.10	2.10	
2609	0.01 Hz	Rectifier Frequency group #1			2.10	2.10	

Reg Addr	Range	Register Function	SN	BI	SPX RTU	SPX TCP	Auto Test
2610		Rectifier Error Status group #2			2.10	2.10	
2611	1 amp	Rectifier DC Current group #2			2.10	2.10	
2612	0.1 amp	Rectifier AC Out Current #1 group #2			2.10	2.10	
2613	0.1 amp	Rectifier AC Out Current #2 group #2			2.10	2.10	
2614	0.1 amp	Rectifier AC Out Current #3 group #2			2.10	2.10	
2615	1 Volt	Rectifier AC Out Voltage #1 group #2			2.10	2.10	
2616	1 Volt	Rectifier AC Out Voltage #2 group #2			2.10	2.10	
2617	1 Volt	Rectifier AC Out Voltage #3 group #2			2.10	2.10	
2618	1 Degree C	Rectifier Temperature group #2			2.10	2.10	
2619	0.01 Hz	Rectifier Frequency group #2			2.10	2.10	



SmartPack ModBus Description

Utført-Prepared Jin Jun/Ole Morten Lunden	Dato-Date 17/01/2022 15:08:00	Utgave-Issue 28	Dokumentnr.-Document No. 2027380
--	----------------------------------	--------------------	-------------------------------------

Reg Addr	Range	Register Function	SN	BI	SPX RTU	SPX TCP	Auto Test
2620		Rectifier Error Status group #3			2.10	2.10	
2621	1 amp	Rectifier DC Current group #3			2.10	2.10	
2622	0.1 amp	Rectifier AC Out Current #1 group #3			2.10	2.10	
2623	0.1 amp	Rectifier AC Out Current #2 group #3			2.10	2.10	
2624	0.1 amp	Rectifier AC Out Current #3 group #3			2.10	2.10	
2625	1 Volt	Rectifier AC Out Voltage #1 group #3			2.10	2.10	
2626	1 Volt	Rectifier AC Out Voltage #2 group #3			2.10	2.10	
2627	1 Volt	Rectifier AC Out Voltage #3 group #3			2.10	2.10	
2628	1 Degree C	Rectifier Temperature group #3			2.10	2.10	
2629	0.01 Hz	Rectifier Frequency group #3			2.10	2.10	

Reg Addr	Range	Register Function	SN	BI	SPX RTU	SPX TCP	Auto Test
2630		Rectifier Error Status group #4			2.10	2.10	
2631	1 amp	Rectifier DC Current group #4			2.10	2.10	
2632	0.1 amp	Rectifier AC Out Current #1 group #4			2.10	2.10	
2633	0.1 amp	Rectifier AC Out Current #2 group #4			2.10	2.10	
2634	0.1 amp	Rectifier AC Out Current #3 group #4			2.10	2.10	
2635	1 Volt	Rectifier AC Out Voltage #1 group #4			2.10	2.10	
2636	1 Volt	Rectifier AC Out Voltage #2 group #4			2.10	2.10	
2637	1 Volt	Rectifier AC Out Voltage #3 group #4			2.10	2.10	
2638	1 Degree C	Rectifier Temperature group #4			2.10	2.10	
2639	0.01 Hz	Rectifier Frequency group #4			2.10	2.10	

Reg Addr	Range	Register Function	SN	BI	SPX RTU	SPX TCP	Auto Test
2640		Rectifier Error Status group #5			2.10	2.10	
2641	1 amp	Rectifier DC Current group #5			2.10	2.10	
2642	0.1 amp	Rectifier AC Out Current #1 group #5			2.10	2.10	
2643	0.1 amp	Rectifier AC Out Current #2 group #5			2.10	2.10	
2644	0.1 amp	Rectifier AC Out Current #3 group #5			2.10	2.10	
2645	1 Volt	Rectifier AC Out Voltage #1 group #5			2.10	2.10	
2646	1 Volt	Rectifier AC Out Voltage #2 group #5			2.10	2.10	
2647	1 Volt	Rectifier AC Out Voltage #3 group #5			2.10	2.10	
2648	1 Degree C	Rectifier Temperature group #5			2.10	2.10	
2649	0.01 Hz	Rectifier Frequency group #5			2.10	2.10	

Reg Addr	Range	Register Function	SN	BI	SPX RTU	SPX TCP	Auto Test
2650		Rectifier Error Status group #6			2.10	2.10	
2651	1 amp	Rectifier DC Current group #6			2.10	2.10	
2652	0.1 amp	Rectifier AC Out Current #1 group #6			2.10	2.10	
2653	0.1 amp	Rectifier AC Out Current #2 group #6			2.10	2.10	
2654	0.1 amp	Rectifier AC Out Current #3 group #6			2.10	2.10	
2655	1 Volt	Rectifier AC Out Voltage #1 group #6			2.10	2.10	
2656	1 Volt	Rectifier AC Out Voltage #2 group #6			2.10	2.10	
2657	1 Volt	Rectifier AC Out Voltage #3 group #6			2.10	2.10	
2658	1 Degree C	Rectifier Temperature group #6			2.10	2.10	
2659	0.01 Hz	Rectifier Frequency group #6			2.10	2.10	

Reg Addr	Range	Register Function	SN	BI	SPX RTU	SPX TCP	Auto Test
2660		Rectifier Error Status group #7			2.10	2.10	
2661	1 amp	Rectifier DC Current group #7			2.10	2.10	
2662	0.1 amp	Rectifier AC Out Current #1 group #7			2.10	2.10	
2663	0.1 amp	Rectifier AC Out Current #2 group #7			2.10	2.10	
2664	0.1 amp	Rectifier AC Out Current #3 group #7			2.10	2.10	
2665	1 Volt	Rectifier AC Out Voltage #1 group #7			2.10	2.10	
2666	1 Volt	Rectifier AC Out Voltage #2 group #7			2.10	2.10	



SmartPack ModBus Description

Utført-Prepared Jin Jun/Ole Morten Lunden	Dato-Date 17/01/2022 15:08:00	Utgave-Issue 28	Dokumentnr.-Document No. 2027380
--	----------------------------------	--------------------	-------------------------------------

2667	1 Volt	Rectifier AC Out Voltage #3 group #7			2.10	2.10	
2668	1 Degree C	Rectifier Temperature group #7			2.10	2.10	
2669	0.01 Hz	Rectifier Frequency group #7			2.10	2.10	

Reg Addr	Range	Register Function	SN	BI	SPX RTU	SPX TCP	Auto Test
2670		Rectifier Error Status group #8			2.10	2.10	
2671	1 amp	Rectifier DC Current group #8			2.10	2.10	
2672	0.1 amp	Rectifier AC Out Current #1 group #8			2.10	2.10	
2673	0.1 amp	Rectifier AC Out Current #2 group #8			2.10	2.10	
2674	0.1 amp	Rectifier AC Out Current #3 group #8			2.10	2.10	
2675	1 Volt	Rectifier AC Out Voltage #1 group #8			2.10	2.10	
2676	1 Volt	Rectifier AC Out Voltage #2 group #8			2.10	2.10	
2677	1 Volt	Rectifier AC Out Voltage #3 group #8			2.10	2.10	
2678	1 Degree C	Rectifier Temperature group #8			2.10	2.10	
2679	0.01 Hz	Rectifier Frequency group #8			2.10	2.10	

Reg Addr	Range	Register Function	SN	BI	SPX RTU	SPX TCP	Auto Test
2680		Rectifier Error Status group #9			2.10	2.10	
2681	1 amp	Rectifier DC Current group #9			2.10	2.10	
2682	0.1 amp	Rectifier AC Out Current #1 group #9			2.10	2.10	
2683	0.1 amp	Rectifier AC Out Current #2 group #9			2.10	2.10	
2684	0.1 amp	Rectifier AC Out Current #3 group #9			2.10	2.10	
2685	1 Volt	Rectifier AC Out Voltage #1 group #9			2.10	2.10	
2686	1 Volt	Rectifier AC Out Voltage #2 group #9			2.10	2.10	
2687	1 Volt	Rectifier AC Out Voltage #3 group #9			2.10	2.10	
2688	1 Degree C	Rectifier Temperature group #9			2.10	2.10	
2689	0.01 Hz	Rectifier Frequency group #9			2.10	2.10	

Reg Addr	Range	Register Function	SN	BI	SPX RTU	SPX TCP	Auto Test
2690		Rectifier Error Status group #10			2.10	2.10	
2691	1 amp	Rectifier DC Current group #10			2.10	2.10	
2692	0.1 amp	Rectifier AC Out Current #1 group #10			2.10	2.10	
2693	0.1 amp	Rectifier AC Out Current #2 group #10			2.10	2.10	
2694	0.1 amp	Rectifier AC Out Current #3 group #10			2.10	2.10	
2695	1 Volt	Rectifier AC Out Voltage #1 group #10			2.10	2.10	
2696	1 Volt	Rectifier AC Out Voltage #2 group #10			2.10	2.10	
2697	1 Volt	Rectifier AC Out Voltage #3 group #10			2.10	2.10	
2698	1 Degree C	Rectifier Temperature group #10			2.10	2.10	
2699	0.01 Hz	Rectifier Frequency group #10			2.10	2.10	

Reg Addr	Range	Register Function	SN	BI	SPX RTU	SPX TCP	Auto Test
2700	1 watt	DC load power			2.11		
2701	1 kw	Rectifier AC total active power CAN#1			2.11		
2702	1 kw	Rectifier AC L1 active power CAN#1			2.11		
2703	1 kw	Rectifier AC L2 active power CAN#1			2.11		
2704	1 kw	Rectifier AC L3 active power CAN#1			2.11		
2705	1 kw	Rectifier AC total active power group #1			2.11		
2706	1 kw	Rectifier AC L1 active power group #1			2.11		
2707	1 kw	Rectifier AC L2 active power group #1			2.11		
2708	1 kw	Rectifier AC L3 active power group #1			2.11		
2709	1 kw	Rectifier AC total active power group #2			2.11		
2710	1 kw	Rectifier AC L1 active power group #2			2.11		
2711	1 kw	Rectifier AC L2 active power group #2			2.11		
2712	1 kw	Rectifier AC L3 active power group #2			2.11		
2713	1 kw	Rectifier AC total active power group #3			2.11		
2714	1 kw	Rectifier AC L1 active power group #3			2.11		
2715	1 kw	Rectifier AC L2 active power group #3			2.11		
2716	1 kw	Rectifier AC L3 active power group #3			2.11		



SmartPack ModBus Description

Utført-Prepared Jin Jun/Ole Morten Lunden	Dato-Date 17/01/2022 15:08:00	Utgave-Issue 28	Dokumentnr.-Document No. 2027380
--	----------------------------------	--------------------	-------------------------------------

2717	1 kw	Rectifierver AC total active power group #4			2.11		
2718	1 kw	Rectifierver AC L1 active power group #4			2.11		
2719	1 kw	Rectifierver AC L2 active power group #4			2.11		
2720	1 kw	Rectifierver AC L3 active power group #4			2.11		
2721	1 kw	Rectifierver AC total active power group #5			2.11		
2722	1 kw	Rectifierver AC L1 active power group #5			2.11		
2723	1 kw	Rectifierver AC L2 active power group #5			2.11		
2724	1 kw	Rectifierver AC L3 active power group #5			2.11		
2725	1 kw	Rectifierver AC total active power group #6			2.11		
2726	1 kw	Rectifierver AC L1 active power group #6			2.11		
2727	1 kw	Rectifierver AC L2 active power group #6			2.11		
2728	1 kw	Rectifierver AC L3 active power group #6			2.11		
2729	1 kw	Rectifierver AC total active power group #7			2.11		
2730	1 kw	Rectifierver AC L1 active power group #7			2.11		
2731	1 kw	Rectifierver AC L2 active power group #7			2.11		
2732	1 kw	Rectifierver AC L3 active power group #7			2.11		
2733	1 kw	Rectifierver AC total active power group #8			2.11		
2734	1 kw	Rectifierver AC L1 active power group #8			2.11		
2735	1 kw	Rectifierver AC L2 active power group #8			2.11		
2736	1 kw	Rectifierver AC L3 active power group #8			2.11		
2737	1 kw	Rectifierver AC total active power group #9			2.11		
2738	1 kw	Rectifierver AC L1 active power group #9			2.11		
2739	1 kw	Rectifierver AC L2 active power group #9			2.11		
2740	1 kw	Rectifierver AC L3 active power group #9			2.11		
2741	1 kw	Rectifierver AC total active power group #10			2.11		
2742	1 kw	Rectifierver AC L1 active power group #10			2.11		
2743	1 kw	Rectifierver AC L2 active power group #10			2.11		
2744	1 kw	Rectifierver AC L3 active power group #10			2.11		

