Norwegian HAN spesification - OBIS List Information

Item	Description	Value	Remarks
A	File name	KFM_001.xlsx	Filename : OBIS List identifier.xlsx . Format for publication is pdf.
B	List version - date	09.11.2018	DD.MM.YYYY
C	OBIS List version identifier	KFM_001	Shall be identical to corresponding OBIS code value in the meter
D	Meter type	All	
J	Baudrate M-BUS (HAN)	2400	
K	List 1 Stream out every	2 seconds	
M	List 2 Stream out every	10 seconds	
N	List 3 Stream out every	1 hour	The values is generated at XX:00:00 and streamed out from the HAN interface 10 seconds later (XX:00:10)
O	HAN maximum power to HEMS (mW)	500 mW	The largest power that the customer equipment (HEMS or display) can consume from the meter HAN interface
P	HAN maximum current to HEMS (mA)	21 mA	

Norwegian HAN spesification - OBIS Codes

OBIS List version identifier:								KFM_001				

List number			OBIS Code - Group Value						Object name	Attributes			Item
1	**2**	**3**	**A**	**B**	**C**	**D**	**E**	**F**		Unit	Scaler	Data type	Numb.
1			1	0	1	7	0	255	Active power+ (Q1+Q4)	W	0	double-long-unsigned	1
	1	**1**	**1**	**1**	**0**	**2**	**129**	**255**	OBIS List version identifier			octet-String	2
	2	**2**	0	0	96	1	0	255	Meter -ID (GIAI GS1 -16 digit)			octet-String	3
	3	**3**	0	0	96	1	7	255	Meter type			octet-String	4
	4	**4**	1	0	1	7	0	255	Active power+ (Q1+Q4)	W	0	double-long-unsigned	5
	5	**5**	1	0	2	7	0	255	Active power - (Q2+Q3)	W	0	double-long-unsigned	6
	6	**6**	1	0	3	7	0	255	Reactive power + (Q1+Q2)	Var	0	double-long-unsigned	7
	7	**7**	1	0	4	7	0	255	Reactive power - (Q3+Q4)	Var	0	double-long-unsigned	8
	8	**8**	1	0	31	7	0	255	IL1 Current phase L1	A	-3	double-long-unsigned	9
	9	**9**	1	0	51	7	0	255	IL2 Current phase L2	A	-3	double-long-unsigned	10
	10	**10**	1	0	71	7	0	255	IL3 Current phase L3	A	-3	double-long-unsigned	11
	11	**11**	1	0	32	7	0	255	ULN1 Phase voltage 4W meter , Line voltage 3W meter	V	-1	double-long-unsigned	12
	12	**12**	1	0	52	7	0	255	ULN2 Phase voltage 4W meter , Line voltage 3W meter	V	-1	double-long-unsigned	13
	13	**13**	1	0	72	7	0	255	ULN3 Phase voltage 4W meter , Line voltage 3W meter	V	-1	double-long-unsigned	14
		14	0	0	1	0	0	255	Clock and date in meter			octet-String	15
		15	1	0	1	8	0	255	Cumulative hourly active import energy (A+) (Q1+Q4)	Wh	0	double-long-unsigned	16
		16	1	0	2	8	0	255	Cumulative hourly active export energy (A-)(Q2+Q3)	Wh	0	double-long-unsigned	17
		17	1	0	3	8	0	255	Cumulative hourly reactive import energy (R+) (Q1+Q2)	VArh	0	double-long-unsigned	18
		18	1	0	4	8	0	255	Cumulative hourly reactive export energy (R-) (Q3+Q4)	VArh	0	double-long-unsigned	19

