

## Norwegian HAN specification - OBIS List Information

Item	Description	Value	Remarks
A	File name	<b>Kamstrup_V0001.xlsx</b>	Filename : OBIS List identifier.xlsx . Format for publication is pdf.
C	List version - date	03.05.2016	DD.MM.YYYY
D	OBIS List version identifier	<b>Kamstrup_V0001</b>	Shall be identical to corresponding OBIS code in the meter
E	Meter type	OMNIPOWER	
F	Number of metering systems	1,2,3	(1,2,3)
G	Direct connected meter	No, Yes	
H	Current Transformer	No, Yes	
I	Voltage (V)	1x230, 3x230, 3x230/400	(1x 230, 3x230, 3x230/400)
J	Current I <sub>max</sub> (A)	6, 100	(6, 80, 100 A) I <sub>max</sub> on the meters nameplate
K	Baudrate M-BUS ( HAN)	2400 Baud	
L	List 1 Stream out every	10 seconds	
M	List 2 stream out every	1 h	The values are generated at XX:00:00 and streamed from the HAN interface 10 second later (XX:00:10)
N	HAN maximum power to HEMS (mW)	144mW	4 unit loads according to EN 13757-2
O	HAN maximum current to HEMS ( mA)	6mA	4 unit loads according to EN 13757-2

## Norwegian HAN spesifikation - OBIS Codes

OBIS List version identifier:		Kamstrup_V0001									
List number		OBIS Code - Group Value						Object name	Attributes		Item
1	2	A	B	C	D	E	F		Unit	Data type	Numb.
1	1	1	1	0	2	129	255	OBIS List version identifier		Unsigned	1
2	2	1	1	0	0	5	255	Meter -ID (GIAI GS1 -16 digit )		Unsigned	2
3	3	1	1	96	1	1	255	Meter type		Visible-string	3
4	4	1	1	1	7	0	255	Active power+ (Q1+Q4)	kW	Unsigned	4
5	5	1	1	2	7	0	255	Active power- (Q2+Q3)	kW	Unsigned	5
6	6	1	1	3	7	0	255	Reactive power+ (Q1+Q2)	kVAr	Unsigned	6
7	7	1	1	4	7	0	255	Reactive power- (Q3+Q4)	kVAr	Unsigned	7
8	8	1	1	31	7	0	255	IL1 Current phase L1	A	Unsigned	8
9	9	1	1	51	7	0	255	IL2 Current phase L2	A	Unsigned	9
10	10	1	1	71	7	0	255	IL3 Current phase L3	A	Unsigned	10
11	11	1	1	32	7	0	255	ULN1 Phase voltage 4W meter , Line voltage 3W meter	V	Unsigned	11
12	12	1	1	52	7	0	255	ULN2 Phase voltage 4W meter , Line voltage 3W meter	V	Unsigned	12
13	13	1	1	72	7	0	255	ULN3 Phase voltage 4W meter , Line voltage 3W meter	V	Unsigned	13
	14	0	1	1	0	0	255	Clock and date in meter		Octet-String	14
	15	1	1	1	8	0	255	Cumulative hourly active import energy (A+) (Q1+Q4)	kWh	Unsigned	15
	16	1	1	2	8	0	255	Cumulative hourly active export energy (A-)( Q2+Q3)	kWh	Unsigned	16
	17	1	1	3	8	0	255	Cumulative hourly reactive import energy (R+) ( Q1+Q2)	kVArh	Unsigned	17
	18	1	1	4	8	0	255	Cumulative hourly active export energy (R-) (Q3+Q4)	kVArh	Unsigned	18

## Norwegian HAN spesifikation - OBIS Codes

Item Number	Long description OBIS Code
1	Version number of this OBIS list to track the changes
2	Serial number of the meter point:16 digits 9999999999999999
3	Type number of the meter: 684xx2, 684xx3, 685xx2, 685xx3, 686xx1, C65
4	Active import power, with resolution of W, Format 4.3
5	Active export power, with resolution of W, Format 4.3
6	Reactive import power, with resolution of kvar, Format 4.3
7	Reactive export power, with resolution of kvar, Format 4.3
8	RMS 1 sec. avg. current L1, with resolution of 0.01A, Format 3.2. (3P3W) Current between L1 and L2 and part from current between L1 and L3
9	RMS 1 sec. avg. current L2, with resolution of 0.01A, Format 3.2
10	RMS 1 sec. avg. current L3, with resolution of 0.01A, Format 3.2. (3P3W) Current between L2 and L3 and part from current between L1 and L3
11	RMS 1 sec. avg. voltage L1, with resolution of 1V, Format 3.0. (3P3W) Voltage between L1 and L2
12	RMS 1 sec. avg. voltage L2, with resolution of 1V, Format 3.0. (3P3W) Calculated voltage between L1 and L3
13	RMS 1 sec. avg. voltage L3, with resolution of 1V, Format 3.0. (3P3W) Voltage between L2 and L3
14	Local date and time of Norway
15	Active Energy import, with resolution of 10 Wh, Format 7.2
16	Active Energy export, with resolution of 10 Wh, Format 7.2
17	Reactive Energy import, with resolution of 10 Varh, Format 7.2
18	Reactive Energy export, with resolution of 10 Varh, Format 7.2