HAN module

For Kamstrup electricity meters

Makes it possible for the consumer to see the current consumption or the export of electricity from e.g. solar cells or wind turbines, etc. To read this data, a dis-play complying with EN-13757-2 must be purchased.

Application

When connected to a display, the module can show the consumer the current consumption, with actual data. Thus, the consumer becomes more aware of his consumption and can take steps to reduce it.

The module sends information about the most important parameters to a display so the consumer can see the current consumption of electricity.

The consumer who, for example, has installed solar cells can also see how much electricity is exported to the grid.

HAN specification

OBIS List Information

Item	Description	Value	Remarks
A	File name	Kamstrup_V0001.xlsx	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	Kamstrup_V0001	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 connected meter(CT-meter)	No, Yes	
I	Voltage (V)	1x230, 3x230, 3x230/400	(1x 230, 3x230, 3x230/400)
J	Current Imax (A)	6, 100	(6, 80, 100 A) Imax 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

HAN specification

OBIS Codes

OBIS List version identifier							Kamstrup_V0001			
List number		OBIS Code - Group Value					Object	Attributes		Item
1	2	A	B	C	D	E	F	Name	Unit	Data type	No.
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

Long description OBIS Code

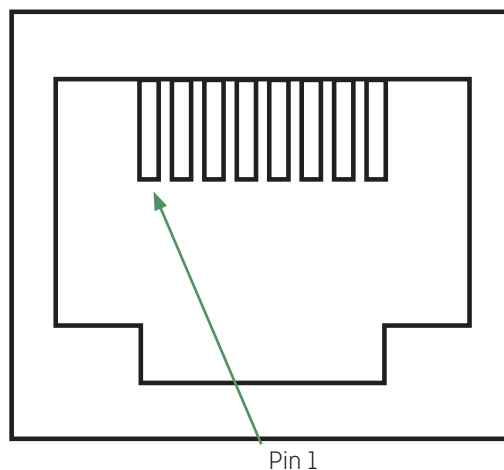| Item No.	
1	Version number of this OBIS list to track the changes
2	Serial number of the meter point:16 digits 9999999999999999
3	Type number of the meter: 684xx2, 684xx3, 685xx2, 685xx3, 686xx1, C65
4	Active import power, with resolution of W, Format 4.3
5	Active export power, with resolution of W, 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

Technical data

Standards	13757-2 Complies with the CE requirements when mounted in the meter.
Materials	Glass-reinforced polycarbonate
Weight	50 g
Sealing	After the mounting, the module can be sealed. Mounted without breaking the seal of the utility.
Protection class	IP20
Connection	RJ45
Cable length	Max 50 m.
Operating temperature	-40 °C to 70 °C
Humidity-relative	20 % RH to 70 % RH

The external display is connected via an RJ45 connector

Pin	Functionality
1	Communication
2	GND
3-8	Not used

Pin 1

Ordering

HAN module	6840004