RegAddr	Register Function (Rectifier Type in ASCII, one register represents two characters)	SN	BI	SPX RTU	SPX TCP	Auto Test
3000-3013	Rectifier type of rectifier #1	4.2				y
3014-3027	Rectifier type of rectifier #2	4.2				y
3028-3041	Rectifier type of rectifier #3	4.2				
3042-3055	Rectifier type of rectifier #4	4.2				
3056-3069	Rectifier type of rectifier #5	4.2				
3070-3083	Rectifier type of rectifier #6	4.2				
3084-3097	Rectifier type of rectifier #7	4.2				
3098-3111	Rectifier type of rectifier #8	4.2				
3112-3125	Rectifier type of rectifier #9	4.2				
3126-3139	Rectifier type of rectifier #10	4.2				
3140-3153	Rectifier type of rectifier #11	4.2				
3154-3167	Rectifier type of rectifier #12	4.2				
3168-3181	Rectifier type of rectifier #13	4.2				
3182-3195	Rectifier type of rectifier #14	4.2				



SmartPack ModBus Description

Utført-Prepared Jin Jun/Ole Morten Lunden	Dato-Date 17/01/2022 15:08:00	Utgave-Issue 28	Dokumentnr.-Document No. 2027380
--	----------------------------------	--------------------	-------------------------------------

3196-3209	Rectifier type of rectifier #15	4.2				
3210-3223	Rectifier type of rectifier #16	4.2				
3224-3237	Rectifier type of rectifier #17	4.2				
3238-3251	Rectifier type of rectifier #18	4.2				
3252-3265	Rectifier type of rectifier #19	4.2				
3266-3279	Rectifier type of rectifier #20	4.2				
3280-3293	Rectifier type of rectifier #21	4.2				
3294-3307	Rectifier type of rectifier #22	4.2				
3308-3321	Rectifier type of rectifier #23	4.2				
3322-3335	Rectifier type of rectifier #24	4.2				
3336-3349	Rectifier type of rectifier #25	4.2				
3350-3363	Rectifier type of rectifier #26	4.2				
3364-3377	Rectifier type of rectifier #27	4.2				
3378-3391	Rectifier type of rectifier #28	4.2				
3392-3405	Rectifier type of rectifier #29	4.2				
3406-3419	Rectifier type of rectifier #30	4.2				
3420-3433	Rectifier type of rectifier #31	4.2				
3434-3447	Rectifier type of rectifier #32	4.2				
3448-3461	Rectifier type of rectifier #33	4.2				
3462-3475	Rectifier type of rectifier #34	4.2				
3476-3489	Rectifier type of rectifier #35	4.2				
3490-3503	Rectifier type of rectifier #36	4.2				
3504-3517	Rectifier type of rectifier #37	4.2				
3518-3531	Rectifier type of rectifier #38	4.2				
3532-3545	Rectifier type of rectifier #39	4.2				
3546-3559	Rectifier type of rectifier #40	4.2				
3560-3573	Rectifier type of rectifier #41	4.2				
3574-3587	Rectifier type of rectifier #42	4.2				
3587-3601	Rectifier type of rectifier #43	4.2				
3602-3615	Rectifier type of rectifier #44	4.2				
3616-3629	Rectifier type of rectifier #45	4.2				
3630-3643	Rectifier type of rectifier #46	4.2				
3644-	Rectifier type of rectifier #47	4.2				



SmartPack ModBus Description

Utført-Prepared Jin Jun/Ole Morten Lunden	Dato-Date 17/01/2022 15:08:00	Utgave-Issue 28	Dokumentnr.-Document No. 2027380
--	----------------------------------	--------------------	-------------------------------------

3657					
3658-3671	Rectifier type of rectifier #48	4.2			
3672-3685	Rectifier type of rectifier #49	4.2			
3686-3699	Rectifier type of rectifier #50	4.2			
3700-3713	Rectifier type of rectifier #51	4.2			
3714-3727	Rectifier type of rectifier #52	4.2			
3728-3741	Rectifier type of rectifier #53	4.2			
3742-3755	Rectifier type of rectifier #54	4.2			
3756-3769	Rectifier type of rectifier #55	4.2			
3770-3783	Rectifier type of rectifier #56	4.2			
3784-3797	Rectifier type of rectifier #57	4.2			
3798-3811	Rectifier type of rectifier #58	4.2			
3812-3825	Rectifier type of rectifier #59	4.2			
3826-3839	Rectifier type of rectifier #60	4.2			
3840-3853	Rectifier type of rectifier #61	4.2			
3854-3867	Rectifier type of rectifier #62	4.2			
3868-3881	Rectifier type of rectifier #63	4.2			
3882-3895	Rectifier type of rectifier #64	4.2			
3896-3909	Rectifier type of rectifier #65	4.2			
3910-3923	Rectifier type of rectifier #66	4.2			
3924-3937	Rectifier type of rectifier #67	4.2			
3938-3951	Rectifier type of rectifier #68	4.2			
3952-3965	Rectifier type of rectifier #69	4.2			
3966-3979	Rectifier type of rectifier #70	4.2			
3980-3993	Rectifier type of rectifier #71	4.2			
3994-4007	Rectifier type of rectifier #72	4.2			
4008-4021	Rectifier type of rectifier #73	4.2			
4022-4035	Rectifier type of rectifier #74	4.2			
4036-4049	Rectifier type of rectifier #75	4.2			
4050-4063	Rectifier type of rectifier #76	4.2			
4064-4077	Rectifier type of rectifier #77	4.2			
4078-4091	Rectifier type of rectifier #78	4.2			
4092-4105	Rectifier type of rectifier #79	4.2			



SmartPack ModBus Description

Utført-Prepared Jin Jun/Ole Morten Lunden	Dato-Date 17/01/2022 15:08:00	Utgave-Issue 28	Dokumentnr.-Document No. 2027380
--	----------------------------------	--------------------	-------------------------------------

4106-4119	Rectifier type of rectifier #80	4.2				
4120-4133	Rectifier type of rectifier #81	4.2				
4134-4147	Rectifier type of rectifier #82	4.2				
4148-4161	Rectifier type of rectifier #83	4.2				
4162-4175	Rectifier type of rectifier #84	4.2				
4176-4189	Rectifier type of rectifier #85	4.2				
4190-4203	Rectifier type of rectifier #86	4.2				
4204-4217	Rectifier type of rectifier #87	4.2				
4218-4231	Rectifier type of rectifier #88	4.2				
4232-4245	Rectifier type of rectifier #89	4.2				
4246-4259	Rectifier type of rectifier #90	4.2				
4260-4273	Rectifier type of rectifier #91	4.2				
4274-4287	Rectifier type of rectifier #92	4.2				
4288-4301	Rectifier type of rectifier #93	4.2				
4302-4315	Rectifier type of rectifier #94	4.2				
4316-4329	Rectifier type of rectifier #95	4.2				
4330-4343	Rectifier type of rectifier #96	4.2				
4344-4357	Rectifier type of rectifier #97	4.2				
4358-4371	Rectifier type of rectifier #98	4.2				
4372-4385	Rectifier type of rectifier #99	4.2				

Reg Addr	Range	Register Function Basic Industrial #1	SN	BI	SPX RTU	SPX TCP	Auto Test
4386	0.01 Volt	Voltage input #1 (Basic Industrial #1)		NA		2.6	y
4387	0.01 Volt	Voltage input #2 (Basic Industrial #1)		NA		2.6	y
4388	0.01 Volt	Voltage input #3 (Basic Industrial #1)		NA		2.6	y
4389	1 amp	Current input #1 (Basic Industrial #1)		NA		2.6	y
4390	1 amp	Current input #2 (Basic Industrial #1)		NA		2.6	y
4391		Prog input #1 (Basic Industrial #1)		NA		2.6	y
4392		Prog input #2 (Basic Industrial #1)		NA		2.6	y
4393		Prog input #3 (Basic Industrial #1)		NA		2.6	y

Reg Addr	Range	Register Function Basic Industrial #2	SN	BI	SPX RTU	SPX TCP	Auto Test
4394	0.01 Volt	Voltage input #1 (Basic Industrial #2)		NA		2.6	y
4395	0.01 Volt	Voltage input #2 (Basic Industrial #2)		NA		2.6	y
4396	0.01 Volt	Voltage input #3 (Basic Industrial #2)		NA		2.6	y
4397	1 amp	Current input #1 (Basic Industrial #2)		NA		2.6	y
4398	1 amp	Current input #2 (Basic Industrial #2)		NA		2.6	y
4399		Prog input #1 (Basic Industrial #2)		NA		2.6	y
4400		Prog input #2 (Basic Industrial #2)		NA		2.6	y



SmartPack ModBus Description

Utført-Prepared Jin Jun/Ole Morten Lunden	Dato-Date 17/01/2022 15:08:00	Utgave-Issue 28	Dokumentnr.-Document No. 2027380
--	----------------------------------	--------------------	-------------------------------------

4401		Prog input #3 (Basic Industrial #2)		NA		2.6	y
------	--	-------------------------------------	--	----	--	-----	---

Reg Addr	Range	Register Function Basic Industrial #3	SN	BI	SPX RTU	SPX TCP	Auto Test
4402	0.01 Volt	Voltage input #1 (Basic Industrial #3)		NA		2.6	
4403	0.01 Volt	Voltage input #2 (Basic Industrial #3)		NA		2.6	
4404	0.01 Volt	Voltage input #3 (Basic Industrial #3)		NA		2.6	
4405	1 amp	Current input #1 (Basic Industrial #3)		NA		2.6	
4406	1 amp	Current input #2 (Basic Industrial #3)		NA		2.6	
4407		Prog input #1 (Basic Industrial #3)		NA		2.6	
4408		Prog input #2 (Basic Industrial #3)		NA		2.6	
4409		Prog input #3 (Basic Industrial #3)		NA		2.6	

Reg Addr	Range	Register Function Basic Industrial #4	SN	BI	SPX RTU	SPX TCP	Auto Test
4410	0.01 Volt	Voltage input #1 (Basic Industrial #4)		NA		2.6	
4411	0.01 Volt	Voltage input #2 (Basic Industrial #4)		NA		2.6	
4412	0.01 Volt	Voltage input #3 (Basic Industrial #4)		NA		2.6	
4413	1 amp	Current input #1 (Basic Industrial #4)		NA		2.6	
4414	1 amp	Current input #2 (Basic Industrial #4)		NA		2.6	
4415		Prog input #1 (Basic Industrial #4)		NA		2.6	
4416		Prog input #2 (Basic Industrial #4)		NA		2.6	
4417		Prog input #3 (Basic Industrial #4)		NA		2.6	

Reg Addr	Range	Register Function Basic Industrial #5	SN	BI	SPX RTU	SPX TCP	Auto Test
4418	0.01 Volt	Voltage input #1 (Basic Industrial #5)		NA		2.6	
4419	0.01 Volt	Voltage input #2 (Basic Industrial #5)		NA		2.6	
4420	0.01 Volt	Voltage input #3 (Basic Industrial #5)		NA		2.6	
4421	1 amp	Current input #1 (Basic Industrial #5)		NA		2.6	
4422	1 amp	Current input #2 (Basic Industrial #5)		NA		2.6	
4423		Prog input #1 (Basic Industrial #5)		NA		2.6	
4424		Prog input #2 (Basic Industrial #5)		NA		2.6	
4425		Prog input #3 (Basic Industrial #5)		NA		2.6	

Reg Addr	Range	Register Function Basic Industrial #6	SN	BI	SPX RTU	SPX TCP	Auto Test
4426	0.01 Volt	Voltage input #1 (Basic Industrial #6)		NA		2.6	
4427	0.01 Volt	Voltage input #2 (Basic Industrial #6)		NA		2.6	
4428	0.01 Volt	Voltage input #3 (Basic Industrial #6)		NA		2.6	
4429	1 amp	Current input #1 (Basic Industrial #6)		NA		2.6	
4430	1 amp	Current input #2 (Basic Industrial #6)		NA		2.6	
4431		Prog input #1 (Basic Industrial #6)		NA		2.6	
4432		Prog input #2 (Basic Industrial #6)		NA		2.6	
4433		Prog input #3 (Basic Industrial #6)		NA		2.6	

Reg Addr	Range	Register Function Basic Industrial #7	SN	BI	SPX RTU	SPX TCP	Auto Test
4434	0.01 Volt	Voltage input #1 (Basic Industrial #7)		NA		2.6	
4435	0.01 Volt	Voltage input #2 (Basic Industrial #7)		NA		2.6	
4436	0.01 Volt	Voltage input #3 (Basic Industrial #7)		NA		2.6	
4437	1 amp	Current input #1 (Basic Industrial #7)		NA		2.6	
4438	1 amp	Current input #2 (Basic Industrial #7)		NA		2.6	
4439		Prog input #1 (Basic Industrial #7)		NA		2.6	
4440		Prog input #2 (Basic Industrial #7)		NA		2.6	
4441		Prog input #3 (Basic Industrial #7)		NA		2.6	