OBIS codes available in different meter types

Meter Types

List number			OBIS Code - Group Value						Object name	MA105H2E	MA304H3E	MA304H4	MA304T3	MA304T4
1	2	3	A	B	C	D	E	F						
1			1	0	1	7	0	255	Active power+ (Q1+Q4)					
	1	1	1	1	0	2	129	255	OBIS List version identifier	X	X	X	X	X
	2	2	0	0	96	1	0	255	Meter -ID (GIAI GS1 -16 digit)	X	X	X	X	X
	3	3	0	0	96	1	7	255	Meter type	X	X	X	X	X
	4	4	1	0	1	7	0	255	Active power+ (Q1+Q4)	X	X	X	X	X
	5	5	1	0	2	7	0	255	Active power - (Q2+Q3)	X	X	X	X	X
	6	6	1	0	3	7	0	255	Reactive power + (Q1+Q2)	X	X	X	X	X
	7	7	1	0	4	7	0	255	Reactive power - (Q3+Q4)	X	X	X	X	X
	8	8	1	0	31	7	0	255	IL1 Current phase L1	X	X	X	X	X
	9	9	1	0	51	7	0	255	IL2 Current phase L2	NA	X	X	M1	X
	10	10	1	0	71	7	0	255	IL3 Current phase L3	NA	X	X	X	X
	11	11	1	0	32	7	0	255	ULN1 Phase voltage 4W meter , Line voltage 3W meter	X	X	X	X	X
	12	12	1	0	52	7	0	255	ULN2 Phase voltage 4W meter , Line voltage 3W meter	NA	M2	X	M2	X
	13	13	1	0	72	7	0	255	ULN3 Phase voltage 4W meter , Line voltage 3W meter	NA	X	X	X	X
		14	0	0	1	0	0	255	Clock and date in meter	X	X	X	X	X
		15	1	0	1	8	0	255	Cumulative hourly active import energy (A+) (Q1+Q4)	X	X	X	X	X
		16	1	0	2	8	0	255	Cumulative hourly active export energy (A-)(Q2+Q3)	X	X	X	X	X
		17	1	0	3	8	0	255	Cumulative hourly reactive import energy (R+) (Q1+Q2)	X	X	X	X	X
		18	1	0	4	8	0	255	Cumulative hourly reactive export energy (R-) (Q3+Q4)	X	X	X	X	X

Meter types

Meter type	Voltage	Current	Connection
MA105H2E	1x230 V	5(80) A	DCM
MA304H3E	3x230 V	5(100)A	DCM
MA304H4	3x230/400V	5(100)A	DCM
MA304T3	3x230 V	1(6)A	CTM
MA304T4	3x230/400V	1(6)A	CTM

M1 Value is alllways 0 A
M2 Value is alllways 0 V

Norwegian HAN spesification - OBIS Codes

Item Number	Long description OBIS Code
1	Active power in import direction (W)
2	Version number of this OBIS list to track the changes
3	Serial number of the meter point:16 digits (69706314xxxxxxxx)
4	Type number of the meter: For example "MA304H3E"
5	Active power in import direction (W)
6	Active power in export direction (W)
7	Reactive power in import direction (VAr)
8	Reactive power in export direction (VAr)
9	Instantaneous current of L1(mA) (RMS Value based on 1 second integration period)
10	Instantaneous current of L2 (mA) (RMS Value based on 1 second integration period)
11	Instantaneous current of L3 (mA) (RMS Value based on 1 second integration period)
12	Instantaneous voltage L1-L2 (Phase voltage 4W meter , Line voltage 3W meter) (dV / 0,1V) (RMS Value based on 1 second integration period)
13	Instantaneous voltage L1-L3 (Phase voltage 4W meter , Line voltage 3W meter) (dV / 0,1V) (RMS Value based on 1 second integration period)
14	Instantaneous voltage L2-L3 (Phase voltage 4W meter , Line voltage 3W meter) (dV / 0,1V) (RMS Value based on 1 second integration period)
15	Local date and time of Norway (Winter: CET (UTC+1) - Summer: CEST (UTC+2)) http://www.timeanddate.com/worldclock/norway/oslo
16	Cumulativeactive import active energy (A+) displayed hourly
17	Cumulativeactive export active energy (A-) displayed hourly
18	Cumulativeactive import reactive energy (R+) displayed hourly
19	Cumulativeactive export reactive energy (R-) displayed hourly

List Interval

Clock	List interval		
	2 sec	10 sec	3600 sec
14:59:56	List 1		
14:59:58	List 1		
15:00:00		List 2	
15:00:02	List 1		
15:00:04	List 1		
15:00:06	List 1		
15:00:08	List 1		
15:00:10			List 3
15:00:12	List 1		
15:00:14	List 1		
15:00:16	List 1		
15:00:18	List 1		
15:00:20		List 2	
15:00:22	List 1		