

Data sheet

## M-Bus module

### for Kamstrup electricity meters

- Plug-and-play module prepared for system with self-installation
- Compliant with EN 13757-2, -3
- Support of primary/secondary/enhanced secondary addressing and wild card search
- 300/2400/9600 baud rate communication
- Configuration of primary address, meter number and date/time
- Control of connect/disconnect functionality via M-Bus network
- Optional AES 128-bit data encryption
- 230 V tariff control
- Pulse input



## Application

---

With the M-Bus module for Kamstrup electricity meters, Kamstrup provides a meter reading system solution. The meter supports secondary and enhanced secondary addressing which increase the number of allowable M-Bus slave modules in an M-Bus network.

The M-Bus module offers a list of meter data, e.g. 4-quadrant energy consumption and actual power consumption.

Furthermore, the M-Bus module provides an option for remote control of the connect/disconnect functionality in electricity meters with breaker via M-Bus networks. The module also allows access to the prepayment register if the meter is configured for prepayment use.

As for data security, the module can be configured to operate with AES 128-bit data encryption.

For the Kamstrup CT meter, the module provides additional data read-out of secondary active and reactive energy registration. It is also possible to read out and configure the transformer ratio in the meter.

## Connections

---

### Pulse input connection

Terminal 65  
Terminal 66

### M-Bus connection

Terminal 24  
Terminal 25

### Tariff control – 230 VAC connection

Terminal 13  
Terminal 15



## Technical data

---

### Address field

The M-Bus module supports primary, secondary and enhanced secondary addressing and wild card search.

### Primary addressing (000-250)

When supplied from Kamstrup, M-Bus modules will by default have the primary address 0. The primary address can be changed via the M-Bus network.

### Secondary addressing (00000000 - 99999999)

The meter number is used for secondary addressing. This number is not necessarily unique for each meter and can be changed after installation via the M-Bus network.

### Enhanced secondary addressing (00000000 - 99999999)

The meter's serial number is used for enhanced secondary addressing. This number is unique for each meter and cannot be changed after production.

## Data telegram (Read-out with Request User Data)

Standard data	Manufacture specific data
A+, A-, R+, R-	Verification registers A+, A-
A+ tariff 1, tariff 2	Max P+ RTC
Max P+, Max P-	Max P+ RTC tariff 1, tariff 2
Max P+ tariff 1, tariff 2	Max Q+, Max Q-
Acc. max P+	Voltage L1, L2, L3
Actual P+	Current L1, L2, L3
Meter number, Serial number	Power L1, L2, L3
Time, Date, Hour counter	

## Additional data (Read-out with specific data request)

Standard data	Manufacture specific data	Manufacture specific data for Kamstrup 351B
Resettable counter A+ and A-	R1, R4	Secondary A+, Secondary A-
A+ tariff 3 and 4	Acc. max Q+, Acc. max Q-	Secondary R+, Secondary R-
A- tariff 1, 2, 3 and 4	Number of debiting periods	Secondary R1, Secondary R4
R+ tariff 1, 2, 3 and 4	Actual power Q-, Q+	Secondary A+ tariff 1, 2, 3, 4
R- tariff 1, 2, 3 and 4	Power threshold value	Secondary A- tariff 1, 2, 3, 4
Acc. max P-	Power threshold counter	Secondary R+ tariff 1, 2, 3, 4
Actual power P-	Meter status, RTC status	Secondary R- tariff 1, 2, 3, 4
	Software version	PF – total, L1, L2, L3
	Pulse input	Transformer ratio
	Special data 1, Special data 2	Transformer ratio lock
	Active tariff	
	A+ prepayment	

## Additional functionality

Standard functionalities	Manufacture specific functionalities
RTC Programming	Tariff control
Add/subtract time offset	Breaker control
	Primary address programming
	Meter number programming
	Debiting stop

For detailed information about the additional functionalities, e.g. specific data request, remote control of connect/disconnect, date/time programming etc., see "Technical Description" doc. no. 5512-1042.

## Electrical data

---

### M-Bus

Power supply	Internally via the electricity meter (8 pins)
Power consumption	1 unit load
Operating temperature	-40 °C - + 85 °C

### Pulse inputs

Cable length	Max 20 m
Cable capacity	Max 20 nF
Leak current	Max 0.5 µA
Frequency	Max 25 Hz

### Tariff control on module port

Terminal 13	Terminal 15	Active tariff	Active tariff inverted
0 V	0 V	T1	T2
230 VAC	0 V	T2	T1

## Mechanical data

---

Storage temperature	-40 °C - + 85 °C
Dimensions W x L x H	42 x 92 x 18 mm

## Standards and approvals

---

EN 13757-2, -3  
 CE conform when mounted in electricity meter

## Order specifications

---

Description	Type No.
M-Bus module	6850068

---

### Kamstrup A/S

Industrivej 28, Stilling  
DK-8660 Skanderborg  
T: +45 89 93 10 00  
F: +45 89 93 10 01  
info@kamstrup.com  
kamstrup.com