Reg Addr	Range	Register Function Basic Industrial #8	SN	BI	SPX RTU	SPX TCP	Auto Test
4442	0.01 Volt	Voltage input #1 (Basic Industrial #8)		NA		2.6	
4443	0.01 Volt	Voltage input #2 (Basic Industrial #8)		NA		2.6	

SmartPack ModBus Description

Utført-Prepared Jin Jun/Ole Morten Lunden	Dato-Date 17/01/2022 15:08:00	Utgave-Issue 28	Dokumentnr.-Document No. 2027380
--	----------------------------------	--------------------	-------------------------------------

4444	0.01 Volt	Voltage input #3 (Basic Industrial #8)		NA		2.6	
4445	1 amp	Current input #1 (Basic Industrial #8)		NA		2.6	
4446	1 amp	Current input #2 (Basic Industrial #8)		NA		2.6	
4447		Prog input #1 (Basic Industrial #8)		NA		2.6	
4448		Prog input #2 (Basic Industrial #8)		NA		2.6	
4449		Prog input #3 (Basic Industrial #8)		NA		2.6	

Reg Addr	Range	Register Function Basic Industrial #9	SN	BI	SPX RTU	SPX TCP	Auto Test
4450	0.01 Volt	Voltage input #1 (Basic Industrial #9)		NA		2.6	
4451	0.01 Volt	Voltage input #2 (Basic Industrial #9)		NA		2.6	
4452	0.01 Volt	Voltage input #3 (Basic Industrial #9)		NA		2.6	
4453	1 amp	Current input #1 (Basic Industrial #9)		NA		2.6	
4454	1 amp	Current input #2 (Basic Industrial #9)		NA		2.6	
4455		Prog input #1 (Basic Industrial #9)		NA		2.6	
4456		Prog input #2 (Basic Industrial #9)		NA		2.6	
4457		Prog input #3 (Basic Industrial #9)		NA		2.6	

Reg Addr	Range	Register Function Basic Industrial RTU	SN	BI	SPX RTU	SPX TCP	Auto Test
4458	0.01 Volt	Voltage input #1		3.4		NA	
4459	0.01 Volt	Voltage input #2		3.4		NA	
4460	0.01 Volt	Voltage input #3		3.4		NA	
4461	1 amp	Current input #1		3.4		NA	
4462	1 amp	Current input #2		3.4		NA	
4463		Prog input #1		3.4		NA	
4464		Prog input #2		3.4		NA	
4465		Prog input #3		3.4		NA	

Reg Addr	Range	Register Function (Ground Fault from BI)	SN	BI	SPX RTU	SPX TCP	Auto Test
4500-4509	1=alarm	Ground Fault Alarm BI#(1-10)				2.7	4500
4510-4519	1 kohm	Ground Fault Value BI#(1-10)				2.7	4510

RegAddr	Register Function (Described for bit = Major alarm)	SN	BI	SPX RTU	SPX TCP	Auto Test
5000	Rectifier Group #1					
Bit 0	Rectifiers in alarm		3.1	2.10	2.5	y
Bit 1						
Bit 2	Rectifiers with communication error		3.1	2.10	2.5	y
Bit 3	Rectifier current high		3.1	2.10	2.5	y
Bit 4	Rectifiers temp high		3.1	2.10	2.5	y
Bit 5	Rectifiers temp low		3.1	2.10	2.5	y
Bit 6						
Bit 7						
Bit 8						
Bit 9						
Bit 10						
Bit 11	Current share		3.1	2.10	2.5	y
Bit 12						
Bit 13						
Bit 14						
Bit 15						
RegAddr	Register Function (Described for bit = Minor alarm)	SN	BI	SPX RTU	SPX TCP	Auto Test
5001	Rectifier Group #1					
Bit 0	Rectifiers in alarm		3.1	2.10	2.5	y
Bit 1						
Bit 2	Rectifiers with communication error		3.1	2.10	2.5	y
Bit 3	Rectifier current high		3.1	2.10	2.5	y
Bit 4	Rectifiers temp high		3.1	2.10	2.5	y

Urført-Prepared Jin Jun/Ole Morten Lunden	Dato-Date 17/01/2022 15:08:00	Utgave-Issue 28	Dokumentnr.-Document No. 2027380
--	----------------------------------	--------------------	-------------------------------------

Bit 5	Rectifiers temp low		3.1	2.10	2.5	y
Bit 6						
Bit 7						
Bit 8						
Bit 9						
Bit 10						
Bit 11	Current share		3.1	2.10	2.5	y
Bit 12						
Bit 13						
Bit 14						
Bit 15						

Reg Addr	Range	Register Function	SN	BI	SPX RTU	SPX TCP	Auto Test
5002	0.01 Volt	Rectifier voltage (rectifier #1 in group #1)		3.1	2.10	2.5	y
5003	1 Volt	Mains voltage (phase #1 from rectifier #1 in group #1)		3.1	2.10	2.5	y

RegAddr	Register Function (Described for bit = Major alarm)	SN	BI	SPX RTU	SPX TCP	Auto Test
5004	Rectifier Group #2					
Bit 0	Rectifiers in alarm		3.1	2.10	2.5	y
Bit 1						
Bit 2	Rectifiers with communication error		3.1	2.10	2.5	y
Bit 3	Rectifier current high		3.1	2.10	2.5	y
Bit 4	Rectifiers temp high		3.1	2.10	2.5	y
Bit 5	Rectifiers temp low		3.1	2.10	2.5	y
Bit 6						
Bit 7						
Bit 8						
Bit 9						
Bit 10						
Bit 11	Current share		3.1	2.10	2.5	y
Bit 12						
Bit 13						
Bit 14						
Bit 15						

RegAddr	Register Function (Described for bit = Minor alarm)	SN	BI	SPX RTU	SPX TCP	Auto Test
5005	Rectifier Group #2					
Bit 0	Rectifiers in alarm		3.1	2.10	2.5	y
Bit 1						
Bit 2	Rectifiers with communication error		3.1	2.10	2.5	y
Bit 3	Rectifier current high		3.1	2.10	2.5	y
Bit 4	Rectifiers temp high		3.1	2.10	2.5	y
Bit 5	Rectifiers temp low		3.1	2.10	2.5	y
Bit 6						
Bit 7						
Bit 8						
Bit 9						
Bit 10						
Bit 11	Current share		3.1	2.10	2.5	y
Bit 12						
Bit 13						
Bit 14						
Bit 15						

Reg Addr	Range	Register Function	SN	BI	SPX RTU	SPX TCP	Auto Test
5006	0.01 Volt	Rectifier voltage (rectifier #1 in group #2)		3.1	2.10	2.5	y
5007	1 Volt	Mains voltage (phase #1 from rectifier #1 in group #2)		3.1	2.10	2.5	y



SmartPack ModBus Description

Utført-Prepared Jin Jun/Ole Morten Lunden	Dato-Date 17/01/2022 15:08:00	Utgave-Issue 28	Dokumentnr.-Document No. 2027380
--	----------------------------------	--------------------	-------------------------------------

RegAddr	Register Function (Described for bit = Major alarm)	SN	BI	SPX RTU	SPX TCP	Auto Test
5008	Rectifier Group #3					
Bit 0	Rectifiers in alarm		3.1	2.10	2.5	
Bit 1						
Bit 2	Rectifiers with communication error		3.1	2.10	2.5	
Bit 3	Rectifier current high		3.1	2.10	2.5	
Bit 4	Rectifiers temp high		3.1	2.10	2.5	
Bit 5	Rectifiers temp low		3.1	2.10	2.5	
Bit 6						
Bit 7						
Bit 8						
Bit 9						
Bit 10						
Bit 11	Current share		3.1	2.10	2.5	
Bit 12						
Bit 13						
Bit 14						
Bit 15						
RegAddr	Register Function (Described for bit = Minor alarm)	SN	BI	SPX RTU	SPX TCP	Auto Test
5009	Rectifier Group #3					
Bit 0	Rectifiers in alarm		3.1	2.10	2.5	
Bit 1						
Bit 2	Rectifiers with communication error		3.1	2.10	2.5	
Bit 3	Rectifier current high		3.1	2.10	2.5	
Bit 4	Rectifiers temp high		3.1	2.10	2.5	
Bit 5	Rectifiers temp low		3.1	2.10	2.5	
Bit 6						
Bit 7						
Bit 8						
Bit 9						
Bit 10						
Bit 11	Current share		3.1	2.10	2.5	
Bit 12						
Bit 13						
Bit 14						
Bit 15						

Reg Addr	Range	Register Function	SN	BI	SPX RTU	SPX TCP	Auto Test
5010	0.01 Volt	Rectifier voltage (rectifier #1 in group #3)		3.1	2.10	2.5	
5011	1 Volt	Mains voltage (phase #1 from rectifier #1 in group #3)		3.1	2.10	2.5	

RegAddr	Register Function (Described for bit = Major alarm)	SN	BI	SPX RTU	SPX TCP	Auto Test
5012	Rectifier Group #4					
Bit 0	Rectifiers in alarm		3.1	2.10	2.5	
Bit 1						
Bit 2	Rectifiers with communication error		3.1	2.10	2.5	
Bit 3	Rectifier current high		3.1	2.10	2.5	
Bit 4	Rectifiers temp high		3.1	2.10	2.5	
Bit 5	Rectifiers temp low		3.1	2.10	2.5	
Bit 6						
Bit 7						
Bit 8						
Bit 9						
Bit 10						
Bit 11	Current share		3.1	2.10	2.5	
Bit 12						
Bit 13						
Bit 14						
Bit 15						



SmartPack ModBus Description

Utført-Prepared Jin Jun/Ole Morten Lunden	Dato-Date 17/01/2022 15:08:00	Utgave-Issue 28	Dokumentnr.-Document No. 2027380
--	----------------------------------	--------------------	-------------------------------------

RegAddr	Register Function (Described for bit = Minor alarm)	SN	BI	SPX RTU	SPX TCP	Auto Test
5013	Rectifier Group #4					
Bit 0	Rectifiers in alarm		3.1	2.10	2.5	
Bit 1						
Bit 2	Rectifiers with communication error		3.1	2.10	2.5	
Bit 3	Rectifier current high		3.1	2.10	2.5	
Bit 4	Rectifiers temp high		3.1	2.10	2.5	
Bit 5	Rectifiers temp low		3.1	2.10	2.5	
Bit 6						
Bit 7						
Bit 8						
Bit 9						
Bit 10						
Bit 11	Current share		3.1	2.10	2.5	
Bit 12						
Bit 13						
Bit 14						
Bit 15						

Reg Addr	Range	Register Function	SN	BI	SPX RTU	SPX TCP	Auto Test
5014	0.01 Volt	Rectifier voltage (rectifier #1 in group #4)		3.1	2.10	2.5	
5015	1 Volt	Mains voltage (phase #1 from rectifier #1 in group #4)		3.1	2.10	2.5	

RegAddr	Register Function (Described for bit = Major alarm)	SN	BI	SPX RTU	SPX TCP	Auto Test
5016	Rectifier Group #5					
Bit 0	Rectifiers in alarm		3.1	2.10	2.5	
Bit 1						
Bit 2	Rectifiers with communication error		3.1	2.10	2.5	
Bit 3	Rectifier current high		3.1	2.10	2.5	
Bit 4	Rectifiers temp high		3.1	2.10	2.5	
Bit 5	Rectifiers temp low		3.1	2.10	2.5	
Bit 6						
Bit 7						
Bit 8						
Bit 9						
Bit 10						
Bit 11	Current share		3.1	2.10	2.5	
Bit 12						
Bit 13						
Bit 14						
Bit 15						
RegAddr	Register Function (Described for bit = Minor alarm)	SN	BI	SPX RTU	SPX TCP	Auto Test
5017	Rectifier Group #5					
Bit 0	Rectifiers in alarm		3.1	2.10	2.5	
Bit 1						
Bit 2	Rectifiers with communication error		3.1	2.10	2.5	
Bit 3	Rectifier current high		3.1	2.10	2.5	
Bit 4	Rectifiers temp high		3.1	2.10	2.5	
Bit 5	Rectifiers temp low		3.1	2.10	2.5	
Bit 6						
Bit 7						
Bit 8						
Bit 9						
Bit 10						
Bit 11	Current share		3.1	2.10	2.5	
Bit 12						
Bit 13						



SmartPack ModBus Description

Urført-Prepared Jin Jun/Ole Morten Lunden	Dato-Date 17/01/2022 15:08:00	Utgave-Issue 28	Dokumentnr.-Document No. 2027380
--	----------------------------------	--------------------	-------------------------------------

Bit 14						
Bit 15						

Reg Addr	Range	Register Function	SN	BI	SPX RTU	SPX TCP	Auto Test
5018	0.01 Volt	Rectifier voltage (rectifier #1 in group #5)		3.1	2.10	2.5	
5019	1 Volt	Mains voltage (phase #1 from rectifier #1 in group #5)		3.1	2.10	2.5	

