Annex I

A1MB – Modbus Map

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Document information

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History of changes

VERSION	DATE	DESCRIPTION
1.0	8/07/2025	Modbus Map Eastron SDM630 added
1.1	23/09/2025	Phase Power W->kW
1.2	2/10/2025	Xemex Layout

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1. Eastron SDM630

P1MB Reg address	Reg address	Reg length (# U16)	Contents	A1 msg source	Data type	Unit / (fixed value)
Holding registers						
0	0x3000	8	LDN (= number on label)	N.A.	HEX	
20	0x3008	48	P1 msg header(7)	A1 msg header	HEX	
70	0x3038	7	P1 msg timestamp	0-0:1.0.0	HEX	
78	0x303F	48	Equipment ID(7)	0-0:96.1.1	HEX	
	0x306F	1	Enable/disable line (0/1) termination (default disabled=0)		UNIT16	
	0x0012	2	Parity	0: no (D) 1:odd 2:even	FLOAT	
19	0x0014	2	Modbus address	1-124 (Default: 2)	FLOAT	
	0x001C	2	Baud rate	0:2400 1:4800 2:9600 (D) 3:19200 4:38400	FLOAT	
	0xFFFF	1	Reboot	N.A.	UINT16	OK

Input Register					
Modbus Protocol Start Address Hex		SDM630 Input Register Parameter	A1 msg source	A1MB	
Hi Byte	Lo Byte	Description	OBIS CODE	Data Type	Units
00	00	Phase 1 line to neutral volts.	1-0:32.7.0	FLOAT	Volts
00	02	Phase 2 line to neutral volts.	1-0:52.7.0	FLOAT	Volts
00	04	Phase 3 line to neutral volts.	1-0:72.7.0	FLOAT	Volts
00	06	Phase 1 current.	1-0:31.7.0	FLOAT	Amps
00	08	Phase 2 current.	1-0:51.7.0	FLOAT	Amps
00	0A	Phase 3 current.	1-0:71.7.0	FLOAT	Amps
00	0C	Phase 1 power.	1-0:21.7.0 – 1-0:22.7.0 => Signed & scaled	FLOAT	kW
00	0E	Phase 2 power.	1-0:41.7.0 – 1-0:42.7.0 => Signed & scaled	FLOAT	kW
00	10	Phase 3 power.	1-0:61.7.0 – 1-0:62.7.0 => Signed & scaled	FLOAT	kW
00	12	Phase 1 volt amps.	1-0:32.7.0 * 1-0:31.7.0	FLOAT	VoltAmps
00	14	Phase 2 volt amps.	1-0:52.7.0 * 1-0:51.7.0	FLOAT	VoltAmps
00	16	Phase 3 volt amps.	1-0:72.7.0 * 1-0:71.7.0	FLOAT	VoltAmps
00	18	Phase 1 volt amps reactive.	1-0:23.7.0 - 1-0:24.7.0 => Signed & scaled	FLOAT	VAr
00	1A	Phase 2 volt amps reactive.	1-0:43.7.0 - 1-0:44.7.0 => Signed & scaled	FLOAT	VAr
00	1C	Phase 3 volt amps reactive.	1-0:63.7.0 - 1-0:64.7.0 => Signed & scaled	FLOAT	VAr
00	1E	Phase 1 power factor (1).	(1-0:21.7.0 – 1-0:22.7.0)/(1-0:32.7.0 * 1-0:31.7.0)	FLOAT	
00	20	Phase 2 power factor (1).	(1-0:41.7.0 – 1-0:42.7.0)/(1-0:52.7.0 * 1-0:51.7.0)	FLOAT	
00	22	Phase 3 power factor (1).	(1-0:61.7.0 – 1-0:62.7.0)/(1-0:72.7.0 * 1-0:71.7.0)	FLOAT	

00	34	Total system power.	1-0:1.7.0 - 1-0:2.7.0 => signed & scaled	FLOAT	W
00	3C	Total system VAr.	1-0:3.7.0 - 1-0:4.7.0 => signed & scaled	FLOAT	kVAR -> VAR
00	48	Import Wh since last reset (2).	1-0:1.8.0	FLOAT	kWh
00	4A	Export Wh since last reset (2).	1-0:2.8.0	FLOAT	kWh
00	4C	Import VArh since last reset (2).	1-0:5.8.0 + 1-0:6.8.0	FLOAT	kVArh
00	4E	Export VArh since last reset (2).	1-0:7.8.0 + 1-0:8.8.0	FLOAT	kVArh
01	56	Total active energy	1-0:1.8.0 - 1-0:2.8.0 => Signed	FLOAT	kWh
01	58	Total reactive energy	(1-0:5.8.0 + 1-0:6.8.0 - 1-0:7.8.0 - 1-0:8.8.0) =>Signed	FLOAT	kVarh