RegAddr	Register Function (Described for bit = Major alarm)	SN	BI	SPX RTU	SPX TCP	Auto Test
5020	Rectifier Group #6					
Bit 0	Rectifiers in alarm		3.1	2.10	2.5	
Bit 1						
Bit 2	Rectifiers with communication error		3.1	2.10	2.5	
Bit 3	Rectifier current high		3.1	2.10	2.5	
Bit 4	Rectifiers temp high		3.1	2.10	2.5	
Bit 5	Rectifiers temp low		3.1	2.10	2.5	
Bit 6						
Bit 7						
Bit 8						
Bit 9						
Bit 10						
Bit 11	Current share		3.1	2.10	2.5	
Bit 12						
Bit 13						
Bit 14						
Bit 15						
RegAddr	Register Function (Described for bit = Minor alarm)	SN	BI	SPX RTU	SPX TCP	Auto Test
5021	Rectifier Group #6					
Bit 0	Rectifiers in alarm		3.1	2.10	2.5	
Bit 1						
Bit 2	Rectifiers with communication error		3.1	2.10	2.5	
Bit 3	Rectifier current high		3.1	2.10	2.5	
Bit 4	Rectifiers temp high		3.1	2.10	2.5	
Bit 5	Rectifiers temp low		3.1	2.10	2.5	
Bit 6						
Bit 7						
Bit 8						
Bit 9						
Bit 10						
Bit 11	Current share		3.1	2.10	2.5	
Bit 12						
Bit 13						
Bit 14						
Bit 15						

Reg Addr	Range	Register Function	SN	BI	SPX RTU	SPX TCP	Auto Test
5022	0.01 Volt	Rectifier voltage (rectifier #1 in group #6)		3.1	2.10	2.5	
5023	1 Volt	Mains voltage (phase #1 from rectifier #1 in group #6)		3.1	2.10	2.5	

RegAddr	Register Function (Described for bit = Major alarm)	SN	BI	SPX RTU	SPX TCP	Auto Test
5024	Rectifier Group #7					
Bit 0	Rectifiers in alarm		3.1	2.10	2.5	
Bit 1						
Bit 2	Rectifiers with communication error		3.1	2.10	2.5	
Bit 3	Rectifier current high		3.1	2.10	2.5	
Bit 4	Rectifiers temp high		3.1	2.10	2.5	



SmartPack ModBus Description

Utført-Prepared Jin Jun/Ole Morten Lunden	Dato-Date 17/01/2022 15:08:00	Utgave-Issue 28	Dokumentnr.-Document No. 2027380
--	----------------------------------	--------------------	-------------------------------------

Bit 5	Rectifiers temp low		3.1	2.10	2.5	
Bit 6						
Bit 7						
Bit 8						
Bit 9						
Bit 10						
Bit 11	Current share		3.1	2.10	2.5	
Bit 12						
Bit 13						
Bit 14						
Bit 15						
RegAddr 5025	Register Function (Described for bit = Minor alarm) Rectifier Group #7	SN	BI	SPX RTU	SPX TCP	Auto Test
Bit 0	Rectifiers in alarm		3.1	2.10	2.5	
Bit 1						
Bit 2	Rectifiers with communication error		3.1	2.10	2.5	
Bit 3	Rectifier current high		3.1	2.10	2.5	
Bit 4	Rectifiers temp high		3.1	2.10	2.5	
Bit 5	Rectifiers temp low		3.1	2.10	2.5	
Bit 6						
Bit 7						
Bit 8						
Bit 9						
Bit 10						
Bit 11	Current share		3.1	2.10	2.5	
Bit 12						
Bit 13						
Bit 14						
Bit 15						

Reg Addr	Range	Register Function	SN	BI	SPX RTU	SPX TCP	Auto Test
5026	0.01 Volt	Rectifier voltage (rectifier #1 in group #7)		3.1	2.10	2.5	
5027	1 Volt	Mains voltage (phase #1 from rectifier #1 in group #7)		3.1	2.10	2.5	

RegAddr 5028	Register Function (Described for bit = Major alarm) Rectifier Group #8	SN	BI	SPX RTU	SPX TCP	Auto Test
Bit 0	Rectifiers in alarm		3.1	2.10	2.5	
Bit 1						
Bit 2	Rectifiers with communication error		3.1	2.10	2.5	
Bit 3	Rectifier current high		3.1	2.10	2.5	
Bit 4	Rectifiers temp high		3.1	2.10	2.5	
Bit 5	Rectifiers temp low		3.1	2.10	2.5	
Bit 6						
Bit 7						
Bit 8						
Bit 9						
Bit 10						
Bit 11	Current share		3.1	2.10	2.5	
Bit 12						
Bit 13						
Bit 14						
Bit 15						
RegAddr 5029	Register Function (Described for bit = Minor alarm) Rectifier Group #8	SN	BI	SPX RTU	SPX TCP	Auto Test
Bit 0	Rectifiers in alarm		3.1	2.10	2.5	
Bit 1						
Bit 2	Rectifiers with communication error		3.1	2.10	2.5	
Bit 3	Rectifier current high		3.1	2.10	2.5	
Bit 4	Rectifiers temp high		3.1	2.10	2.5	



SmartPack ModBus Description

Utført-Prepared Jin Jun/Ole Morten Lunden	Dato-Date 17/01/2022 15:08:00	Utgave-Issue 28	Dokumentnr.-Document No. 2027380
--	----------------------------------	--------------------	-------------------------------------

Bit 5	Rectifiers temp low		3.1	2.10	2.5	
Bit 6						
Bit 7						
Bit 8						
Bit 9						
Bit 10						
Bit 11	Current share		3.1	2.10	2.5	
Bit 12						
Bit 13						
Bit 14						
Bit 15						

Reg Addr	Range	Register Function	SN	BI	SPX RTU	SPX TCP	Auto Test
5030	0.01 Volt	Rectifier voltage (rectifier #1 in group #8)		3.1	2.10	2.5	
5031	1 Volt	Mains voltage (phase #1 from rectifier #1 in group #8)		3.1	2.10	2.5	

RegAddr	Register Function (Described for bit = Major alarm)	SN	BI	SPX RTU	SPX TCP	Auto Test
5032	Rectifier Group #9					
Bit 0	Rectifiers in alarm		3.1	2.10	2.5	
Bit 1						
Bit 2	Rectifiers with communication error		3.1	2.10	2.5	
Bit 3	Rectifier current high		3.1	2.10	2.5	
Bit 4	Rectifiers temp high		3.1	2.10	2.5	
Bit 5	Rectifiers temp low		3.1	2.10	2.5	
Bit 6						
Bit 7						
Bit 8						
Bit 9						
Bit 10						
Bit 11	Current share		3.1	2.10	2.5	
Bit 12						
Bit 13						
Bit 14						
Bit 15						
RegAddr	Register Function (Described for bit = Minor alarm)	SN	BI	SPX RTU	SPX TCP	Auto Test
5033	Rectifier Group #9					
Bit 0	Rectifiers in alarm		3.1	2.10	2.5	
Bit 1						
Bit 2	Rectifiers with communication error		3.1	2.10	2.5	
Bit 3	Rectifier current high		3.1	2.10	2.5	
Bit 4	Rectifiers temp high		3.1	2.10	2.5	
Bit 5	Rectifiers temp low		3.1	2.10	2.5	
Bit 6						
Bit 7						
Bit 8						
Bit 9						
Bit 10						
Bit 11	Current share		3.1	2.10	2.5	
Bit 12						
Bit 13						
Bit 14						
Bit 15						

Reg Addr	Range	Register Function	SN	BI	SPX RTU	SPX TCP	Auto Test
5034	0.01 Volt	Rectifier voltage (rectifier #1 in group #9)		3.1	2.10	2.5	
5035	1 Volt	Mains voltage (phase #1 from rectifier #1 in group #9)		3.1	2.10	2.5	



SmartPack ModBus Description

Utført-Prepared Jin Jun/Ole Morten Lunden	Dato-Date 17/01/2022 15:08:00	Utgave-Issue 28	Dokumentnr.-Document No. 2027380
--	----------------------------------	--------------------	-------------------------------------

RegAddr	Register Function (Described for bit = Major alarm)	SN	BI	SPX RTU	SPX TCP	Auto Test
5036	Rectifier Group #10					
Bit 0	Rectifiers in alarm		3.1	2.10	2.5	
Bit 1						
Bit 2	Rectifiers with communication error		3.1	2.10	2.5	
Bit 3	Rectifier current high		3.1	2.10	2.5	
Bit 4	Rectifiers temp high		3.1	2.10	2.5	
Bit 5	Rectifiers temp low		3.1	2.10	2.5	
Bit 6						
Bit 7						
Bit 8						
Bit 9						
Bit 10						
Bit 11	Current share		3.1	2.10	2.5	
Bit 12						
Bit 13						
Bit 14						
Bit 15						
RegAddr	Register Function (Described for bit = Minor alarm)	SN	BI	SPX RTU	SPX TCP	Auto Test
5037	Rectifier Group #10					
Bit 0	Rectifiers in alarm		3.1	2.10	2.5	
Bit 1						
Bit 2	Rectifiers with communication error		3.1	2.10	2.5	
Bit 3	Rectifier current high		3.1	2.10	2.5	
Bit 4	Rectifiers temp high		3.1	2.10	2.5	
Bit 5	Rectifiers temp low		3.1	2.10	2.5	
Bit 6						
Bit 7						
Bit 8						
Bit 9						
Bit 10						
Bit 11	Current share		3.1	2.10	2.5	
Bit 12						
Bit 13						
Bit 14						
Bit 15						

Reg Addr	Range	Register Function	S N	BI	SPX RTU	SPX TCP	Auto Test
5038	0.01 Volt	Rectifier voltage (rectifier #1 in group #10)		3.1	2.10	2.5	
5039	1 Volt	Mains voltage (phase #1 from rectifier #1 in group #10)		3.1	2.10	2.5	
5040-5045	1 Volt	Mains voltage phase #1-6(rectifier/rectiverter in group #1)			2.10	2.10	
5046-5051	1 Volt	Mains voltage phase #1-6(rectifier/rectiverter in group #2)			2.10	2.10	
5052-5057	1 Volt	Mains voltage phase #1-6(rectifier/rectiverter in group #3)			2.10	2.10	
5058-5063	1 Volt	Mains voltage phase #1-6(rectifier/rectiverter in group #4)			2.10	2.10	
5064-5069	1 Volt	Mains voltage phase #1-6(rectifier/rectiverter in group #5)			2.10	2.10	
5070-5075	1 Volt	Mains voltage phase #1-6(rectifier/rectiverter in group #6)			2.10	2.10	
5076-5081	1 Volt	Mains voltage phase #1-6(rectifier/rectiverter in group #7)			2.10	2.10	
5082-5087	1 Volt	Mains voltage phase #1-6(rectifier/rectiverter in group #8)			2.10	2.10	
5088-5093	1 Volt	Mains voltage phase #1-6(rectifier/rectiverter in group #9)			2.10	2.10	
5094-5099	1 Volt	Mains voltage phase #1-6(rectifier/rectiverter in group #10)			2.10	2.10	

Reg Addr	Range	Register Function (CAN #1 , CAN2 for BI)	SN	BI	SPX RTU	SPX TCP	Auto Test
5100-5119	0.01 volt	dc/dc # 1-20 output voltage		3.5	2.7	2.6	y
5120-5139	1 Degree c	dc/dc # 1-20 temperature		3.5	2.7	2.6	y



SmartPack ModBus Description

Utført-Prepared Jin Jun/Ole Morten Lunden	Dato-Date 17/01/2022 15:08:00	Utgave-Issue 28	Dokumentnr.-Document No. 2027380
--	----------------------------------	--------------------	-------------------------------------

Reg Addr	Range	Register Function (CAN #2, GROUP #1)	SN	BI	SPX RTU	SPX TCP	Auto Test
5140-5159	0.1 amp	dc dc # 1-20 output current				2.6	y
5160-5179	0.01 volt	dc dc # 1-20 output voltage				2.6	y
5180-5199	1 volt	dc dc # 1-20 input voltage				2.6	y
5200-5219	1 Degree c	dc dc # 1-20 temperature				2.6	y

Reg Addr	Range	Register Function (CAN #2, GROUP #2)	SN	BI	SPX RTU	SPX TCP	Auto Test
5220-5239	0.1 amp	dc dc # 1-20 output current				2.6	
5240-5259	0.01 volt	dc dc # 1-20 output voltage				2.6	
5260-5279	1 volt	dc dc # 1-20 input voltage				2.6	
5280-5299	1 Degree c	dc dc # 1-20 temperature				2.6	

Reg Addr	Range	Register Function (CAN #2, GROUP #3)	SN	BI	SPX RTU	SPX TCP	Auto Test
5300-5319	0.1 amp	dc dc # 1-20 output current				2.6	
5320-5339	0.01 volt	dc dc # 1-20 output voltage				2.6	
5340-5359	1 volt	dc dc # 1-20 input voltage				2.6	
5360-5379	1 Degree c	dc dc # 1-20 temperature				2.6	

Reg Addr	Range	Register Function (Std LoadMonitor current)	SN	BI	SPX RTU	SPX TCP	Auto Test
5400-5407	1 amp	Std loadMonitor #1 current(1-8)		3.3.	2.7.2	2.7	y
5408-5415	1 amp	Std loadMonitor #2 current(1-8)		3.3	2.7.2	2.7	
5416-5423	1 amp	Std loadMonitor #3 current(1-8)		3.3	2.7.2	2.7	
5424-5431	1 amp	Std loadMonitor #4 current(1-8)		3.3	2.7.2	2.7	
5432-5439	1 amp	Std loadMonitor #5 current(1-8)		3.3	2.7.2	2.7	
5440-5447	1 amp	Std loadMonitor #6 current(1-8)		3.3.	2.7.2	2.7	
5448-5455	1 amp	Std loadMonitor #7 current(1-8)		3.3	2.7.2	2.7	
5456-5463	1 amp	Std loadMonitor #8 current(1-8)		3.3	2.7.2	2.7	
5464-5471	1 amp	Std loadMonitor #9 current(1-8)		3.3	2.7.2	2.7	
5472-5479	1 amp	Std loadMonitor #10 current(1-8)		3.3	2.7.2	2.7	
5480-5487	1 amp	Std loadMonitor #11 current(1-8)		3.3.	2.7.2	2.7	
5488-5495	1 amp	Std loadMonitor #12 current(1-8)		3.3	2.7.2	2.7	
5496-5503	1 amp	Std loadMonitor #13 current(1-8)		3.3	2.7.2	2.7	
5504-5511	1 amp	Std loadMonitor #14 current(1-8)		3.3	2.7.2	2.7	

Reg Addr	Range	Register Function (CAN #1 for SPx, CAN2 for BI)	SN	BI	SPX RTU	SPX TCP	Auto Test
5520-5549	0.1 amp	dc dc # 21-50 output current		3.5	2.9	2.9	
5550-5579	0.01 volt	dc dc # 21-50 output voltage		3.5	2.9	2.9	
5580-5609	1 volt	dc dc # 21-50 input voltage		3.5	2.9	2.9	
5610-5639	1 Degree c	dc dc # 21-50 temperature		3.5	2.9	2.9	

Reg Addr	Range	Register Function (CAN #2, GROUP #1)	SN	BI	SPX RTU	SPX TCP	Auto Test
5640-5669	0.1 amp	dc dc # 21-50 output current				2.9	
5670-5699	0.01 volt	dc dc # 21-50 output voltage				2.9	
5700-5729	1 volt	dc dc # 21-50 input voltage				2.9	
5730-5759	1 Degree c	dc dc # 21-50 temperature				2.9	

Reg Addr	Range	Register Function (CAN #2, GROUP #2)	SN	BI	SPX RTU	SPX TCP	Auto Test
5760-5789	0.1 amp	dc dc # 21-50 output current				2.9	
5790-5819	0.01 volt	dc dc # 21-50 output voltage				2.9	
5820-5849	1 volt	dc dc # 21-50 input voltage				2.9	



SmartPack ModBus Description

Utført-Prepared Jin Jun/Ole Morten Lunden	Dato-Date 17/01/2022 15:08:00	Utgave-Issue 28	Dokumentnr.-Document No. 2027380
--	----------------------------------	--------------------	-------------------------------------

5850-5879	1 Degree c	dcdc # 21-50 temperature				2.9	
-----------	------------	--------------------------	--	--	--	-----	--

Reg Addr	Range	Register Function (CAN #2, GROUP #3)	SN	BI	SPX RTU	SPX TCP	Auto Test
5880-5909	0.1 amp	dcdc # 21-50 output current				2.9	
5910-5939	0.01 volt	dcdc # 21-50 output voltage				2.9	
5940-5969	1 volt	dcdc # 21-50 input voltage				2.9	
5970-5999	1 Degree c	dcdc # 21-50 temperature				2.9	

For BI, these registers (6000-7000) must be collected locally with register 201-299

Reg Addr	Range	Register Function (Rectifier CAN2 current)	SN	BI	SPX RTU	SPX TCP	Auto Test
6000-6099	0.1 amp	Rectifier can2.1 #1 current(1-99)		.		2.7	6000-6001
6100-6199	0.1 amp	Rectifier can2.2 #1 current(1-99)				2.7	6100-6101
6200-6299	0.1 amp	Rectifier can2.3 #1 current(1-99)				2.7	
6300-6399	0.1 amp	Rectifier can2.4 #1 current(1-99)				2.7	
6400-6499	0.1 amp	Rectifier can2.5 #1 current(1-99)				2.7	
6500-6599	0.1 amp	Rectifier can2.6 #1 current(1-99)		.		2.7	
6600-6699	0.1 amp	Rectifier can2.7 #1 current(1-99)				2.7	
6700-6799	0.1 amp	Rectifier can2.8 #1 current(1-99)				2.7	
6800-6899	0.1 amp	Rectifier can2.9 #1 current(1-99)				2.7	
6900-6999	0.1 amp	Rectifier can2.10 #1 current(1-99)				2.7	

Note: reg 7000 – reg 7079 contain information for Leoch Li-ion Battery and only available in Smartpack S and Smartpack 2 Touch. SPT = Smartpack S + Smartpack 2 Touch.

Reg Addr	Range	Register Function	SN	BI	SPT RTU	SPT TCP	Auto Test
7000	1 volt	Li-ion Battery voltage module #1		.	2.7	2.7	
7001	1 amp	Li-ion Battery current module #1			2.7	2.7	
7002	1 Degree	Li-ion Battery temperature module #1			2.7	2.7	
7003	1 Ah	Li-ion Battery SoC module #1			2.7	2.7	
7004	%	Li-ion Battery SoC module #1			2.7	2.7	
7005	1 Degree	Li-ion Battery environment temperature module #1		.	2.7	2.7	
7006		Li-ion Battery warning module #1			2.7	2.7	
7007		Li-ion Battery protection module #1			2.7	2.7	
7008		Li-ion Battery status module #1			2.7	2.7	
7009		reserved			2.7	2.7	

Reg Addr	Range	Register Function	SN	BI	SPT RTU	SPT TCP	Auto Test
7010	1 volt	Li-ion Battery voltage module #2		.	2.7	2.7	
7011	1 amp	Li-ion Battery current module #2			2.7	2.7	
7012	1 Degree	Li-ion Battery temperature module #2			2.7	2.7	
7013	1 Ah	Li-ion Battery SoC module #2			2.7	2.7	
7014	%	Li-ion Battery SoC module #2			2.7	2.7	
7015	1 Degree	Li-ion Battery environment temperature module #2		.	2.7	2.7	
7016		Li-ion Battery warning module #2			2.7	2.7	
7017		Li-ion Battery protection module #2			2.7	2.7	



SmartPack ModBus Description

Utført-Prepared Jin Jun/Ole Morten Lunden	Dato-Date 17/01/2022 15:08:00	Utgave-Issue 28	Dokumentnr.-Document No. 2027380
--	----------------------------------	--------------------	-------------------------------------

7018		Li-ion Battery status module #2			2.7	2.7	
7019		reserved			2.7	2.7	

Reg Addr	Range	Register Function	SN	BI	SPT RTU	SPT TCP	Auto Test
7020	1 volt	Li-ion Battery voltage module #3		.	2.7	2.7	
7021	1 amp	Li-ion Battery current module #3			2.7	2.7	
7022	1 Degree	Li-ion Battery temperature module #3			2.7	2.7	
7023	1 Ah	Li-ion Battery SoC module #3			2.7	2.7	
7024	%	Li-ion Battery SoC module #3			2.7	2.7	
7025	1 Degree	Li-ion Battery environment temperature module #3		.	2.7	2.7	
7026		Li-ion Battery warning module #3			2.7	2.7	
7027		Li-ion Battery protection module #3			2.7	2.7	
7028		Li-ion Battery status module #3			2.7	2.7	
7029		reserved			2.7	2.7	

Reg Addr	Range	Register Function	SN	BI	SPT RTU	SPT TCP	Auto Test
7030	1 volt	Li-ion Battery voltage module #4		.	2.7	2.7	
7031	1 amp	Li-ion Battery current module #4			2.7	2.7	
7032	1 Degree	Li-ion Battery temperature module #4			2.7	2.7	
7033	1 Ah	Li-ion Battery SoC module #4			2.7	2.7	
7034	%	Li-ion Battery SoC module #4			2.7	2.7	
7035	1 Degree	Li-ion Battery environment temperature module #4		.	2.7	2.7	
7036		Li-ion Battery warning module #4			2.7	2.7	
7037		Li-ion Battery protection module #4			2.7	2.7	
7038		Li-ion Battery status module #4			2.7	2.7	
7039		reserved			2.7	2.7	

Reg Addr	Range	Register Function	SN	BI	SPT RTU	SPT TCP	Auto Test
7040	1 volt	Li-ion Battery voltage module #5		.	2.7	2.7	
7041	1 amp	Li-ion Battery current module #5			2.7	2.7	
7042	1 Degree	Li-ion Battery temperature module #5			2.7	2.7	
7043	1 Ah	Li-ion Battery SoC module #5			2.7	2.7	
7044	%	Li-ion Battery SoC module #5			2.7	2.7	
7045	1 Degree	Li-ion Battery environment temperature module #5		.	2.7	2.7	
7046		Li-ion Battery warning module #5			2.7	2.7	
7047		Li-ion Battery protection module #5			2.7	2.7	
7048		Li-ion Battery status module #5			2.7	2.7	
7049		reserved			2.7	2.7	

Reg Addr	Range	Register Function	SN	BI	SPT RTU	SPT TCP	Auto Test
7050	1 volt	Li-ion Battery voltage module #6		.	2.7	2.7	
7051	1 amp	Li-ion Battery current module #6			2.7	2.7	
7052	1 Degree	Li-ion Battery temperature module #6			2.7	2.7	
7053	1 Ah	Li-ion Battery SoC module #6			2.7	2.7	
7054	%	Li-ion Battery SoC module #6			2.7	2.7	
7055	1 Degree	Li-ion Battery environment temperature module #6		.	2.7	2.7	
7056		Li-ion Battery warning module #6			2.7	2.7	
7057		Li-ion Battery protection module #6			2.7	2.7	
7058		Li-ion Battery status module #6			2.7	2.7	
7059		reserved			2.7	2.7	

Reg Addr	Range	Register Function	SN	BI	SPT RTU	SPT TCP	Auto Test
7060	1 volt	Li-ion Battery voltage module #7		.	2.7	2.7	



SmartPack ModBus Description

Utført-Prepared Jin Jun/Ole Morten Lunden	Dato-Date 17/01/2022 15:08:00	Utgave-Issue 28	Dokumentnr.-Document No. 2027380
--	----------------------------------	--------------------	-------------------------------------

7061	1 amp	Li-ion Battery current module #7			2.7	2.7	
7062	1 Degree	Li-ion Battery temperature module #7			2.7	2.7	
7063	1 Ah	Li-ion Battery SoC module #7			2.7	2.7	
7064	%	Li-ion Battery SoC module #7			2.7	2.7	
7065	1 Degree	Li-ion Battery environment temperature module #7		.	2.7	2.7	
7066		Li-ion Battery warning module #7			2.7	2.7	
7067		Li-ion Battery protection module #7			2.7	2.7	
7068		Li-ion Battery status module #7			2.7	2.7	
7069		reserved			2.7	2.7	

Reg Addr	Range	Register Function	SN	BI	SPT RTU	SPT TCP	Auto Test
7070	1 volt	Li-ion Battery voltage module #8		.	2.7	2.7	
7071	1 amp	Li-ion Battery current module #8			2.7	2.7	
7072	1 Degree	Li-ion Battery temperature module #8			2.7	2.7	
7073	1 Ah	Li-ion Battery SoC module #8			2.7	2.7	
7074	%	Li-ion Battery SoC module #8			2.7	2.7	
7075	1 Degree	Li-ion Battery environment temperature module #8		.	2.7	2.7	
7076		Li-ion Battery warning module #8			2.7	2.7	
7077		Li-ion Battery protection module #8			2.7	2.7	
7078		Li-ion Battery status module #8			2.7	2.7	
7079		reserved			2.7	2.7	

Reg Addr	Range	Register Function	SN	BI	SPX RTU	SPX TCP	Auto Test
7100-7199	INT16U	GenericModbusMonitor Status				2.10	
7200-7299	INT16S	GenericModbusMonitor Value				2.10	

For: SmartPackTouch and SmartPackRetro / Modbus TCP only

SmartPack ModBus Description

Utført-Prepared Jin Jun/Ole Morten Lunden	Dato-Date 17/01/2022 15:08:00	Utgave-Issue 28	Dokumentnr.-Document No. 2027380
--	----------------------------------	--------------------	-------------------------------------

Reg Addr	Range	Register Function	SN	BI	SPX RTU	SPX TCP	Auto Test
8000-8099	0.01 amp	Rectifierter # 1-99 ac output current		3.4	2.10	2.10	
8100-8199	1 watt	Rectifierter # 1-99 output power		3.4	2.10	2.10	
8200-8299	0.1 amp	Rectifierter # 1-99 dc current		3.5	2.10	2.10	
8300-8399	1 Degree	Rectifierter # 1-99 temp		3.5	2.10	2.10	

For BI: modules on CAN2, for SPX: modules on CAN1

Reg Addr	Range	Register Function	SN	BI	SPX RTU	SPX TCP	Auto Test
8500	1 wh	Rectifierter Accumulated Active Energy (MSB)			2.8	2.8	y
8501		Rectifierter Accumulated Active Energy (LSB)			2.8	2.8	y

Reg Addr	Range	Register Function	SN	BI	SPX RTU	SPX TCP	Auto Test
10000-10099	0.01 amp	Rectifierter can2.1 ac out current(1-99)		.		2.10	
10100-10199	0.01 amp	Rectifierter can2.2 ac out current (1-99)				2.10	
10200-10299	0.01 amp	Rectifierter can2.3 ac out current (1-99)				2.10	
10300-10399	0.01 amp	Rectifierter can2.4 ac out current (1-99)				2.10	
10400-10499	0.01 amp	Rectifierter can2.5 ac out current (1-99)				2.10	
10500-10599	0.01 amp	Rectifierter can2.6 ac out current (1-99)		.		2.10	
10600-10699	0.01 amp	Rectifierter can2.7 ac out current (1-99)				2.10	
10700-10799	0.01 amp	Rectifierter can2.8 ac out current (1-99)				2.10	
10800-10899	0.01 amp	Rectifierter can2.9 ac out current (1-99)				2.10	
10900-10999	0.01 amp	Rectifierter can2.10 ac out current (1-99)				2.10	

Reg Addr	Range	Register Function	SN	BI	SPX RTU	SPX TCP	Auto Test
11000-11099	1 Watt	Rectifierter can2.1 ac out power(1-99)		.		2.10	
11100-11199	1 Watt	Rectifierter can2.2 ac out power (1-99)				2.10	
11200-11299	1 Watt	Rectifierter can2.3 ac out power (1-99)				2.10	
11300-11399	1 Watt	Rectifierter can2.4 ac out power (1-99)				2.10	
11400-11499	1 Watt	Rectifierter can2.5 ac out power (1-99)				2.10	
11500-11599	1 Watt	Rectifierter can2.6 ac out power (1-99)		.		2.10	
11600-11699	1 Watt	Rectifierter can2.7 ac out power (1-99)				2.10	
11700-11799	1 Watt	Rectifierter can2.8 ac out power (1-99)				2.10	
11800-11899	1 Watt	Rectifierter can2.9 ac out power (1-99)				2.10	
11900-11999	1 Watt	Rectifierter can2.10 ac out power (1-99)				2.10	

Reg Addr	Range	Register Function	SN	BI	SPX RTU	SPX TCP	Auto Test
12000-12099	0.1 amp	Rectifierter can2.1 dc current(1-99)		.		2.10	
12100-12199	0.1 amp	Rectifierter can2.2 dc current(1-99)				2.10	
12200-12299	0.1 amp	Rectifierter can2.3 dc current(1-99)				2.10	
12300-12399	0.1 amp	Rectifierter can2.4 dc current(1-99)				2.10	
12400-12499	0.1 amp	Rectifierter can2.5 dc current(1-99)				2.10	
12500-12599	0.1 amp	Rectifierter can2.6 dc current(1-99)		.		2.10	
12600-12699	0.1 amp	Rectifierter can2.7 dc current(1-99)				2.10	
12700-12799	0.1 amp	Rectifierter can2.8 dc current(1-99)				2.10	
12800-12899	0.1 amp	Rectifierter can2.9 dc current(1-99)				2.10	
12900-12999	0.1 amp	Rectifierter can2.10 dc current(1-99)				2.10	

Reg Addr	Range	Register Function	SN	BI	SPX RTU	SPX TCP	Auto Test
----------	-------	-------------------	----	----	---------	---------	-----------



SmartPack ModBus Description

Utført-Prepared Jin Jun/Ole Morten Lunden	Dato-Date 17/01/2022 15:08:00	Utgave-Issue 28	Dokumentnr.-Document No. 2027380
--	----------------------------------	--------------------	-------------------------------------

13000-13099	1-6	Rectiverter can2.1 temp(1-99)		.		2.10	
13100-13199	1-6	Rectiverter can2.2 temp (1-99)				2.10	
13200-13299	1-6	Rectiverter can2.3 temp (1-99)				2.10	
13300-13399	1-6	Rectiverter can2.4 temp (1-99)				2.10	
13400-13499	1-6	Rectiverter can2.5 temp (1-99)				2.10	
13500-13599	1-6	Rectiverter can2.6 temp (1-99)		.		2.10	
13600-13699	1-6	Rectiverter can2.7 temp (1-99)				2.10	
13700-13799	1-6	Rectiverter can2.8 temp (1-99)				2.10	
13800-13899	1-6	Rectiverter can2.9 temp (1-99)				2.10	
13900-13999	1-6	Rectiverter can2.10 temp (1-99)				2.10	

Reg Addr	Range	Register Function	SN	BI	SPX RTU	SPX TCP	Auto Test
14000	Bit1-16	Load Fleximonitor 1 input 1-16 used as current				2.11	
14001	Bit1-16	Load Fleximonitor 1 input 17-32 used as current				2.11	
14002	1 Amp	Load Fleximonitor 1 total current				2.11	
14003-14034	1 Amp	Load Fleximonitor 1 current(1-32)				2.11	
14035	1 Watt	Load Fleximonitor 1 total power				2.11	
14036-14067	1 Watt	Load Fleximonitor 1 power(1-32)				2.11	
14068-14069	1 Wh	Load Fleximonitor 1 msb+lsb total energy				2.11	
14070-14133	1 Wh	Load Fleximonitor 1 msb+lsb energy(1-32)				2.11	

Note: Reg 14000 has to be read first before other registers in the table can be read

Reg Addr	Range	Register Function	SN	BI	SPX RTU	SPX TCP	Auto Test
14134	Bit1-16	Load Fleximonitor 2 input 1-16 used as current				2.11	
14135	Bit1-16	Load Fleximonitor 2 input 17-32 used as current				2.11	
14136	1 Amp	Load Fleximonitor 2 total current				2.11	
14137-14168	1 Amp	Load Fleximonitor 2 current(1-32)				2.11	
14169	1 Watt	Load Fleximonitor 2 total power				2.11	
14170-14201	1 Watt	Load Fleximonitor 2 power(1-32)				2.11	
14202-14203	1 Wh	Load Fleximonitor 2 msb+lsb total energy				2.11	
14204-14267	1 Wh	Load Fleximonitor 2 msb+lsb energy(1-32)				2.11	

Note: Reg 14134 has to be read first before other registers in the table can be read

Reg Addr	Range	Register Function	SN	BI	SPX RTU	SPX TCP	Auto Test
14268	Bit1-16	Load Fleximonitor 3 input 1-16 used as current				2.11	
14269	Bit1-16	Load Fleximonitor 3 input 17-32 used as current				2.11	
14270	1 Amp	Load Fleximonitor 3 total current				2.11	
14271-14302	1 Amp	Load Fleximonitor 3 current(1-32)				2.11	
14303	1 Watt	Load Fleximonitor 3 total power				2.11	
14304-14335	1 Watt	Load Fleximonitor 3 power(1-32)				2.11	
14336-14337	1 Wh	Load Fleximonitor 3 msb+lsb total energy				2.11	
14338-14401	1 Wh	Load Fleximonitor 3 msb+lsb energy(1-32)				2.11	

Note: Reg 14268 has to be read first before other registers in the table can be read

Reg Addr	Range	Register Function	SN	BI	SPX RTU	SPX TCP	Auto Test
14402	Bit1-16	Load Fleximonitor 4 input 1-16 used as current				2.11	
14403	Bit1-16	Load Fleximonitor 4 input 17-32 used as current				2.11	
14404	1 Amp	Load Fleximonitor 4 total current				2.11	
14405-14436	1 Amp	Load Fleximonitor 4 current(1-32)				2.11	
14437	1 Watt	Load Fleximonitor 4 total power				2.11	
14438-14469	1 Watt	Load Fleximonitor 4 power(1-32)				2.11	
14470-14471	1 Wh	Load Fleximonitor 4 msb+lsb total energy				2.11	
14472-14535	1 Wh	Load Fleximonitor 4 msb+lsb energy(1-32)				2.11	

Note: Reg 14402 has to be read first before other registers in the table can be read



SmartPack ModBus Description

Utført-Prepared Jin Jun/Ole Morten Lunden	Dato-Date 17/01/2022 15:08:00	Utgave-Issue 28	Dokumentnr.-Document No. 2027380
--	----------------------------------	--------------------	-------------------------------------

Reg Addr	Range	Register Function	SN	BI	SPX RTU	SPX TCP	Auto Test
14536	Bit1-16	Load Fleximonitor 5 input 1-16 used as current				2.11	
14537	Bit1-16	Load Fleximonitor 5 input 17-32 used as current				2.11	
14538	1 Amp	Load Fleximonitor 5 total current				2.11	
14539-14570	1 Amp	Load Fleximonitor 5 current(1-32)				2.11	
14571	1 Watt	Load Fleximonitor 5 total power				2.11	
14572-14603	1 Watt	Load Fleximonitor 5 power(1-32)				2.11	
14604-14605	1 Wh	Load Fleximonitor 5 msb+lsb total energy				2.11	
14606-14669	1 Wh	Load Fleximonitor 5 msb+lsb energy(1-32)				2.11	

Note: Reg 14536 has to be read first before other registers in the table can be read

Reg Addr	Range	Register Function	SN	BI	SPX RTU	SPX TCP	Auto Test
14670	Bit1-16	Load Fleximonitor 6 input 1-16 used as current				2.11	
14671	Bit1-16	Load Fleximonitor 6 input 17-32 used as current				2.11	
14672	1 Amp	Load Fleximonitor 6 total current				2.11	
14673-14704	1 Amp	Load Fleximonitor 6 current(1-32)				2.11	
14705	1 Watt	Load Fleximonitor 6 total power				2.11	
14706-14737	1 Watt	Load Fleximonitor 6 power(1-32)				2.11	
14738-14739	1 Wh	Load Fleximonitor 6 msb+lsb total energy				2.11	
14740-14803	1 Wh	Load Fleximonitor 6 msb+lsb energy(1-32)				2.11	

Note: Reg 14670 has to be read first before other registers in the table can be read

Reg Addr	Range	Register Function	SN	BI	SPX RTU	SPX TCP	Auto Test
14804	Bit1-16	Load Fleximonitor 7 input 1-16 used as current				2.11	
14805	Bit1-16	Load Fleximonitor 7 input 17-32 used as current				2.11	
14806	1 Amp	Load Fleximonitor 7 total current				2.11	
14807-14838	1 Amp	Load Fleximonitor 7 current(1-32)				2.11	
14839	1 Watt	Load Fleximonitor 7 total power				2.11	
14840-14871	1 Watt	Load Fleximonitor 7 power(1-32)				2.11	
14872-14873	1 Wh	Load Fleximonitor 7 msb+lsb total energy				2.11	
14874-14937	1 Wh	Load Fleximonitor 7 msb+lsb energy(1-32)				2.11	

Note: Reg 14804 has to be read first before other registers in the table can be read

Reg Addr	Range	Register Function	SN	BI	SPX RTU	SPX TCP	Auto Test
14938	Bit1-16	Load Fleximonitor 8 input 1-16 used as current				2.11	
14939	Bit1-16	Load Fleximonitor 8 input 17-32 used as current				2.11	
14940	1 Amp	Load Fleximonitor 8 total current				2.11	
14941-14972	1 Amp	Load Fleximonitor 8 current(1-32)				2.11	
14973	1 Watt	Load Fleximonitor 8 total power				2.11	
14974-15005	1 Watt	Load Fleximonitor 8 power(1-32)				2.11	
15006-15007	1 Wh	Load Fleximonitor 8 msb+lsb total energy				2.11	
15008-15071	1 Wh	Load Fleximonitor 8 msb+lsb energy(1-32)				2.11	

Note: Reg 14938 has to be read first before other registers in the table can be read

Reg Addr	Range	Register Function	SN	BI	SPX RTU	SPX TCP	Auto Test
15072	Bit1-16	Load Fleximonitor 9 input 1-16 used as current				2.11	
15073	Bit1-16	Load Fleximonitor 9 input 17-32 used as current				2.11	
15074	1 Amp	Load Fleximonitor 9 total current				2.11	
15075-15106	1 Amp	Load Fleximonitor 9 current(1-32)				2.11	
15107	1 Watt	Load Fleximonitor 9 total power				2.11	
15108-15139	1 Watt	Load Fleximonitor 9 power(1-32)				2.11	
15140-15141	1 Wh	Load Fleximonitor 9 msb+lsb total energy				2.11	
15142-15205	1 Wh	Load Fleximonitor 9 msb+lsb energy(1-32)				2.11	

Note: Reg 15072 has to be read first before other registers in the table can be read

SmartPack ModBus Description

Utført-Prepared Jin Jun/Ole Morten Lunden	Dato-Date 17/01/2022 15:08:00	Utgave-Issue 28	Dokumentnr.-Document No. 2027380
--	----------------------------------	--------------------	-------------------------------------

Reg Addr	Range	Register Function	SN	BI	SPX RTU	SPX TCP	Auto Test
15206	Bit1-16	Load Fleximonitor 10 input 1-16 used as current				2.11	
15207	Bit1-16	Load Fleximonitor 10 input 17-32 used as current				2.11	
15208	1 Amp	Load Fleximonitor 10 total current				2.11	
15209-15240	1 Amp	Load Fleximonitor 10 current(1-32)				2.11	
15241	1 Watt	Load Fleximonitor 10 total power				2.11	
15242-15273	1 Watt	Load Fleximonitor 10 power(1-32)				2.11	
15274-15275	1 Wh	Load Fleximonitor 10 msb+lsb total energy				2.11	
15276-15339	1 Wh	Load Fleximonitor 10 msb+lsb energy(1-32)				2.11	

Note: Reg 15206 has to be read first before other registers in the table can be read

Reg Addr	Range	Register Function	SN	BI	SPX RTU	SPX TCP	Auto Test
15340	Bit1-16	Load Fleximonitor 11 input 1-16 used as current				2.11	
15341	Bit1-16	Load Fleximonitor 11 input 17-32 used as current				2.11	
15342	1 Amp	Load Fleximonitor 11 total current				2.11	
15343-15374	1 Amp	Load Fleximonitor 11 current(1-32)				2.11	
15375	1 Watt	Load Fleximonitor 11 total power				2.11	
15376-15407	1 Watt	Load Fleximonitor 11 power(1-32)				2.11	
15408-15409	1 Wh	Load Fleximonitor 11 msb+lsb total energy				2.11	
15410-15473	1 Wh	Load Fleximonitor 11 msb+lsb energy(1-32)				2.11	

Note: Reg 15340 has to be read first before other registers in the table can be read

Reg Addr	Range	Register Function	SN	BI	SPX RTU	SPX TCP	Auto Test
15474	Bit1-16	Load Fleximonitor 12 input 1-16 used as current				2.11	
15475	Bit1-16	Load Fleximonitor 12 input 17-32 used as current				2.11	
15476	1 Amp	Load Fleximonitor 12 total current				2.11	
15477-15508	1 Amp	Load Fleximonitor 12 current(1-32)				2.11	
15509	1 Watt	Load Fleximonitor 12 total power				2.11	
15510-15541	1 Watt	Load Fleximonitor 12 power(1-32)				2.11	
15542-15543	1 Wh	Load Fleximonitor 12 msb+lsb total energy				2.11	
15544-15607	1 Wh	Load Fleximonitor 12 msb+lsb energy(1-32)				2.11	

Note: Reg 15474 has to be read first before other registers in the table can be read

Reg Addr	Range	Register Function	SN	BI	SPX RTU	SPX TCP	Auto Test
15608	Bit1-16	Load Fleximonitor 13 input 1-16 used as current				2.11	
15609	Bit1-16	Load Fleximonitor 13 input 17-32 used as current				2.11	
15610	1 Amp	Load Fleximonitor 13 total current				2.11	
15611-15642	1 Amp	Load Fleximonitor 13 current(1-32)				2.11	
15643	1 Watt	Load Fleximonitor 13 total power				2.11	
15644-15675	1 Watt	Load Fleximonitor 13 power(1-32)				2.11	
15676-15677	1 Wh	Load Fleximonitor 13 msb+lsb total energy				2.11	
15678-15741	1 Wh	Load Fleximonitor 13 msb+lsb energy(1-32)				2.11	

Note: Reg 15608 has to be read first before other registers in the table can be read

Reg Addr	Range	Register Function	SN	BI	SPX RTU	SPX TCP	Auto Test
15742	Bit1-16	Load Fleximonitor 14 input 1-16 used as current				2.11	
15743	Bit1-16	Load Fleximonitor 14 input 17-32 used as current				2.11	
15744	1 Amp	Load Fleximonitor 14 total current				2.11	
15745-15776	1 Amp	Load Fleximonitor 14 current(1-32)				2.11	
15777	1 Watt	Load Fleximonitor 14 total power				2.11	
15778-15809	1 Watt	Load Fleximonitor 14 power(1-32)				2.11	
15810-15811	1 Wh	Load Fleximonitor 14 msb+lsb total energy				2.11	
15812-15875	1 Wh	Load Fleximonitor 14 msb+lsb energy(1-32)				2.11	

Note: Reg 15742 has to be read first before other registers in the table can be read



SmartPack ModBus Description

Utført-Prepared Jin Jun/Ole Morten Lunden	Dato-Date 17/01/2022 15:08:00	Utgave-Issue 28	Dokumentnr.-Document No. 2027380
--	----------------------------------	--------------------	-------------------------------------

5.2 Holding Register

Read by Modbus-function 3, write by Modbus-function 6

Reg Addr	Range	Register Function	SN	BI	SPX RTU	SPX TCP	Auto Test
100	0-99	Number of rectifiers(not applicable for rectifier groups)	1.0	1.0	2.1	2.0	y
101	1-16	Number of battery strings	1.0	1.0	2.1	2.0	y
102	10-10000 Ah	Capacity pr. cell	1.0	1.0	2.1	2.0	y
103	10-100 Degree C	High temp alarm level(major alarm)	1.0	1.0	2.1	2.0	y
104	5600-5950	Ovp voltage	1.0	1.0	2.1	2.0	y
105	1.4000-2.4167	Float voltage pr. cell	1.0	1.0	2.1	2.0	y
106	2,0833-2.4167	Boost voltage pr. cell	1.0	1.0	2.1	2.0	y
107	1,7917-2,0000	Standby voltage pr cell	1.0	1.0	2.1	2.0	y
108	0-32767 Amp	Battery shunt ampere	1.0	1.0	2.1	2.0	y
109	50mv,60mV	Battery shunt mV	1.0	1.0	2.1	2.0	y
110	0-59	Clock minute	1.0	1.0	2.1	2.0	y
111	0-23	Clock Hour	1.0	1.0	2.1	2.0	y
112	1-31	Clock Day	1.0	1.0	2.1	2.0	y
113	1-12	Clock Month	1.0	1.0	2.1	2.0	y
114	2006-2100	Clock Year	1.0	1.0	2.1	2.0	y
115	0-59	Battery test interval start minute	1.0	1.0	2.1	2.0	y
116	0-23	Battery test interval start hour	1.0	1.0	2.1	2.0	y
117	1-31	Battery test interval start day	1.0	1.0	2.1	2.0	y
118	1-12	Battery test interval start month	1.0	1.0	2.1	2.0	y
119	2006-2100	Battery test interval start year	1.0	1.0	2.1	2.0	y
120	1-1000	Battery test interval period in days	1.0	1.0	2.1	2.0	y
121	5300-5950	Battery high major alarm	1.0	1.0	2.1	2.0	y
122	5300-5950	Battery high minor alarm	1.0	1.0	2.1	2.0	y
123	4000-5300	Battery low minor alarm	1.0	1.0	2.1	2.0	y
124	4000-5300	Battery low major alarm	1.0	1.0	2.1	2.0	y
125	0-1	Enable Interval Battery Test	1.0	1.0	2.1	2.0	y
126		Reserved					y
127		Reserved					y
128	0-1	Enable rectifier current limit	4.1	1.0	2.1	2.1	y
129	0-32000 Amp	Rectifier current limit value	4.1	1.0	2.1	2.1	y
130	0-1	Enable battery current limit	4.1	2.3	2.3.1	2.3.1	y
131	0-32000 Amp	Battery current limit value	4.1	2.3	2.3.1	2.3.1	y
132	0-300	Battery symmetry major alarm	4.1	2.3	2.3.1	2.3.1	y
133	0-300	Battery symmetry minor alarm	4.1	2.3	2.3.1	2.3.1	y
134	0-100 Degree	IO UNIT temperature 1.1 major level	4.1	2.3	2.3.1	2.3.1	y
135	0-50 Degree	IO UNIT temperature hysteresis 1.1	4.1	2.3	2.3.1	2.3.1	y
136	0-100 Degree	IO UNIT temperature 2.1 major level	4.1	2.3	2.3.1	2.3.1	y
137	0-50 Degree	IO UNIT temperature hysteresis 2.1	4.1	2.3	2.3.1	2.3.1	y
138	0-40 Degree	Temperature compensation reference temperature	4.2	3.1		2.5	y
139	0-999	Temperature compensation temperature slope	4.2	3.1		2.5	y
140	1,8700-2,4167	Temperature compensation minimal compensation voltage	4.2	3.1		2.5	y
141	1,8700-2,4167	Temperature compensation maximal compensation voltage	4.2	3.1		2.5	y
142	0-1	Enable dcdc current limit	4.2	3.1		2.5	y
143	0-32000 Amp	Dcdc current limit value	4.2	3.1		2.5	y
150	0-10	Number of rectifier groups		3.1	2.10	2.5	y
151	0-99	Number of rectifiers in group #1		3.1	2.10	2.5	y
152	0-99	Number of rectifiers in group #2		3.1	2.10	2.5	y
153	0-99	Number of rectifiers in group #3		3.1	2.10	2.5	y

Utført-Prepared Jin Jun/Ole Morten Lunden	Dato-Date 17/01/2022 15:08:00	Utgave-Issue 28	Dokumentnr.-Document No. 2027380
--	----------------------------------	--------------------	-------------------------------------

154	0-99	Number of rectifiers in group #4		3.1	2.10	2.5	y
155	0-99	Number of rectifiers in group #5		3.1	2.10	2.5	y
156	0-99	Number of rectifiers in group #6		3.1	2.10	2.5	y
157	0-99	Number of rectifiers in group #7		3.1	2.10	2.5	y
158	0-99	Number of rectifiers in group #8		3.1	2.10	2.5	y
159	0-99	Number of rectifiers in group #9		3.1	2.10	2.5	y
160	0-99	Number of rectifiers in group #10		3.1	2.10	2.5	y
161	0-99	Number of dcdds(not applicable for dcddc groups)			2.7		

5.3 Coils

Write by Modbus-function 5 ,

Reg Addr	R/W	Register Function	OFF	ON	SN	BI	SPX RTU	SPX TCP	Auto Test
100	W	Manual boost	Cancel	Activate	1.0	1.0	2.1	2.0	
101	W	Manual battery test	Cancel	Activate	1.0	1.0	2.1	2.0	
102	W	Reset alarm	na	Activate	1.0	1.0	2.1	2.0	

Read data by Modbus-function 1,write by Modbus-function 5,

Reg Addr	R/W	Register Function	OFF	ON	SN	BI	SPX RTU	SPX TCP	Auto Test
*110	R/W	LVBD enabled	disable	enable	2.0	1.0	2.1	2.0	y
**111	R/W	HE priority enabled	disable	enable	3.0	1.0	2.1	2.0	y

* Required by Regional2

** Use with caution. This function is related to efficiency management enable/disable (Reg. address 00). Enabling HE priority will automatically disable efficiency management and vice versa. Please refer to smartpack user guide for details.

6. MP2300-9 (REGIONAL3)

6.1 Digital Control Point(DO)

Read data by Modbus-function 1,write by Modbus-function 5

Reg Addr	Register Function	0	1	SN	BI	SPX RTU	SPX TCP	Auto Test
00	Efficiency Management	Disable	Enable	1.0	1.0	2.1	2.0	y
01-10	Reserved							



SmartPack ModBus Description

Urført-Prepared Jin Jun/Ole Morten Lunden	Dato-Date 17/01/2022 15:08:00	Utgave-Issue 28	Dokumentnr.-Document No. 2027380
--	----------------------------------	--------------------	-------------------------------------

6.2 Analog Reading points(AI)

Read only by Modbus-function 4

Reg Addr	Range	Register Function	SN	BI	SPX RTU	SPX TCP	Auto Test
00	0.01Volt	DC high voltage setting	1.0	1.0	2.1	2.0	y
01	0.01Volt	DC low voltage setting	1.0	1.0	2.1	2.0	y
02	1 degree	Batt.high temp setting	1.0	1.0	2.1	2.0	y
03	0.0001V/ cell	Float charge voltage setting	1.0	1.0	2.1	2.0	y
04	0.0001V/ cell	Boost charge voltage setting	1.0	1.0	2.1	2.0	y
05	0.01Volt	System DC output voltage	1.0	1.0	2.1	2.0	y
06	0.1A	System DC output current	1.0	1.0	2.1	2.0	
07	1A	Battery #1 current	1.0	1.0	2.1	2.0	y
08	1A	Battery #2 current (Not available on SmartPack2 Basic)	1.0	1.0	2.1	2.0	y
09	1degree	Battery #1 temp	1.0	1.0	2.1	2.0	y
10	1degree	Battery #2 temp	1.0	1.0	2.1	2.0	y
11	0.1A	Rectifier #1 current	1.0	1.0	2.1	2.0	y
12	0.1A	Rectifier #2 current	1.0	1.0	2.1	2.0	y
13	0.1A	Rectifier #3 current	1.0	1.0	2.1	2.0	y
14	0.1A	Rectifier #4 current	1.0	1.0	2.1	2.0	y
15	0.1A	Rectifier #5 current	1.0	1.0	2.1	2.0	y
16	0.1A	Rectifier #6 current	1.0	1.0	2.1	2.0	y
17	0.1A	Rectifier #7 current	1.0	1.0	2.1	2.0	y
18	0.1A	Rectifier #8 current	1.0	1.0	2.1	2.0	y
19	0.1A	Rectifier #9 current	1.0	1.0	2.1	2.0	y
20	0.1A	Rectifier #10 current	1.0	1.0	2.1	2.0	y
21	0.1A	Rectifier #11 current	1.0	1.0	2.1	2.0	y
22-41		Reserved					

Utført-Prepared Jin Jun/Ole Morten Lunden	Dato-Date 17/01/2022 15:08:00	Utgave-Issue 28	Dokumentnr.-Document No. 2027380
--	----------------------------------	--------------------	-------------------------------------

6.3 Digital Status(DI)

Read data by Modbus-function 2

Reg Addr	Register Function	0	1	SN	BI	SPX RTU	SPX TCP	Auto Test
00	Rectifier major alarm	Normal	Alarm	1.0	1.0	2.1	2.0	y
01	Rectifier minor alarm	Normal	Alarm	1.0	1.0	2.1	2.0	y
02	AC mains OFF (Any mains alarm)	Normal	Alarm	1.0	1.0	2.1	2.0	y
03	DC low voltage	Normal	Alarm	1.0	1.0	2.1	2.0	y
04	DC high voltage	Normal	Alarm	1.0	1.0	2.1	2.0	y
05	High temp	Normal	Alarm	1.0	1.0	2.1	2.0	y
*06	Surge arrester fault	Normal	Alarm	1.0	1.0	2.1	2.0	
07	Battery symmetric	Normal	Alarm	1.0	1.0	2.1	2.0	y
08	Fuse blown down	Normal	Alarm	1.0	1.0	2.1	2.0	y
09	Charging current limit	Normal	Alarm	1.0	1.0	2.1	2.0	
10	Boost charge status	Normal	Boosting	1.0	1.0	2.1	2.0	y
11	Float charge status	Normal	Floating	1.0	1.0	2.1	2.0	y
12	Current sharing alarm	Normal	Alarm	1.0	1.0	2.1	2.0	y
13	Rectifier #1 current limit	Normal	Alarm	1.0	1.0	2.1	2.0	y
14	----- High-voltage shut down	Normal	Alarm	1.0	1.0	2.1	2.0	y
15	----- Fan fault	stop	running	1.0	1.0	2.1	2.0	y
16	Rectifier #2 current limit	Normal	Alarm	1.0	1.0	2.1	2.0	y
17	----- High-voltage shut down	Normal	Alarm	1.0	1.0	2.1	2.0	y
18	----- Fan fault	stop	running	1.0	1.0	2.1	2.0	y
19	Rectifier #3 current limit	Normal	Alarm	1.0	1.0	2.1	2.0	y
20	----- High-voltage shut down	Normal	Alarm	1.0	1.0	2.1	2.0	y
21	----- Fan fault	stop	running	1.0	1.0	2.1	2.0	y
22	Rectifier #4 current limit	Normal	Alarm	1.0	1.0	2.1	2.0	y
23	----- High-voltage shut down	Normal	Alarm	1.0	1.0	2.1	2.0	y
24	----- Fan fault	stop	running	1.0	1.0	2.1	2.0	y
25	Rectifier #5 current limit	Normal	Alarm	1.0	1.0	2.1	2.0	y
26	----- High-voltage shut down	Normal	Alarm	1.0	1.0	2.1	2.0	y
27	----- Fan fault	stop	running	1.0	1.0	2.1	2.0	y
28	Rectifier #6 current limit	Normal	Alarm	1.0	1.0	2.1	2.0	y
29	----- High-voltage shut down	Normal	Alarm	1.0	1.0	2.1	2.0	y
30	----- Fan fault	stop	running	1.0	1.0	2.1	2.0	y
31	Rectifier #7 current limit	Normal	Alarm	1.0	1.0	2.1	2.0	y
32	----- High-voltage shut down	Normal	Alarm	1.0	1.0	2.1	2.0	y
33	----- Fan fault	stop	running	1.0	1.0	2.1	2.0	y
34	Rectifier #8 current limit	Normal	Alarm	1.0	1.0	2.1	2.0	y
35	----- High-voltage shut down	Normal	Alarm	1.0	1.0	2.1	2.0	y
36	----- Fan fault	stop	running	1.0	1.0	2.1	2.0	y
37	Rectifier #9 current limit	Normal	Alarm	1.0	1.0	2.1	2.0	y
38	----- High-voltage shut down	Normal	Alarm	1.0	1.0	2.1	2.0	y
39	----- Fan fault	stop	running	1.0	1.0	2.1	2.0	y
40	Rectifier #10 current limit	Normal	Alarm	1.0	1.0	2.1	2.0	y
41	----- High-voltage shut down	Normal	Alarm	1.0	1.0	2.1	2.0	y
42	----- Fan fault	stop	running	1.0	1.0	2.1	2.0	y
43	Rectifier #11 current limit	Normal	Alarm	1.0	1.0	2.1	2.0	y
44	----- High-voltage shut down	Normal	Alarm	1.0	1.0	2.1	2.0	y
45	----- Fan fault	stop	running	1.0	1.0	2.1	2.0	y
46-65	Reserved							
66	Earth fault alarm	Normal	Alarm	4.1	2.3	2.3.1	2.3.1	y
67	Battery fuse blown	Normal	Alarm	4.1	2.3	2.3.1	2.3.1	y
68	Load fuse blown	Normal	Alarm	4.1	2.3	2.3.1	2.3.1	y
69	LVL D 1 disconnect	Normal	Alarm	4.1	2.3	2.3.1	2.3.1	y
70	LVL D 2 disconnect	Normal	Alarm	4.1	2.3	2.3.1	2.3.1	y

Utført-Prepared Jin Jun/Ole Morten Lunden	Dato-Date 17/01/2022 15:08:00	Utgave-Issue 28	Dokumentnr.-Document No. 2027380
--	----------------------------------	--------------------	-------------------------------------

*Programmable input 1 on Smartpack, SP2 Basic and Ind. Basic; programmable input 5 on Smartpack S and Compack

7. REGIONAL1 REQUIREMENTS

Read by Modbus-function 3

Reg Addr	Range	Register Function	SN	BI	SPX RTU	SPX TCP	Auto Test
00	(MSB) unsigned float	KWH HI for CH1	3.0	1.0	2.1	2.0	y
01	(LSB) unsigned float	KWH LO for CH1	3.0	1.0	2.1	2.0	y
02	(MSB) unsigned float	Current HI for CH1	3.0	1.0	2.1	2.0	y
03	(LSB) unsigned float	Current LO for CH1	3.0	1.0	2.1	2.0	y
04	(MSB) unsigned float	KWH HI for CH2	3.0	1.0	2.1	2.0	y
05	(LSB) unsigned float	KWH LO for CH2	3.0	1.0	2.1	2.0	y
06	(MSB) unsigned float	Current HI for CH2	3.0	1.0	2.1	2.0	y
07	(LSB) unsigned float	Current LO for CH2	3.0	1.0	2.1	2.0	y
08	(MSB) unsigned float	KWH HI for CH3	3.0	1.0	2.1	2.0	y
09	(LSB) unsigned float	KWH LO for CH3	3.0	1.0	2.1	2.0	y
10	(MSB) unsigned float	Current HI for CH3	3.0	1.0	2.1	2.0	y
11	(LSB) unsigned float	Current LO for CH3	3.0	1.0	2.1	2.0	y
12	(MSB) unsigned float	KWH HI for CH4	3.0	1.0	2.1	2.0	y
13	(LSB) unsigned float	KWH LO for CH4	3.0	1.0	2.1	2.0	y
14	(MSB) unsigned float	Current HI for CH4	3.0	1.0	2.1	2.0	y
15	(LSB) unsigned float	Current LO for CH4	3.0	1.0	2.1	2.0	y
16	(MSB) unsigned float	Voltage HI	3.0	1.0	2.1	2.0	y
17	(LSB) unsigned float	Voltage LO	3.0	1.0	2.1	2.0	y

Reg Addr	Range	Register Function	SN	BI	SPX RTU	SPX TCP	Auto Test
18	(MSB) unsigned float	Watt HI for CH1	4.0	1.0	2.1	2.0	y
19	(LSB) unsigned float	Watt LO for CH1	4.0	1.0	2.1	2.0	y
20	(MSB) unsigned float	Watt HI for CH2	4.0	1.0	2.1	2.0	y
21	(LSB) unsigned float	Watt LO for CH2	4.0	1.0	2.1	2.0	y
22	(MSB) unsigned float	Watt HI for CH3	4.0	1.0	2.1	2.0	y
23	(LSB) unsigned float	Watt LO for CH3	4.0	1.0	2.1	2.0	y
24	(MSB) unsigned float	Watt HI for CH4	4.0	1.0	2.1	2.0	y
25	(LSB) unsigned float	Watt LO for CH4	4.0	1.0	2.1	2.0	y
26	(MSB) unsigned float	KWH HI for Battery	4.0	1.0	2.1	2.0	y
27	(LSB) unsigned float	KWH LO for Battery	4.0	1.0	2.1	2.0	y
28	(MSB) unsigned float	KWH HI for Mains	4.0	1.0	2.1	2.0	y
29	(LSB) unsigned float	KWH LO for Mains	4.0	1.0	2.1	2.0	y
30	(MSB) unsigned float	KWH HI for Generator	4.0	1.0	2.1	2.0	y
31	(LSB) unsigned float	KWH LO for Generator	4.0	1.0	2.1	2.0	y
32	(MSB) unsigned float	KWH HI for Load	4.0	1.0	2.1	2.0	y
33	(LSB) unsigned float	KWH LO for Load	4.0	1.0	2.1	2.0	y
34	(MSB) unsigned float	KWH HI for Solar	4.0	1.0	2.1	2.0	y
35	(LSB) unsigned float	KWH LO for Solar	4.0	1.0	2.1	2.0	y
36	(MSB) unsigned float	KWH HI for Rectifier	4.1	2.3	2.3.1	2.3.1	y
37	(LSB) unsigned float	KWH LO for Rectifier	4.1	2.3	2.3.1	2.3.1	y

Reg Addr	Range	Register Function	SN	BI	SPX RTU	SPX TCP	Auto Test
240-291	0-65535	Energy log for Solar 52 hours	4.0	1.0	2.1	2.0	y
292-343	0-65535	Energy log for Solar 52 days	4.0	1.0	2.1	2.0	y
344-395	0-65535	Energy log for Solar 52 weeks	4.0	1.0	2.1	2.0	y

Note: Reg Addr 00-15 and 18-25 are measured from Load Monitor #1, configured as standard load monitor ; Reg Addr 28-29 are measured from Mains Monitor #1; Energy values higher than 65535 are not shown correctly on Reg. Addr 240-395



SmartPack ModBus Description

Utført-Prepared Jin Jun/Ole Morten Lunden	Dato-Date 17/01/2022 15:08:00	Utgave-Issue 28	Dokumentnr.-Document No. 2027380

8. NOTES

Note	Description
1	VOLTAGE VALUES GIVEN IN THIS DOCUMENT ARE BASED ON 48V SYSTEM. FOR SYSTEMS OF OTHER VOLTAGE LEVELS, VOLTAGE VALUES SHOULD BE ADJUSTED ACCORDINGLY.
2	RANGE OF CURRENT VALUES WILL BE 0.1 AMP IF CURRENT RESOLUTION IS SET TO DECIAMP
3	G3200 IEC61850 CONVERTER IS SUPPORTED IN SMARTNODE SW REV 4.1 AND BASIC IND SW REV 2.0 AND ABOVE